Veritas System Recovery Disk Help

About recovering a computer

If Windows fails to start or does not run normally, you can still recover your computer. You can use the Veritas System Recovery Disk and an available recovery point or a virtual disk that you created from a recovery point.

Note: If you can start Windows and the drive that you want to restore is a non-operating system drive, you can restore the drive within Windows.

The Veritas System Recovery Disk lets you run a recovery environment that provides temporary access to Veritas System Recovery 18 recovery features. For example, you can access the recovery features of Veritas System Recovery 18 to restart the computer into its previous, usable state.

About recovering a Unified Extensible Firmware Interface (UEFI)-based computer

Veritas System Recovery Disk lets you recover the computers that use the Unified Extensible Firmware Interface (UEFI) standard. However, consider the following points when you recover UEFI-based computers:

- You must start UEFI-based computers using the 64-bit version of Veritas System Recovery Disk.
- When you boot a UEFI-based computer, ensure that the system drive and the boot drive are located on a GPT disk. Similarly, when you boot a BIOS-based computer, your system drive and boot drive must be located on an MBR disk.
- You cannot restore backups of the boot partition and the system partition of UEFI-based computers to BIOS-based computers. Backups of UEFI-based computers must be restored to GPT disks. Similarly, you cannot restore backups of the boot partition and the system partition of BIOS-based computers to UEFI-based computers. Backups of BIOS-based computers must be restored to MBR disks.

Note: While you recover your computer using Veritas System Recovery Disk, the firmware type of the backup is displayed. Depending on the firmware type of the backup, restore the backups to the appropriate disks, either GPT or MBR.

- If your computer supports both UEFI and BIOS firmware, and you backed it up in UEFI mode, you must start the computer using UEFI firmware.
- When you recover UEFI-based computers, do not select the following options on the Edit target drive and Options panel in the Recover My Computer wizard:
    - **Set drive active (for booting OS)**

    - **Restore master boot record**: These options are applicable only for MBR-style disks. They are not applicable to GPT-style disks.
- When you recover UEFI-based computers, you must restore the EFI System Partition first if it does not exist.
- When you recover UEFI-based computers, an empty MSR partition is created if it does not exist.
- You cannot recover the boot volumes and the system volumes of UEFI-based computers to dynamic disks.

Booting a computer by using the Veritas System Recovery Disk

The Veritas System Recovery Disk lets you boot a computer that can no longer run the Windows operating system. You can create a recovery disk using Veritas System Recovery 18. When you boot your computer using the Veritas System Recovery Disk, a simplified version of Windows starts that runs a recovery environment. In the recovery environment, you can access the recovery features of Veritas System Recovery 18.

Note: Veritas System Recovery Disk requires a minimum of 1.5 GB of RAM to run. If your computer's video card is configured to share your computer's RAM, you might need more than 1.5 GB of RAM.

To boot a computer by using the Veritas System Recovery Disk

1. If you store your recovery points on a USB device, attach the device now (for example, an external hard drive).

   Note: You should attach the device before you restart the computer. Otherwise, Veritas System Recovery Disk might not detect it.

2. Attach the Veritas System Recovery Disk that is on a USB device, into the media drive. If your Veritas System Recovery Disk is on a DVD, insert it into the media drive of the computer.
   The recovery environment already could be installed on your computer's hard drive. Either watch your computer monitor after the computer restarts for on-screen instructions.
3. Restart the computer. If you cannot start the computer from the USB device or DVD, you might need to change the startup settings on your computer.
4. As soon as you see the prompt **Press any key to boot from DVD or USB device**, press a key to start the Veritas System Recovery Disk.

   Note: You must watch for this prompt. It can come and go quickly. If you miss the prompt, you must restart your computer again.

5. Read the license agreement, and then click **Accept**. If you decline, you cannot start Veritas System Recovery Disk, and your computer restarts.

Configuring a computer to start from a USB device or DVD

Your Veritas System Recovery Disk might be on a USB device or DVD. Accordingly, to run Veritas System Recovery Disk, you must be able to start your computer using a USB device or DVD.

To configure a computer to start from a USB device or DVD

1. Turn on your computer.
2. As the computer starts, watch the bottom of the screen for a prompt that tells you how to access the BIOS/UEFI setup. Generally, you need to press the **Delete** key or a function key to start your computer's BIOS/UEFI program.
3. In the BIOS/UEFI setup window, select **Boot Sequence**, and then press **Enter**.
4. Follow the on-screen instructions to set the USB device or DVD to be the first startup device in the list.
5. Attach the Veritas System Recovery Disk that is on a USB device, into the media drive. If your Veritas System Recovery Disk is on a DVD, insert it into the media drive of the computer.
6. Save the changes and exit the BIOS/UEFI setup to restart the computer with the new settings.
7. Press any key to start Veritas System Recovery Disk. When you start your computer with the Veritas System Recovery Disk USB device or DVD in the drive, you see a prompt to **Press any key to boot from DVD or USB device**. If you do not press a key within five seconds, your computer attempts to start from the next startup device.

   Note: Watch carefully as the computer starts. If you miss the prompt, you must restart the computer again.

Preparing to recover a computer by checking the hard disk for errors

If you suspect that your hard disk is damaged, you can examine it for errors.

To prepare to recover a computer by checking the hard disk for errors

1. Boot the computer by using the Veritas System Recovery Disk.
2. In the **Analyze** panel of Veritas System Recovery Disk, click **Check Hard Disks for Errors**.
3. Select the drive that you want to check.
4. Select any of the following options.
   - **Automatically fix file system errors:** Fixes the errors on the selected disk. If you do not select this option, errors are displayed but are not fixed.
   - **Find and correct bad sectors:** Locates the bad sectors and recovers readable information.
5. Click **Start**.

