

## 16 Backup/Restore Windows System with ShadowProtect

This chapter will describe in details how to use Abaxio Enterprise OBM to backup your Microsoft Windows System by the use of ShadowProtect and how you can restore them form the backup files. Please refer to the website of [Storagecraft](#) for the list of operating system supported by Shadow Protect.

### 16.1 Requirements

- i. Abaxio Enterprise OBM must be installed onto the computer with ShadowProtect installed.
- ii. System images generated by ShadowProtect will be backed up to a temporary directory before they are sent offsite to the Abaxio offsite server clusters. Please make sure you have sufficient space on your computer to store these data when you run the back job.

### 16.2 Overview

Abaxio EnterpriseOBM will backup your system by taking the following steps:

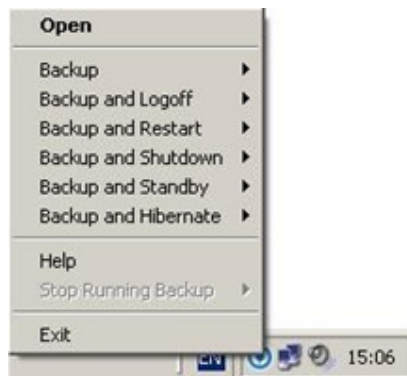
- i. Before running any backup activities, Abaxio EnterpriseOBM will run all Pre-Commands of the backup set.
- ii. For each volume that is to be backed up, Abaxio Enterprise OBM will issue a system backup command to backup each volume to a ShadowProtect backup image file (\*.spf and \*.spi file) and save it in the temporary directory you specified.
- iii. After all image files have been spooled to the temporary directories, Abaxio EnterpriseOBM will run all Post-Commands of the backup set.
- iv. Upload all files copied to the temporary directory to Abaxio.

### 16.3 How to backup system with ShadowProtect



Please follow the instructions below to backup your System with ShadowProtect using Abaxio EnterpriseOBM.

- i. Open Abaxio EnterpriseOBM

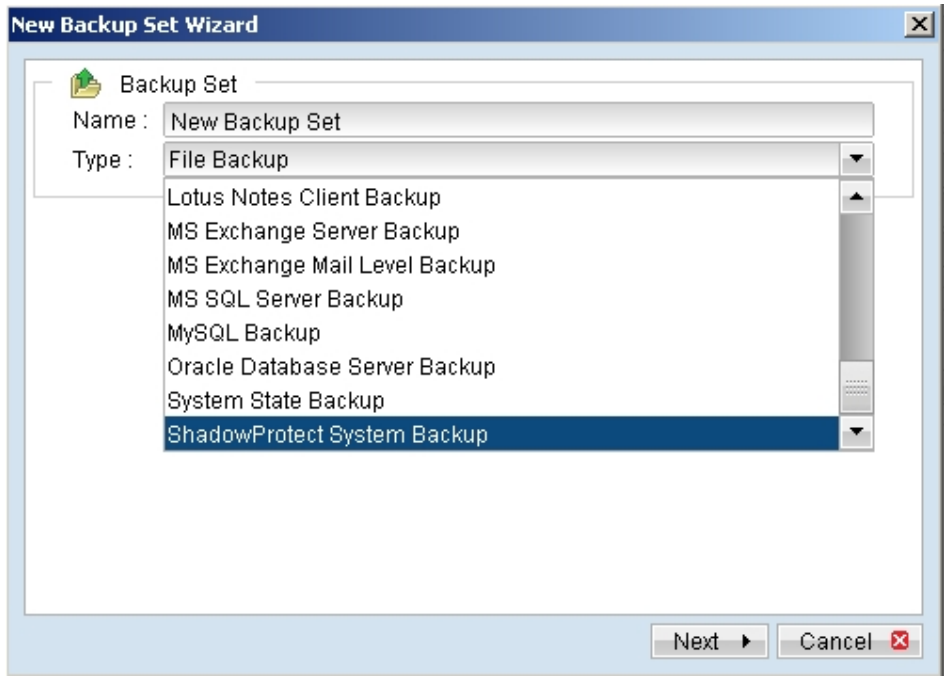
Right click Abaxio EnterpriseOBM icon available in the system tray and choose [Open].



