This guide provides information about restoring individual software programs, software drivers, drive partition(s), or the hard disk drive to the original factory settings.

Information is also providing regarding creating, configuring, and removing a RAID hard disk drive array. For details about working with RAID arrays, see About RAID systems.

Activities That Can Affect Your Computer's Performance

- Adding and removing software, or creating, changing, and deleting data.
- Attaching devices like printers, network systems, and installing related drivers.
- Downloading content from the Internet.

Any of these changes to your system can create problems

The operating system or software programs may stop responding.

Printers or other attached peripheral equipment may stop working properly.

A destructive virus or malicious code may be downloaded from the Internet.

It can be difficult to troubleshoot or to decide on the best repair solution. If you are experiencing problems that affect your computer's performance, consider performing a recovery.

Your VAIO computer uses the VAIO Recovery Wizard, a fast and easy-to-use recovery utility program, to recover the operating system, preinstalled software and drivers. You can use the VAIO Recovery Wizard to create a VAIO Recovery Media Kit. System and Application Recovery CDs are not supplied.
Creating a VAIO Recovery Media Kit

When you create a VAIO Recovery Media Kit, it ensures that you are able to recover your operating system and preinstalled software, even if the computer's operating system is not working.

Before Creating a VAIO Recovery Media Kit

Make a backup of your computer’s data. Recovering your hard disk drive can eliminate all existing files.

Purchase the recordable CDs or DVDs required to create the recovery media kit.

Read all instructions and allow plenty of time to perform the desired recovery option. A complete hard disk recovery can take one to two hours.

NOTE: Create the recovery media kit before resizing or creating partitions on your hard disk drive with your own software program.

You can also order a VAIO Recovery Media Kit by visiting http://ciscdb.sel.sony.com/info/recovery.html or by contacting a Sony customer service representative at 1-800-488-7669. (Canadian customers can call 1-877-779-9929.)

About CD and DVD media

The number of recordable CDs or DVDs required to create a VAIO Recovery Media Kit varies, depending on computer model purchased. Your computer must be equipped with a recordable optical drive, such as a CD-RW, DVD-RW, or DVD±RW drive.

You can create a recovery media kit using:

- CD-R media
- Single layer DVD+R or DVD-R media

You cannot create a recovery media using:

- CD-RW media
- DVD+RW media
- DVD-RW media
- Double layer DVD+R or DVD-R media

For more information about the VAIO Recovery Media Kit, see About the VAIO Recovery Media Kit.
VAIO Recovery Options

A recovery can be performed for:

- An individual software program
- A device or software driver
- A drive C volume
- A complete hard disk drive recovery

Before performing a restore or recovery operation, go to the Sony online support Web site at http://www.sony.com/pcsupport and check your model-specific support page. Look for software and driver updates, or check for knowledge base solutions that may help you solve your computer’s issue.

Microsoft Windows System Restore

Use restore points to recover without losing e-mail, documents, or your Internet history.

This option may be a good choice when:

Your computer is not currently functioning well, but did work properly in the recent past.

A recently installed software program does not work properly or causes conflict with other installed software programs.

A virus corrupts your computer’s operating system.

Spyware, adware, browser hijackers, or intrusive Internet cookies slow down or disrupt your Internet browsing.

*Using Windows System Restore may eliminate your custom settings, system configuration, or updates like recent software program installation. This option may not solve the problem, if the issue is severe.*

You can find more information about this option. See the section, To use the Windows System Restore feature.

Application Recovery
Recover single or multiple preinstalled software programs.

This option may be a good choice when:

One or more factory-installed software programs are not working properly.

One or more device drivers do not permit your computer to communicate properly with certain peripheral equipment, such as a printer, mouse, or keyboard.

A software program that was preinstalled on your computer has been deleted and you want to restore it for use.

Application Recovery may eliminate custom software settings or configurations, such as passwords, login information, or installation codes. The recovered software programs may not include patches or other software repairs that are available in later versions. This option may not resolve severe issues.

You can find more information about this option. See the section, To recover software programs.

Drive C Partition Recovery

Restore only Drive C to the original, factory-installed settings

This option may be a good choice when:

Your hard drive has two or more partitions and the problem resides in a single partition (Drive C).

You want to restore Drive C back to its original, factory-installed settings.

You want to try a recovery option that will not take a long time to complete.

You do not have a VAIO® Recovery Media Kit.

Drive C partition recovery deletes all of your data, such as custom settings, recent software installations or upgrades, passwords or other login information, and e-mail. (Remember to back up data to external media before performing this recovery option.)

You can find more information about this option. See the section, To recover drive C.

Complete Hard Disk Drive Recovery
Restore your entire hard disk drive to the original, factory-installed settings.

This option may be a good choice when:

Your computer stops working and all other attempts to troubleshoot or repair the problem do not work.

You want to eliminate a destructive virus or malicious code that has corrupted your computer.

You want a reliable recovery method that completely restores your computer’s operating system and preinstalled software programs to the original, factory-installed settings.

A complete hard disk drive recovery requires a VAIO Recovery Media Kit and can take one to two hours to complete. This option deletes all of your data, such as custom settings, recent software installations or upgrades, passwords or other login information, and e-mail. (Remember to back up data to external media before performing this recovery option.)

You can find more information about this option. See the section, To perform a complete hard disk drive recovery.
A recovery can be performed for:

- An individual software program
- A device or software driver
- A drive C volume
- A complete hard disk drive recovery

Before performing a restore or recovery operation, go to the Sony online support Web site at http://www.sony.com/pcsupport and check your model-specific support page. Look for software and driver updates, or check for knowledge base solutions that may help you solve your computer's issue.

