

## Introduction

### Backing up and restoring Autodesk® Vault.

This guide demonstrates how to use a 3<sup>rd</sup> party solution to backup and restore Autodesk® Vault.

## Backup Software Capabilities

The software used for backup should have the following capabilities:

1. A SQL server backup agent for backing up and restoring the databases.
2. Ability to restore the SQL Master and MSDB databases.
3. Ability to verify the backed up database or file.
4. Ability to work within a replicated SQL server environment.
5. Ability to send e-mail alerts to administrators in the event of a backup failure. (This is a suggestion, not a requirement).
6. Ability to back up and restore the databases and file store with security settings.

## Backing up a Single Autodesk® Vault Site

### Backup Process

For a successful backup, the following must be backed up:

1. All vault databases: KnowledgeVaultMaster, vaults and libraries.
2. All vault file stores. The file store folder is found at:  
C:\Users\All Users\Autodesk\VaultServer\Filestore on Windows XP & Windows 2003.  
C:\ProgramData\Autodesk\VaultServer\Filestore on Vista, Windows 7 & Windows 2008.

**Note:** Each vault could have a unique file store location. You can find the location by selecting each vault in the Vault server Console.

Configure your backup software to back up the databases first then backup the file store immediately afterwards. This sequence will help keep the database information consistent with the files being backed up.

**Optional:** You may want to backup the Connectivity.ADMSCONSOLE.exe.config and web.config files. These files store unique settings that may not be stored in the vault databases. The files can be found in the following locations:

Connectivity.ADMSConsole.exe.config - <install path>\ADMS [Edition] 20XX

Web.config - <install path>\ADMS [Edition] 20XX\Server\Web\Services

## Restore Process

A restore should be performed on a computer with the same name as the original computer.

For a successful restore, perform the following:

1. Install the Autodesk® Vault server software.
2. Install of the hot fixes and/or services packs that were installed on the original server.
3. Restore the databases.
4. Restore the file stores in their original file store location.  
**Note:** The KnowledgeVaultMaster database must be restored whenever you perform a restore of a vault. It is not recommended to restore a vault database without restoring the KnowledgeVaultMaster that was backed up with it on the same date.

### Post Recover Steps:

1. Once all databases and the file stores have been restored, start the ADMS Console to verify all databases can be seen. If any databases need to be migrated, a migration dialog will appear and you should migrate the database.
2. With the ADMS Console closed, open a command prompt window.
3. Navigate to <installdir>\Autodesk\ADMS 20XX\ADMS Console directory.
4. At the prompt type: Connectivity.ADMSConsole.exe -VUsername -VPpassword -Ovalidatefilestore  
This command runs a validation on the file store and databases. This will validate all of the files in the database against the files in the file store. If any files are missing, a dialog will appear with a list of missing files. This list will also be written to the ADMS server log. To see if the command is still running, open the Windows Task Manager and look for Connectivity.ADMSConsole.exe in the Processes tab.
5. If any files are missing, you can look at previous recovery points and restore the necessary files.

**Note:** If the single site is a remote file replication site only, you can use the same back up instructions above skipping the steps that involve backing up and restoring the databases. When you install the server software, install using the remote SQL option and point to the existing SQL server.

## Backing up a Full Replication Publisher

In a full replication configuration it is important to back up the publisher's vault databases as well as two of the Microsoft® SQL system databases. This section explains everything needed to perform a proper backup on the Publisher server.

### Replication Configuration:

It is recommended that you use the following configuration to make it easier to restore a replicated environment.

1. An Active Directory user account should be used for all replication credentials.
2. All servers participating in the replication configuration should be in the same domain or in trusted domains.
3. Run the Microsoft SQL Service under a domain user account.
4. Create a script to back up the SQL Service Master Key.

### Back Up the Service Master Key:

The service master key is the root of the encryption hierarchy in SQL Server. It should be backed up and stored in a secure, off-site location. Creating this backup should be one of the first administrative actions performed on the server.

#### BACKUP SERVICE MASTER KEY (Transact-SQL)

- Exports the service master key.

#### Transact-SQL Syntax Conventions

- `BACKUP SERVICE MASTER KEY TO FILE = path_to_file ENCRYPTION BY PASSWORD = password`

#### Arguments

- `FILE = path_to_file`  
Specifies the complete path, including file name, to the file to which the service master key will be exported. This may be a local path or a UNC path to a network location
- `PASSWORD = password`  
Is the password used to encrypt the service master key in the backup file. This password is subject to complexity checks. For more information, see Password Policy.

#### Remarks

- The service master key should be backed up and stored in a secure, off-site location. Creating this backup should be one of the first administrative actions performed on the server.

#### Permissions

- Requires CONTROL SERVER permission on the server.

### Examples

In the following example, the service master key is backed up to a file.

- `BACKUP SERVICE MASTER KEY TO FILE = 'c:\temp_backups\keys\service_master_key' ENCRYPTION BY PASSWORD = '3dH85Hhk003GHk2597gheij4';`

The service master key should be backed up on a regular basis. You will need to create a Windows Task scheduled on a regular basis to accomplish this.