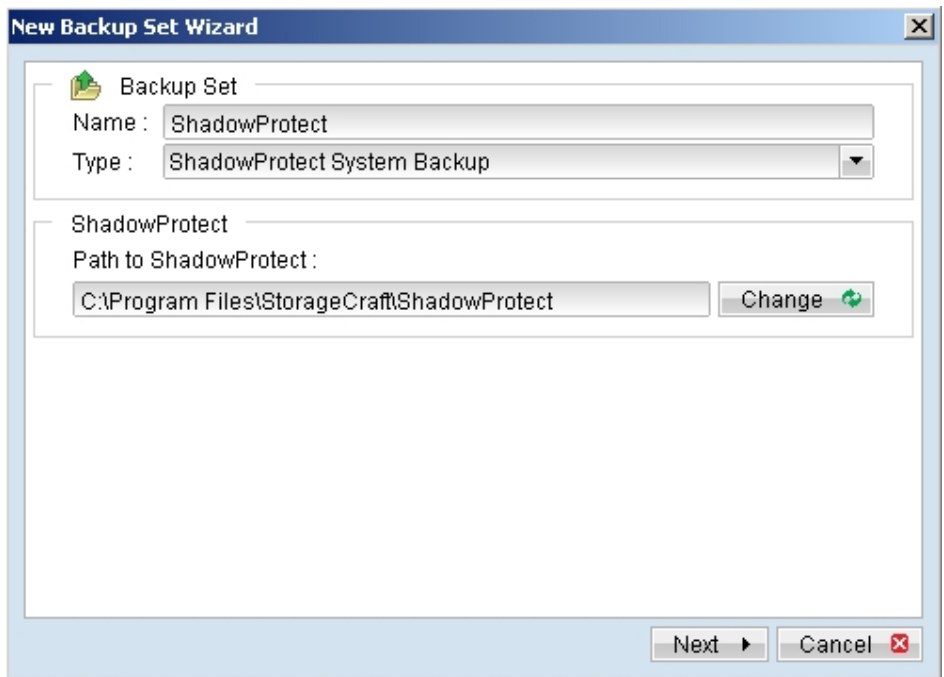
- ii. Create a backup set

- a. To start setting up backup sets, click the  button to open the [Backup Setting] dialog.
- b. On the left panel, press the  button to create a new backup set.

- c. On the dialog, choose [ShadowProtect System Backup] as the [Type].

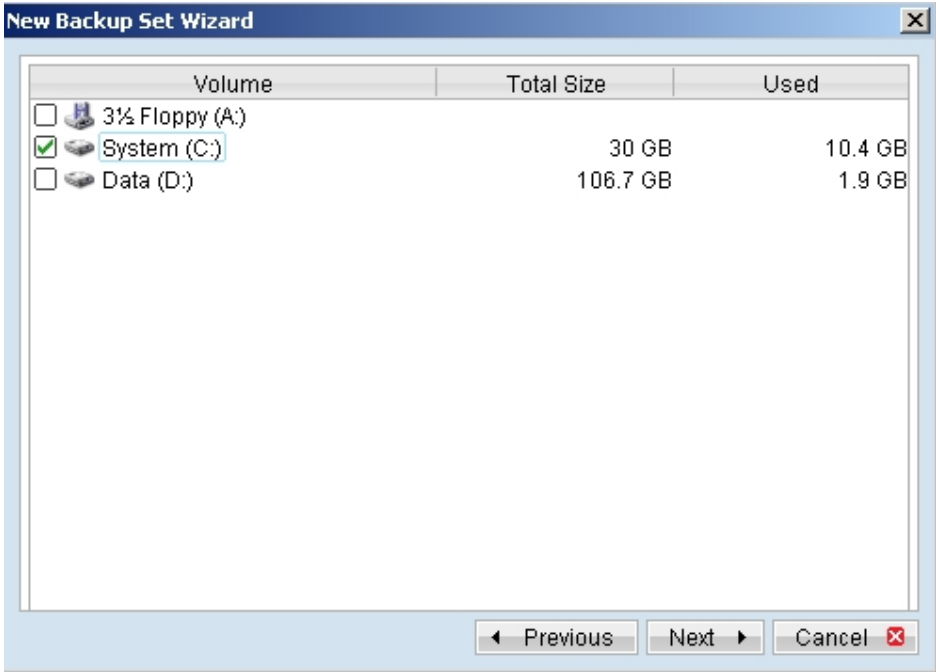


- d. Enter a name for your backup set.

