Printer Driver Instruction Manual

~For Windows Vista~

CW-02

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●Notes for Safety Purposes

Please read the Instruction Manual well before using the printer, and follow all instructions carefully.

Further, the contents of the safety warnings and comments in the Instruction Manual concerning use met safety standards at the time of publishing.

●Concerning modification

The CW-02 printer and the CW-02 Printer Driver and CD contents were planned, developed, and manufactured by CITIZEN SYSTEMS JAPAN CO.,LTD.

For safety purposes, any modification is prohibited.

Contents

Chapter 1 Install

1.1 Printer and Host computer Connection

Power ON the CW-02 printer and connect the CW-02 printer and the host by USB cable.
* Please refer to the manual for the CW-02 printer for connection if needed.

Note) Do not insert the accompanying CD at this time.
In order to install the driver, log in with administrator right. The following explanations are given on the assumption of use with administrator rights.

After that, if [Found New Hardware Wizard] is initiated, please install using the procedure in [1.2 Found New Hardware Wizard]. If [Found New Hardware Wizard] is not initiated, please install in accordance with [1.3 Install from Add Printer Wizard].

1.2 Found New Hardware Wizard

When "Found New Hardware Wizard" starts running, click on "Locate and install driver software (recommended)".
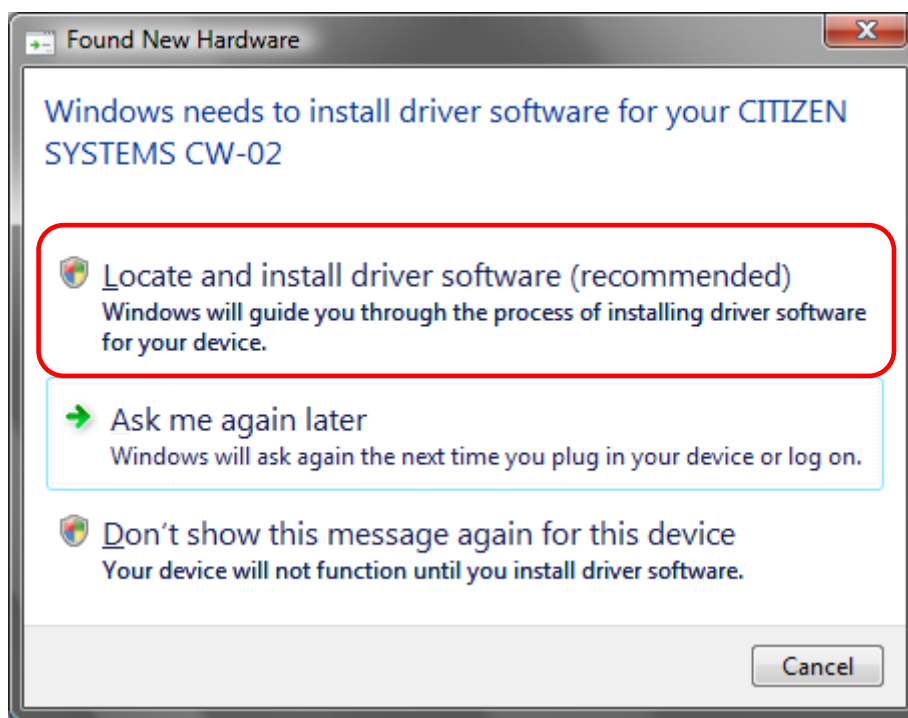

Fig 1.1 Found New Hardware Wizard

Note) For user account control, confirmation of "Windows needs your permission to continue" will be requested. Click on the "Continue" button.

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If the message "Insert the disc that came with yuor CITIZEN SYSTEMS CW-02" appears, click on "I don't have the disc. Show me other options".
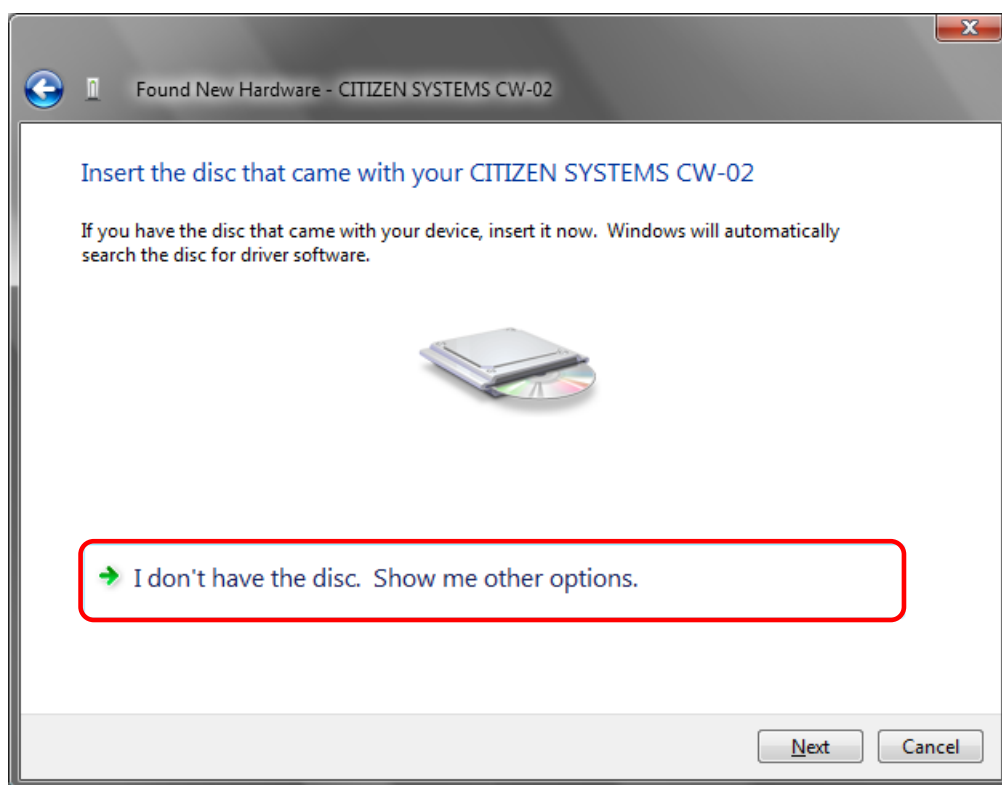

Fig 1.2 Insert the disc

If the message "Windows couldn't find driver software for your device" appears, click on "Browse my computer for driver software (advanced)".
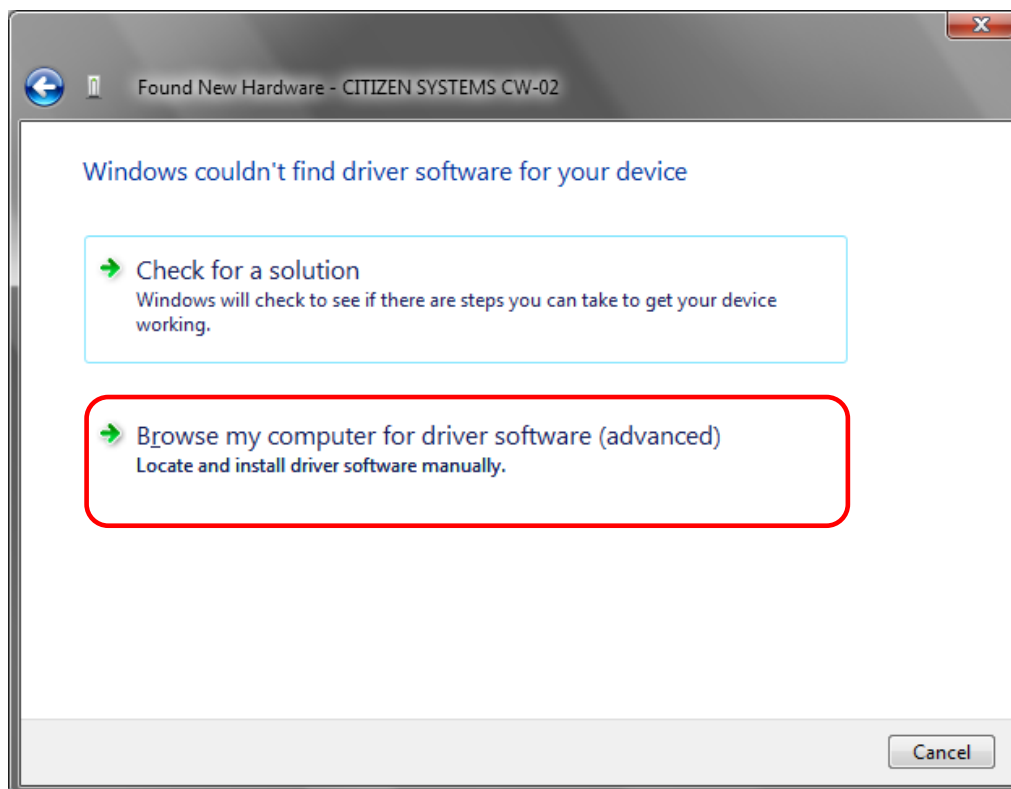

