



HITACHI INDUSTRIAL COMPUTER

HF-BX1000/1200

SETUP GUIDE

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											USER'S MANUAL



HITACHI INDUSTRIAL COMPUTER

HF-BX1000/1200

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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

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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.



MARNING: 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 supplier 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.



A CAUTION 1.2

- 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.



NOTICE 1.3

- 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 space is provided for an air intake and exhaust around 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.



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. (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 operating system 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. (The connected DVD drive for reading recovery DVD data will be excluded.) When a recovery DVD is used, all data in the system drive is deleted. Back up the data beforehand as required.

(Page 3-1)



PREFACE

This manual describes the setup procedure of the OS installed in the HITACHI INDUSTRIAL COMPUTER HF-BX1000/1200, namely the following pre-installed OS.

• Windows® 7 Professional

<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

CHAPTER 4 PRECAUTION

APPENDIX A SETUP PROCEDURE WHEN USING Windows XP Mode

<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.
- 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, 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.

<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
 - $1 \text{ GB (gigabyte)} = 1,000^3 \text{ bytes}$
 - 1 TB (terabyte) = $1,000^4$ bytes

<Trademarks>

- Microsoft®, Windows®, Internet Explorer® 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.

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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-BX1000/1200.

Pre-installed OS	Description				
Windows® 7 Professional	Set up the equipment according to "1.1	Setting Up Windows® 7".			

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 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 • Japanese					
	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.
 - While the Windows starts, device drivers are installed, and so on.
 - 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)					
Japanese	私の言語: 日本語					

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)
Japanese	日本語(日本)

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 resources of the display languages 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.



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.

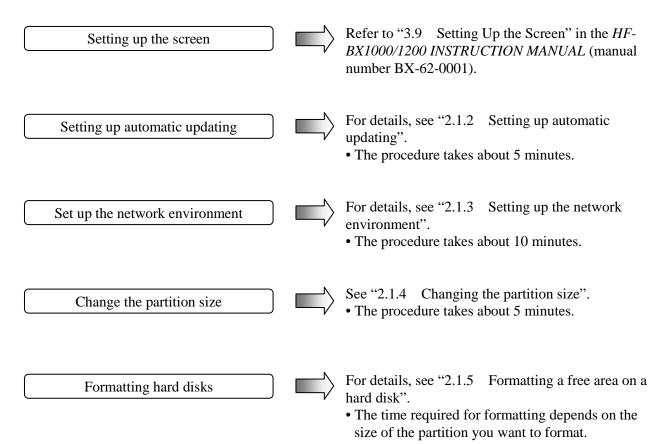
Pre-installed OS	Description				
Windows® 7 Professional	Set up those settings according to "2.1 Windows® 7".	Setting Up Basic Settings of			

2.1 Setting Up Basic Settings of Windows® 7

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

Perform this procedure 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 procedure of basic settings



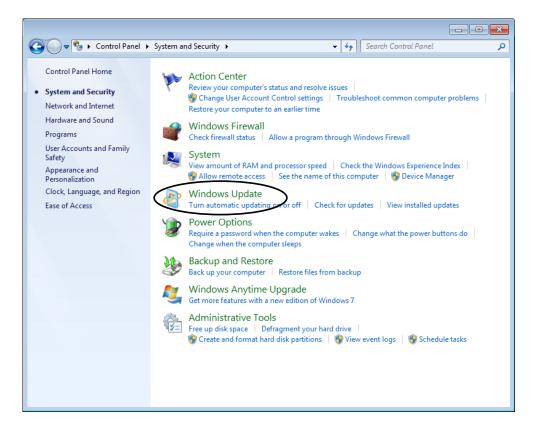
2.1.2 Setting up automatic updating

Windows® 7 has an automatic updating function for bug fixes. This function automatically downloads and installs bug fix updates released on the Microsoft Website.

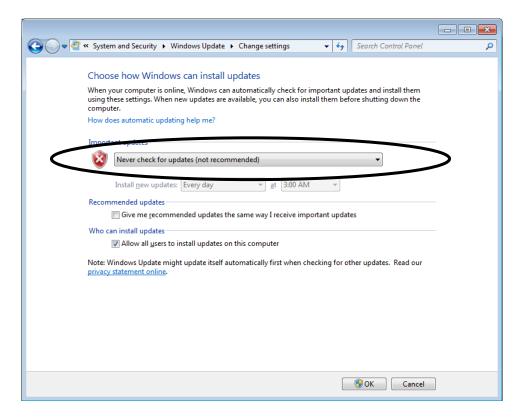
It should be noted that currently running applications can be affected when this function is executed. The modules updated by this function can also affect currently running applications. Because of all this, this function must be turned "off".

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.