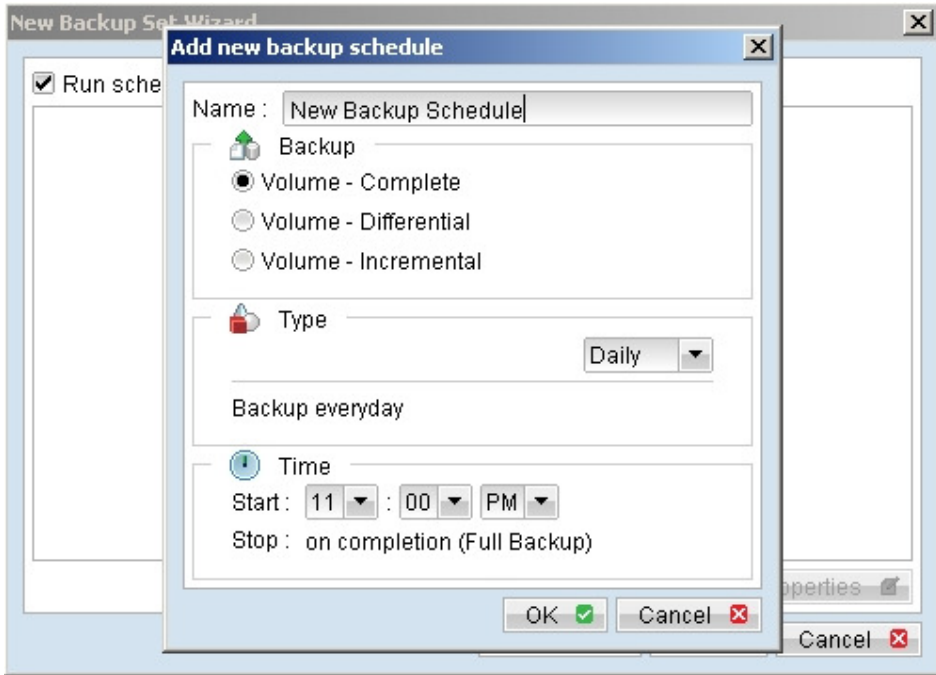


- e. Enter the installation path of Shadow Protect.

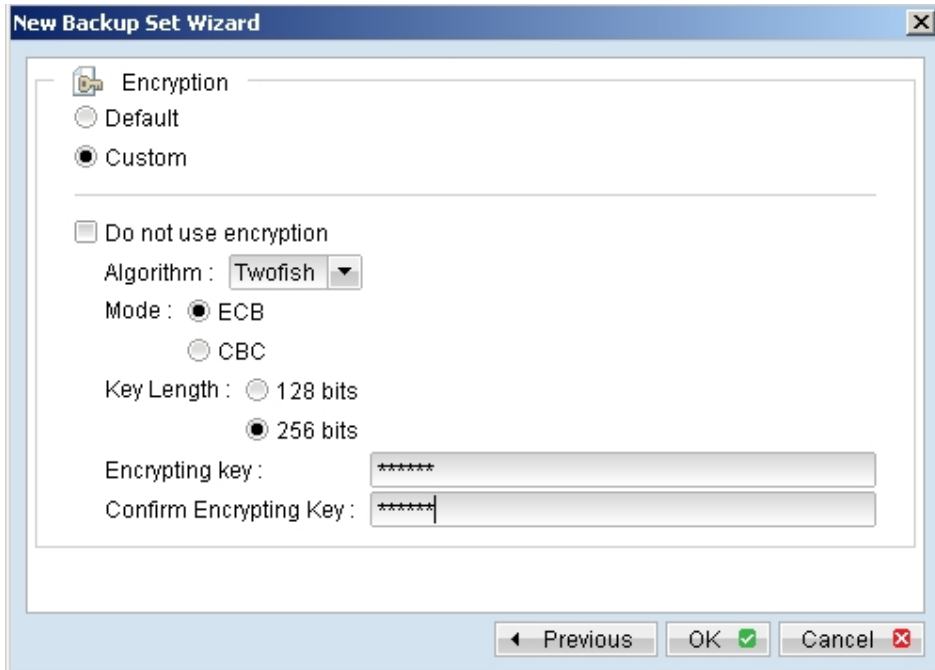
f. Select the volume(s) you want to backup.



g. Set the backup schedule.