Fig 1.3 Windows couldn't find driver software for your device

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Insert the accompanying CD here.
If the message "Browse for driver software on your computer" appears, click on the "Browse" button, designate the location of the Installation Disk, and click on the "Next" button.
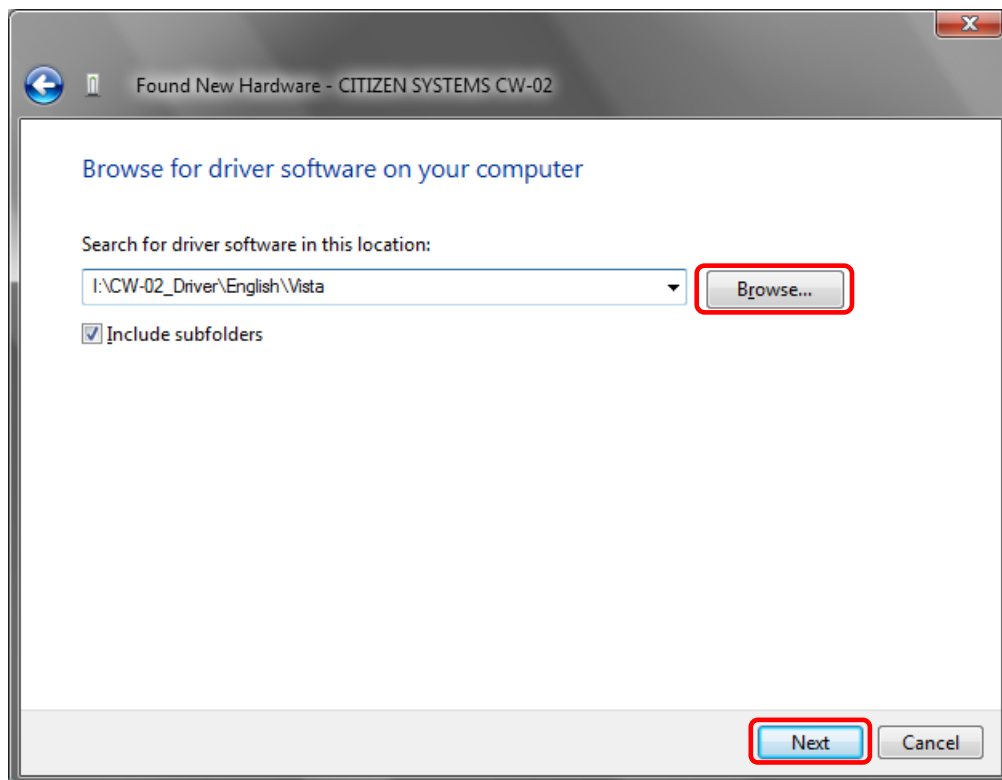
Fig 1.4　Designating the driver software location

If the Windows Security confirmation window appears, click on "Install this driver software anyway".
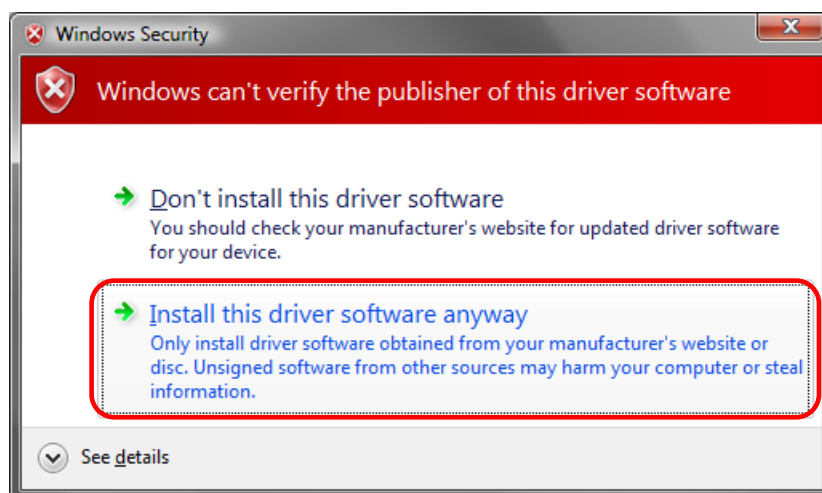
Fig 1.5　Windows Security confirmation

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The driver software will be installed.
When "The software for this device has been successfully installed" appears, click on the "Close" button, and end the wizard.
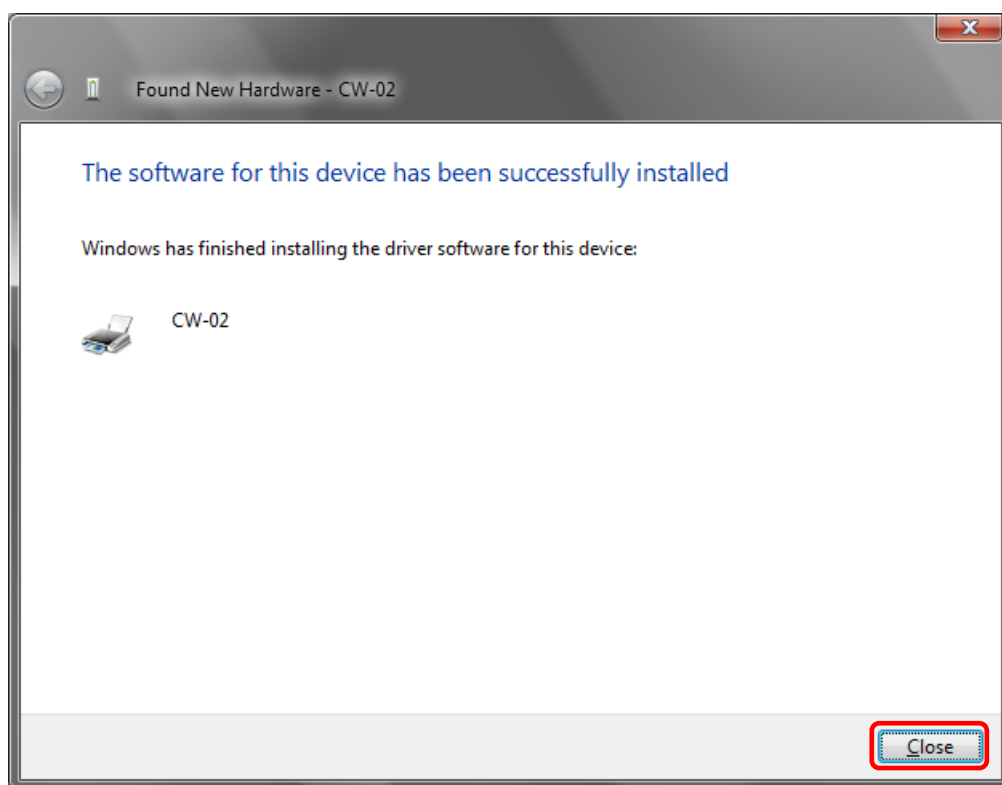

Fig 1.6   Installation Complete window

Select "Start", then "Control Panel", and open the control panel.   Click on "Printer" in the control panel.
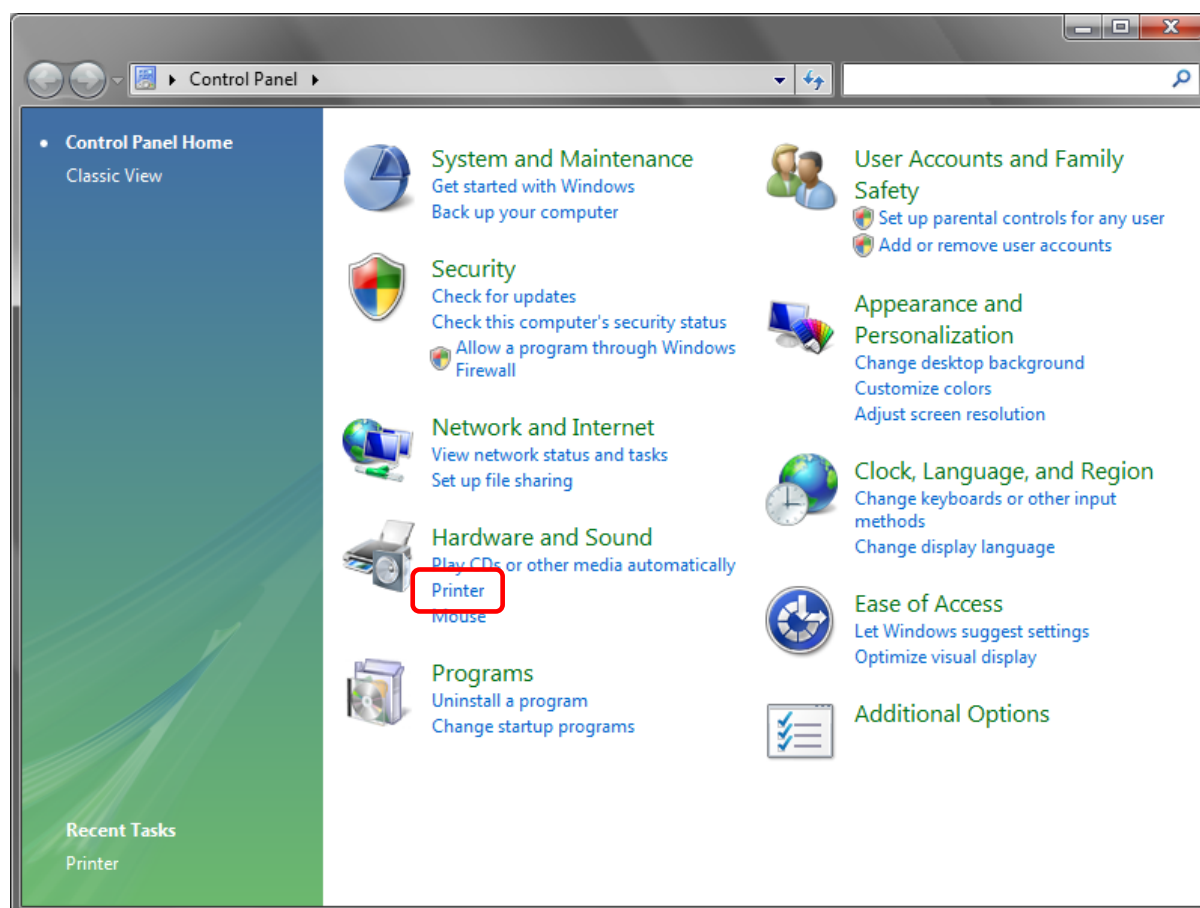