6. Click the Close button $[\times]$ 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:

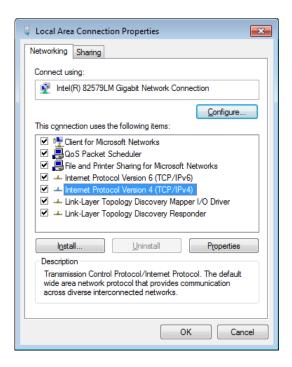
Note that the following procedure is for the case that Internet Protocol Version 4 (TCP/IPv4) is used. If you use Internet Protocol Version 6 (TCP/IPv6), select **Internet Protocol Version 6 (TCP/IPv6)** at step 8.

- 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**.

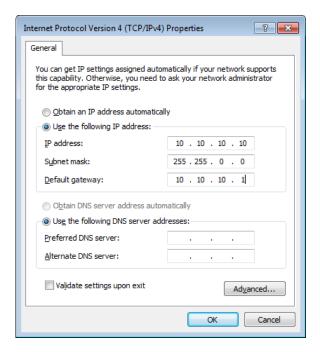
NOTE

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.



- 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.



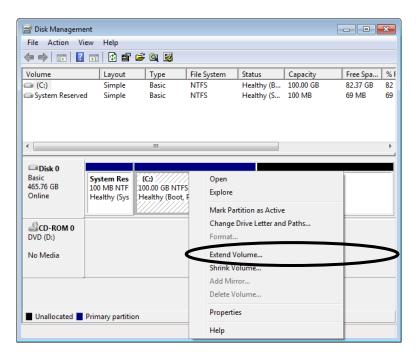
- 10. Close all opened windows.
 - In the **Local Area Connection Property** window, click the **Close** button [×] at the upper right corner.
 - In the **Network Connections** window, click the **Close** button [×] at the upper right corner.

2.1.4 Changing the partition size

In the factory settings, the partition size of the system area (C: drive) is 100 GB. When you want to extend or shrink the system partition, follow the procedure below.

(1) Extending the partition

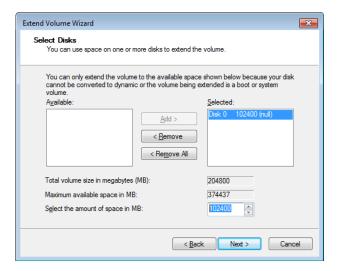
- 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
- 2. Click **Start** and then click **Control Panel**.
- 3. Click **System and Security**. Under **Administrative Tools**, click **Create and format hard disk partitions**.
- 4. If you see the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



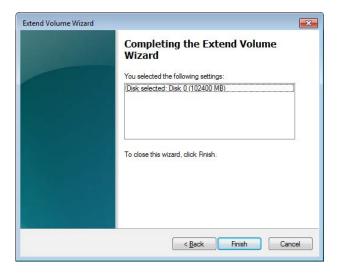
6. The Extend Volume Wizard starts. Click Next.



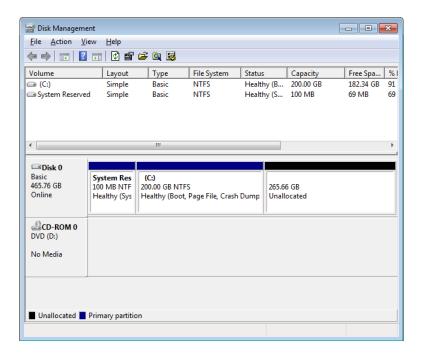
7. A window is displayed for you to specify the amount of space by which the volume extends. In the **Select the amount of space in MB** box, specify the amount of space to extend in MB (1 GB = 1,024 MB). Then click **Next**. (In this example, 102400 (100 GB) is specified.)



8. The Completing the Extend Volume Wizard window appears. Click Finish.

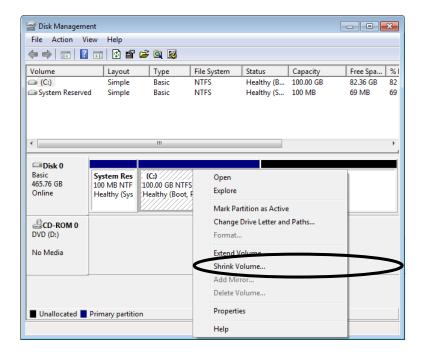


9. The system area extends by the size specified at step 7.

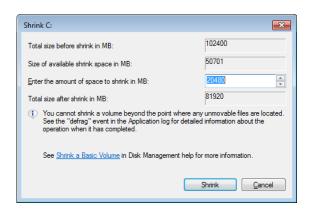


10. In the **Disk Management** window, click the **Close** button $[\times]$ at the upper right corner to close the window.

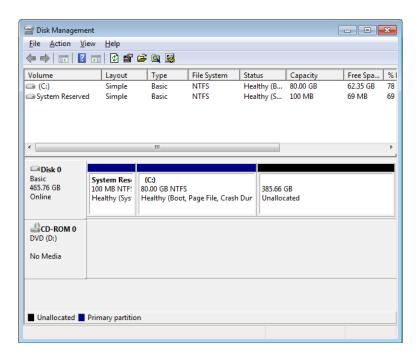
- (2) Shrinking the partition
 - 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
 - 2. Click **Start** and then click **Control Panel**.
 - 3. Click **System and Security**. Under **Administrative Tools**, click **Create and format hard disk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



6. The **Shrink C:** window appears. In the **Enter the amount of space to shrink in MB** box, specify an amount of space to shrink in MB (1 GB = 1,024 MB). Then click **Shrink**. (In this example, 20480 (20 GB) is specified.)

