

# Backup CLI Commands

SQL Safe provides you with CLI commands to help you manually backup a database.

To backup databases use the following commands:

- SQLsafeCmdBackup <db\_name> [<db\_name>] <backup\_archive> [options]
- SQLsafeCmdBackup <db\_name> [<db\_name>] TSM [options]
- SQLsafeCmdBackup <db\_name> [<db\_name>] TRUNCATEONLY [options]

Where:

Action	Description
<db_name>	<p>One or more names of database(s) to backup.</p> <p>If a database name contains a space, the database name should be surrounded with "double quotes".</p> <p>Special keywords may be used to backup multiple databases. These keywords are: {all}, {allsystem}, {alluser}.</p>
<backup_archive>	Path to the backup archive.
Tsm	Use Tivoli Storage Manager (see below for special options).
TruncateOnly	Use this keyword to truncate the transaction log of the SQL Server database only.

## Common Options

The following options help you perform backup operations:

Options	Description
-BackupDescription <desc>	<desc> - the description of the backup.
-BackupName <name>	<name> - the name of the backup.
-BackupType <type>	<p>The backup type required.</p> <p>&lt;type&gt; - {full, differential, log, file}.</p>

-BckDstType <type>	<p>The backup destination type is used for the backup.</p> <p>&lt;type&gt; - {0, 1, 2, 3, 4, 5, 6, 7}.</p> <p>where:</p> <table border="1" data-bbox="570 346 914 978"> <thead> <tr> <th>Type</th><th>Description</th></tr> </thead> <tbody> <tr> <td>0</td><td>Single File</td></tr> <tr> <td>1</td><td>Stripped Files</td></tr> <tr> <td>2</td><td>Mirrored</td></tr> <tr> <td>3</td><td>TSM</td></tr> <tr> <td>4</td><td>Data Domain</td></tr> <tr> <td>5</td><td>Amazon S3</td></tr> <tr> <td>6</td><td>Azure Blob</td></tr> <tr> <td>7</td><td>TSM Stripes</td></tr> </tbody> </table> <p>Note: the default value is "0".</p>	Type	Description	0	Single File	1	Stripped Files	2	Mirrored	3	TSM	4	Data Domain	5	Amazon S3	6	Azure Blob	7	TSM Stripes
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-CompressionLevel <level>	<p>The compression level used for the backup.</p> <p>&lt;level&gt; - {ispeed, isize, 0, 1, 2, 3, 4}.</p> <p>Note: if the compression level is not specified, ispeed is the default.</p>																		
-Exclude <db_name> [<db_name> ...]	<p>&lt;db_name&gt; [&lt;db_name&gt; ...] - one or more names of database(s) to not backup.</p>																		
-InstanceName <name>	<p>&lt;name&gt; - the SQL server instance name.</p> <p>Note: it is not required if the instance is set as a default on the target server.</p>																		
-NoTruncate	<p>Do not truncate the transaction log. (Log backup only).</p>																		
-Overwrite	<p>Overwrite existing archive if one exists.</p> <p>Note: if this option is omitted, the default behavior is to append.</p>																		

-Server <hostname>	<hostname> - the hostname of the server hosting the SQL Server where the operation should be performed.  Note: this option is required for accessing remote or clustered SQL Servers (where applicable).
-Verify	Verify the backup set after backup is complete.
-SectorType	Public or Government based on Azure Sector.

## Encryption Options

Encrypt your backups with the following options:

Options	Description
-EncryptionType <type>	The type of encryption used to encrypt the backup.  <type> - {AES128, AES256}.
-Password <pwd>	<pwd> - the non-encrypted password used to encrypt the backup.
-EncryptedBackupPassword <pwd>	<pwd> - the encrypted password used to encrypt the backup. (Used with EncryptionType).

## Security Options

Secure your backups with the following options:

Options	Description
-NoPrompt	Never prompt for credentials even if necessary.
-SecurityModel <model>	The security model used to log into SQL Server.  <model> - {Integrated, SQL}.  Note: Integrated (Windows authentication) is the default.
-SqlUsername <username>	<username> - the SQL Server username. (SQL SecurityModel).
-SqlPassword <pwd>	<pwd> - the SQL Server password. (SQL SecurityModel).
-EncryptedSqlPassword <pwd>	<pwd> - the encrypted SQL Server password generated by EncryptSqlPassword action. (SQLSecurityModel).
-WindowsUsername <domain\user>	<domain\user> - the Windows user that will be used to read/write the backup archive.

-WindowsPassword <pwd>	<pwd> - the password for the Windows user.
-EncryptedWindowsPassword <pwd>	<pwd> - the encrypted password for the Windows user generated by EncryptWindowsPassword action.

## Advanced Options

The following advanced options help you perform backup operations:

Options	Description
-ArgsFile <filename>	The path to a file containing command-line arguments.  <filename> - specifies the file that contains the command line arguments.
-BackupFile <filename>	Specifies additional backup archive files to be used for striping backups.  <filename> - specifies the backup archive files.  Note: use once for each additional stripe.
-Checksum	Instructs SQL Server to generate backup checksums during a backup, or verify backup checksums during a verify or restore.  Note: for SQL 2005 and later only.
-ContinueAfterError	Instructs SQL Server to continue the operation despite encountering errors such as invalid checksums.  Note: for SQL 2005 and later only.
-CopyOnly	Specifies that the backup does not affect the normal sequence of backups.  Note: for SQL 2005 and later only.
-DatabaseFilegroup <filegroup>	<filegroup> - the database logical filegroup.  Note: for file BackupType only.
-DatabaseFilename <filename>	<filename> - the database logical filename.  Note: for file BackupType only.