Fig 1.7   Control panel

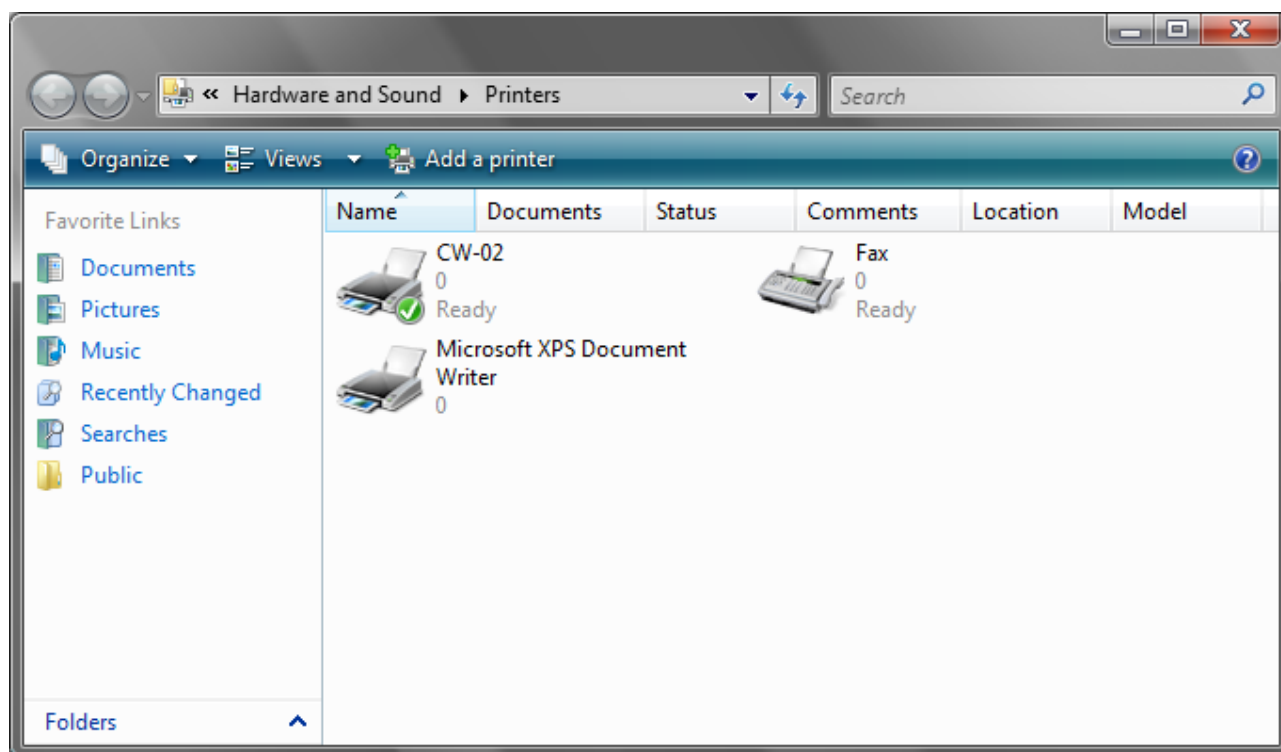Open [Printer] and confirm that [CW-02] is shown.
Now installation is complete.

Fig 1.8 Printers

After installation of the printer-driver is complete, be sure to reboot the computer.

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1.3 Install from Add Printer Wizard

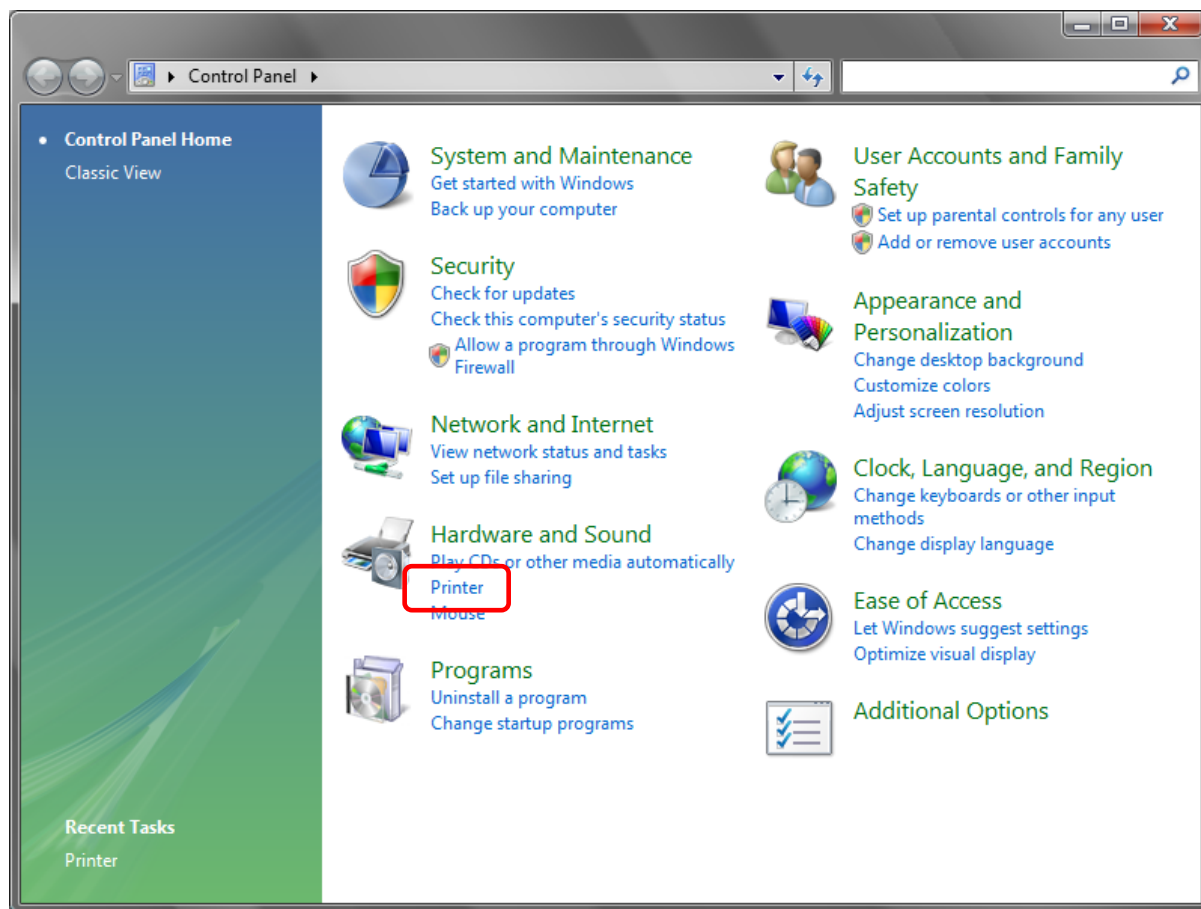Select "Start", then "Control Panel", and open the control panel. Click on "Printer" in the control panel.

