



Commands Reference

Version 7.1



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*Encryption Software

System Backup Administrator Backup Data Encryption Feature has a cryptographic component, using **Advanced Encryption Standard (AES)** "Rijndael" encryption algorithm in Cipher Block Feedback (stream) mode (CFB-128), supporting 128, 192 and 256-bit keys.

It is not for export or redistribution to any of what are called the "T-10 Terrorist States" as determined by the U.S. Department of State. System Backup Administrator Backup Data Encryption Feature has been registered with U.S. Bureau of Information and Security and is distributed under Export Control Classification Number (ECCN) 5D992. This encryption item is authorized for export and re-export under section 742.15 (B)(2) of the Export Administration Regulations (EAR).

Table of Contents

| | |
|----------------------------------|----------|
| General Information | 4 |
| Commands | 5 |
| sbadmin | 5 |
| stbackup | 6 |
| stcheck | 9 |
| stclient | 11 |
| stconfigsm | 13 |
| stconfigweb | 16 |
| stcopybackup | 16 |
| stdevice | 19 |
| stexclude | 20 |
| stgroup | 22 |
| stjob | 23 |
| stkeys | 26 |
| stlicense | 28 |
| stlibrary | 29 |
| stmakeboot | 31 |
| stprintlabel | 34 |
| stprofile | 35 |
| stqueue | 38 |
| stremovelabel | 40 |
| strestore | 41 |
| struncopy | 44 |
| strunjob | 46 |
| strunrest | 48 |
| stserver | 51 |
| stuser | 53 |
| stvdev | 54 |

General Information

Although all operations may be performed from either the **Backup Administrator Graphical User Interface**, or the **Web Interface**, it is sometimes desirable to run commands at the command-line to perform certain tasks. This section lists the commands that may be run from the command line. Some commands are used on the *Admin System* and others on the *Client* or *Server* system, as indicated. There is a link in the `/usr/bin` directory for all commands listed here, so they should therefore be run *without* specifying the full pathname.

In this section, the following command syntax conventions are used:

| | |
|-------------------------------|---|
| bold | text in bold font is the command name or other argument typed as shown |
| <i>italics</i> | replace the <i>italicized</i> word with a value (which may be optional) |
| [<i>argument</i>] | <i>argument</i> is optional |
| {-n <i>arg</i> } | flag -n must be supplied with a valid <i>arg</i> |
| { <i>arg1</i> <i>arg2</i> } | either <i>arg1</i> or <i>arg2</i> must be supplied |
| -n,--arg <i>value</i> | specify either "-n <i>value</i> " or "--arg <i>value</i> " |

Unless otherwise noted, these commands may only be executed by the **root user**, or a user defined (by the root user) using the administrator interface. Refer to **Configuring Users** section of the [SBAdmin User Guide](#) for more information.

Commands

sbadmin

Purpose:

Start the System Backup Administrator user interface

Use on:

Administrator

Syntax:

```
sbadmin [-d display]
```

Options:

- d** *display* Specifies the display on which to place the application (i.e. *hostname:0*)
- u** *username* Specifies under which username sbadmin should start.
- p** *password* Specifies password corresponding to user.
- G** *group* Specifies the group sbadmin should use when starting.

Details:

This is the command used to start the System Backup Administrator (SBAdmin) user interface. The interface will be shown on the display indicated by the DISPLAY environment variable, if set, or on the default display (*hostname:0* or *unix:0*). If the **-d** option is provided, the interface will be shown on the specified host and display and the DISPLAY variable will be ignored.

When running as an account with access to more than one configured Storix user. The **-u** and **-p** flags may be used to avoid being prompted for this information. The **-G** flag indicates under which group sbadmin should open. Multiple versions of sbadmin may be launched to administer different groups, however only one instance per group may be run.

Refer to the [System Backup Administrator User Guide](#) for complete information on all functions of SBAdmin and using the graphical user interface.

stbackup

Purpose:

Run a backup outside of a job

Use on:

Administrator or Client

Syntax:

```
stbackup [options] {-t type} {-d device|directory} data {...}
```

Options:

- b** *bufsize* Buffer size of backup data. Default is 64 Kbytes.
- C** Compression level: (1) low, (2) medium, (3) high.
- d** *device/dir* Device name (i.e. "rmt0" or "st0") or directory name if creating a disk image backup. For TSM backups use "API" (see "**-s server**").
- D** *description* Backup description. Any text up to 60 characters, excluding colons (:), may be used. If the text contains spaces, surround the entire text string by double quotes.
- e** Eject tape at end of backup
- h** Set disk image file permissions to as to allow only host from which backup was made to read the backup data. This has no affect on tape backups.
- l** *level* Incremental backup level (0-9). If not specified, no incremental level will apply. Level 0 applies to System, Volume Group and Filesystem backups, and levels 1-9 apply only to Volume Group and Filesystem backups.
- m** When recreating logical volumes from the backup, create LVs using the original physical partition placement, when possible. (**AIX** only)
- n** Do not include raw logical volumes on a System or Volume Group backup. This has no affect on File/Directory, Filesystem or Logical Volume backups. (**AIX** only)
- N** *nettype* Network adapter type of network device support to be included on the backup tape. Only one network type may be selected, allowing the user to boot from this tape and install from a network server. This option applies only to **System Backups** of clients in a *Network Edition Administrator* environment. (**AIX** only)
- O** Allow overwriting of another SBadm backup. If this flag is not specified and another backup exists on the tape, the command will fail and no data will be written.
- p** *platform* Platform type of boot tape. This option applies only to System Backups and determines the type of system the tape will boot on. (**AIX** only)
- r** Rewind tape before starting backup.

- s server** If backup is performed to a device on a remote server, this option indicates the backup server name. This option only applies to client systems in a *Network Edition Administrator* environment.
- For TSM backups, set device to “API” and use server in the format “**-s TSM@serverName**”
- t type** Specifies the type of backup to be performed. This option is required and must be one of the following:
- D File/Directory backup
 - F Filesystem backup
 - L Logical Volume backup (*Linux/AIX*)
 - M Meta-disk (meta-device) backup (*Linux/Solaris*)
 - P Raw Partition backup (*Linux*)
 - S System Backup
 - s Raw Slice Backup (*Solaris*)
 - V Volume Group backup (*Linux/Solaris*)
 - Z ZFS Pool backup (*Solaris*)
 - z ZFS Raw Volume backup (*Solaris*)
- T tapelabel** Specifies the tape label ID tapelabel should be applied to the first tape when writing to tape. Only has affect when the backup starts at the beginning of the tape.
- x** Suppress progress indicator output.
- dataopt ...** Specify one or more elements to backup. The type of element specified must match the type of backup as specified by the **-t type** option.

Details:

The **stbackup** command is used to perform backups from the command line. These backups run independently of the Backup Administrator, therefore the administrator has no knowledge of the backup. Although the backup administrator is not controlling nor recording information about the backup, the backup may later be imported into the Backup Administrator using the option [Rebuild \(unexpire\) a Backup Label](#). This will be necessary if you plan to use the administrator to restore from these backups in the future.

Note: Running **stbackup** from the command line does not communicate with the Backup Administrator. If you are using the administrator, you may want to create a [backup job](#), then use either the [stqueuejob](#) or [strunjob](#) command instead, which will make a record of this backup, backup label, history information, etc.

The last argument to the command, “**dataopt**”, indicates the data to include on the backup. This is dependent on the type of backup to perform, as specified with the **-t** option. The following shows the backup types and the type of data to specify as the **dataopt** argument:

| Type | Description | Systems | Data to Specify |
|----------|----------------|---------|---|
| S | System Backup | any | Volume Group name(s) or “all” |
| V | Volume Group | any | Volume Group name(s) |
| F | Filesystem | any | Filesystem mount point(s) (i.e. “/home /data”) |
| L | Logical volume | any | Logical volume name(s) (i.e. “lv00 lv01”) |
| M | Meta-disk | Linux | Meta-disk name(s) (i.e. “md0 md1”) |
| D | File/Directory | any | Directory names (i.e. “/home/sam /usr/local/bin”) |
| P | Partition | Linux | Raw partition names (i.e. “sda3 sdb5”) |
| s | Slice | Solaris | Raw disk slice name (i.e. “c0t0d0s1”) |
| Z | Zpool | Solaris | ZFS pool name (i.e. “pool1”) |

z ZFS Volume Solaris ZFS raw volume name (i.e. "pool1/vol1")



Volume Group and Logical volume backups are only available on Linux systems if LVM (Logical Volume Manager) is installed. Meta-disk backups are only available on Linux if meta-disk (Software RAID) support is installed.

TSM Edition allows only System (-S S) backups.

System Backups: When performing a **System Backup (-S)**, the **dataopt** is a list of volume groups to include on the backup. For **AIX** systems, the **rootvg** volume group is always included, so it need not be specified. In that case, if no volume groups are specified, only the rootvg volume group is included. On **Linux** systems, this option only applies if LVM is implemented on the system and there are volume groups configured. If no volume groups are specified, then no volume group data (including filesystems and raw logical volumes) will be included on the backup. Whether AIX, Linux or Solaris, you may specify "**all**" to include all available volume group (or zpools in the case of Solaris) data. Note, however, that raw volume data (volumes that do not include filesystems) will also be included unless you specify the **-n** option.

The **-I** (incremental level) may be specified to indicate that only files which have changed since the last *prior level* backup should be included. Level 0 indicates that all files should be backed up and is used as a base for all subsequent incremental backup levels. Level 0 may be specified with a System Backup to indicate that this backup should act as a full incremental from which latter incremental levels may be applied.

Backups may run faster when using a larger buffer size (**-b** option) than the default of 64 Kbytes. If the tape device supports a larger than 64 Kbyte buffer, increasing this value will often cause backups to run faster. Try buffer sizes that are a power of 2, such as 128K, 256K and 512K. This value will only support up to 1024 Kbytes (1 Megabyte).