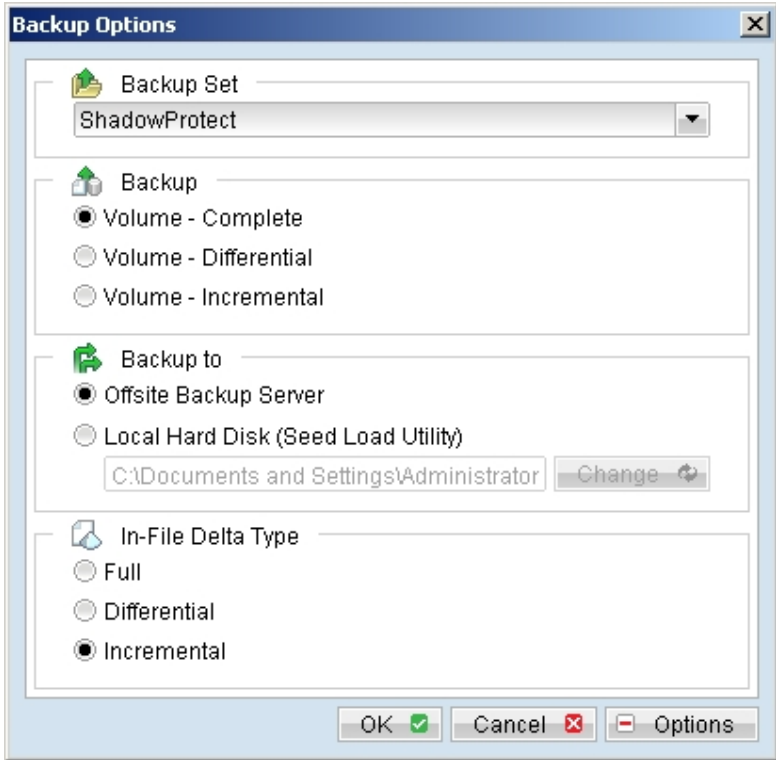


- h. Set the encryption algorithm, encryption mode and encrypting key for this backup set.



Important: If you have multiple disk partitions, please ensure that the temporary directory of the backupset is set to a disk volume which is different from the backup source. If you only have 1 disk partition, please delete the previous shadow protect backup file in your temp directory before running a new backup. This will avoid a large backup image file to be created.

- iii. Run Backup
  - a. Press the [Backup] button on the main page of Abaxio EnterpriseOBM dialog.
  - b. Select the backup type (e.g. Complete, Differential, Incremental) you would like to perform. Select the backup set you want to run and select [Offsite Backup Server] to start backing up your files to Abaxio. If applicable, you can change the In-File Delta Type also.



c. Click [OK] to start backing up your files to Abaxio.

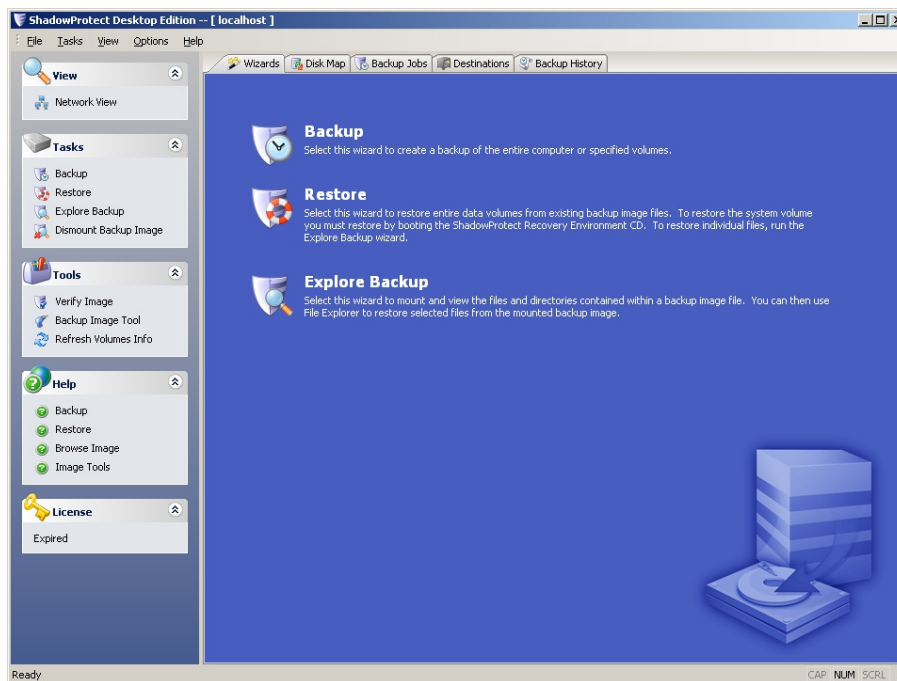
## 16.4 How to restore system with ShadowProtect