Recovering a computer using the Veritas System Recovery Disk

If you have a recovery point for the hard drives that you want to recover, you can fully recover your computer. Or you can recover a hard drive back to the state it was in when the recovery point was created.

Note: If you restore a recovery point to a computer that uses different hardware, the Restore Anyware feature is automatically enabled for you. During such a recovery, you might be prompted to supply disk drivers, service packs, hot fixes, and so forth. You should have your Windows media CD available.

Warning: Before you restore a computer using Restore Anyware, test your access to the recovery points in the recovery environment. You should ensure that you have access to SAN volumes and that you can connect to the network.

You can also recover files and folders from within a recovery point.

To recover a computer using the Veritas System Recovery Disk

1. Boot the computer by using the Veritas System Recovery Disk.
2. On the **Home** panel, click **Recover My Computer**.
3. In the **Welcome to the Recover My Computer Wizard** panel, click **Next**.
4. In the **Select a Recovery Point to Restore** panel, select how you want to view available recovery points in this panel, and then set the options you want.
   If disks with no layout structures are detected, you are prompted to initialize the disk layout. A list of disks without layout structures is displayed. The list shows the default disk layout type, either GPT, or MBR. If required, you can change the layout type for the disks, and then click OK to initialize layouts on them.
5. Click **Next**.
6. In the **Drives to Recover** panel, set the options you want.
7. Click **Next**.
8. Review the recovery options that you selected. You can optionally select **Reboot when finished**. This option automatically restarts the computer after the recovery process finishes.
9. Click **Finish**, and then click **Yes** to begin the recovery process.

Select a Recovery Point to Restore options

You use the **Select a Recovery Point to Restore** panel to help you choose the recovery point that you want to use to restore your computer.

You can view available recovery points by the following:

- The date they were created
- A specific recovery point file name
- The system index that a recovery point creates

The available options in this panel depend on how you view the recovery points.

Table: Select a Recovery Point to Restore options

Option	Description
View recovery points by	Lets you select how you want to view recovery points. You can view recovery points by the following:

	• Date • Filename • System **Note:** By default, **System** is selected. The options available on this wizard panel change based on the selection you make in this field.
Select source folder (appears only if you select **Date** in **View recovery points by list**)	Lets you set the following options based on viewing recovery points by date: **All local drives:** (default) Lists all available recovery point files that may exist on your computer's local drives. **Browse:** Lets you browse to locate a recovery point file (.v2i or .iv2i) on a local drive. Or, you can browse to a network folder (you may need to map a network drive first). **Browse for OpenStorage Destination:** Lets you browse to select a cloud storage destination that you want to use for backups. **Map a network drive**: Lets you specify a shared network folder path and assign a drive letter to it. You can then use Browse to locate the recovery point file you want.
Select a recovery point (appears only if you select **Date** in **View recovery points by list**)	Lets you display the recovery points in the order in which they were created. If no recovery points were discovered, the **Select a recovery point** table is empty. In such cases, you can search **All local drives** on the computer or **Browse** to find a recovery point file.
Recovery point folder and filename (appears only if you select **Filename** in **View recovery points by list**)	If you view recovery points by filename, you can type a local drive path and file name to a recovery point file. Or, you can type a shared network path and file name to a recovery point file. • **Browse:** Lets you browse to locate a recovery point file (.v2i or .iv2i) on a local drive. Or, you can browse to a network folder (you may need to map a network drive first). If the recovery point is located in a hidden drive, you must specify the location of the hidden drive in the following format: **DiskNo-PartitionNo\Filename.v2i** or **DiskNo-PartitionNo\Filename.iv2i** For example, if the hidden drive location is on Disk 2 and Partition 3, you must enter 2-3\file.v2i. Where 2 is the disk number and 3 is the partition number. • **OpenStorage Destination:** Lets you select an OpenStorage storage destination that you want to use for restoring the recovery points. • **Map a network drive**: Lets you specify a shared network folder path and assign a drive letter to it. You can then use **Browse** to locate the recovery point file you want.
System index folder and filename (appears only if you select **System** in **View recovery points by list**)	Lets you type a local drive or shared network path and a file name to the system index file (.sv2i). You can use a system index file to restore a computer that has multiple drives. A system index file reduces the amount of time that is needed to restore multiple drives. When a recovery point is created, a system index file is saved with it. The system index file contains a list of the most recent

	recovery points, which includes the original drive location of each recovery point. You can set the following options to help you locate a system index file: • **Browse**: Lets you browse to locate a system index (.sv2i on a local drive). Or, you can browse to a network folder (you may need to map a network drive first). If the recovery point is located in a hidden drive, you must specify the location of the hidden drive in the following format: **DiskNo-PartitionNo\Filename.sv2i** For example, if the hidden drive location is on Disk 2 and Partition 3, you must enter 2-3\file.sv2i. Where 2 is the disk number and 3 is the partition number. • **OpenStorage Destination:** Lets you select an OpenStorage storage destination that you want to use for restoring the recovery points. • **Map a network drive**: Lets you specify a shared network folder path and assign a drive letter to it. You can then use **Browse** to locate the system index file you want.
Recovery point details	Lets you view various details about the selected recovery point. These details can help ensure that you have selected the right recovery point to restore your computer.

Drives to Recover options

You can select each drive that you want to recover.

If necessary, you can add or remove recovery points from the list. If you recover your computer, you can select the drive on which Windows is installed. On most computer systems, this drive is the C drive. In the recovery environment, the drive letters and labels might not match what appears in Windows. You might need to identify the correct drive based on its label, or the name that is assigned to it. Or, you may need to browse the files and folders in the recovery point.

