

Manual for OS Pre-installed Type

(Windows 10 IoT Enterprise 2019 LTSC)

PANEL computer with the high-performance 7th-generation Intel® CPU processor

XPT-T1000 Series

CONTENTS

Introduction.....	4
Notes Regarding Use.....	10
Setup procedures.....	17
System Information	22
Recovery Method	53
Customer Support and Inquiry.....	61

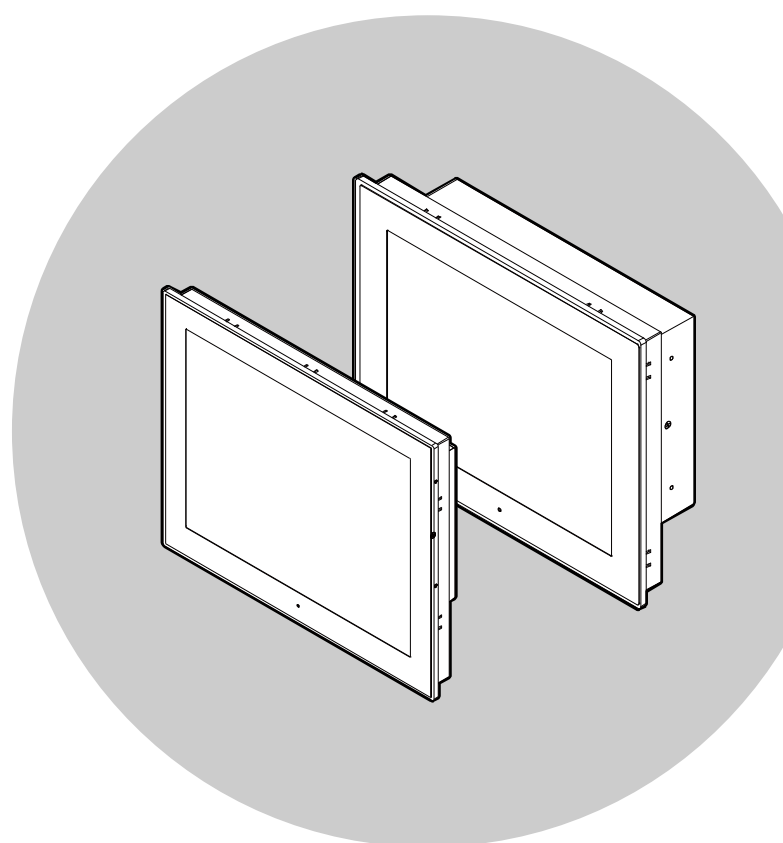


Table of Contents

Introduction 4

- 1. About the Product.....5
- 2. Related Manuals.....6
- 3. Manual composition7
- 4. CONTEC Software License.....8

Notes Regarding Use..... 10

- 1. Safety Information..... 11
- 2. Handling Precautions..... 12
- 3. About Adobe Flash Player..... 13
- 4. About Unified Write Filter 14
- 5. Security Warning..... 16
 - 1. Information security risks..... 16
 - 2. Security measures – e.g..... 16

Setup procedures..... 17

- 1. Windows setup 18

System Information 22

- 1. Basic Information..... 23
- 2. Storage and Partition Configuration..... 24
- 3. Programs and Features 26
 - 1. Installed software..... 26
 - 2. Installed updates..... 26
 - 3. Enable or disable Windows functions..... 27
 - 4. UWF settings..... 28
- 4. Main device drivers..... 31
- 5. Set to factory default values..... 34
 - 1. Panel..... 34
 - 2. Ethernet settings 35
 - 3. Serial Port Settings 36
 - 4. Optional power settings..... 37
- 6. Changing the language..... 38
- 7. Windows Update 42
- 8. CONTEC Manager 43
 - 1. Overview..... 43
 - 2. How to start..... 44
 - 3. Properties screen..... 45
 - 4. UWF settings..... 46
- 9. About Touch Panel 47
 - 1. Calibration..... 47

Table of Contents

2. About mouse cursor	48
-----------------------------	----

Power Failure Protection 49

1. About Power Failure Protection.....	50
1. When the Power Failure Protection is used.....	50
2. When the Power Failure Protection is not used.....	51

Recovery Method 53

1. Preparations.....	54
2. Procedure	55
1. BIOS settings.....	55
2. OS installation	58
3. BIOS settings.....	59
4. Start OS.....	60

Customer Support and Inquiry 61

1. Services.....	62
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Introduction

This will inform you of the information you need to know before using this product, such as an overview of the OS equipped with the preinstalled type, the overall configuration of this manual, the various manuals associated with this product, and so on.

1.About the Product

Windows 10 IoT Enterprise 2019 LTSC, equipped with the preinstalled type, is the OS for embedded applications. CONTEC's preinstalled types perform customization to build the OS based on a configuration determined in advance.

In this manual you will find basic information on the installed OS, as well as explanations of setup procedures and recovery procedures.

CAUTION

There are functional differences between Windows 10 IoT Enterprise 2019 LTSC and other Windows 10 versions.

Below are the main functions present in other Windows 10 versions but not in Windows 10 IoT Enterprise 2019 LTSC.





- System applications
Microsoft Edge, Store Cortana
- Universal applications
E-mail, Calendar, OneNote, Weather, News, Sports, etc.

2.Related Manuals

The manuals related to the product are listed below.

Read them as necessary along with this document.

◆ Must Read the Followings.

Name	Purpose	Contents	How to get
Product Guide	Must read this after opening the package.	This lists the product configuration and describes the precautions.	Included in the package (Printed matter)
Reference Manual	Read this when operating the product.	This describes the hardware aspects such as functions and settings.	 Download from the Contec website (PDF)
IPC Precaution List	Read this before operating the product.	This describes the precautions when using the product.	 Download from the Contec website (PDF)
MICROSOFT SOFTWARE LICENSE TERMS	Must read this after opening the package.	This manual explains the conditions and rights of customers who use Windows software.	 Download from the Contec website (PDF)
Pre-installed Model OS Manual (This manual)	Must read this after opening the package.	This explains basic OS information, setup procedures and recovery procedures.	 Download from the Contec website (PDF)

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◆ Download Manuals

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3. Manual composition

This manual is composed as follows:

Chapters ▼	Descriptions ▼
Introduction Provides you with the information you need to know before using the OS equipped with the preinstalled model. Refer to other related manuals as necessary.
Notes Regarding Use Gives notes/precautions regarding use.
Setup procedures Explains the procedures for setting up Windows after opening this product. Setup will be performed interactively.
System Information Explains the preinstalled model' s basic system information and main device driver versions, etc.
Recovery Method Explains how to recover the OS in the event that it is unable to start.
Customer Support and Inquiry Services and inquiry.

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 - (1)The Republic of Cuba, The Islamic Republic of Iran, the Republic of Iraq, the Great Socialist People's Libyan Arab Jamahiriya or North Korea;
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Article 10. Severability

If for any reason any portion of the provisions set forth herein is found to be invalid or unenforceable, the remainder of the Agreement shall not be affected in any way and shall be valid and enforceable to the extent permitted by law.




Notes Regarding Use

This manual explains the precautions for using the product safely. Please make sure to read this before using this product.

1.Safety Information

This document provides safety information using the following symbols to prevent accidents resulting in injury or death and the destruction of equipment and resources.

Understand the meanings of these labels to operate the equipment safely.

 DANGER	Signal word used to indicate an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Signal word used to indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Signal word used to indicate a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

2. Handling Precautions

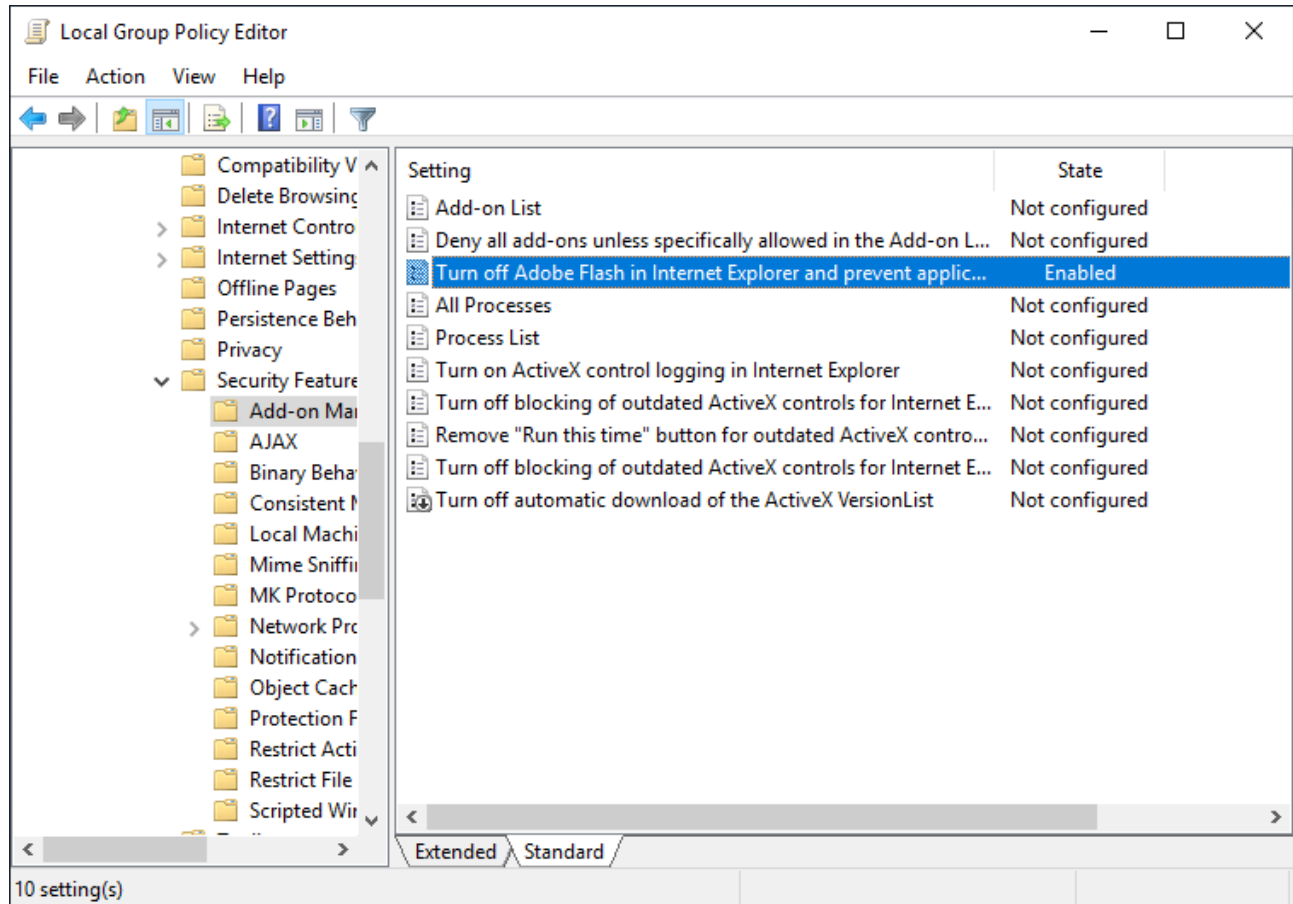
CAUTION

- The specifications of the product are subject to change without notice for enhancement and quality improvement. Even when using the product continuously, be sure to read the manual in the CONTEC's website and understand the contents.
 - Do not modify the software. CONTEC will bear no responsibility for any problems, etc., resulting from modifying the software.
 - Regardless of the foregoing statement, CONTEC assumes no responsibility for any errors that may appear in this document or for results obtained by the user as a result of using the software.
-

3.About Adobe Flash Player

Adobe Flash Player is disabled by default.

You may require a license from Adobe Systems Incorporated or the partner of Adobe.to use the service.



After receiving the license, change a setting of group policy.

Start [User Configuration] - [Administrative Templates] - [Windows Components] -

[Internet Explorer] - [Security Features] - [Add-on Management].

Change Enabled state of [Turn off Adobe Flash in Internet Explorer and prevent applic...] into Not Configured.

4.About Unified Write Filter

Unified Write Filter function (referred to as "UWF" in this document) is the new filtering which combined EWF, FBWF, and Registry filter.

UWF has deterred the write to DISK by redirecting the write to DISK from operating system or application to overlay.

- If you are updating software, adding data, or changing the settings, make sure to disable the UWF filter settings before doing so.
- Even if shut down, the contents written to the memory will not be written back to the disk. They will be deleted if you shut down or restart the system.

UWF of preinstalled type is not suitable for all configurations.

In particular, it is unsuitable for "the configuration which a lot of write requests generate from operating system or application to protected DISK." Under such an environment, restarting Windows is frequently needed.

The following describes a limitation for the specification of the UWF function in Windows 10 IoT Enterprise 2019 LTSC. Understand it completely for implementation.

CAUTION

- Removable media (USB memory etc.) cannot be set as the UWF candidate.
- Folders or files that are excluded from protection cannot be moved into the protection area.
If a "Recycle Bin" is an object for protection, it becomes as a deleting error since Explorer once moves the file to "Recycle Bin". In this case, delete the object without going through "Recycle Bin" by using Shift+Del keys on the keyboard.
- The function of File Exclusion and Registry Exclusion are available only in a FAT/NTFS volume.
- Volumes, such as exFAT, can be protected by UWF. However, the function of protect exclusion cannot be used.
- UWF supports NTFS. However, since the journal file of NTFS is recorded until a services of UWF begins, writing to DISK occurs upon starting up.
- UWF cannot protect a Hidden partition.
- If UWF is set to Enabled and starts up, some functions in Windows are changed for the performance improvement of UWF.
- Check the technical information for details from the link listed below.
Please refer to the Microsoft technical information for details about UWF.
[https://msdn.microsoft.com/ja-jp/library/windows/hardware/mt572001\(v=vs.85\).aspx](https://msdn.microsoft.com/ja-jp/library/windows/hardware/mt572001(v=vs.85).aspx)
- In early stages, a UWF overlay region serves as maximum size of 1024 MB.
The present operating condition of a UWF overlay region can be checked by the following command.
`>uwfmgr.exe overlay get-consumption`
Systems operation is required so that a UWF overlay region may not be used to maximum size.