Microsoft Windows System Restore

Use restore points to recover without losing e-mail, documents, or your Internet history.

This option may be a good choice when:

Your computer is not currently functioning well, but did work properly in the recent past.

A recently installed software program does not work properly or causes conflict with other installed software programs.

A virus corrupts your computer’s operating system.

Spyware, adware, browser hijackers, or intrusive Internet cookies slow down or disrupt your Internet browsing.

*Using Windows System Restore may eliminate your custom settings, system configuration, or updates like recent software program installation. This option may not solve the problem, if the issue is severe.*

You can find more information about this option. See the section, To use the Windows System Restore feature.

Application Recovery
Recover single or multiple preinstalled software programs.

This option may be a good choice when:

One or more factory-installed software programs are not working properly.

One or more device drivers do not permit your computer to communicate properly with certain peripheral equipment, such as a printer, mouse, or keyboard.

A software program that was preinstalled on your computer has been deleted and you want to restore it for use.

Application Recovery may eliminate custom software settings or configurations, such as passwords, login information, or installation codes. The recovered software programs may not include patches or other software repairs that are available in later versions. This option may not resolve severe issues.

You can find more information about this option. See the section, To recover software programs.

Drive C Partition Recovery

Restore only Drive C to the original, factory-installed settings

This option may be a good choice when:

Your hard drive has two or more partitions and the problem resides in a single partition (Drive C).

You want to restore Drive C back to its original, factory-installed settings.

You want to try a recovery option that will not take a long time to complete.

You do not have a VAIO® Recovery Media Kit.

Drive C partition recovery deletes all of your data, such as custom settings, recent software installations or upgrades, passwords or other login information, and e-mail. (Remember to back up data to external media before performing this recovery option.)

You can find more information about this option. See the section, To recover drive C.

Complete Hard Disk Drive Recovery
Restore your entire hard disk drive to the original, factory-installed settings.

This option may be a good choice when:

Your computer stops working and all other attempts to troubleshoot or repair the problem do not work.

You want to eliminate a destructive virus or malicious code that has corrupted your computer.

You want a reliable recovery method that completely restores your computer’s operating system and preinstalled software programs to the original, factory-installed settings.

A complete hard disk drive recovery requires a VAIO Recovery Media Kit and can take one to two hours to complete. This option deletes all of your data, such as custom settings, recent software installations or upgrades, passwords or other login information, and e-mail. (Remember to back up data to external media before performing this recovery option.)

You can find more information about this option. See the section, To perform a complete hard disk drive recovery.
A recovery can be performed for:

- An individual software program
- A device or software driver
- A drive C volume
- A complete hard disk drive recovery

Before performing a restore or recovery operation, go to the Sony online support Web site at http://www.sony.com/pcsupport and check your model-specific support page. Look for software and driver updates, or check for knowledge base solutions that may help you solve your computer’s issue.

Microsoft Windows System Restore

Use restore points to recover without losing e-mail, documents, or your Internet history.

This option may be a good choice when:

Your computer is not currently functioning well, but did work properly in the recent past.

A recently installed software program does not work properly or causes conflict with other installed software programs.

A virus corrupts your computer’s operating system.

Spyware, adware, browser hijackers, or intrusive Internet cookies slow down or disrupt your Internet browsing.

Using Windows System Restore may eliminate your custom settings, system configuration, or updates like recent software program installation. This option may not solve the problem, if the issue is severe.

You can find more information about this option. See the section, To use the Windows System Restore feature.

Application Recovery
Recover single or multiple preinstalled software programs.

This option may be a good choice when:

One or more factory-installed software programs are not working properly.

One or more device drivers do not permit your computer to communicate properly with certain peripheral equipment, such as a printer, mouse, or keyboard.

A software program that was preinstalled on your computer has been deleted and you want to restore it for use.

Application Recovery may eliminate custom software settings or configurations, such as passwords, login information, or installation codes. The recovered software programs may not include patches or other software repairs that are available in later versions. This option may not resolve severe issues.

You can find more information about this option. See the section, To recover software programs.

Drive C Partition Recovery

Restore only Drive C to the original, factory-installed settings

This option may be a good choice when:

Your hard drive has two or more partitions and the problem resides in a single partition (Drive C).

You want to restore Drive C back to its original, factory-installed settings.

You want to try a recovery option that will not take a long time to complete.

You do not have a VAIO® Recovery Media Kit.

Drive C partition recovery deletes all of your data, such as custom settings, recent software installations or upgrades, passwords or other login information, and e-mail. (Remember to back up data to external media before performing this recovery option.)

You can find more information about this option. See the section, To recover drive C.

Complete Hard Disk Drive Recovery
Restore your entire hard disk drive to the original, factory-installed settings.

This option may be a good choice when:

Your computer stops working and all other attempts to troubleshoot or repair the problem do not work.

You want to eliminate a destructive virus or malicious code that has corrupted your computer.

You want a reliable recovery method that completely restores your computer’s operating system and preinstalled software programs to the original, factory-installed settings.

A complete hard disk drive recovery requires a VAIO Recovery Media Kit and can take one to two hours to complete. This option deletes all of your data, such as custom settings, recent software installations or upgrades, passwords or other login information, and e-mail. (Remember to back up data to external media before performing this recovery option.)