Table: Drives to Recover options

Option	Description
Select drives to recover	Lets you select the drive on which Windows is installed. On most computer systems, this drive is the C drive. In Veritas System Recovery Disk, the drive letters and labels might not match what appears in Windows. You might need to identify the correct drive based on its label, or the source name that is assigned to it. Or, you may need to browse the files and folders within the recovery point. • Lets you click **Add** to add another drive from within a recovery point that you want to recovery. For example, a data drive. See "Add Drive to Recover options" • Lets you click **Remove** to dismiss a selected drive from the recovery. • Lets you click **Edit** to set the various options that are associated with restoring the selected drive.

Add	Optional. Lets you add another drive within a recovery point that you want to recover. If the recovery point is located in a hidden drive, you must specify the location of the hidden drive in the following format: **DiskNo-PartitionNo\Filename.v2i** or **DiskNo-PartitionNo\Filename.iv2i** For example, if the hidden drive location is on Disk 2 and Partition 3, you must enter 2-3\file.v2i. Where 2 is the disk number and 3 is the partition number.
Remove	Optional. Lets you select a drive in the **Select drives to recover** list box and remove it from the list of drives that you want to recover.
Edit	Optional. Lets you change the various options that are associated with the target drive of the recovery.
Ignore recovery point corruption during restore (potential data loss)	Automatically excludes the corrupted data and continues to restore the recovery point. The restored data does not contain the corrupted portion of data. **Note:** There may be potential data loss as corrupted data is excluded from restore.
Verify recovery point before restore	Verifies whether a recovery point is valid or corrupt before it is restored. If the recovery point is invalid, the recovery is discontinued. This option can significantly increase the time that is required for the recovery to complete.
Do not verify recovery point before restore	Does not verify whether a recovery point is valid or corrupt before it is restored. During restore, if there is corrupted data on the recovery point, an error message is displayed and you cannot restore the recovery point.
Use Restore Anyware to recover to different hardware	Lets you use the Restore Anyware to restore a recovery point to the computer hardware that is different from the original on which the recovery point was made. This option is automatically selected for you if any of the following are true: • You recover a system drive only (the drive on which Windows is installed; usually the C drive). Or, you recover both a system drive and one or more data drives to new or to different computer hardware. • You upgrade to new or to different computer hardware from an older computer. • The motherboard on the computer has failed. If you recover a data drive only to new or to different computer hardware, this option is not selected for you.

Add Drive to Recover options

You can use Add Drive to Recover to add another drive from within a recovery point that you want to restore. For example, a data drive.

Table: Add Drive to Recover options

Option	Description
Recovery point folder and filename	Lets you type a local drive path and file name or a shared network path and file name to a recovery point file.

	If the recovery point is located in a hidden drive, you must specify the location of the hidden drive in the following format: **DiskNo-PartitionNo\Filename.v2i** or **DiskNo-PartitionNo\Filename.iv2i** For example, if the hidden drive location is on Disk 2 and Partition 3, you must enter 2-3\file.v2i. Where 2 is the disk number and 3 is the partition number.
Browse	Lets you browse to locate a recovery point file (.v2i or .iv2i) on a local drive. Or, you can browse to a network folder (you may need to map a network drive first).
OpenStorage Destination	Lets you select an OpenStorage storage destination that you want to use for restoring the recovery points.
Map a network drive	Lets you specify a shared network folder path and assign a drive letter to it. You can then use **Browse** to locate the recovery point file you want.
Recovery point details	When you identify a recovery point in the **Recovery point folder and filename** box, various details are displayed in this area about the recovery point. These details can help ensure that you have selected the right recovery point to restore your computer.

Edit Target Drive options

The **Edit target drive** dialog box appears when you click **Edit** in the **Drives to Recover** panel of the wizard. You can select a drive that you want to recover. You can then set the options that you want to perform during the recovery process.

Table: Edit Target Drive options

Option	Description
Delete Drive	Lets you delete a selected drive in the list to make space available to restore your recovery point. When you click **Delete Drive**, the drive is only marked for deletion. The actual deletion of the drive takes place after you click **Finish** in the wizard
Undo Delete	Lets you return a deleted drive to the list of drives to recover.
Resize drive after recover (unallocated space only)	Lets you select a disk (or volume label) that you want to resize after the recovery point is restored. Then, you can select this option and specify the new size in megabytes. The size must be greater than the identified size of the disk that you selected in the list.
Partition type	Lets you set the partition type as follows: • **Primary partition:** Because hard disks are limited to four primary partitions, select this type if the drive has four or fewer partitions. • **Logical partition:** Select this type if you need more than four partitions. You can have up to three primary partitions, plus any number of logical partitions, up to the maximum size of your hard disk.
Check for file system errors after recovery	Lets you check the restored drive for errors after the recovery point is restored.
Set drive active (for booting	Lets you make the restored drive the active partition (for example, the

operating system)	drive from which the computer starts). You should select this option if you restore the drive on which your operating system is installed.
Restore original disk signature	Lets you restore the original, physical disk signature of the hard drive. Disk signatures are part of all Windows operating systems that Veritas System Recovery 18 supports. Disk signatures are required to use the hard drive. Select this option if either of the following situations are true: • Your computer's drive letters are atypical (for example, assigned letters other than C, D, E, and so forth). • You restore a recovery point to a new, empty hard disk.
Restore master boot record	Lets you restore the master boot record. The master boot record is contained in the first sector of a physical hard disk. The master boot record consists of a master boot program and a partition table that describes the disk partitions. The master boot program analyzes the partition table of the first, physical hard disk to see which primary partition is active. It then starts the boot program from the boot sector of the active partition. This option is recommended only for advanced users and is available only if you restore a whole drive from within Veritas System Recovery Disk. Select this option if any of the following situations are true: • You restore a recovery point to a new, empty hard disk. • You restore a recovery point to the original drive, but the drive's partitions were modified since the recovery point was created. • You suspect that a virus or some other problem has corrupted your drive's master boot record.