As the application software used by a user or Windows operation can be affected, it is necessary to restart Windows in accordance with a system application, and to release a UWF overlay region.

- The following measures are sufficiently effective though there are no complete measures.
 - Avoid writing in the protected volume as much as possible.
 - When writing in a log file, change to other volume that are excluded from protection write.
(Drives: USB memory and network storage, etc.)
-

5.Security Warning

When connecting to the network, be aware of security-related problems. See the examples of Security measures below and set up the product properly along with the network devices.

1. Information security risks

- Unauthorized access from the outside through a network could cause the system halt, data damage, or exposure to malware. *1
- Invaded and used as a stepping stone, a device might attack the others through networks. (a victim becomes an assailant)
- Information might leak without realizing due to the connection to the network.
- Secondary damages such as harmful rumors, liability in damages, social credibility fall, and opportunity loss are expected led by the troubles described above.

*1: Malware (Malicious Software) is software that brings harm to a computer system and performs unintended operations.

2. Security measures – e.g.

- Do not keep using the default password. (Refer to the product manual for the password setting).
- Set a strong password.

Combined with upper and lowercase letters, and numbers so that it cannot be easily analogized by others.

- Change the password periodically.
- Disable unnecessary network services and functions.
- Restrict access to the network with network devices. *2
- Restrict ports to be released on the network with network devices. *2
- Create a closed network connection using such as dedicated network or VPN*3

*2: Inquire for setting procedure to manufacturers.

*3: VPN (Virtual Private Network) a secured network that wards off unauthorized access by protecting the communication path with authentication and encryption.

Unfortunately, there are no perfect ways to avert unauthorized access or close a security hole that are endlessly found day and night.

Please understand that risks are always involved with the Internet connection, and we strongly recommend a user should constantly update information security measures.

Setup procedures

This manual describes the setup procedure that a user needs to perform after unpacking the product with a pre-installed operation system.

The setup of Windows is performed interactively.

1. Windows setup

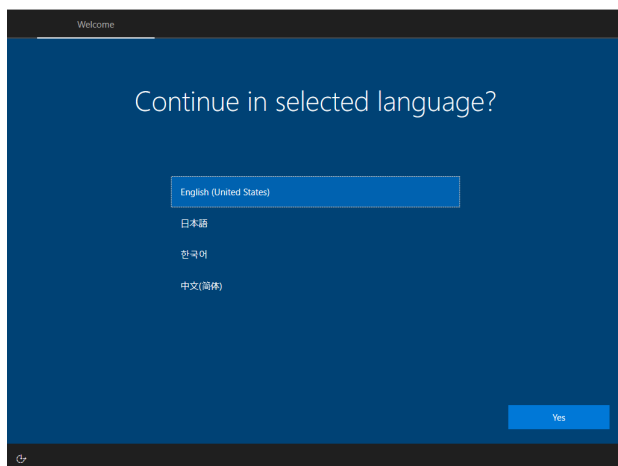
Check that the monitor, the keyboard and the mouse are connected with the PC. Do not connect other devices until a Windows setup is completed. After confirming the connections, turn on the PC power.


CAUTION

- The screen change during the setup operation may take time for a while.
- Do not turn off the power of the personal computer during the setup operation. Turning off the computer power before completing the setup will result in Windows system damages.
- The HDD/SSD built into the preinstalled type are GPT formatted. And, OS area is formatted by NTFS.
- The display driver, the LAN driver, the audio driver, etc. are already incorporated. However, since a network setup is needed separately, please consult with the system administrator of a connection place network.
- It is not necessary to enter a Windows product key into this product.
- If you do not connect the PC to the Internet at all, activating Windows (license authorization) is unnecessary.

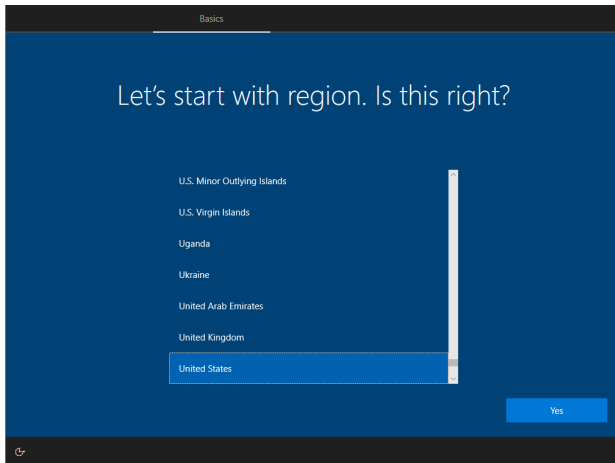
Please wait for the Windows setup starts.

Follow the instructions on the display after start-up.

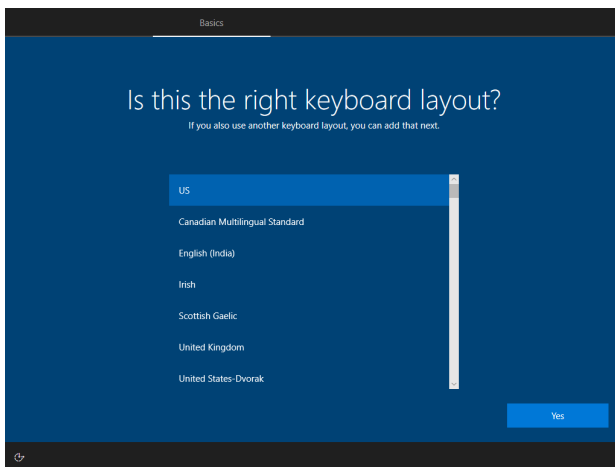


1. The language choice for Windows appears on the display. Select the language. Display language changes to the selected one. And, click the 

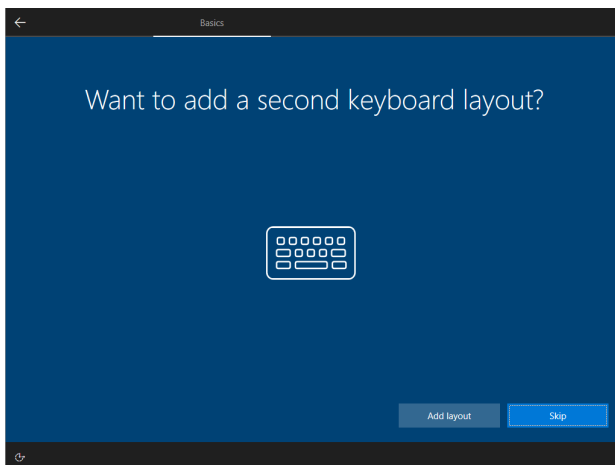
The example which selected English explains a step.



2. Select your home region.
And, click the



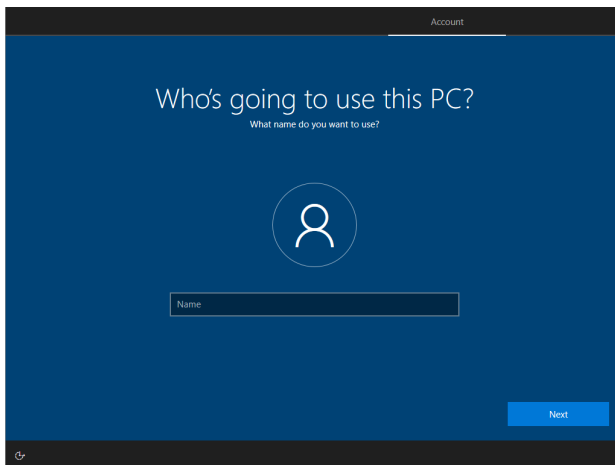
3. Select keyboard layout.
And, click the



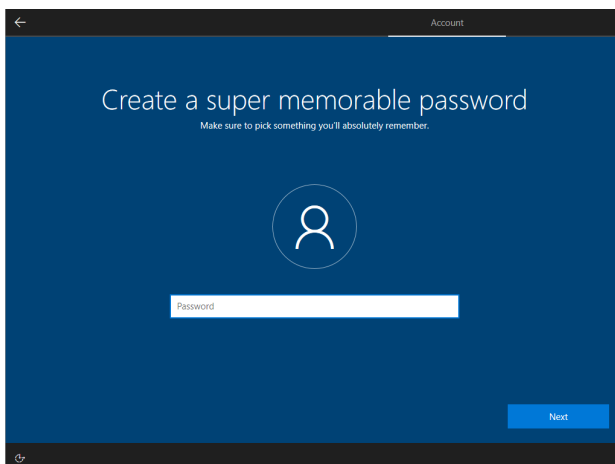
4. Select additional keyboard layout.
If not, click the



5. It is a document regarding License. Click the .

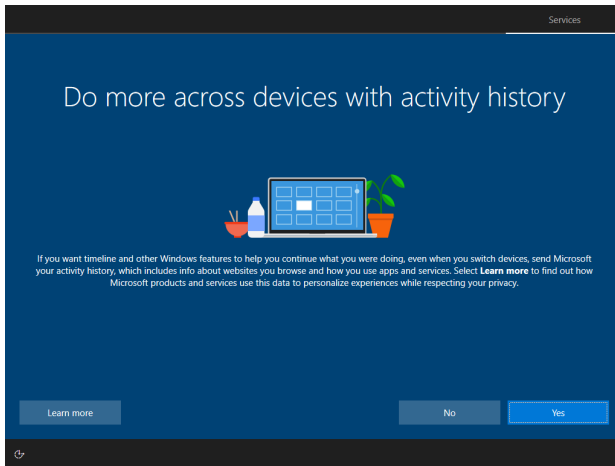


6. Then, the display of creating account can be viewed. Enter the account name to be used. Click the .

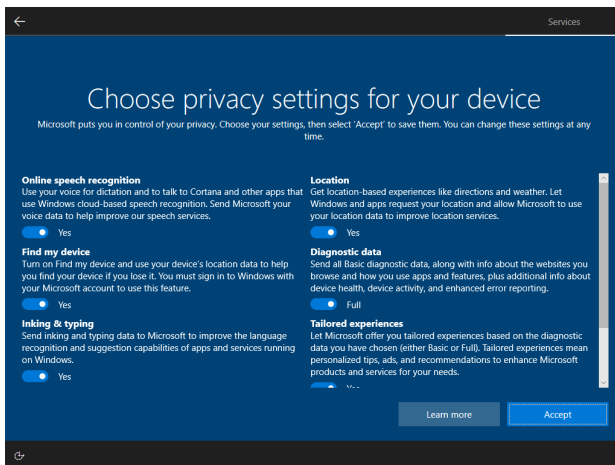


7. Then, the display of creating password can be viewed.

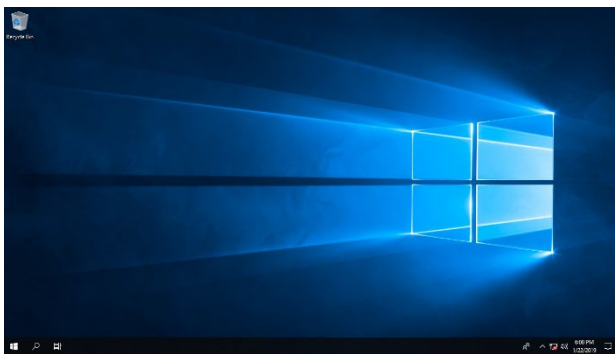
When a password is omitted, an automatic logon can be made by the created account. Click the .



8. It is a setup regarding OS operation.
Click the .



9. It is a setup regarding OS operation.
Click the .



10. When a password setting is skipped, an automatic logon can be made by the created account (user name).

System Information

Explains the preinstalled type's basic system information and main device driver versions, etc.

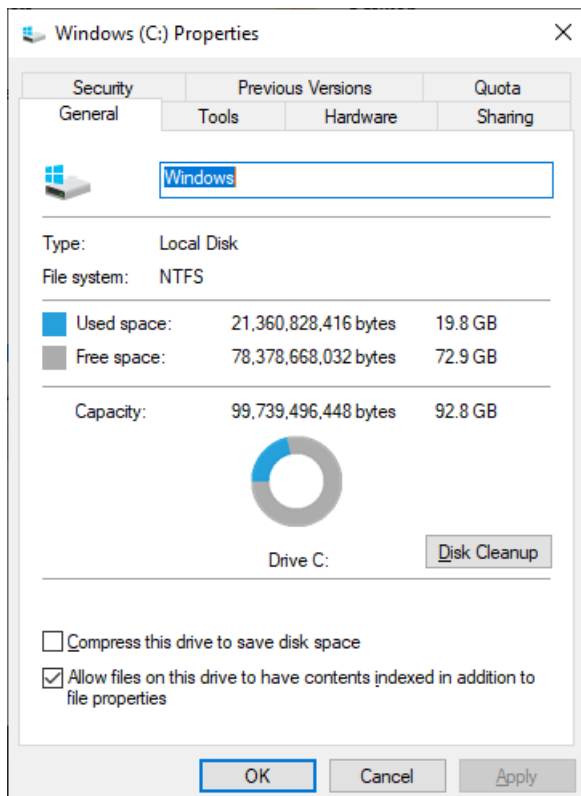
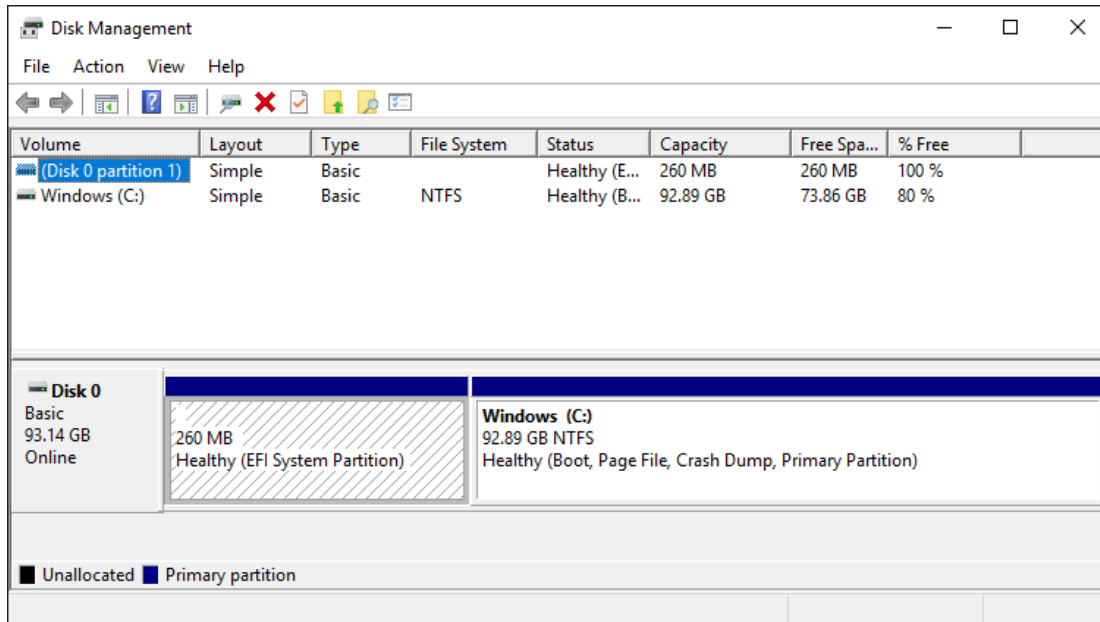
1.Basic Information