If a server is specified with the **-s** option, you must have first enabled access to the specific *device* (or "all" devices) or *directory* to this client (or "all" clients) on the server. Refer to [Configuring Servers](#) to configure access using the *Network Edition Administrator*.

The **stbackup** command will exit with a completion message and one of the following exit codes:

| | |
|----|---|
| 0 | Success |
| 1 | Backup failed |
| 2 | Pre-backup failure (no data written) |
| 6 | Non-bootable System backup created (warning - backup completed) |
| 7 | Cannot overwrite tape |
| 9 | Internal program error |
| 99 | Killed by user (Ctrl-C) |

stcheck

Purpose:

Check the network communication between any systems running System Backup Administrator

Use on:

Network Edition Administrator, Client or Server

Syntax:

```
stcheck [-myaddr {MyIPAddress | MyHostname}] {Hostname | IPAddress}
```

Options:

myaddr Specifies the IP address (*MyIPAddress*) or hostname (*MyHostname*) of the local network adapter to use to contact the client or server

Hostname Hostname of the client or server to contact

IPAddress IP Address of the client or server to contact

Details:

This command may be used to determine communication errors. If, for instance, a client or server shows as unavailable from the Main Screen of the Backup Administrator user interface, or if an error such as "Cannot contact server" occurs during normal operations, this command can help determine the cause.

In the following example, the command was used to check the communications problems with a client (mickey) that did not have the calling host (spiderman) defined as an admin system:

```
sales1.storix> stcheck sales3

Communications check for sales3

  Actual name is sales3.storix

  Timeout is 10 seconds

Contacting remote host...

Remote host responded:

  My IP address:           192.168.1.203

  My (actual) hostname:    sales3.storix

  My port numbers:        5026 and 5027

  Your IP address:        192.168.1.201

  Your (resolved) hostname: sales1.storix

  Your port numbers:      58086 and 58087

  Your group name:        main

  Your group ID:          432393373a36c4c6
```

Your host (sales1.storix) is a valid Admin System for sales3.storix.

Host sales3.storix is a valid backup server for your group.

Host sales3.storix is a valid backup server for your host.

Should a communication error occur, one or more possible reasons will be listed along with the steps to check or repair the problem.

stclient

Purpose:

Configure Linux, Solaris or AIX clients. List configured clients and check client availability, turn on and off encryption and Oracle features for a client.

Use on:

Network or TSM Edition Administrator

Syntax:

```
stclient <operation> [options] client {...}
```

Operations:

| | |
|-----------|--|
| -a | Add/edit client |
| -A | Show availability of client(s) (default all clients) |
| -r | Remove client(s) |
| -l | List configured clients |

Options:

| | |
|----------------------------------|--|
| -Ey, --enable-encryption | Enable encryption support |
| -En, --disable-encryption | Disable encryption support |
| -Ty, --enable-tsm | Enable TSM support (assumes this is a configured TSM node) |
| -Tn, --disable-tsm | Disable TSM support for this client |
| -f, --force | Remove client from backup jobs (used with -r) |
| -v, --verbose | Show features list (used with -l) |

Details:

The **stclient** command is used to add, remove and list clients configured on the Administrator System.

To list clients, use the **-l** option. By default, only client names are shown. If the **-v** option is also provided, the client features that are enabled are also included. Currently this includes only whether or not encryption support is enabled for the client. If so, "ENC" will appear after the client name.

If you want to also show the client availability as well as the system type, use **-A** with **-l**. This will indicate the client availability as either **available** or **down**, and will display the system (*AIX, Solaris* or *Linux*) and machine type (*i386, ppc, sparc*) or "unknown" if the client cannot be contacted. If no client name is provided, all clients are listed, indicating whether or not the client is currently available. Availability is determined by whether or not the *Network Edition Admin* can communicate with the client. If not, you can use the **stcheck** command to help isolate the problem.

TSM Clients

if this client is configured as a TSM client (i.e. this is a TSM node to be backed up to a TSM server), use the “-Ty” flag to turn on TSM support. You must then use the **stconfigtsm** command to configure the TSM client options.

Changing a client

If a server currently exists, you can change specific options by specifying only that option and its new argument. For example, to disable encryption for a client, use the following command:

```
stclient -aEn mickey
```

or

```
stserver -a --disable-encryption mickey
```

When changing the configuration, or to remove any default options, you may enter “**none**” for options which require an argument. For instance, to remove the password for an SMB client, use the “**--pwd none**” option.

Removing a client

To remove a currently configured client, specify **-r** and the *client* name, such as:

```
stclient -r mickey
```

Note that if the client is currently assigned to a backup job, you may use the **-f** flag to have the client removed from all backup jobs it is currently assigned to. When using the **-f** flag, if the client you are removing is the only client assigned to the job then the job will be removed. If you do not use the **-f** flag, then you will need to edit the job settings to remove the client, or remove the backup job, before removing the client.

stconfigtsm

Purpose:

Configure TSM clients and servers

Use on:

Network or TSM Edition Administrator

Syntax:

```
stclient <operation> [options] client {...}
```

Operations:

- a** Add/edit client or server
- A** Show availability of client(s) (default all clients)
- r** Remove TSM client(s) or server(s)
- l** List configured TSM clients and servers

General Options:

- t type** Indicate if configuring a "client" or "server"
- v, --verbose** Show features list (used with -l)

TSM Server Options:

- b, --tcpbuffsize size** TCP Buffer size (in Kbytes)
- c, --compression state** COMPRESSIon <yes|no> (default: no)
- i, --tcpserveraddress addr** TCPServeraddress (hostname or IP address)
- n, --tcpnodelay state** TCPNodelay <yes|no> (default: no) (default: 1510)
- p, --tcpport port** TCPPort (default: 1500)
- u, --adminuser userid** User ID of TSM Administrator
- U, --adminpass password** Password of TSM Administrator
- w, --tcpwindow size** TCPWindow size (in Kb)
- x, --passwordaccess type** PASSWORDAccess: generate or prompt (default: generate)

TSM Client Options:

- G, --newpass password** Reset password (For PASSWORDAccess \"generate\")
- N, --nodename name** NODENAME (default: tsmhost)
- P, --password password** PASSWORD (For PASSWORDAccess \"prompt\") or if changing password (with **-G**)
- s, --server server** Server for which to change password (with **-G**)

Details:

The **stconfigsm** command is used to add, remove and list TSM clients or servers configured on the Network or TSM Administrator system. This command is only valid if a TSM license is installed with the *Network Edition* or of *TSM Edition* is installed.



When configuring a TSM client, you must first have configured an SBAdmin client using the *stclient* command and enabled TSM support for that client with the *-T* option.

To configure a TSM Client:

Only the **NODENAME (-N)** option is required. However, if this client is to backup to a TSM server which has been configured with **PASSWORDaccess "prompt"**, the **PASSWORD (-P)** is also required.

To change the TSM Node Password:

To change the node's password on a TSM server, use the command:

```
stconfigsm -P currentPassword -G newPassword -s Server ClientName
```

Note that **ClientName** is the name of the SBAdmin client configured for TSM support.

If the Server is configured for **PASSWORDaccess "prompt"**, the password will be changed on the server. If configured for **PASSWORDaccess "generate"**, a new encrypted password will be generated and saved on the client. For the latter, the password will not be required when performing backups and restores of the client.

If you have multiple servers (using **PASSWORDaccess "prompt"**), you must perform the command for each server.

To configure a TSM Server:

Only the **TCPServeraddress (-I)** and **TSM administrator username** and **password (-u and -U)** options are required. You must supply the username of a *TSM administrator* configured within TSM that has been configured for *Storage*, *Policy* or *System* authority.

All other TSM server options are optional and will affect the network communication and performance. These are dependent on the network and server settings, and you should refer to your TSM administration guides for details on these options.

if you wish to add other TSM server options (used in the *System User Configuration File "dsm.sys"*) that are not indicated here, you can manually edit the configuration file created on the SBAdmin administrator system created by this command. This file is **/storix/data/tsm/tsmserver:serverName**. Any options you add other than those explained here will be retained when you change other options and must be manually changed or removed as needed.

To remove a TSM Client (node) or Server:

To remove a currently configured TSM node or TSM server, specify **-r** and the *client* or TSM server name, such as:

```
stconfigsm -t client -r mickey  
or  
stconfigsm -t server -r sully
```

Note that, when removing a TSM node, you must specify the *SBAAdmin client* name. You will be removing the TSM node information for this client, but will not remove the SBAAdmin client (since you may still want to backup this client to other (non-TSM) devices).

Note that you cannot remove a client or server if it is currently assigned to a backup job. You will need to edit the job settings to remove the client from the job, change the job to send the backup to a different server, or remove the backup job.

stconfigweb

Purpose:

Configure the sbadmin web interface.

Use on:

Network or TSM Edition Administrator

Syntax:

stconfigweb [*options*]

Options:

- N** No prompt configuration. Configure the web interface in a non-interactive mode.
- R** Un-configure and remove the web interface.
- f file** Specify the location of the ssl.pemfile to be used with the sbadmin web interface.
- P port** Specify the port number the web interface is to run on.
- h** Show help and usage for the command.

stcopybackup

Purpose:

Copy an existing backup to different server, directory or device.

Use on:

Network Edition Backup Server or TSM Edition Administrator System

Syntax:

stcopybackup [*options*] **{-d InputDeviceOrDirectory}** **{-D outputDeviceOrDirectory}**

Options:

- b bufsize** Buffer size to use for new backup. Default is to keep same buffer size of original backup.
- d device/directory** Source device or directory containing backup to copy. Specify "API" if copying from a TSM server.
- D device/directory** Destination device or directory to write new backup to. Specify "API" if copying to a TSM server.
- e** Eject the tape from the output device when copy is complete

| | |
|----------------------------|---|
| -h <i>hostperm</i> | If writing to a disk file, indicates host read permission (a=any host, h=original host only). Default is "a" if copying from tape, and defaults to the original host permission setting if copying from disk to disk. |
| -l <i>backup ID</i> | Backup ID to read if copying from a disk backup |
| -L <i>backup ID</i> | If writing to a disk backup and appending to an existing backup label, specify the backup id of the backup to append. Not used when appending tape backups. |
| -n <i>seqnum</i> | Backup sequence number to copy from source if there are multiple backups on the media. |
| -r | Rewind the output tape device before starting the copy |
| -S <i>server</i> | TSM Server name if reading from a TSM server. Specify the server in the format "TSM@ <i>serverName</i> ". |
| -s <i>server</i> | Server name if output device or directory is on a remote server. If sending to a TSM server, format is "TSM@ <i>serverName</i> ". |

Details:

This command is used on the backup media server containing the original backup to copy. Any backup may be copied from tape or disk directory to any other tape or directory, either on the local system or to another server.

