

NEC Storage Protection Manager
for FileSystem Ver8.1
Installation Guide

Preface

Thank you for purchasing NEC Storage Protection Manager for FileSystem on Windows.

This installation guide explains how to install NEC Storage Protection Manager for FileSystem on Windows. For details about how to use this product, see the electronic manual on the CD.


Notes

1. This product supports Windows Server 2003, Windows Server 2008 and Windows Server 2012.
2. Unless the longer names are required, the following abbreviations are used in this guide.

Abbreviation	Product name
Protection Manager	NEC Storage Protection Manager
iSM or Storage Manager	NEC Storage Manager
BaseProduct	NEC Storage BaseProduct
AccessControl	NEC Storage AccessControl
DynamicDataReplication	NEC Storage DynamicDataReplication
RemoteDataReplication	NEC Storage RemoteDataReplication
DynamicSnapVolume	NEC Storage DynamicSnapVolume
ControlCommand on Windows	NEC Storage ControlCommand on Windows
VSS Provider	NEC Storage VSS Provider

3. Trademarks and registered trademarks
 - Microsoft® and Windows® are trademarks or registered trademarks of the Microsoft Corporation in the United States and other countries.
 - Other product names and company names, etc. are trademarks or registered trademarks of the associated companies.
4. In this guide, precautionary notes that you must be especially aware of are indicated as shown below. Make sure to follow these notes.

If you ignore these notes and incorrectly handle the product, the operation of your system might be adversely affected.

Included symbols	
Symbol	Meaning
	Indicates contents for which special caution is required when performing an operation.

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Chapter 1 Setup

1.1 Operating Environments

The Windows Server 2003 operating environments are described below.

Table 1 Operating Environments for Protection Manager for FileSystem on Windows(For Windows Server 2003)

OS	<ul style="list-style-type: none"> Windows Server 2003, Standard Edition (SP1, SP2) Windows Server 2003, Enterprise Edition (SP1, SP2) Windows Server 2003 R2, Standard Edition Windows Server 2003 R2, Enterprise Edition Windows Server 2003 R2, Standard Edition (SP2) Windows Server 2003 R2, Enterprise Edition (SP2) Windows Server 2003, Standard x64 Edition (SP1, SP2) Windows Server 2003, Enterprise x64 Edition (SP1, SP2) Windows Server 2003 R2, Standard x64 Edition Windows Server 2003 R2, Enterprise x64 Edition Windows Server 2003 R2, Standard x64 Edition (SP2) Windows Server 2003 R2, Enterprise x64 Edition (SP2)
Software	<ul style="list-style-type: none"> - BaseProduct (including Storage Manager) - DynamicDataReplication Ver 2 or later, RemoteDataReplication Ver 2 or later, DynamicSnapVolume, or DynamicSnapVolume Ver 3 - AccessControl - ControlCommand on Windows - EXPRESSCLUSTER X 1.0 / 2.0 / 2.1 / 3.0 / 3.1 / 3.2 / 3.3 - NetBackup 6.0 / 6.5 / 7 / 7.1 / 7.5 / 7.6 - Backup Exec 12 / 12.5 / 2010 - ARCserve Backup r11.5 / r12 / r12.5 / r15 / r16 / r16.5
Memory	Minimum required memory for Windows Server 2003: Memory required by the OS + 74MB
Disk space	12.3 MB (not including the trace file)

The Windows Server 2008 operating environments are described below.