You can find more information about this option. See the section, To perform a complete hard disk drive recovery.
A recovery can be performed for:

- An individual software program
- A device or software driver
- A drive C volume
- A complete hard disk drive recovery

Before performing a restore or recovery operation, go to the Sony online support Web site at http://www.sony.com/pcsupport and check your model-specific support page. Look for software and driver updates, or check for knowledge base solutions that may help you solve your computer's issue.

**Microsoft Windows System Restore**

Use restore points to recover without losing e-mail, documents, or your Internet history.

This option may be a good choice when:

Your computer is not currently functioning well, but did work properly in the recent past.

A recently installed software program does not work properly or causes conflict with other installed software programs.

A virus corrupts your computer's operating system.

Spyware, adware, browser hijackers, or intrusive Internet cookies slow down or disrupt your Internet browsing.

*Using Windows System Restore may eliminate your custom settings, system configuration, or updates like recent software program installation. This option may not solve the problem, if the issue is severe.*

You can find more information about this option. See the section, To use the Windows System Restore feature.

**Application Recovery**
Recover single or multiple preinstalled software programs.

This option may be a good choice when:

One or more factory-installed software programs are not working properly.

One or more device drivers do not permit your computer to communicate properly with certain peripheral equipment, such as a printer, mouse, or keyboard.

A software program that was preinstalled on your computer has been deleted and you want to restore it for use.

Application Recovery may eliminate custom software settings or configurations, such as passwords, login information, or installation codes. The recovered software programs may not include patches or other software repairs that are available in later versions. This option may not resolve severe issues.

You can find more information about this option. See the section, To recover software programs.

Drive C Partition Recovery

Restore only Drive C to the original, factory-installed settings

This option may be a good choice when:

Your hard drive has two or more partitions and the problem resides in a single partition (Drive C).

You want to restore Drive C back to its original, factory-installed settings.

You want to try a recovery option that will not take a long time to complete.

You do not have a VAIO® Recovery Media Kit.

Drive C partition recovery deletes all of your data, such as custom settings, recent software installations or upgrades, passwords or other login information, and e-mail. (Remember to back up data to external media before performing this recovery option.)

You can find more information about this option. See the section, To recover drive C.

Complete Hard Disk Drive Recovery
Restore your entire hard disk drive to the original, factory-installed settings.

This option may be a good choice when:

Your computer stops working and all other attempts to troubleshoot or repair the problem do not work.

You want to eliminate a destructive virus or malicious code that has corrupted your computer.

You want a reliable recovery method that completely restores your computer’s operating system and preinstalled software programs to the original, factory-installed settings.

A complete hard disk drive recovery requires a VAIO Recovery Media Kit and can take one to two hours to complete. This option deletes all of your data, such as custom settings, recent software installations or upgrades, passwords or other login information, and e-mail. (Remember to back up data to external media before performing this recovery option.)

You can find more information about this option. See the section, To perform a complete hard disk drive recovery.
A recovery can be performed for:

- An individual software program
- A device or software driver
- A drive C volume
- A complete hard disk drive recovery

Before performing a restore or recovery operation, go to the Sony online support Web site at http://www.sony.com/pcsupport and check your model-specific support page. Look for software and driver updates, or check for knowledge base solutions that may help you solve your computer's issue.

**Microsoft Windows System Restore**

Use restore points to recover without losing e-mail, documents, or your Internet history.

This option may be a good choice when:

Your computer is not currently functioning well, but did work properly in the recent past.

A recently installed software program does not work properly or causes conflict with other installed software programs.

A virus corrupts your computer's operating system.

Spyware, adware, browser hijackers, or intrusive Internet cookies slow down or disrupt your Internet browsing.

*Using Windows System Restore may eliminate your custom settings, system configuration, or updates like recent software program installation. This option may not solve the problem, if the issue is severe.*

You can find more information about this option. See the section, To use the Windows System Restore feature.

**Application Recovery**
Recover single or multiple preinstalled software programs.

This option may be a good choice when:

One or more factory-installed software programs are not working properly.

One or more device drivers do not permit your computer to communicate properly with certain peripheral equipment, such as a printer, mouse, or keyboard.

A software program that was preinstalled on your computer has been deleted and you want to restore it for use.

*Application Recovery may eliminate custom software settings or configurations, such as passwords, login information, or installation codes. The recovered software programs may not include patches or other software repairs that are available in later versions. This option may not resolve severe issues.*

You can find more information about this option. See the section, [To recover software programs](#).

**Drive C Partition Recovery**

*Restore only Drive C to the original, factory-installed settings*

This option may be a good choice when:

Your hard drive has two or more partitions and the problem resides in a single partition (Drive C).

You want to restore Drive C back to its original, factory-installed settings.

You want to try a recovery option that will not take a long time to complete.

You do not have a VAIO® Recovery Media Kit.

*Drive C partition recovery deletes all of your data, such as custom settings, recent software installations or upgrades, passwords or other login information, and e-mail. (Remember to back up data to external media before performing this recovery option.)*

You can find more information about this option. See the section, [To recover drive C](#).

**Complete Hard Disk Drive Recovery**
Restore your entire hard disk drive to the original, factory-installed settings.

This option may be a good choice when:

Your computer stops working and all other attempts to troubleshoot or repair the problem do not work.

You want to eliminate a destructive virus or malicious code that has corrupted your computer.

You want a reliable recovery method that completely restores your computer’s operating system and preinstalled software programs to the original, factory-installed settings.