Important Note: Since this command is run on a backup server, not the administrator, no backup label or history information is created for the output backup. If this information is required, you must use the **Utility** option to **Rebuild a Backup Label** from the output media, or use the **struncopy** command on the *administrator* instead.

If writing the backup to a different server, the local system must have been configured as a valid client for the destination server. Use the **stserver** command on the *Network Edition Administrator* system to list or configure clients for a server.

This command will only copy one backup at a time to the output device or directory. Even if the source device or *backup label* contained multiple backups, only one may be copied at one time. You may, however, append multiple backups to the output device (or backup label if writing to disk). To indicate which source backup to copy (from a *backup label* containing multiple clients or backup jobs), use the **-n seqnum** option. To copy all backups from source to destination, run this command multiple times, in creating the *seqnum* option by one each time.

Stacking backups to tape

If copying to a tape device, you may indicate if you want to **rewind** before starting the backup and if the tape should be rewound and **ejected** at the end of the backup. If you do not rewind at the start of the backup, you may append the source backup to the end of the destination media (if the destination media is currently at the of volume. The destination **backup label** will be appended with the selected source backup.

Buffer Size

You may alter the buffer size of the backup by entering a buffer size (in Kbytes) using the **-b bufsize** option. This is quite useful in increasing the performance of backups when writing to different media. For example, the default 64K buffer size may be adequate when you wrote your original disk backup file, but when copying to a high-speed tape drive, a higher buffer size (i.e. 256K) may provide much greater backup performance. To use the same buffer size for the destination as was used for the source, do not specify a new buffer size.

Host Read Permission

If using *Network Edition*, and the destination backup is written to a disk directory, you may also change whether only the original client host or any host may read the backup data by using the `-h` `hostperm` option. If copying from tape to disk, the default is to allow all hosts (`-h a`) to read the backup. If copying from disk to disk, the default is to leave the original setting unchanged. To allow only the original host which wrote the backup to read it, use `-h h`.

stdevice

Purpose:

Add, change, list or remove device and directories to use for backups

Use on:

Workstation

Syntax:

stdevice <operation> [options] server {...}

Operations:

- a Add or change the configuration
- l List configuration

Options:

- D, --clientdirs "*dirs*" Directory(s) for **regular** (non-system) backups (default=/backups/%C)
- d, --devices "*devices*" Tape drives or virtual devices to make available for backups (default=all)
- L, --localdir-sys *dir* Directory for system **system** backups (default=/backups/system)
- V, --virdevs Include virtual device information (with -l flags)

Details:

The **stdevice** command is used to change or list the configured devices and directories which may be used for backups. This information applies only to *standalone systems*, since the same information is stored in the server configuration on the *Network Edition Administrator*.

To list current configuration, use the **-l** option. To include configured virtual devices in the output, use the **-V** flag also.

When changing the configuration, or to remove any default options, you may enter "**none**" for options which require an argument.

NOTE: Be careful to use quotes around any argument to flags which contain multiple words.

stexclude

Purpose:

Configure backup job exclude lists. Use to list configured exclude lists, create new exclude lists, and edit existing exclude lists.

Use on:

Network or TSM Edition Administrator

Syntax:

```
stexclude <operation> [options] excludelistname
```

Operations:

- a** Add new exclude list or add new contents to specified exclude list
- l** List configured exclude lists
- r** Remove exclude list or remove contents of specified exclude list

Options:

- C, --Clients** "*clientlist*" Clients to apply is "*clientlist*" (or "all") (with -a)
- c, --clients** "*clientlist*" Add/remove clients in "*clientlist*" (-a or -r)
- D, --Devices** "*devicelist*" Devices to exclude is "*devicelist*" (-a)
- d, --devices** "*devicelist*" Add/remove devices in "*devicelist*" (-a or -r)
- F, --Files** "*file/dirlist*" Files/directories to exclude is "*file/dirlist*" (-a)
- f, --files** "*file/dirlist*" Add/remove files/directories in "*file/dirlist*" (-a or -r)
- v, --verbose** List verbose (show configuration) (-l)
- x, --force** Remove exclude list from all configured jobs (-r)

Details:

The **stexclude** command is used to add, remove and list exclude lists configured from the *Administrator*. For details on how to apply exclude lists to backup jobs refer to the [System Backup Administrator User Guide](#).

To list exclude lists, use the **-l** option. By default, only exclude list names are shown. If the **-v** option is also provided, the full exclude list configuration is also shown.

Creating a new exclude list

To create a new exclude list you must specify which clients the exclude list applies to (or "all"), which devices on the clients to exclude, and which files and/or directories on the client to exclude. For example, to create a new exclude list applicable to all clients that excludes the `/tmp` and `/var` directories:

```
stexclude -C all -F "/tmp /var" newlist
```

Changing an exclude list

If an exclude list already exists, you may change it by adding or removing the applicable clients, the devices to exclude, or the files/directories to exclude.

To remove a client and a directory from a configured exclude list:

```
stexclude -r -c mickey -f /var oldlist
```

To add a client, a device, and a directory to exclude from an existing exclude list:

```
stexclude -a -c minnie -d /dev/lv0 -f /home oldlist
```

To replace the excluded devices on an existing exclude list:

```
stexclude -a -D "/dev/lv4 /dev/lv5" oldlist
```

Note that you may not add and remove exclude list contents in the same command.

Removing an exclude list

To remove a currently configured exclude list, specify **-r** and the *exclude list* name, such as:

```
stexclude -r oldlist
```

Note that you may not remove an exclude list that is currently configured to be used by a backup job. You may, however, use the **-x** flag to force the removal of the exclude list configuration from all backup jobs when removing the exclude list.

stgroup

Purpose:

Add, delete or list configured groups

Use on:

Administrator System

Syntax:

stgroup <operation> [options] {group}

Operations:

| | |
|-----------|---------------------|
| -a | Add or change group |
| -r | Remove group |
| -l | List groups |

Options:

| | |
|-------------------------|----------------------------------|
| -d "description" | Description of group |
| -n name | Change group name to "name" |
| -u "userlist" | Users with access to this group. |

stjob

Purpose:

Add, delete or list configured backup jobs

Use on:

Administrator System

Syntax:

stjob <operation> [options] jobid

Operations:

- a** Add or change the specified job
- l** List configured jobs
- r** Remove the specified job
- n new_jobid** Copy jobid to new_jobid
- N new_jobid** Rename jobid to new_jobid

Options:

- Ay, --enable-althost** Use alternate server hostname/IP address (if configured). Not applicable if backing up to a *TSM server*.
- An, --disable-althost** Do not use alternate server hostname/IP address (default). Not applicable if backing up to a *TSM server*.
- B, --bootmedia** Boot media options. Either "cdrom" or "network" can be specified along with the server the boot media should be copied to.

E.G "cdrom server-hostname"
- b, --backupdata "data"** Data list to backup (overrides data list in profile, if any)
- c, --clients "clients"** Client list to backup (if *Network Edition*). Required with **-a** flag. If *TSM Edition*, specify one or more clients when backing up to a TSM server, or a single client if backing up to local (client) tape device.
- d device/dir/API, --device device, --dir directory** Device or directory to write backup to. Required with **-a** flag. If backing up to a TSM server, indicate **-d API**. For *TSM Edition*, only API (TSM server) or a tape device (client local tape) is allowed.

| | |
|--|---|
| -D, --desc <i>"description"</i> | Backup job description (overrides description in backup profile, if any) |
| -e, --schedule <i>"string"</i> | Backup schedule in <i>cron</i> format. Required with --regularly or --later flags. |
| -E, --encryption <i>keyID</i> | Enable encryption with supplied encryption key ID |
| -p, --profile <i>profile</i> | Backup profile name (required if adding a new job) |
| -Ry, --remove | Remove backup job after run successfully (with --later or --ondemand only) |
| -Rn, --noremove | Do not remove backup job after run successfully (default) |
| -s, --server <i>server</i> | Server to write backup to (if <i>Network Edition</i>). If backup is to a TSM server, indicate "TSM@ <i>serverName</i> ". If using either Network or <i>TSM Edition</i> and you want to backup a client to its own local tape device (or directory if Network Edition), specify the client name as the server also. |
| -Sy, --enable-snapshot | Use snapshot backups with this job (if configured) |
| -Sn, --disable-snapshot | Do not use snapshot backups with this job(default) |
| -v, --verbose | Show detailed information on jobs or named job. use with -l option. |
| -Vy, --enable-verify | Perform auto-verify after successful backup |
| -Vn, --disable-verify | Do not perform auto-verify after backup (default) |
| -wr, --regularly | Backup will be run regularly (-e schedule required) |
| -wl, --later | Backup will be run later (-e schedule required) |
| -wo, --ondemand | Backup will be run only on demand (no schedule) |
| -X, --exclude <i>"exlist"</i> | Enable and use specified exclude list name(s), if any, when job is run. |

Details:

The **stjob** command is used to add, remove, change, copy, rename and list backup jobs configured on the *administrator system*.

To list currently configured jobs, use the **-l** option. By default, only *Job IDs* are shown. To show all of the details of a job, use the **-v** flag also. This will display a paragraph of information for each configured job showing all options configured.