Table 2 Operating Environments for Protection Manager for FileSystem on Windows(For Windows Server 2008)

OS	Windows Server 2008, Standard (x86) Windows Server 2008, Enterprise (x86) Windows Server 2008, Standard (x64) Windows Server 2008, Enterprise (x64) Windows Server 2008, Standard (x86) (SP2) Windows Server 2008, Enterprise (x86) (SP2) Windows Server 2008, Standard (x64) (SP2) Windows Server 2008, Enterprise (x64) (SP2) Windows Server 2008 R2, Standard Windows Server 2008 R2, Enterprise Windows Server 2008 R2 Standard (SP1) Windows Server 2008 R2 Enterprise (SP1)
Software	<ul style="list-style-type: none"> - BaseProduct (including Storage Manager) - DynamicDataReplication Ver 2 or later, RemoteDataReplication Ver 2 or later, DynamicSnapVolume, or DynamicSnapVolume Ver 3 - AccessControl - ControlCommand on Windows - EXPRESSCLUSTER X 2.0 / 2.1 / 3.0 / 3.1 / 3.2 / 3.3 - NetBackup 6.5 / 7 / 7.1 / 7.5 / 7.6 - Backup Exec 12 / 12.5 / 2010 - ARCserve Backup r12 / r12.5 / r15 / r16 / r16.5
Memory	Minimum required memory for Windows Server 2008: Memory required by the OS + 74 MB
Disk space	12.3 MB (not including the trace file)

The Windows Server 2012 operating environments are described below.

Table 3 Operating Environments for Protection Manager for FileSystem on Windows(For Windows Server 2012)

OS	Windows Server 2012, Standard Windows Server 2012, Datacenter Windows Server 2012 R2, Standard Windows Server 2012 R2, Datacenter
Software	<ul style="list-style-type: none"> - BaseProduct (including Storage Manager) - DynamicDataReplication Ver 2 or later, RemoteDataReplication Ver 2 or later, DynamicSnapVolume, or DynamicSnapVolume Ver 3 - AccessControl - ControlCommand on Windows - EXPRESSCLUSTER X 3.1 / 3.2 / 3.3 - NetBackup 7.6 - ARCserve Backup r16.5
Memory	Minimum required memory for Windows Server 2012: Memory required by the OS + 74 MB
Disk space	12.3 MB (not including the trace file)

1.2 Installation

1.2.1 Preparing for Installation

NEC Storage Protection Manager for FileSystem on Windows is made up of the software listed below. Install this software in the following order:

1. Protection Manager - Copy Controller or Protection Manager - Copy Controller (x64)
2. VSS Provider or VSS Provider (x64)

The software installation destinations are as follows.

Table 4 Installation Destinations for Protection Manager for FileSystem on Windows

Software	File server		Backup server	
	x86	x64	x86	x64
Protection Manager - Copy Controller	√	--	√	--
Protection Manager - Copy Controller (x64)	--	√	--	√
VSS Provider	√	--	√	--
VSS Provider (x64)	--	√	--	√

(Legend) √: Installation required, --: Installation not required

x86: Indicates Windows Server 2003 x86(IA32) architecture or .Windows Server 2008 x86(IA32) architecture

x64: Indicates Windows Server 2003 x64 architecture , Windows Server 2008 x64 architecture, Windows Server 2008 R2 , Windows Server 2012 or Windows Server 2012 R2.



To use the VSS functionality to perform a fault tolerant backup of the FileSystem, the following program must be installed on the file server and the backup server:

- VSS Provider

For x86 architecture, install the 32-bit version of VSS Provider, and, for x64 architecture, install the 64-bit version of VSS Provider (x64).



To use the VSS functionality to perform a fault tolerant backup of the FileSystem, apply the hotfixes below.

For Windows Server 2003 x86 architecture:

Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 933653
Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 940349
Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 949391
Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 949001
Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 957778
Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 940239

For details, see the following Microsoft support websites:

<http://support.microsoft.com/default.aspx?scid=kb;en;933653>
<http://support.microsoft.com/default.aspx?scid=kb;en;940349>
<http://support.microsoft.com/default.aspx?scid=kb;en;949391>
<http://support.microsoft.com/default.aspx?scid=kb;en;949001>
<http://support.microsoft.com/default.aspx?scid=kb;en;957778>
<http://support.microsoft.com/default.aspx?scid=kb;en;940239>

For Windows Server 2003 x64 architecture:

Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 933653
Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 940349
Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 949391
Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 949001
Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 957778
Windows Server 2003 hotfix - Microsoft Knowledge Base (KB) 940239

For details, see the following Microsoft support websites:

<http://support.microsoft.com/default.aspx?scid=kb;en;933653>
<http://support.microsoft.com/default.aspx?scid=kb;en;940349>
<http://support.microsoft.com/default.aspx?scid=kb;en;949391>
<http://support.microsoft.com/default.aspx?scid=kb;en;949001>
<http://support.microsoft.com/default.aspx?scid=kb;en;957778>
<http://support.microsoft.com/default.aspx?scid=kb;en;940239>

For Windows Server 2008 x86 architecture:

It is unnecessary in case of SP2.

Windows Server 2008 hotfix - Microsoft Knowledge Base (KB) 955656

For details, see the following Microsoft support websites:

<http://support.microsoft.com/default.aspx?scid=kb;en;955656>

For Windows Server 2008 x64 architecture:

It is unnecessary in case of SP2.

Windows Server 2008 hotfix - Microsoft Knowledge Base (KB) 955656

For details, see the following Microsoft support websites:

<http://support.microsoft.com/default.aspx?scid=kb;en;955656>

1.2.2 Installing Protection Manager for FileSystem on Windows

To install Protection Manager for FileSystem on Windows, perform the procedure below.

When installing, make sure of the following:

- You are logged in with Administrator privileges.
- No programs are running.

(1) Installing Protection Manager - Copy Controller or Protection Manager - Copy Controller (x64)

1. Insert the installation CD into the CD-ROM drive.

For this procedure, the "X:" drive is assumed to be assigned to the CD-ROM drive.

2. Execute the installation program (SETUP.EXE) appropriate for your OS architecture.

For x86 architecture:

X:\CC\SETUP.EXE

For x64 architecture:

X:\CC64\SETUP.EXE

The **Welcome** dialog box appears.

4. Click **Next**.

The **Customer Information** dialog box appears.

5. Enter values for User Name and Company Name, and then click **Next**.

The **Choose Destination Location** dialog box appears.

6. If necessary, change the default installation destination, and then click **Next**.

You can use alphanumeric characters, hash marks (#), pluses (+), minuses (-), at marks (@), underscores (_), parentheses (()), periods (.), and spaces.

If you change the installation destination, do not specify the installation destination of another product.

The **Ready to Install the Program** dialog box appears.

7. Confirm the specified settings, and then click **Next**.

The installation begins. Wait until a message reporting that the installation has finished appears.

8. After entering the information, click **Finish**.

When the installation finishes, the following directories are added to the system environment variable PATH:

- *Protection-Manager-Copy-Controller-installation-directory\bin*
- *Protection-Manager-Copy-Controller-installation-directory\lib*
- *Protection-Manager-Copy-Controller-installation-directory\script\bin*

1.2.3 Installing VSS Provider

To install VSS Provider, perform the procedure below.

When installing, make sure of the following:

- You are logged in with Administrator privileges.
 - No programs are running.
 - ControlCommand has been installed.
1. Insert the installation CD into the CD-ROM drive.
For this procedure, the "X:" drive is assumed to be assigned to the CD-ROM drive.
 2. Execute the installation program (SETUP.EXE) appropriate for your OS architecture.
For x86 architecture:
X:\VSS\SETUP\SETUP.EXE
For x64 architecture:
X:\VSS\SETUP64\SETUP.EXE
 4. Perform installation by following the installer instructions.
The following software is installed.
For x86 architecture:
 - VSS Provider
 For x64 architecture:
 - VSS Provider (x64)



If PathManager is installed on the backup server, perform the following procedure on that server:

For Windows Server 2003:

- (1) Select **Start, All Programs, Accessories, System Tools**, and then **Scheduled Tasks**.

Execute the program in the **Scheduled Tasks** folder that is indicated below.