A complete hard disk drive recovery requires a VAIO Recovery Media Kit and can take one to two hours to complete. This option deletes all of your data, such as custom settings, recent software installations or upgrades, passwords or other login information, and e-mail. (Remember to back up data to external media before performing this recovery option.)

You can find more information about this option. See the section, To perform a complete hard disk drive recovery.
About the VAIO Recovery Wizard

The VAIO® Recovery Wizard enables you to recover preinstalled software programs and the computer operating system, restoring your computer to the original, factory-installed settings. You can also use this utility to create a VAIO Recovery Media Kit.

⚠️ When you recover drive C or perform a complete recovery, the VAIO Recovery Wizard deletes and replaces all the files on your hard disk drive. Sony recommends backing up your personal data to storage media or to another computer before proceeding with system recovery.

Before performing a restore or recovery operation, go to the Sony online support Web site at http://www.sony.com/pcsupport and check your model-specific support page. Look for software and driver updates, or check for knowledge base solutions that may help you solve your computer's issue.

To create a Recovery Media Kit

You can create a VAIO Recovery Media Kit using your own blank CDs and DVDs, which enables you to recover your computer at a later date in the event the computer’s operating system fails.

- About the VAIO Recovery Media Kit

To use Windows System Restore

Restore your computer's operating system to a previous working state by performing a System Restore. You can access this recovery option by starting the VAIO Recovery Wizard or by using the Microsoft® Windows® XP System Restore Wizard.

- To use the Windows System Restore feature

To recover drive C only

Restore drive C to the original factory-installed settings. All data and settings on drive C are deleted. This recovery option preserves any data on any other partitions on your hard disk drive.

- To recover drive C

To recover software programs

Recover specific factory-installed software.

⚠️ This utility program repairs or replaces software only. For hardware issues, contact a Sony authorized repair facility.

- To recover software programs

To perform a complete hard disk drive recovery

Recover all the space on your computer's hard disk drive. This option recovers drive C and the hidden recovery drive. A complete hard disk drive recovery also gives you the option of reclaiming the hard disk drive space allocated for the recovery partition. To perform a complete hard disk drive recovery, you must start the VAIO Recovery Wizard from a Recovery Media Kit.

- To perform a complete hard disk drive recovery
The VAIO Recovery Media Kit can be used to start the VAIO Recovery Wizard if your computer is unable to start normally from the system software on your hard disk drive. You can also use the VAIO Recovery Media Kit to reclaim the portion of your hard drive that is reserved for system recovery.

You can create your own VAIO Recovery Media Kit or purchase a kit from Sony.

**You can create a kit using a single type of media or by combining media types as follows:**

- One CD-R media and one or two DVD-R or DVD+R media
  
  (Your VAIO® computer must be equipped with a DVD-RW or DVD±RW drive. CD-RW, DVD+RW, DVD-RW, 1X and 2X speed DVD-R, and double layer DVD+R and DVD-R media are not supported.)

- Between 10 and 12 CD-R media, depending on the computer model you purchased.
  
  (Your VAIO computer must be equipped with a CD-RW, DVD-RW, or DVD±RW drive. CD-RW media is not supported)

**Before you begin creating your VAIO Recovery Media Kit:**

- Close all open programs.
- Disconnect all network connections.
- Disconnect all peripheral devices.
- Plug in your AC adapter if you are using a notebook computer.
- Disable any virus protection software.
- Disable your screen saver.

Refer to:

- [Creating a VAIO Recovery Media Kit](#)
- [Ordering a VAIO Recovery Media Kit](#)
Creating a VAIO Recovery Media Kit

Confirm that you have sufficient CD or DVD recordable media available before you begin. Have a permanent marking pen ready to label each CD or DVD media.

To create a VAIO Recovery Media Kit

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.

   The **Control Panel** window appears.

2. In the **Control Panel** window, click **Performance and Maintenance**.

   If **Performance and Maintenance** is not listed in the **Control Panel** window, click **Switch to Category View** on the left side of the window, and click **Performance and Maintenance**.

   The **Performance and Maintenance** panel appears.

3. Click **VAIO Recovery Wizard**.

   The **VAIO Recovery Wizard** window appears.

4. Read the on-screen information, and click **Next**.

5. Select **Create Recovery Media Kit (Strongly Recommended)**, and click **Next**.

   **VAIO Recovery Wizard - Media and Recovery Options**

6. Select the Recovery Media Kit that you want to create.
You can create your kit using a single type of media or by combining media types, as follows:

- One recordable CD (CD-R) and either one or two recordable DVDs (DVD-R or DVD+R).
- Between 10 and 12 CD-R media, depending on the computer model you purchased.

⚠️ Your VAIO® computer must be equipped with a DVD-RW or DVD±RW drive to use DVD-R media. The VAIO Recovery Wizard does not support CD-RW, DVD+RW, DVD-RW, 1X and 2X speed DVD-R, or double layer DVD+R and DVD-R media.

7. Click **Next**.

   Your computer’s optical drive tray opens automatically.

8. Insert a blank disc into the drive, close the drive, and click **Next**.

   The Recovery CD creation process begins. A window with a progress bar appears.

   ⚠️ The time required to create each CD or DVD varies depending on your optical drive recording speed.

9. When prompted, eject the disc. Label the top of the disc with a permanent marker according to the on-screen instructions.

10. Repeat steps 6 and 7 for each CD or DVD.

11. When the text, **The Recovery Media Kit is complete** appears, click **OK**.

12. Click **Finish**.

   Your computer restarts.