If you want to configure a new job, use the **-a** option and specify the *Job ID* at the end of the command. You will be required to specify a *backup profile* using the **-p** flag. If no list of data to backup is provided in the profile, then you must also specify the **-b "datalist"** option. All other options will be written with a default value. After adding a job, be sure to list it with the **-vl** options to display the full list of settings.

To copy a configured backup job use the **-n** flag, and to rename a configured backup job use the **-N** flag. You will need to specify the new jobid to be copied/renamed to as an argument to

each flag. Note that when you copy or rename a backup job, any changes to the backup options that are specified on the command line will only be applied to the new jobid.

Certain options, if not specified, will default to a value contained in the backup profile. Those include the backup description (**--desc**) and data list (**--datalist**) flags. Other options override the global preferences settings, if any, and include the days to retain (**--days**) and backups to retain (**--numretain**).

NOTE: Be careful to use quotes around any argument to flags which contain multiple words.

Specifying the data list



If using *TSM Edition*, only System Backups are supported.

If the data list is not provided in the backup profile, you will need to specify it in the job settings. The data list differs depending on the type of data to backup. The following is the list of data types for each backup type:

| <u>For Backup type:</u> | <u>Specify:</u> |
|--------------------------------|--|
| System Backup | Volume group(s) |
| Volume Group | Volume group(s) |
| Filesystem | Filesystem mount point(s) |
| Logical Volume | Logical Volume name(s) |
| File/Directory | Files and/or Directories (allows wildcards) |
| Metadisk | Metadisk (Software RAID) device name(s) (i.e. "md0") |
| Partitions | Partition name(s) (i.e. sda1) |

Scheduling a job

The default is to configure a job to run *on demand* (**--ondemand**). If a job is to be run only once, but at a specific time, or on a regular basis, specify the **--later** or **--regularly** options respectively. You will then be required to add the **-e schedule** option, where *schedule* is a cron-style entry in the following format:

Minute Hour DayOfMonth Month DayOfWeek

Each of the above fields are required and must be separated by a single space. You may specify any number of options for each field, each separated by commas. For example:

0 17 * * 1,2,3,4,5

indicates that at 5:00 PM (minute 0 of hour 17) on every day of the month (*) of every month of the year (*), the backup should run, but only on Monday through Friday (1,2,3,4,5).

Changing a job

If a job currently exists, you can change specific options by specifying only that option and its new argument. For example, to turn on auto-verify for job "myjob1", use the following command:

stjob -aVy myjob1

or

stjob -a --verify myjob1

When changing a job, you may enter "none" to remove any previous values that do not require an entry (i.e. "**-D none**")

stkeys

Purpose:

Create encryption keys on a client for use in encrypting and decrypting backup data.

Use on:

Network or TSM Edition Client

Syntax:

stkeys <operation> [options] **-k** Keyid

Operations:

- a** Add a new encryption key
- r** Remove specified keyed
- l** List configured keys

Options:

- b** *numbits* Number of encryption bits (128, 192, 256)
- f** Force keys to be removed without prompting (use with -r)
- h** *HexKey* Encryption key in Hex (length must be at least bits/4)
- k** *KeyID* Encryption Key ID (up to 20 chars)
- t** *textKey* Encryption key in ASCII text (length must be at least bits/8)

Details:

This command is available on every client, and is used to configure the encryption keys used in encrypting and decrypting backup data. The encryption keys are either 128, 192 or 256 bits,.

NOTE: This command is always used on the client to configure the keys in place of doing so from the administrator application. For security reasons, this prevents any network traffic that might contain the encryption key itself.

Once an encryption key is created and used for a backup, the same key **MUST** be used to decrypt the data! If they key is changed or lost, there is no way to restore the backup data again (and please don't call Storix, because even they won't be able to help you)!

The configured keys are stored in a local file on the client, and are referenced using only the **Encryption Key ID** you assign to it. This prevents the need to remember the entire encryption key, and also prevent the need to send the encryption key from one system to another when using a *Network* or *TSM Edition Administrator*.

Encryption keys may be specified either as a hexadecimal number or as a text string that the command will convert to a hexadecimal number for you. A text string may contain any alpha or numeric characters, as well as any punctuation characters except for quite ("), colon (:), or back-tick (`). Using a text string, such as "My-Encryption-Key!" will help you to remember the

key in case it is lost or changed, but will limit the range of hexadecimal characters that are generated.

Note that the encryption key (or text string) that is entered must be the following number of characters, based on the encryption bits setting:

| Bits | Hex String (length) | ASCII text string (length) |
|------|---------------------|----------------------------|
| 128 | 32 | 16 |
| 192 | 48 | 24 |
| 256 | 64 | 32 |

stlicense

Purpose:

This command is used to register the software, add a feature, or list current licensing information.

Use on:

Network, TSM or Workstation Edition Administrator

Syntax:

stlicense [*options*]

Operations:

- t** *feature* Add specified feature. (E = encryption, T = TSM support)
- i** Display licensing information.
- k** *key* Key to be registered
- r** "*Register to*" Name that the license key is registered to.

stlibrary

Purpose:

This command is used to list, inventory and perform tape movement operations on a random tape library.

Use on:

Network or Workstation Edition Administrator

Syntax:

```
stlibrary <operations> [options] { vdev | libname }
```

Operations:

| | |
|-----------|--|
| -c | Check if tape loaded |
| -I | Display library inventory |
| -l | List defined libraries |
| -L | Load tape (-t) from assigned slot to assigned drive |
| -r | Reset next tape (-t) to insert in drive (-d) |
| -U | Unload tape (-t) from assigned drive and return to assigned slot |

Options:

| | |
|----------------------------|--|
| -d, --drive | Library drive number |
| -e, --eject | Eject before unloading (with -u) |
| -l, --inserted | Indicates tape is already inserted (with -r) |
| -s, --server server | Server hostname (if <i>Network Edition</i>) |
| -t, --tape tape | Library tape (slot) number |
| -v, --verbose | Show library configuration (with -l) |

Details:

This option may be used to check, list and perform tape library operations. You must specify either a defined library (*libname*) or virtual device (*vdev*) with this command. If a virtual device is specified, it must have been configured as a random tape library. In this case, the *libname* will be retrieved from the virtual device information.

This command requires that a library is already configured. Steps to configuring a random library must be performed using the SBAdmin user interface. Refer to the [System Backup Administrator User Guide](#) for details.

Operations which require access to the tape drive itself require that you specify the virtual device name. For instance, you can display the inventory for a library by specifying the library name, but to check if a tape is loaded in the library device, you must use the virtual device name (only then do we know the names of the physical devices attached to the library).

If using the *Network Edition*, you must also supply the server name with the **-server** flag.

To check if a tape is currently loaded in the library, use the command:

```
stlibrary -c -s servername vdev
```

To display the tape inventory on the library, use the command:

```
stlibrary -l libname
```

Set or Reset the next tape to use for backups/restores:

SBAAdmin backup jobs performed to a virtual device configured as a tape library require that the next tape to use, or the current tape in the drive, be known before the backup begins. SBAAdmin will then keep track of the tape that is in the drive, or the next/last one used as the backup progresses. If you have manually moved a tape in the library, or ejected a tape from the drive, you must reset the current or next tape to use when the next backup or restore is performed. To do so, use the command:

```
stlibrary -r -tape tapenum -drive drivenum libname
```

Note that the *tapenum* and *drivenum* are numbers, starting with 1, which represent the tape slots and drive slots in the library. It is assumed that *tapenum* is in its current slot in the library and will be moved to its drive the next time a backup is performed. If *tapenum* is already inserted in the drive, you must add the **-inserted** flag.

To move tapes in the library:

You need only specify the *tapenum* to move and the direction (**load** from slot to drive or **unload** from drive to slot) and whether or not the tape must first be ejected from the drive. This assumes that the current positions of the tapes in the library are correct (refer to Set or Reset next tape above). For example:

```
stlibrary -Uet3 libname
```

or

```
stlibrary -Ue -tape 3 libname
```

The above commands will move tape number 3 from the drive to its original slot in the library after ejecting it from the drive. If using *Network Edition*, add the **-server** option if remote. Note that you can also specify a *virtual device* name to use in place of the library name.

stmakeboot

Purpose:

Create Boot Media for booting a system to the **SBAAdmin System Recovery** process.

Use on:

Client or (non-TSM) Server

Syntax:

```
stmakeboot -t tape {-d dev} [options]
stmakeboot -t disk {-d dev} [options]
stmakeboot -t cdrom {-o output_file} [options]
stmakeboot -t netboot {-d dev} {-l imagename} {-s bootserver} [options]
stmakeboot -t netclient -r {-c client}
```

Operations:

-r Remove **network** boot client configuration indicated with **-c** option (default is to add or update existing configuration).

Options:

-a hwaddr Hardware (MAC) address to use when configuring a client for network boot.

-b loader **Linux:** Bootloader: GRUB, LILO, ISOLINUX (default=GRUB)

-c client Name of client to add or remove **network** boot configuration

-C console Console device name (i.e. **tty0**, **ttys0**, **hvc0**). This is used only when the system is to be booted using a serial port.

-d device Device name for which to create a boot **tape**, bootable **disk**, or **network** boot image.

-g gateway Gateway IP address, if needed to reach **network** boot server from the client.

-k kernel **AIX:** Kernel type (**up**, **mp** or **64**) to create boot image for.
Linux: Kernel filename to use (default is to find kernel for matching *release*).
Solaris: Not applicable

-l image Name of **network** boot image name to create or update.

-m subnet Subnet mask, if subnet is used on **network** boot client.

-N **Linux:** Do not automatically load current SCSI or Network modules when booting from this media. Default is that all currently loaded modules be loaded on boot.

-o outfile Output **cdrom** ISO image filename to create or **initrd** image name (if creating **disk** or **initrd** image for **Linux**).

-p platform **AIX:** Platform type (**rs6k**, **rspc**, **chrp**) to create boot image for.

-r Remove **network** boot client configuration indicated with **-c** option.