Add a scheduled task.

- (2) Use the Scheduled Task wizard to register the program.

Click **Next**.

- (3) Select the program to execute.

Click **Browse**, and then select one of the following programs in the file selection dialog box that appears:

installation-folder[#]\iSMrpl\sbin\iSMvss_clear.exe

The default installation-folder:

For Windows Server 2003 x86 architecture: C:\Program Files\NEC

For Windows Server 2003 x64 architecture: C:\Program Files (x86)\NEC

- (4) Under **Perform this task**, specify when to perform the task.

Select **When my computer starts**, and then click **Next**.

(5) Specify the user name and password to use when executing commands.

Specify the user name and password of a user who has Administrator privileges, and then click **Next**.

(6) Click **Finish**, and then make sure that the following task has been registered:

`iSMvss_clear`

For Windows Server 2008:

(1) Select **Start, All Programs, Accessories, System Tools**, and then **Task Scheduler**.

In the **Actions** pane, click **Create Task**.

(2) On the **General** tab of the **Create Task** dialog box, specify the following settings:

1. For **Name**, enter `iSMvss_clear`.
2. Under **Security options**, select **Run whether user is logged on or not**.
3. Under **Security options**, select **Run with highest privileges**.

(3) On the **Triggers** tab of the **Create Task** dialog box, specify the following settings:

1. Click **New** to display the **New Trigger** dialog box.
2. In this dialog box, change the value of **Begin the task** to **At startup**.
3. Click **OK**.

(4) On the **Actions** tab of the **Create Task** dialog box, specify the following settings:

1. Click **New** to display the **New Action** dialog box.
2. In this dialog box, under **Program/script** in the **Settings** area, click **Browse**, and then select one of the following files in the **Open** dialog box.

`installation-folder*\iSMrpl\sbin\iSMvss_clear.exe`

* The default installation folder:

For Windows Server 2008 x86 architecture: `C:\Program Files\NEC`

For Windows Server 2008 x64 architecture: `C:\Program Files (x86)\NEC`

3. Click **OK**.

(5) In the **Create Task** dialog box, click **OK**.

In the **Task Scheduler** dialog box, the information about the user account to be used to execute this task is requested.

Enter the user name and password of a user who has Administrator privileges, and then click **OK**.

For Windows Server 2012:

(1) Select **Task Scheduler** on **Start screen**.

In the **Actions** pane, click **Create Task**.

(2) On the **General** tab of the **Create Task** dialog box, specify the following settings:

1. For **Name**, enter `iSMvss_clear`.
2. Under **Security options**, select **Run whether user is logged on or not**.
3. Under **Security options**, select **Run with highest privileges**.

(3) On the **Triggers** tab of the **Create Task** dialog box, specify the following settings:

1. Click **New** to display the **New Trigger** dialog box.
2. In this dialog box, change the value of **Begin the task** to **At startup**.
3. Click **OK**.

(4) On the **Actions** tab of the **Create Task** dialog box, specify the following settings:

1. Click **New** to display the **New Action** dialog box.

2. In this dialog box, under **Program/script** in the **Settings** area, click **Browse**, and then select one of the following files in the **Open** dialog box.
- installation-folder*\iSMrpl\sbin\iSMvss_clear.exe*
- * The default installation folder:
- C:\Program Files (x86)\NEC
3. Click **OK**.
- (5) In the **Create Task** dialog box, click **OK**.
- In the **Task Scheduler** dialog box, the information about the user account to be used to execute this task is requested.
- Enter the user name and password of a user who has Administrator privileges, and then click **OK**.



If PathManager is installed on the backup server, perform the following procedure on that server:

For Windows Server 2003:

- (1) Select **Start, All Programs, Accessories, System Tools**, and then **Scheduled Tasks**.

Execute the program in the **Scheduled Tasks** folder that is indicated below.

Add a scheduled task.

- (2) Use the Scheduled Task wizard to register the program.