Your Recovery Media Kit is complete. Store it in a safe place.
Ordering a VAIO Recovery Media Kit

1. Visit:
   http://ciscdb.sel.sony.com/info/recovery.html

2. Follow the on-screen instructions to order a Recovery Media Kit.

* If you are not able to access the Sony online support Web site, contact a customer service representative at 1-800-488-7669.
The VAIO® Recovery Wizard provides recovery options for your computer. You can access this utility program from the Windows® XP Start menu, from a Recovery Media Kit, or by pressing the F10 key on your computer's keyboard as your computer starts up. How you access the VAIO® Recovery Wizard may affect which features of the wizard are available.

- To access the VAIO Recovery Wizard from Windows XP
- To access the VAIO Recovery Wizard from the Recovery Media Kit
- To access the VAIO Recovery Wizard using the F10 Key
To access the VAIO Recovery Wizard from Windows XP

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.
   
The **Control Panel** window appears.

2. In the **Control Panel** window, click **Performance and Maintenance**.
   
   If **Performance and Maintenance** is not listed in the **Control Panel** window, click **Switch to Category View** on the left side of the window, and click **Performance and Maintenance**.

   The **Performance and Maintenance** panel appears.

   Using the VAIO Recovery Wizard may require you to restart your computer, even if you cancel and exit the wizard.

3. Click **VAIO Recovery Wizard**.
   
The **VAIO Recovery Wizard** window appears.

4. In the **Welcome** window, click **Next**.

5. Select one of the available menu options.
To access the VAIO Recovery Wizard from the Recovery Media Kit

1. Press the power switch to turn on the computer.

2. Open the optical drive, and place the **Startup Recovery Disc** into the optical drive.

3. Close the drive.

4. Turn off your computer.

5. Wait for approximately 30 seconds, and turn on the computer.

6. When prompted, insert **Recovery Disc 1** into the optical drive, and click **OK**.

   The **VAIO Recovery Wizard** appears.

7. Click **Next**.

8. Select one of the available menu options.
To access the VAIO Recovery Wizard using the F10 Key

1. Turn off your computer.
2. Restart your computer.
3. When the VAIO logo appears on the computer's screen, briefly press the F10 key on the computer keyboard.

   The **VAIO Recovery Wizard** appears.

4. Click **Next**.
5. Select one of the available menu options.
Recovering Your Computer

- To use the Windows System Restore feature
- To recover drive C
- To recover software programs
- To perform a complete hard disk drive recovery
To use the Windows System Restore feature

The Windows System Restore feature rolls your computer’s system software back to an earlier, working state.

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.

   The **Control Panel** window appears.

2. In the **Control Panel** window, click **Performance and Maintenance**.

   If **Performance and Maintenance** is not listed in the **Control Panel** window, click **Switch to Category View** on the left side of the window, and click **Performance and Maintenance**.

   The **Performance and Maintenance** panel appears.

   Using the VAIO Recovery Wizard may require you to restart your computer, even if you cancel and exit the wizard.

3. Click **VAIO Recovery Wizard**.

   The **VAIO Recovery Wizard** window appears.

4. In the **Welcome** window, click **Next**.

5. Select **Proceed with System Recovery**, and click **Next**.

6. Select **Windows System Restore**, and click **Next**.

7. Follow the on-screen instructions.

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**VAIO Recovery Wizard - Recovery Options**

- **Windows System Restore**
  - This option uses Windows System Restore to restore your system to an earlier time.

- **Drive Recovery**
  - This option restores your C drive to its original factory-installed state. All files and programs on your C drive are deleted. The original applications and operating system are restored. Hard drive partition sizes remain unchanged and all partitions except C are unaffected. This option requires a restart upon completion.

- **Custom Recovery (for Advanced Users)**
  - Recovers preinstalled programs (applications), and recovers the entire system.

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To recover drive C

Recovering drive C deletes all data and settings on drive C. Before recovering drive C, back up any personal data or files located on drive C. This recovery option preserves any data on any other partitions on your hard disk drive.

1. Start the VAIO® Recovery Wizard, and click Next.
   
   If you are using the Recovery Media Kit, skip step 2.

2. Select Proceed with System Recovery, and click Next.

3. Select C Drive Recovery, and click Next.

4. Read the on-screen information. Click Next.

5. The wizard begins the drive C recovery. When it is finished, click Next.

6. Click Finish.
   
   Your computer restarts.
To recover software programs

Application Recovery may eliminate custom software settings or configurations, such as passwords, login information, or installation codes. The recovered software programs may not include patches or other software repairs that are available in later versions.

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.

   The **Control Panel** window appears.

2. In the **Control Panel** window, click **Performance and Maintenance**.

   If **Performance and Maintenance** is not listed in the **Control Panel** window, click **Switch to Category View** on the left side of the window, and click **Performance and Maintenance**.

   The **Performance and Maintenance** panel appears.

   Using the VAIO Recovery Wizard may require you to restart your computer, even if you cancel and exit the wizard.

3. Click **VAIO Recovery Wizard**.

   The **VAIO Recovery Wizard** window appears.

4. In the **Welcome** window, click **Next**.

   If using the Recovery Media Kit, insert Recovery Disk #1, and skip to step step8.

5. Select **Proceed with System Recovery**, and click **Next**.

6. Select **Custom Recovery (for Advanced Users)**, and click **Next**.

7. Select **Application Recovery**, and click **Next**.

   When you select the Application Recovery option, you cannot return to the system recovery portion of the VAIO Recovery Wizard without restarting your computer.