Fig 1.9   Control Panel

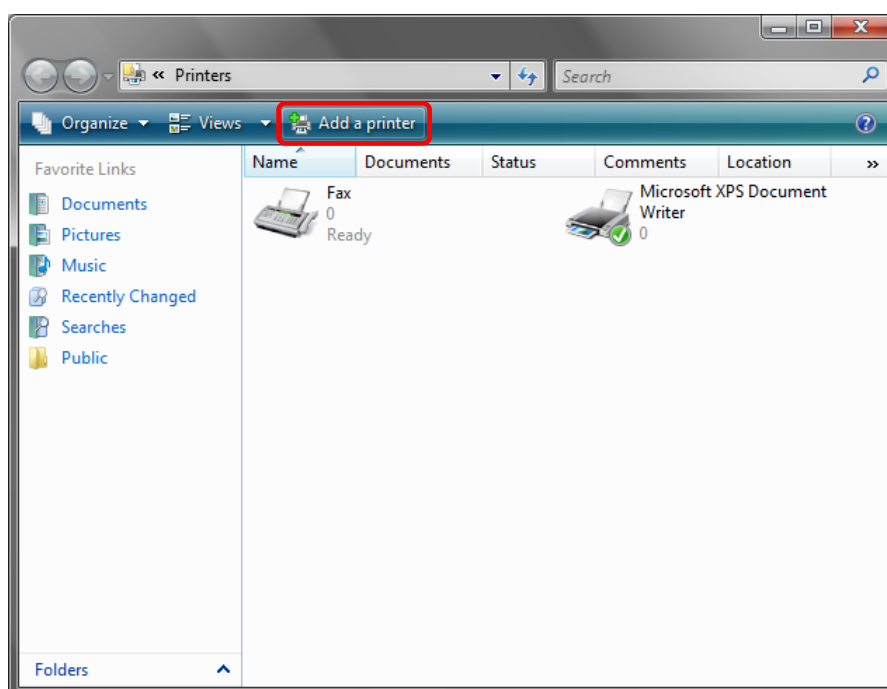Click on "Add a Printer" in the menu bar at the top of the "Printer" window.

Fig 1.10   Printer window

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When the "Choose a local or network printer" window appears, click on "Add a local printer".
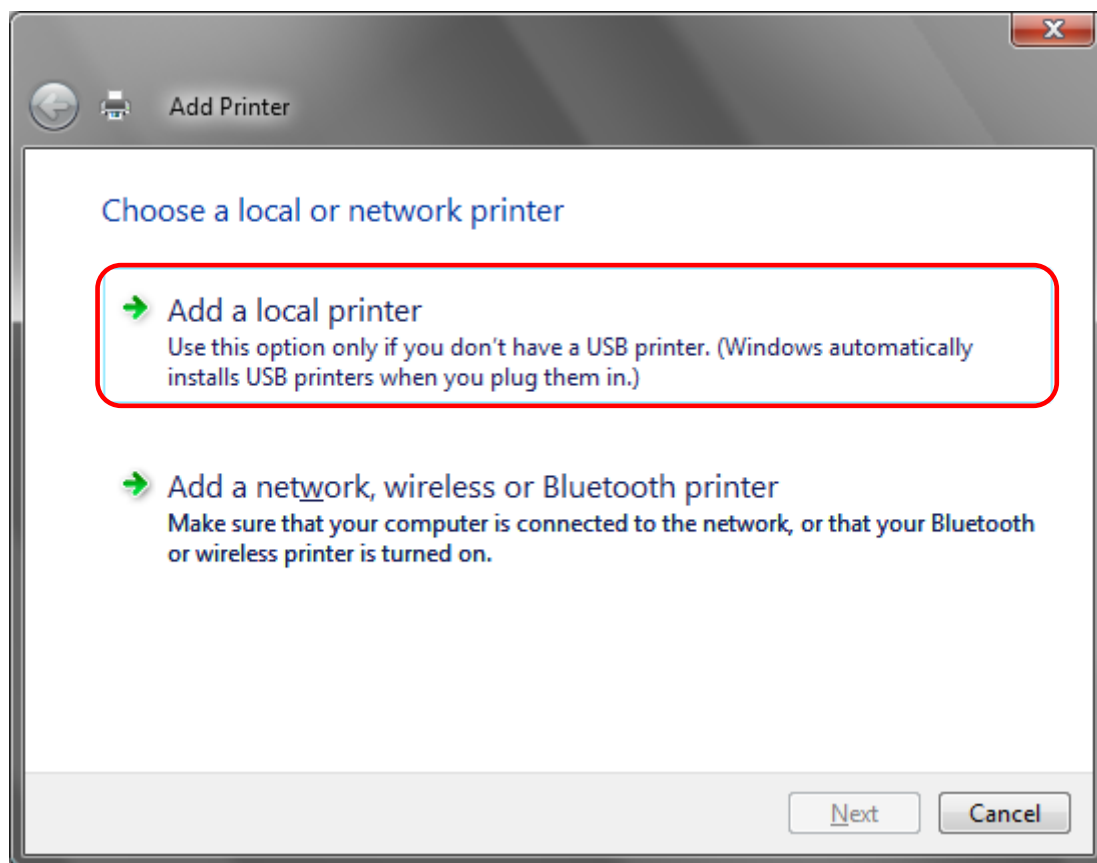

Fig 1.11   Choose a local or network printer window

When the "Choose a printer port" window appears, select "Use an existing port:", and select the USB port the printer is connected to (for example, "USB001") from the drop-down list, and click the "Next" button.
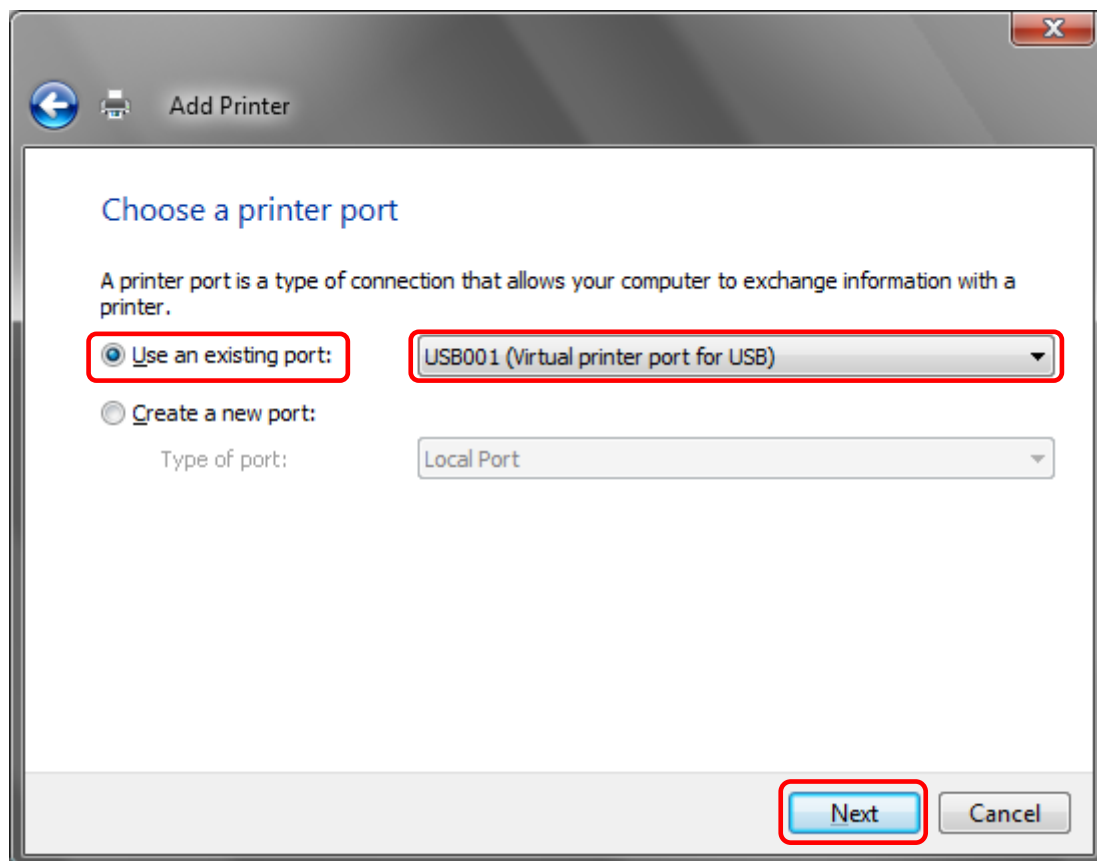

