



## Quick-start guide: BackupAssist VM Granular Restore Console



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## QUICK-START GUIDE

BackupAssist v5.4 and later

[www.BackupAssist.com](http://www.BackupAssist.com)

## 1. Introduction

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This guide is intended to help users of BackupAssist v5.4 (release date December 30<sup>th</sup>, 2009) and later, set up Hyper-V backups as well as use the BackupAssist VM Granular Restore Console Add-on to perform restores of Hyper-V Guest machines.

## 2. About the BackupAssist Hyper-V solution

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### Advantages

Hyper-V backup is full of confusion, despair and head scratching. It causes frustration for even the most experienced IT professionals because there are so many recovery scenarios and no straightforward method of setup that covers them all. The BackupAssist Hyper-V solution is designed to be a simple answer to this complicated problem, eliminating time consuming manual procedures and scripting, as well as overcoming the reliability issues inherent in Hyper-V backups.

BackupAssist's 'granular technology' simplifies Hyper-V backup by allowing you to do just one image backup of the Host and use it to retrieve files and documents from any Guest machine on that Host. The advantages of this are:

- ✓ Restore multiple Guest files from a single Host backup.
- ✓ No need for separate backups of the Host and Guest.
- ✓ Backup unlimited Guest machines in moments – no extra licensing costs!
- ✓ Super simple 2 step restore process with easy to follow wizards.
- ✓ Cost-effective!

### Features

#### Granular technology

Granular technology allows you dig into a VHD file and retrieve files from within. Without granular technology, you can only restore folders and files from regular backups created of each Guest VM within the Host and it is this that makes backup setup and recovery procedures so complicated.

#### The BackupAssist VM Granular Restore Console

The BackupAssist VM Granular Restore Console simplifies the whole process of digging down into a VHD file to retrieve individual files and folders. It offers you simple wizards for every restore scenario, reducing them to simple steps that take just minutes to complete.

### Limitations and requirements

#### Host prerequisites

- Windows Server 2008 comes with Hyper-V Beta. Install KB950050 to get it up to RTM.
- Add Windows Server Backup feature.
- Use FAST disks to avoid VSS timeout problems.
- Keep partition sizes less than 2TB.

## Guest guidelines

- Used fixed VHD disks – ie. Allocate all disk space up front for better performance.
- In the Guests, use Basic disks, not dynamic disks – otherwise online VSS backups won't work.
- Avoid using Hyper-V snapshots as these slow performance and make emergency migrations more difficult.
- Turn on the Backup Integration service for each Hyper-V Guest as explained here: <http://www.backupassist.com/blog/support/hyper-v-backup-using-windows-server-backup/>

## 3. Setup instructions

The following section includes instructions for setting up Hyper-V backup jobs using BackupAssist's Windows Imaging Engine.

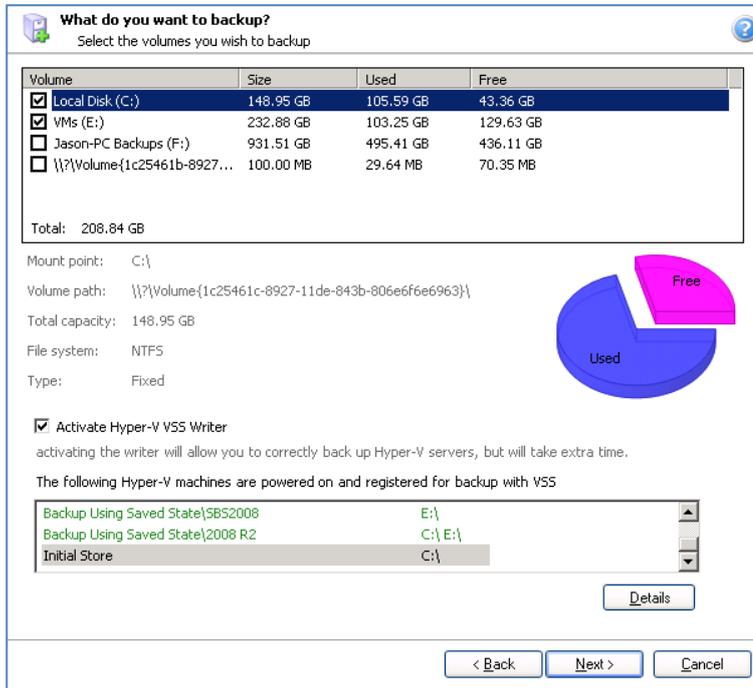
1. Launch BackupAssist and click **File > New backup job**, and then select **Windows Imaging** under 'System backup'.
2. Select your backup destination type and click **Next**.
3. Select an appropriate schedule and click **Next**.
4. During the **Files and folders** step, where you choose which drive volumes to backup, check **Activate Hyper-V VSS Writer** at the bottom of the screen. Enabling this option will let you correctly back up Hyper-V servers and Guest VMs using VSS.