8. Select the check box for each software program you want to recover, using the scroll bar to view all available programs. Click **Next**.

   ![VAIO Recovery Wizard - Begin Application Recovery]

9. As your computer prepares to install each program, a status indicator appears. You may see installation wizards, messages, and prompts. Follow the instructions provided in each wizard, and respond to each prompt or message.

   When the selected software programs have been recovered, the **Application Recovery Complete** window appears.
10. To recover additional programs, click **Back**. The **Application Recovery** window appears again with a listing of the available program titles.

11. Click **Finish**.

   Your computer restarts.

   If your recovered programs do not function properly or if you see an installation error message, try recovering the programs again.
To perform a complete hard disk drive recovery

A complete hard disk drive recovery returns your computer to its factory-default settings. You must use the Recovery Media Kit to perform a complete hard disk drive recovery.

A complete hard disk drive recovery also gives you the option of reclaiming the hard disk drive space allocated for the recovery partition. This is not recommended, as it limits future recovery options. To eliminate the recovery partition and reclaim all the space on the hard disk drive, start up your computer with the VAIO Recovery Media Kit inserted and perform a complete hard disk drive recovery, selecting the **Complete Recovery without the Recovery Drive** option.

If you eliminate the recovery partition, you can access the VAIO Recovery Wizard only by using a VAIO Recovery Media Kit. The VAIO Recovery Wizard will not be available from the Windows® XP Start menu or by pressing the F10 key on your computer's keyboard as your computer starts up.

To restore the recovery partition, start up your computer with the VAIO Recovery Media Kit inserted, and select **Custom Recovery** and then **Complete Recovery with the Recovery Drive**. Sony recommends backing up your personal data to storage media or to another computer before proceeding with system recovery.

1. Press the power switch on the computer to turn on the computer.
2. Open the optical drive, and place the **Startup Recovery Disc** into the optical drive.
3. Close the drive.
4. Turn off your computer.
5. Wait for approximately 30 seconds, and then turn on the computer.
6. When prompted, insert **Recovery Disk 1** into the optical drive, and then click **OK**.
   
   The **VAIO Recovery Wizard** appears.
7. Click **Next**.
8. Select **Custom Recovery (for Advanced Users)**, and click **Next**.
9. Select either:
   - **Complete Recovery with the Recovery Drive (Recommended)** or
   - **Complete Recovery without the Recovery Drive** and click **Next**.
10. If installation messages and prompts appear, follow the instructions provided in each wizard, and respond to each prompt or message. Your computer may restart during this process.
11. When the optical disc drive opens, remove the disc, close the drive, and click **Next**. Your computer may restart several times.
Additional Information

- You can view additional information and frequently asked questions about the VAIO® Recovery Wizard by visiting the utility's Sony Online Support page at:

  http://www.ita.sel.sony.com/support/news/hddrecovery.html

- Resizing your hard disk drive partitions with third-party software can result in the loss of the VAIO® Recovery Wizard utility program on your hard disk drive. Sony strongly recommends that you create a VAIO Recovery Media Kit before resizing your hard disk drive partitions with third-party software.

- The time required to perform a system or software program recovery varies and can take as long as one or two hours.

- If you have purchased a configure-to-order (CTO) system with Microsoft® Office XP preinstalled, your computer prompts you to use the Office XP CDs to recover these software programs.
When multiple hard disk drives are combined, they can provide an affordable answer to your VAIO® computer's performance or security requirements. This solution is called a Redundant Array of Independent Disks (RAID). RAID or RAID-ready capability is available only for configure-to-order (CTO) computer systems. See your computer’s specifications sheet for details on your computer's hardware configuration.

- A RAID Overview
- About RAID Levels
- Configuring a RAID Array
- RAID Glossary

1 Also known as "Redundant Array of Inexpensive Disks".
A RAID Overview

If you have purchased a configure-to-order (CTO) VAIO® computer with one of the following options:

- **RAID-0** — Your computer is configured for RAID-0 and has two or more preinstalled S-ATA hard disk drives.
- **RAID-ready** — Your computer has RAID capability and requires you to install one or more S-ATA hard disk drives.

In either situation, you can:

- Install and configure hard disk drives for RAID-0 or RAID-1.
- Change the existing RAID configuration to RAID-0 or RAID-1.
- Remove the RAID configuration completely.

Your VAIO computer’s drive bay can accommodate a total of four S-ATA hard disk drives. If you are installing your own equipment, Sony suggests using hard disk drives that are identical in size and manufacture.

- [Reasons for using a RAID array system](#)
- [RAID array organization](#)
Reasons for using a RAID array system

When hard disk drives are grouped together in a RAID array, they are configured, formatted, and managed to perform in a specific way. Your computer's data is spread across these drives in a manner that determines the level of RAID performance and protection. The level of RAID protection and redundancy determines the capacity of the array, the security of your data, and the quality of your computer's overall performance.

To aid your understanding of RAID terminology, see the RAID Glossary.

You may decide that a RAID array meets your needs when:

- Your computer's data needs increased fault tolerance to protect against interruptions or hardware failure.
- Your computer performs intensive work, such as video or graphics design, and require improved computing speed.
RAID array organization

A single hard disk drive has two basic functions — writing and reading data. These functions are handled differently when using a RAID array.