Click **Next**.

- (3) Select the program to execute.

Click **Browse**, and then select one of the following programs in the file selection dialog box that appears:

installation-folder#\iSMrpl\sbin\iSMvss_clear.exe

The default installation-folder:

For Windows Server 2003 x86 architecture: C:\Program Files\NEC

For Windows Server 2003 x64 architecture: C:\Program Files (x86)\NEC

- (4) Under **Perform this task**, specify when to perform the task.

Select **When my computer starts**, and then click **Next**.

- (5) Specify the user name and password to use when executing commands.

Specify the user name and password of a user who has Administrator privileges, and then click **Next**.

- (6) Click **Finish**, and then make sure that the following task has been registered:

iSMvss_clear

For Windows Server 2008:

- (1) Select **Start, All Programs, Accessories, System Tools**, and then **Task Scheduler**.

In the **Actions** pane, click **Create Task**.

- (2) On the **General** tab of the **Create Task** dialog box, specify the following settings:

1. For **Name**, enter *iSMvss_clear*.

2. Under **Security options**, select **Run whether user is logged on or not**.

3. Under **Security options**, select **Run with highest privileges**.

- (3) On the **Triggers** tab of the **Create Task** dialog box, specify the following settings:

1. Click **New** to display the **New Trigger** dialog box.

2. In this dialog box, change the value of **Begin the task** to **At startup**.

3. Click **OK**.
- (4) On the **Actions** tab of the **Create Task** dialog box, specify the following settings:
1. Click **New** to display the **New Action** dialog box.
 2. In this dialog box, under **Program/script** in the **Settings** area, click **Browse**, and then select one of the following files in the **Open** dialog box.
installation-folder\iSMrpl\sbin\iSMvss_clear.exe*
 * The default installation folder:
 For Windows Server 2008 x86 architecture: C:\Program Files\NEC
 For Windows Server 2008 x64 architecture: C:\Program Files (x86)\NEC
3. Click **OK**.
- (5) In the **Create Task** dialog box, click **OK**.
 In the **Task Scheduler** dialog box, the information about the user account to be used to execute this task is requested.
 Enter the user name and password of a user who has Administrator privileges, and then click **OK**.

For Windows Server 2012:

- (1) Select **Task Scheduler** on **Start screen**.
 In the **Actions** pane, click **Create Task**.
- (2) On the **General** tab of the **Create Task** dialog box, specify the following settings:
1. For **Name**, enter *iSMvss_clear*.
 2. Under **Security options**, select **Run whether user is logged on or not**.
 3. Under **Security options**, select **Run with highest privileges**.
- (3) On the **Triggers** tab of the **Create Task** dialog box, specify the following settings:
1. Click **New** to display the **New Trigger** dialog box.
 2. In this dialog box, change the value of **Begin the task** to **At startup**.
 3. Click **OK**.
- (4) On the **Actions** tab of the **Create Task** dialog box, specify the following settings:
1. Click **New** to display the **New Action** dialog box.
 2. In this dialog box, under **Program/script** in the **Settings** area, click **Browse**, and then select one of the following files in the **Open** dialog box.
installation-folder\iSMrpl\sbin\iSMvss_clear.exe*
 * The default installation folder:
 C:\Program Files (x86)\NEC
 3. Click **OK**.
- (5) In the **Create Task** dialog box, click **OK**.
 In the **Task Scheduler** dialog box, the information about the user account to be used to execute this task is requested.
 Enter the user name and password of a user who has Administrator privileges, and then click **OK**.



Schedule the following commands to run on the backup server once a day during off-backup hours through task scheduler or job management software.

Follow the procedure below to register the commands with a task scheduler.

For Windows Server 2003:

(1) Select **Start > All Programs > Accessories > System Tools > Scheduled Tasks**.

Under the **Scheduled Tasks** folder, run the program below:

Add Scheduled Task

(2) Following the instructions on Scheduled Task Wizard, register a task.