OpenStorage destination options for backup and recovery

The **OpenStorage Destination** dialog box lets you select the cloud destination that you want to use for backup and recovery.

Table: OpenStorage Destination options for backup and recovery

OpenStorage Destination	Option and Description	Option and Description	Option and Description	Option and Description	Option and Description
	Server Type	**Server Name**	**Log on: User name**	**Log on: Password**	**Logical storage unit**
Amazon S3	**S3**	amazon:amazon.com	Amazon account access key.	Amazon account secret key.	The storage unit is called a bucket.
Microsoft Azure	**Azure**	azure:azure.com	Microsoft Azure storage user name.	Microsoft Azure storage account access key. You can enter the primary access key or the	The storage unit is called a container/blob.

				secondary access key.	
Generic S3	**S3**	compatible-with-S3:*instance name*	Provider Account access key.	Provider Account secret key.	The storage unit is called a bucket.
Veritas Access	**S3**	vtas-access:*instance name*	Provider Account access key.	Provider Account secret key.	The storage unit is called a bucket.

For recovery and Recovery Point Browser, click **OK**.

The **OpenStorage File Selection** dialog box is displayed.

Based on the logical storage unit that you select, all available recovery points are listed. In **Select the recovery points (*.v2i) that you want to restore**, select the recovery points.

For the recover my computer, recover files and folders, recovery point browser, the **Filename** option, lets you select only one .v2i, .iv2i file and for **System**, you can select only one .sv2i file.

Note: For Generic S3 and Veritas Access, you can create the cloud instance using the Cloud Instance Creator Utility and use the cloud instance as the OpenStorage destination when you define backups and use the cloud instance as the OpenStorage destination for restores.

Recovering a computer from a virtual disk file using the Veritas System Recovery Disk

Using Veritas System Recovery Disk, you can recover your computer from within a virtual disk file (.vmdk or .vhd). If you have a virtual disk for the hard drives that you want to recover, you can fully recover your computer. Or, you can recover another hard drive back to the state it was in when the original virtual disk was created.

Note: If you restore a virtual disk of a system drive, the Restore Anyware feature is automatically enabled for you. During such a recovery, you might be prompted to supply disk drivers, service packs, hot fixes, and so forth. You should have your Windows media CD available.

Warning: Before you restore a computer using Restore Anyware, test your access to the virtual disk in the recovery environment. You should ensure that you have access to SAN volumes and that you can connect to the network.

To recover a computer from a virtual disk file using the Veritas System Recovery Disk

1. Boot the computer by using the Veritas System Recovery Disk.
2. On the **Home** panel, click **Recover My Computer**.
3. In the **Welcome to the Recover My Computer Wizard** panel, click **Next**.

4. In the **Select a Recovery Point to Restore** panel, in the **View recovery points by** list, select **Filename**.
   If disks with no layout structures are detected, you are prompted to initialize the disk layout. A list of disks without layout structures is displayed. The list shows the default disk layout type, either GPT, or MBR. If required, you can change the layout type for the disks, and then click **OK** to initialize layouts on them.
5. Click **Browse**. If the virtual disk file is located on a network instead, you may need to first click **Map a network drive**. You can then specify a shared network folder path and assign a drive letter to it so you can browse the location.
   If the recovery point is located in a hidden drive, you must specify the location of the hidden drive in the following format:
   DiskNo-PartitionNo\Filename.vmdk or **DiskNo-PartitionNo\Filename.vhd**
   For example, if the hidden drive location is on Disk 2 and Partition 3, you must enter 2-3\file.vmdk. Where 2 is the disk number and 3 is the partition number.
6. In the Open dialog box, in the **Files of type** list, select **Virtual Disks (*.vhd, *.vmdk, *.vhdx, *.v2i)**.
7. Locate and select a virtual disk file, and then click **Open**.
8. Click **Next**.
9. In the **Target Drive** panel, select the target drive where you want to restore the virtual disk.
10. Optionally, do any of the following:
    - Click **Delete Drive**. Delete a selected drive in the list to make space available to restore your virtual disk. When you click **Delete Drive**, the drive is only marked for deletion. The actual deletion of the drive takes place after you click **Finish** in the wizard.
    - Click **Undo Delete**. If you delete a drive and then change your mind, click **Undo Delete** to return the drive to the list.
11. Click **Next**.
12. If necessary, enter the product license key. A license key is required to use Restore Anyware when you recover a system from a virtual disk file.
13. Click **Next**.
14. In the **Recovery Options** panel, set the options you want.
15. Click **Next**.
16. Review the recovery options that you selected. You can optionally select **Reboot when finished**. This option automatically restarts the computer after the recovery process finishes.
17. Click **Finish**, and then click **Yes** to begin the recovery process.

Target Drive options

If there is insufficient space to restore your virtual disk, you can delete drives to make unallocated space available.

Table: Target Drive options

Option	Description

Select a target drive or unallocated space	Indicates the target drive where you want to restore the virtual disk.
Undo Delete	Lets you return a deleted drive to the list of drives to recover.
Delete Drive	Lets you delete a selected drive in the list to make space available to restore your virtual disk. When you click **Delete Drive**, the drive is only marked for deletion. The actual deletion of the drive takes place after you click **Finish** in the wizard.

Restore Anyware options

Restore Anyware lets you recover an operating system drive to a computer that has different hardware from the original computer.

Table: Restore Anyware options

Option	Description
Use Restore Anyware to recover to different hardware	This option is automatically selected for you if you recover a virtual disk. Or, if you recover an operating system drive (the drive on which Windows is installed; usually the C drive). This option is not selected if you restore a virtual disk that contains a data drive. If you select this option when the virtual disk contains data only, the option is ignored at the time of restore.
License key	A license key may be required to use the Restore Anyware option when you recover a system from a virtual disk file. A license key is not required if you added the key directly to a custom Veritas System Recovery Disk that you created yourself. For more information about creating your own custom Veritas System Recovery Disk, see the *Veritas System Recovery 18 Service Pack 2 User's Guide*.

