



HITACHI INDUSTRIAL COMPUTER HF-W7500 Model 40

SETUP GUIDE



HITACHI

HITACHI INDUSTRIAL COMPUTER HF-W7500 Model 40

SETUP GUIDE

Read and keep this manual.

- Read safety instructions carefully and understand them before starting your operation.
- Keep this manual at hand for reference.

USER'S MANUAL

First Edition, October 2014, WIN-63-0091 (out of print) Second Edition, November 2014, WIN-63-0091-01 (out of print) Third Edition, March 2015, WIN-63-0091-02 (out of print) Fourth Edition, April 2015, WIN-63-0091-03

All Rights Reserved, Copyright © 2014, 2015, Hitachi Industry & Control Solutions, Ltd.

The contents of this publication may be revised without prior notice.

No part of this publication may be reproduced in any form or by any means without permission in writing from the publisher.

Printed in Japan.

TP<IC> (FL-MW2007)

SAFETY INSTRUCTIONS Carefully read and fully understand the safety precautions below before operating the equipment. • Operate the equipment by following the instructions and procedures described in this manual. • Pay attention especially to safety precautions displayed on the equipment or in this manual. Make sure you follow them. Otherwise, personal injury and property damage including damage to the equipment may result. • A safety precaution is indicated by a heading as shown below. A heading is either a safety alert symbol; a word such as "DANGER", "WARNING", "CAUTION", or "NOTICE"; or a combination of both. This is a safety alert symbol. This symbol is used to signify potential hazards that may result in personal injury or death. Make sure you follow the safety message that follows this symbol in order to avoid possible injury or death. DANGER: This symbol is used to indicate imminent hazards that will highly likely result in serious personal injury or death. **M** WARNING: This symbol is used to indicate potential hazards that may result in serious personal injury or death. CAUTION: This symbol is used to indicate potential hazards that may result in minor or moderate personal injury. *NOTICE*: This symbol is used to indicate hazards that may result in equipment or property damage but not personal injury. The heading "NOTE" is used to indicate a cautionary note about handling and operation of the equipment. • Do not attempt to perform any operation that is not described in this manual. If there is any problem with the equipment, call your maintenance personnel. • Read this manual carefully and fully understand the directions and precautions written in this manual before operating the equipment.

- Keep this manual nearby so that you can reference the manual anytime you need it.
- Every effort has been made to specify the best precautions on the equipment and in the manual. Nevertheless, unexpected incidents may occur. When you use the equipment, you are asked not only to follow the instructions but also to use your own judgement on safety.



1. COMMON SAFETY PRECAUTIONS

Carefully read and fully understand the following safety precautions.

1.1 🔥 WARNING

- This equipment is not designed and manufactured to be used for a life-critical system that requires extreme safety. If there is a possibility that the equipment may be used for this purpose, contact one of our sales representatives.
- In case of smoke, a burning smell, or the like, turn off the power to the equipment, disconnect the power cable from the outlet, and contact your sales representative or maintenance personnel. Using the faulty equipment without repair may result in a fire or an electric shock.
- This equipment has built-in magnetic disk drives. Do not hit the equipment or give a shock or vibration to the equipment because that may cause the equipment to fail. Should you drop the equipment or damage its chassis, disconnect the power cable from the outlet and contact your maintenance personnel. Using the faulty equipment without repair may result in a fire or an electric shock. Do not give a shock to the equipment when unpacking or carrying the equipment.
- Do not modify this equipment because that may result in a fire or an electric shock. In no event will Hitachi be responsible for any consequences that results from the modification or alteration of the equipment.

SAFETY INSTRUCTIONS (Continued)

1.2 🔥 CAUTION

- If the equipment drops or is tipped over, personal injury may result. Pay full attention when transporting the equipment.
- Make sure you do not catch or hit your fingers to cause personal injury when unpacking or carrying the equipment.

SAFETY INSTRUCTIONS (Continued)

1.3 NOTICE

- This equipment alone cannot guarantee the system safety. In order to ensure sufficient safety of your system even when this equipment should fail, malfunction, or have program bugs, you must add systemic protections such as building external protective/safety circuits to facilitate safety measures to prevent personal injury and serious accidents.
- Use the basic software that we specify. Operation is not guaranteed if any other basic software is used.
- Do not use the equipment in the environment full of dust or with corrosive gas because that may cause the equipment to fail.
- Make sure sufficient clearance is provided for air intake and exhaust in front of and behind the equipment. Otherwise, the temperature inside the equipment may rise and that may cause a failure or short life span of the equipment. In addition, you need to ensure sufficient clearance for maintenance work.
- Performing emergency shutdown (that is, unplugging the power cable from the outlet or shutting off the circuit breaker without proper shutdown of the OS) may cause the OS or applications not to work properly or may cause the saved data to be corrupted. Never perform emergency shutdown unless you must stop the system immediately due to some kind of error.
- Keep in mind that if the power supply is cut, the system may not be able to recover automatically.
- If you insert or access a disk (CD or DVD), the system load may increase and running applications may be affected. Do not insert or access a disk during online operation (system operation).
- Once disk (CD or DVD) access is complete, eject the disk from the DVD drive.
 Leaving it in the DVD drive may result in failure.

• Leaving the disk tray open may result in failure. Make sure that the disk tray is closed when not in use.



2. SAFETY WARNINGS IN THIS MANUAL

2.1 Safety Warning Indicated as "NOTICE"

• Depending on the type of failure, important files may be lost when you use this equipment. Files can be lost by power failure and human mistakes during operation in addition to the failure of the equipment. Should such a situation occur, the files cannot be recovered. In order to prevent data loss, make it a routine to save your files and establish a systematic way of backing up files. (See page i.)

• A recovery DVD contains an image file created for the hardware configuration at the factory shipment. If the hardware configuration has changed from the one at the factory, the OS may not start after restoration work. Remove all external storage devices to resume the hardware configuration at the factory shipment before you perform restoration work using a recovery DVD.

When a recovery DVD is used, <u>all data in the system drive is deleted</u>. Back up the data beforehand as required.

(See page 3-2.)

This Page Intentionally Left Blank

PREFACE

This manual describes the setup procedure of the OS installed in the HITACHI INDUSTRIAL COMPUTER HF-W7500 Model 40, namely the following pre-installed OS.

- Windows® 7 Professional
- Windows Server® 2008 R2 Standard
- Windows Server® 2012 R2 Standard

<Organization of this manual>

This manual is organized as follows:

- CHAPTER 1 SETUP PROCEDURE WHEN YOU TURN ON THE POWER FOR THE FIRST TIME
- CHAPTER 2 CONFIGURING BASIC SETTINGS AFTER OS SETUP
- CHAPTER 3 RESTORING THE FACTORY-SHIPPED CONDITION USING A RECOVERY DVD
- CHPATER 4 PRECAUTION
- APPENDIX A SETUP PROCEDURE WHEN USING Windows XP Mode (FOR Windows® 7 ONLY)
- APPENDIX B SETUP PROCEDURE WHEN BUILDING A VIRTUAL ENVIRONMENT (FOR Windows Server® 2008 R2)
- APPENDIX C SETUP PROCEDURE WHEN BUILDING A VIRTUAL ENVIRONMENT (FOR Windows Server® 2012 R2)

<Use of terms in this manual>

In this manual, the following definition of terms is used:

- Install: An act of incorporating software into a hard disk on a computer.
- Setup: An act of configuring the environment of a computer for the purpose of using software on the computer.
- Virtual machine: A virtual hardware environment provided by Virtual PC or Hyper-V®.
- Host OS: An operating system used as a platform for running a virtual machine.
- Guest OS: An operating system that runs on a virtual machine.

NOTICE

Depending on the type of failure, important files may be lost when you use this equipment. Files can be lost by power failure and human mistakes during operation in addition to the failure of the equipment. Should such a situation occur, <u>the files cannot be recovered.</u> In order to prevent data loss, <u>make it a routine to save your files and establish a systematic way of backing up files.</u>

<Note for storage capacity calculations>

- Memory capacities and requirements, file sizes and storage requirements, etc. must be calculated according to the formula 2ⁿ. The following examples show the results of such calculations by 2ⁿ (to the right of the equals signs).
 - 1 KB (kilobyte) = 1,024 bytes
 - 1 MB (megabyte) = 1,048,576 bytes
 - 1 GB (gigabyte) = 1,073,741,824 bytes
 - 1 TB (terabyte) = 1,099,511,627,776 bytes
- As for disk capacities, they must be calculated using the formula 10ⁿ. Listed below are the results of calculating the above example capacities using 10ⁿ in place of 2ⁿ.
 - 1 KB (kilobyte) = 1,000 bytes
 - 1 MB (megabyte) = $1,000^2$ bytes
 - 1 GB (gigabyte) = $1,000^3$ bytes
 - 1 TB (terabyte) = $1,000^4$ bytes

<Trademarks>

- Microsoft®, Windows®, Windows Server®, Internet Explorer®, and Hyper-V® are trademarks or registered trademarks of U.S. Microsoft Corporation in the United States and other countries.
- All other product names (software and hardware) not from Hitachi described in this manual are the registered trademarks, the trademarks, or the products of their respective owners.

<Note for replacing terms for Windows Server® 2012 R2>

This manual describes user actions in Windows®. The terms, "log on" and "log off", in Windows® 7 and Windows Server® 2008 R2 have been renamed "sign in" and "sign out" respectively in Windows Server® 2012 R2. If the OS you use is Windows Server® 2012 R2, replace the former terms in this manual with the latter terms as necessary.

CONTENTS

SAFETY INSTRUCTIONS	S-1
CHAPTER 1 SETUP PROCEDURE WHEN YOU TURN ON	
THE POWER FOR THE FIRST TIME	
1.1 Setting Up Windows® 7	
1.1.1 Preparing the setup	
1.1.2 Setup procedure of Windows® 7 Professional	
1.2 Setting Up Windows Server® 2008 R2	
1.2.1 Preparing the setup	
1.2.2 Setup procedure of Windows Server® 2008 R2 Standard	
1.3 Setting Up Windows Server® 2012 R2	
1.3.1 Preparing the setup	
1.3.2 Setup procedure of Windows Server® 2012 R2 Standard	. 1-12
CHAPTER 2 CONFIGURING BASIC SETTINGS AFTER OS SETUP	
2.1 Setting Up Basic Settings of Windows® 7	2-2
2.1.1 Overview of the setup procedure of basic settings	2-2
2.1.2 Setting up automatic updating	2-3
2.1.3 Setting up the network environment	2-5
2.1.4 Formatting a free area on a hard disk	
2.2 Setting Up Basic Settings of Windows Server® 2008 R2	
2.2.1 Overview of the setup procedure of basic settings	
2.2.2 Setting up the display language	
2.3 Setting Up Basic Settings of Windows Server® 2012 R2	
2.3.1 Overview of the setup procedure of basic settings	
2.3.2 Setting up the display language	. 2-14
CHAPTER 3 RESTORING THE FACTORY-SHIPPED CONDITION	
USING A RECOVERY DVD	3-1
3.1 Overview of Restoration Procedure	3-1
3.2 Preparation	
3.3 Restoring the System Drive Back to the Factory-Shipped Condition	3-3
3.3.1 Procedure for restoring the system drive back to the factory-shipped condition	3-3
3.3.2 Errors generated during a restoration process and their corrective actions	. 3-11
CHAPTER 4 PRECAUTION	4-1
4.1 Event Log Entries during Setup	
4.2 Event Log Entries While the OS is Running	4-2
4.3 Display Errors Generated After a Command Prompt Opens Too Many Times	4-3
4.4 Scheduled Functions by Default	
4.5 Security Enhancements	
4.6 STOP Error (0x7e) While Using File Sharing	
4.7 Factory-Shipped Network Settings	
4.8 Note on the Application Error Displayed at Shutdown	
APPENDIX A SETUP PROCEDURE WHEN USING Windows XP Mode	
(FOR Windows® 7 ONLY)	A-1
\mathbf{v}	-

- APPENDIX B SETUP PROCEDURE WHEN BUILDING A VIRTUAL ENVIRONMENT (FOR Windows Server® 2008 R2) B-1
- APPENDIX C SETUP PROCEDURE WHEN BUILDING A VIRTUAL ENVIRONMENT (FOR Windows Server® 2012 R2) C-1

CHAPTER 1 SETUP PROCEDURE WHEN YOU TURN ON THE POWER FOR THE FIRST TIME

This chapter describes the following setup procedure.

• The setup procedure when you turn on the power for the first time after you purchase an HF-W.

Pre-installed OS	Description	
Windows® 7 Professional	Set up the equipment according to "1.1	Setting Up Windows® 7".
Windows Server® 2008 R2 Standard	Set up the equipment according to "1.2 2008 R2".	Setting Up Windows Server®
Windows Server® 2012 R2 Standard	Set up the equipment according to "1.3 2012 R2".	Setting Up Windows Server®

1.1 Setting Up Windows® 7

This section describes the setup procedure of the pre-installed Windows® 7 Professional.

- Basic settings of Windows® 7 Professional are configured.
- The setup of the RAS feature is automatically done.
- The procedure takes about 20 minutes.

1.1.1 Preparing the setup

The following items are necessary for the setup work. Before you start the setup work, decide or check those items beforehand.

Item	Description	
License certificate	Make sure that the license certificate is attached to the body of the product.	
Display language	Display language of Windows® 7 Professional	
	This equipment offers a Windows® Multilingual User Interface (MUI), and you can set the display language of Windows® itself to one of the following	
	languages:	
	English Chinese (Traditional)	
	Portuguese · Chinese (Traditional (ROC))	
	Thai • Chinese (Simplified)	
	• Korean	
	You cannot change the settings later. In order to change the display	
	language after setup is complete, use a recovery DVD to restore the contents	
	of the system drive back to the factory-shipped condition, and then restart OS setup.	
	For information about how to use a recovery DVD to restore the contents of	
	the system drive back to the factory-shipped condition, see "CHAPTER 3	
	RESTORING THE FACTORY-SHIPPED CONDITION USING A	
	RECOVERY DVD".	
Country or region	Country or region of your location	
, ,	You can later change it in Control Panel.	
Time and currency format	The format used for displaying time and currency.	
	You can later change it in Control Panel.	
Keyboard or input method	The layout of the keyboard	
	You can later change it in Control Panel.	
User name	The user name of an administrator account of the computer.	
	You can later change it in Control Panel.	
Password	The password for the user name.	
	You can later change it in Control Panel.	
Computer name	The name used for identifying the computer on the network.	
_	• This name is used for identify the computer on the network. Select a	
	unique name on the network.	
	You can later change it in Control Panel.	

1.1.2 Setup procedure of Windows® 7 Professional

Follow the procedure below to set up Windows® 7 Professional:

1. Turn on the power to this equipment.

Windows starts and prepares for the setup.

Then, a message "Setup is installing devices. Please wait..." is displayed to indicate that device drivers are being installed.

• This process may take a couple of minutes. Just wait until this process is complete. Then the Windows restarts. Wait for a while, then the **Set Up** window for Windows® 7 Professional appears.

2. A window is displayed to select a display language.

Select a display language and then click **Next**. For example, if you want to select the English language, select **My language is English** from the list.

(It should be noted that the language used in the window is changed to the specified display language immediately after you select the language.)

The correspondence between the display language and the notation in the list is as in the table below. (In the same order as in the list)

Display language	Notation in the list
English	My language is English
Portuguese	O meu idioma é português (Portugal)
Thai	ภาษาของฉันคือไทย
Korean	내 언어: 한국어
Chinese (Traditional)	我的語言是中文 (繁體)
Chinese (Traditional (ROC))	我的語言是中文(繁體)(中華民國)
Chinese (Simplified)	我的语言是中文(简体)

NOTE

- After this point, Windows® 7 Professional uses the language specified here as the language used on the screen. In this manual and other manuals of this product, explanations are based on the assumption that English is used on the screen. If you use a language other than English as the display language, translate expressions in the explanations to the display language as required.
- In Windows® 7 Professional, you cannot change the display language after OS setup is complete. In order to change the display language after setup is complete, use a recovery DVD to restore the contents of the system drive back to the factory-shipped condition and then restart OS setup. For information about how to use the recovery DVD to restore the contents of the system drive back to the factory-shipped condition, see "CHAPTER 3 RESTORING THE FACTORY-SHIPPED CONDITION USING A RECOVERY DVD".

- 3. A setup screen for the country or region, the time and currency format, and the keyboard or input method settings appears.
 - If the English language was selected at step 2, just leave the settings as they are and click **Next**.
 - If you selected a language other than English, configure the country or region, the time and currency format, and the keyboard or input method settings as required and click **Next**.

The time and currency format setting must be configured based on the display language you selected at step 2 as the following table shows.

Display language	Time and currency format
English	English (United States)
Portuguese	Português (Portugal)
Thai	ไทย (ประเทศไทย)
Korean	한국어(대한민국)
Chinese (Traditional)	中文(繁體,香港特別行政區)
Chinese (Traditional (ROC))	中文(繁體, 台灣)
Chinese (Simplified)	中文(简体,中国)

NOTE

The time and currency format setting can be changed after OS setup is complete. Select **Control Panel > Clock, Language, and Region** and then click **Region and Language**. The **Regional and Language Option** window opens. Configure the time and currency format setting on the **Formats** tab.

4. The user name input window is displayed.

• Enter the user name and the computer name and click **Next**.

NOTE -

The computer name is automatically generated by appending "-PC" to the end of the user name. Note that if you select the Thai language at step 2, this automatically generated computer name cannot be used as is. Delete the characters that have been automatically added to the end of the user name, and then edit the computer name. You can use the following characters in the computer name: alphabetic characters ("a" through "z" and "A" through "Z"), numeric characters (0 through 9), and the hyphen-minus ("-").

- 5. The password input window is displayed.
 - Enter a password in the **Type a password** box and in the **Retype your password** box.
 - Enter a password hint in the **Type a password hint** box.
 - Click Next.
- 6. The **Please read the license terms** window is displayed.
 - Check the displayed contents and select the **I accept the license terms** check box.
 - Click Next.
- 7. The **Help protect your computer and improve Windows automatically** window is displayed.
 - Click Ask me later.
- 8. The **Review your time and date settings** window is displayed.
 - Configure the time zone, the date and the time.
- NOTE -

Regardless of the display language selected at step 2, "(UTC-08:00) Pacific Standard Time (US & Canada)" is selected as the time zone by default. Set the time zone according to the actual location where this equipment is used.

• Click Next.

Depending on the configuration at step 3, the equipment may restart at this point automatically.

- 9. A message "Setup program is configuring memory dump file. Please wait..." will be displayed eventually to indicate that an area is currently being reserved for a memory dump file.
 - This process may take a couple of minutes. Just wait until this process is complete.
- 10. The Windows Security window is displayed.
 - Select Always trust software from "Hitachi, Ltd.".
 - Click Install.
- 11. The setup is complete, and then you are automatically logged on to the Windows.
- 12. After you are logged on, a message is displayed to prompt you to restart the equipment.
 - Click **Restart Now** to restart.

This completes Windows® 7 Professional setup. From this point on, follow the instruction in "CHAPTER 2 CONFIGURING BASIC SETTINGS AFTER OS SETUP" to configure the basic settings of the OS.