Fig 1.12   Choose a printer port window

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When the "Install the printer driver" window appears, click on the "Have Disk..." button.
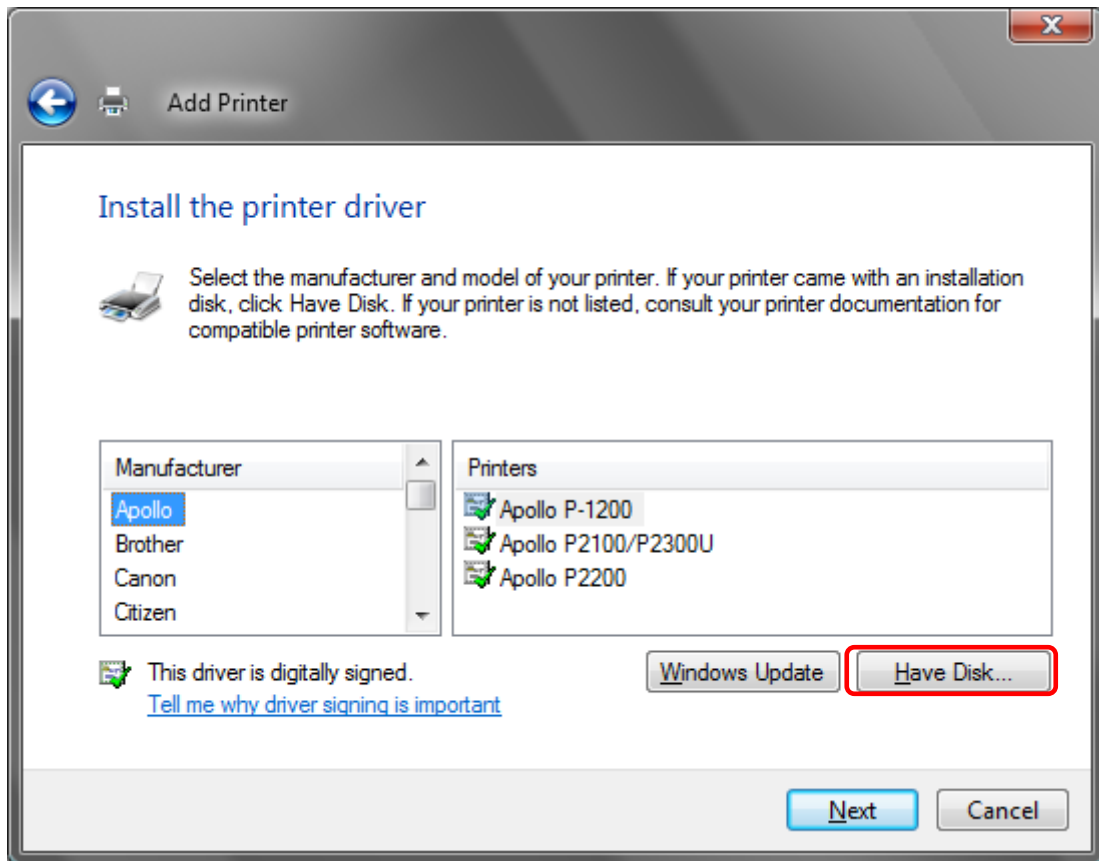

Fig 1.13   Install the printer driver window

When the "Install From Disk" window appears, use "Browse..." to designate the installation disk location, and click the "OK" button.
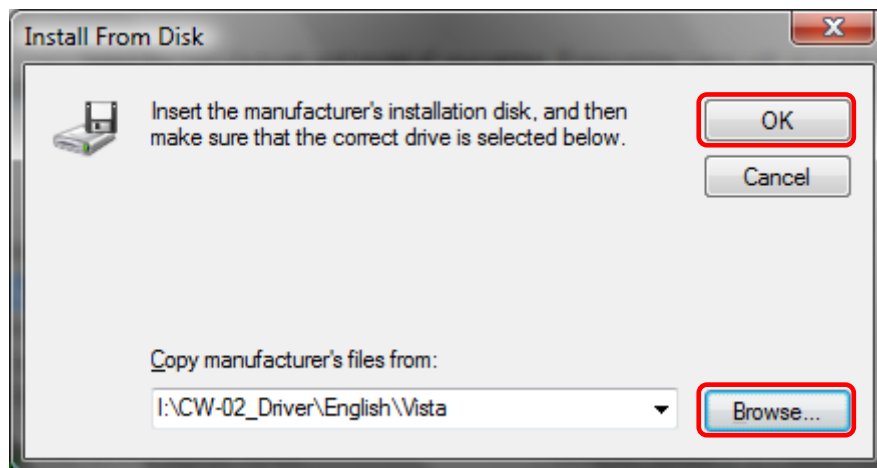

Fig 1.14   Install From Disk window

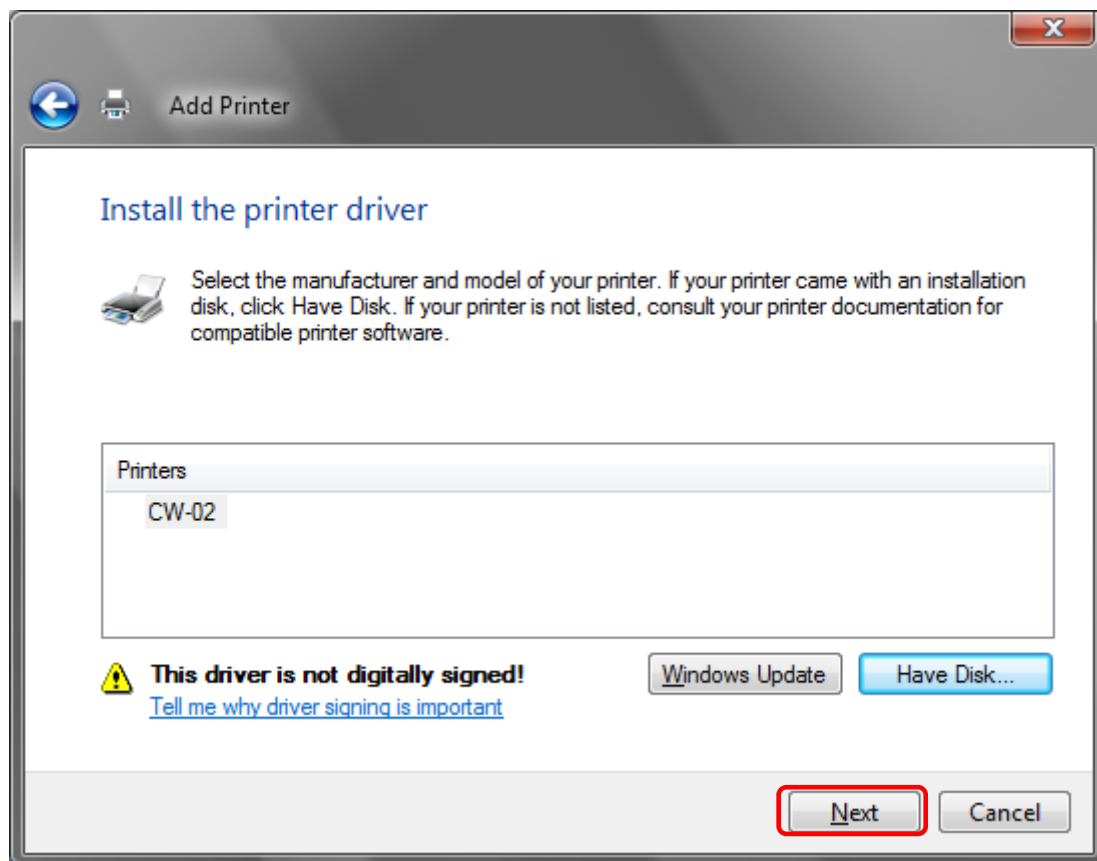In the "Install the printer driver" window, check that "CW-02" is displayed, and click the "Next" button.

Fig 1.15　CW-02 Install the printer driver window

When the "Type a printer name" window appears, you can set the printer name. Also, to set it as the printer usually used, select the check box for "Set as the default printer", and click the "Next" button.
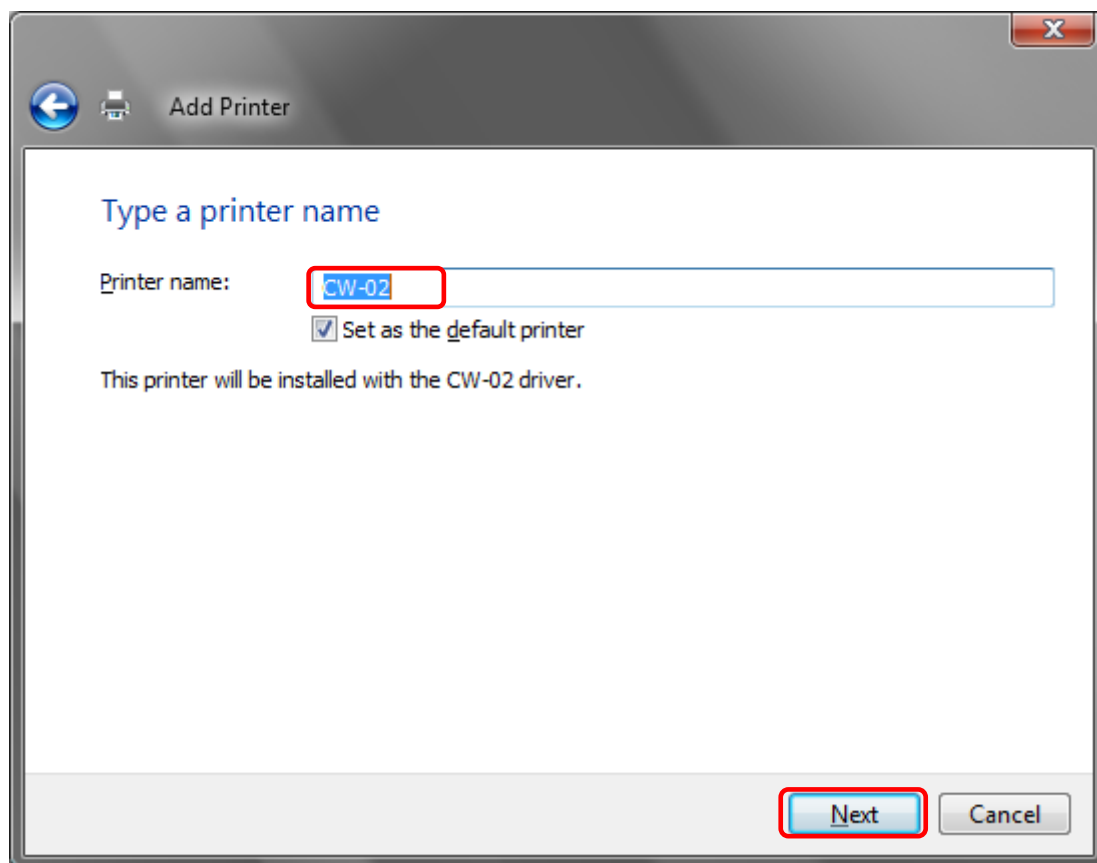

Fig 1.16　Type a printer name window

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Note） Insallation will begin, but the User Account Control will request confirmation with the message "Install this driver software anyway". Click on "Continue".