☒Embedded function ☐Unembedded function

Item	Details				
Version	1809				
Build version	17763.529(KB4497934)				
Language components	<input checked="" type="checkbox"/> English <input checked="" type="checkbox"/> Japanese <input checked="" type="checkbox"/> Simplified Chinese <input checked="" type="checkbox"/> Korean <input type="checkbox"/> Other ()				
	Component	English	Japanese	Simplified Chinese	Korean
	Basic	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Font	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Handwriting recognition	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Optical character recognition	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Speech synthesis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Speech recognition	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	-
Main functions and versions	Internet Explorer	11.504.17763.0 Update Version:11.0.126(KB4505050)			
	Windows Media Player	12.0.17763.475			
	Microsoft .NET Framework	4.7.2			
	Remote Desktop Connection	10.0.17763			
	Remote Desktop Protocol	10.6			
CONTEC utilities	CONTEC Manager	4.0.2			
	TPBK(S)	3.05			
Supply schedule	Mainstream support end date	2024/01/09			
	Extended support end date	2029/01/09			
	End of Life	2028/11/30			

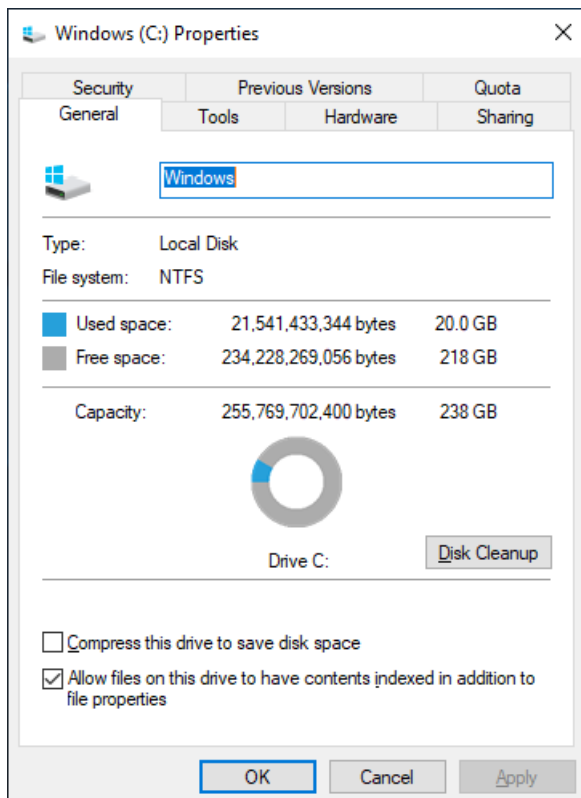
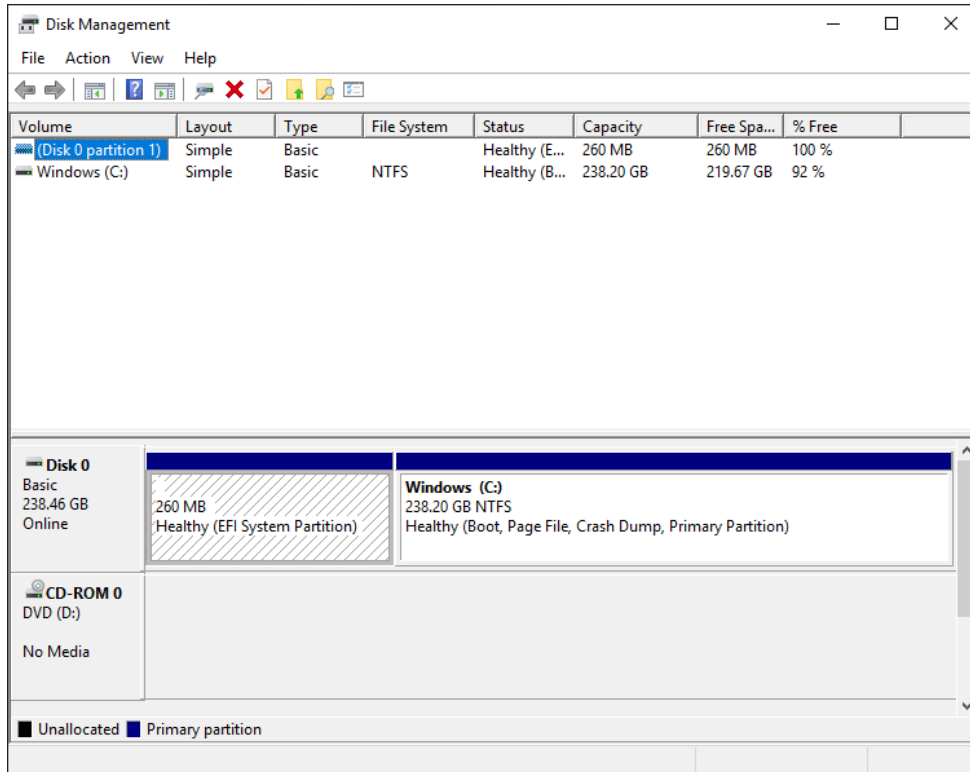
2.Storage and Partition Configuration

The following is for a 2.5" HDD type with 100 GB



* The disk usage indicated is a reference value.

The following is for a 2.5" SDD type with 256 GB

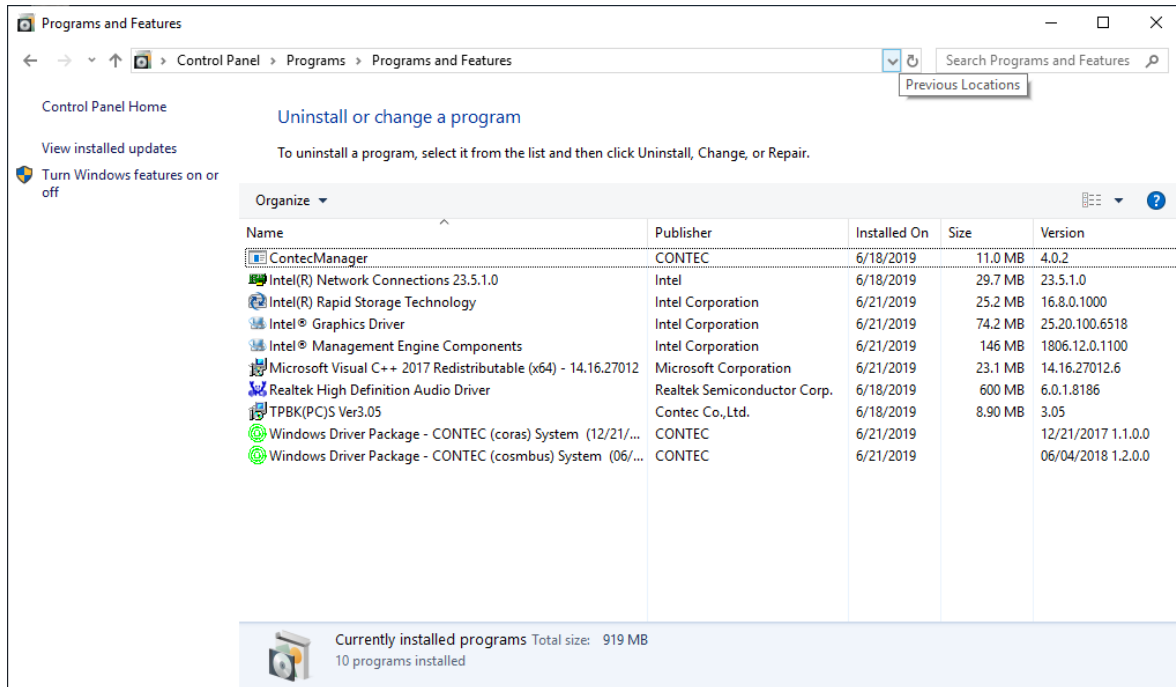


* The disk usage indicated is a reference value.

3. Programs and Features

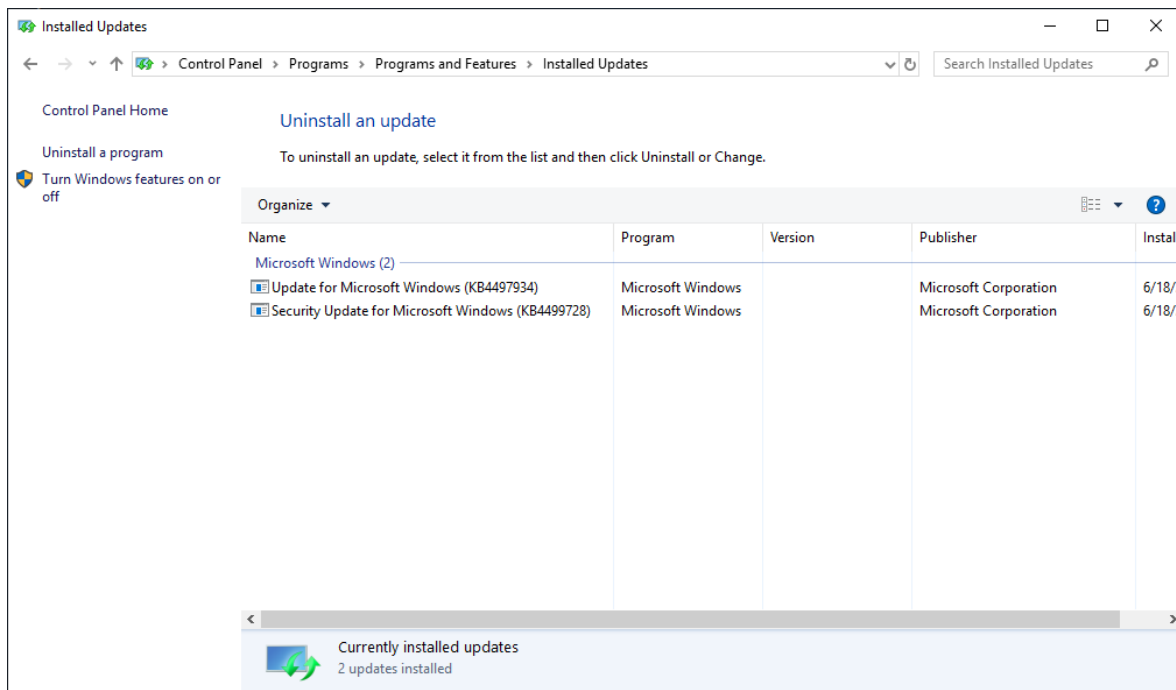
1. Installed software

View a list of installed software



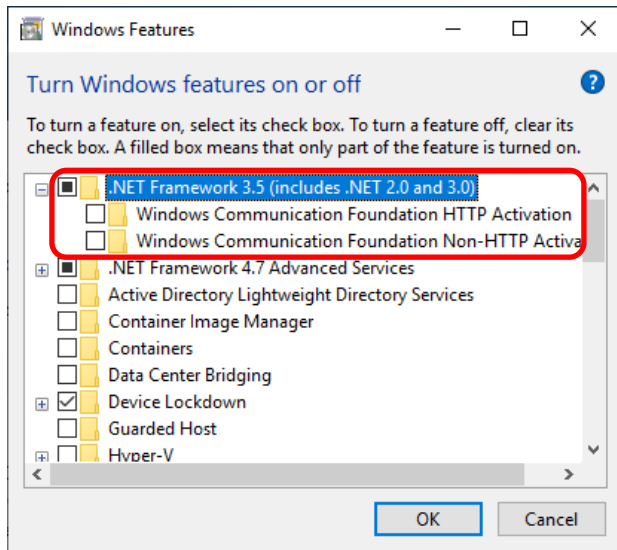
2. Installed updates

View a list of installed updates.

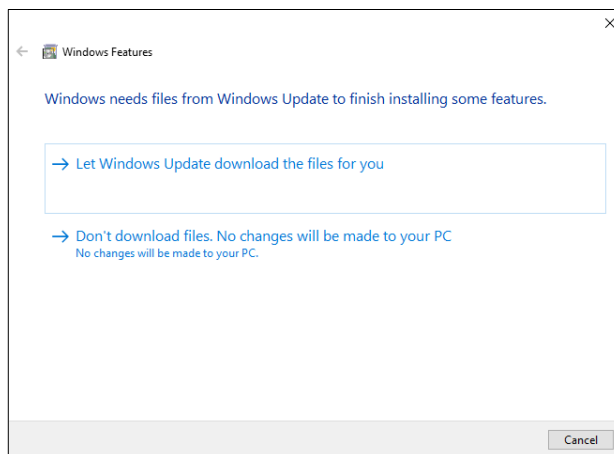


3. Enable or disable Windows functions

.NET Framework 3.5 is installed in the preinstalled type.