— NOTE — _____

- A message "Configuring Windows features **% complete Do not turn off your computer." may be displayed when the OS shuts down (or reboots) shortly after you complete the setup. This message is displayed when the display language resources that you did not choose during the setup are deleted. This process may take a couple of minutes. Just wait until this process is complete. When the process is complete, the power will be turned off (or the OS will restart) automatically.
- In order to allow more reliable fault analysis, this equipment is configured to collect a complete memory dump when a system error (blue screen) occurs. This setting becomes effective after the system restarts at step 12.

1.2 Setting Up Windows Server® 2008 R2

This section describes the setup procedures of the pre-installed Windows Server® 2008 R2 Standard.

- Basic settings of Windows Server® 2008 R2 Standard are configured.
- The setup of the RAS feature is automatically done.
- The procedure takes about 20 minutes.
- 1.2.1 Preparing the setup

The following items are necessary for the setup work. Before you start the setup work, decide or check those items beforehand.

Item	Description	
License certificate	Make sure that the license certificate is attached to the body of the product.	
Display language	Display language of Windows Server® 2008 R2 Standard	
	This equipment offers a Windows® Multilingual User Interface (MUI), and	
	you can set the display language of Windows® itself to one of the following	
	languages:	
	English Chinese (Traditional)	
	Portuguese · Chinese (Traditional (ROC))	
	Thai • Chinese (Simplified)	
	• Korean	
	You can later change it in Control Panel.	
Country or region	Country or region of your location	
	You can later change it in Control Panel.	
Time and currency format	The format used for displaying time and currency.	
	You can later change it in Control Panel.	
Keyboard or input method	The layout of the keyboard	
	You can later change it in Control Panel.	
Administrator password	Administrator password	
	You can later change it in Control Panel.	

1.2.2 Setup procedure of Windows Server® 2008 R2 Standard

Follow the procedure below to set up Windows Server® 2008 R2 Standard.

1. Turn on the power to this equipment.

Windows starts and prepares for the setup.

Then, a message "Setup is installing devices. Please wait..." is displayed to indicate that device drivers are being installed.

• This process may take a couple of minutes. Just wait until this process is complete. Then the Windows restarts. Wait for a while, then the **Set Up** window for Windows Server® 2008 R2 Standard appears.

2. A window is displayed to select a display language.

Select a display language and then click **Next**. For example, if you want to select the English language, select **My language is English** from the list.

(It should be noted that the language used in the window is changed to the specified display language immediately after you select the language.)

The correspondence between the display language and the notation in the list is as in the table below. (In the same order as in the list)

Display language	Notation in the list
English	My language is English
Portuguese	O meu idioma é português (Portugal)
Thai	ภาษาของฉันคือไทย
Korean	내 언어: 한국어
Chinese (Traditional)	我的語言是中文(繁體)
Chinese (Traditional (ROC))	我的語言是中文(繁體)(中華民國)
Chinese (Simplified)	我的语言是中文(简体)

NOTE

- After this point, Windows Server® 2008 R2 Standard uses the language specified here as the language used on the screen. In this manual and other manuals of this product, explanations are based on the assumption that English is used on the screen. If you use a language other than English as the display language, translate expressions in the explanations to the display language as required.
- A display language can be changed after OS setup is complete. For information about how to set up a display language, see "2.2.2 Setting up the display language".

- 3. A setup screen for the country or region, the time and currency format, and the keyboard or input method settings appears.
 - If the English language has been selected in step 2, just leave the settings as they are and click **Next**.
 - If you has selected a language other than English, configure the country or region, the time and currency format, and the keyboard or input method settings as required and click **Next**.

The time and currency format setting must be configured based on the display language you selected in step 2 as the following table shows.

Display language	Time and currency format
English	English (United States)
Portuguese	Português (Portugal)
Thai	ไทย (ประเทศไทย)
Korean	한국어(대한민국)
Chinese (Traditional)	中文(繁體, 香港特別行政區)
Chinese (Traditional (ROC))	中文(繁體, 台灣)
Chinese (Simplified)	中文(简体,中国)

- NOTE

The time and currency format setting can be changed after OS setup is complete. Select **Control Panel > Clock, Language, and Region** and then click **Region and Language**. The **Regional and Language Option** window appears. Configure the time and currency format setting on the **Formats** tab.

- 4. The **Please read the license terms** window is displayed.
 - $\boldsymbol{\cdot}$ Check the displayed contents and select the \boldsymbol{I} accept the license terms check box.
 - Click Start.
- 5. A message "Setup program is configuring memory dump file. Please wait..." will be displayed eventually to indicate that an area is currently being reserved for a memory dump file.
- This process may take a couple of minutes. Just wait until this process is complete. 6. The **Windows Security** window is displayed.
 - Select Always trust software from "Hitachi, Ltd.".
 - Click Install.
- 7. A screen is displayed to prompt you to change the Administrator password.
 - Click OK.

8. The password input window is displayed.

In the **New password** box and the **Confirm password** box, enter the password, and then press **Enter** or click $[\rightarrow]$.

NOTE

When you set up an Administrator password, make sure that the password meets the following conditions:

- The password must consist of at least six characters.
- At least three out of the following four types of characters must be used: ASCII uppercase alphabetic characters, ASCII lowercase alphabetic characters, ASCII numeric characters, and ASCII symbol characters.
- Any three or more consecutive characters used in the user account name or user name must not be used.
 - 9. A screen is displayed to indicate that your password has been successfully changed. Click **OK**.
 - 10. The setup is complete, and then you are automatically logged on to the Windows.
 - 11. After you are logged on, a message is displayed to prompt you to restart the equipment. And then the **Initial Configuration Tasks** window appears.
 - If you do not want to show this window at the next startup, select the **Do not show this window at logon** check box.
 - Click the **Close** button [×] on the right upper corner of the **Initial Configuration Tasks** window to close the window.
 - Click **Restart Now** to restart.

This completes Windows Server® 2008 R2 Standard setup. From this point on, follow the instruction in "CHAPTER 2 CONFIGURING BASIC SETTINGS AFTER OS SETUP" to configure the basic settings of the OS.

NOTE

In order to allow more reliable fault analysis, this equipment is configured to collect a complete memory dump when a system error (blue screen) occurs. This setting becomes effective after the system restarts at step 11.

1.3 Setting Up Windows Server® 2012 R2

This section describes the setup procedures of the pre-installed Windows Server® 2012 R2 Standard.

- Basic settings of Windows Server® 2012 R2 Standard are configured.
- The setup of the RAS feature is automatically done.
- The procedure takes about 20 minutes.
- 1.3.1 Preparing the setup

The following items are necessary for the setup work. Before you start the setup work, decide or check those items beforehand.

Item	Description
License certificate	Make sure that the license certificate is attached to the body of the product.
Display language	Display language of Windows Server® 2012 R2 Standard This equipment offers a Windows® Multilingual User Interface (MUI), and you can set the display language of Windows® itself to one of the following languages: • English • Korean • Portuguese • Chinese (Simplified) • Thai You can later change it in Control Panel.
Country or region	Country or region of your location You can later change it in Control Panel.
Time and currency format	The format used for displaying time and currency. You can later change it in Control Panel.
Keyboard or input method	The layout of the keyboard You can later change it in Control Panel.
Administrator password	Administrator password You can later change it in Control Panel.

- 1.3.2 Setup procedure of Windows Server® 2012 R2 StandardFollow the procedure below to set up Windows Server® 2012 R2 Standard.
 - Turn on the power to this equipment.
 Windows starts and prepares for the setup.
 Then, a message "Setup is installing devices. Please wait..." is displayed to indicate that device drivers are being installed.
 This process may take a couple of minutes. Just wait until this process is complete.
 - This process may take a couple of minutes. Just wait until this process is complete.
 - 2. Then the Windows restarts. Wait for a while, then a setup window for display language, country or region, app language, and keyboard layout is displayed.

First, select a display language (Language to install). For example, if you want to select the English language, click **English** in the list.

(Note) The language used in the window is changed to the specified display language immediately after you select the language.

The correspondence between the display language and the notation in the list is as in the table below. (In the same order as in the list)

Display language	Notation in the list
English	English
Portuguese	português (Portugal)
Thai	ไทย
Korean	한국어
Chinese (Simplified)	中文(简体)

NOTE -

- After this point, Windows Server® 2012 R2 Standard uses the language specified here as the language used on the screen. In this manual and other manuals of this product, explanations are based on the assumption that English is used on the screen. If you use a language other than English as the display language, translate expressions in the explanations to the display language as required.
- A display language can be changed after OS setup is complete. For information about how to set up a display language, see "2.3.2 Setting up the display language".

Second, configure a country or region, app language, and a keyboard layout.

- If the English language was selected, just leave the settings as they are and click **Next**.
- If you selected a language other than English, configure country or region, app language, and keyboard layout as required, and click **Next**.

The app language (Time and currency format) must be configured as the following table shows based on the display language you selected.

Display language	App language
English	English (United States)
Portuguese	Português (Portugal)
Thai	ไทย (ประเทศไทย)
Korean	한국어(대한민국)
Chinese (Simplified)	中文(简体,中国)

NOTE

The app language (Time and currency format) setting can be changed after the OS setup is complete. Select **Control Panel** > **Clock, Language, and Region** and then click **Region**. The **Regional** window appears. Configure the Time and currency format setting on the **Formats** tab.

- 3. The license terms are displayed.
 - Check the terms, and then click **I accept**.
- 4. A screen is displayed to prompt you to enter the Administrator password.In the **Password** box and the **Reenter password** box, enter the password, and then click **Finish**.

NOTE

When you set up an Administrator password, make sure that the password meets the following conditions:

- The password must consist of at least six characters.
- At least three out of the following four types of characters must be used: ASCII uppercase alphabetic characters, ASCII lowercase alphabetic characters, ASCII numeric characters, and ASCII symbol characters.
- Any three or more consecutive characters used in the user account name or user name must not be used.

- 5. A message "Setup program is configuring memory dump file. Please wait..." will be displayed eventually to indicate that an area is currently being reserved for a memory dump file.
 - This process may take a couple of minutes. Just wait until this process is complete.
- 6. When the setup process is complete, the sign-in screen appears.
 - Press **Ctrl**+**Alt**+**Delete**.
- 7. A screen is displayed to prompt you to enter the Administrator password.
 - Enter the password, and then press **Enter** or click $[\rightarrow]$
 - You are signed in, and the server manager starts.
- 8. Restart the system. This action validates the RAS feature.

This completes Windows Server® 2012 R2 Standard setup. From this point on, follow the instruction in "CHAPTER 2 CONFIGURING BASIC SETTINGS AFTER OS SETUP" to configure the basic settings of the OS.

NOTE -

In order to allow more reliable fault analysis, this equipment is configured to collect a complete memory dump when a system error (blue screen) occurs. This setting becomes effective after the system restarts at step 8.

CHAPTER 2 CONFIGURING BASIC SETTINGS AFTER OS SETUP

This chapter describes the following setup procedure:

• Setup procedure of basic settings after OS setup

Perform this setup procedure as required after OS setup.

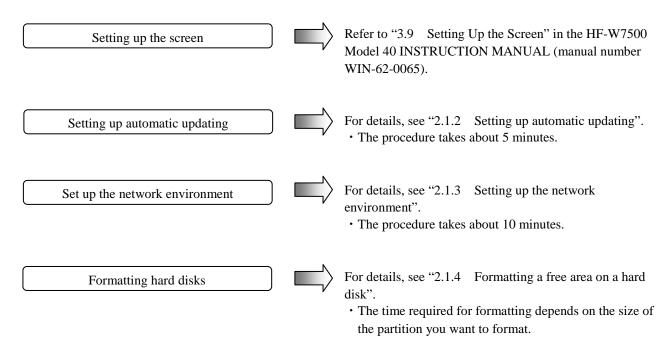
Pre-installed OS	Description
Windows® 7 Professional	Set up those settings according to "2.1 Setting Up Basic Settings of Windows® 7".
Windows Server® 2008 R2	Set up those settings according to "2.2 Setting Up Basic Settings of Windows
Standard	Server® 2008 R2".
Windows Server® 2012 R2	Set up those settings according to "2.3 Setting Up Basic Settings of Windows
Standard	Server® 2012 R2".

2.1 Setting Up Basic Settings of Windows® 7

This section describes the setup procedures of basic settings for the pre-installed Windows® 7 Professional.

Perform these procedures as required after you follow the instruction in "CHAPTER 1 SETUP PROCEDURE WHEN YOU TURN ON THE POWER FOR THE FIRST TIME" to set up the OS.

2.1.1 Overview of the setup procedures of basic settings

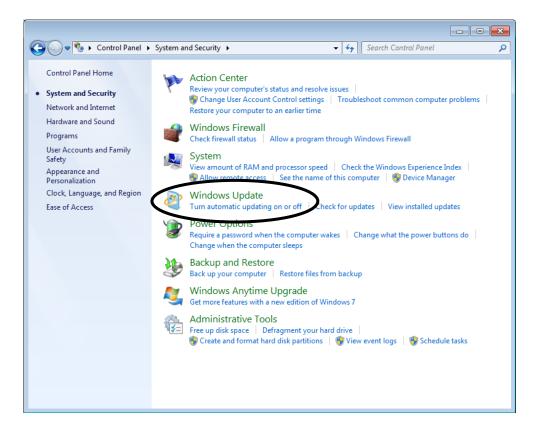


2.1.2 Setting up automatic updating

Windows® 7 has an automatic updating function for bug fixes. This function automatically downloads and installs bug fix updates released on the Microsoft Website. It should be noted that currently running programs can be affected when this function is executed. The modules updated by this function can also affect currently running programs. Because of all this, this function must be turned "off".

The following procedure shows how to turn off automatic updating.

- 1. If you are not logged on to the computer as an administrator account, log on to the computer as an administrator account.
- 2. Click Start and then click Control Panel.
- 3. The Control Panel window opens. Click System and Security.
- 4. Then click Turn automatic updating on or off under Windows Update.



5. The Choose how Windows can install updates window is displayed. Select Never check for updates (not recommended) and click OK.

Image: System and Security → Windows Update → Change settings Image: Search Control Panel Image: Search Control Panel Image: Search Control Panel
Choose how Windows can install updates When your computer is online, Windows can automatically check for important updates and install them using these settings. When new updates are available, you can also install them before shutting down the computer. How does automatic updating help me?
Inputate
Recommended updates
Who can install updates ☑ Allow all <u>u</u> sers to install updates on this computer
Note: Windows Update might update itself automatically first when checking for other updates. Read our privacy statement online.
🛞 OK Cancel

6. Click the **Close** button [×] at the upper right corner of the **System and Security** window.

2.1.3 Setting up the network environment

In the local area network settings, DHCP is used (that is, "Obtain an IP address automatically" is selected) by default. If you do not use DHCP and want to specify an IP address, follow the procedure below:

Note that the following procedure is for the case that Internet Protocol Version 4 (TCP/IPv4) is used. If you use Internet Protocol Version 6 (TCP/IPv6), select **Internet Protocol Version 6 (TCP/IPv6)** at step 8.

- 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
- 2. Click **Start** and then click **Control Panel**.
- 3. Click View network status and tasks under Network and Internet.
- 4. The **Network and Sharing Center** window is displayed. Click **Change adapter settings** in the left pane.
- 5. The Network Connections window is displayed.
- 6. Double-click the Local Area Connection icon.
- 7. If you see the User Account Control window, click Yes.
- NOTE -

If there are multiple **Local Area Connection** icons, use the following procedure to identify which Ethernet adapter a specific icon pertains to.

- Right-click the Local Area Connection icon to show a pop-up menu. Click **Properties**.
- Click **Configure**. In the window that appears, click the **Link Speed** tab.
- · Click Identify Adapter. In the Identify Adapter window, click Start.
- Then the LED on the Ethernet adapter corresponding to the selected Local Area Connection icon flashes.

8. The Local Area Connection Property window is displayed.
• Select Internet Protocol Version 4 (TCP/IPv4), and then click Properties.

📮 Local Area Connection Properties
Networking Sharing
Connect using:
Intel(R) 82574L Gigabit Network Connection
Configure
This connection uses the following items:
Client for Microsoft Networks
🗹 🚚 QoS Packet Scheduler
🗹 🚚 File and Printer Sharing for Microsoft Networks
Internet Protocol Version 6 (TCP/IPv6)
Internet Protocol Version 4 (TCP/IPv4)
Link-Layer Topology Discovery Mapper I/O Driver
Link-Layer Topology Discovery Responder
Install Uninstall Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK Cancel

- 9. The Internet Protocol Version 4 (TCP/IPv4) Properties window is displayed.
 - Select Use the following IP address and type the IP address, the subnet mask, and the default gateway.
 - Click OK.

Internet Protocol Version 4 (TCP/IPv4)	Properties
General	1
You can get IP settings assigned autor this capability. Otherwise, you need to for the appropriate IP settings.	
Obtain an IP address automatical	ly
• Use the following IP address:	
IP address:	10 . 10 . 10 . 10
Subnet mask:	255.255.0.0
Default gateway:	10 . 10 . 10 . 1
Obtain DNS server address autor	natically
• Use the following DNS server add	resses:
Preferred DNS server:	
Alternate DNS server:	• • •
Validate settings upon exit	Ad <u>v</u> anced
	OK Cancel

- 10. Close all opened windows.
 - In the Local Area Connection Property window, click the Close button.
 - In the **Network Connections** window, click the **Close** button [×] at the upper right corner.

- 2.1.4 Formatting a free area on a hard disk
 - 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
 - 2. Click **Start** and then click **Control Panel**.
 - 3. Click System and Security. Under Administrative Tools, click Create and format hard disk partitions.
 - 4. If you see the User Account Control window, click Yes.
 - 5. The **Disk Management** window opens. Right-click a space indicated as "Unallocated" to display a menu. On the menu, click **New Simple Volume**.

🗃 Disk Manageme	nt						×	
File Action Vie	ew Help							
de 🔿 🖬 👔	📷 🖸 💕 !	1						
Volume	Layout	Туре	File System	Status	Capacity	Free Spa	%	
🗀 (C:)	Simple	Basic	NTFS	Healthy (B.,		82.34 GB	82	
System Reserved	l Simple	Basic	NTFS	Healthy (S	100 MB	69 MB	69	
<		III					•	
Basic	System Res	(C:)					72	
465.76 GB Online	100 MB NTF	100.00 GB NTF	-	365.66				
Unline	Healthy (Sys	Healthy (Boot,	Page File, Crash	Durr Unalle	New Simple V	aluma	4	
	1				New Spanned		-	
CD-ROM 0 DVD (D:)					New Striped V			
DVD (D:)	VD (D:)				New Mirrored Volume			
No Media				New RAID-5 Volume				
					New KAID-5 V	olume		
					Properties		- 1	
					Help			
Unallocated	Primary partition	n						

6. The New Simple Volume Wizard starts. Click Next.



7. The **Specify Drive Size** window is displayed. Enter a volume size you like, and click **Next**.

lew Simple Volume Wizard	
Specify Volume Size Choose a volume size that is betwe	en the maximum and minimum sizes.
Maximum disk space in MB:	374437
Minimum disk space in MB:	8
<u>S</u> imple volume size in MB:	374437
	< Back Next > Cancel

8. The **Assign Drive Letter or Path** window is displayed. Select **Assign the following drive letter**, and select a drive letter to be assigned. (If you do not need to change a drive letter, leave it as is.) Click **Next**.