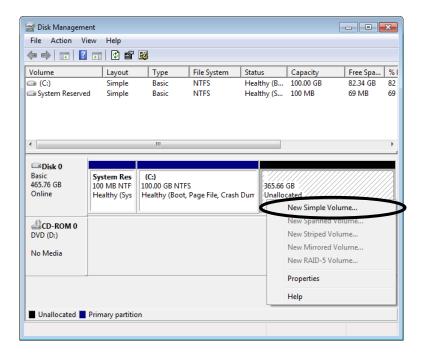


7. The system area shrinks by the size specified at step 6.



8. In the **Disk Management** window, click the **Close** button [×] at the upper right corner to close the window.

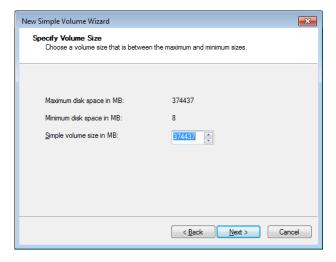
- 2.1.5 Formatting a free area on a hard disk
 - 1. If you are not logged on to the computer as an administrator, log on to the computer as an administrator.
 - 2. Click **Start** and then click **Control Panel**.
 - 3. Click **System and Security**. Under **Administrative Tools**, click **Create and 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**.



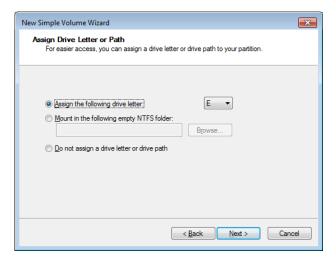
6. The New Simple Volume Wizard starts. Click **Next**.



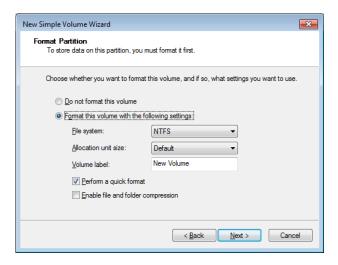
7. The **Specify Drive Size** window is displayed. Enter a volume size you like, and click **Next**.



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**.



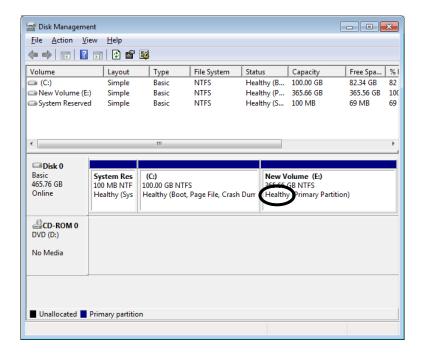
9. A window to select the format of the partition is displayed. Select **Format the volume** with the following settings, and in the **File system** list, select **NTFS**. Click **Next**.



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



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



- 12. In the **Disk Management** window, click the **Close** button $[\times]$ 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.



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.

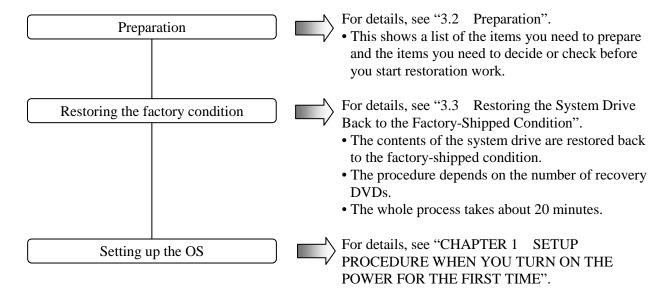
NOTE

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-BX1000/1200 only if you purchase an HF-BX1000/1200 that is specifically stated to include a recovery DVD. Also you need to prepare a USB external optical disk drive (called as a DVD drive hereafter) that can read DVD media.

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 (the drive mounted on the drive bay 1) 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.



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 operating system 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. (The connected DVD drive for reading recovery DVD data will be excluded.) When a recovery DVD is used, all data in the system drive is deleted. Back up the data beforehand as required.

3.2 Preparation

1. Before starting a restoration procedure, have the following recovery DVD ready beforehand.

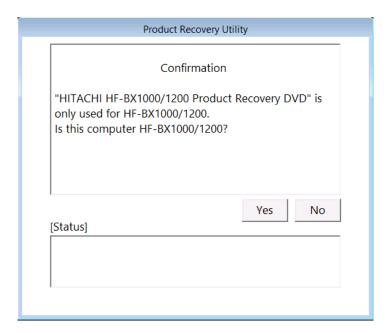
	Name	Model
Recovery DVD	HITACHI HF-BX1000/1200 Product Recovery DVD	S-7662-02P or
		S-7662-04P

2. Connect a USB DVD drive to the HF-BX1000/1200.

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-BX1000/1200 to the shipment conditions by using a recovery DVD.
 - 1. Turn on the DVD drive.
 - 2. Turn on the power to an HF-BX1000/1200, and insert a recovery DVD "HITACHI HF-BX1000/1200 Product Recovery DVD" to the DVD drive.