- R** *release* **Linux:** Kernel release (suffix) to use. For **initrd** images, there must be a `/lib/modules/release` directory matching this entry. If omitted, the release the system is currently booted under will be used.
- s** *server* If writing a boot **tape**, this is the name of server on which tape is attached. If configuring a **network** boot client, specify the server only if the client will boot from the server using a different IP address or hostname than the default. If creating a `.iso` image this is the server the image will be copied to.
- S** **Linux:** Include SCSI CDROM modules (required only if booting SCSI CDROM). This option only applies when creating a CDROM ISO image.
- t** *type* Type of boot media to create. See details below.
- U** **Linux:** Include USB CDROM modules (required only if booting USB CDROM). This option only applies when creating a CDROM ISO image.
- x** **AIX:** Automatically expand `/tmp` filesystem, if needed to create temp boot files required by **bosboot** command.
- z** *APItype* API software to include on boot media. Currently, only “**TSM**” is supported. This option is required if you will be installing from a backup on a TSM server.



If using **TSM Edition** or **Network Edition** and this is a TSM client and you will be installing from a backup located on a TSM server, you **MUST** include the option “**-z TSM**” at the command-line.

Details:

This command is used to create various boot media for booting to the **SBAAdmin System Recovery** process. Boot media types include CDROM images, network boot images, bootable tapes or hard disks.

This command must be run on the system from which the boot image is to be created. If writing a tape, you may add the **-s server** option to write the actual boot image onto a remote tape drive.

Updating the boot loader on a **Linux** system or creating or updating an **initrd** image may only be done on a local system. Therefore, this command must be run on the client or server directly, if needed.

The **-t** option must be one of the following:

cdrom: This option does not write to the CDROM drive, and therefore no CDROM is required on the system. A CDROM “ISO” filesystem *image* will be created, which can be copied to another system, if needed, and written to a CD writer device using standard tools such as “**cdrecord**” (Linux) or various Windows utilities. If using **cdrecord**, you must copy to a SCSI cdrom or an IDE cdrom with the SCSI emulation (**ide-scsi**) enabled.

disk: This option will ensure the hard disk is bootable and configure it to boot to the SBAAdmin system installation process. The disk to make bootable must first have been configured for System Backup/Recovery. Refer to the **SBAAdmin User Guide** for more information.

tape: Create a bootable tape. The tape images will be created on the local system, but may be written to a remote tape drive if the **-s server** option is specified. This option is currently only available on IBM System p and System i systems, since they are the only supported systems which have firmware capable of detecting and booting from tapes.

netboot: Create network boot image. you must specify a name for the image using the **-I imagename** option. If the specified image already exists, it will be overwritten by the newly

created image. If a *bootserver* is specified (with the **-s** option), the network boot images will be copied to the “Directory for CLIENT netboot images” configured on the *bootserver*.

netclient: Configure or unconfigure a client for network boot. This option must be performed on the network boot server. If configuring a network boot client, the **-I imagename** option is required as well as the **-c client** option. The imagename specified must have first been created using the **-t netboot** option in a separate **stmakeboot** command.

initrd-disk: For Linux, same as “disk”, but this option will create the initrd image without updating the boot loader. This is helpful if you want to create an initrd image and configure your boot loader manually. You may specify the name of the image to create (with the **-o** option), or SBAAdmin will create one as **/boot/initrd-storix-disk** (where *disk* is the hard disk to boot from).

If you want to create boot media for a different **platform** or **kernel** type than the current system, you may specify the **-p platform** and **-k kernel** options respectively. If you want to create the boot image suitable for booting the local system, you do not need to specify these options. If you specify a platform type, the device support for the specified platform must have been installed onto the local system. Likewise, if a different kernel type is specified, the fileset containing the specified kernel must also be installed.

On **AIX**, for instance, the local system is an **RSPC** system running under the “**up**” (**uniprocessor**) *kernel*, but you want to create boot media which will boot a **CHRP** system with a **64-bit** kernel, specify “**-p chrp -k 64**”. Note that the resulting boot media will not boot the local system, but can be used for migrating a system backup to new hardware.

Likewise, for **Linux**, you may specify a specific *kernel* to use with the **-k** when creating boot media or when updating the disk boot loader. You may also use the **-R** option to specify the release level of the kernel to use. In this case, the command will search for a kernel which uses the specified release level as a suffix (in the */boot* or */yaboot* directories). If specifying a release level, there must be a matching modules directory as **/lib/modules/release**. If both **-k** and **-R** are omitted, the release level the system was booted under (displayed with “**uname -m**”) will be used.

On **Linux**, Specify the **-C** option only if you have a serial terminal attached to the first serial port of the system and wish to perform the system installation using that display. If **-C** is specified, the attached terminal must be set to 9600 baud, 8 bits, 1 stop bit and no parity for proper communication. Omit the **-C** option if you want to perform the installation using the graphical console attached to a graphics adapter.

There are a number of options which may be specified when configuring a network boot client. These are discussed in detail in the section [Enable/Disable a Network Boot Client](#) in the [User Guide](#). Keep in mind that booting a client over the network requires you run **stmakeboot -t netboot** once on the *client* (or similar client) to create the **netboot** image and copy to the server, then run **stmakeboot -t netclient** on the *server* for each **netclient** you want to boot from that image.

stprintlabel

Purpose:

Send a backup label to the printer, email address, or append to file.

Use on:

Administrator

Syntax:

```
stprintlabel {-q printer | Email | File} {-b backupid | -t tapelabelid}
```

Options:

- | | |
|------------------------------|---|
| -q <i>printer</i> | Name of print queue. If not specified, label will be sent to standard output. |
| Email | The report will be sent to the email address specified in Report Preferences. |
| File | The report will be appended to the file specified in Report Preferences. |
| -b <i>backupid</i> | Specifies a Backup ID if printing backup label given a backup ID. |
| -t <i>tapelabelid</i> | Specifies a Tape Label ID when printing backup label given a tape label ID. |

Details:

This option will format and output a backup label to the specified printer queue, email address, append to a file. If no queue is specified, the backup label will be sent to standard output.

The name of the print queue, email address, or file name to append must be defined in Report Preferences prior to choosing the option to output the backup label.

Specify either a backup id (**-b**) or tape label id (**-l**) for which to format and print the backup label. Although specifying a tape label id, the entire backup label will be shown, including a list of other tape label IDs used in the backup.

stprofile

Purpose:

This command will be used to create new profiles based on the default (supplied) profile types. It may also be used to customize a profile assigned to a specific job.

Use on:

Administrator

Syntax:

```
stprofile <operation> [options] [profile {...} | {-j jobid}]
```

Operations:

- a Add or change the specified profile
- l List configured profiles
- r Remove the specified profile

Options:

- b, --bufsize *bufsize* Buffer size in KB (default 128)
- B, --backuppriority Backup process priority (0-10)
- cy, --compress *level* Compress backup data at specified compression. Valid level is (1)low, (2)medium, (3)high
- cn, --nocompress Do not compress backup data (default)
- C, --show-custom Include customized job profiles (with -l and -v flags)
- d, --data *datalist* Backup data list (of appropriate "type")
- D, --desc "*description*" Backup description
- ey, --eject Eject tape at end of backup job
- en, --noeject Do not eject tape at end of backup job (default)
- h, --hostperm [*host* | *all*] Backup file read permission (default=all)
- l, --incr *num* Incremental backup level (0-9)
- j, --job *jobid* Add/change/remove customized profile for *jobid* (main "profile" will be unaffected)
- Ly, --rawlv Include raw LV and ZFS volume data (*System/VG/Zpool* backups) (default)
- Ln, --norawdev Don't include raw LV or ZFS volume data (*System/VG/Zpool* backups)
- m, --retaindays Number of days to retain a backup before expiring.

| | |
|--------------------------------------|---|
| -n, --retainbackups | Number of backups to retain before expiring. |
| -p, --pftype <i>platform</i> | Platform type for boot tape (AIX). Valid values are rs6k/kernel , rs6ksmp , rspc/kernel , chrp/kernel (kernel is up , mp , 64) |
| -Py, --power | Perform power (LV image) system backup (AIX) |
| -Pn, --nopower | Do not perform power system backup (AIX) (default) |
| -Ry, --rawpp | Include raw partitions (Linux) and slices (Solaris) on system backups |
| -Rn, --norawpp | Don't include raw partitions (Linux) or slices (Solaris) on system backups (default) |
| -s, --sendlab <i>where</i> | Send backup label to defined report preference (where is file , email , or <i>printer name</i>) |
| -t, --type <i>type</i> | Backup <i>type</i> (see description section) |
| -v, --verbose | List all profile details (with -l flag) |
| -wy, --rewind | Rewind tape before starting backup job |
| -wn, --norewind | Do not rewind tape at start of backup (default) |
| --preprog <i>program</i> | Run program on each client before backup (if <i>Network</i> or <i>TSM Edition</i>) |
| --postprog <i>program</i> | Run program on each client after backup (if <i>Network</i> or <i>TSM Admin</i>) |
| --svpreprog <i>program</i> | Run program on server before starting job (or local system if not <i>Network Edition</i>). Not used for <i>TSM Edition</i> . |
| --svpostprog <i>program</i> | Run program on server after all client backups (or local system if not <i>Network Edition</i>). Not used for <i>TSM Edition</i> . |
| --presnapprog <i>program</i> | Run program on client before creating snapshots (or local system if not <i>Network</i> or <i>TSM Edition</i>) |
| --postsnapprog <i>program</i> | Run program on client after creating snapshots (or local system if not <i>Network</i> or <i>TSM Edition</i>) |

Details:

The **stprofile** command is used to add, remove, change and list backup profiles. It may also be used to customize a default profile for use with a particular job. In that case, the customized profile options will be used in place of the default profile only for the specified job (no other jobs using the default profile will be affected).

If creating a customized profile for a job, specify the **-j** *jobid* value, where *jobid* is the **Job ID** of a job that was already configured. In this case, you do not specify a profile name. The profile type that is currently associated with the backup job will be used. Any options that you do not change will be taken from the original profile. Those specified will override the values of the original profile. The original profile, and any other jobs that use the original profile, will be unaffected when creating a customized job profile.