Click **Next**.

(3) Select the program to run.

Click **Browse...** and then select the program below in the **Select Program** dialog box.

[Installation directory*]\iSMrpl\sbin\iSMvss_clear.exe

* The default [Installation directory] is:

“C:\Program Files\NEC” on Windows Server 2003 x86 architecture

“C:\Program Files (x86)\NEC” on Windows Server 2003 x64 architecture

(4) Add "delete" after the string "iSMvss_clear" entered in the task name box.

(5) Set a schedule to run this task.

Select **Daily** and then click **Next**.

(6) Following the instructions on the wizard, set the time and day you want this task to start.

Select **Every Day** for the **Perform this task** option.

(7) Enter the name and password of the user to run the commands.

Enter the name and password of a user with Administrator's privilege, and then click **Next**.

(8) Check to see the **Open advanced properties for this task when I click Finish** check box is selected, and then click **Finish**.

(9) The **Properties** dialog box opens. On the **Task** tab, add " delete" to the end of the string in the **Run:** box.

(10) Click **OK** and check to see if the following task is registered.

iSMvss_clear delete

For Windows Server 2008:

(1) Select **Start > All Programs > Accessories > Administrative Tools > Task Scheduler**.

In the **Actions** pane, click **Create Task**.

(2) On the **General** tab in the **Create Task** dialog box, set the following.

1. Enter "iSMvss_clear delete" in **Name**.

2. Under **Security Options**, select **Run whether user is logged on or not**.

3. Under **Security Options**, select the **Run with highest privileges** check box.

(3) On the **Triggers** tab in the **Create Task** dialog box, set the following.

1. Click **New...** to open the **New Trigger** dialog box.

2. In the **New Trigger** dialog box, select **Daily** in the **Settings** field, and then set the time and day you want this task to start.

3. Click **OK** in the **New Trigger** dialog box.

(4) On the **Actions** tab in the **Create Task** dialog box, set the following.

1. Click **New...** to open the **New Action** dialog box.

2. In the **New Action** dialog box, click **Browse...** next to the **Program/script:** box in the **Settings** field, and then select the program below in the **Open** dialog box.

[Installation directory*]\iSMrpl\sbin\iSMvss_clear.exe

* The default [Installation directory] is:

"C:\Program Files\NEC" on Windows Server 2008 x86 architecture

"C:\Program Files (x86)\NEC" on Windows Server 2008 x64 architecture

3. Enter "delete" in the **Add arguments (optional):** box.
4. Click **OK** in the **New Action** dialog box.
- (5) Click **OK** in the **Create Task** dialog box.

The **Task Scheduler** window requests you to enter the user account to run this task.

Enter the user name and password with Administrator's privilege, and then click **OK**.

For Windows Server 2012:

- (1) On the **Start** window, show all applications, and then select **Task Scheduler**.

In the **Actions** pane, click **Create Task**.

- (2) On the **General** tab in the **Create Task** dialog box, set the following.

1. Enter "iSMvss_clear delete" in **Name**.
2. Under **Security Options**, select **Run whether user is logged on or not**.
3. Under **Security Options**, select the **Run with highest privileges** check box.

- (3) On the **Triggers** tab in the **Create Task** dialog box, set the following.

1. Click **New...** to open the **New Trigger** dialog box.
2. In the **New Trigger** dialog box, select **Daily** in the **Settings** field, and then set the time and day you want this task to start.
3. Click **OK** in the **New Trigger** dialog box.

- (4) On the **Actions** tab in the **Create Task** dialog box, set the following.

1. Click **New...** to open the **New Action** dialog box.
2. In the **New Action** dialog box, click **Browse...** next to the **Program/script:** box in the **Settings** field, and then select the program below in the **Open** dialog box.