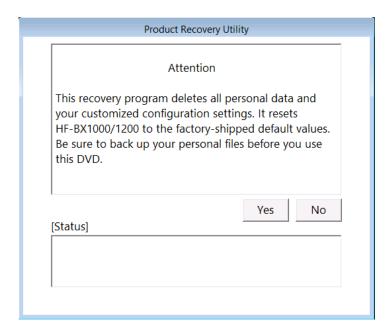
 If a pair of recovery DVDs is provided, set the first recovery DVD (Disc 1/2).
 - 3. When you boot from the recovery DVD, the following confirmation message is displayed.
 - (Note) If you cannot boot from the recovery DVD, turn off the HF-BX1000/1200, and then turn it back on.
 - If the equipment you are currently using is confirmed to be an HF-BX1000/1200, click **Yes**.
 - If the equipment is not an HF-BX1000/1200, click **No**.



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



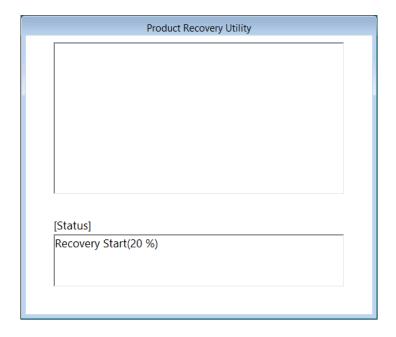
- 4. When you click **Yes** on the confirmation message window, the following confirmation message for starting a restoration process for the drive is displayed.
 - If you are OK with the confirmation message, click Yes.
 - If you are not OK with the confirmation message, click No.



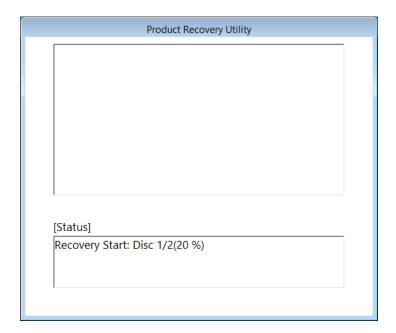
When you click **No**, the following message is displayed. Click **OK**. The recovery DVD is automatically ejected, and then the HF-BX1000/1200 is automatically shut down. If you want to go back to the confirmation message window, click **Cancel**.



5. When you click **Yes** on the confirmation message window for starting a restoration process for the drive, a restoration process for the drive starts. The progress is displayed in the **[Status]** box.

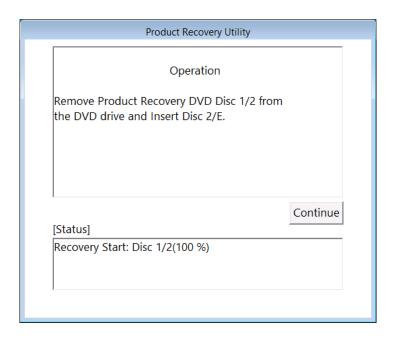


If a pair of recovery DVDs is provided, the recovery DVD disc number that is currently set will be displayed.

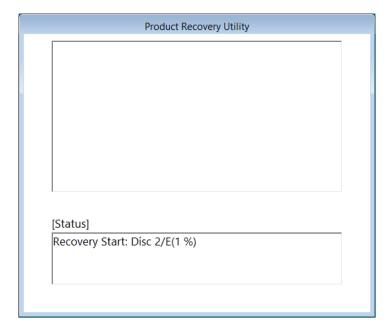


- If one recover DVD is provided, perform steps (8) and (9).
- If a pair of recovery DVDs is provided, perform steps (6) to (9).

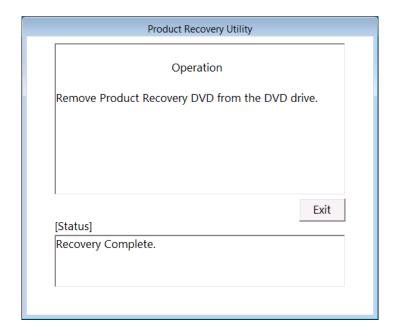
6. When drive restoration is complete by using the first recovery DVD (Disc 1/2), the following message is displayed and the recovery DVD will be ejected automatically. Remove the recovery DVD from the DVD drive and set the next recovery DVD (Disc 2/E).



7. If you click **Continue**, the drive restoration resumes and the progress state will be displayed in the **[Status]** box.



8. When the whole process of restoring the drive with the recovery DVD is finished, a message "Recovery Complete." appears in the [Status] box, and then the recovery DVD is automatically ejected. Remove the recovery DVD from the DVD drive, and then Click Exit. The HF-BX1000/1200 is automatically shut down.