The **-t** type flag is required when creating a new profile. You must specify one of the available backup types:

| | |
|--------------------------------------|------------------------------------|
| S =System | P =Partition (Linux) |
| V =Volume Group | M =Metadisk (Linux/Solaris) |
| F =Filesystem | Z =ZFS VPool (Solaris) |
| L =Logical Volume (AIX/Linux) | s =Slice (Solaris) |
| D =File/Directory | z =ZFS Volume (Solaris) |



If using *TSM Edition*, only System Backups are supported.

For all profile types, a data list may be specified with the "**-b datalist**" argument. If it is not specified, the user will be required to specify the data to backup when configuring a backup job which uses this profile. If a datalist is specified, the user will still have the option to override this default value when configuring the backup job. The data list must be one of the following, based on the profile type:

| <u>For Backup type:</u> | <u>Specify:</u> |
|--------------------------------|--|
| System Backup | Volume group(s) |
| Volume Group | Volume group(s) |
| Filesystem | Filesystem mount point(s) |
| Logical Volume | Logical Volume name(s) |
| File/Directory | Files and/or Directories (allows wildcards) |
| Metadisk | Metadisk (Software RAID) device name(s) (i.e. "md0") |
| Partitions | Partition name(s) (i.e. sda1) |
| | |
| Slice | Solaris disk slice name (i.e. "cot0d0s1") |
| ZFS Pool | ZFS pool name(s) |
| ZFS Volume | ZFS volume name(s) |

Changing a profile

If a profile (or customized profile) currently exists, you can change specific options by specifying only that option and its new argument. For example, to turn eject tape at end of backups for jobs using profile "mysystem", use the following command:

```
stprofile -aey mysystem
```

or

```
stjob -a -eject mysystem
```

When adding a customized profile, or changing an existing profile, you may specify "none" to remove the current or default value (i.e. "**-preprog none**").

stqueue

Purpose:

Performs various operations on a job queue, such as listing, adding and deleting jobs, etc.

Use on:

Administrator

Syntax:

stqueue <operation> [options] JobID

Operations:

- A** Indicates the specified JobID should be added to the queue.
- L** List all jobs currently in queue. Each job will be listed on one line.
- D** Delete the specified JobID from the queue.
- H** Place the specified JobID on hold, preventing this and other jobs submitted after it to be run until the queue is restarted.
- K** Kill the specified JobID if currently running.
- R** Restart the specified JobID. Use this if a previous job failed or was placed on hold.
- S** Displays the progress indicator, command output, status and error messages for a job that is currently running or has failed.

Options:

- I *queueid*** Queue ID (as displayed with **-L** flag) of the specific job to add, delete, change or show. Use this option if JobID appears multiple times in the queue to indicate the specific occurrence of the job.

Details:

This command provides all of the functions of adding jobs to the job queues, or manipulating or displaying jobs currently in the queue. This command is particularly useful to administrators that must access the backup admin system remotely in order to handle a backup job that failed and cannot use the graphical administrator application because no Xwindows server is available.

Use the **-L** option to list all queues. This will show the current status of each job, whether currently running, pending, on hold, or failed.

All options except **-L** require a *JobID*. When a JobID is specified, the queue name (server:device) is retrieved from the job information configured using the **sbadmin** application.

Adding a Job to the Queue

Use the **-A** option to add a pre-defined backup job to the queue. If there are other jobs in the same, the added job will be run after all prior jobs in the same queue complete. Note that, if a prior job had failed, the queue will not process any new jobs until the failed job is either restarted or removed. Refer to the [Job Queues](#) section for information on monitoring and changing the status of job queues using the Backup Administrator user interface.

When jobs are run from the queue and the Backup Administrator interface is not running, no job status messages will be reported on the screen. Status messages, in this case, will always be reported using the [Alternate Notification](#) method (mailed to a user or appended to a text file). The backup output and progress information may later be displayed after running the Backup Administrator and selecting the [View Backup Status/Output](#) options.

Note that the **stqueue** command will return as soon as the job is added to the queue. The exit code of this command will be 0 if the job was queued successfully, or 1 if the job could not be queued (usually because the JobID supplied is invalid). If, for instance, the server for the job is not available, the **stqueue** command will succeed, but the job will fail after it is executed by the queuing system, and will remain in the queue until it is restarted or removed.

Killing a Running Job

To kill a job that is currently running, use the **-K** flag. This will send a kill signal to the backup process. It may take some time for the job to stop since it may be necessary to complete the current operation before the process will die.

When a job configured to write to [tape](#) is killed, it will remain in the queue in a “failed” state, which will prevent other jobs in the same queue from starting. Jobs that write to disk image files will be automatically removed from the queue, since “disk” queues will allow jobs to run simultaneously anyway.

When a job is killed, the tape drive, if used, will be rewound to prevent any other backup jobs from being appended to an incomplete backup. If the [Tape Overwrite/Retention Policy](#) does not allow overwriting of current (unexpired) backups, any subsequent jobs started after removing the failed job from the queue will fail with an overwrite protection error. If this is the case, use the [stremovetlabel](#) program to expire the failed backup label, then restart the queue to allow other jobs to continue.

Removing a Job from the Queue

Use the **-D** flag to delete a job from the queue. Removing a job from the queue will not delete the original job information, but only removes it from the queue. It can be resubmitted using the **-A** option if desired.

You cannot delete a job from the queue if it is currently running. To delete a job already running, first kill it with the **-K** option.

Displaying Job Output

If a job has failed, it may be necessary to display the output messages of the backup command to determine the cause. To do so, specify the **-S** option. The progress indicator (indicating the percentage of backup data written to the media), output and error messages of the backup command will be displayed to standard output.

If this option produces no output, then the backup command had not yet started. If the job had failed, it is due to a pre-backup error, such as a tape overwrite protection error, or because a device or server was unavailable. In these cases, the message indicating the problem was sent using the notification process defined in the preferences options.

stremovelabel

Purpose:

Remove a backup label. Also removes the associated backup if written to disk.

Use On:

Administrator

Syntax:

```
stremovelabel [-f] backupid
```

Options:

- f** If the backup label to remove is a disk backup, this flag is required to force the removal of the backup from disk. If not supplied, disk backup labels cannot be removed. If the backup was to tape or virtual device, this flag is ignored.

Details:

The **stremovelabel** command provides a way to remove a backup label, and associated disk backup images from the command line or from a script. If, for instance, you have a routine which watches for errors in the [backup status reporting](#), that routine can automatically expire the backup label associated with the backup to allow other backups to be written over the same tape, or to free up the disk space used by a disk backup.

Important note: Once a backup label has been expired, it will not be possible to verify, restore, or install a client from this backup. If a backup has been expired or the label history has been inadvertently removed from the system, it is still possible to rebuild this information. Refer to [Rebuild \(unexpire\) a Backup Label from Tape](#) for details.

strestore

Purpose:

Verify or restore data from a local or remote device to the local system

Use on:

Administrator or Client System

Syntax:

strestore <operation> [options] -d {device | directory {-L backupid}} {-t datatype} datalist ...

Operations:

-v Indicates a verify is performed. If omitted, a restore is performed.

Options:

- d *device* *device* on the *server* (i.e. "rmt0") to restore from if tape or virtual device. If restoring from a TSM server, specify "-d API" (see **-s server**).
- d *directory* *Directory* on the *server* if restoring from a disk backup. If supplied, you must also supply the **-I backupid** option.
- D *destination* Logical volume name or directory into which data should be restored.
- f Indicates files should be listed while verifying or restoring.
- L *backupid* The *Backup ID* of the backup to restore if restoring from a disk backup. Not used if restoring from tape or virtual device.
- p Indicates the tape is already positioned at the beginning of the desired backup. Prevents rewinding the tape before attempting the restore.
- s *server* *Server* on which the backup media is attached. If not used, a local device or directory is assumed. This option is used only on clients in a *Network or TSM Administrator* environment. When restoring from a TSM server, specify the server as "TSM@*serverName*".
- S "*seqlist*" If verifying from tape or virtual device, you may specify a list of backup *sequence numbers* to verify. If restoring, you may specify only one. The default is sequence number 1 if this flag is omitted. Display the backup label for a list of backup sequence numbers on the tape.
- t *datatype* Specify the *type* of data to restore from the backup. If omitted, the entire contents of the backup will be restored. *Datatype* must be one of:
- V (volume group)
 - F (filesystem)
 - L (logical volume)
 - D (directory)
 - M (meta-disk) (**Linux** only)
 - R (regular file)
 - P (partition) (**Linux** only)

- v** Indicates a verify is performed. If omitted, a restore is performed.
- datalist ...*** Indicates one or more data elements of the specified *datatype* to be verified or restored. You may specify "all" to indicate all data of the corresponding *datatype* is to be restored.

Details:

The **strestore** command is used to restore data from any SBAAdmin Backup. When restoring data, the data will be restored to the system from which the command is executed.

Specify the **-v** flag to perform a verify of the backup by reading through the contents. If the **-v** flag is not specified, a restore of the data is assumed.

The *datatype* must be specified using the **-t** flag. The type of data to restore must be one of the following:

| Type | Description | Systems | Data to Specify |
|------|----------------|---------|--|
| V | Volume Group | any | Volume Group name(s) |
| F | Filesystem | any | Filesystem mount point(s) (i.e. "/home /data") |
| L | Logical volume | any | Logical volume name(s) (i.e. "lv00 lv01") |
| M | Meta-disk | Linux | Meta-disk names (i.e. "md0 md1") |
| D | File/Directory | any | Directory names (i.e. "/home/sam ..") |
| P | Partition | Linux | Raw partition names (i.e. "sda3 sdb5") |
| Z | ZFS Pool | Solaris | ZFS Pool name (i.e. "pool1") |
| z | ZFS Volume | Solaris | ZFS Volume name (i.e. "pool1/vol1") |
| z | Slice | Solaris | Disk slice name (i.e. "c0t0d0s1") |

You must specify the *datalist* as shown above which corresponds to the *datatype* you are restoring. Any elements of the *datalist* that are multiple words must be surrounded by double quotes (i.e. `strestore -d st0 -tD /shared "/root/User Docs" /mail`).