**Note:** the **Activate Hyper-V VSS Writer** option will only appear if you are running BackupAssist on the Hyper-V Host machine.

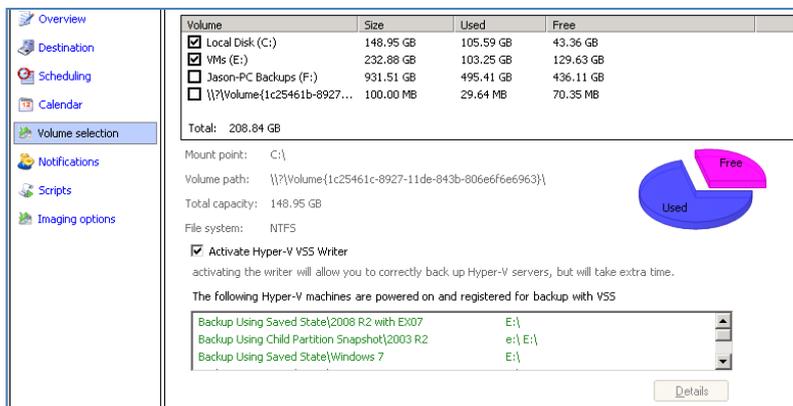
5. Once you have enabled the **Hyper-V VSS Writer** option you will be presented with a list of Hyper-V machines that are available for backup with VSS. If a server is listed in red this server has files located on a drive volume that has not been selected for backup.
  - To find out more about a particular Hyper-V server, select it from the list and click the **Details** button. A new dialog will list the files that need to be backed up in order for this Hyper-V server to be restored successfully. So if you want to be able to restore this Hyper-V server you need to make sure that all drive volumes where these files reside are selected for backup. Click **OK** once you have finished viewing the Hyper-V files details for the selected server.

File path	Volume included
E:\SBS2008\Virtual Machines\	No
E:\SBS2008\Virtual Machines\9DDC4820-4898-42CC-9A02-0348D71F4073	No
E:\SBS2008\	No
E:\SBS2008\	No
E:\SBS2008\Snapshots\	No
E:\SBS2008\Snapshots\36438E20-2A29-45CB-8EC3-B1FB662DF60E	No

6. Select each volume from the list at the top of the window that corresponds with each Hyper-V server and Guest machine that you want to backup. If all volumes with registered Hyper-V server files are selected, the Hyper-V machine list will appear in green, indicating that all detected Hyper-V servers have been selected for backup:



7. Click **Next** once you have selected drive volumes to backup, name your backup job and click **Finish**.
8. If you need to access the Hyper-V settings and drive volume selection settings in future click **Volume selection** from the left menu while editing a job.



## 4. Restore instructions

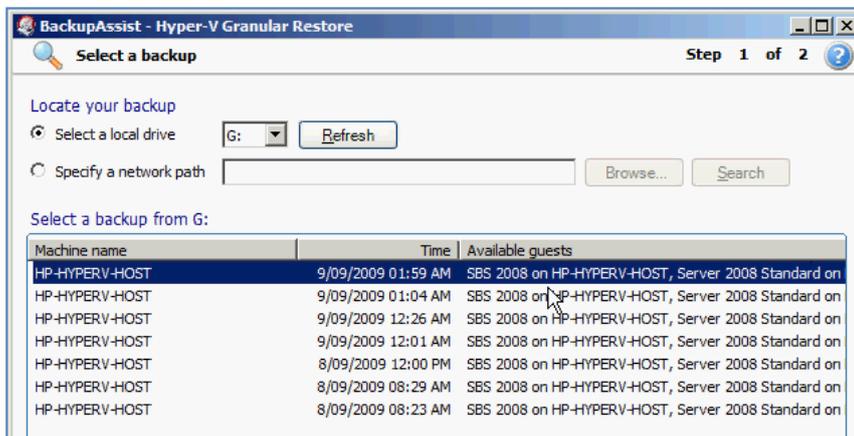
The following section provides instructions for using the BackupAssist Hyper-V Granular Restore Console to restore files from a Hyper-V Guest machine via a Hyper-V Host backup.