9. Turn off the DVD drive.

The system drive of the HF-BX1000/1200 is now successfully restored to the factory-shipped condition using the 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.

CHAPTER 4 PRECAUTION

4.1 Event Log Entries during Setup

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

Source: Service Control Manager

Event ID: 7022 or 7026

Type: Error

Source: Microsoft-Windows-Search

Event ID: 1008 Type: Warning

Source: e1qexpress or e1rexpress

Event ID: 27 Type: Warning

4.2 Event Log Entries While the OS is Running

This product 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: Microsoft-Windows-WMI

Event ID: 10 Type: Error

Source: Microsoft-Windows-User Profiles Service

Event ID: 1530 Type: Warning

Source: Microsoft-Windows-Search

Event ID: 3036 Type: Warning

Source: Microsoft-Windows-Time-Service

Event ID: 134 or 36 Type: Warning

In addition, the following events 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. Those events are recorded due to the specifications of the OS and do not affect the operation of the system.

Source: Disk Event ID: 11 Type: Error

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

If you ran the command prompt a sufficiently large number of times (about 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® 7, various functions are scheduled by default and executed periodically in the background. Among those functions, Windows Defender (anti-spyware feature) and the disk defragmenter may increase the system load significantly when they run and may affect the operation of the applications for business use. Therefore, 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:

Windows Defender
Frequency: Daily
Start time: 2:00
Disk defragmenter
Frequency: Weekly

• Day of the week: Wednesday

• Start time: 1:00

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:

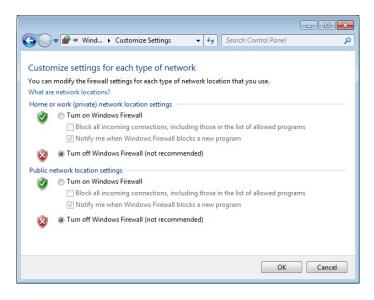
- (a) Disabling Windows Firewall.
- (b) Registering the program as an exception.
- (c) Registering a port used by the program as an exception.

The setup procedure of each option is described below.

(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.



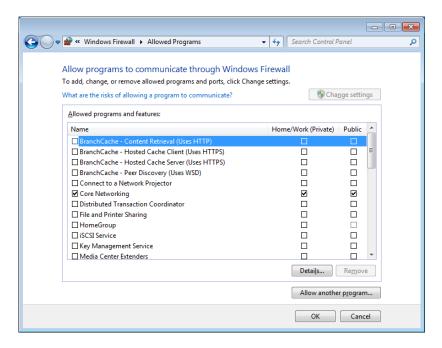
7. Close the **Windows Firewall** window.

(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.

- 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.

Note: If the **Allow another program** button is disabled, click **Change settings**. That will enable the **Allow another program** button.

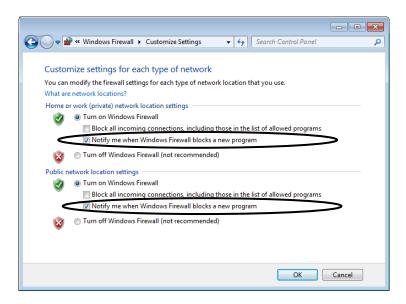


- 7. The **Add a Program** window is displayed.
 - Select a program you want to unblock. If you want to select a program not in the list, click **Browse** to select a file.
 - Click Add.



- 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.



4. PRECAUTION

- 1. When an incoming connection to the launched program is blocked, the following dialog box is displayed.
 - Click Allow access.



2. Then this program is registered as an exception.

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

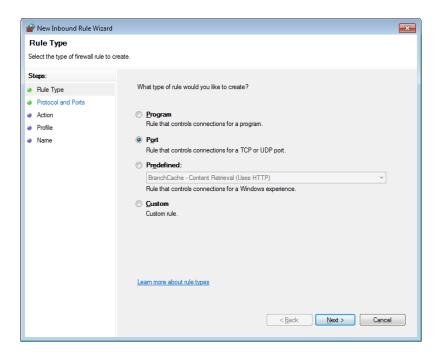
To register a port used by the program as an exception, follow the procedure below. After this procedure, network connections through the port registered as an exception are not blocked anymore.

- 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.

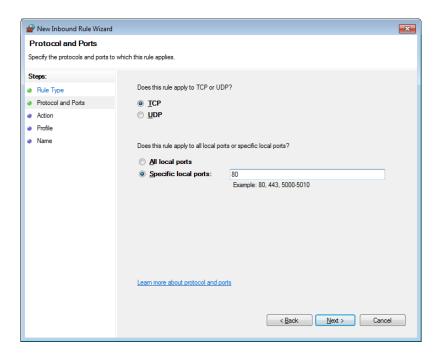
Note: Select either **Inbound Rules** or **Outbound Rules** based on how the port is used.

From this point on, we assume that **Inbound Rules** is selected.