Note: Volume Group and Logical volume restores are only available on Linux systems if LVM (Logical Volume Manager) is installed. Meta-disk restores are only available on Linux if meta-disk (Software RAID) support is installed.

You may also specify a backup sequence number with the **-S** flag if there is more than one backup stacked on the media. If the backup was created using a [backup job](#) which contained multiple clients, each client backup will be a separate [backup sequence number](#). If you performed multiple backups to the same media without rewinding, then each new backup will comprise a new backup sequence number. The data will be read from the backup corresponding to the specified backup sequence number.

If the tape is already positioned to the start of the backup sequence number you wish to read, you may also specify the **-p** flag in place of the **-S** flag to indicate that you wish to read from the backup at the current tape position.

You may specify either a tape or virtual device using the **-d** flag (i.e. "rmt0"). If you are restoring from a disk image backup, you must specify the directory in which the backup was written as well as the **-L** flag followed by the **Backup ID**. Refer to the [Backup Labels](#) section for details on the backup IDs.

If you want to restore the data to a different *destination* than it was originally read from, specify the **-D** flag followed by the destination. The destination must be a logical volume name (i.e. "lv00") for logical volume restores, or a directory name for all other restores. For all restores, except when restoring single filesystems, the data will be restored to the new directory relative to the original full pathname of the files. For instance, the */home/roger* directory, when restored

to the */tmp* directory, will be restored as */tmp/home/roger*. This prevents files by the same name, but in different directories, from being restored over one another.

When restoring only a single filesystem to a new *destination*, the files will be restored relative to the original filesystem mount point. In this case, a file *"/home/file1"* in the */home* filesystem, when restored to the */home1* directory (or filesystem), will be restored as */home1/file1*. This allows filesystem data to be moved from one filesystem to another.

The **strestore** command will exit with a completion message and one of the following exit codes:

| | |
|----|--|
| 0 | Successful |
| 1 | Error reading or writing backup data |
| 2 | Error occurred prior to reading or writing data |
| 3 | Completed with warnings – one or more files may not have been restored |
| 9 | Internal program error |
| 99 | Killed by user (Ctrl-C) |

struncopy

Purpose:

Copy backups between servers, directories or tape devices.

Use on:

Workstation Edition, TSM or Network Administrator

Syntax:

struncopy [*options*] {-**d** *InputDeviceOrDirectory*} {-**D** *outputDeviceOrDirectory*}

Options:

- b** *bufsize* Buffer size to use for new backup. Default is to keep same buffer size of original backup.
- d** *device/directory* Source device or directory containing backup to copy. If source is a TSM server, specify "**-d API**" (see **-s server**).
- D** *device/directory* Destination device or directory to write new backup to. If destination is a TSM server, specify "**-d API**" (see **-S server**).
- e** Eject tape from the *input* device when copy is complete
- E** Eject tape from the *output* device when copy is complete
- h** *hostperm* If writing to a disk file, indicates host read permission (**a**=any host, **h**=original host only). Default is "**a**" if copying from tape, and defaults to the original host permission setting if copying from disk to disk.
- I** *backup ID* Backup ID to read if copying from a disk backup
- L** *backup ID* If writing to a disk backup and appending to an existing backup label, specify the backup id of the backup to append. Not used when appending tape backups.
- n** *startingSeqnum* Beginning backup sequence number to copy from source if there are multiple backups on the media.
- N** *endingSeqnum* Ending backup sequence number to copy from source if there are multiple backups on the media.
- r** Rewind the input tape device before starting the copy
- R** Rewind the output tape device before starting the copy
- s** *inputServer* Server name if input device or directory is on a remote server. If reading from a TSM server, use the format "**TSM@serverName**".
- S** *outputServer* Server name if output device or directory is on a remote server. If writing to a TSM server, use the format "**TSM@serverName**".

Details:

The **struncopy** command is used on an administrator system to copy backups from one server to another, from any backup media type to another. Any backup may be copied from tape or disk directory to any other tape or directory. Backups originating from different backup media may even be appended onto the same output media.

When using *Network Edition with TSM support*, backups to TSM servers may also be copied to local tape or disk or to another SBAdmin server. Likewise, local or remote backups to SBAdmin servers may be copied to a TSM server or backups may be copied from one TSM server to another.

When copying a disk backup, you must specify the directory where the backup is stored with the **-d** *directory* option (use "**-d API -s TSM@serverName**" for TSM servers), and the backup id with the **-I** *backupid* option. When a new backup is created (either by writing to the beginning of a tape or writing a backup to disk), a new backup ID is generated automatically. If a backup is appended to an existing tape backup, this backup will be appended to the same label, and therefore will use the same backup ID as the previous backups on the tape.

By default, all backups will be copied from the source media to the destination media. This includes all clients (if backup was made from a *Network* or *TSM Edition Administrator* and included multiple clients), or multiple jobs (if multiple jobs were appended to the source tape media). Every **Backup Label** contains at least one **backup sequence number**, starting with 1 and ending with the last backup written (one for each client backup appended to the same label/media). To determine the backup sequence numbers within a backup label, use the command:

```
stprintlabel -b backupID
```

If copying to a tape device, you may indicate if you want to **rewind** before starting the backup and if the tape should be rewound and **ejected** at the end of the backup. If you do not rewind at the start of the backup, you may append the source backup to the end of the destination media (if the destination media is currently at the of volume). The destination **backup label** will be appended with the selected source backup. This is commonly referred to as **stacking backups** to tape.

You may alter the **buffer size** of the backup by entering a buffer size (in Kbytes) using the **-b** *bufsize* option. This is quite useful in increasing the performance of backups when writing to different media. For example, the default 64K buffer size may be adequate when you wrote your original disk backup file, but when copying to a high-speed tape drive, a higher buffer size (i.e. 256K) may provide much greater backup performance. To use the same buffer size for the destination as was used for the source, do not specify a new buffer size.

If using *Network Edition*, and the destination backup is written to a disk directory, you may also change whether only the original client host or any host may read the backup data by using the **-h** *hostperm* option. If copying from tape to disk, the default is to allow all hosts (**-h a**) to read the backup. If copying from disk to disk, the default is to leave the original setting unchanged. To allow only the original host which wrote the backup to read it, use **-h h**.

You may use a **virtual device** configured as a **random tape library** for the output device, but not the input device. This is because the command is only able to track the tape positions of one library at a time. Therefore, if you need to copy from a random library, you will need to specify only the tape device name as the input device. You will be prompted to change the volumes manually on the source device, but the destination device, if a random library, will change tapes automatically. Note that virtual devices configured as **sequential autoloaders** may be used for either source or destination devices.

strunjob

Purpose:

Run a backup job in the foreground

Use on:

Network Administrator or Workstation Edition

Syntax:

strunjob *JobID*

Details:

The **strunjob** command will perform the backups for all clients configured for the job (referenced by *JobID*) just as it would when executed from the [job queues](#). The job status information, command output and error messages, and backup label information will be saved for future viewing using the [View Backup Labels](#) from the [Main Screen](#). The command output and error messages will also be sent to standard output and standard error, shown on the screen by default. If you wish to save this output to a file, you may type the command as follows:

```
strunjob JobID > filename 2>&1
```

The **strunjob** command will continue running until all clients in the job have been backed up or until an error causes the command to terminate. The command will exit with one of the following return codes, indicating the status of the job:

| | |
|---|---|
| 0 | Job completed successfully |
| 1 | Job terminated because a client backup failed. Since partial data has been written to the media, no additional client backups have been started. Failure of a client backup may be due to a media write error or a network failure. |
| 2 | Job terminated due to an error occurred while saving the backup command output, status information, or label information. |
| 3 | Job terminated due to an error in pre-processing tasks. This might include such things as a backup device already in use or the backup server or network unavailable. |
| 4 | The client backups completed, but a post-processing error occurred. This might include the inability to update the backup label or history information after the backup completes, or an error ejecting the tape from the drive when the job requires the tape to be ejected when complete. |
| 5 | The client backups completed, but a minor error occurred in post-processing that should not affect the backup history or label, nor should it affect other jobs appended to the same media. |
| 6 | The job completed successfully, but one or more clients in the job were not included in the backup. The reason may be because the client or network was unavailable or because the client could not reach the server over the network. This error will also occur if a pre- backup program was set to run on the client and failed. |

| | |
|----|--|
| 7 | Job terminated without writing any data to the server because the backup media was either write-protected, or contained a prior backup label that could not be overwritten due to the tape overwrite/retention policy setting. |
| 99 | The command terminated because the process was killed (SIGINT or Control-C) |

When running the **strunjob** command at the command line, the status message of the jobs will not be reported using the [backup status reporting](#) method defined in the [Backup Administrator](#). The only exception is when previous backup labels are expired based on the [backup overwrite/retention policy](#) defined.

strunrest

Purpose:

Verify or restore data from any server to any client

Use on:

Network, Workstation or TSM Edition Administrator

Syntax:

```
strunrest <operation> [options] -f {device | directory {-I backupid}} {-t datatype}
```

Operations:

-v Indicates a verify is performed. If omitted, a restore is performed

Options:

-c client *Client* to restore the data to. Only used if restoring data.

-C script Oracle *RMAN restore script* (for Oracle Database restores)

-d "datalist" If *datatype* is specified, you should also specify the *list of data* to verify or restore of the specified *datatype*. If this argument is omitted, then all data of the specified *datatype* will be verified or restored.

-D destination Destination logical volume name or directory to restore data.

-f device/dir Tape or virtual device on the *server* (i.e. "rmt0") if restoring from tape. Specify a directory on the server if restoring from a disk backup. If restoring from a disk image backup, you must also supply the **-I backupid** option.