Recovery options

You can set various the options that you want to perform during the recovery process of a virtual disk. The options that are available depend on the target drive that you selected earlier in the wizard.

Table: Recovery options

Option	Description
Verify recovery point before recovery	This option is not available when you recover a virtual disk.
Check for file system errors after recovery	Checks the restored drive for errors after the recovery point is restored.
Resize drive after recover (unallocated space only)	Lets you specify the new drive size in megabytes.
Partition type	Sets the partition type as follows: • **Primary partition**: Because hard disks are limited to four primary partitions, select this type if the drive has four or

	fewer partitions. • **Logical partition**: Select this type if you need more than four partitions. You can have up to three primary partitions, plus any number of logical partitions, up to the maximum size of your hard disk.
Set drive active (for booting OS)	Makes the restored drive the active partition (for example, the drive from which the computer starts). You should select this option if you restore the drive on which your operating system is installed.
Restore original disk signature	Restores the original, physical disk signature of the hard drive. Disk signatures are part of all Windows operating systems that Veritas System Recovery 18 supports. Disk signatures are required to use the hard drive. Select this option if either of the following situations are true: • Your computer's drive letters are atypical (for example, assigned letters other than C, D, E, and so forth). • You restore a recovery point to a new, empty hard disk.
Restore master boot record	Restores the master boot record. The master boot record is contained in the first sector of a physical hard disk. The master boot record consists of a master boot program and a partition table that describes the disk partitions. The master boot program analyzes the partition table of the first, physical hard disk to see which primary partition is active. It then starts the boot program from the boot sector of the active partition. This option is recommended only for advanced users and is available only if you restore a whole drive in the recovery environment. Select this option if any of the following situations are true: • You restore a recovery point to a new, empty hard disk. • You restore a recovery point to the original drive, but the drive's partitions were modified since the recovery point was created. • You suspect that a virus or some other problem has corrupted your drive's master boot record.

Recovering files and folders using the Recovery Point Browser in Veritas System Recovery Disk

You can use the Veritas System Recovery Disk to recover any files and folders that are lost, damaged, changed, or deleted on your computer. For example, suppose you created a recovery point three days ago. Since that time, you accidentally changed an important folder that prevents Windows from starting properly. In such cases, you can start your computer using the Veritas System Recovery Disk. You can open the recovery point from three days ago inside the Recovery Point Browser, select the original folder, and recover it.

To recover files and folders using the Recovery Point Browser in Veritas System Recovery Disk

1. Boot the computer by using the Veritas System Recovery Disk.
2. In the browser window of Veritas System Recovery Disk, on the left side of the window, click **Recover**.
3. In the **Recover Data on My Computer** panel, click **Recover My Files**.
4. Do one of the following:
   - If Veritas System Recovery Disk finds recovery points on your computer, select a recovery point from the list, and then click **OK**.
   - If Veritas System Recovery Disk cannot locate any recovery points, you are prompted to browse to a location. Click **OK** to dismiss the message. In the Select Recovery Point dialog box, browse to a recovery point, and then click **OK**.
5. In the tree view pane of the Recovery Point Browser, double-click the drive that contains the files or folders that you want to restore.
6. In the content pane of the Recovery Point Browser, select the files or folders that you want to restore.
7. Click **Recover Files**. Where possible, the **Recover Items** dialog box automatically completes the **Recover to this folder** text box with the original path from which the files originated. If the original location does not include a drive letter you must type the drive letter at the beginning of the path. While in Veritas System Recovery Disk, drive letters and labels might not match what appears in Windows. You might have to identify the correct drive based on its label, which is the name assigned to it.
8. If the original path is unknown or you want to restore the selected files to a different location, click **Browse** to locate the destination.

Select a Recovery Point options

You use the Select a Recovery Point panel to help you choose the recovery point that you want to use to restore files and folders to your computer.

You can view available recovery points by the following:

- The date they were created
- A specific recovery point file name

Table: Select a Recovery Point options

Option	Description
View recovery points by	Lets you select how you want to view recovery points. You can view recovery points by the following: • Date • Filename The options available on this wizard panel change based on the selection you make in this field.
Select source folder (appears only if you select **Date** in **View recovery points by list**)	Lets you set the following options based on viewing recovery points by date: • **All local drives:** (default) Lists all available recovery point files

	that may exist on your computer's local drives. • **Browse**: Lets you browse to locate a recovery point file (.v2i or .iv2i) on a local drive. Or, you can browse to a network folder (you may need to map a network drive first). • **Browse for OpenStorage Destination:** Lets you select a cloud destination that you want to use for backups. • **Map a network drive**: Lets you specify a shared network folder path and assign a drive letter to it. You can then use Browse to locate the recovery point file you want.
Select a recovery point (appears only if you select **Date** in **View recovery points by list**)	Lets you display the recovery points in the order in which they were created. If no recovery points were discovered, the **Select a recovery point** table is empty. In such cases, you can search **All local drives** on the computer or **Browse** to find a recovery point file.
Recovery point folder and filename (appears only if you select **Filename** in **View recovery points by list**)	If you view recovery points by filename, you can type a local drive path and file name to a recovery point file. Or, you can type a shared network path and file name to a recovery point file. • **Browse:** Lets you browse to locate a recovery point file (.v2i or .iv2i) on a local drive. Or, you can browse to a network folder (you may need to map a network drive first). Select the **Show hidden drives** check box to see a list of the hidden drives along with the list of the other drives. You can select a hidden drive as a location where you want to store the recovery points. The hidden drives are displayed in the following format: **DiskNo-PartitionNo** For example, a hidden drive is displayed as: 2-3\. Where 2 is the disk number and 3 is the partition number **Note:** By default, this check box is not selected. • **OpenStorage Destination:** Lets you select an OpenStorage storage destination that you want to use for restoring the recovery points. • **Map a network drive**: Lets you specify a shared network folder path and assign a drive letter to it. You can then use Browse to locate the recovery point file you want.
Recovery point details	Lets you view various details about the selected recovery point. These details can help ensure that you have selected the right recovery point to restore your computer.