A RAID array is organized from the physical drives into a physical array. (The hard disk drives are combined into the array.) These physical arrays are then formatted into a single, logical drive, which communicates with your computer. This organization enables your computer to use the RAID array as a single hard disk drive.
About RAID Levels

RAID is intended to protect data and create fault tolerance. Important factors such as availability, reliability, fault tolerance, and performance, are essential to selecting a RAID level that meets your computing needs.

- **RAID-0**
- **RAID-1**
RAID-0

This RAID level uses striping without parity. Striping breaks data into small pieces and then simultaneously writes or reads to multiple locations. This increases your computer's performance and data storage capacity.

**RAID-0: Striping without parity**

![Diagram of RAID-0 configuration]

**Best uses for RAID-0**

This RAID level is appropriate for situations where read/write performances is more important than data security. Some examples are environments that use high bandwidth software programs for video production, video editing, or pre-press production.

**RAID-0 limitations**

RAID-0 does not provide fault tolerance. All computer data on the array is lost if a single drive in the physical array fails. This RAID level is not a true RAID configuration, as it does not provide redundancy. When using a RAID-0 array, your data storage capacity may be increased, but is limited to twice the size of the smallest hard disk drive in the array. As an example, if your array uses a 60 GB drive and a 20 GB drive, your total hard disk drive volume is 40 GB.
This RAID level uses mirroring. Mirroring writes all data onto each hard drive in the RAID array, in exactly the same way. Your computer's reading performance is improved, while writing performance is slower, in comparison to a single hard disk drive. RAID-1 is the simplest redundant array to set up, as only two hard disk drives are required. Full fault tolerance is provided in the event of a single hard disk drive failure, as all data is still available in the other, mirrored hard disk drive.

If a single hard disk drive fails (RAID-1), the remaining, functioning hard disk drive continues to operate without fault tolerance until the failed drive is replaced and mirroring is restored.

**RAID-1: Mirroring**

**Best uses for RAID-1**

RAID-1 is appropriate for situations where data availability and performance are important. In environments where finance or payroll software programs are used, fault tolerance may be more important than capacity.

**RAID-1 limitations**

A RAID-1 (mirrored) volume is approximately the size of the smaller hard disk drive. This may not be a cost-effective solution, if data storage capacity is a concern. Your computer's write performance is slower, because two write commands are generated to direct the data to two separate hard disk drive locations.
Configuring a RAID Array

Certain VAIO® computers are available for purchase as RAID-0 or RAID-ready. The number of preinstalled S-ATA hard disk drives can vary, depending on the hardware configuration purchased. These computers are configured-to-order (CTO), based on your hardware requirements. See your computer's specification sheet for details about your specific hardware configuration.

If you purchase a RAID-0 computer:

- You can change the RAID-0 configuration to RAID-1.
- You can remove RAID configuration completely and use each individual drive separately.

If you purchase a RAID-ready computer:

- You can install an additional drive(s) and set up a RAID-0 or RAID-1 configuration.
- You can choose to use any additional drive(s) as a separate drive, without RAID configuration.

* If you have purchased a RAID-ready computer that does not have additional hard disk drives preinstalled, install the additional S-ATA hard disk drives required to enable RAID capability. See the instructions provided in the "About Hard Disk Drive Installation" section of your VAIO computer User Guide. To view the User Guide, click Start on the Windows® taskbar, click Help and Support, and click VAIO User Guide.

* Use identical hard disk drives, if possible.

Before getting started

- Installing additional hard disk drives
- Using the RAID Configuration Wizard
- Using the VAIO Recovery Wizard utility program
- About the Intel Storage Utility program
Before getting started

- Back up your computer's data to external media. Creating, altering, or configuring for RAID deletes all data from affected hard disk drives.

- Create a **VAIO Recovery Media Kit**, so that you can configure the RAID volumes, and perform a hard disk drive recovery.

For more information about creating recovery media using the VAIO Recovery Wizard utility program, see the section **About the VAIO Recovery Media Kit**.

- Verify the status of the existing hard disk drive(s) before creating or changing the RAID volume. Use the Intel® Storage Utility software program to check drive. See the section, **About the Intel Storage Utility program**.

The VAIO Recovery Wizard utility program can configure the first two hard disk drives into a RAID-0 (striped) or RAID-1 (mirrored) volume. (Hard disk drives are installed in port-0 and port-1). Use the Intel® Application Accelerator (IAA) feature of the Intel Storage Utility software program, to configure any additional drives. See the section, **About the Intel Storage Utility program**.
Installing additional hard disk drives

If you have purchased a RAID-ready computer, you may be required to install an additional drive(s). You can find details about installing additional hard disk drives in the "About Hard Disk Drive Installation" section of your VAIO computer User Guide. To view the User Guide, click Start on the Windows® taskbar, click Help and Support, and click VAIO User Guide.

1. Place all S-ATA hard disk drives into the drive holder inside the computer's chassis.

2. Connect one end of the S-ATA data cable(s) to the S-ATA connection, starting with Port-0 on the motherboard. Connect the data cables of any additional drives to Ports 1, 2, and then 3.

3. Connect the other end of the S-ATA data cable(s) to the corresponding S-ATA hard disk drive.

4. Connect the S-ATA power cable(s) to the corresponding S-ATA hard disk drive.

   If your hard disk drive is equipped with two power connectors, connect the S-ATA power cable. See the information supplied with your hard disk drive for details on proper power connections.

When all additional hard disk drives are installed, you are ready to configure the RAID volume. See the About RAID Levels section for brief descriptions of RAID-0 and RAID-1 levels.
Using the RAID Configuration Wizard

The RAID Configuration Wizard can configure two installed hard disk drives for RAID-0 or RAID-1 levels. You can also use the RAID Configuration Wizard to change your computer’s RAID array to RAID-0 or RAID-1.