If backup is to a TSM server, indicate **-f API** (see **-s server**).

-I backupid The *Backup ID* of the backup to restore if restoring from a disk backup. Not used if restoring from tape or virtual device.

-p curSeqnum If the tape is already positioned at the beginning of a specific backup, you may specify the *current sequence number* of that backup to prevent rewinding and re-forwarding of the tape.

-P Indicates the *progress indicator* should be shown, displaying the progress of the verify or restore. The progress indicator is send to standard error.

-s server *Server* on which the backup media is attached. If using a TSM server, use the format "TSM@*serverName*".

-S "seqlist" If verifying from tape or virtual device, you may specify a list of backup *sequence numbers* to verify. If restoring, you may specify only one. The default is sequence number 1 if this flag is omitted. Display the backup label for a list of backup sequence numbers on the tape.

-t datatype Specify the *type* of data to restore from the backup. If omitted, the entire contents of the backup will be restored. *Datatype* must be one of: **-V** (volume group), **-F** (filesystem), **-L** (logical volume), **-D** (directory) or **-R** (regular file).

Details:

The **strunrest** command may be used to either verify or restore the contents of a backup. This command is only run on the admin system, although the backup data may exist on any server and may be restored to any client.

You must specify both the *server* and *device* to read, and the *client* to restore to (if restoring). If you are restoring from a disk backup, and the backup was created with read permission only by the original client from which the backup was made, only the original client may be restored to. This is to prevent the backup file from being read by other hosts. However, if you wish to change the permission of the backup file to allow it to be restored to a different host, use the option [Change Read Permission of a Disk Backup](#).

Note that the *datatype* and *datalist* arguments must correspond. For instance, if you select to restore a filesystem (**-t F**), then you must supply a list of filesystems to restore ("*/home /tmp*") as they are defined on the backup. If any of the filesystems supplied do not exist on the backup, no restore will take place. Note also that you must surround multiple restore options with double quotes.

You may also specify a sequence list (*seqlist*) using the **-S** flag if there is more than one backup stacked on the media. If the backup was created using a [backup job](#) which contained multiple clients, each client backup will be a separate [backup sequence number](#). If you performed multiple backups to the same media without rewinding, then each new backup will comprise a new backup sequence number. When verifying backups, you may specify one or more sequence numbers, surrounded by double-quotes. When restoring data, you may specify only one backup sequence number. The data will be read from the backup, or backups, corresponding to the specified backup sequence number list.

Important note: If you are restoring a volume group or filesystem from an [incremental](#) backup level 0 and you do not specify a *datalist* to restore, then all files will be restored. If the incremental level is 0, all files currently in the corresponding filesystems will be removed before the restore takes place. This is to ensure that the filesystem, when completed, will contain ONLY the files that existed when the backup was created. If you do not want to remove existing files before restoring, then [you should not restore a filesystem or volume group](#). Instead, select "directory" as the data type (**-t D**), then specify the list of directories to restore.

If you supply both the **-L** and **-P** flags, you should redirect either standard output or standard error to a file. Otherwise, both will be shown on the screen and the progress indicator data will be intermixed with the file list.

If you want to restore the data to a different *destination* than it was originally read from, specify the **-D** flag followed by the destination. The destination must be a logical volume name (i.e. "lv00") for logical volume restores, or a directory name for all other restores. For all restores, except when restoring single filesystems, the data will be restored to the new directory relative to the original full pathname of the files. For instance, the */home/roger* directory, when restored to the */tmp* directory, will be restored as */tmp/home/roger*. This prevents files by the same name, but in different directories, from being restored over one another.

When restoring only a [single filesystem](#) to a new *destination*, the files will be restored relative to the original filesystem mount point. In this case, a file "*/home/file1*" in the */home* filesystem, when restored to the */home1* directory (or filesystem), will be restored as */home1/file1*. This allows filesystem data to be moved from one filesystem to another.

The `strunrest` command will exit with a completion message and one of the following exit codes:

- 0 Success
- 1 Failed verifying or restoring data
- 9 Internal program error
- 99 Killed by user (Ctrl-C)
- 101 The **strunrest** command failed after verify/restore started
- 102 Syntax error calling the **strunrest** command
- 103 The **strunrest** command failed with an error prior to verify/restore starting

stserver

Purpose:

Add, change, list or remove SBAAdmin server information. For TSM servers, refer to the **stconfigtsm** command instead.

Use on:

Network Edition Administrator

Syntax:

```
stserver <operation> [options] server {...}
```

Operations:

- a Add or change the selected *server*
- A Show server availability (when **-I** is used)
- r Remove the specified server
- l List configured servers

Options:

- B, --bootdir** *directory* Directory for network boot images
- c, --clients** "*clients*" *Clients* to allow access to write to this server (default=all)
- C, --clientdir-sys** "*dirs*" Directories for CLIENT System Backups (default=/backups/netinst)
- D, --clientdirs** "*dirs*" *Directory(s)* for regular (non-system) backups (default=/backups/%C)
- d, --devices** "*devices*" Tape drives or virtual devices clients may write to (default=all)
- I, --alhost-backup** *host* Alternate hostname or network IP address for clients to use when sending backup data to this server
- I, --alhost-netinst** *host* Alternate hostname or network IP address for clients to use when client performs a network install from this server
- L, --localdir-sys** *directory* *Directory* for LOCAL system backups (default=/backups/system)
- v, --verbose** Show verbose listing of servers, or specified *server* (with **-l** flag)
- V, --virdevs** Include virtual device information (with **-v** and **-l** flags)

Details:

The **stserver** command is used to add, remove, change and list servers configured on the Network Edition Administrator.

To list currently configured servers, use the **-l** option. By default, only server names are shown. To show all of the attributes of a server, use the **-v** flag also.

If you want to also show the server availability as well as the system type, use **-A** with **-l**. This will indicate the server availability as either available or down, and will display the system (*AIX*, *Solaris* or *Linux*) and machine type (*i386*, *ppc*, *sparc*) or "unknown" if the server cannot be contacted. Availability is determined by whether or not the administrator system can communicate with the server. If not, you can use the **stcheck** command to help isolate the problem.

If you want to configure a new server, use the **-a** option and specify the *server* name at the end of the command. All attributes will be set to their default values (or none) unless explicitly set. After adding a server, be sure to list it with the **-vl** options to display the full list of settings.

NOTE: Be careful to use quotes around any argument to flags which contain multiple words.

Changing a server

If a server currently exists, you can change specific options by specifying only that option and its new argument. For example, to set the alternate network adapter (hostname) to use for backups, use the following command:

```
stserver -ai 192.168.1.1 buserver
```

or

```
stserver -a -althost-backup 192.168.1.1 buserver
```

When changing the configuration, or to remove any default options, you may enter "**none**" for options which require an argument.

Removing a server

To remove a currently configured server, specify **-r** and the *server* name, such as:

```
stserver -r buserver
```

Note that you cannot remove a server if it is currently assigned to a backup job. Also, when removing a server, all virtual devices which may have been configured for that server will also be deleted.

stuser

Purpose:

Add, change, list or remove sbadmin users.

Use on:

Network Administrator or Workstation Edition

Syntax:

```
stuser <operation> [options] {user}
```

Operations:

- | | |
|----|---------------------------|
| -a | Add or change user |
| -r | Remove the specified user |
| -l | List configured users |

Options:

- | | |
|-------------|----------------------|
| -g, "group" | Set default group |
| -L, "level" | Set user level (0-5) |
| -p, newpass | Change password |

stvdev

Purpose:

Add, change, list or remove virtual device definitions

Use on:

Network or Workstation Edition Administrator

Syntax:

```
stvdev <operation> [options] vdevname {...}
```

Operations:

- a Add or change the selected *virtual device*
- r Remove the specified virtual device
- l List configured virtual devices

Options:

- d, --devices "*devices*" List of physical tape devices (may be one if *sequential*, else requires 2 or more)
- D, --desc "*description*" Virtual device description (or "default")
- L, --library *libname* Random library name
- N, --nolib Virtual device is not a library or autoloader (default)
- R, --randomlib Virtual device is a random tape library
- S, --seqloader Virtual device is a sequential autoloader
- s, --server *server* *Server* name on which virtual device exists (if *Network Edition*)
- t, --type *type* Virtual device *type*: S=sequential, P=parallel, M=multi-copy
- v, --verbose Show all configuration (for use with -l flag)

Details:

The **stvdev** command is used to add, remove, change and list virtual devices.

To list currently configured virtual devices, use the **-l** option. By default, only virtual device names are shown. To show all of the attributes of a virtual device, use the **-v** flag also.

The virtual device may be a single tape drive or multiple tape drives, each of which may be in a sequential autoloader or random tape library. The "**-t type**" option must be specified when adding a new virtual device. The type may be one of the following:

- S** (sequential) – tapes are written to sequentially (one drive at a time)
- P** (parallel) – tapes are written to in parallel (data is striped across drives)
- C** (multi-copy) – same data is written to all tapes concurrently (mirrored)

You should refer to the [System Backup Administrator User Guide](#) for complete details on the types of virtual devices and library options.

If the virtual device you are configuring represents a random tape library, you must specify the “**-library *libname***” option. The *libname* is the name of a tape library previously defined using the SBAdmin interface.

Changing a virtual device

If a virtual device currently exists, you can change specific options by specifying only that option and its new argument. For example, to change the list of tape devices contained in the virtual device named “vdev0”, use the following command:

```
stvdev -ad “st0 st1” vdev0
```

or

```
stvdev -a -devices “st0 st1” vdev0
```

NOTE: Be careful to use quotes around any argument to flags which contain multiple words.

When changing the configuration, or to remove any default options, you may enter “**none**” for options which require an argument (i.e. “**--desc none**”).

Removing a virtual device

To remove a currently configured virtual device, specify **-r** and the *vdev name* name, such as:

```
stvdev -r vdev0
```

Note that you cannot remove a virtual device name that is currently assigned to a backup job.