OpenStorage destination options for backup and recovery

The OpenStorage Destination dialog box lets you select the cloud destination that you want to use for backup and recovery.

Table: OpenStorage Destination options for backup and recovery

OpenStorage Destination	Option and Description	Option and Description	Option and Description	Option and Description	Option and Description

	Server Type	Server Name	Log on: User name	Log on: Password	Logical storage unit
Amazon S3	**S3**	amazon:amazon.com	Amazon account access key.	Amazon account secret key.	The storage unit is called a bucket.
Microsoft Azure	**Azure**	azure:azure.com	Microsoft Azure storage user name.	Microsoft Azure storage account access key. You can enter the primary access key or the secondary access key.	The storage unit is called a container/blob.
Generic S3	**S3**	compatible-with-S3:*instance name*	Provider Account access key.	Provider Account secret key.	The storage unit is called a bucket.
Veritas Access	**S3**	vtas-access:*instance name*	Provider Account access key.	Provider Account secret key.	The storage unit is called a bucket.

For recovery and Recovery Point Browser, click **OK**.

The **OpenStorage File Selection** dialog box is displayed.

Based on the logical storage unit that you select, all available recovery points are listed. In **Select the recovery points (*.v2i) that you want to restore**, select the recovery points.

For the recover my computer, recover files and folders, recovery point browser, the **Filename** option, lets you select only one .v2i, .iv2i file and for **System**, you can select only one .sv2i file.

Note: For Generic S3 and Veritas Access, you can create the cloud instance using the Cloud Instance Creator Utility and use the cloud instance as the OpenStorage destination when you define backups and use the cloud instance as the OpenStorage destination for restores.

About backing up a computer by using the Veritas System Recovery Disk

Using a valid license key, you can create independent recovery points using the Back Up My Computer feature in Veritas System Recovery Disk. These types of backups are sometimes known as cold backups or offline backups. You create recovery points of a partition without the need to install Veritas System Recovery 18 or its agent.

With a cold backup, all files are closed when the backup occurs. You do not copy any data that may be in the middle of being updated or accessed on the desktop or server. Cold backups are particularly useful for databases. They ensure that no files are written to or accessed at any time during the backup so you have a complete recovery point.

You can also use the Veritas System Recovery Disk to create recovery points if you experience any of the following:

- A level of corruption prevents you from starting Windows on the computer.
- Veritas System Recovery 18 does not function properly while it runs on a Windows operating system.
- You want to back up the condition of a damaged system before you recover. For example, suppose a server or desktop is severely damaged. You can use the Veritas System Recovery Disk to back up what remains of the system. Then, you can recover what you can later, after you restore an independent recovery point.

  Note: Recovery points that you create using Veritas System Recovery Disk are restored to dissimilar hardware using Restore Anyware.

When you create a backup using Veritas System Recovery Disk, you are prompted for a license key only for the following scenarios:

- You use the original, shipping version of the Veritas System Recovery Disk to create a backup of a computer. The computer does not have Veritas System Recovery 18 installed.
- The computer that you back up using the original, shipping version of Veritas System Recovery Disk has an unlicensed installation of Veritas System Recovery 18.
- You create a custom Veritas System Recovery Disk on a computer that has an unlicensed installation (evaluation version) of Veritas System Recovery 18. You then use the custom Veritas System Recovery Disk. You can use it to create a backup of a computer that does not have an installation of Veritas System Recovery 18.
- You did not add a license key at the time you create your own customized Veritas System Recovery Disk. See the *Veritas System Recovery 18 User's Guide* for information about creating your own custom Veritas System Recovery Disk.

Backing up a computer by using the Veritas System Recovery Disk

Using a valid license key, you can create independent recovery points using the Back Up My Computer feature in Veritas System Recovery Disk. These types of backups are sometimes known as cold backups or offline backups. You create recovery points of a partition without the need to install Veritas System Recovery 18 or its agent.

To back up a computer by using the Veritas System Recovery Disk

1. If you intend to store the resulting recovery point on an external USB hard drive, attach the device to the computer now.
2. Use the Veritas System Recovery Disk to boot the computer that you want to back up.
3. On the **Home** panel, click **Back Up My Computer**.

4. Click **Next**.
5. If you are prompted, on the Specify License Key panel, enter a valid license key.
6. Click **Next**.
7. On the Drives panel, select one or more drives that you want to back up.
8. Click **Next**.
9. On the **Backup Destination** panel, set the destination options you want.
10. Click **Next**.
11. On the **Options** panel, set the recovery point options you want.
12. Click **Next**.
13. Click **Finish** to run the backup.
14. When the backup is finished, click **Close** to return to the main Veritas System Recovery Disk window.

Backup Destination options

You can specify the location where you want the recovery point stored after it is created. You can also rename the recovery point file name.