When the Windows Security window appears, click on "Install this driver software anyway".
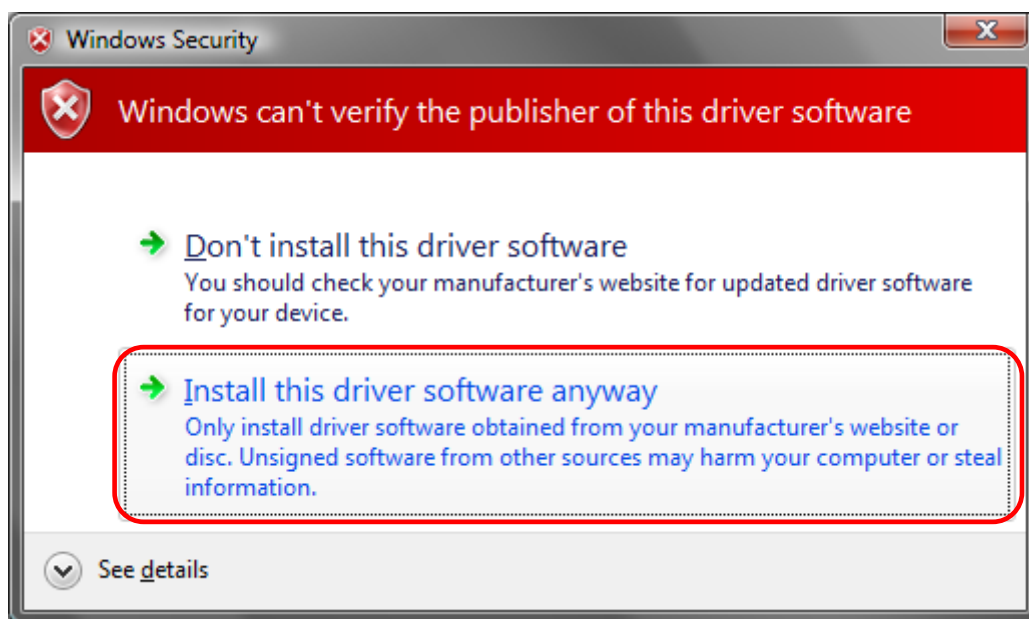

Fig 1.17   Windows Security confirmation

When the message "The software for this device has been successfully installed", click on "Finish".
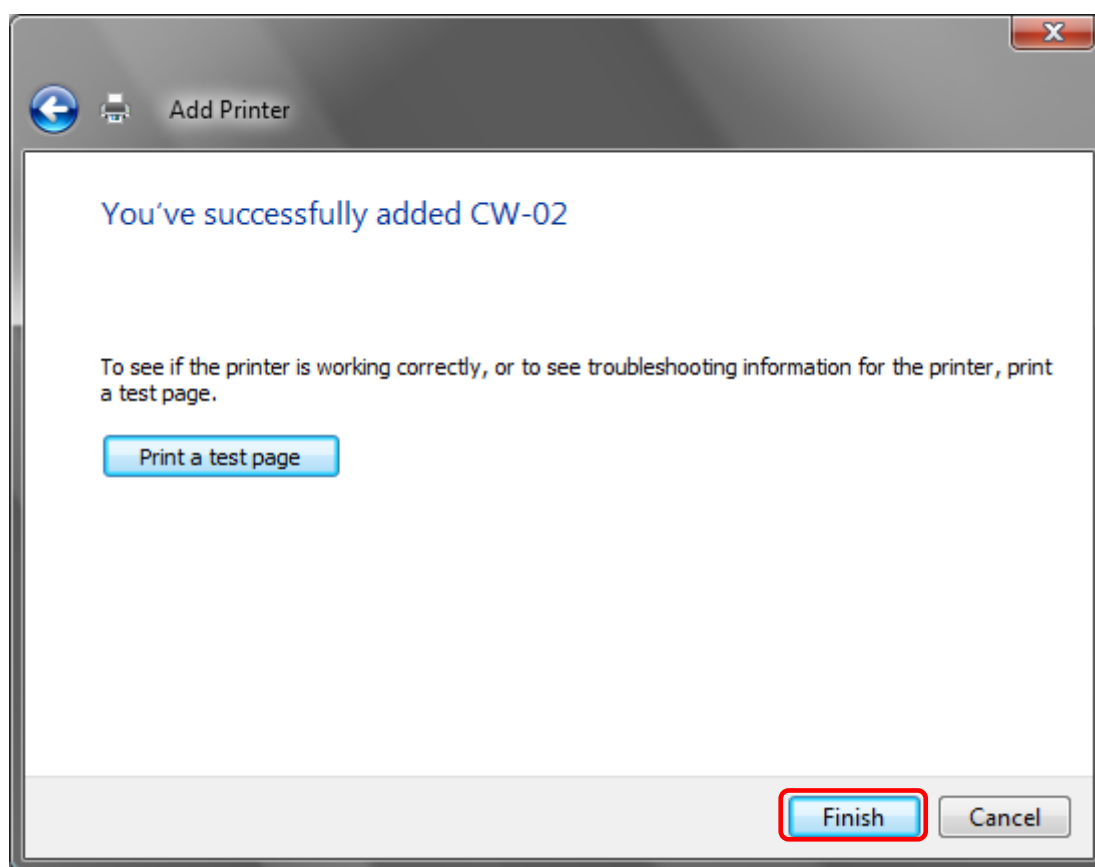

Fig 1.18   CW-02 driver has been successfully installed

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Check that the CW-02 is shown in the Printer window.
Now, installation of the CW-02 printer driver is complete.

Fig 1.19   Printer window
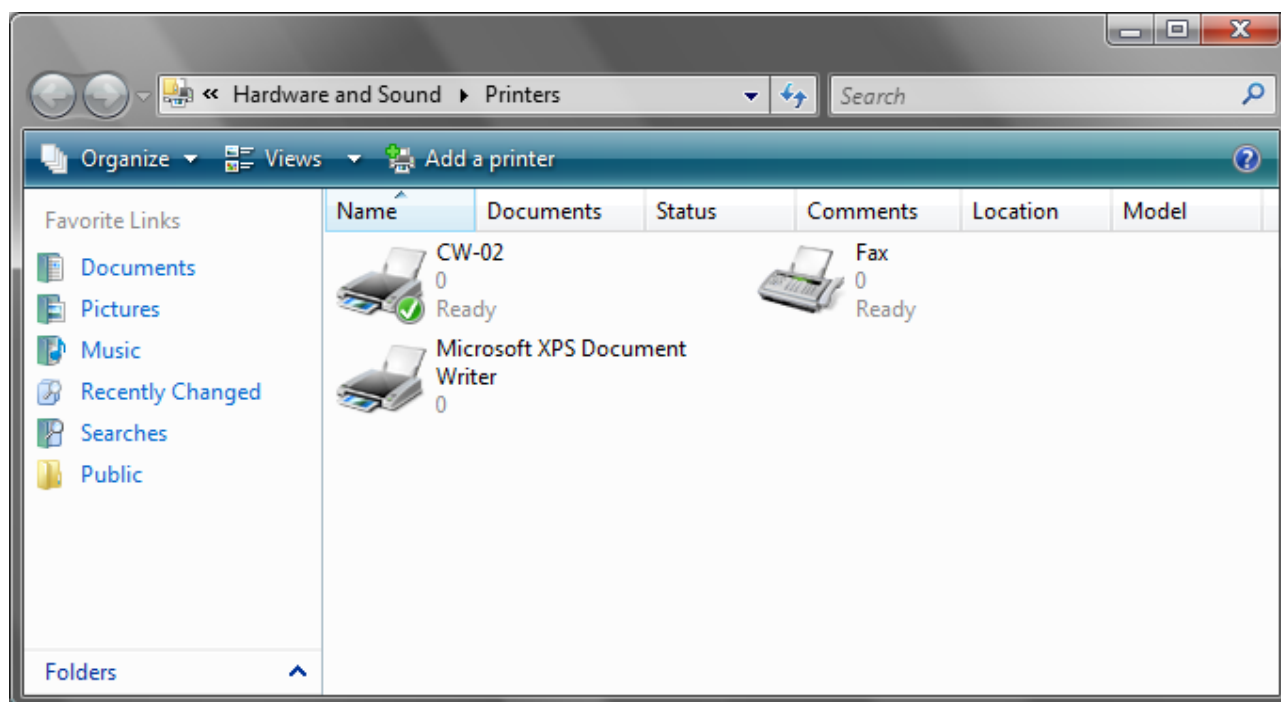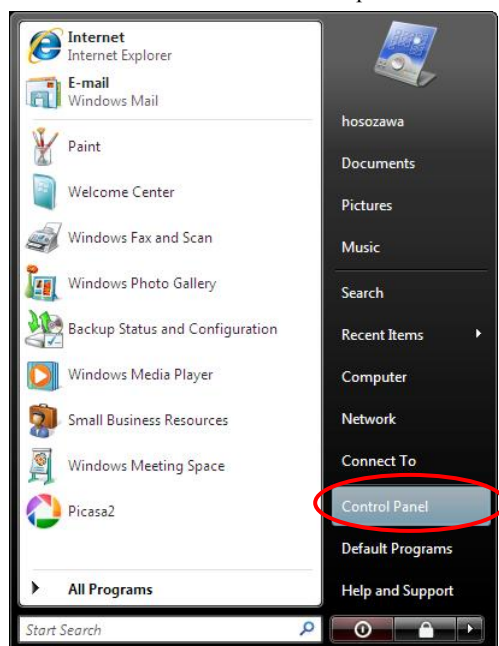

After installation of the printer-driver is complete, be sure to reboot the computer.