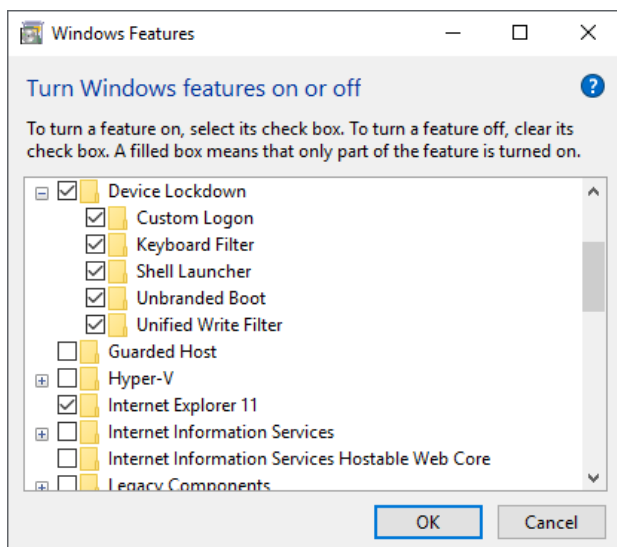


Selecting "Turn Windows features on or off" will allow you to check related items.



If you have used "Turn Windows features on or off" to disable a related item, when reenabling it a "File download" message will be displayed and you will not be able to enable it. In order to reenabling it, you will need to follow the instructions on the screen while connected to the Internet to perform setup, or recover the preinstalled type.

Under CONTEC preinstalled type factory default settings, Device Lockdown is enabled.



Using the lockdown function, you can restrict unintentional user operations or control information displayed on the screen.

Function name	Overview
Shell Launcher	Turning on the power, the device will sign in to an environment in which only designated programs can be run.
Custom Logon	Suppresses Windows component display during Windows startup, restart and shutdown, as well as when signing in.
Keyboard Filter	Prevents undesirable keyboard operations.
Unbranded Boot	Suppresses the display for the Windows loading screen. https://docs.microsoft.com/ja-jp/windows-hardware/customize/enterprise/unbranded-boot
Unified Write Filter (UWF)	Restricts writing to the protected disk, preventing alterations and falsifications of the system.

4. UWF settings

For UWF settings, use either the Microsoft console application UWF manager (uwfmgr.exe) or CONTEC Manager, the GUI application installed in the preinstalled type.

The UWF function's filter is disabled by default. The following explains the procedure for checking the UWF settings using UWF manager (uwfmgr.exe).

□ indicates a space.

```

Administrator: Command Prompt
Microsoft Windows [Version 10.0.17763.292]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Windows\system32>uwfmgr get-config
Unified Write Filter Configuration
3
Copyright (C) Microsoft Corporation.
Current Session Settings

FILTER SETTINGS
  Filter state: OFF
  Pending commit: N/A
  Shutdown pending: No

SERVICING SETTINGS
  Servicing State: OFF

OVERLAY SETTINGS
  Type: RAM
  Maximum size: 1024 MB
  Warning Threshold: 512 MB
  Critical Threshold: 1024 MB
  Freespace Passthrough: OFF
  Persistent: OFF
  Reset Mode: N/A

VOLUME SETTINGS
  *** No volumes configured

REGISTRY EXCLUSIONS
  *** No exclusions
  
```

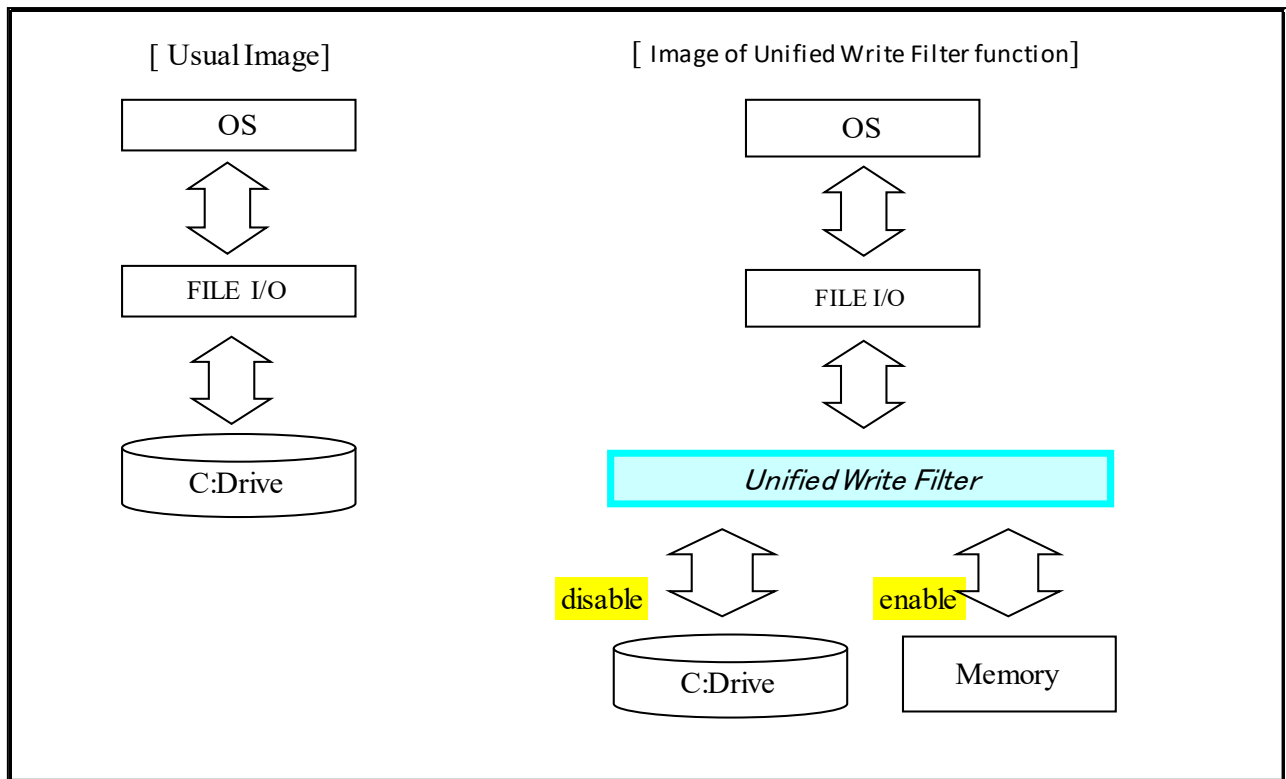
Start Command Prompt (with administrator authority).

Input "uwfmgr□get-config" and press the [Enter] key. View current settings status.

Item	Display	Meaning
Volume state	OFF	Enabling the UWF
	ON	Disabling the UWF
VOLUME SETTINGS	None/ Un-protected	Invalid Volume Protect
	Protected	Effective Volume Protect

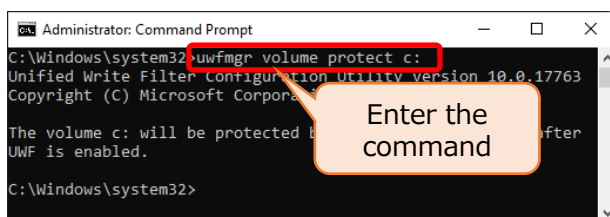
This is the CONTEC factory default settings status.

When UWF is enabled, writing to the disk will be restricted, allowing for the lifetime of disks with writing restrictions to be lengthened. It also allows you to prevent unintentional system alterations. Below is a configuration graph of the UWF functions.

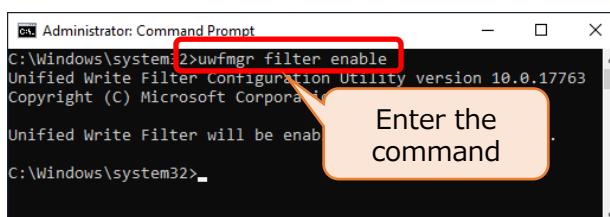


The following explains the method for setting write protection for the C drive using UWF manager (uwfmgr.exe).

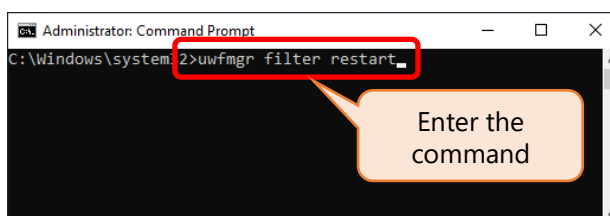
□ indicates a space.



1. Input "uwfmgr□volule□protect□c:" and press the [Enter] key.



2. Input "uwfmgr□filter□enable" and press the [Enter] key.



3. Input "uwfmgr□filter□restart" and press the [Enter] key. Restart Windows.

```

Administrator: Command Prompt
Microsoft Windows [Version 10.0.17763.292]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Windows\system32>uwfmgr get-config

Current Session Settings

Filter Settings
Filter state: ON
Pending request: No
Shutdown pending: No

SERVICING SETTINGS
Servicing State

OVERLAY SETTINGS
Type: RAM
Maximum size: 1024 MB
Warning Threshold: 512 MB
Critical Threshold: 1024 MB
Freespace Passthrough: OFF
Persistent: OFF
Reset Mode: N/A

VOLUME SETTINGS
Volume 14f78f91-327b-4dbe-802a-40e7c90444a0 [C:]
Volume state: Protected
Volume ID: 14f78f91-327b-4dbe-802a-40e7c90444a0

File Exclusions:
Current Session Exclusions for Volume 14f78f91-327b-4dbe-802a-40e7c90444a0 [C:]
*** No exclusions
  
```

Enter the command

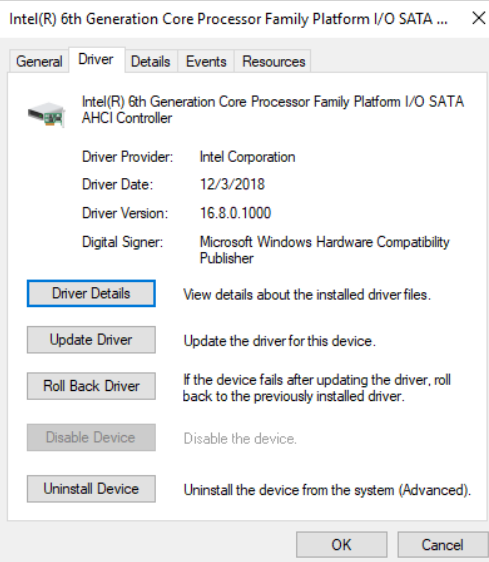
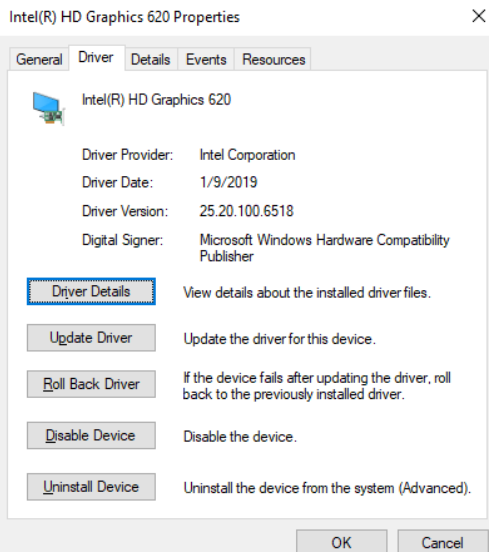
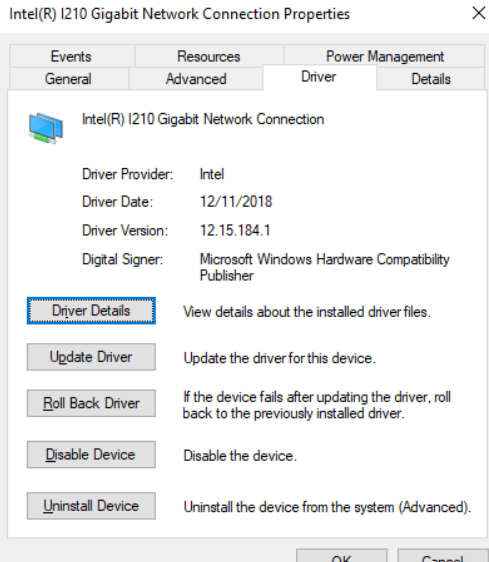
Check the state

Check the state

4. Input "uwfmgr get-config" and press the [Enter] key. View current setting status.

Item	Display	Meaning
Filter state	OFF	Disabling the UWF
	ON	Enabling the UWF
Volume state	Un-protected	Invalid Volume Protect
	Protected	Effective Volume Protect


4. Main device drivers

Category	Data
IDE ATA/ATAPI Controller	
Display Adapter	
Network Adapter	

Sound video and game controller

Realtek High Definition Audio Properties

General Driver Details Events


Realtek High Definition Audio


Driver Provider: Realtek Semiconductor Corp.
Driver Date: 6/14/2017
Driver Version: 6.0.1.8186
Digital Signer: Microsoft Windows Hardware Compatibility Publisher

Driver Details View details about the installed driver files.
Update Driver Update the driver for this device.
Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.
Disable Device Disable the device.
Uninstall Device Uninstall the device from the system (Advanced).

OK Cancel

Intel(R) Display Audio Properties

General Driver Details Events


Intel(R) Display Audio

Driver Provider: Intel(R) Corporation
Driver Date: 12/29/2018
Driver Version: 10.26.0.5
Digital Signer: Microsoft Windows Hardware Compatibility Publisher


Driver Details View details about the installed driver files.
Update Driver Update the driver for this device.
Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.
Disable Device Disable the device.
Uninstall Device Uninstall the device from the system (Advanced).

OK Cancel

System devices

Mobile 7th/8th Generation Intel(R) Processor Family I/O LPC Cont...

General Driver Details Events


Mobile 7th/8th Generation Intel(R) Processor Family I/O LPC Controller (U with iHDCP2.2 Premium) - 9D4E


Driver Provider: INTEL
Driver Date: 7/18/1968
Driver Version: 10.1.5.2
Digital Signer: Microsoft Windows Hardware Compatibility Publisher

Driver Details View details about the installed driver files.
Update Driver Update the driver for this device.
Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.
Disable Device Disable the device.
Uninstall Device Uninstall the device from the system (Advanced).

OK Cancel

Mobile Intel(R) Processor Family I/O PCI Express Root Port #1 - 9D...