New Simple Volume Wizard
Assign Drive Letter or Path For easier access, you can assign a drive letter or drive path to your partition.
Assign the following drive letter: E Mount in the following empty NTFS folder: Browse Do not assign a drive letter or drive path
< Back Next > Cancel

9. A window to select the format of the partition is displayed. Select **Format the volume with the following settings**, and in the **File system** list, select **NTFS**. Click **Next**.

New Simple Volume Wizard
Format Partition To store data on this partition, you must format it first.
Choose whether you want to format this volume, and if so, what settings you want to use.
Do not format this volume
Egmat this volume with the following settings:
File system: NTFS -
Allocation unit size: Default
Volume label: New Volume
Enable file and folder compression
< Back Next > Cancel

- 10. The **Completing the New Simple Volume Wizard** window is displayed. Click **Finish**.
 - Formatting the disk starts.

Completing the New Simple Volume Wizard
You have successfully completed the New Simple Volume Wizard.
You selected the following settings:
Volume type: Simple Volume
Volume size: 374437 MB
Drive letter or path: E: File system: NTFS
Allocation unit size: Default
Volume label: New Volume
To close this wizard, click Finish.
< Back Finish Can

11. When formatting the partition is complete, the created partition is indicated as "Healthy".

Image: Constraint of the system Status Capacity Free Spa Image: Constraint of the system Status Capacity Free Spa Image: Constraint of the system Status Capacity Free Spa Image: Constraint of the system Status Capacity Free Spa Image: Constraint of the system Status 100.00 GB 82.34 GB Image: New Volume (E) Simple Basic NTFS Healthy (P 365.66 GB 365.56 GB	arriesk Managemen _File _Action _Viev							×
Image: CC-ROM 0 Simple Basic NTFS Healthy (B 100.00 GB 82.34 GB			1					
Basic System Res (C.) Mew Volume (E:) 100.00 GB NTFS Monine 100.00 GB NTFS Healthy (Sys Healthy (Boot, Page File, Crash Durr Healthy (Sys Healthy (Boot, Page File, Crash Durr We be the state of t	🙃 (C:) 🗀 New Volume (E:)	Simple Simple	Basic Basic	NTFS NTFS	Healthy (B Healthy (P	100.00 GB 365.66 GB	82.34 GB 365.56 GB	9 8 1 6
Basic 465.76 GB Online System Res 100 MB NTF (C:) 100.00 GB NTFS Healthy (Boot, Page File, Crash Durr New Volume (E:) Healthy Basic Healthy Firmary Partition) CD-ROM 0 DVD (D:) No Media	i		III					
DVD (D:) No Media	Basic 465.76 GB	100 MB NTF	100.00 GB N		205.00	GB NTFS	tition)	
Unallocated Primary partition	No Media							
Unallocated Primary partition								
	Unallocated P	rimary partitio	n					

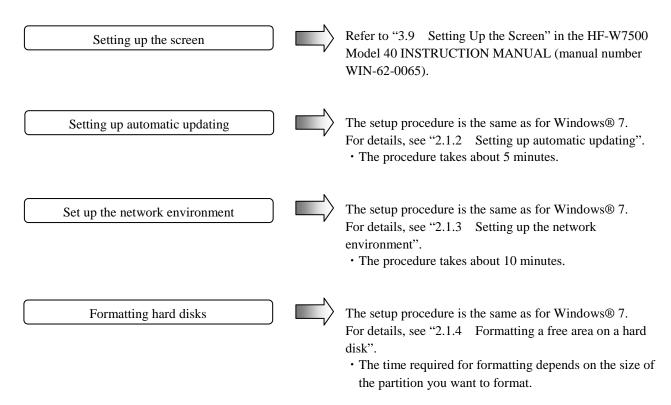
- 12. In the **Disk Management** window, click the **Close** button [×] at the upper right corner to close the window.
 - If the **AutoPlay** window appears, click the **Close** button [×] at the upper right corner to close the window.

2.2 Setting Up Basic Settings of Windows Server® 2008 R2

This section describes the setup procedures of basic settings for the pre-installed Windows Server® 2008 R2 Standard.

Perform these procedures as required after you follow the instruction in "CHAPTER 1 SETUP PROCEDURE WHEN YOU TURN ON THE POWER FOR THE FIRST TIME" to set up the OS.

2.2.1 Overview of the setup procedures of basic settings



2.2.2 Setting up the display language

In Windows Server® 2008 R2 Standard, you can change the display language from the one you selected at setup. When you change the display language settings, follow the procedure below.

For information about the list of display languages you can select from, see "1.2.1 Preparing the setup".

- 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
- 2. Click **Start** > **Control Panel**.
- 3. Under Clock, Language, and Region, click Change display language.
- 4. The **Region and Language** property window appears. In the drop-down list, select a display language, and click **OK**.

Region and Language		[
Formats Location Keyboards and Languag	ges Administrative	
─ Keyboards and other input languages		
To change your keyboard or input lan	iguage click Change keyboards.	
	Change keyboards	
How do I change the keyboard layout	t for the Welcome screen?	
Display language		
Install or uninstall languages that Wir where supported recognize speech as		
	🚱 Install/uninstall languages	
Choose a display language:		T
English	•	
How can I install additional languages?		

5. A message is displayed to prompt you to log off. Click Log off now to log off.

🔊 Change Display Language 🔀
You must log off for display language changes to take effect
Make sure you save your work and close all open programs before you log off.
Log off now Cancel

This completes the procedures for changing the display language settings. After you log back on, configure the following settings in the **Region and Language** property window.

Format	: Formats tab
Current location	: Location tab
Change keyboards	: Keyboards and Languages tab

- NOTE -

• Even after you change the display language settings, if an application does not support Unicode, the application does not change the language used for displaying text. If you want to change the display language for applications that do not support Unicode on the Administrative tab in the Region and Language property window, click Change system locale, and change the Current system locale.

	🚱 Region and Language Settings		
	Select which language (system locale) to use when displaying text in programs that do not support Unicode. This setting affects all user accounts on the computer.		
ſ	Current system locale: English (United States)		
	OK Cancel		

 The display language and other settings you configured in the Region and Language property window are only applicable for the current user account. If you want to apply those settings also to system accounts or new user accounts created in the future, on the Administrative tab, click Copy settings, and select the respective check boxes as below.

If applying to system accounts:

Select the Welcome screen and system accounts check box

If applying to new user accounts: Select the New user accounts check box

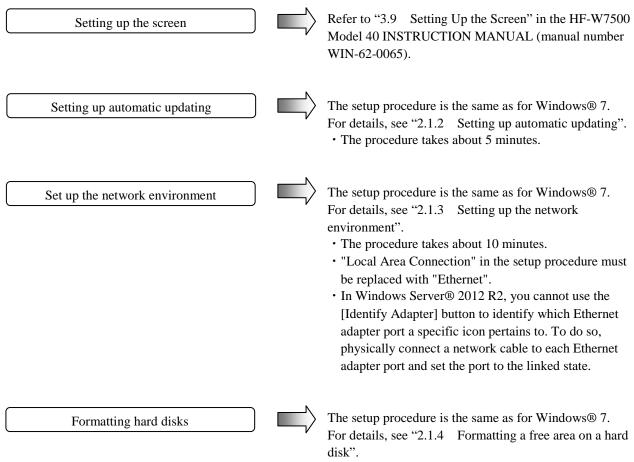
Current user		ł	
Display language:	English		
Input language:	English (United States) - US		
Format:	English (United States)		
Location:	United States		
Welcome screen			
Display language:	English		
Input language:	English (United States) - US		
Format:	English (United States)		
Location:	United States		
New user account	s		
Display language:	English		
Input language:	English (United States) - US	1	
Format:	English (United States)		
opy your current set	tings to:		
Welcome scree	n and system accounts		
New user accou	unts		
The new user accounts display language is currently inherited from the			

2.3 Setting Up Basic Settings of Windows Server® 2012 R2

This section describes the setup procedures of basic settings for the pre-installed Windows Server® 2012 R2 Standard.

Perform these procedures as required after you follow the instruction in "CHAPTER 1 SETUP PROCEDURE WHEN YOU TURN ON THE POWER FOR THE FIRST TIME" to set up the OS.

2.3.1 Overview of the setup procedures of basic settings



• The time required for formatting depends on the size of the partition you want to format.

2.3.2 Setting up the display language

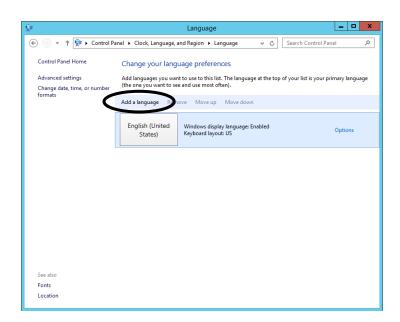
In Windows Server® 2012 R2 Standard, you can change the display language from the one you selected at setup. When you change the display language settings, follow the procedure below.

For information about the list of display languages you can select from, see "1.3.1 Preparing the setup".

– NOTE

Due to the requirements of the OS, the display language resources which are not selected will be deleted after the elapse of a certain period of time from the OS setup is completed. if you plan to use another display language, create a user account for each display language and select the display language.

- 1. If you are not signed in to the computer as an administrator, sign in to the computer as an administrator.
- 2. Right-click Start. Then a menu appears. On the menu, click Control Panel.
- 3. Under Clock, Language, and Region, click Add a language.
- 4. The Change your language preferences pane appears. Click Add a language.



(†		Add lang	uages		>
€ ⊚	★ ↑ 🛠 « Language I	Add languages	v C	Search languages	م
	Add a language				
	Use the search box to find m Group languages by: Langu				
	A	agename			^
	A				
	Afrikaans	shqip	Elsässisch		
	Afrikaans	Albanian	Alsatian		
	አማርኛ	العربية	Հայերեն		
	Amharic	Arabic	Armenian		
	অসমীয়া	Азәрбајчан дили	Azərbaycan dili		
	Assamese	Azerbaijani (Cyrillic)	Azerbaijani (Latin)		
	В				^ <u>~</u>
					<u> </u>
	Privacy statement			Add	ancel

5. The Add languages window appears. Select a display language, and click Add.

On this computer, the following display languages can be selected.

Display language	Selection procedure
English	Select English, click Open, and then select English(United States).
Chinese (Simplified)	Select Chinese(Simplified), click Open, and then select Chinese(Simplified, China).
Korean	Select Korean.
Thai	Select Thai.
Portuguese	Select Portuguese , click Open , and then select Portuguese (Portugal).

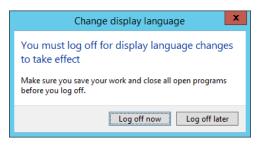
6. The selected display language is added to the **Change your language preferences** pane. Click **Options**.

\$₽		Language	- • ×
) 🔄 👻 ↑ 😤 ► Control Pa	nel 🕨 Clock, Language,	and Region + Language v 🖒 Search Control F	anel 🔎
Control Panel Home Advanced settings Change date, time, or number	Change your lang Add languages you war (the one you want to se	nt to use to this list. The language at the top of your list is your	primary language
formats	Add a language Rem	ove Move up Move down	
	English (United States)	Windows display language: Enabled Keyboard layout: US	Options
	中文(中华人民共 和国)	Windows display language: Available Input method: Microsoft Pinyin	Options
See also			
Fonts			
Location			

7. The Language options property window appears. Click Make this the primary language.

Langua	age options	D X
😑 💿 👻 ↑ 🕵 « Language 🕨 Language options	✓ ♂ Search Control Panel	,P
Chinese (Simplified, China)		
Windows display language		
Available		
Make this the primary language		
W ONNIA CONTRACTOR		
Input method		
Microsoft Pinyin	Options Remove	
Add an input method		
	Save	1

8. A message is displayed to prompt you to log off (sign out). Click **Log off now** to sign out.



This completes the procedure for changing the display language setting. After you log back on, configure the following settings in the **Region** property window.

Format	: Formats tab
Home location	: Location tab

– NOTE –

• Even after you change the display language settings, if an application does not support Unicode, the application does not change the language used for displaying text. If you want to change the display language for applications that do not support Unicode on the **Administrative** tab in the **Region** property window, click **Change system locale**, and change the **Current system locale**.

Region Settings
Select which language (system locale) to use when displaying text in programs that do not support Unicode. This setting affects all user accounts on the computer.
Current system locale: English (United States)
OK Cancel

 The display language and other settings you configured in the **Region** property window are only applicable for the current user account. If you want to apply those settings also to system accounts or new user accounts created in the future, on the **Administrative** tab, click **Copy settings**, and select the respective check boxes as below.

If applying to system accounts:

Select the Welcome screen and system accounts check box

If applying to new user accounts: Select the **New user accounts** check box

8	Welcome	screen and new user accounts settings	×
	The <u>s</u> ettings for the cu user accounts are displ	rrent user, welcome screen (system accounts) and new layed below.	
	Current user		
	Display language:	English (United States)	
	Input language:	English (United States) - US	
	Format:	English (United States)	
	Location:	United States	
	Welcome screen		
	Display language:	English (United States)	
	Input language:	English (United States) - US	
	Format:	English (United States)	
	Location:	United States	
	New user accounts		
	Display language:	English (United States)	
	Input language:	English (United States) - US	
	Format:	English (United States)	
	Location:	United States	
	Copy your current sett	ings to:	
	Welcome screer	and system accounts	
	New user accou		
_			_
		OK Cancel	

CHAPTER 3 RESTORING THE FACTORY-SHIPPED CONDITION USING A RECOVERY DVD

This chapter describes the following procedure:

• The procedure to restore the system drive back to the factory-shipped conditions when you discontinue the system you have built.

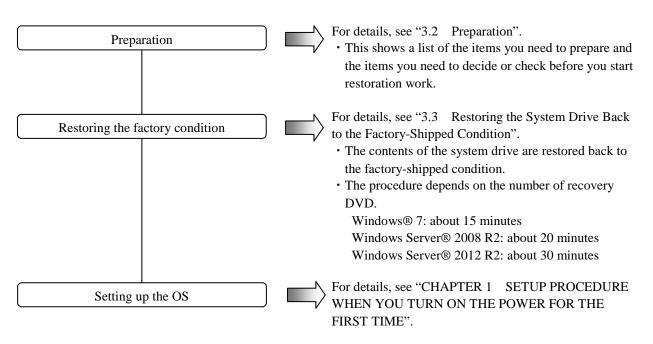
- NOTE

In order to perform the procedure described in this chapter, you need a recovery DVD. A recovery DVD comes inside the package of an HF-W only if you purchase an HF-W that is specifically stated to include a recovery DVD.

3.1 Overview of Restoration Procedure

This section describes the overview of the procedure to restore the system drive back to the factory-shipped condition when you discontinue the system you have built. After you restore the contents of the system drive back to the factory condition, follow the procedure described in "CHAPTER 1 SETUP PROCEDURE WHEN YOU TURN ON THE POWER FOR THE FIRST TIME" to set up the OS.

The following is a rough flow chart of the procedure.



NOTE

If you perform restoration work under the following condition using recovery DVDs, the drive letter for the DVD drive may not be the one in the factory settings.

• For an A model: A drive is mounted on Drive bay 2 or Drive bay 3.

• For a D model: A drive is mounted on Drive bay 3.

If this situation happens, change the drive letter for the DVD drive after the setup is complete, if necessary.

NOTICE

A recovery DVD contains an image file created for the hardware configuration at the factory shipment. If the hardware configuration has changed from the one at the factory, the OS may not start after restoration work. Remove all external storage devices to resume the hardware configuration at the factory shipment before you perform restoration work using a recovery DVD. When a recovery DVD is used, <u>all data in the system drive is deleted</u>. Back up the data beforehand as required.

3.2 Preparation

Before you start restoration work using recovery DVDs, have the following recovery DVDs ready.

Recovery DVD	HITACHI <u>HJ-7540*****</u> Product Recovery DVD
for HF-W	(The underlined part is the model number of the HF-W7500 Model 40 you
	purchased.)

3.3 Restoring the System Drive Back to the Factory-Shipped Condition

- 3.3.1 Procedure for restoring the system drive back to the factory-shipped condition Follow the procedure below to restore the system drive of an HF-W7500 Model 40 back to the factory-shipped condition using a recovery DVD. In this restoration procedure, we assume that the number of recovery DVDs is two for explanatory purposes. (Note) If the number of recovery DVDs is actually three, repeat steps 9 and 10. And, use the recovery DVDs in the following order: 1/3, 2/3, and 3/E.
 - 1. Turn on the power to the computer, and insert a recovery DVD "HITACHI <u>HJ-7540****</u> Product Recovery DVD (disc number: 1/2)" to the DVD drive. (The underlined part is the model number of the HF-W7500 Model 40 you purchased, and therefore the part indicated as <u>*</u>s is different depending on the model. In the following description of the procedure, replace the "<u>HJ-7540*****</u>" with the actual model number of the HF-W7500 Model 40 you purchased.
 - When you boot from the recovery DVD, the following confirmation message is displayed. (Note) If you cannot boot from the recovery DVD, turn off the computer, and then turn it back on.
 - If this computer is an HF-W7500 Model 40, click Yes.
 - If this computer is not an HF-W7500 Model 40, click No.

Product Recovery Utility				
Confirmation				
"HITACHI HJ-7540***** Product Recovery DVD" is only used for HJ-7540*****. Is this computer HJ-7540****?				
[Status]				

When you click **No**, the following message is displayed. Click **OK**. The recovery DVD is automatically ejected, and then the computer is automatically shut down. If you want to go back to the confirmation message window, click **Cancel**.

Product Recovery Utility
End the Product Recovery Utility. Click OK button to shut down.
OK Cancel

- 3. When you click **Yes** on the confirmation message window, the confirmation window for the following attention message is displayed.
 - If you are OK with the attention message, click **Yes**.
 - If you are not OK with the message, click No.

Attention	
This recovery program will deletes the personal data and your customized configuration settings when the drive restored. Be sure to back up your personal files before you use this DVD.	
[Status]	

When you click **No**, the following message box is displayed. Click **OK**. The recovery DVD is automatically ejected, and then the computer is automatically shut down.

If you want to go back to the confirmation window for the attention message, click **Cancel**.



- 4. When you click **Yes** on the confirmation window for the attention message, the selection window for the drive restore option is displayed.
 - If you want to restore the system drive back to the factory-shipped condition, select the restore option, and then click **Next**.

- Entire drive:

Select this option if you want to restore the whole system drive back to the factory-shipped condition or configure a new drive to the factoryshipped condition after you replace the system drive.

If you select this option and click Next, proceed to step 5.

- Only the system and boot partition:

Select this option if the system drive has partitions other than the boot partition (the partition on which Windows is installed) for data storage or other purposes and you want to restore the system drive back to the factory-shipped condition while keeping these partitions. If you select this option, only the boot partition is restored back to the factory-shipped condition.

If you select this option and click **Next**, proceed to step 7. You cannot select this option in the following cases.

- The system drive has no boot partitions.
- The system drive has more than one boot partition.
- The size of the boot partition is less than the minimum boot partition size defined for this computer.

(For an HF-W7500 Model 40, the minimum size is 80 GB.)

• If you want to cancel restoring the system drive back to the factory-shipped condition, click **Cancel**.

Product Recovery Utility
Choose restore option.
 Entire drive Restore to the factory-shipped default values the entire drive. (Delete all the data on the drive.) Only the system and boot partition Restore to the factory-shipped default values only the system and boot partition.
Next Cancel

When you click **Cancel**, the following message is displayed. Click **OK**. The recovery DVD is automatically ejected, and then the computer is automatically shut down.