Table: Backup Destination options

Option	Description
Folder	Lets you type the folder path to the location where you want to store the independent recovery point. You can specify a hidden drive as a location where you want to store the recovery points in the following format: **DiskNo-PartitionNo** For example, If 2 is the disk number and 3 is the partition number, you must specify 2-3\ as the location.
Browse	Lets you browse to a location on a local drive where you want to store the recovery point file. Or, you can browse to a network folder (you may need to map a network drive first). Select the **Show hidden drives** check box to see a list of the hidden drives along with the list of the other drives. You can select a hidden drive as a location where you want to store the recovery points. The hidden drives are displayed in the following format: **DiskNo-PartitionNo** For example, a hidden drive is displayed as: 2-3\. Where 2 is the disk number and 3 is the partition number **Note:** By default, this check box is not selected.
Browse for OpenStorage Destination	Lets you select a cloud destination that you want to use for backups.
Map a network drive	Lets you specify a shared network folder path and assign a drive letter to it. You can then use **Browse** to locate the path where you

	want to store the independent recovery point file.
Recovery point filename	Displays the source drive and suggested file name of the recovery point.
Rename	Lets you rename the file of a recovery point that you have selected.

OpenStorage destination options for backups

The OpenStorage Destination dialog box lets you select the cloud destination that you want to use for backups.

Table: OpenStorage Destination options for backups

OpenStorage Destination	Option and Description	Option and Description	Option and Description	Option and Description	Option and Description
	Server Type	**Server Name**	**Log on: User name**	**Log on: Password**	**Logical storage unit**
Amazon S3	**S3**	amazon:amazon.com	Amazon account access key.	Amazon account secret key.	The storage unit is called a bucket.
Microsoft Azure	**Azure**	azure:azure.com	Microsoft Azure storage user name.	Microsoft Azure storage account access key. You can enter the primary access key or the secondary access key.	The storage unit is called a container/blob.
Generic S3	**S3**	compatible-with-S3:*instance name*	Provider Account access key.	Provider Account secret key.	The storage unit is called a bucket.
Veritas Access	**S3**	vtas-access:*instance name*	Provider Account access key.	Provider Account secret key.	The storage unit is called a bucket.

Note: For Generic S3 and Veritas Access, you can create the cloud instance using the Cloud Instance Creator Utility and use the cloud instance as the OpenStorage destination when you define backups and use the cloud instance as the OpenStorage destination for restores.

Options for backing up a computer by using the Veritas System Recovery Disk

You can set the compression level for a recovery point. You can also add a description to the recovery point and enable other advanced options.

Table: Options for backing up a computer by using the Veritas System Recovery Disk

Option	Description

Compression	Lets you set the compression level for a recovery point. The following options are available: • **None:** Use this option if storage space is not an issue. However, if the backup is saved to a busy network drive, high compression may be faster than no compression. With high compression, there is less data to write across the network. • **Standard (recommended):** This option uses low compression for a 40 percent average data compression ratio on recovery points. This setting is the default. • **Medium:** This option uses medium compression for a 45 percent average data compression ratio on recovery points. • **High:** This option uses high compression for a 50 percent average data compression ratio on recovery points. This setting is usually the slowest method. When a high compression recovery point is created, CPU usage might be higher than normal. Other processes on the computer might also be slower. To compensate, you can adjust the operation speed of Veritas System Recovery 18. Doing so might improve the performance of other resource-intensive applications that you are running at the same time.
Verify recovery point after creation	Lets you verify whether the recovery point is valid after its creation.
Description	Lets you type a description that you want to be associated with the recovery point.
Advanced	Lets you set the advanced options that you want to be associated with a recovery point, such as password protection.

Advanced options

Lets you set the advanced options that you want to be associated with a recovery point, such as password protection.

Table: Advanced options

Option	Description
Divide into smaller files to simplify archive	Lets you split the recovery point into smaller files and specify the maximum size (in MB) for each file. For example, suppose you copy a recovery point to zip disks from your backup destination. You would specify a minimum file size of 100 MB, according to the size of each zip disk.
Disable SmartSector copying	SmartSector technology speeds up the copying process by copying only the hard-disk sectors that contain data. However, in some cases, you might want to copy all sectors in their original layout, whether or not they contain data. Lets you copy used and unused hard-disk sectors. This option increases processing time and usually results in a larger recovery point.
Ignore bad sectors during copy	Lets you run a backup even if there are bad sectors on the hard disk. Although most drives do not have bad sectors, the potential for problems increases during the lifetime of the hard disk.
Use password	Sets a password and enables AES encryption on the recovery point when it is created. This check box is selected by default.
Password	Lets you specify a password for the backup. Passwords can include standard characters. Passwords cannot include extended characters, or symbols. (Use characters with an ASCII value of 128 or lower.) You must type this password before you restore a backup or view the contents of the recovery point.
Confirm password	Lets you retype the password for confirmation.
AES encryption	Encrypts recovery point data to add another level of protection to your recovery points. If you upgrade from a previous version to Veritas System Recovery 18, for older backup jobs where only password protection is defined, you need to edit the jobs to select the AES encryption level. If you do not edit the older backup jobs, they continue to run without AES Encryption. Veritas recommends that you edit the job and select AES encryption level. Note: If the Use Password check box is selected, you must define AES encryption. Choose from the following encryption levels: • Standard 128-bit (8+ character password) • Medium 192-bit (16+ character password) • High 256-bit (32+ character password)

About using the networking tools in Veritas System Recovery Disk

If you store your recovery points on a network, you need access to the network. This access lets you restore your computer or your files and folders from Veritas System Recovery Disk. The Veritas System Recovery Disk includes a variety of networking tools that you can use to assist you with recovery.

Note: Additional computer memory might be required to recover your computer or files across a network.

Starting networking services

If you need to start networking services, you can do so manually.

To start networking services

1. On the **Network** panel in Veritas System Recovery Disk, click **Start My Networking Services**. To verify the connection to the network, you can map a network drive.

Mapping a network drive from within Veritas System Recovery Disk

If you started the networking services after you started the recovery environment, you can map a network drive. This mapping lets you browse to that drive and select the recovery point that you want to restore. Or, if you create backups from the recovery environment, you can select a destination that resides on a network location.

If there is no DHCP server or the DHCP server is unavailable, you must provide a static IP address. You must also provide a subnet mask address for the computer on which you are running Veritas System Recovery Disk.