### Restoring files from a Hyper-V Guest machine

1. Click  **Restore** in the top navigation bar and then click  **Hyper-V Granular Restore**.

**Note:** the **BackupAssist VM Granular Restore Console** will only run on either a 64-bit Windows Server 2008 machine, or on a standalone Hyper-V server. The machine must also have the Hyper-V role, which can be added to most Server 2008 systems, and is the default for Hyper-V Server.

2. The BackupAssist VM Granular Restore Console will launch and you will be prompted with the **Select a backup** screen. BackupAssist will attempt to automatically detect and list Hyper-V backups located on local drives. Each Hyper-V backup will also display a list of Guest VMs that are available for restore under the **Available guests** column.

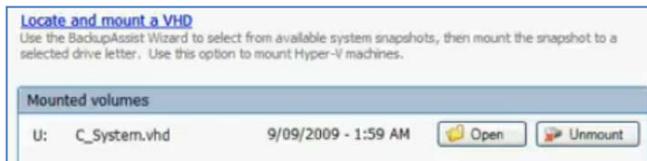


- If no backups are listed either connect your backup device to the machine (e.g. external USB HDD) and click **Refresh**, or browse to a network path where Hyper-V Image backups are located by selecting the **Specify a network path** radio button and clicking **Browse**.
3. Once you have located your Hyper-V backups, select an appropriate backup set to restore from and click **Next**. You will then be presented with a **Mount volumes** screen similar to the following:

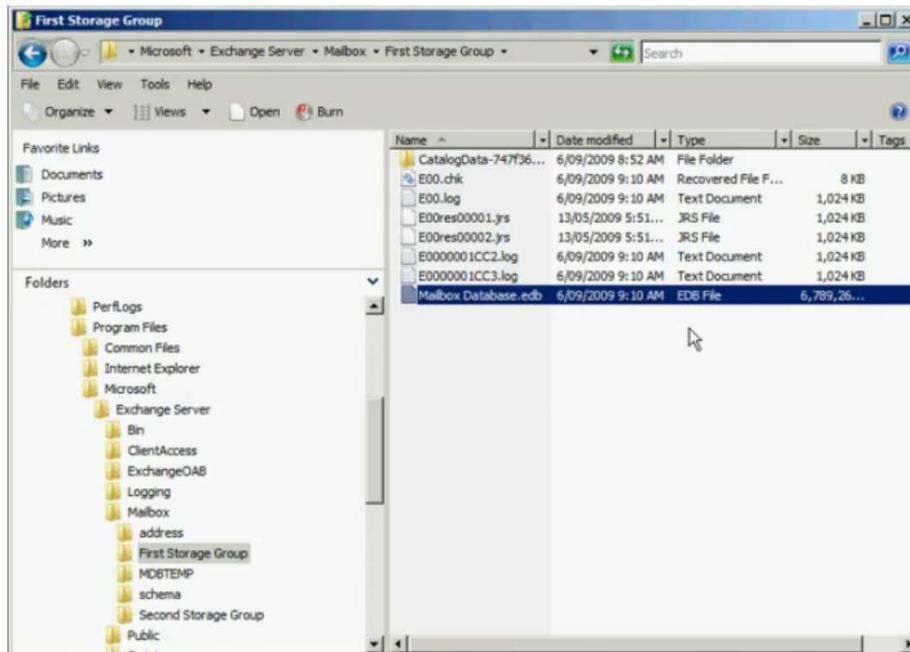


4. Use the **Mount drives from Hyper-V guest** drop-down menu to select a Guest machine on this Host to restore files from. A list of drives that are associated with the Guest machine, and can be restored from will appear below.
5. Once you have selected a Guest machine to restore from, check the drive letters you would like to restore files from and use the **Mount as** drop-down menu to the right to select a drive letter to mount the backup as. Mounting the .vhd backup as a drive letter will effectively create a new drive on your Host machine that you can then browse using Windows Explorer and copy files from.
6. Click **Finish** once you have made your selections. BackupAssist will mount the Guest .vhd files selected as separate drive letters on your Host machine.

- Once the mount is complete click the **Open** button next to the mounted .vhd to use Windows Explorer to view the restored Guest machine's HDD:



- Copy the files and folders you want to restore from the mounted .vhd file to a network share location that the Guest machine can access. In the below example the Exchange Server data located in the Guest machine backup will be copied back to the Guest in order to restore the Exchange Server.



- Once you have finished copying data to a network share you can then copy it from this location back to the original Guest machine's HDD.
- Once all your data restoration is complete click **Unmount** in the Hyper-V Granular Restore Console, and then click **Done**.
- For more information, and a live demonstration, see our **BackupAssist VM Granular Restore Console Video Demonstration** here: <http://www.youtube.com/watch?v=pXCVSqS67xE>