General Driver Details Events Resources


Mobile Intel(R) Processor Family I/O PCI Express Root Port #1 - 9D10


Driver Provider: INTEL
Driver Date: 7/18/1968
Driver Version: 10.1.5.2
Digital Signer: Microsoft Windows Hardware Compatibility Publisher

Driver Details View details about the installed driver files.
Update Driver Update the driver for this device.
Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.
Disable Device Disable the device.
Uninstall Device Uninstall the device from the system (Advanced).

OK Cancel

CONTEC Ras Device Properties

General Driver Details Events


CONTEC Ras Device


Driver Provider: CONTEC
Driver Date: 12/21/2017
Driver Version: 1.1.0.0
Digital Signer: Microsoft Windows Hardware Compatibility Publisher

Driver Details View details about the installed driver files.
Update Driver Update the driver for this device.
Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.
Disable Device Disable the device.
Uninstall Device Uninstall the device from the system (Advanced).

OK Cancel

CoSmbus Smbus Driver Properties

General Driver Details Events Resources

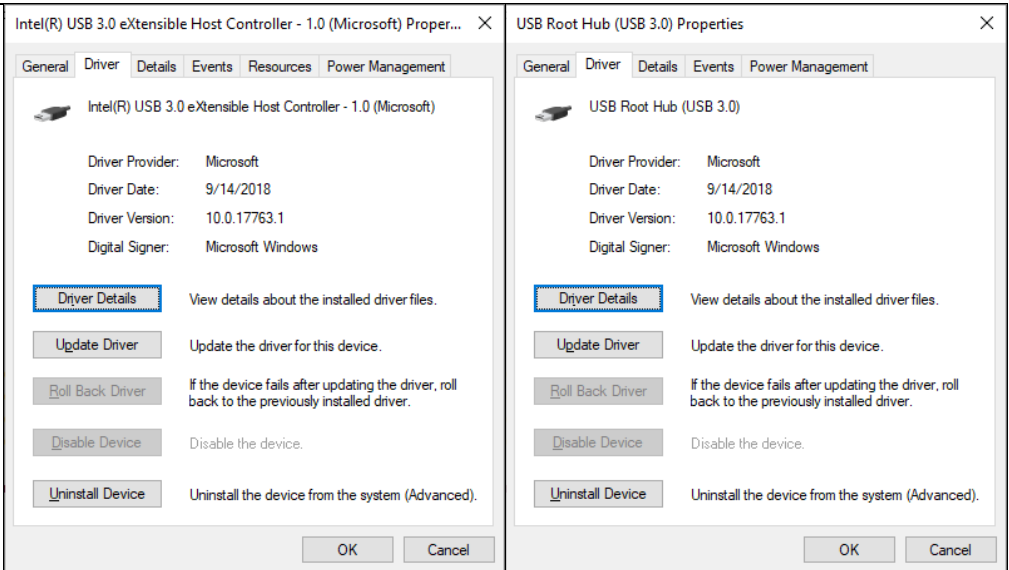

CoSmbus Smbus Driver

Driver Provider: CONTEC
Driver Date: 6/4/2018
Driver Version: 1.2.0.0
Digital Signer: Microsoft Windows Hardware Compatibility Publisher

Driver Details View details about the installed driver files.
Update Driver Update the driver for this device.
Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.
Disable Device Disable the device.
Uninstall Device Uninstall the device from the system (Advanced).

OK Cancel

Universal Serial Bus Controller

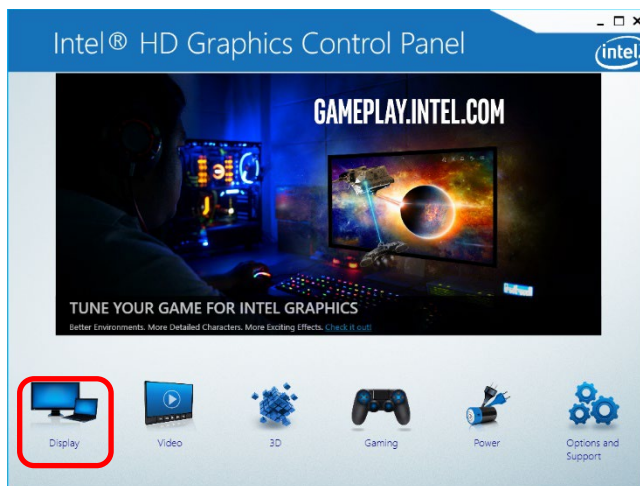


5. Set to factory default values

This section explains the preinstalled type's various factory default settings. You can reset these settings unless their values are specially designated.

1. Panel

The screen resolution of the initial setting is XGA(1024x768), which is recommended for a built-in display. To change screen settings (resolution, color, refresh rate, rotation, etc.), please use either the Windows [Display settings] or the manufacturer's installed graphic setting tool. The following is an explanation of how to start the manufacturer's graphic setting tool.



1. Click through [Control Panel] → [All Control Panel Items] → [Intel® Graphics Settings] and run [Intel® HD Graphics Control Panel]. Click "Display".



2. Please check the current display recognition status. Change the screen settings to match the connected display.

Click the "?" mark to check the meaning of each item in "Intel® HD Graphics Control Panel".

2. Ethernet settings

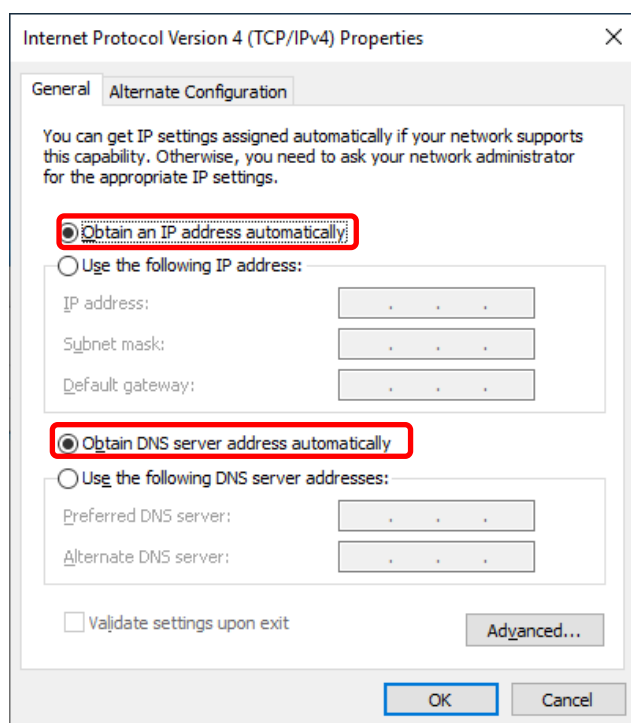
The preinstalled type's product Ethernet display and the OS Ethernet recognition status are shown below.

Product Ethernet display	OS Ethernet recognition
LAN A	Ethernet
LAN B	Ethernet 2

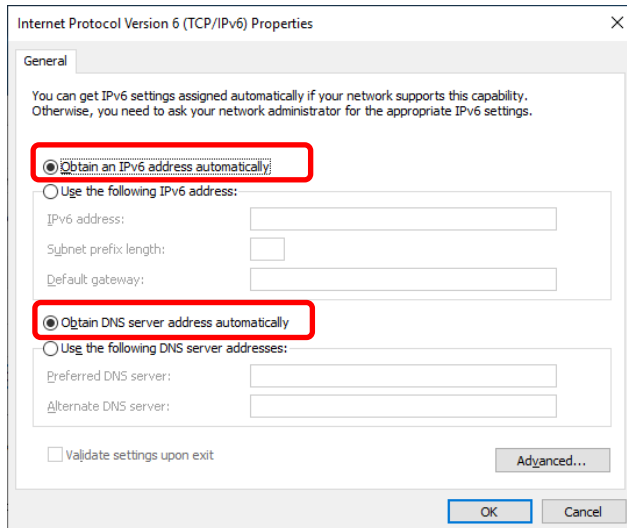
The LAN recognized names are set to match the language selected during initial Windows setup.

The above are the LAN recognized names when Japanese was selected during Windows setup. Even if you change the language in Windows later, the LAN recognized names will not change automatically. If you want to display the LAN recognized names to match the language, you need to change the settings manually.

If changing the network settings, select [Control Panel] → [All Control Panel Items] → [Network and Sharing Center], and you can set them in [Change adapter settings]. The preinstalled type's factory default network settings are shown below.



[Internet Protocol Version 4]
IP address : automatically
DNS : automatically



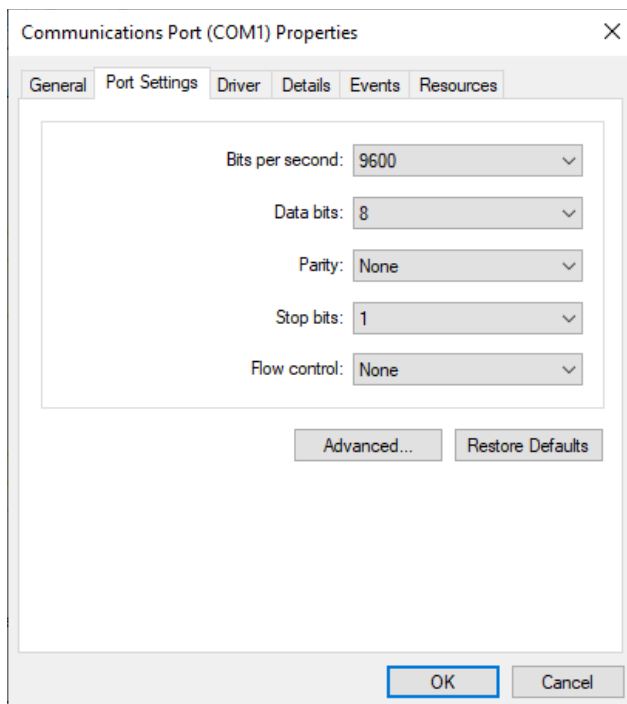
[Internet Protocol Version 6]
IP address : automatically
DNS : automatically

3. Serial Port Settings

The preinstalled type's product SERIAL display and OS SERIAL recognition status are shown below.

Product SERIAL display	OS SERIAL recognition	Remarks
SERIAL A	COM1	
SERIAL B	COM2	
SERIAL D	COM4	For touch panel function

Use Device Manager to check the port settings.

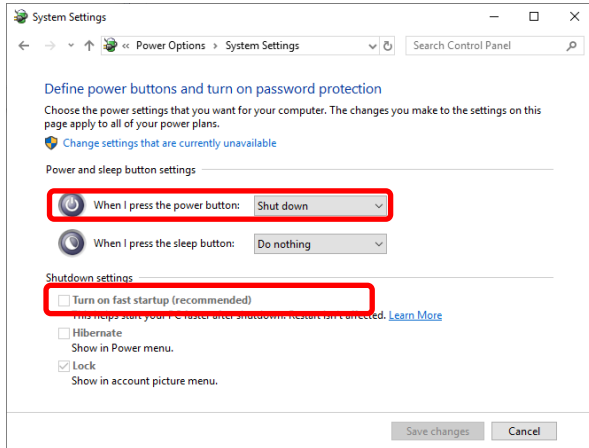


Each port's settings are the same.

Item	Settings
Bits per second	9600
Data bits	8
Parity	None
Stop bits	1
Flow control	None

4. Optional power settings

This section explains the factory settings for power options.

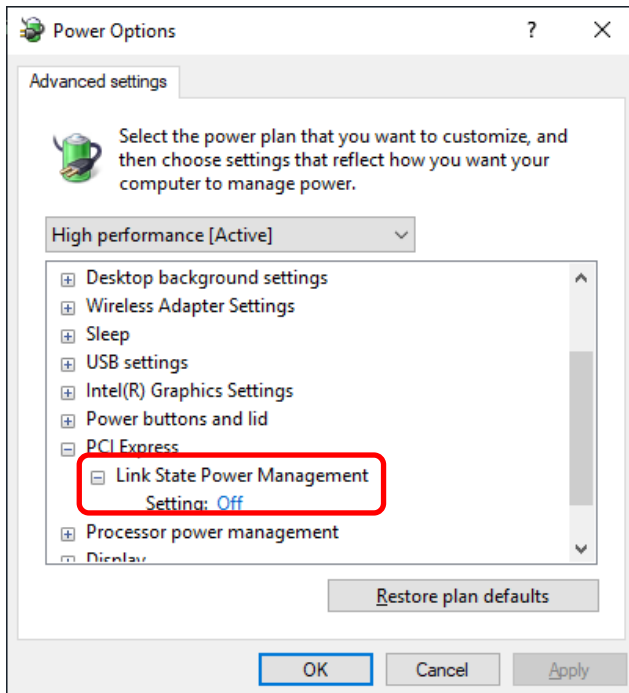


Power and sleep button settings

When I press the power button : Shut down

Shutdown settings

Turn on fast startup(recommended) : Off



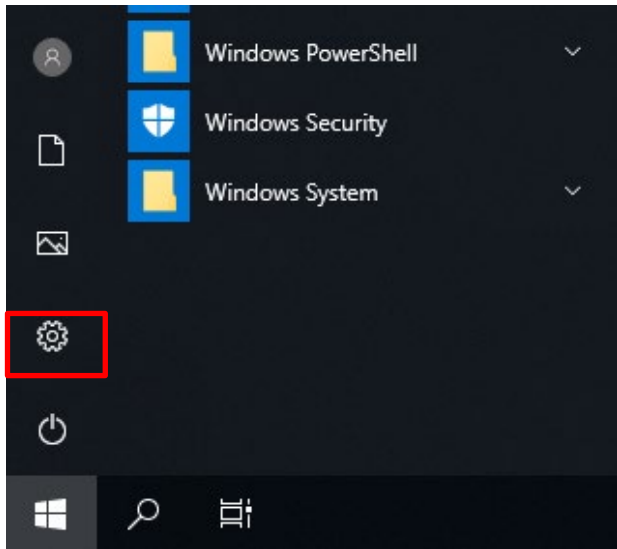
Advanced settings

PCI Express-Link State Power Management
Setting : Off

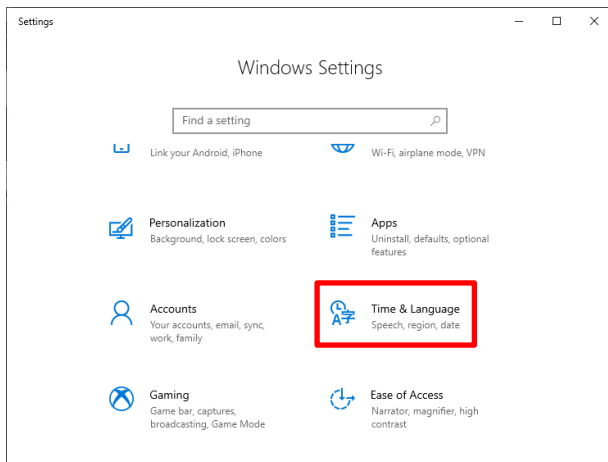
6.Changing the language

The preinstalled type supports English, Japanese, Korean and Simplified Chinese.