<p>-Delete &lt;n&gt;&lt;time_period&gt;</p>	<p>After a backup successfully completes, delete archives that are older than the specified amount of time.</p> <p>&lt;n&gt; - amount of time.</p> <p>&lt;time_period&gt; - {minutes, hours, days, weeks, months}.</p> <p>There must be NO SPACE between &lt;n&gt; and &lt;time_period&gt;.</p> <p>E.g., -delete 2hours.</p> <p>Note: if you use the space between &lt;n&gt; and &lt;time_period&gt;, the backup archive filename will be automatically generated with the following pattern:</p> <p>&lt;instancename&gt;_&lt;databasename&gt;_&lt;backuptype&gt;_&lt;timestamp&gt;.safe</p> <p>where the &lt;timestamp&gt; is in UTC time and in the form of YYYYMMDDHHMM.</p>
<p>-DeleteMirror &lt;n&gt;&lt;time_period&gt;</p>	<p>After a backup successfully completes, delete mirrors that are older than the specified amount of time.</p> <p>&lt;n&gt; - amount of time.</p> <p>&lt;time_period&gt; - {minutes, hours, days, weeks, months}.</p> <p>There must be NO SPACE between &lt;n&gt; and &lt;time_period&gt;.</p> <p>E.g., -deletemirror 2hours.</p> <p>Note: if you use the space between &lt;n&gt; and &lt;time_period&gt;, the mirror filename will be automatically generated with the following pattern:</p> <p>&lt;instancename&gt;_&lt;databasename&gt;_&lt;backuptype&gt;_&lt;timestamp&gt;.safe</p> <p>where the &lt;timestamp&gt; is in UTC time and in the form of YYYYMMDDHHMM.</p>
<p>-FailOnMirrorError</p>	<p>To abort a backup if an error is encountered while writing to a mirror backup archive.</p> <p>Note: the default behavior is to abort only if an error is encountered while writing to a primary backup archive.</p>

-IncludeLogins	<p>For backup, includes the database logins in the backup file.</p> <p>For restore, creates the logins from the backup file on the destination server.</p>
-MailTo <email_address>	<p>&lt;email_address&gt; - an email address(es) to send the notification via SMTP.</p> <p>Note: multiple addresses may be separated by spaces, semicolons, or commas.</p>
-MirrorFile <filename>	<p>Specifies additional backup archive files to be used for mirroring backups.</p> <p>&lt;filename&gt; - specifies the backup archive files.</p> <p>Note: use once for each additional mirror. Up to two mirrors may be specified.</p>
-NoSkip	<p>Disables automatic skipping of databases that cannot be backed up, such as offline databases.</p>
-NoStatus	<p>Prevents status messages from being cached or sent to the Repository.</p>
-ReadWriteFileGroups	<p>Instructs SQL Server to perform a partial backup, which includes the primary filegroup and any read/write secondary filegroups.</p> <p>Note: SQL 2005 and later only.</p>
-RecoveryMode <mode> [-UndoFile<filename>]	<p>Specifies the mode in which to leave the database after the operation is completed.</p> <p>&lt;mode&gt; - NoRecovery, Standby.</p> <p>Note: for Standby mode an undo file may be specified with the -UndoFile option.</p>
-UndoFile <filename>	<p>&lt;filename&gt; - specifies the ABSOLUTE path to the undo filename.</p> <p>Note: for Standby recovery mode only.</p>
-RetryWrites <interval> <retry_time> <total_time>	<p>On a network file error, retry every &lt;interval&gt; seconds for up to &lt;retry_time&gt; seconds. Total retry time allowed is &lt;total_time&gt; minutes.</p>
-Threads <number>	<p>&lt;number&gt; - specifies the number of threads that should be used to distribute the backup process across multiple processors.</p>

-VDB Off	Do not optimize for quick access by SQL virtual database.
-Verbose	Displays SQL Server result text for both successful and failed backups.  Note: by default, it displays for failed backups only.

## Tivoli Storage Manager (TSM) Options

There are TSM options for your backup operations:

Options	Description
-TsmClientOwnerName <name>	<name> - the client owner name.
-TsmClientOwnerPassword <pwd>	<pwd> - the client owner password.
-EncryptedTsmClientOwnerPassword <pwd>	<pwd> - the encrypted TSM client owner password.
-TsmConfigFile <filename>	<filename> - the configuration file location.
-TsmHighLevel <name>	<name> - the high level file specification (path).
-TsmLowLevel <name>	<name> - the low level file specification (file name).
-TsmTcpServerAddress <address>	<address> - the TCP/IP address for the TSM server.
-TsmTcpPort <port>	<port> - the TCP/IP port address for the TSM server.
-TsmManagementClass <name>	<name> - the management class to which the backup file will be bound.

For detailed descriptions and available options, see the CLI Help (`SQLsafeCmd help Backup`).