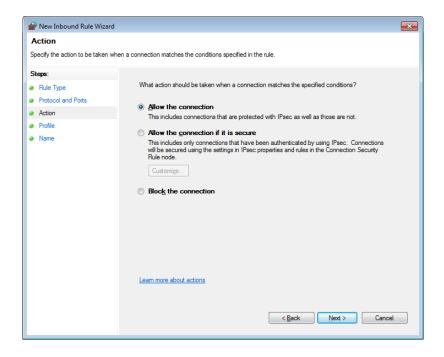
- 7. The New Rule window of the New Inbound Rule Wizard is displayed.
 - Choose Port and click Next.



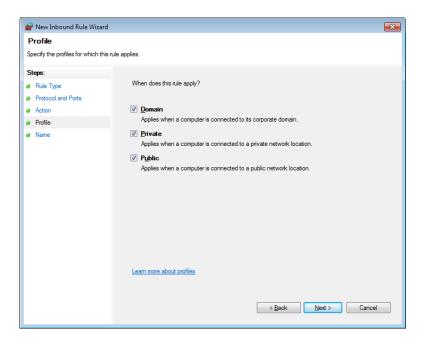
- 8. The **Protocols and Ports** window of the **New Inbound Rule Wizard** is displayed.
 - Select a protocol type.
 - Select either All local ports or Specific local ports.
 - If you select **Specific local ports**, enter a port number.
 - Click Next.



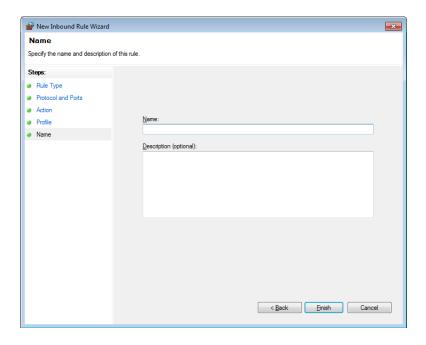
- 9. The **Action** window of the **New Inbound Rule Wizard** is displayed.
 - Select Allow the connection.
 - Click Next.



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



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



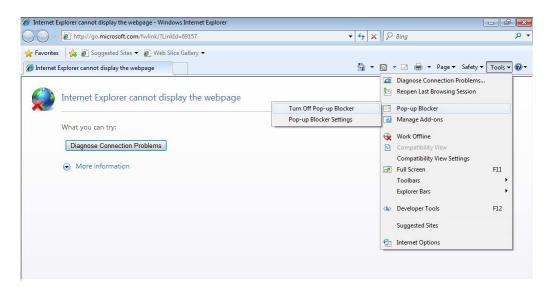
- 12. Confirm that the just created rule is registered in the **Inbound Rule** list in the **Windows Firewall with Advanced Security** window. And then close the window.
- 13. Close the Windows Firewall window.

4. PRECAUTION

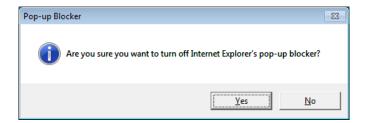
(2) Disabling pop-ups from Internet Explorer® Internet Explorer® is capable of unblocking its pop-up windows.

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. Click Tool > Pop-up Blocker > Turn Off Pop-up Blocker.



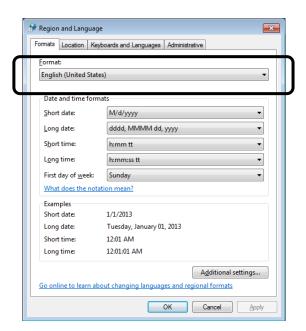
3. The **Pop-up Blocker** window appears. Click **Yes**.



4.6 Corrupted Characters Displayed on Applications

Some applications may not display characters correctly because the applications do not support Unicode or for other reasons. By using the following, you may be able to solve this issue.

- (a) Change the format of the date, time, or others
- (b) Change the language for non-Unicode programs. Each setup procedure is described below.
- (a) Change the format of the date, time, or others
 - 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. Click Clock, Language, and Region.
 - 4. Under Region and Language, click Change the date, time, or number format.
 - 5. The **Region and Language** window appears. In the **Format** list, select a language you want to display on applications. Click **OK**.
 (For example, if you want to display English on the applications, select **English (United States)**.)

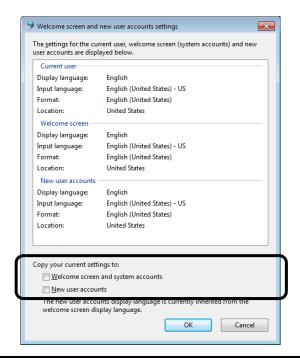


Note: If the language you want to display on applications is already selected, select another language for now. Click **OK**. After the equipment restarts, go through steps 1 to 5 above again.