Please follow the instructions below to restore your system from Abaxio.

- i. Download the backup files (.spf, .spi) from Abaxio. Please refer to the [Quick Start – Backup file] section for information on how to download backup files from Abaxio.
- ii. There are two methods you can use to restore volumes. The first method is to boot to the StorageCraft Recovery Environment and perform the restore. This option must be used when restoring the system volume where the operating system resides. The second method is to restore a volume, other than the system volume, while running inside of Windows using the Restore Volume Wizard. This method does not require the machine to be rebooted.

To restore a volume, please do the following:

- a. Start ShadowProtect or boot to the StorageCraft Recovery Environment.



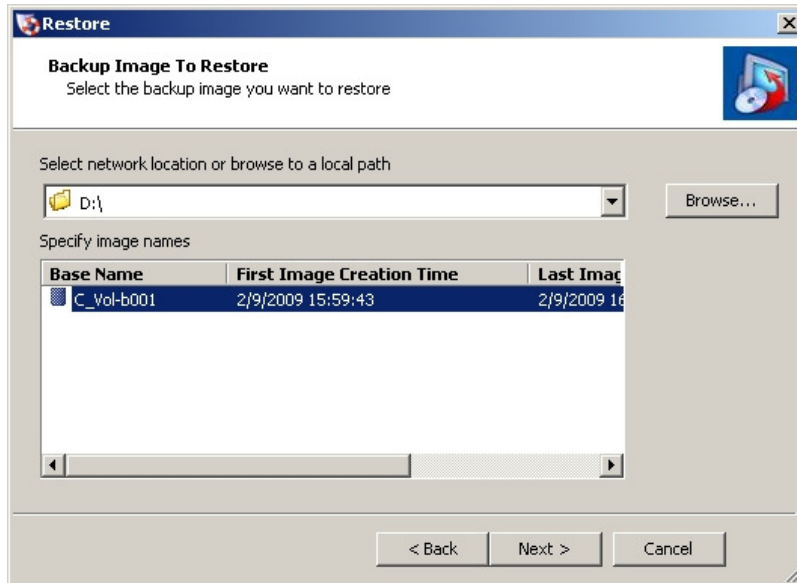
- b. Start Restore Wizard by clicking the [Restore] button in the left panel of the main screen or clicking on the Restore Wizard from the center panel of the main screen.



- c. Click [Next] to continue.
- d. This will bring up the Backup Image to Restore dialog screen. You will need to locate the image file you wish to restore from a destination location. These destination locations can be a local directory or network share.
- If the image file you wish to restore is located in a previously defined destination location, then select the destination and locate the backup image set from the list. The next dialog screen will let you select the specific point-in-time associated with the backup image set.
  - If the image file you wish to restore is not located in a previously defined destination location, you will need to browse to the location of the image file you want to restore.

Note: To restore a backup image that is stored on a network share, you must have the proper credentials to access the file.