If you want to go back to the selection window for the drive restore option, click **Cancel**.



<When you select Entire drive in the selection window for the drive restore option>

- 5. If you select **Entire drive** in the selection window for the drive restore option, the **Input the partition size** window is displayed.
 - The window shows the factory (default) setting for the partition size and the minimum (MIN) and maximum (MAX) of the range of partition size values that can be entered. Enter the partition size in GB (1 GB = 1,073,741,824 bytes), and click **Next**.
 - If you want to go back to the selection window for the drive restore option, click **Back**.
 - (Note) If the size of the main memory is 32 GB, the partition size you enter must be at least the factory-shipment value (default). If you enter the partition size less than the factory-shipment value (default), you may not be able to allocate a sufficient area for a memory dump during the setup of the OS.

Product Reco	overy Utility
Input the partition size(1GB = 1024	4MB).
100 _{GB} default	t : 100 GB
MAX	: 931 GB
MIN	: 80 GB
Back	Next

If the entered value is out of range when you click **Next**, the following message is displayed. Click **OK** and reenter the partition size.

Product Recovery Utility
Partition size must be in the range MIN though MAX.
ОК

- 6. When you enter the partition size in the Input the partition size window and click Next, the confirmation window for the settings of the drive restoration.
 - If you are OK with the displayed partition size to be restored, click Yes. Proceed to step 8.
 - If you are not OK with the displayed partition size to be restored, click **No**. The selection window for the drive restore option returns.

	Product Recovery Utility
The system v	vill be restored under the following conditions.
	option : Entire drive size : 100 GB
Do you contin	ve? Yes No

<When you select **Only the system and boot partition** in the selection window for the drive restore option>

- 7. If you select **Only the system and boot partition** in the selection window for the drive restore option, the confirmation window for the settings of the drive restoration is displayed.
 - If you are OK with restoring only the boot partition, click **Yes**. Proceed to step 8.
 - If you are not OK with restoring only the boot partition, click **No**. The selection window for the drive restore option returns.

The system will be restored under the following conditions.
Restore option : Only the system and boot partition
Do you continue?

8. When you click **Yes** in the confirmation window for the settings of the drive restoration, a restoration process for the drive starts. The progress is displayed in the **[Status]** box.

	Product Recovery Utility	
[
1		
	[Status]	
	Recovery Start: Disc 1/2(20 %)	

(Note) If you select **Only the system and boot partition** in the selection window for the drive restore option, the boot partition is formatted before the restoration process. Formatting the partition may take up to a couple of minutes. (The time required for formatting depends on the size of the boot partition.) During the format process, "Preparing Recovery." is displayed in the **[Status]** box.

Product Recovery Utility		
1		
	[Status]	
	Preparing Recovery.	

9. When the restoration process back to the factory-shipped condition performed by the first recovery DVD (disc number: 1/2), the following message is displayed, and the recovery DVD is automatically ejected. Remove the first recovery DVD from the DVD drive, and insert the second recovery DVD (disc number: 2/E).

Product Recovery Utility		
Operation		
Remove Product Recovery DVD Disc 1/2 from the DVD drive and Insert Disc 2/E.		
[Status]	Continue	
Recovery Start: Disc 1/2(100 %)		

10. When you click **Continue**, the restoration process back to the factory-shipped condition resumes. The progress is displayed in the **[Status]** box.

Product Recovery Utility			
[Status]			
Recovery Start: Disc 2/E(1 %)			

11. When the restoration process back to the factory-shipped condition performed by the second recovery DVD is complete, "Recovery Complete." is displayed in the [Status] box, and the recovery DVD is automatically ejected. Remove the recovery DVD from the DVD drive, and then click Exit. The computer will be shut down.

	Product	t Recovery U	tility	
	0	peration		
Remove Pr	oduct Recove	ry DVD fro	m the DVD	drive.
[Status]				Exit
Recovery C	omplete.			

The system drive of the HF-W7500 Model 40 is now successfully restored to the factory condition by using a recovery DVD. After you finish the procedure above, follow the instruction in "CHAPTER 1 SETUP PROCEDURE WHEN YOU TURN ON THE POWER FOR THE FIRST TIME" to set up the OS.

3.3.2 Errors generated during a restoration process and their corrective actions When an error occurs during a restoration process, record the error message and the error code displayed on the window, and take actions as shown in the following table. If you take the actions accordingly but cannot let the recovery process go through or if the No. 8 error message is displayed, contact our sales representative.

No.	Error message	Action
1	Retry time out. Please refer to the SETUP GUIDE.	• Check the integrity of the system drive. (Read/write tests and so on)
2	Image file is not found. Please refer to the SETUP GUIDE.	 Retry a recovery process. Check the integrity of the recovery DVD. (Read tests and so on) Check if the DVD drive works properly. (Read tests and so on)
3	Drive failed or not connected. Please refer to the SETUP GUIDE.	• Check if the system drive is connected correctly.
4	Failed to access the drive. Please refer to the SETUP GUIDE.	• Check the integrity of the system drive. (Read/write tests and so on)
5	Failed to assign drive letter. Please refer to the SETUP GUIDE.	• Check that any devices unnecessary for a recovery process are connected. If connected, remove them.
6	Failed to read from Product Recovery DVD. Please refer to the SETUP GUIDE.	 Check if the DVD drive is connected correctly. Check the integrity of the recovery DVD. (Read tests and so on) Check if the DVD drive works properly. (Read tests and so on)
7	Recovery failed. Please refer to the SETUP GUIDE.	• Retry a recovery process.
8	Recovery invalid. Please refer to the SETUP GUIDE.	• Contact our sales representative.
9	Drive capacity is not enough. Please refer to the SETUP GUIDE.	• Check the size of the system drive.

This Page Intentionally Left Blank

CHAPTER 4 PRECAUTION

4.1 Event Log Entries during Setup

This equipment may record the following events in the event log during the OS setup, but those events do not affect the operation of the system.

• In the case of Windows® 7

Source	Event ID	Туре
Service Control Manager	7022 or 7023	Error
Search	1008	Warning
e1qexpress or e1rexpress	27	Warning

• In the case of Windows Server® 2008 R2

Source	Event ID	Туре
Service Control Manager	7022 or 7023	Error
Winlogon	6004	Warning
e1qexpress or e1rexpress	27	Warning

Source	Event ID	Туре
Service Control Manager	7023	Error
volmgr	46	Error
eliexpress	27	Warning
Windows Remote Management	10149	Warning
Security-SPP	1058	Warning

• In the case of Windows Server® 2012 R2

4.2 Event Log Entries While the OS is Running

This equipment may record the following events in the event log while the OS is running, but those events do not affect the operation of the system.

Source	Event ID	Туре
WMI	10	Error
User Profiles Service	1530	Warning
Search	3036	Warning
Time-Service	134 or 36	Warning
elqexpress or elrexpress	27	Warning

• In the case of Windows® 7

• In the case of Windows Server® 2008 R2

Source	Event ID	Туре
WMI	10	Error
User Profiles Service	1530	Warning
Time-Service	134 or 36	Warning
elqexpress or elrexpress	27	Warning

Source	Event ID	Туре	
DistributedCOM	10010	Error	
WMI	63	Warning	
Time-Service	134	Warning	
Kernel-PnP	219	Warning	
winlogon	6004	Warning	
eliexpress	27	Warning	

• In the case of Windows Server® 2012 R2

In addition, the following event may be recorded in the event log when a USB device is connected or disconnected or when the system starts for the first time after a storage device is added, even though the USB device or the storage device works without any problems. Those events are recorded due to the specifications of the OS and do not affect the operation of the system.

Source	Event ID	Туре
Disk	11 or 153	Error

4.3 Display Errors Generated After a Command Prompt Opens Too Many Times

In Windows® 7 and Windows Server® 2008 R2, if you ran the command prompt hundreds of times without restarting the OS, the desktop cannot be displayed properly. This is because each time the command prompt is started, Windows Explorer (process name: explorer.exe) consumes graphics device interface resources.

If you frequently starts the command prompt (for example, if you repeatedly run a batch file), restart the OS regularly. If this symptom does occur, restart the OS.

4.4 Scheduled Functions by Default

In Windows®, various functions are scheduled by default and executed periodically in the background. Among those functions, Windows Defender (anti-spyware feature) and the disk defragmenter (or optimize drives) may increase the system load significantly when they run and may affect the operation of the applications for business use.

(1) Windows Defender (for Windows® 7 only)

We recommend changing the scheduled times for those two functions in order not to conflict with the schedule of the applications for business use.

The initial schedules for those two functions are as follows:

- Frequency: Daily
- Start time: 2:00

(2) Disk Defragmenter (for Windows® 7 and Windows Server® 2008 R2)

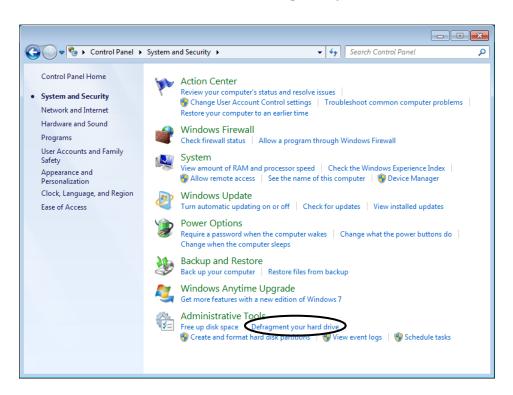
On this computer, scheduled defragmentation by Disk Defragmenter is turned off. If you want to defragment disks using Disk Defragmenter, you can do that by using either one of the methods below.

- (a) Turn on scheduled defragmentation by Disk Defragmenter.
- (b) Run Disk Defragmenter manually.

The procedure of each method is described below. (The screen images shown are the ones for Windows® 7 but are basically the same for Windows Server® 2008 R2.) For information about optimize drives (for Windows Server® 2012 R2), see item (3).

(a) Turn on scheduled defragmentation by Disk Defragmenter.

- 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
- 2. Click **Start > Control Panel**.
- 3. The Control Panel window appears. Click System and Security.



4. Under Administrative Tools, click Defragment your hard drive.

- 5. The **Disk Defragmenter** window appears.
 - Under Schedule, click Turn on schedule.

🖇 Disk Defragmenter					
Disk Defragmenter consolidates fragmented files on your computer's hard disk to improve system performance. <u>Tell me more about Disk Defragmenter</u> .					
Schedule:					
Scheduled defragmen	Scheduled defragmentation is turned off				
C <u>u</u> rrent status:					
Disk	Last Run	Progres	s		
💒 (C:)	Never run				
👝 System Reserved	Never run				
Only disks that can be defragmented are shown. To best determine if your disks need defragmenting right now, you need to first analyze your disks.					
			<u>C</u> lose		

6. The **Disk Defragmenter: Modify Schedule** window appears. Select the **Run on a schedule** (**recommended**) check box.

Disk Defragmenter: Modify	Disk Defragmenter: Modify Schedule				
Disk defragmenter schedule configuration:					
Run on a schedule	(recommended)				
Erequency:	Weekly				
<u>D</u> ay:	Wednesday 🔻				
<u>T</u> ime:	1:00 AM 🔻				
D <u>i</u> sks:	Select disks				
	<u>OK</u> <u>Cancel</u>				

- 7. As required, configure the frequency, day of the week, and start time of defragmentation. We recommend the scheduled times of defragmentation you configure do not conflict with the schedule of the applications for business use. The initial schedule of defragmentation is as follows.
 - Frequency: Weekly
 - Day of the week: Wednesday
 - Start time: 1:00
- 8. Click Select disks.
- 9. The **Disk Defragmenter: Select Disks For Schedule** window appears. As required, select the drives you want to defragment.
 - Click OK.

Disk Defragmenter: Select Disks For Schedule				
Select the checkbox for each disk you want to defragmented on a schedule.				
Disks to include in schedule:				
✓ (Select all disks) ✓ ≦ (C:)				
V System Reserved				
Automatically defragment new disks				
ОК Сапсеі				

10. The **Disk Defragmenter: Modify Schedule** window appears. Click **OK**.

11. The configured schedules are displayed under **Schedule**. Check the contents, and click **Close** to close the window.

on is turned on	😯 Configure <u>s</u> chedule
· /	Progress
need defragmenting right now, you	need to first analyze your disks.
	Never run Never run nented are shown. need defragmenting right now, you

- (b) Run Disk Defragmenter manually.
 - 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
 - 2. Click Start > Control Panel.
 - 3. The Control Panel window appears. Click System and Security.
 - 4. Under Administrative Tools, click Defragment your hard drive.

- 5. The **Disk Defragmenter** window appears.
 - Under **Current status**, select the drive you want to defragment, and click **Defragment disk**.

chedule:	ne more about Disk Defragmenter.	
Scheduled defragment	ation is turned off	🛞 <u>T</u> urn on schedule
ùurrent status:	Last Run	Progress
44 (C:)	Never run	Progress
System Reserved	Never run	
system reserved		
Jysteni neserved		
)nly disks that can be defra	gmented are shown. sks need defragmenting right now, y	ou need to first analyze your disks.

- When the defragmentation process is complete, the date and time of the defragmentation is displayed in the **Last Run** column.
- 6. Click **Close** to close the window.

(3) Optimize Drives (for Windows Server® 2012 R2)

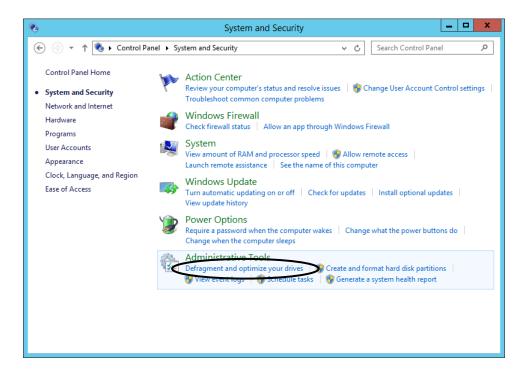
On this computer, scheduled drive optimization is turned off. If you want to optimize drives, you can do that by using either one of the methods below.

- (a) Turn on scheduled drive optimization.
- (b) Optimize drives manually.

The procedure of each method is described below.

(a) Turn on the scheduled defragmentation.

- 1. If you are not signed in to the computer as an administrator, sign in to the computer as an administrator.
- 2. Right-click Start. Then a menu appears. On the menu, click Control Panel.
- 3. The Control Panel window appears. Click System and Security.
- 4. Under Administrative Tools, click Defragment and optimize your drives.



- 5. The **Optimize Drives** window appears.
 - Under Scheduled optimization, click Turn on.

6		Optimize Driv	/es	_ 🗆 X
	drives to help your compu on or connected to your co		ly, or analyze them to find out if they	/ need to be
Drive	Media type	Last run	Current status	
4 (C:)	Hard disk drive	Never run	OK (0% fragmented)	
System Reserved	Hard disk drive	Never run	OK (0% fragmented)	
			Analyze	<u>O</u> ptimize
Scheduled optimization				
Off				<u>T</u> urn on
Drives are not being	optimized automatically.			
				<u>C</u> lose

6. The **Optimization schedule** pane appears. Select the **Run on a schedule** (**recommended**) check box.

0	ptimize Drives					
Optimization schedule						
Run on a schedule (rec	ommended)					
Erequency	Weekly					
✓ <u>N</u> otify me if three co	✓ Notify me if three consecutive scheduled runs are missed					
<u>D</u> rives	C <u>h</u> oose					
	<u>O</u> K <u>C</u> ancel					

- 7. Select the frequency of scheduled drive optimization based on your needs. The initial schedule of defragmentation is as follows.
 - Frequency: Weekly
- 8. Click Choose.

9. The Select the drives you want to optimize on a regular schedule pane appears.

Select the drives you want to optimize based on your needs.

• Click OK.

Optimize	Drives	x
Select the drives you want to optimize on	a regular schedule:	
Select all		
Only drives that can be scheduled for auto	omatic optimization are shown.	
✓ Automatically optimize new drives		
	OK <u>C</u> ancel	

- 10. The **Optimization schedule** pane appears. Click **OK**.
- 11. The configured schedules are displayed under **Scheduled optimization**. Check the contents, and click **Close** to close the window.

Drive	Media type	Last run	Current status	
<mark></mark>	Hard disk drive	Never run	OK (0% fragmented)	
🕞 System Reserved	Hard disk drive	Never run	OK (0% fragmented)	
			<u>A</u> nalyze	<u>O</u> ptimize
Scheduled optimization				Change <u>s</u> etting
On				

- (b) Optimize drives manually.
 - 1. If you are not signed in to the computer as an administrator, sign in to the computer as an administrator.
 - 2. Right-click Start. Then a menu appears. On the menu, click Control Panel.
 - 3. The Control Panel window appears. Click System and Security.
 - 4. Under Administrative Tools, click Defragment and optimize your drives.
 - 5. The **Optimize Drives** window appears.
 - Under Status, select the drive you want to optimize, and click Optimize.

i		Optimize Driv	res	- 🗆 X
	drives to help your compute on or connected to your co		ly, or analyze them to find out if t	hey need to be
Drive	Media type	Last run	Current status	
<mark>Щ</mark> (С:)	Hard disk drive	Never run	OK (0% fragmented)	
System Reserved	Hard disk drive	Never run	OK (0% fragmented)	
			Analyze	Optimize
			Everyon	<u></u>
Scheduled optimization				
				Turner
Off Drives are not being	optimized automatically.			<u>T</u> urn on
				Close

- When the defragmentation process is complete, the date and time of the defragmentation is displayed in the **Last run** column.
- 6. Click **Close** to close the window.

4.5 Security Enhancements

(1) Allowing passing through Windows Firewall

Windows Firewall is enabled by default. This may sometimes prevent a program from working because the network connections from the program are blocked. If this situation happens, you can select form the following three options to allow those network connections to pass through Windows Firewall:

(a) Disabling Windows Firewall.

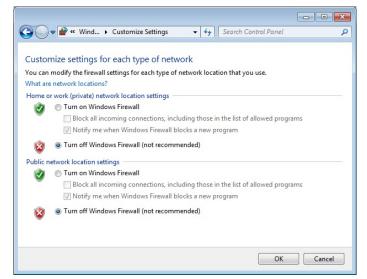
- (b) Registering the program as an exception.
- (c) Registering a port used by the program as an exception.

The setup procedure of each option is described below. (The screen images shown are the ones for Windows® 7 but are basically the same for Windows Server® 2008 R2 and Windows Server® 2012 R2.)

(a) Disabling Windows Firewall.

To disable Windows Firewall, follow the procedure below. After this procedure, network connections from all programs are not blocked anymore.

- 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
- 2. Click **Start** and then click **Control Panel**.
- 3. The Control Panel window is displayed. Click System and Security.
- 4. The System and Security window is displayed.
 - · Click Windows Firewall.
- 5. The **Windows Firewall** window is displayed.
 - · Click Turn Windows Firewall on or off.
- 6. The Customize Settings window is displayed.
 - Select Turn off Windows Firewall (not recommended).
 - Click OK.



7. Close the **Windows Firewall** window.

(b) Registering the program as an exception.

To register the program as an exception for Windows Firewall, follow the procedure below. After this procedure, network connections from the program registered as an exception are not blocked anymore.

(For Windows Server[®] 2012 R2, "program" in the procedure must be replaced with "app".)