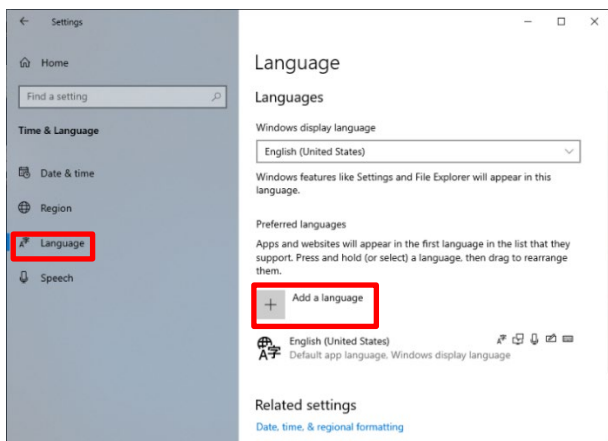
The following explains how to manually change the language settings. As an example we will explain the procedure for switching from English to Japanese.



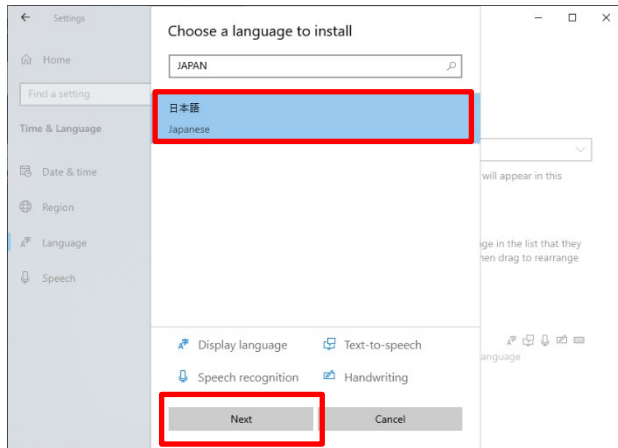
1. On the [Start] menu, click [Settings].



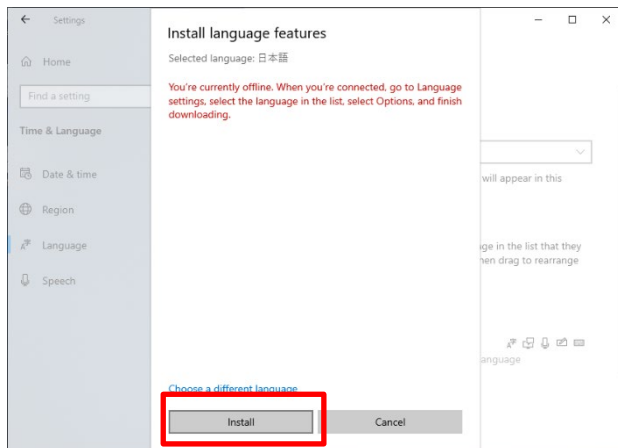
2. Click [Time & Language].



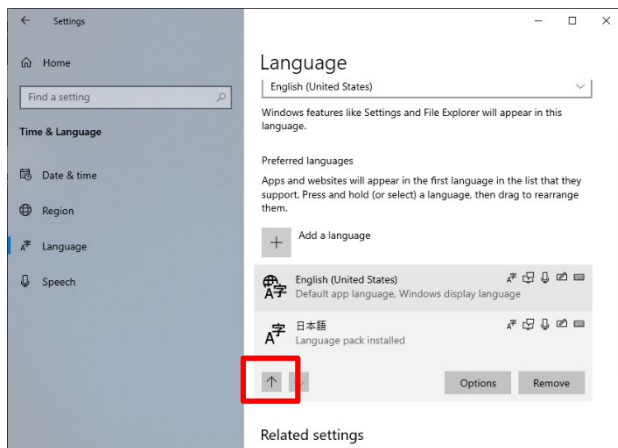
3. Click [Language], and then select [Add a language].



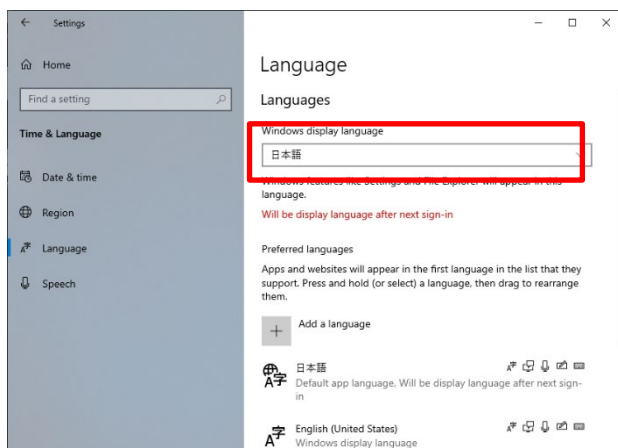
4. Input "JAPAN" in the textbox, and a list will appear below. Select [日本語 (Japanese)], and then click [Next].



5. The language function's installation screen will be displayed, but it is already installed. Click [Install].

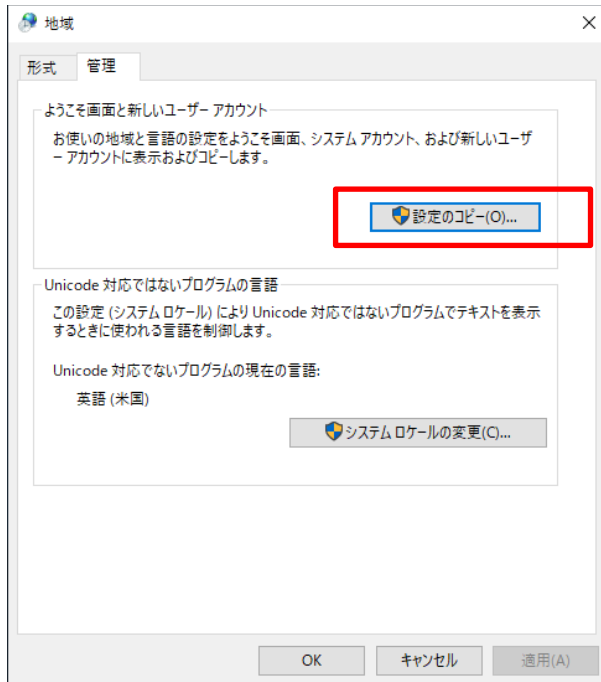


6. Japanese is added, so select that item. In order to change the current language from English (United States) to Japanese, click [↑].



7. The Windows display language will be set to Japanese. Restart Windows.

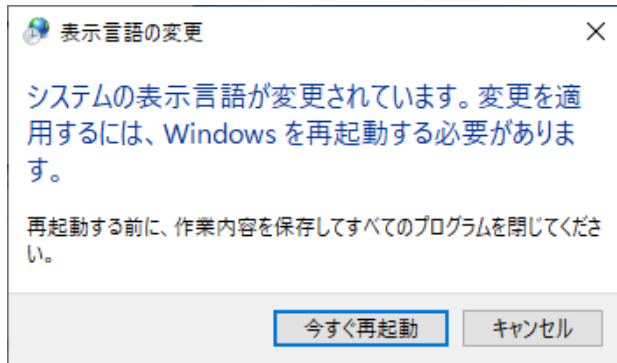
In order to change the display language during startup and shutdown to Japanese, you also need to perform the following settings.



8. In Control Panel, click [時計と地域 (Clock and Region)], then click [地域 (Region)]. The [地域 (Region)] properties screen appears. Select the [管理 (Administrative)] tab and click on [設定のコピー(O)…] (Copy settings…).



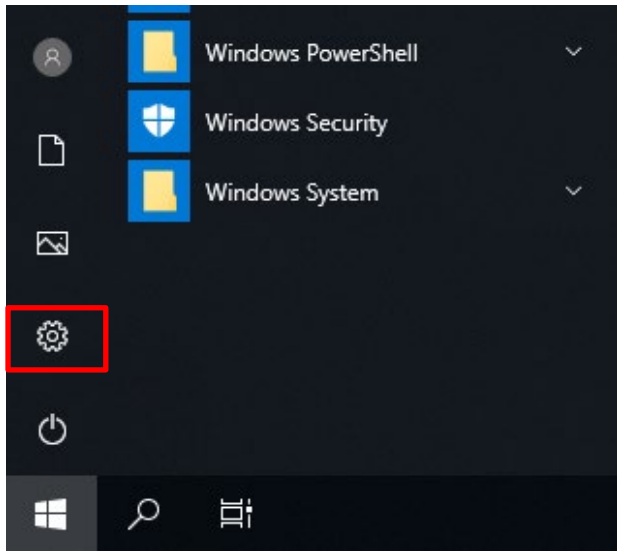
9. After checking both the [ようこそ画面とシステムアカウント (Welcome screen and system accounts)] and [新しいユーザーアカウント (New user accounts)] boxes, click [OK].



10. Confirm the contents, then click [今すぐ再起動 (Restart now)] to restart the system and complete the settings.

7.Windows Update

You can install the correction program (QFE) in [Update & Security].



1. On the [Start] menu, click [Settings].



Update & Security
Windows Update, recovery,
backup

2. Click [Update & Security].

8.CONTEC Manager

1. Overview

CONTEC provides not only functions installed with this product such as the RAS function to secure reliability and the UWF function providing the OS, but also setting tools that allow you to use CONTEC products more smoothly and a library to control the functions listed below.

- Hardware monitor
- Watchdog timer
- Status LED
- General-purpose I/O port
- UWF operations and status monitoring

For detailed instructions, see the help file. The following describes how to consult the help file.

[Start] menu → CONTEC Manager → Help

CONTEC Manager updates without future notice through the new product's response, improvements, etc. For this reason, the version installed in the preinstalled version may be out of date in some cases. Confirm the latest version online.

Download it from the following URL.




Download

<https://www.contec.com/download/>

(*) Reliability Availability and Serviceability : Support functions for stable system operations

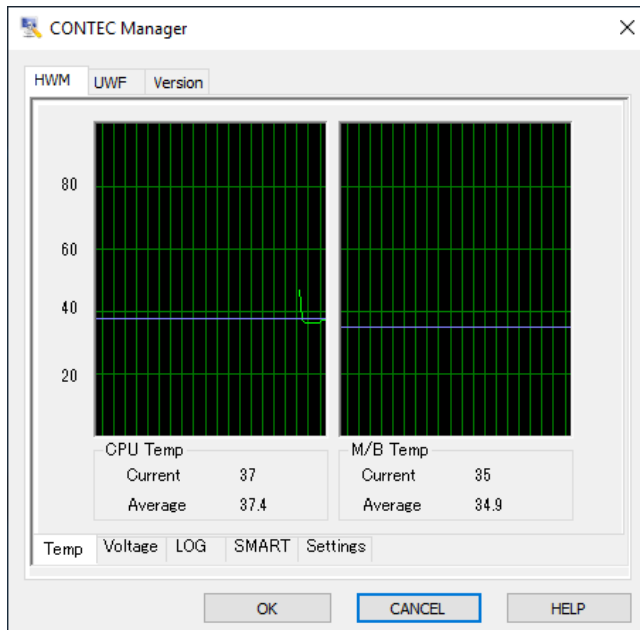
2. How to start

CONTEC Manager is run from the service application (CoRasSvr.exe) when you sign in to Windows and remains in the task tray. The following icon will appear in the task tray. Move the cursor over the icon and double-click on it to display the properties screen. You can also show the properties screen by pressing <Alt> and <Esc> at the same time.

Task tray icon	Meaning
	UWF disabled status
	UWF enabled status
	UWF function disabled status (The hardware monitor, etc., with the exception of the UWF function, can be used)

3. Properties screen

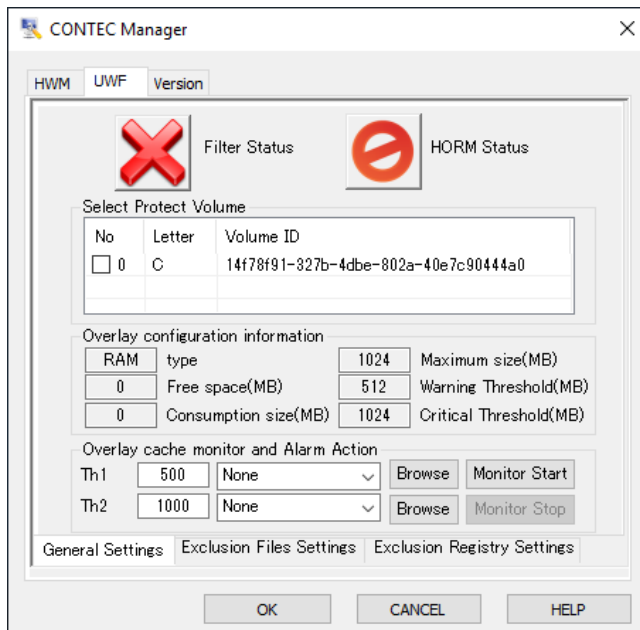
*The following images may differ from the actual product.



Monitor hardware status such as the CPU temperature, the M/B temperature and so on. If it exceeds the set threshold, the set alarm action will be activated.

Alarm actions that can be set :

- 1.None (Initial settings)
- 2.Popup Message
- 3.Reboot
- 4.Shutdown
- 5.Designated application



Change settings such as enabling/disabling UWF. Monitors the usage status of the overlay region when UWF is enabled.