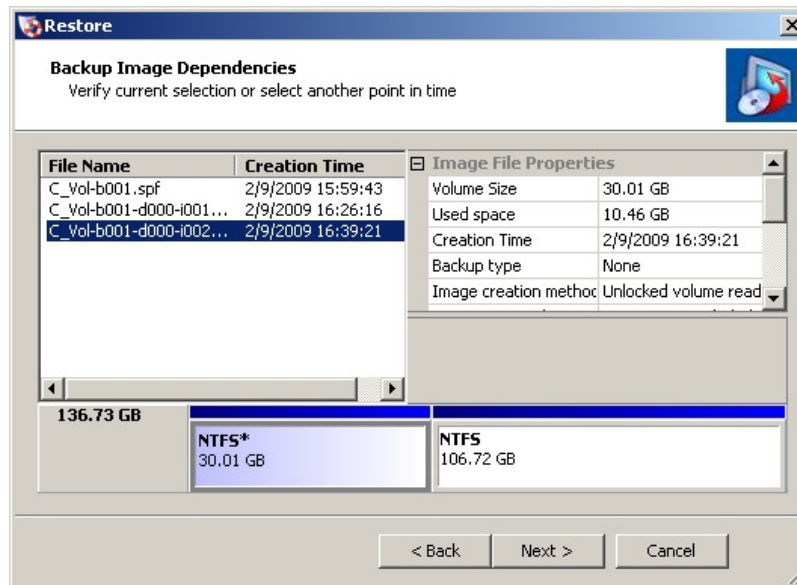
Click [Next] to continue.



- e. This will bring up the Backup Image Dependencies dialog screen. Here you will be provided with all the incremental backup image files associated with the full backup image file you selected. Select a backup image file to view its properties in the right side of the dialog. Image file properties include:
- Image File Properties – volume size, creation time, compression, password protection, comment.
  - Original Partition Information – style, number, type, bootable option, starting offset and length.
  - Disk Information – disk geometry, disk size and number of the first track sectors. You can also view the disk layout graphically at the bottom of the screen. This represents what the disk looked like at the time of backup.
  - Originating machine – the operating system version, the machine name, MAC address and the engine version of ShadowProtect used to create the image file.

By viewing the properties, particularly the information in the image file properties. You will be able to best select the backup image file you wish to restore. You can change your selection and review the new selection's image file properties by highlighting the image file in the left side of the dialog screen.

Click [Next] to continue.

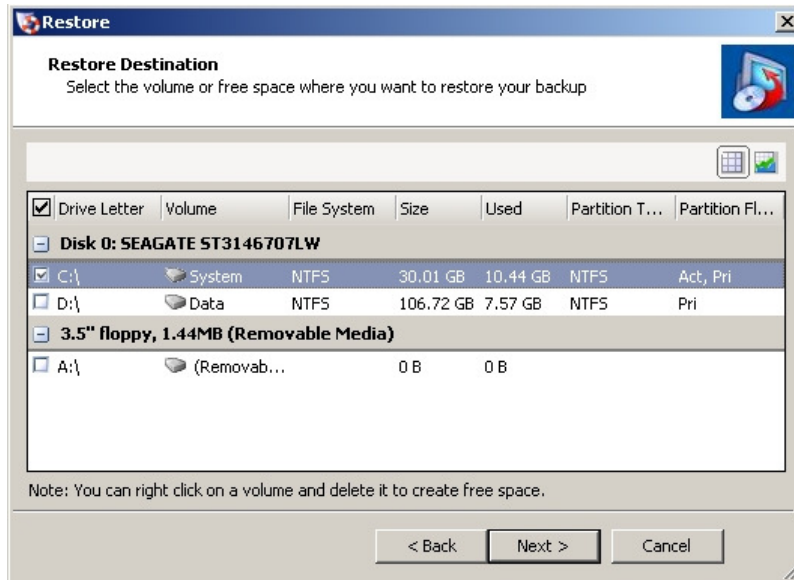


- f. This will bring up the Restore Destination dialog screen. Select the location where you want to restore the backup image. You may also right click on a volume and you will have the following options:
- Delete Volume – This will delete a volume. The deleted volume will become unassigned space on the disk that can be repartition.
  - Set Active – This will set the volume active. Only one partition may be designated as active. By setting a volume active, the computer will boot to the volume.
  - Create an exact primary partition – Allows you to define and create a primary partition on the disk. You cannot create more than four (4) primary partitions on the same disk.
  - Create extended partition – Allows you to extend a partition and then subdivide this partition in to one or more logical partitions.

Note: Restoring a backup image to a volume overwrites all data currently on the volume.