- 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
- 2. Click **Start** and then click **Control Panel**.
- 3. The Control Panel window is displayed. Click System and Security.
- 4. The System and Security window is displayed.
 - · Click Windows Firewall.
- 5. The Windows Firewall window is displayed.
 - · Click Allow a program or feature through Windows Firewall.
- 6. The Allowed Programs window is displayed.
 - · Click Allow another program.
 - * If the **Allow another program** button is disabled, click **Change settings**. That will enable the **Allow another program** button.

		×
😋 🔵 🗢 🕍 « Windows Firewall 🕨 Allowed Programs 🔹 👻	Search Control Panel	٩
Allow programs to communicate through Windows Fi To add, change, or remove allowed programs and ports, click Change What are the risks of allowing a program to communicate? Allowed programs and features:		
Name	Home/Work (Private) Public	
BranchCache - Content Retrieval (Uses HTTP) BranchCache - Hosted Cache Client (Uses HTTPS) BranchCache - Peer Discovery (Uses WSD) Connect to a Network Projector Ø Core Networking Distributed Transaction Coordinator File and Printer Sharing HomeGroup GSCIS Service Media Center Extenders		
	Allow another program OK Cancel	

- 7. The **Add a Program** window is displayed.
 - Select a program you want to unblock. If you want to select a program not in the list, click **Browse** to select a file.
 - Click Add.

Add a Program Select the program you want to add, or click Browse to find o listed, and then click OK.	ne that is not
Programs:	
b Create a System Repair Disc	
GInternet Explorer	
@Internet Explorer (64-bit)	
RAS Maintenance Support	
RAS Setup	
Swindows Anytime Upgrade	
Windows DVD Maker	
Windows Fax and Scan	
100 Windows Media Center	
Windows Remote Assistance	
Path: 3m Files (x86)\Internet Explorer\jexplore.exe	Browse
What are the risks of unblocking a program?	
You can choose which network location types to add this progr	ram to.
Network location types Add	Cancel

- 8. Confirm that the selected program is registered in the **Allowed programs and features** list in the **Allowed Programs** window. And then click **OK**.
- 9. Close the Windows Firewall window.

Alternatively, you can register a program as an exception when the following dialog box is displayed upon an incoming connection to the program if you selected the **Notify me when Windows Firewall blocks a new program** check boxes in the Windows Firewall settings.

	🔐 « Windows Firewall) Customize Settings 🛛 🗸 😽 Search Control Panel 🔎
Custor	mize settings for each type of network
You can	modify the firewall settings for each type of network location that you use.
What are	e network locations?
Home o	or work (private) network location settings
I	Turn on Windows Firewall
	Block all incoming connections, including those in the list of allowed programs
	Notify me when Windows Firewall blocks a new program
8	Turn off Windows Firewall (not recommended)
Public n	network location settings
I	Turn on Windows Firewall
	Block all incoming connections, including those in the list of allowed programs
	Notify me when Windows Firewall blocks a new program
8	Turn off Windows Firewall (not recommended)
	OK Cancel

- 1. When the network connection of the launched application is blocked, the following dialog box is displayed.
 - Click Allow access.

Windows Secur	ity Alert		×		
💎 Windo	ws Firewal	I has blocked some features of this program			
Windows Firewall ha	as blocked some	e features of recv on all public and private networks.			
	<u>N</u> ame: <u>P</u> ublisher: Pat <u>h</u> :	<mark>τος)</mark> Unknown C:γecv.exe			
	Allow recv to communicate on these networks: Private networks, such as my home or work network				
	Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)				
What are the risks of	What are the risks of allowing a program through a firewall?				
		Allow access Cance	el		

2. Then this program is registered as an exception.

(c) Registering a port used by the program as an exception.

To register a port used by the program as an exception, follow the procedure below. After this procedure, network connections through the port registered as an exception are not blocked anymore.

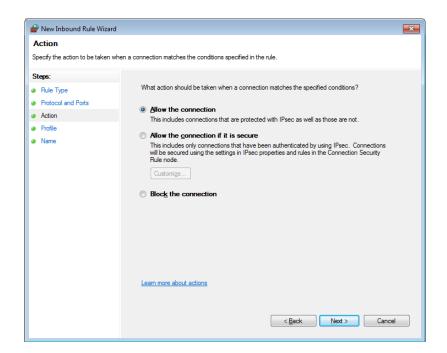
- 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
- 2. Click Start and then click Control Panel.
- 3. The Control Panel window opens. Click System and Security.
- 4. The **System and Security** window opens.
 - Click Windows Firewall.
- 5. The **Windows Firewall** window opens. Click **Advanced settings**.
- 6. The Windows Firewall with Advanced Security window is displayed.
 - Click Inbound Rules or Outbound Rules.
 - In the Actions pane, click New Rule.
- * Select either **Inbound Rules** or **Outbound Rules** based on how the port is used. From this point on, we assume that **Inbound Rules** is selected.
- 7. The New Rule window of the New Inbound Rule Wizard is displayed.
 - Choose Port and click Next.

🔗 New Inbound Rule Wizard	
Rule Type	
Select the type of firewall rule to	create.
Steps: Protocol and Ports Action Profile Name	What type of rule would you like to create? Program Rule that controls connections for a program. Pgt Rule that controls connections for a TCP or UDP port. Prodefined: BranchCache - Content Retrieval (Uses HTTP) Rule that controls connections for a Windows experience. Custom rule.
	Learn more about rule types Back Next > Cancel

- 8. The Protocols and Ports window of the New Inbound Rule Wizard is displayed.
 - Select a protocol type.
 - Select either All local ports or Specific local ports.
 - If you select **Specific local ports**, enter a port number.
 - Click Next.

🔗 New Inbound Rule Wizard					
Protocol and Ports					
Specify the protocols and ports to	o which this rule applies.				
Steps:					
Rule Type	Does this rule apply to TCP or U	DP?			
Protocol and Ports	<u>T</u> CP				
 Action 	© <u>U</u> DP				
 Profile 					
 Name 	Does this rule apply to all local ports or specific local ports?				
	All local ports				
	Specific local ports:	80			
		Example: 80, 443, 5000-5010			
	Learn more about protocol and p	orts			
		< Back Next > Cancel			

- 9. The Action window of the New Inbound Rule Wizard is displayed.
 - Select Allow the connection.
 - Click Next.



- 10. The **Profile** window of the **New Inbound Rule Wizard** is displayed.
 - Specify the profiles to which the rule applies.
 - Click Next.

🔐 New Inbound Rule Wizard	×
Profile	
Specify the profiles for which this	rule applies.
Steps: Rule Type	When does this rule apply?
Protocol and Ports Action Profile	Domain Applies when a computer is connected to its corporate domain.
Name	 Private Applies when a computer is connected to a private network location. Public Applies when a computer is connected to a public network location.
	Learn more about profiles Kext > Cancel

- 11. The Name window of the New Inbound Rule Wizard is displayed.
 - In the Name box, type the name of the port.
 - Click Finish.

🔗 New Inbound Rule Wizard		×
Name		
Specify the name and description of thi	is rule.	
Steps:		
Rule Type		
Protocol and Ports		
 Action 		
Profile	<u>N</u> ame:	
Name		
	Description (optional):	
	< Back Einish Cance	

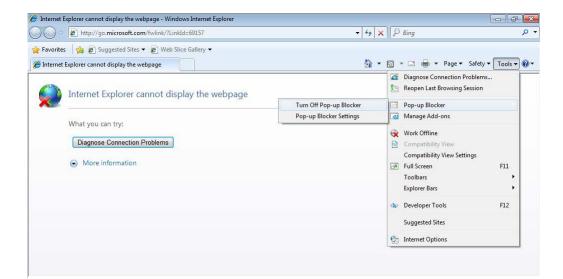
- 12. Confirm that the just created rule is registered in the **Inbound Rule** list in the **Windows Firewall with Advanced Security** window. And then close the window.
- 13. Close the **Windows Firewall** window.

(2) Disabling pop-ups from Internet Explorer®

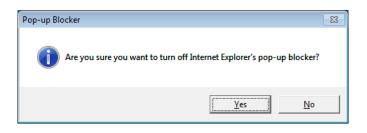
Internet Explorer® is capable of unblocking its pop-up windows.

If you enable this feature and a web application you use is using pop-up windows, the application may not work properly because pop-ups from the application are blocked. To disable the pop-up blocker function, follow the procedure below.

- 1. Start Internet Explorer®.
- 2. On the menu bar or command bar, click **Tool** > **Pop-up Blocker** > **Turn Off Pop-up Blocker**.
 - * If the menu bar or command bar is not displayed, right-click the title bar of the window to show the right-click menu. On the menu, click **Menu bar** or **Command bar**.



3. If the **Pop-up Blocker** window appears, click **Yes**.



4.6 STOP Error (0x7e) While Using File Sharing

A STOP error (0x7e) may occur while file sharing over a network is used if the file server uses Windows® 7 or Windows Server® 2008 R2. When you use file sharing, visit the following URL of Microsoft for the details and corrective actions.

Operating system intermittently crashes with a "0x0000007E" Stop error message on a computer that is running Windows 7 or Windows Server 2008 R2

http://support.microsoft.com/kb/2528614

4.7 Factory-Shipped Network Settings

(1) Turning off Scalable Networking Pack (SNP)

The purpose of SNP is to reduce the processor load by delegating TCP-related processing to the network adapter. SNP is made of the following three features.

- TCP Chimney Offload
- Receive Side Scaling (RSS)
- Network Direct Memory Access (NetDMA)

Unfortunately, if the system in Windows® 7 is used with SNP turned on, processing the network may become unstable, or the network performance may be reduced when you use the network in specific ways. This is why SNP is disabled in this computer. Note that NetDMA is not supported by Windows Server® 2012 R2.

(2) Turning off checksum offload

The purpose of checksum offload is to reduce the processor load by delegating TCP and IP checksum calculation to the network adapter.

Unfortunately, it has been reported that network communication hangs up in some cases due to checksum processing in the network adapter if the system in Windows® 7 is used with checksum offload turned on. This is why checksum offload is disabled in this computer (*).

* Both the OS and the network adapter have the setting for turning on and off checksum offload. But on this computer, the checksum offload is disabled in the OS setting. Note that the checksum offload on/off setting of the OS has precedence over that of the network adapter. As a result, even if checksum offload is enabled in the network adapter setting, checksum offload is actually disabled if checksum offload is disabled in the OS setting.

Do the following if you want to turn on checksum offload.

(a) Enable checksum offload.

(b) Disable checksum offload. (Use this procedure when you want to disable checksum offload after you enabled it.)

Each procedure is described below.

- (a) Enable checksum offload.
 - 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
 - 2. Click **Start**. In the **Search programs and files** box at the lower left corner, type the following, and then press **Enter**.

(In Windows Server[®] 2012 R2, right-click **Start**. Then a menu appears. On the menu, click **Run**. In the **Open** box, type the following, and then click **OK**.)

C:\HITACHI\Settings\CSOffload\EnableOffload.reg

(Alternatively, double-click the EnableOffload.reg file under C:\HITACHI\Settings\CSOffload.)

- 3. If you see the User Account Control window, click Yes.
- 4. A warning message for changing registry information is displayed. Click Yes.
- 5. A message is displayed to indicate that registry information is added successfully. Click **OK**.
- 6. Restart the system.
- (b) Disable checksum offload.
 - 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
 - 2. Click **Start**. In the **Search programs and files** box at the lower left corner, type the following, and then press **Enter**.

(In Windows Server[®] 2012 R2, right-click **Start**. Then a menu appears. On the menu, click **Run**. In the **Open** box, type the following, and then click **OK**.)

 $C:\HITACHI\Settings\CSOffload\DisableOffload.reg$

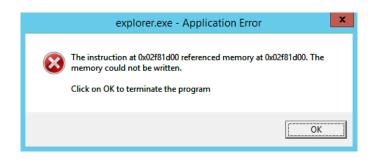
(Alternatively, double-click the DisableOffload.reg file under C:\HITACHI\Settings\CSOffload.)

- 3. If you see the User Account Control window, click Yes.
- 4. A warning message for changing registry information is displayed. Click Yes.
- 5. A message is displayed to indicate that registry information is added successfully. Click **OK**.
- 6. Restart the system.

4.8 Note on the Application Error Displayed at Shutdown

In Windows Server® 2012 R2, if you select **Shut down** (or **Restart**) in the right-click menu on the Start button, the following **explorer.exe - Application Error** dialog box may be displayed. When you want to shut down the server, use either one of the methods below.

- (1) Shut down from the Start screen.
- (2) Shut down from a charm.

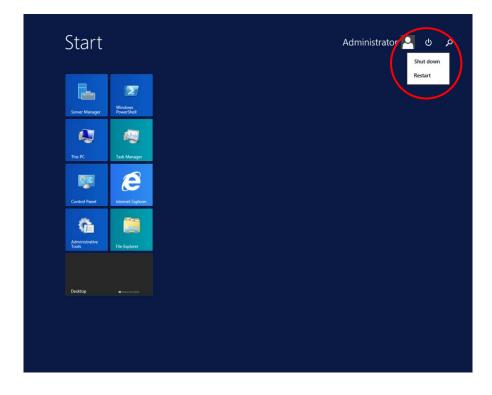


Reference URL: http://support.microsoft.com/kb/2929203/

Title:

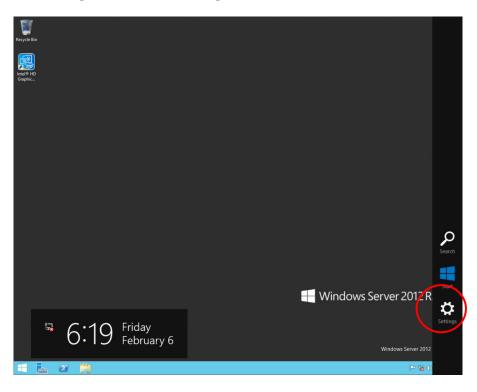
Application error in Explorer.exe when you shut down or restart Windows

- (1) Shut down from the Start screen.
 - 1. Click Start. The Start screen appears.
 - 2. Click the **b** button near the upper-right corner of the Start screen, and click **Shut down** (or **Restart**).

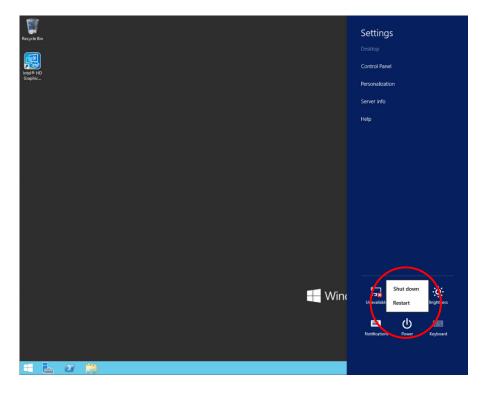


(2) Shut down from a charm.

- 1. Move the mouse pointer to the upper-right corner or lower-right corner of the desktop to display charms.
- 2. Click **Settings** to show the **Settings** charm.



3. In the **Settings** charm, click the **U** button. Then click **Shut down** (or **Restart**).



This Page Intentionally Left Blank

APPENDIX A SETUP PROCEDURE WHEN USING Windows XP Mode (FOR Windows® 7 ONLY)

This appendix describes the setup procedure when Windows XP Mode is used. Follow this setup procedure only if you use Windows XP Mode and after you read the following notes carefully.

- NOTE

• Built-in Windows® 7 models of this product come with Windows XP Mode (virtual environment with lichened Windows® XP installed).

Windows XP Mode is a feature intended for running Windows® XP applications that cannot run in Windows® 7. This feature must be used as a last resort to maintain compatibility for applications. Use this feature only if you cannot resolve the compatibility issue of an application in any other ways.

- It is not guaranteed that all Windows® XP applications can run in Windows XP Mode.
- When using Windows XP Mode, install the main memory card that satisfies the following sizes:

If the OS is a 32-bit version: 2 GB or more

If the OS is a 64-bit version: 3 GB or more

• Windows® 7 comes with the Multilingual User Interface (MUI) for the host OS, but Windows XP Mode can only provide an English version of Windows® XP.

< If Windows XP Mode is not used >

The files used for setting up Windows XP Mode include a virtual hard disk file for the guest OS and therefore occupy about 700 MB of disk space. If Windows XP Mode is not used, we recommend that you follow the procedure below to delete the directory storing those files.

- 1. If you are not logged on to the computer as an administrator account, log on to the computer as an administrator account.
- 2. Start the command prompt.
 - Click **Start** and point to **All Programs**.
 - Click Accessories.
 - Right-click **Command Prompt** to show a menu. On the menu, click **Run as** administrator.

(If the administrator account you used for log on is a built-in administrator account, simply click **Command Prompt**.)

- If you see the User Account Control window, click Yes.
- 3. At the command prompt, type the following and press **Enter**.

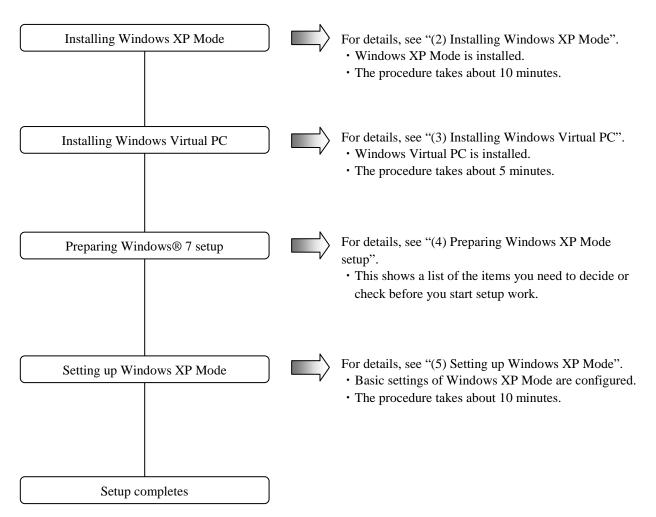
rmdir /s C:\HITACHI\XP_Mode

4. A confirmation message for the deleting directory is output. Type **y** and then press **Enter**.

(1) Overview of the setup procedure

From this on, the setup procedure of Windows XP Mode (guest OS: Microsoft® Windows® XP Professional) is explained.

The following is a rough flow chart of the setup.



For information about how to delete Windows XP Mode and Windows Virtual PC from the computer, see "(6) Uninstalling Windows XP Mode and Windows Virtual PC".

- NOTE

- Windows XP Mode requires Windows Virtual PC to be installed in order to run Microsoft® Windows® XP Professional SP3 on the virtual machine.
- End users are responsible for installing Windows XP Mode and Windows Virtual PC. Alternatively, the personnel in charge of constructing the system can do the installation work in behalf of the end users.

(2) Installing Windows XP Mode

Follow the procedure below to install Windows XP Mode:

- 1. If you are not logged on to the computer as an administrator account, log on to the computer as an administrator account.
- 2. Start the command prompt to start an installation program.
 - Click Start and point to All Programs.
 - Click Accessories.
 - Right-click **Command Prompt** to show a menu. On the menu, click **Run as** administrator.

(If the administrator account you used for log on is a built-in administrator account, simply click **Command Prompt**.)

• If you see the User Account Control window, click Yes.