6. Close the **Region and Language** window

NOTE

The format selected in this procedure only applies to the current user account. If you want to apply this setting also to system accounts or new user accounts created in the future, in the **Administrative** tab on the **Region and Language** window, click **Copy settings**, and select the respective check boxes as below. If applying to system accounts: **Welcome screen and system accounts** If applying to new user accounts: **New user accounts**



- (b) Change the language for non-Unicode programs.
 - 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. Click Clock, Language, and Region.
 - 4. Click **Region and Language**.
 - 5. The **Region and Language** window appears. Click the **Administrative** tab.

Formats Location Keyboards and Languages Administrative

Welcome screen and new user accounts

View and copy your international settings to the welcome screen, system accounts and new user accounts.

Tell me more about these accounts

Language for non-Unicode programs

This setting (system locale) controls the language used when displaying text in programs that do not support Unicode.

Current language for non-Unicode programs:

English (United States)

What is system locale?

OK Cancel Apply

6. Under Language for non-Unicode programs, click Change system locale.

7. The **Region and Language Settings** window appears. In the **Current system locale** pull-down menu, select a display language, and click **OK**. (For example, if you want to display English on the applications, select **English (United States)**.)



Note: If the language you want to display on applications is already selected, select another language for now. Click **OK**. After the equipment restarts, go through steps 1 to 7 above again.

8. A window is displayed to prompt you to restart the system. Click **Restart Now** to restart.

4.7 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 is running Windows® 7. When you use file sharing, refer to 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

APPENDIX A SETUP PROCEDURE WHEN USING Windows XP Mode

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>

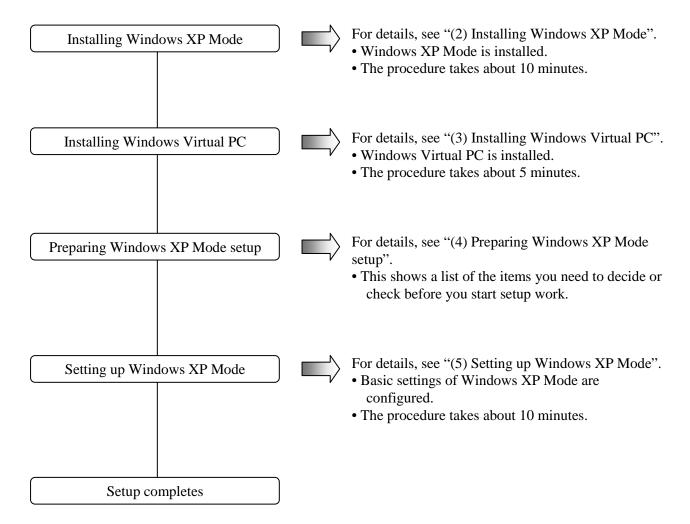
The files used for setting up Windows XP Mode include a virtual hard disk file for the guest OS and therefore occupy about 700 MB of disk space. If Windows XP Mode is not used, we recommend that you follow the procedure below to delete the directory storing those files.

- 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. At the command prompt, 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

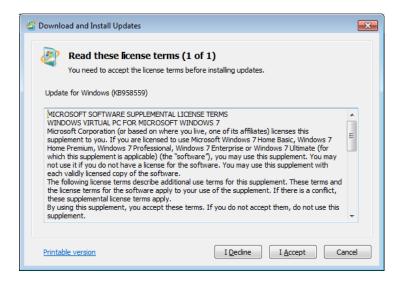
• The Windows Explorer window is displayed. Double-click a setup program under the directory. Note that a setup program is different depending on whether the OS is a 32-bit or 64-bit version.

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

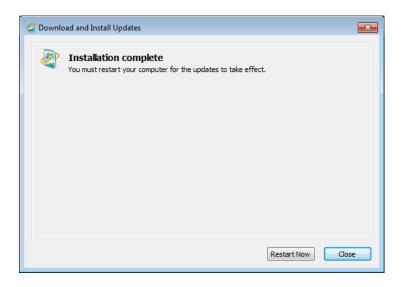
3. The Windows Update Standalone Installer window opens. Click Yes.



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



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



(4) Preparing Windows XP Mode setup

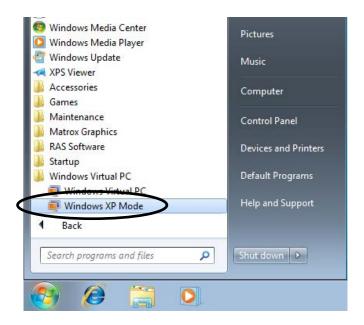
The following items are necessary for the setup work for Windows XP Mode. Before you start the setup work, decide or check those items beforehand.

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

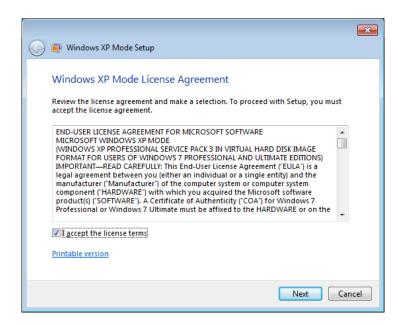
(5) Setting up Windows XP Mode

Follow the procedure below to set up Windows XP Mode.