After you provide the static IP address and subnet mask address, you can enter the recovery environment. However, there is no way to resolve computer names. When you run the Recover My Computer wizard or the Recovery Point Browser, you can only browse the network by using the IP addresses to locate a recovery point. You can map a network drive so that you can locate the recovery points more effectively. Or, you can use the mapped network drive as a destination for recovery points that you create from within the recovery environment.

To map a network drive from within Veritas System Recovery Disk

1. In Veritas System Recovery Disk, on the **Network** panel, click **Map a Network Drive**.
2. Map a network drive by using the UNC path of the computer on which the recovery point is located. For example: *computer_name**share_name or* *IP_address**share_name*
   You can also map a network drive from within the **Recover My Computer** wizard or the **Back Up My Computer** wizard in Veritas System Recovery Disk.

Configuring network connection settings

You can access the Network Configuration window to configure network settings while running in the Veritas System Recovery Disk environment.

To configure network connection settings

1. In the Veritas System Recovery Disk environment, click **Network**, and then click **Configure Network Connection Settings**.
2. If you are prompted to start networking services, click **Yes**.

Getting a static IP address

You can restore a recovery point that is located on a network drive or share. Sometimes, however, you cannot map a drive or browse to the drive or share on the network to access the recovery point. The lack of an available DHCP service can cause such a failure. In such cases, you can assign a unique static IP address to the computer that is running the recovery environment. You can then map to the network drive or share.

To get a static IP address

1. In the Veritas System Recovery Disk environment, click **Network**, and then click **Configure Network Connection Settings**.
2. In the Network Adapter Configuration dialog box, click **Use the following IP address**.
3. Specify a unique IP address and subnet mask for the computer that you want to restore. Be sure that the subnet mask matches the subnet mask of the network segment.
4. Click **OK**.
5. Click **Close** to return to the recovery environment's main menu.
6. In the **Network** panel, click **Ping a Remote Computer**.
7. Type the address of the computer that you want to ping on the network segment.
8. Click **OK**. If you specified a computer name or a computer name and domain as the address method, make note of the IP address that is returned. If communication to the storage computer operates as expected, you can use the **Map Network Drive** utility to map a drive to the recovery point location.

Viewing the properties of a recovery point

You can view various properties of a recovery point by using the Recovery Point Browser.

To view the properties of a recovery point

1. Do one of the following:
    - In Veritas System Recovery 18, on the **View** menu, click **Tools**. Click **Run Recovery Point Browser**.

- On the Windows Start menu, click **Programs > Veritas System Recovery 18 > Recovery Point Browser**.

2. In the Recovery Point Browser, in the tree panel, select the recovery point file name that you want to view.
3. Do one of the following:
   - On the **File** menu, click **Properties**.
   - Right-click on the recovery point file name, and then click **Properties**.

Recovery Point Properties

The following table describes the information available on the **Recovery Point Properties** dialog box. This dialog box is available from the Recovery Point Browser.

Table: Recovery Point Properties

Option	Description
Description	Displays a user-assigned comment that is associated with the recovery point.
Size	Displays the total size (in megabytes) of the recovery point.
Created	Displays the date and time that the recovery point file was created.
Compression	Displays the compression level that is used in the recovery point.
Split across multiple files	Identifies whether the entire recovery point file is spanned over several files.
Password protected	Displays the password protection status of the selected drive.
Encryption	Displays the encryption strength that is used with the recovery point.
Version	Displays the version number that is associated with the recovery point.
Computer name	Displays the name of the computer on which the recovery point was created.
Restore Anyware	Identifies whether Restore Anyware was enabled for the recovery point.
Search engine support	Identifies whether you enabled search engine support for the recovery point.
Created by	Identifies the application (Veritas System Recovery 18) that was used to create the recovery point.

Viewing the properties of a drive within a recovery point

You can view the properties of a drive within a recovery point.

To view the properties of a drive within a recovery point

1. Do one of the following:
   - In Veritas System Recovery 18, on the **View** menu, click **Tools**. Click **Run Recovery Point Browser**.
   - On the Windows Start menu, click **Programs > Veritas System Recovery 18 > Recovery Point Browser**.
2. In the Recovery Point Browser, in the tree panel, double-click the recovery point file name that contains the drive that you want to view.

3. Select the name of the drive.
4. Do one of the following:
    - On the **File** menu, click **Properties**.
    - Right-click on the drive name within the recovery point, and then click **Properties**.

Driver properties within a recovery point

The following table describes the information available on the **Recovery Point Properties** dialog box. This dialog box is available from the Recovery Point Browser when you select a drive within a recovery point.

Table: Driver properties within a recovery point

Option	Description
Description	Displays a user-assigned comment that is associated with the recovery point.
Original drive letter	Displays the original drive letter that was assigned to the drive.
Cluster size	Displays the cluster size (in bytes) that is used in a FAT, FAT32, or NTFS drive.
File system	Displays the file system type that is used within the drive.
Primary/Logical	Displays the selected drive's drive status as either the primary partition or the logical partition.
Size	Displays the total size (in megabytes) of the drive. This total includes used and unused space.
Used space	Displays the amount of used space (in megabytes) within the drive.
Unused space	Displays the amount of unused space (in megabytes) within the drive.
Contains bad sectors	Identifies whether there are any bad sectors on the drive.
Cleanly quiesced	Identifies whether the database application quiesced properly when a recovery point was created.

About the Support Utilities

The Veritas System Recovery Disk environment has several support utilities. Veritas Technical Support might ask you to use these utilities to troubleshoot any hardware issues that you encounter.

You might be required to supply the information that these utilities generate if you call Veritas Technical Support for help resolving problems.

Note: You should only use these tools as directed by Veritas Technical Support.