3. At the command prompt, type the following and press **Enter**.

cd C:\HITACHI\XP_Mode

4. And then type the following and press **Enter**. Installation starts.

WXPMode_install.bat

5. When the installation finishes, the following message is displayed to indicate the installation is complete.

Installation completed.

This completes the installation procedure. Close the command prompt.

(3) Installing Windows Virtual PC

Follow the procedure below to install Windows Virtual PC.

- 1. If you are not logged on to the computer as an administrator account, log on to the computer as an administrator account.
- 2. Start a setup program.
 - Click **Start**. In the **Search programs and files** box at the lower left corner on the Start menu, type the following, and then press **Enter**.

C:\HITACHI\XP_Mode\Virtual-PC

• The Windows Explorer window is displayed. Double-click a setup program under the directory. Note that a setup program is different depending on whether the OS is a 32-bit or 64-bit version.

If the OS is a 32-bit version: Windows6.1-KB958559-x86.msu If the OS is a 64-bit version: Windows6.1-KB958559-x64.msu

3. The Windows Update Standalone Installer window opens. Click Yes.

Windows Update Standalone Installer 🛛 🔯
Do you want to install the following Windows software update? Update for Windows (KB958559)
Yes No

4. The **Download and Install Updates** window opens. Read the license terms carefully, and the click **I Accept**. Installation starts.

🗳 Download and Install Updates	x
Read these license terms (1 of 1) You need to accept the license terms before installing updates.	
Update for Windows (KB958559)	
MICROSOFT SOFTWARE SUPPLEMENTAL LICENSE TERMS WINDOWS VIRTUAL PC FOR MICROSOFT WINDOWS 7 Microsoft Corporation (or based on where you live, one of its affiliates) licenses this supplement to you. If you are licensed to use Microsoft Windows 7 Home Basic, Windows 7 Home Premium, Windows 7 Professional, Windows 7 Enterprise or Windows 7 Ultimate (for which this supplement is applicable) (the "software"), you may use this supplement. You may not use it if you do not have a license for the software. You may use this supplement with each validly licensed copy of the software. You may use this supplement with each validly license terms describe additional use terms for this supplement. These terms and the license terms for the software apply to your use of the supplement. If there is a conflict, these supplemental license terms apply. By using this supplement, you accept these terms. If you do not accept them, do not use this supplement.	
Printable version I Decline I Accept Cancel	

5. After the installation is complete, a window is displayed to prompt you to restart the system. Click **Restart Now** to restart. Restart begins.

Installation complete You must restart your computer for the updates to take effect.	
Restart Now On	-

(4) Preparing Windows XP Mode setup

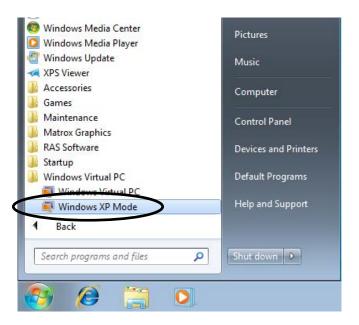
The following items are necessary for the setup work for Windows XP Mode. Before you start the setup work, decide or check those items beforehand.

Item	Description
Password for XPMUser	A password for XPMUser (administrator account of the computer) You can change the setting after the setup.

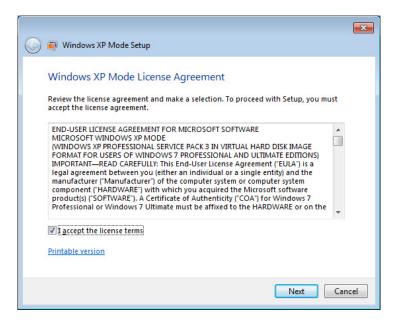
(5) Setting up Windows XP Mode

Follow the procedure below to set up Windows XP Mode.

- 1. Click Start and point to All Programs.
- 2. Click Windows Virtual PC > Windows XP Mode.



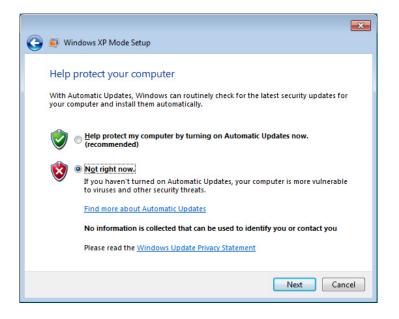
- 3. The Windows XP Mode License Agreement is displayed.
 - Read the license agreement carefully and select the **I accept the license terms** check box. Click **Next**.



- 4. The Installation folder and credentials window opens.
 - In the **Password** and **Confirm password** boxes, type a password for XPMUser.
 - Click Next.

G 🗐 Windows XP Mode Set		
Installation folder		
C:\Users\hitachi\AppD	ata\Local\Microsoft\Windows Virtual PC\Virtua Browse	
Create credentials User name: <u>P</u> assword: C <u>o</u> nfirm password: I Remember credentials More about credentials		
	Next Can	cel

- 5. A window for configuring Automatic Updates is displayed.
 - Select Not right now and click Next.



- 6. A window is displayed to indicate setup will share the drives.
 - · Click Start Setup.



7. A window is displayed to show the Windows XP Mode setup is progressing.



When the setup is complete, the virtual machine is started and you are automatically logged on as an XPMUser.

The following event may be recorded in the event log after the first logon. The operation of the system will not be affected.

Source: Service Control Manager Event ID: 7005 Type: Error

— NOTE —

When Windows XP Mode is started for the first time after the setup, you may find the time zone of Windows XP Mode is not the same as the time zone of Windows® 7. If this happens, you need to manually change the time zone of Windows XP Mode so that they are the same.

(6) Uninstalling Windows XP Mode and Windows Virtual PC

When you delete Windows XP Mode and Windows Virtual PC from the computer, follow the procedure described in this section to uninstall those two.

NOTE

If any application programs are running, exit all application programs before you start uninstallation.

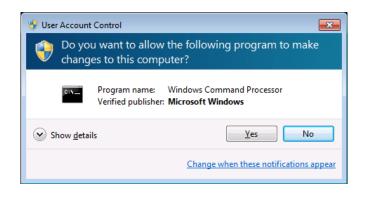
(a) Uninstalling Windows XP Mode

Follow the procedure below to uninstall Windows XP Mode.

- 1. If you are not logged on to the computer as an administrator account, log on to the computer as an administrator account.
- 2. Start Command Prompt to launch an uninstallation program.
 - Click **Start** and point to **All Programs**.
 - Click Accessories.
 - Right-click **Command Prompt** to show a menu. On the menu, click **Run as** administrator.

(If the administrator account you used for log on is a built-in administrator account, simply click **Command Prompt**.)

• If you see the User Account Control window, click Yes.



3. At the command prompt, type the following and press **Enter**.

cd "C:\HITACHI\XP_Mode\Windows XP Mode"

4. And then type the following and press Enter.

WXPMode_uninst.bat

5. At the beginning of the uninstallation, the "Do you want to uninstall Windows XP Mode? (y/n)" message is displayed.

If you want to uninstall, press y and press Enter.

If you do not want to uninstall, press **n**, and press **Enter**. The unsinstallaion will be aborted.

6. When the uninstallation finishes, the following message is displayed to indicate the uninstallation is complete:

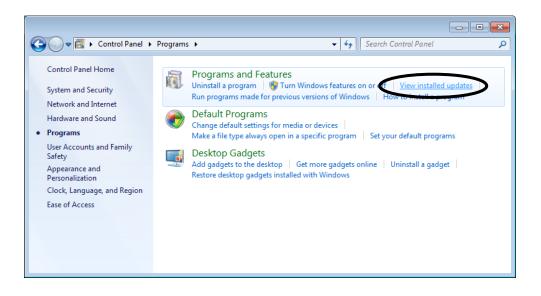
Uninstallation completed.

This completes the uninstallation procedure for Windows XP Mode. Close the command prompt, and then uninstall Windows Virtual PC.

(b) Uninstalling Windows Virtual PC

Follow the procedure below to uninstall Windows Virtual PC.

- 1. If you are not logged on to the computer as an administrator account, log on to the computer as an administrator account.
- 2. Click Start and then click Control Panel.
- 3. Click Programs.
- 4. Under Programs and Features, click View installed updates.



5. The **Installed Updates** window opens. From the list, select **Windows Virtual PC** (**KB958559**) and then click **Uninstall**.

🚱 🗢 🧟 « Programs 🕨 Pro	ograms and Features 🔸 Installed Updates 🛛 👻 🍕	• Search Installed Up	dates 🔎	
Control Panel Home Uninstall a program	Uninstall an update To uninstall an update, select it from the list and then click Uninstall or Change.			
off	Organite 🔻 Uninstall 🛛 🛛 🕄 🕶 🔞			
	Name	Program	Version	
	Microsoft Windows (2)			
	Windows Virtual PC (KB958559)	Microsoft Windows		
	Opdate for Microsoft Windows (KB976902)	Microsoft Windows		
	•		E.	
	Microsoft Corporation Parent name: Micr Support link: http:	osoft Windows //support.microsoft.com	n/kb/958559	

6. The Uninstall an update window is displayed. Click Yes.



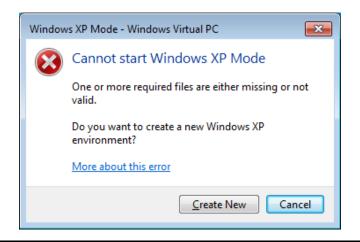
7. After the installation is complete, a window is displayed to prompt you to restart the system. Click **Restart Now** to restart.

Microsoft Windows		
You must restart your computer to apply these changes		
Before restarting, save any open files and close all programs.		
Restart Now Restart Later		

This completes the uninstallation procedure for Windows Virtual PC.

NOTE

When you want to reinstall Windows XP Mode, follow "(2) Installing Windows XP Mode" and "(5) Setting up Windows XP Mode" in APPENDIX A. You may see the following dialog box during Windows XP Mode setup. In this case, click **Create New** to continue the setup process.



This Page Intentionally Left Blank

APPENDIX B SETUP PROCEDURE WHEN BUILDING A VIRTUAL ENVIRONMENT (FOR Windows Server® 2008 R2)

Windows Server® 2008 R2 provides one free guest OS license, and this product offers a virtual environment on which Windows Server® 2008 R2 is installed as the guest OS. This appendix describes the setup procedures of a virtual environment. Follow this setup procedure only if you build a virtual environment and after you read the following notes carefully.

NOTE

When you use a guest OS (Windows Server® 2008 R2 Standard) installed on a virtual machine, the guest OS must be activated. Details about the activation process of the guest OS and the privacy policy of Microsoft are displayed when the virtual environment is started for the first time.

<If you are not using a virtual environment>

The files used for setting up a virtual environment include a virtual hard disk file for the guest OS and therefore occupy about 3GB of disk space. If a virtual environment is not used, we recommend that you follow the procedures below to delete the directory storing these files.

1. If you are not logged on to the computer as an administrator account, log on to the computer as an administrator account.

2. Start a command prompt.

- Click **Start**, and then point to **All Program**.
- Click Accessories.
- Right-click **Command Prompt** to show a menu. On the menu, click **Run as** administrator.

(If the administrator account you used for logon is a built-in administrator account,

simply click **Command Prompt**.)

- If you see the User Account Control window, click Yes.
- 3. At the command prompt, type the following, and then press **Enter**.

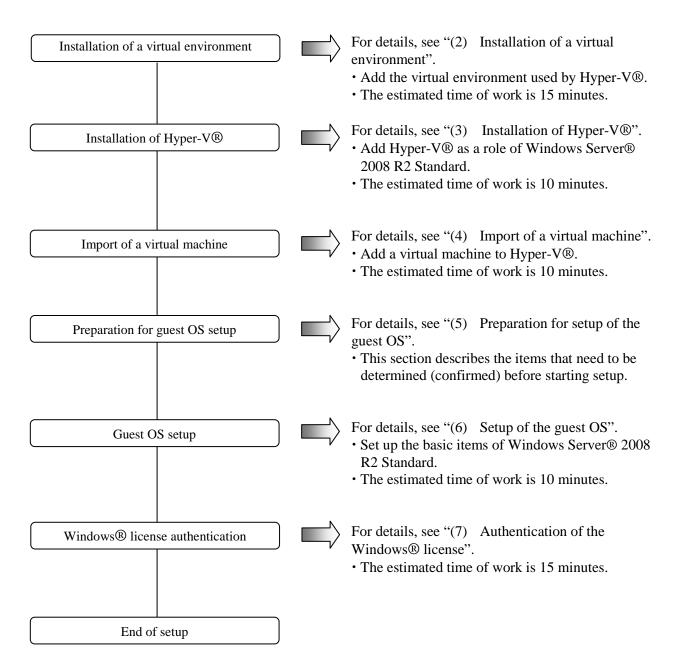
rmdir /s C:\HITACHI\Hyper-V_Image

4. A confirmation message for the deleting directory is output. Type y and then press Enter.

(1) Overview of the setup procedure

This section describes the procedure for setting up a pre-installed virtual machine (guest OS: Microsoft® Windows Server® 2008 R2 Standard).

The following flow outlines the setup.



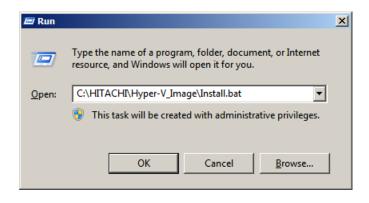
(2) Installation of a virtual environment

Perform the following procedure to install a virtual environment.

NOTE

Install the virtual environment in "C:\Virtual Machine\WS08R2". If you have already used Hyper-V® to create and use the files under "C:\Virtual Machine\WS08R2" as a virtual machine, this installation procedure overwrites those files. Make a backup as necessary.

- 1. If you have not logged on with the administrator account of the computer, log on with the administrator account.
- 2. Start the setup program.
 - Click **Start** button and then click **Run**.
 - In the **Open** box, enter the following name. Click **OK** button.
 - C:\HITACHI\Hyper-V_Image\Install.bat

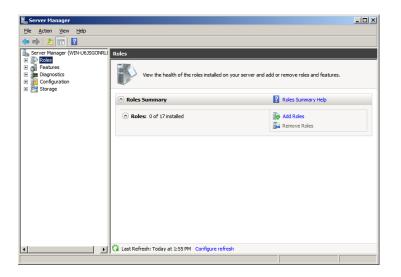


- 3. When the installation confirmation dialog appears, click OK button.
- 4. When installation is completed, a completion message appears. Press any key. The window closes and installation is completed.

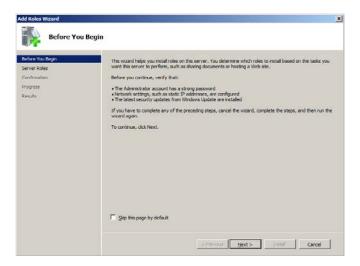
(3) Installation of Hyper-V®

Perform the following procedure to install Hyper-V®.

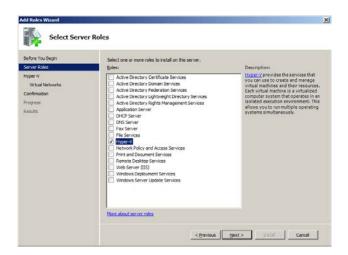
- 1. Click Start button. Click Administrative Tools and then Server Manager.
- 2. Click **Roles**. In the displayed pane, click **Add Roles**.



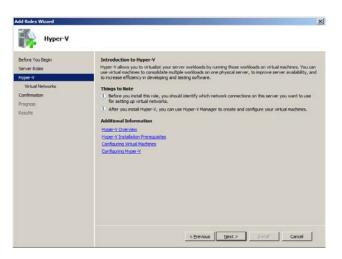
3. The Add Roles Wizard opens and the Before You Begin window appears. Click Next button.



4. The **Select Server Roles** window appears. Select the **Hyper-V** check box and click **Next** button.



5. When the **Hyper-V** window appears, click **Next** button.



6. The **Create Virtual Networks** window appears. If you want the virtual machine to communicate with other computers, select the check box for the network adapter to be used for the virtual network. Then click **Next** button.

Add Roles Wizard	Statement of the local division of the local			1
Create Virt	ual Networks			
Before You Begin Server Roles Hyper-V Webail Networks Confirmation	can create virtual ma One virtual network least one virtual netw	ire virtual networks to communicate with of chines and attach them to a virtual network will be created for each network adapter yo ock now for use with virtual machines. You ng the Virtual Network Manager.	c. u select. We recommend that you create a	
Progress	Name	Network Adapter	1	-
Results	() We recommend	ection Intellity PR0/2000 PL Network C ection 2 Intellity PR0/2000 PL Network C that you reserve one network adapter for , do not select it for use with a writied netw	onnection #2	
	More about virtual re	thada		
		< Previous	yext >instalCancel	

7. When the **Confirm Installation Selections** window appears, click **Install** button. (Hyper-V® begins to be installed.)

Add Roles Wizard	×
Confirm Inst	allation Selections
Before You Begin Server Roles Hyper-V	To install the following roles, role services, or features, dick Install.
Virtual Networks	(i) This server might need to be restarted after the installation completes. Hyper-V
Progress	nyper-v
	Pont, e-mail, or save this information
	< Brevious []ext > [Instal Cancel

8. When the Installation Results window appears, click Close button.

Add Roles Wizard			×
Installation	Results		
Before You Begin Server Roles Hyper-V	One or more of the following roles	, role services, or features require you to restart:	
Virtual Networks	Hyper-V	🔔 Restart Pending	
Confirmation	🔔 You must restart this serv	er to finish the installation process.	
Progress Results			
Results			
	Print, e-mail, or save the installat	enreest	
		Environs Enant > Ogge Cancel	

9. A message appears prompting you to restart the computer. Click **Yes** button and restart the computer. (Restart is performed several times until installation is completed.)

Add Roles Wizard				
1	Do you want to restart now?			
	This server must be restarted to finish the installation process. You cannot add or remove other roles, role services, or features until the server is restarted.			
	<u>Y</u> es <u>N</u> o			

10. After restart, the **Installation Results** window appears. Click **Close** button.

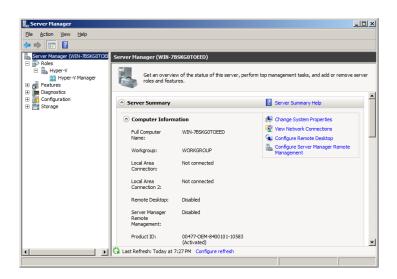
Installation R	tesults	
Resuming Configuration Progress	The following roles, role services	i, or features were installed successfully: messages below
	Mindows automatic update automatically updated, tu	ing is not enabled. To ensure that your newly-installed role or feature is rn on Windows Update in Control Panel.
	Nyper-V	Installation succeeded
	Print, e-mail, or save the installa	lien resert
		Cercel Gene Carcel

NOTE

It may take a couple of minutes for the Installation Results window to appear.

Just wait without using input devices such as a keyboard and a mouse.

11. When installation is completed, Hyper-V Manager is added under Server Manager.



12. Click $[\times]$ in the upper right corner of the **Server Manager** window to close the window.

(4) Import of a virtual machine

Perform the following procedure to import a virtual machine.

NOTE

When you discard an existing virtual environment and configure a new virtual environment, delete the existing virtual machine from Hyper-V Manager and then import the new virtual machine.