If it exceeds the set threshold, the set alarm action will be activated.

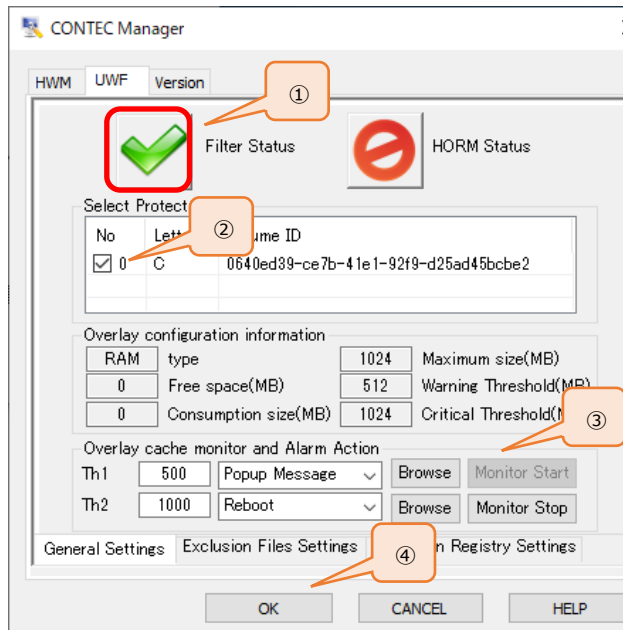
Alarm actions that can be set:



- 1.None (Initial settings)
- 2.Popup Message
- 3.Reboot
- 4.Shutdown
- 5.Designated application

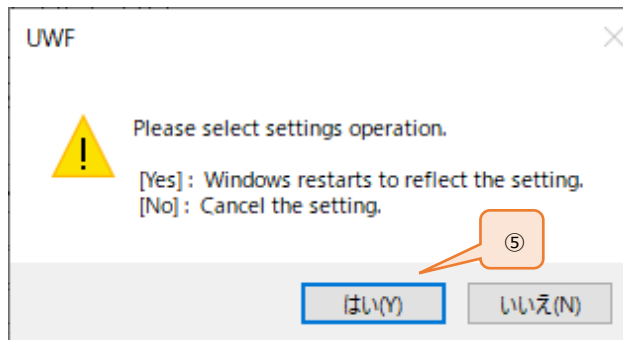
Icon	Settings
	Disabled status
	Enabled status
	Unable to set

4. UWF settings

The following explains the method for setting write protection for the C drive.



- ① Click [] and set to [].
- ② Tick the volume [C] targeted for protection.
- ③ Designate the alarm action and click the [Monitor Start] button.
- ④ Click the [OK] button.

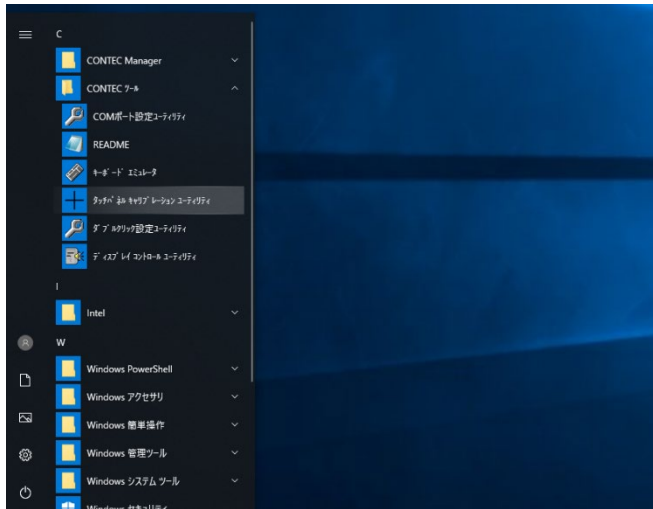


- ⑤ Click the [OK] button.
The settings will be enabled once you restart Windows.

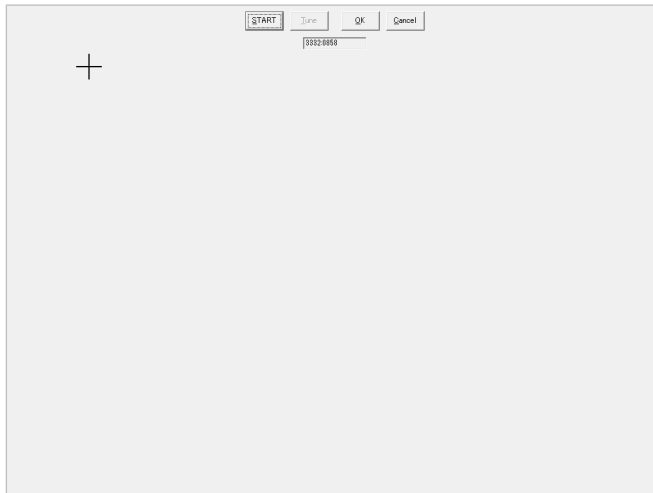
9.About Touch Panel

1. Calibration

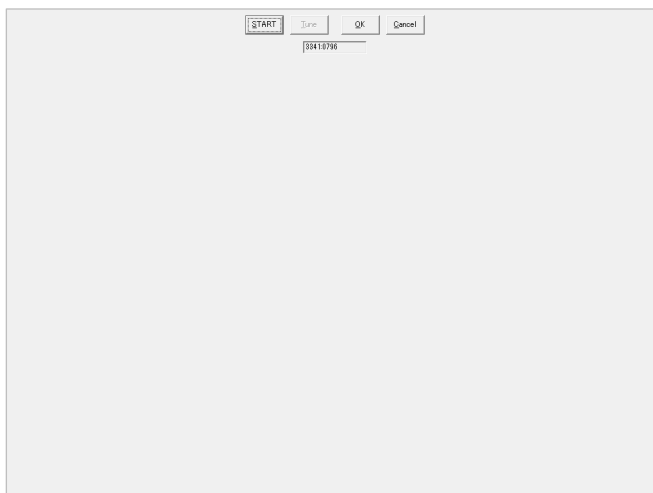
After the shipment, the touch coordinates may have moved. Therefore, please execute a calibration setting. Please follow the procedure below.



- ① Start [Windows Start] - [CONTEC Tools] - [Touch Panel Calibration Utility].



- ② Press [START] button and touch the center of the cross shown on the screen. Note that data would be inputted when you release the touch.



- ③ After the sampling 4 times, press [OK] button. The calibration is completed.

**CAUTION**

As a characteristic feature of the analog touch-panel screen, the resistance value may be changed due to the surrounding environment change (such as fluctuations in temperature and humidity). In this case, perform calibration again for the touch-panel screen to reset the calibration data.

2. About mouse cursor

When performing touch-inputs without connecting a mouse device, a mouse cursor will not appear. To display a mouse cursor, the Virtual mouse driver" offered by CONTEC is necessary. Please download it from the CONTEC website.

Power Failure Protection

This product is equipped with "Power Failure Protection" function that prohibits writing onto storage in the event of a power failure. Along with the UWF functions, file system damage caused by sudden power failure can be avoided.

1. About Power Failure Protection

The Power Failure Protection needs to be used along with the UWF function. For this reason, the following tables include enabling the UWF functions. Use them as a reference to check the general flow when using the Power Failure Protection.

1. When the Power Failure Protection is used

1	Factory default	UWF functions: Disabled Write Protect functions: Disabled
2	Windows initial setup	Follow the procedure described in [1. Windows setup(page18)] for the initial setup of Windows (the language choice etc.). UWF functions: Disabled Write Protect functions: Disabled
3	User environment setup	Change the settings of Windows or set up applications. UWF functions: Disabled Write Protect functions: Disabled
4	Enabling the UWF function	Follow the procedure described in [8. CONTEC Manager (Page43)] and set the UWF. UWF functions: Disabled Write Protect functions: Disabled
5	Restarting Windows	The UWF function will be enabled once you restart Windows. UWF functions: Enabled Write Protect functions: Disabled
6	Shutting down Windows	Shut down Windows. UWF functions: Enabled Write Protect functions: Disabled
7	Enabling the Write Protect function	Enable the Write Protect function. *1 UWF functions: Enabled Write Protect functions: Enabled
8	Starting Windows.	Start Windows operation. UWF functions: Enabled Write Protect functions: Enabled

2. When the Power Failure Protection is not used

1	Disabling Write Protect function	Disable the Write Protect functions. *1 UWF functions: Enabled Write Protect functions: Disabled
2	Disabling the UWF function	Start Windows and follow the procedure described in [8. CONTEC Manager(Page43)] to set the UWF. UWF functions: Enabled Write Protect functions: Disabled
3	Restarting Windows	The UWF function will be disabled once you restart Windows. UWF functions: Disabled Write Protect functions: Disabled

*1 Follow the steps listed below to change the Write Protect function settings of storage.

1	Turn on the power supply of PC, and immediately press [DEL] key or [ESC] key to activate BIOS settings screen (Aptio Setup Utility). Select [Advanced] - [SATA Configuration] in that order. Change the "Write Protect" settings.		
	Item	Option	Description
	Write Protect	Disabled / Enabled	The Hardware Write Protect can be enabled.
2	Press [F4] key, select [Save & Exit Setup]. Please select [Yes] and press [ENTER] key.		

Please check the following points listed in CAUTION beforehand, then, use the Power Failure Protection. For further caution or warning details, see the Reference Manual.

CAUTION

- The following UWF functions will no longer be available once you enable the Write Protect for a drive.
 - Commit function
 - Exclude writing function (file, folder, and registry)
 - Filter setting function for each drive

(Supplemental explanations)

Write Protect function is set on a per-storage basis.

When using one storage for several partitions (for C drive and D drive, etc.), set the UWF protect for all partitions first, then, enable the Write Protect function.

- To keep the log file information of the drive with Write Protect enabled, change the setting to write the information onto a different storage.

An example)

Disable both Write Protect function and UWF, then, change the settings by following the instruction.

Run "eventvwr.exe" on the command prompt to start the event viewer.

Change the log output path from the System property to as listed below:

From [%SystemRoot%\System32\winevt\Logs\System.evtx] to
[d:\winevt\Logs\System.evtx]

Recovery Method

This chapter explains how to recover the OS in the event that it is unable to start in the preinstalled type.

1.Preparations

This document describes the recovery procedures in a case where OS becomes unable to start up on a preinstalled-OS system.

The Recovery uses USB connection's DVD-ROM Drive. Please prepare a necessary equipment according to DVD-ROM used.

- The product itself
- USB Keyboard
- USB Mouse
- USB DVD-ROM Drive
- Provided Recovery Media (You require recovery media, contact your retailer.)

Please check the following points and connect the device.

CAUTION

- Before using a bundled recovery media, be sure to read the provided license agreements (END USER LICENSE AGREEMENT about respective OS and Easy Restore license agreement). You can use this recovery media only if you agree to the license descriptions.
 - Use of the provided recovery media is allowed only for the purpose of restoring preinstalled OS. Using the media for other purposes than OS recovery is prohibited.
 - The content of the silicon disk returns to the state when our company is shipped by restoring it by recovery media. Take the backup in important data beforehand.
 - Remove the connected disks if that are not composed in the pre-installed type from the body.
 - Remove the USB storage device if it is connected to the body.
-

2.Procedure

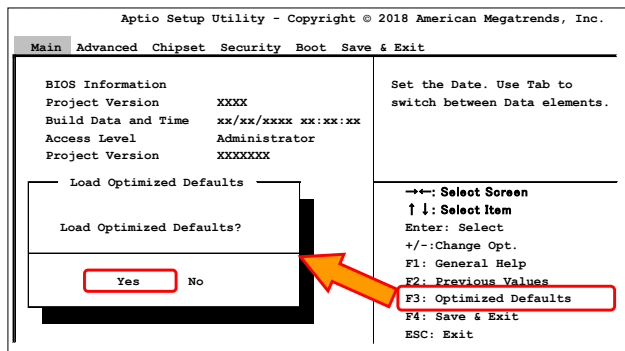
Before performing the operation, connect the USB keyboard, USB mouse and USB DVD-ROM drive to the product.

1. BIOS settings

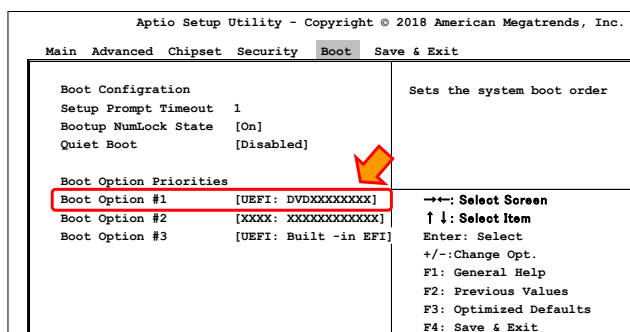
Please set recovery media (Disc 1 of 2) to a USB DVD-ROM drive, and connect with PC.

Turn on the power supply of PC and Press [DEL] key or [ESC] key immediately after turning on the power, activating Aptio Setup Utility. Recovery Procedures.

◆ For non-software RAID configuration



1. Press [F3] key, select [Load Optimized Defaults]. Please select [Yes] and press [ENTER] key.



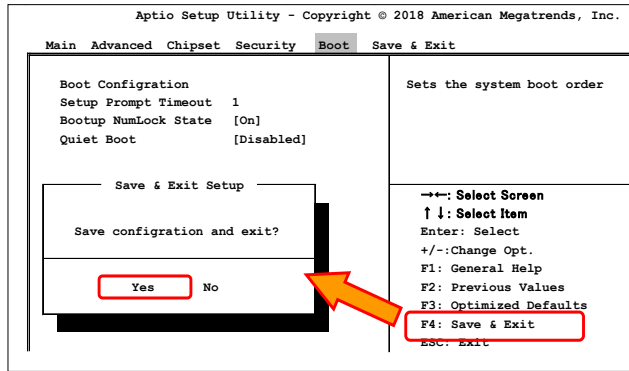
2. Press [→] key, select [Boot] menu. Please assign a UEFI DVD drive to "Boot Option #1"

Boot Option Priorities

[Boot Option #1] [UEFI: VDXXXXXXXXX]

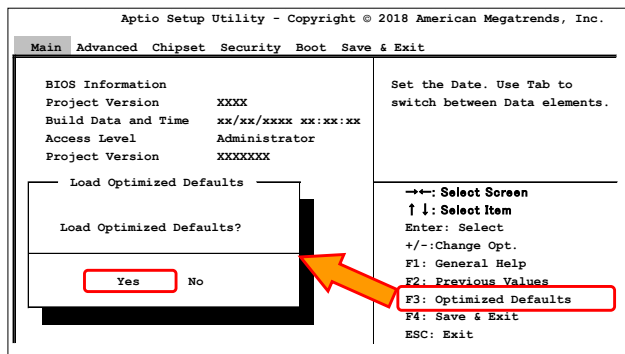
(Notice)

[UEFI: DVDXXXXXXXXX] x in the [UEFI:VDXXXXXXXXX] indicates the name of DVD drive connected.