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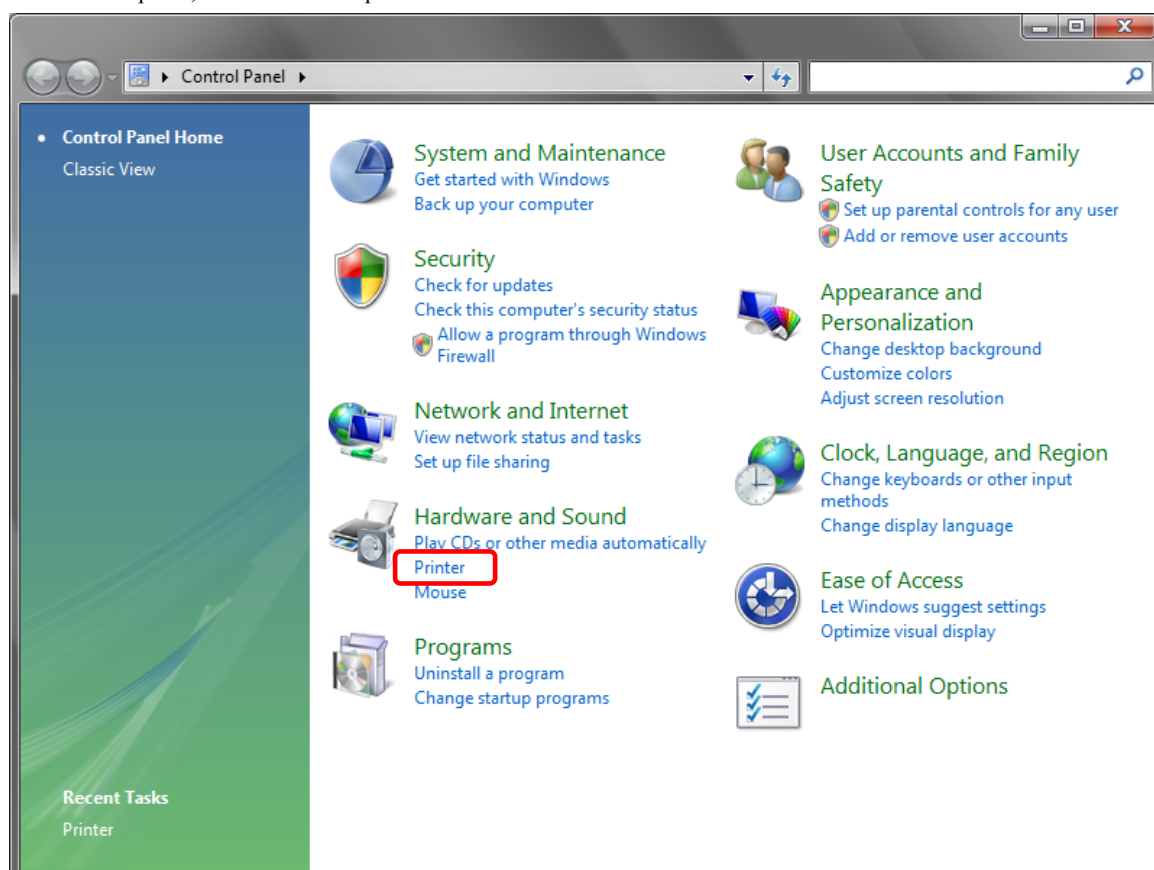
Chapter 2   Properties

Various printer settings can be made using the CW-02 Driver properties.   As a rule, the printer settings should not be altered.   Use the default settings present at installation.   Alter paper-size settings at the Application side.   Before operation, be sure to have a good understanding of the contents.

2.1   Opening Printer Properties
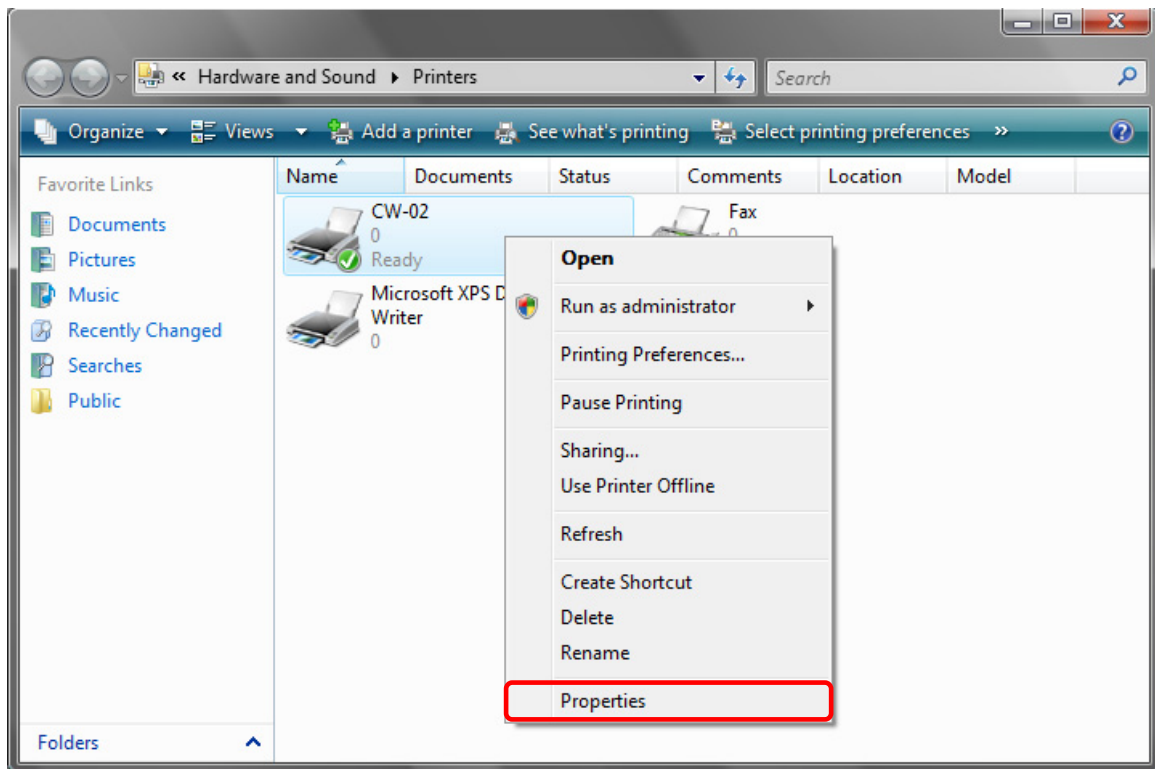
1. Click Start ⇒ Control Panel ⇒ open the control panel

2. In the control panel, select Printer⇒open the Printer window

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3. Right-click on the CW-02 icon, and from the pull-down menu select Properties ⇒ open the Properties window

4. The CW-02 Properties window will appear.

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2.2 Explanation of Print Setting Functions

From the Properties window, by selecting Printing Preferences you can make various print settings.
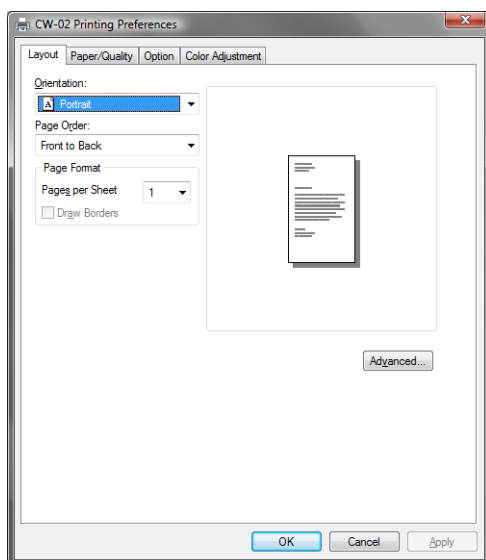
2.2.1 Layout

Fig 2.2.1 Layout tab

Orientation

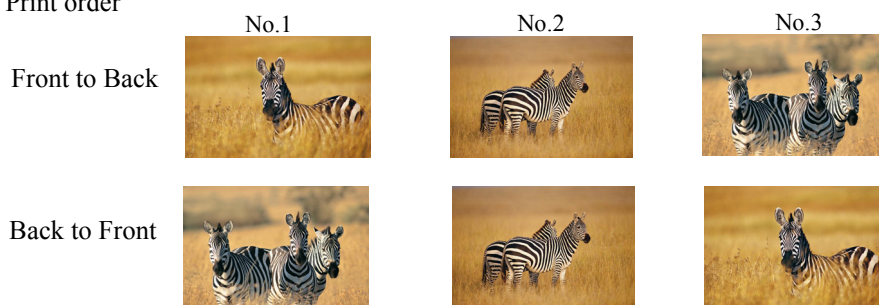Assign print orientation as Landscape or Portrait.
Refer to 2.6 Print direction.