When you delete a virtual machine, make sure you delete the virtual hard disk file. The virtual hard disk file is the following by default:

"C:\Users\Public\Documents\Hyper-V\Virtual Hard Disks\HITACHI_VM_WS08R2.vhd"

1. Click Start button. Click Administrative Tools and then Hyper-V Manager.

2. In the Actions pane, click Import Virtual Machine.

Hyper-V Manager	Virtual Machines	Virtual Machiner				Actions	
WIN-765KG0TOEED	Name -	State	CPU Usage	Assigned Memory	Memo	WIN-78SKG0TOEED	
			hines were found on th			New Import Virtual Machine	
						Hyper-V Settings	
	< Snapshots						
		No ve	tual machine selected	c)		Stop Service Remove Server Refresh	
						View New Window from Here	
	Details	Details					
		2	No item selected.				

- 3. The **Import Virtual Machine** dialog appears. In the **Location** box and the **Settings** section, change the settings as follows. Then click **Import** button. Location: C:\Virtual Machine\WS08R2\
 - Settings: Click the **Copy the virtual machine (create a new unique ID)** radio button. Select the **Duplicate all files so the same virtual machine can be imported again** check box.

ocation:	C:\Virtual Machir	ne\WS08R2\			Browse
Setting					
Import	settings:				
С <u>м</u>	ove or restore the	virtual machine (us	e the existing uniqu	ie ID)	
• C	py the virtual mac	hine (create a new	unique ID)		
	plicate all files so	the same virtual m	achine can be impo	orted again	
		achine cannot be up to another loca		ou do not copy the fi	iles unless you

NOTE

If you import the virtual machine without selecting the **Duplicate all files so the same virtual machine can be imported again** check box, the files in the folder specified in the **Location** box are directly used.

If the files in "C:\Virtual Machine\WS08R2" are not backed up, the virtual machine cannot be restored to the initial status. We recommend that you select the **Duplicate all files so the same virtual machine can be imported again** check box when you import the virtual machine.

4. When import is completed, virtual machine HITACHI_VM_WS08R2 is added under **Hyper-V Manager**.

Hyper-V Manager		
		_B×
Eile <u>A</u> ction <u>View</u> <u>Window</u>	<u>H</u> eb	<u> </u>
🗢 🔿 🞽 🖬 🚺 🖬		
Hyper-V Manager	Virtual Machines	Actions
WIN-7BSKG0TOEED	Name A State CPU Usage Assigned Memory Memo	WIN-7B5KG0TOEED 🔺 📥
	HITACHI_VM_WS08R2 Off	New 🕨
		💫 Import Virtual Machin
		🖆 Hyper-V Settings
		Virtual Network Mana
		💋 Edit Disk
	<u>S</u> napshots	🖳 Inspect Disk
	The selected virtual machine has no snapshots.	Stop Service
		X Remove Server
		🔉 Refresh
		View 🕨
		New Window from Here
	HITACHI_VM_WS08R2	👔 Help
		HITACHI_VM_W508R2
	Created: 7/20/2011 2:29:37 AM Notes: None	onnect
	NORGS. NORG	💽 Settings
		Start
		🛃 Snanchot
WIN-7BSKG0TOEED: 1 virtual machine s	elected.	

----- NOTE -------

All the settings of the imported virtual machine are default settings. Change the settings of the virtual machine to suit your environment.

5. Click [×] in the upper right corner of the **Hyper-V Manager** window to close the window.

(5) Preparation for setup of the guest OS

The following table describes the items that are required during setup of the guest OS. Determine (or confirm) the items before you start setup.

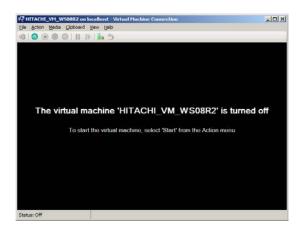
Item	Description
License certificate	Make sure that the license certificate is attached to the body of the HF-W computer. Check the product key (Virtual Key) written in the license certificate.
Administrator password	Administrator password You can change the password after you set it.

(6) Setup of the guest OS

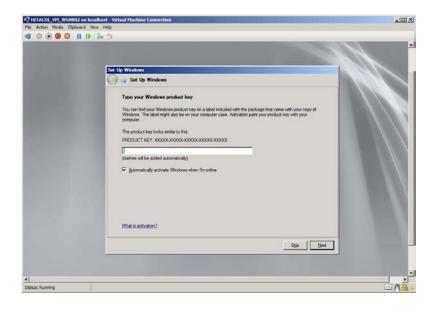
Set up Microsoft® Windows Server® 2008 R2 Standard.

Perform the following procedure to start the virtual machine and set up the basic environment.

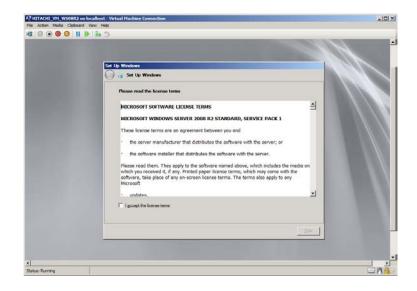
- 1. Click Start button. Click Administrative Tools and then Hyper-V Manager.
- 2. Right-click virtual machine HITACHI_VM_WS08R2 to display a pop-up menu. In the pop-up menu, click **Connect**.
- 3. The **Virtual Machine Connection** window appears. In the **Action** menu, click **Start**. Setup of Windows Server® 2008 R2 Standard automatically starts.



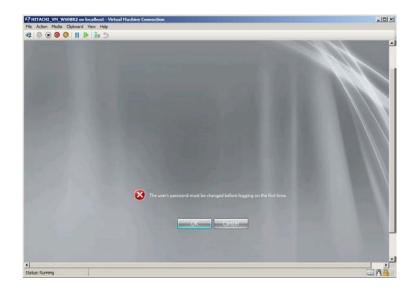
4. The product key entry window appears. Enter the product key written in your license certificate and click **Next** button.



5. The license agreement window appears. Read the terms carefully, select the **I accept the license terms** check box, and click **Start** button.



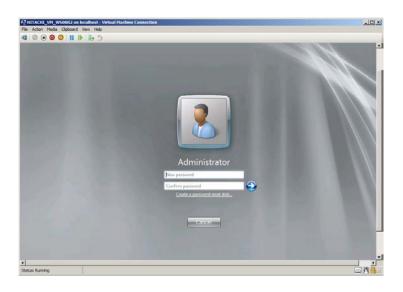
6. When a message appears asking you to change the administrator password, click **OK** button.



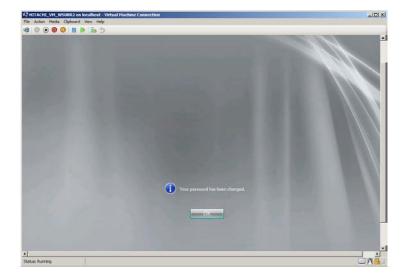
- The password entry window appears. Enter the password in the New Password and Confirm password fields. Press the Enter key or click [→].
 - NOTE

When you set an administrator password, the following rules must be satisfied.

- The password must consist of at least six characters.
- At least three out of the following four types of characters must be used: ASCII uppercase alphabetic characters, ASCII lowercase alphabetic characters, ASCII numeric characters, and ASCII symbol characters.
- Any three or more consecutive characters used in the user account name or user name must not be used.



8. The password change completion window appears. Click **OK** button. After that, you are automatically logged on.



9. After logon, the initial configuration task window appears. Click [×] in the upper right corner to close the window and proceed to the next page to continue setup.
If you do not want to display this window at next startup, select the **Do not show this** window at logon check box and click [×] in the upper right corner to close the window.

(7) Authentication of Windows® license

The guest OS (Windows Server® 2008 R2 Standard) installed on the virtual machine has a technology that prevents illegal copy called product activation. Before the user can use Windows Server® 2008 R2 Standard, the user must obtain license authentication from Microsoft. License authentication can be provided over the phone or the Internet. Perform either procedure.

- (a) License authentication over the phone
 - 1. If you have not logged on with the administrator account of the computer, log on with the administrator account.
 - 2. Click **Start** and then **Control Panel**.
 - 3. Click System and Security and then System.
 - In the Windows activation section, click <u>3 days until automatic activation</u>. Activate Windows now. (The underlined statement changes depending on the status of license.)

System				, io
🌀 🗍 🗸 👯 • Control Panel •	System and Security - System	•	Search Control P	and
Control Panel Home	Copyright @ 2009 Microsof Service Pack 1	t Corporation. All rights rese	rved.	
Device Manager				
Remote settings				
Advanced system settings				
*	System			
	Manufacturer:	Hitachi, Ltd.		
	Processor:	Intel(R) Xeon(R) CPU 1.99 GHz	E5504 @ 2.00GHz	
	Installed memory (RAM):	512 MB (512 MB usable)		HITACHI
	System type:	64-bit Operating System		
	Pen and Touch:	No Pen or Touch Input is	available for this Display	
	Hitachi, Ltd. support			
	Website:	Online support		
	Computer name, domain, and w	orkgroup settings		
	Computer name:	WIN-#011D03JQM5		Schange settings
	Full computer name:	WIN-4011D03JQM5		
	Computer description:			
	Workgroup:	WORKGROUP		
See also	Windows activation			
Action Center	QL 3 days until automatic a	activation, Activate Windows	now	

5. Click Show me other ways to activate.

ndows Activation	
🕅 Windows Activation	
Activate Windows now	
You must activate Windows within 30 days to continue using all Windows features.	
→ Activate Windows online now	
Ask me later	
→ Show me other ways to activate	
What is activation?	
Read the privacy statement online	
	Car

6. Click Use the automated phone system.

🎋 Windows Activation	×
🚱 🕅 Windows Activation	
How do you want to activate Windows?	
 Use my modem to connect directly to the activation service (recommended if you have a modem) 	
→ Use the <u>a</u> utomated phone system	
L	
What is activation?	
THE DECOUNT	
	,

7. In the **Click the nearest location** pull-down menu, select the nearest location. Click **Next** button.

Windows Activation	
🔰 🎊 Windows Activation	
Find available phone numbers for activation	
<u>C</u> lick the nearest location:	
United States	V
	Next Cancel

8. **Step 1** lists the phone numbers for the license authentication desk. Phone one of the numbers.

								_
Activate V	Vindows now							
Step 1: T	o get a conf	irmation ID,	call:					
							(toll-free)	
							(toll)	
							(SMS)	
Step 2: Fo	ollow phone	system inst	ructions to	enter the ir	stallatio	n ID:		
1	2	3	4	5	6	7	8	
Step <u>3</u> : Tj	ype the conf	irmation ID	the phone s	system give	es you:			
Step <u>3</u> : T <u>i</u> A	ype the conf B	irmation ID C	the phone s	system give E	es you:	F	G	н
				-		F	G	н

9. Follow the voice instructions and enter the installation ID displayed in **Step 2** on the dial pad of your phone.

When the authentication is completed, you hear the confirmation ID on the phone. Write down the number.

🎙 W	indows Activ	ation							×
Θ	💦 Window	s Activation	l.						
	Activate W	indows now							
	Step 1: To	get a confi	rmation ID,	call:					
		-						(toll-free)	
								(toll)	
								(SMS)	
	Step 2: Fo	llow phone	system inst	ructions to e	enter the ir	stallation	ID:		
	1	2	3	4	5	6	7	8	9
					_				
-	Otep <u>0</u> . Ty	pe the confi	mation ID	the phone s	, stem girt	, you.			
	Α	в	c	D	E	1	•	G	н
								Next	Cancel

10. Enter the confirmation ID you wrote down in the previous step (9.) to **Step 3**. Then click **Next**.

Activate Wi	indows now	,					
Step 1: To	get a conf	firmation ID	call:				
						(to	ll-free)
						4-	IIN
						(to	11)
						(SN	(2)
						(3)	(13)
Step 2: Fol	low phone	system ins	tructions to	enter the ir	nstallation II	D:	
1	2	3	4	5	6	7	8
	be the conf	firmation ID	the phone	system give	es you:		
	pe the cont B	firmation ID C	the phone D	system give E	es you: F	G	н
Step <u>3</u> : Тур			-			G	н
Step <u>3</u> : Тур			-			G	н

11. When a message appears telling you license authentication is successful, click **Close** button to close the window.

Activation was successful	
Activation helps verify that your copy of Windows is genuine. With a genuine copy of Windows Server 2008 R2, you are eligible to receive all available updates and product support from Microsoft.	genuine Microsoft
Learn more online about the benefits of genuine Windows	software

This completes license authentication over the phone.

- (b) License authentication over the Internet
 - 1. If you have not logged on with the administrator account of the computer, log on with the administrator account.
 - 2. Click Start and then Control Panel.
 - 3. Click System and Security and then System.
 - 4. In the **Windows activation** section, click <u>3 days until automatic activation</u>. Activate **Windows now**. (The underlined statement changes depending on the status of license.)

🖾 System				
GO . Control Panel -	System and Security - System	•	Search Control P	and 🛛
Control Panel Home	Copyright @ 2009 Microsof Service Pack 1	t Corporation. All rights rese	rved.	
😵 Device Manager				
Remote settings				
P Advanced system settings				
*	System			
	Manufacturer:	Hitachi, Ltd.		
	Processor:	Intel(R) Xeon(R) CPU 1.99 GHz	E5504 @ 2.00GHz	
	Installed memory (RAM):	512 MB (512 MB usable)		HITACHI
	System type:	64-bit Operating System		CONTRACTOR OF STREET, S
	Pen and Touch:	No Pen or Touch Input is	available for this Display	
	Hitadhi, Ltd. support			
	Website:	Online support		
	Computer name, domain, and w	orkgroup settings		
	Computer name:	WIN-#M1D03JQM5		Schange settings
	Full computer name:	WIN-4011D03JQM5		
	Computer description:			
	Workgroup:	WORKGROUP		
See also	Windows activation			
Action Center	Q 3 days until automatic	activation. Activate Windows	now	
Windows Update	Product ID: 00477-OEM-84			

5. Click Activate Windows online now.

Ҟ Wi	indows Activation	×
0	🕅 Windows Activation	
	Activate Windows now	
	You must activate Windows within 30 days to continue using all Windows features.	
	→ Activate Windows online now	
	→ Ask me later	
	➔ Show me other ways to activate	
	What is activation?	
	Read the privacy statement online	
	Cancel	

6. A message, "The product key is being verified." appears. License authentication begins.

Windows Activation	tion		
Activating Windows			
The product key is	being verified.		
This might take a fe	w minutes.		
Г			
			Cancel

7. When a message appears telling you license authentication is successful, click **Close** button to close the window.

Windows Activation	
🕅 🗞 Windows Activation	
Activation was successful	
Activation helps verify that your copy of Windows is genuine. With a genuine copy of Windows Server 2008 R2, you are eligible to receive all available updates and product support from Microsoft.	genuine .
Learn more online about the benefits of genuine Windows	software
	Close

This completes license authentication over the Internet.

This Page Intentionally Left Blank

APPENDIX C SETUP PROCEDURE WHEN BUILDING A VIRTUAL ENVIRONMENT (FOR Windows Server® 2012 R2)

Windows Server® 2012 R2 provides one free guest OS license, and this product offers a virtual environment on which Windows Server® 2012 R2 is installed as the guest OS. This appendix describes the setup procedures of a virtual environment. Follow this setup procedure only if you build a virtual environment and after you read the following notes carefully.

NOTE

When you use a guest OS (Windows Server® 2012 R2 Standard) installed on a virtual machine, the guest OS must be activated. Details about the activation process of the guest OS and the privacy policy of Microsoft are displayed when the virtual environment is started for the first time.

<If you are not using a virtual environment>

The files used for setting up a virtual environment include a virtual hard disk file for the guest OS and therefore occupy about 4GB of disk space. If a virtual environment is not used, we recommend that you follow the procedures below to delete the directory storing these files.

1. If you are not signed in to the computer using an administrator account, sign in to the computer using an administrator account.

2. Start a command prompt.

• Right-click **Start**. Then a menu appears. On the menu, click **Command Prompt** (Admin).

(If the administrator account you used for logon is a built-in administrator account, simply click **Command Prompt**.)

- If you see the User Account Control window, click Yes.
- 3. At the command prompt, type the following, and then press **Enter**.

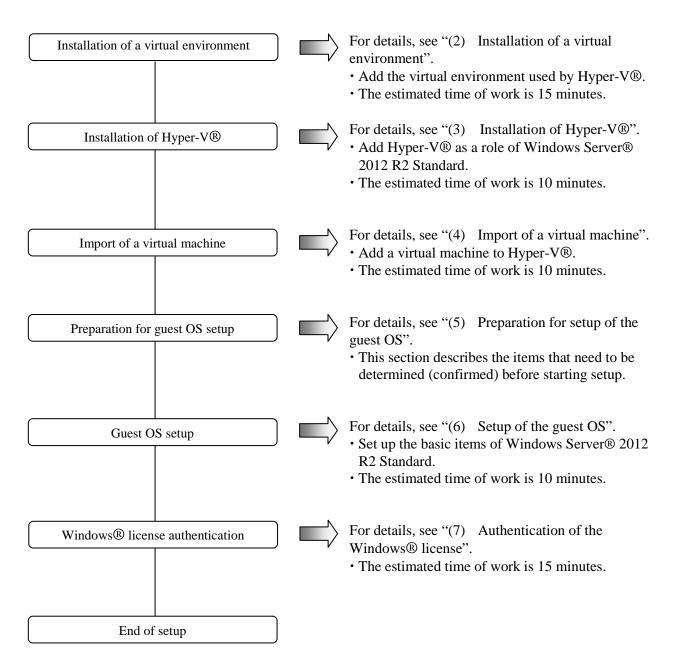
rmdir /s C:\HITACHI\Hyper-V_Image

4. A confirmation message for the deleting directory is output. Type y and then press Enter.

(1) Overview of the setup procedure

This section describes the procedure for setting up a pre-installed virtual machine (guest OS: Microsoft® Windows Server® 2012 R2 Standard).

The following flow outlines the setup.



(2) Installation of a virtual environment

Perform the following procedure to install a virtual environment.

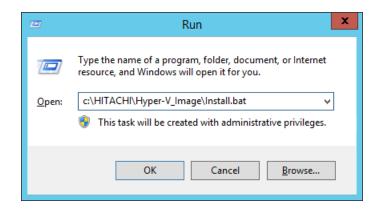
NOTE

Install the virtual environment in "C:\Virtual Machine\WS08R2".

If you have already used Hyper-V® to create and use the files under "C:\Virtual Machine\WS12R2" as a virtual machine, this installation procedure overwrites those files. Make a backup as necessary.

- 1. If you are not signed in to the computer using an administrator account, sign in to the computer using an administrator account.
- 2. Start the setup program.
 - Right-click Start. Then a menu appears. On the menu, click Run.
 - In the **Open** box, enter the following name. Click **OK**.

 $C:\HITACHI\Hyper-V_Image\Install.bat$



- 3. When the installation confirmation dialog appears, click **OK**.
- 4. When installation is completed, a completion message appears. Press any key. The window closes and installation is completed.

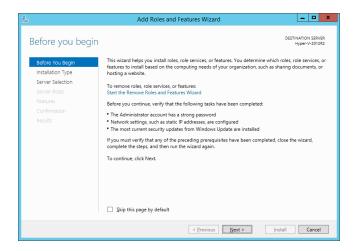
(3) Installation of Hyper-V®

Perform the following procedure to install Hyper-V®.

- 1. Click Start. On the Start screen, click Server Manager.
- 2. In the Server Manager window, under WELCOME TO SERVER MANAGER, click Add roles and features.