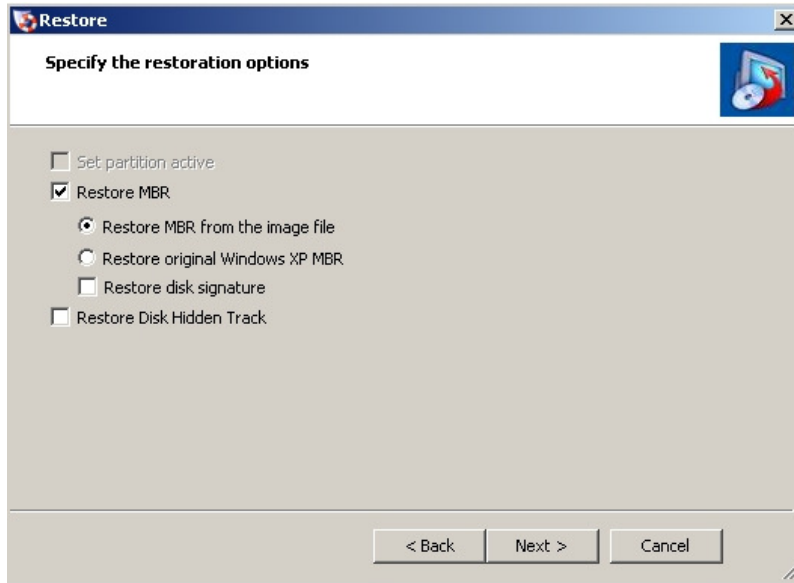
Note: You must have enough space to restore the backup image. For example, you cannot restore a 4GB backup file with only 1GB of free space.

Click [Next] to continue.

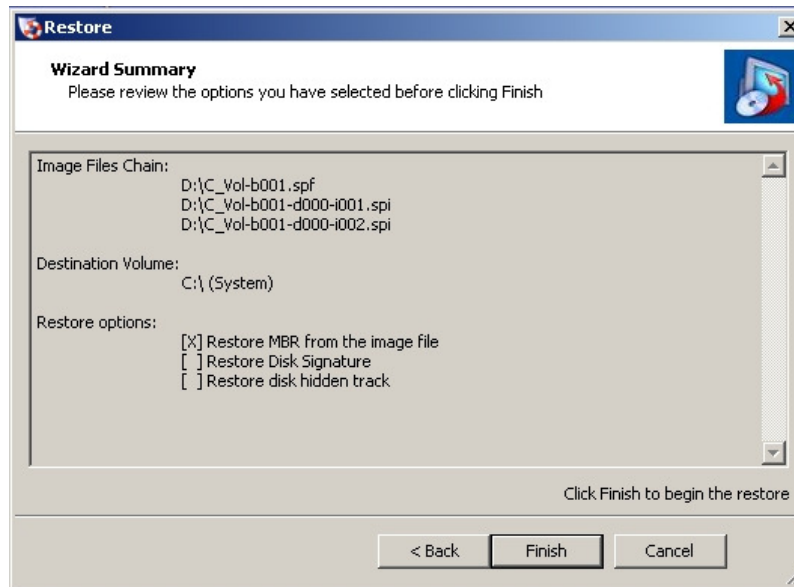


- g. This will bring up the "Specify the Restoration Options" dialog screen. All of these options are important when restoring the system volume on a computer.
- Set Partition Active - This will make the restored drive the active partition (the drive that the machine boots from).
  - Restore MBR - Restore the master boot record. The master boot record is contained in the first sector of the first physical hard drive. The MBR consists of a master boot program and a partition table that describes the disk partitions. The master boot program looks at the partition table to see which primary partition is active. It then starts the boot program from the boot sector of the active partition. You can restore the MBR from the image file that was saved with the backup image or you can restore an original Windows MBR.
  - Restore disk signature - Restores the original physical disk signature of the hard drive. Disk signatures are included in Windows Server 2003, Windows 2000 Advanced Server, and Windows NT Server 4.0 Enterprise Edition (SP3 and later) and are necessary before the hard drive can be used.
  - Restore Disk Hidden Track - this will restore the first 63 sectors of a drive. Some boot loader applications require this for the system to boot.

Click [Next] to continue.



- h. This will bring up the Wizard Summary. Review the Restore Wizard Summary and click [Finish] to start restoring the volume.



- i. You can review the progress of restoring the volume by clicking on the [Volume Restore] tab associated with the restore job.
- iii. All volume(s) restored successfully.