1. Press the power switch on the computer to turn on the computer.

2. Open the optical drive, and place the **Startup Recovery Disc** from the Recovery Media Kit into either optical drive.

3. Close the drive and turn off your computer.

4. Wait approximately 30 seconds, and then turn on the computer again.

5. When prompted, insert **Recovery Disk 1** into the optical drive, and then click **OK**.

   The **VAIO Recovery Wizard** appears.

6. Click **Next**.

7. Select **Custom Recovery (for Advanced Users)**, and click **Next**.

8. Select **RAID Configuration**, and click **Next**.

   The **RAID Configuration Wizard** appears.

   ![RAID Configuration Wizard](image)

9. Click **Next**. The **RAID Configuration Options** window appears.

   ![RAID Configuration Options](image)
10. Select one of the three options, and click **Next**.

A final confirmation message appears.

⚠️ If you have not performed a back up of your computer’s data, or you do not want to continue with the RAID configuration, respond to the final confirmation message by clicking "No" and exit the wizard. See the section, **Before getting started**, for advice on how to prepare for RAID configuration.

**RAID Configuration Wizard - Final confirmation message**

11. Click **Yes** to configure your RAID array.

12. Do not remove the VAIO Recovery Media Kit disc from your computer’s optical disc drive. Click **Restart** to start the VAIO Recovery Wizard utility program.

See the **Using the VAIO Recovery Wizard utility program** section for more information.
Using the VAIO Recovery Wizard utility program

A complete hard disk drive recovery restores the original, factory settings and recovers all of the preinstalled software programs.

1. From the **VAIO Recovery Wizard** main window, click **Next**.
2. Select **Custom Recovery (for Advanced Users)**, and click **Next**.
3. Select either option, as shown below, and then click **Next**.
   - **Complete Recovery with the Recovery Drive (Recommended)**
   - **Complete Recovery without the Recovery Drive**
4. If installation messages and prompts appear, follow the instructions provided by each installation wizard and respond to each prompt or message.
   
   Your computer may restart during this process.
5. When the optical disc drive opens, remove the disc and close the drive door. Click **Next**.

   Your computer may restart several times before it becomes available for use.
About the Intel Storage Utility program

You can find information about RAID volume configuration in the Intel® Storage Utility program. This utility program contains the Intel® Application Accelerator RAID edition feature.

Locating the Intel Storage Utility program

1. Click Start from the Windows® taskbar, and then click Control Panel.

2. From the Control Panel window, click Performance and Maintenance.

3. From the Performance and Maintenance window, click the Intel® Storage Utility main window.

   The Intel® Storage Utility main window appears.

   ![Intel Storage Utility main window]

4. Click Help to open Help.

   The Intel® Application Accelerator Help introduction window appears.

   ![Intel Application Accelerator Help window]
The Intel® Application Accelerator Help file provides basic information on setting up additional hard disk drives as a RAID array. You can find more information on this topic at http://support.intel.com/support/go/iaa/kb_r.htm.
This glossary contains some basic terms that may aid your understanding of RAID technology.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td><strong>Array</strong></td>
<td>Two or more hard disk drives that are grouped together and function as a single drive to the host computer.</td>
</tr>
<tr>
<td><strong>Fault tolerance</strong></td>
<td>The ability of a computer to continue its function, even after one or more hard disk drives have failed.</td>
</tr>
<tr>
<td><strong>Intel® Application Accelerator RAID edition (IAA)</strong></td>
<td>Software program that replaces the original ATA drivers provided with the Microsoft® Windows® operating system. The IAA replacement drivers are optimized for computers using certain Intel® chipsets.</td>
</tr>
<tr>
<td><strong>Logical drive</strong></td>
<td>Two or more hard disk drives that are grouped together so that they appear and function as a single or logical drive to the host computer.</td>
</tr>
<tr>
<td><strong>Mirrored/Mirroring</strong></td>
<td>All data on a primary hard disk drive is duplicated on a secondary drive, to provide data protection.</td>
</tr>
<tr>
<td><strong>Parity</strong></td>
<td>A type of data protection that uses verification to detect errors in data.</td>
</tr>
<tr>
<td><strong>Physical drive</strong></td>
<td>The actual hard disk drive.</td>
</tr>
<tr>
<td><strong>RAID</strong></td>
<td>An acronym for &quot;Redundant Array of Independent Disks&quot;. This method of combining small, inexpensive hard disk drives offers advantages for data availability, equipment cost, and system performance.</td>
</tr>
<tr>
<td><strong>RAID-0</strong></td>
<td>See &quot;Striped/Striping&quot;</td>
</tr>
<tr>
<td><strong>RAID-1</strong></td>
<td>See &quot;Mirrored/Mirroring&quot;</td>
</tr>
<tr>
<td><strong>Redundant (Information Technology use)</strong></td>
<td>Additional computer components, such as hard disk drives, that are installed to back up the primary resources in case of failure.</td>
</tr>
<tr>
<td><strong>S-ATA</strong></td>
<td>An acronym for &quot;Serial Advanced Technology Attachment.&quot; This is a standard uses serial signaling technology and is used for connecting hard disk drives into computers.</td>
</tr>
<tr>
<td><strong>Striped/Striping</strong></td>
<td>Data is spread evenly over multiple hard disk drives for improved system performance. There is no data protection.</td>
</tr>
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