0		Server Manager		
ලිල - Server M	anager • Dashboard	ı •@⊺ 	Manage	<u>I</u> ools <u>Y</u> iew <u>H</u> elp
Dashboard Local Server All Servers	WELCOME TO SERVER MAN	Configure this local serve	er	
File and Storage Services D		2 Add roles and features		
	WHAT'S NEW	3 Add other servers to manag4 Create a server group	e	
	LEARN MORE			Hide
	ROLES AND SERVER GROUP Roles: 1 Server groups: 1			
	File and Storage Services	1 Local Server	1	
	Manageability Events Performance	Manageability Events Services		

3. The **Before you begin** pane is displayed in the **Add Roles and Features Wizard** window. Click **Next**.



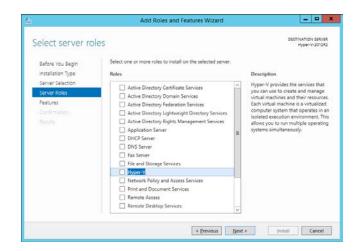
4. The **Select installation type** pane is displayed. Confirm that **Role-based or feature-based installation** is selected. Click **Next**.

ħ	Add Roles and Features Wizard
Select installatic	Select the installation type. You can install roles and features on a running physical computer or virtual
Installation Type Server Selection Server Roles Features	machine, or on an offline virtual hard disk (VHD). Role-based or feature-based installation Configure a single server by adding roles, role services, and features. Remote Desktop Services installation Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based
Confirmation Results	or session-based desktop deployment.
	< Previous Next > Install Cancel

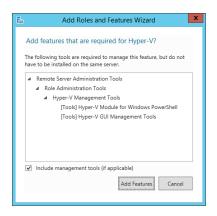
5. The **Select destination server** pane is displayed. Confirm that **Select a server from the server pool** is selected. Click **Next**.

Ъ	Add	Roles and Features V	Vizard	_ 🗆 X
Select destination	n server			DESTINATION SERVER Hyper-V-2012R2
Before You Begin	Select a server or a	virtual hard disk on which	to install roles and features.	
Installation Type	 Select a server from the server f	rom the server pool		
Server Selection	 Select a virtual h 	ard disk		
Server Roles	Server Pool			
Features				
Confirmation	Filter:			
Results	Name	IP Address	Operating System	
	Hyper-V-2012R2		Microsoft Windows Server 2012 R	2 Standard
	1 Computer(s) foun	d		
	This page shows see Add Servers comma	vers that are running Win	dows Server 2012, and that have bee fiine servers and newly-added server	
		< <u>P</u> re	vious Next > Inst	tall Cancel

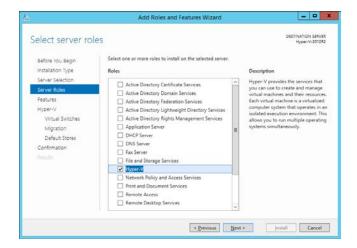
6. The Select server roles pane is displayed. Select the Hyper-V check box.



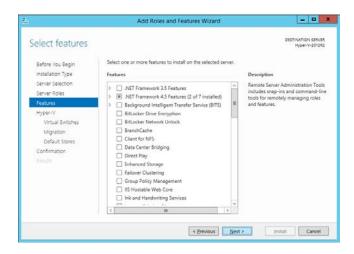
7. The Add features that are required for Hyper-V pane is displayed. Click Add Features.



8. The Select server roles pane returns. Click Next.



9. The Select features pane is displayed. Click Next.



10. The Hyper-V pane is displayed. Click Next.

h	Add Roles and Features Wizard
Hyper-V	DESTINATION SERVER Hyper-V-201282
Before You Begin installation Type Server Roles Features Hyper-V Virtual Switches Migration Default Stores Confirmation Results	 Hyper-V allows you to virtualize your server workloads by running those workloads on virtual machines. You can use virtual machines to consolidate multiple workloads on one physical server, to improve server availability, and to increase efficiency in developing and testing software. Things to note: Before you install this role, you should identify which network connections on this server you want to use for setting up virtual available. Afferyou install hyper-V, you can use Hyper-V Manager to create and configure your virtual machines.
	More information about Hyper-V
	< Previous Next > Install Cancel

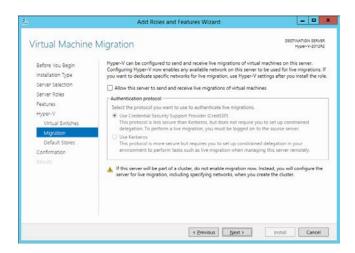
11. The **Create Virtual Switches** pane is displayed. If you want the virtual machine to communicate with other computers, select the check boxes for the network adapters used for virtual switches. Click **Next**.

Ъ.	Add Role	les and Features Wizard
Create Virtual Sw Before You Begin Installation Type Server Selection Server Roles Features Hyper-V Virtual Switches Migration Default Stores	tches Virtual machines require role, you can create virtu One virtual switch will be at least one virtual switch can add, remove, and mo Network adapters: Name Mame	Es and realities wizard DESTINATION SERVER Hyper-V-201282 exvirtual switches to communicate with other computers. After you install this al machines and attach them to a virtual switch. e created for each network adapter you select. We recommend that you create hnow to provide virtual machines with connectivity to a physical network. You dify your virtual switches later by using the Virtual Switch Manager. Description Intel(R) 82574L Gigabit Network Connection
Confirmation Results		tyou reserve one network adapter for remote access to this server. To reserve a o not select it for use with a virtual switch.

NOTE

- A network adapter is not displayed if a network is not connected to the network adapter.
- You can create virtual switches later using the Virtual Switch Manager.

12. The Virtual Machine Migration pane is displayed. Click Next.



13. The **Default Stores** pane is displayed. Click **Next**.

Ъ.	Add Roles and Features Wizard	- 🗆 X
Default Stores		ION SERVER er-V-2012R2
Before You Begin Installation Type Server Selection Server Roles Features Hyper-V Virtual Switches Migration Default Stores Confirmation Results	Hyper-V uses default locations to store virtual hard disk files and virtual machine configurati unless you specify different locations when you create the files. You can change these defau now, or you can change them tlate by modifying Hyper-V settings. Default location for virtual hard disk files: C\Users\Public\Documents\Hyper-V\Virtual Hard Disks Default location for virtual machine configuration files: C\ProgramData\Microsoft\Windows\Hyper-V	
	< Previous Next > Install	Cancel

14. The **Confirm installation options** pane is displayed. Select the **Restart the destination server automatically if required** check box.

6	Add Roles and Features Wizard	_ 🗆 X
Confirm installati		DESTINATION SERVER Hyper-V-2012R2
Before You Begin	To install the following roles role services, or features on selected server, click Inst	all.
Installation Type	Restart the destination server automatically if required	
Server Selection	Optional reasons (real- or administration tools) might be displayed on this page b	
Server Roles	been selected automatically. If you do not want to install these optional features, of their check boxes.	lick Previous to clear
Features		
Hyper-V	Hyper-V	
Virtual Switches	Remote Server Administration Tools	
Migration	Role Administration Tools Hyper-V Management Tools	
Default Stores	Hyper-V Management Tools Hyper-V Module for Windows PowerShell	
Confirmation	Hyper-V GUI Management Tools	
Results		
	Export configuration settings	
	Specify an alternate source path	
	< <u>P</u> revious Next >	all Cancel

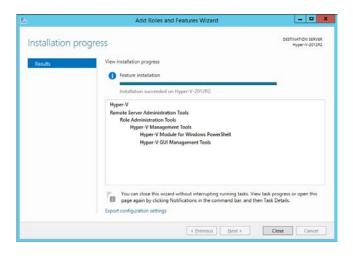
15. A message dialog box is displayed to confirm whether to restart the server automatically if required. Click **Yes**.



16. The **Confirm installation selections** pane returns. Click **Install**. The installation process starts. If required, the server restarts.

E.	Add Roles and Features Wizard	_ 🗆 X
Confirm installat Before You Begin Installation Type Server Selection Server Roles Features Hyper-V Virtual Switches Migration Default Stores Confirmation Results		STINATION SERVER Hyper-V-2012R2
	Export configuration settings Specify an alternate source path	
	< <u>P</u> revious <u>N</u> ext > Install	Cancel

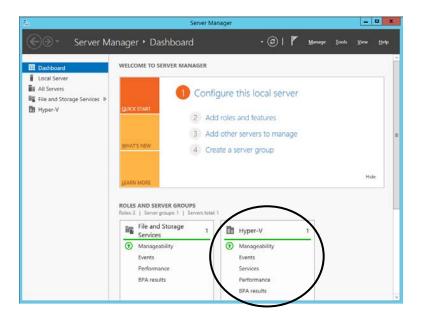
17. Sign in after the server restarts. The **Installation progress** pane is displayed. Confirm that the installation is complete successfully. Click **Close**.



NOTE

It may take a couple of minutes for the **Installation progress** pane to appear. Just wait without using input devices such as a keyboard and a mouse.

18. When the installation is complete, the Hyper-V Manager is added in the **Server Manager** window.



19. Click the close [\times] button near the upper-right corner of the **Server Manager** window to close the window.

(4) Import of a virtual machine

Perform the following procedure to import a virtual machine.

NOTE

When you discard an existing virtual environment and configure a new virtual environment, delete the existing virtual machine from Hyper-V Manager and then import the new virtual machine.

When you delete a virtual machine, make sure you delete the virtual hard disk file. The virtual hard disk file is the following by default:

"C:\Users\Public\Documents\Hyper-V\Virtual Hard Disks\HITACHI_VM_WS12R2.vhd"

- 1. Click Start. On the Start screen, click Server Manager.
- 2. In the **Server Manager** window, click **Tools** > **Hyper-V Manager** to launch the Hyper-V Manager.
- 3. In the pane to the left, click the virtual server where Hyper-V® has been installed. On the menu in the **Actions** pane, click **Import Virtual Machine**.

Hyper-V Manager HVPER-V-2012R2	Virtual Machines				Actions	
I HIPER-PEOIZEZ	Name		Usage Assigned Memory	Uptim	HYPER-V-2012R2	
		No vitual machines wer		<	Import Virtual Machine Pryptor v sensings Virtual Switch Manager Virtual SAN Manager	,
	<	ш			🔬 Vinda suv Manager	
	Checkpoints				📇 Inspect Disk	
		No virtual mach	ine selected.		Stop Service Remove Server Refresh	
					View Help	
	Details					
		No ten s	lected			

4. The **Before You Begin** pane is displayed in the **Import Virtual Machine** window. Click **Next**.

2	Import Virtual Machine	x
Before You B	iegin	
Before You Begin Locate Folder Select Virtual Machine Choose Import Type Summary	This vizard helps you import a virtual machine from a set of configuration files. It guides you through resolving configuration problems to prepare the virtual machine for use on this computer.	
	< grevious Next > Enish Cancel	

5. The Locate Folder pane is displayed. Specify the following under Specify the folder containing the virtual machine to import. Click Next.

Folder: "C:\Virtual Machine\WS12R2\"

2	Import Virtual Machine	x
Locate Folder	,	
Before You Begin	Specify the folder containing the virtual machine to import.	
Locate Folder	Folder: C:\Virtual Machine\WS12R2\ Browse.	
Select Virtual Machine		
Choose Import Type		
Summary		
	< Previous Next > Enish Cance	4

6. The Select Virtual Machine pane is displayed. Click Next.

2	Import	Virtual Machine		x
Select Virtual	Machine			
Before You Begin	Select the virtual machine t	o import:		
Locate Folder	Name	•	Date Created]
Select Virtual Machine Choose Import Type	HITACHI_VM_WS12R2		2/6/2015 7:51:26 PM	
Summary				
				1
		< Previous Next >	Einish Cancel]

7. The **Choose Import Type** pane is displayed. Select the **Copy the virtual machine** (create a new unique ID) radio button. Click Next.

2	Import Virtual Machine		
Choose Import Type			
Before You Begin Locate Folder Select Virtual Machine Choose Import Type Summary	Choose the type of import to perform: Begater the virtual machine in-place (size the existing unique ID) Bectore the original fractione (create a new unique ID) Cgpy the virtual machine (create a new unique ID)		
	< Brevious Next > Einsh Cancel		

8. The **Choose Folders for Virtual Machine Files** pane is displayed. Specify folders, and then click **Next**.

<u>7</u>	Import Virtual Machine	×		
Choose Folders for Virtual Machine Files				
Before You Begin Locate Folder Select Virtual Machine Choose Import Type Choose Destination	You can specify new or existing folders to store the virtual machine files. Otherwise, the wizard imports the files to default Hyper-V folders on this computer, or to folders specified in the virtual machine configuration. Store the virtual machine in a different location Yerbual machine configuration folder:			
Choose Destination Choose Storage Folders Summary	C: \ProgramData/Microsoft\Windows/Hyper-V\ Brows C: \ProgramData/Microsoft\Windows/Hyper-V\ Brows Smart Paging folder: C: \ProgramData/Microsoft\Windows/Hyper-V\ C: \ProgramData/Microsoft\Windows/Hyper-V\ Brows	e		
	< Previous Next > Enish Can	el		

9. The **Choose Folders to Store Virtual Hard Disks** pane is displayed. Specify a folder, and then click **Next**.

	Import Virtual Machine			
Choose Folders to Store Virtual Hard Disks				
Before You Begin Locate Folder Select Virtual Machine Choose Eimport Type Choose Destination Choose Storage Folders Summary	Where do you want to store the imported virtual hard disks for this virtual machine? Location: C:\Users\Public'pocuments\Hyper-V\Virtual Hard Disks\ Browse			
	< <u>Previous</u> <u>Next</u> > Ensh Cancel			

10. The **Completing Import Wizard** pane is displayed. Click **Finish**.

	Import Virtual	Machine	x
Completing I	import Wizard		
Before You Begin Locate Folder Select Vitual Nachine Choose Emport Type Choose Destination Choose Storage Folders Summary	You are about to perform the following Description: Import file: Import Type: Virtual machine configuration folder: Checkgoint folder: Smart Paging file store: Virtual hard disk destination folder:	HITACHL_VM_WS12R2 C: Wirtual Machine (WS12R2(Virtual Machines (2AEA802A- Copy (generate new ID) C: ProgramData (Microsoft/Windows (Hyper-V) C: ProgramData (Microsoft/Windows (Hyper-V) C: ProgramData (Microsoft/Windows (Hyper-V)	5246-4
	C To complete the import and close this v	III vizard, dick Finish. < Previous Next > Finish Can	>

11. When the import process is complete, a virtual machine, "HITACHI_VM_WS12R2", is added to the Hyper-V Manager. Click the close [\times] button near the upper-right corner in the **Hyper-V Manager** window to close the window.

NOTE —

All the settings of the imported virtual machine are default settings. Change the settings of the virtual machine to suit your environment.

(5) Preparation for setup of the guest OS

The following table describes the items that are required during setup of the guest OS. Determine (or confirm) the items before you start setup.

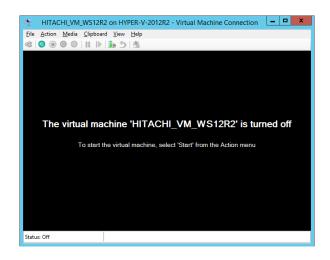
Item	Description
License certificate	Make sure that the license certificate is attached to the body of the HF-W computer. Check the product key written in the license certificate.
Administrator password	Administrator password You can change the password after you set it.

(6) Setup of the guest OS

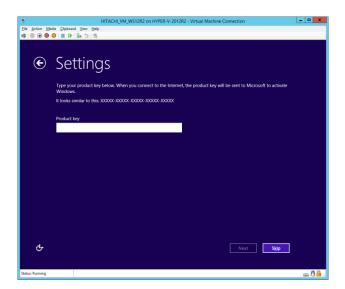
Set up Microsoft® Windows Server® 2012 R2 Standard.

Perform the following procedure to start the virtual machine and set up the basic environment.

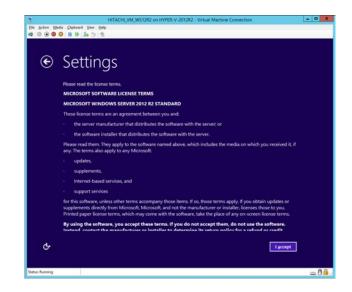
- 1. Click Start. On the Start screen, click Server Manager.
- 2. In the **Server Manager** window, click **Tools** > **Hyper-V Manager** to launch the Hyper-V Manager.
- 3. Right-click the virtual machine, "HITACHI_VM_WS12R2" . A menu appears. On the menu, click **Connect**.
- 4. The Virtual Machine Connection window is displayed. On the Action menu, click Start. The setup of Windows Server® 2012 R2 Standard automatically starts.



5. A screen is displayed to prompt you to enter a product key. Enter the product key printed on the Certificate of Authenticity, and click **Next**.



6. The MICROSOFT SOFTWARE LICENSE TERMS screen is displayed. Read the terms carefully, and then click **I accept**.



7. A screen is displayed to prompt you to enter an Administrator password. Enter the password in both the **Password** and **Reenter password** boxes. Then, click **Finish**.

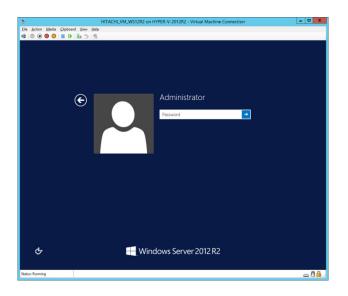
NOTE

When you set an administrator password, the following rules must be satisfied.

- The password must consist of at least six characters.
- At least three out of the following four types of characters must be used: ASCII uppercase alphabetic characters, ASCII lowercase alphabetic characters, ASCII numeric characters, and ASCII symbol characters.
- Any three or more consecutive characters used in the user account name or user name must not be used.

4		HITACHLVM_WS12R2 on HYPER-V-2012R2 - Virtual Machine Connection	- 🗆 X
	dia ⊆lipboard ⊻iew <u>H</u> elp		
43 💿 🖲 🥹	<mark>⊘ </mark>		
\bigcirc	Catting	26	
C	Setting	<u>1</u> 5	
	Type a password for t	he built-in administrator account that you can use to sign in to this computer.	
	User name	Administrator	
		1 401 H H H H H H H H H H H H H H H H H H H	
	Password		
	Reenter password		
ዮ		Finish	
Ť			
Status: Running			<u>ـ 8</u>

- 8. The sign-in screen appears. Press Ctrl+Alt+End.
 (Note) "Press Ctrl+Alt+Delete to sign in." is displayed, but press Ctrl+Alt+End.
- 9. A screen is displayed to prompt you to enter a password. Enter the password for Password. Press **Enter** or click [→] to sign in to Windows[®].



This completes the setup.

(7) Authentication of Windows® license

The guest OS (Windows Server® 2012 R2 Standard) installed on the virtual machine has a technology that prevents illegal copy called product activation. Before the user can use Windows Server® 2012 R2 Standard, the user must obtain license authentication from Microsoft. Do the following to authenticate the license (activate the Windows).

- 1. If you are not signed in to the computer using an administrator account, sign in to the computer using an administrator account.
- 2. Right-click Start. Then a menu appears. On the menu, click System.
- 3. Click Activate Windows near the lower-right corner in the window.
 - The Windows Activation window appears.
 - Follow the instruction in the window to activate the Windows.