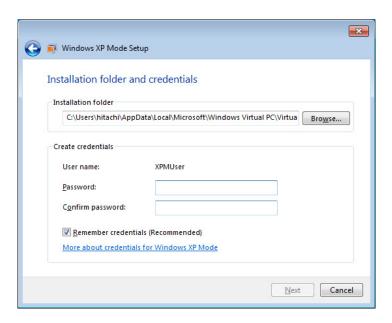
- 1. Click Start and point to All Programs.
- 2. Click Windows Virtual PC > Windows XP Mode.



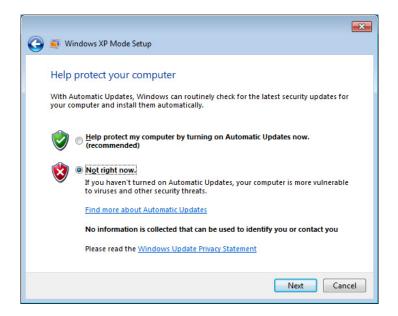
- 3. The Windows XP Mode License Agreement is displayed.
 - Read the license agreement carefully and select the **I accept the license terms** check box. Click **Next**.



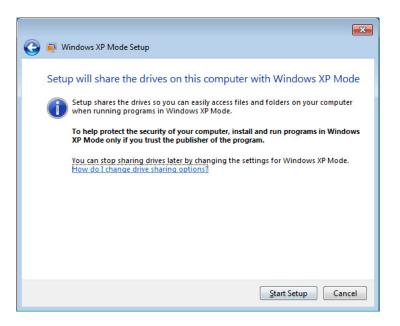
- 4. The **Installation folder and credentials** window opens.
 - In the **Password** and **Confirm password** boxes, type a password for XPMUser.
 - Click Next.



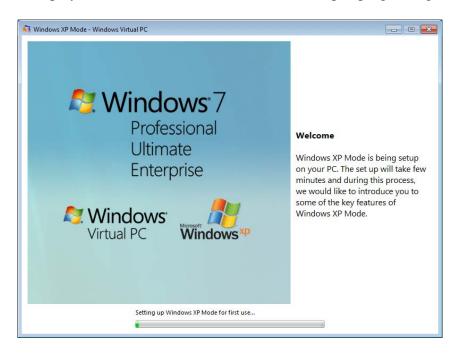
- 5. A window for configuring Automatic Updates is displayed.
 - Select Not right now and click Next.



- 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, but the event does not affect the operation of the system.

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.

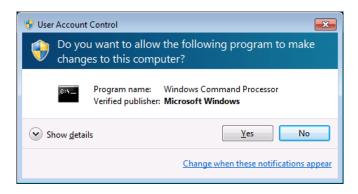
(a) Uninstalling Windows XP Mode

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. At the command prompt, 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:

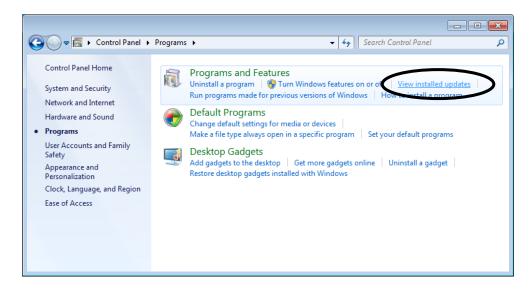
Uninstallation completed.

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

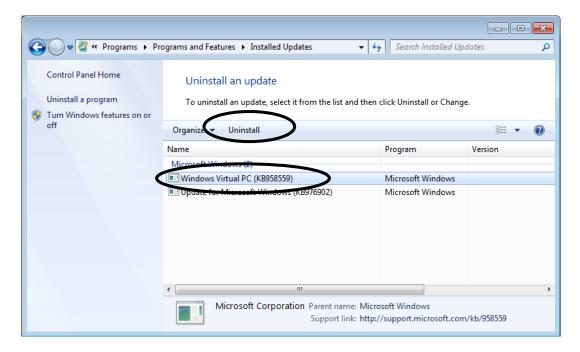
(b) Uninstalling Windows Virtual PC

Follow the procedure below to uninstall Windows Virtual PC.

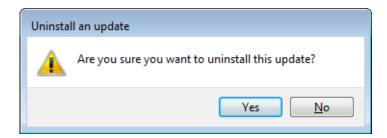
- 1. If you are not logged on to the computer as an administrator account, log on to the computer as an administrator account.
- 2. Click **Start** and then click **Control Panel**.
- 3. Click **Programs**.
- 4. Under Programs and Features, click View installed updates.



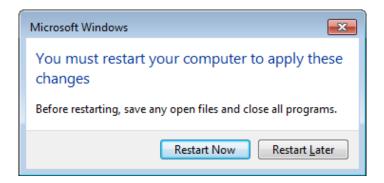
5. The **Installed Updates** window opens. From the list, select **Windows Virtual PC** (**KB958559**) and then click **Uninstall**.



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.



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.