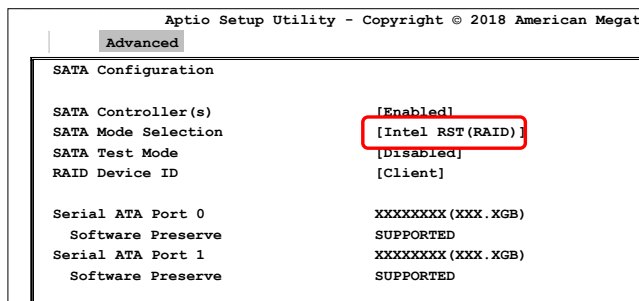


- Press [F4] key, select [Save & Exit Setup]. Please [ENTER] key If you save configuration. The system will automatically reboot.
Go to "2. OS installation".

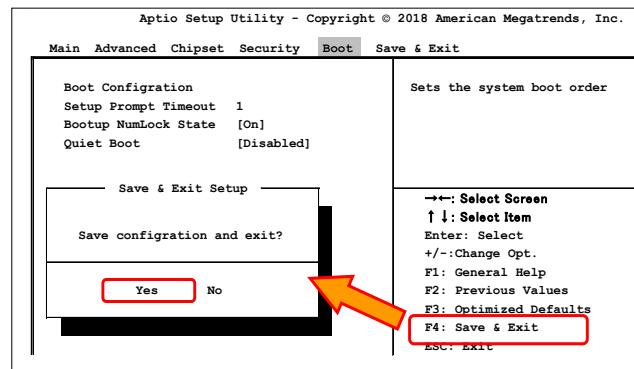
◆ For software RAID(RAID1) configuration



- Press [F3] key, and from "Load Optimized Defaults", select [Yes] and press [Enter] key.

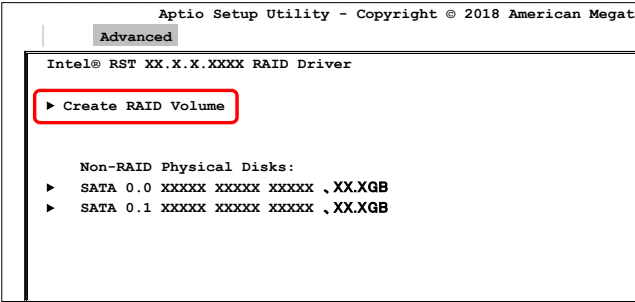


- Press [→] key, select Advanced menus. Press [↓] key, select SATA Configuration sub menu.
For "SATA Mode Selection", set **[Intel RST (RAID)]** from [AHCI]. Press [ESC] key.

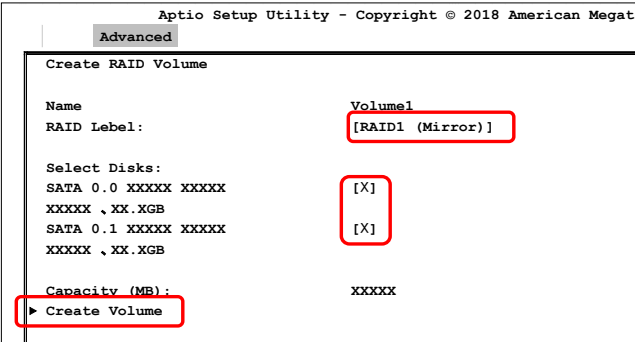


- Press [F4] key, select [Save & Exit Setup]. Please select [Yes] and press [ENTER] key.

This saves the settings of BIOS and restart the system. Immediately, press [DEL] key or [ESC] key to activate "**Aptio Setup Utility**".

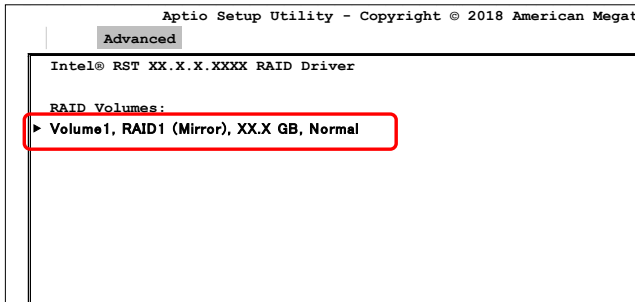


4. Press [→] key, select Advanced menu.
Press [↓] key, select **"Intel (R) Raid Storage Technology"** sub menu.
Please select **"► Create RAID Volume"** and press [ENTER] key.



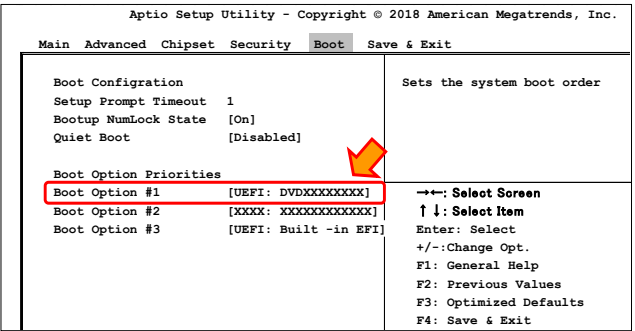
5. Set [RAID1 (Mirror)] for RAID Level. In Select Disks, set the two of SATA Disk for RAID configuration as follows:
*Press Space key to set "X".
SATA 0.0, XXXXX XXXXX [X]
SATA 0.1, XXXXX XXXXX [X]

Please select **"► Create Volume"** and press [ENTER] key.



6. RAID volume is created as shown below.
RAID Volume
"► Volume1,RAID1(Mirror),XX.X GB, Normal"

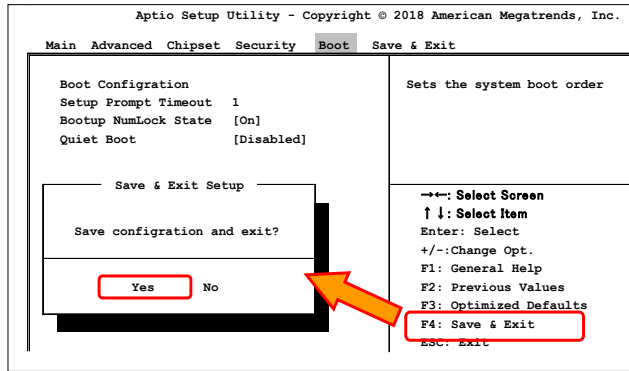
Press [ESC] key to return to Advanced menu.



7. Press [→] key, select Boot menu.
Assign UEFI DVD drive in "Boot Option #1".

Boot Option Priorities
Boot Option #1 [UEFI:DVDXXXXXX]

(Notice)
x in the [UEFI:DVDXXXXXXXXX] indicates the name of DVD drive connected.



8. Press [F4] key, select [Save & Exit Setup]. Please select [Yes] and press [ENTER] key. This restarts the system. UEFI boot will be carried out from DVD-ROM drive connected USB. Go to "2. OS installation".

2. OS installation

The USB DVD-ROM Drive will run UEFI boot, and after a short while Windows PE will start up.

```
[!!! WARNING !!!]
Initialize Storage.
Are you Sure? [Y/N]
```

1. When you receive the confirmation message, please press [Y] key and [ENTER] key. (If you do not continue the recovery, press N key.)

```
CImage Tool for Windows
Copyright<C> 2017 CONTEC CO., LTD.
Version X.X.X.X

Copy swm file: xxxxx.swm
[xx%] copied
```

2. HDD/SSD initialization and recovery processing will be performed automatically.

```
CImage Tool for Windows
Copyright<C> 2017 CONTEC CO., LTD.
Version X.X.X.X

Copy swm file: xxxxx.swm
[100%] Copied
Please Insert next disc [2/2] and type '[Enter]' key.
```

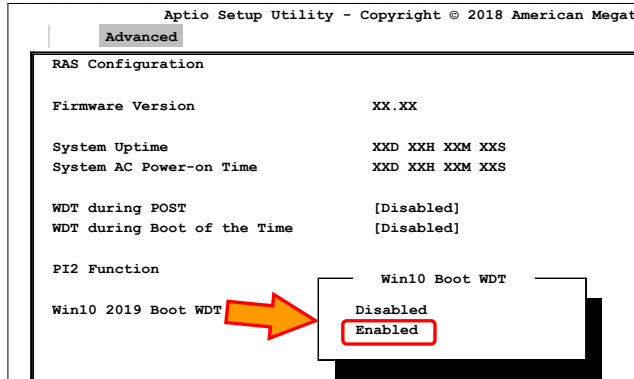
3. The screen on the left will appear. Take out the recovery media (Disc 1 of 2) and insert the recovery media (Disc 2 of 2), then press [Enter].

```
*****
Remove the System Restoration Disk
Press any key to reboot
*****
```

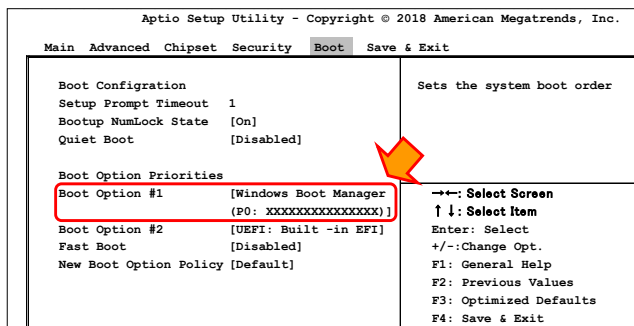
4. The left DOS prompt appears, Remove the recovery media (Disc 1 of 2). Insert the following recovery media (Disc2 of 2). Press [Enter] key. Recovery is performed automatically.

3. BIOS settings

After restarting the system by the method outlined above, immediately press [DEL] or [ESC] to start the BIOS settings screen (Aptio Setup Utility).



1. Press the [→] key to select the "Advanced" menu. Press the [↓] key to select the "RAS Configuration" submenu. Select [Enabled] from "Win10 2019 Boot WDT". Press the [Esc] key to return to the Advanced menu.



2. Press [→] key, select [Boot] menu. Please check if the "Boot Option #1" in Boot Option Priorities is assigned to [Windows Boot Manager (P0: XXXXXXXXXXXXXXX)]. If not, assign it appropriately.

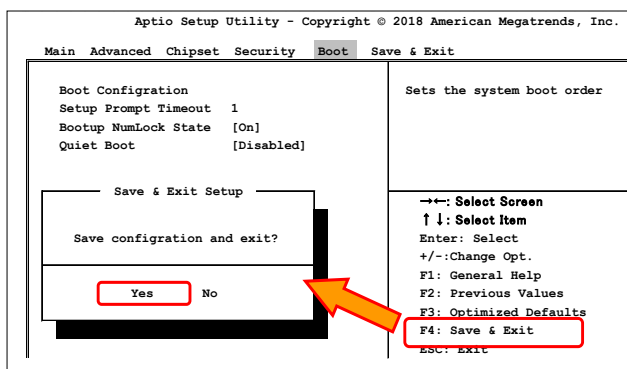
(Notice)

For non-software RAID configuration

x in the [Windows Boot Manager(XXXXXXX)] indicates the name of HDD/SSD connected.

For software RAID configuration

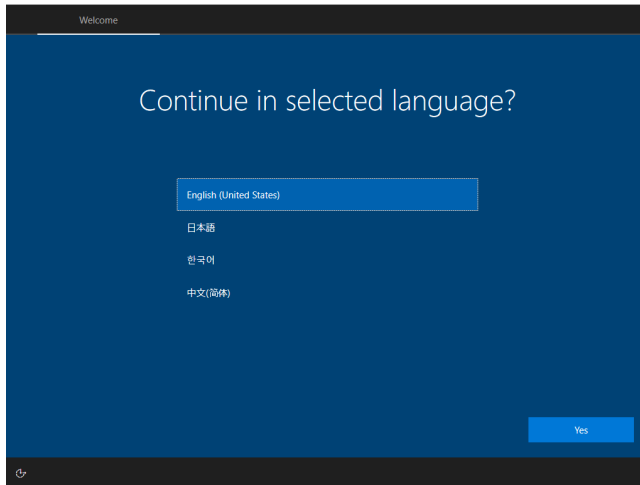
x in the [Windows Boot Manager(XXXXXXX)] indicates RAID configuration information of HDD/SSD connected.



3. Press [F4] key, select [Save & Exit Setup]. Please [ENTER] key. If you save configuration. The system will automatically reboot.

4. Start OS

The screen of the left figure is displayed after several times reboot.



Perform Windows setup following the setup procedure in this manual.

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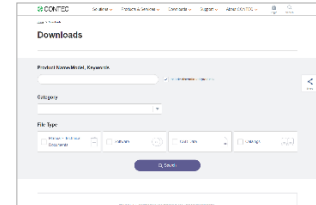
1.Services

CONTEC offers the useful information including product manuals that can be downloaded through the CONTEC website.

Download

<https://www.contec.com/download/>

You can download updated driver software, firmware, and differential manuals in several languages. Membership registration (myCONTEC) is required to use the services.



Revision History

MONTH YEAR	Summary of Changes
June 2019	The First Edition
November 2022	Changes due to reduction of bundled products

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XPT-T1000 Manual for OS Pre-installed Type (Windows 10 IoT Enterprise 2019 LTSC)

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