### Backup Process for the Publisher

For a successful back up, the following will need to be backed up:

1. All vault databases. Knowledgevaultmaster, vaults and libraries.
2. The distribution database named AutodeskReplication.
3. The SQL Master and MSDB databases.

All vault file stores. The file store folder is found at:

C:\Users\All Users\Autodesk\VaultServer\Filestore on Windows 2003.

C:\ProgramData\Autodesk\VaultServer\Filestore on Windows 2008.

**Note:** Each vault could have a unique file store location. You can find the location by selecting each vault in the Vault server Console.

4. The SQL Master Key.
5. The folder where the SQL replication snap shots are located.

**Optional:** You may want to backup the Connectivity.ADMSConsole.exe.config and web.config files. These files store unique settings that may not be stored in the vault databases. The files can be found in the following locations:

Connectivity.ADMSConsole.exe.config - <install path>\ADMS [Edition] 20XX

Web.config - <install path>\ADMS [Edition] 20XX\Server\Web\Services

### Backup Process for the Subscriber

For a successful back up, the following will need to be backed up:

1. All vault databases. Knowledgevaultmaster, vaults and libraries.
2. The SQL Master and MSDB databases.
3. All vault file stores. The file store folder is found at C:\Users\All Users\Autodesk\VaultServer\Filestore by default.

#### 4. The SQL Master Key.

Optional: You may want to backup the Connectivity.ADMSConsole.exe.config and web.config files. These files store unique settings that may not be stored in the vault databases. The files can be found in the following locations:

Connectivity.ADMSConsole.exe.config - <install path>\ADMS [Edition] 20XX

Web.config - <install path>\ADMS [Edition] 20XX\Server\Web\Services

**Note:** Each site should backup there file store folders regularly. This is very important if you are not replicating the entire file store to a single backup location.

### Restore Process for the Publisher

A restore must be perform on a computer with the same name as the original computer. The new computer must have the same SQL Server edition as the original computer. The new computer must have all of the system and SQL service packs and hot fixes that were applied to the original computer.

1. Restore the SQL MSDB and Master databases.
2. Restore the AutodeskReplication, KnowledgeVaultMaster and each vault and library database.
3. Restore the file stores in there original file store location.  
**Note:** The KnowledgeVaultMaster database must be restored whenever you perform a restore of a vault. It is not recommended to restore a vault database without restoring the KnowledgeVaultMaster that was backed up with it on the same date.
4. Create the shared folder for the SQL replication snapshots. Apply all user security on the folder and share it.
5. Restore the files and sub-folders for the SQL replication snapshots folder.

#### Post Recover Steps:

1. Once all databases and the file stores have been restored, start the ADMS Console to verify all databases can be seen. If any databases need to be migrated, a migration dialog will appear and you should migrate the database.
2. With the ADMS Console closed, open a command prompt window.
3. Navigate to <installdir>\Autodesk\ADMS 20XX\ADMS Console directory.
4. At the prompt type: Connectivity.ADMSConsole.exe -VUsername -VPpassword -Ovalidatefilestore  
This command runs a validation on the file store and databases. This will validate all of the files recorded in the database against the files in the file store. If any files are missing, a dialog will appear with a list of missing files. This list will also be written to in the server's console log. To see if the command is still running, open the Windows Task Manager and look for Connectivity.ADMSConsole.exe in the Processes tab.
5. If any files are missing, you can look at previous backup and restore the necessary files.

## Restore Process for the Subscriber

A restore must be performed on a computer with the same name as the original computer. The new computer must have the same SQL Server edition as the original computer. The new computer must have all of the system and SQL service packs and hot fixes that were applied to the original computer.

1. Restore the SQL MSDB and Master databases.
2. Restore the KnowledgeVaultMaster and each vault and library database.
3. Restore the file stores in their original file store location.  
**Note:** The KnowledgeVaultMaster database must be restored whenever you perform a restore of a vault. It is not recommended to restore a vault database without restoring the KnowledgeVaultMaster that was backed up with it on the same date.

### Post Recover Steps:

1. Once all databases and the file stores have been restored, start the ADMS Console to verify all databases can be seen. If any databases need to be migrated, a migration dialog will appear and you should migrate the database.
2. With the ADMS Console closed, open a command prompt window.
3. Navigate to <installdir>\Autodesk\ADMS 20XX\ADMS Console directory.
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5. If any files are missing, you can look at previous backup and restore the necessary files.

### Important Things to Know:

It is very important to restore within the default 14 day retention period. If you are restoring a subscriber, the backup used for the restore process must not be older than 14 days. If you do not have a backup within the 14 day retention period, you must delete the subscriber's workgroup in the ADMS Console on the publisher and recreate it. If you are restoring the publisher, the backup used for the restore process must not be older than 14 days from the last synchronization date of all subscribers.



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