[Installation directory*]\iSMrpl\sbin\iSMvss_clear.exe

* The default [Installation directory] is:

"C:\Program Files (x86)\NEC"

3. Enter "delete" in the **Add arguments (optional):** box.
4. Click **OK** in the **New Action** dialog box.
- (5) Click **OK** in the **Create Task** dialog box.

The **Task Scheduler** window requests you to enter the user account to run this task.

Enter the user name and password with Administrator's privilege, and then click **OK**.



In Windows Server 2008, perform the following procedure on the backup server once every day, while a backup is not running.

(1) Stop the Volume Shadow Copy service.

```
NET STOP "VSS"
```

(2) Stop the NEC VSS Provider service.

```
NET STOP "NEC VSS Provider"
```

- You do not need to start these services. These services start up automatically when the backup is performed.

- In Windows Server 2003, Windows Server 2003 R2, Windows Server 2008 R2, Windows Server 2012 or Windows Server 2012 R2, you do not need to perform this procedure.

1.3 Uninstallation

1.3.1 Uninstalling Protection Manager for FileSysteM on Windows

To uninstall Protection Manager for FileSysteM on Windows, perform the procedure below.

Uninstall this software in the following order:

1. Protection Manager - Copy Controller or Protection Manager - Copy Controller (x64)

When uninstalling, make sure of the following:

- You are logged in with Administrator privileges.
- No programs are running.

(1) Uninstalling Protection Manager - Copy Controller or Protection Manager - Copy Controller (x64)

1. Open **Add or Remove Programs** or **Programs and Features**.
The **Add or Remove Programs** dialog box or the **Programs and Features** dialog box appears.
2. Select the following from under **Currently installed programs** or **Uninstall or a change program**, and then click **Remove** or **Uninstall**.
 - a) For x86 architecture:
Protection Manager - Copy Controller
 - b) For x64 architecture:
Protection Manager - Copy Controller (x64)The **Installer** dialog box appears.
4. Select "Delete" button, and then click **OK**.
Uninstallation begins. When the uninstallation finishes, the **InstallShield Wizard Complete** window appears.
5. Click **Finish**.
6. Delete the user files.
Configuration files and log files created after installation are deleted.

1.3.2 Uninstalling VSS Provider

To uninstall VSS Provider, perform the procedure below.

When uninstalling, make sure of the following:

- You are logged in with Administrator privileges.
- No programs are running.
- ControlCommand has been installed.



Uninstall VSS Provider or VSS Provider (x64) before uninstalling ControlCommand.



Perform the following procedure before uninstalling VSS Provider or VSS Provider (x64):

(1) Make sure that VSS Provider services are not running.

If these services are running, perform the following operations:

- Stop the Volume Shadow Copy service.
- Stop the NEC VSS Provider service.

(2) If PathManager is installed on the backup server, remove the following registered task from the task scheduler on that server:

```
iSMvss_clear
```

1. In the **Control Panel**, select **Add or Remove Programs** or **Programs and Features**, and then uninstall the following software.
 - For x86 architecture:
 - VSS Provider
 - For x64 architecture:
 - VSS Provider (x64)
2. Perform uninstallation by following the installer instructions.
 - The following software is uninstalled.
 - For x86 architecture:
 - VSS Provider
 - For x64 architecture:
 - VSS Provider (x64)

1.4 Updating

1.4.1 Updating Protection Manager for FileSysteM on Windows

To update Protection Manager for File System on Windows, install the software after uninstalling one. See the “1.2.2 Installing Protection Manager for FileSystem on Windows”, “1.3.1 Uninstalling Protection Manager for FileSystem on Windows”.

1.4.2 Updating VSS Provider

To update VSS Provider, install the software after uninstalling one. See the “1.2.3 Installing VSS Provider”, “1.3.2 Uninstalling VSS Provider”.

Chapter 2 Preparing for Operation

For the flow for specifying the required environment settings for using Protection Manager and the procedures for these settings, see Chapter 3 *Preparation for Using Protection Manager* in the *NEC Storage Software Protection Manager CLI User's Guide*.