Page Order

When printing multiple images in the application, you can set the order.
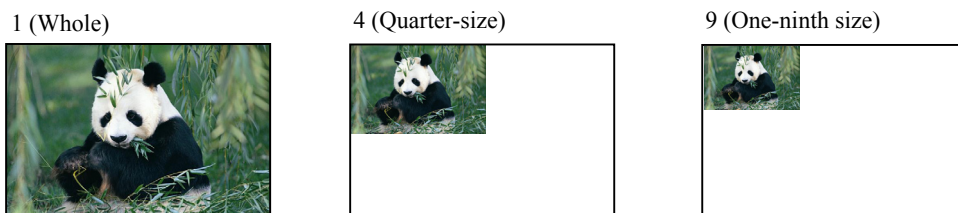Ex.) Print order

	No.1	No.2	No.3
Front to Back			
Back to Front			

Pages per Sheet

Prints the designated fractional size.
Ex.) Fractional size

1 (Whole)　　　　4 (Quarter-size)　　　　9 (One-ninth size)

2.2.2 Advanced Options

By selecting [Advanced] in the Layout window, various settings can be made using Advanced Options.
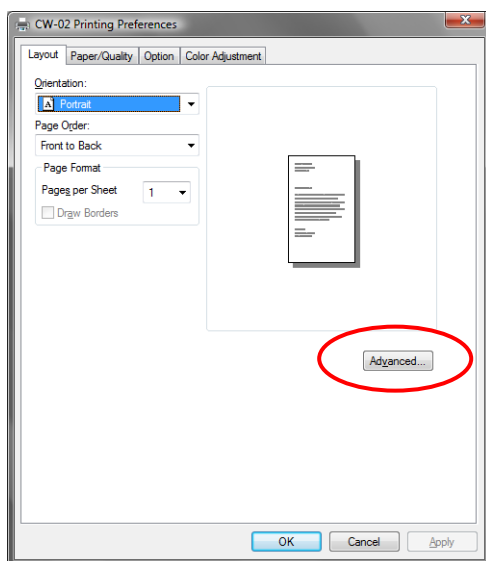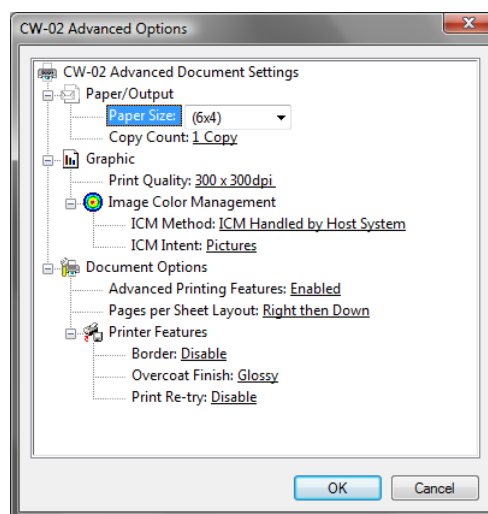

Fig 2.2.2.1 Advanced Settings

Fig 2.2.2.2 Advanced Options tab

Paper Size
You can designate the paper size. Please match the paper size to the media size with which the printer is equipped

Copy Count
You can designate the number of times an image will be printed.

Print Quality
You can designate the print quality.

Print Quality	Function
300 x 300dpi	Printing in the high-speed mode
300 x 600dpi	Printing in the high-quality mode (If the application can not set an asymmetric aspect resolution, please set the 600x600dpi.)
600 x 600dpi	Printing in the high-quality mode (Printer driver converts to 300x600dpi data, and sends it to the printer.)

ICM Method

ICM Method	Function
ICM Disabled	2.2.4 Synchronous with "Color Management: None" in paper option.
ICM Handled by Host System	2.2.4 Synchronous with "Color Management: ICM" in paper option. Performs color management with the driver.
ICM Handled by Printer	This is the same as setting "ICM Handled by Host System".

ICM Intent
This designates the rendering method when using ICM. Always have the ICC profile for the CW-02 set to "Picture". Please do not use it at other settings.

Advanced Printing Features
Always have it set to "Enabled". Please do not use it at other settings.

Pages per Sheet Layout
The layout direction of a picture is specified, when Pages per Sheet setting is multiple pages per sheet.

Border
Synchronous with the border option in the paper option.

Overcoat Finish

The overcoat finish for the printed surface can be selected from the following two types.

Overcoat Finish	Function
Glossy	This finishes the print with a glossy surface.
Matte	This finishes the print with a matte (non-glossy) surface.

Print Re-try

This sets up whether print data in a printer buffer when the error of a printer occurs is printed after error recovery, or it does not print.

Print Re-try	Function
Disable	Printing data in a printer buffer is cleared in the case of a printer error. After an error recovery, the cleared image data must be re-sent. When using an application that has an error recovery function, select this option.
Enable	Printing data in a printer buffer is held in the case of a printer error. After an error recovery, the print process resumes with the saved data. However, if the power is turned OFF, the data will not be saved.

According to the contents of a printer error, the power supply of a printer needs to be re-switched on for error recovery. In this case, it is not dependent on a setup of Print Re-try, and printing data in a printer buffer is cleared. Operation by Print Re-try setup in each error is shown below.

Contents of an error	Print Re-try setup is "Disable"	Print Re-try setup is "Enable"
Paper End	Please resend picture data not printed after error recovery.	Printing processing is resumed from data currently held in a printer buffer after error recovery. When paper initialization operation is performed, it is printed after paper initialization operation.
Ribbon End		
Cover Open		
Paper Jam (*1)		
Ribbon Error (*1)		
Paper Definition Error		
Data Error	For error recovery, the power supply of a printer once needs to be turned OFF. Therefore, print data in a printer buffer is cleared by power-supply OFF of a printer regardless of a setup of the Print Re-try function. Please resend picture data not printed after printer re-starting.	For error recovery, the power supply of a printer once needs to be turned OFF. Therefore, print data in a printer buffer is cleared by printer power-supply OFF even if the Print Re-try function is set to "Enable". Please resend picture data not printed after printer re-starting.
Head Position Error		
Power Supply Fan Stop		
Cutter Error		
Head Voltage Error		
Abnormal Head Temp.		
Abnormal Media Temp.		
Ribbon Tension Error		
RFID Module Error		
System Error		

*1: After an error stop, a paper or a ribbon should perform removal work of an error factor according to a printer user's manual.

\<Multiple layout\>

When the CW-02 is using 6x9(A5W) or 6x8(A5) size media, 2 image layout is possible.

With the printer driver paper setting, multi-image layout is made possible, and the image sizes are as follows.

Layout designation

Driver paper setting (layout)	Paper Orientation	Image size width x height (mm)	Using media
(6x4) x 2	Portrait	(156.1x105.0) x 2	6x9(A5W), 6x8(A5)
	Landscape	(105.0x156.1) x 2	
PR (4x6) x 2	Portrait	(105.0x156.1) x 2	6x9(A5W), 6x8(A5)
	Landscape	(156.1x105.0) x 2	
Image layout median size		2.54	

Multiple layout is possible under the following conditions.
1. The printer is using 6x9(A5W) or 6x8(A5) size media.
2. The printer driver paper size is set to one of the above sizes.
3. Multiple images are sent from the application.

Note）Because the multi-image layout occurs on a per job basis, this works when there are multiple images for 1 job. If you want to print the same image, be sure to send the image data for each copy to be printed. The printer prints 2 images in one operation, and the paper is cut as it is fed out.

\<Multi-image layout patterns\>

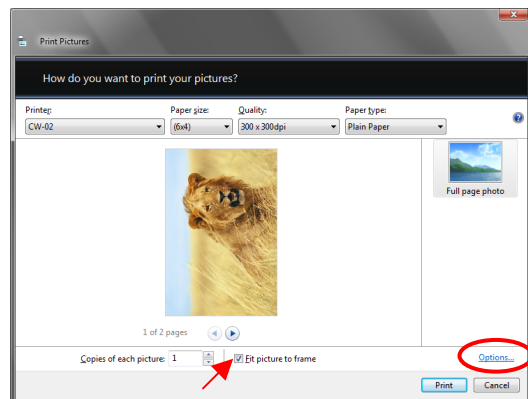The following is possible for the multi-image layout pattern.

Layout for 1 sheet with 2 same-size images

Cut as sheet is fed out

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<Example of Application Use>

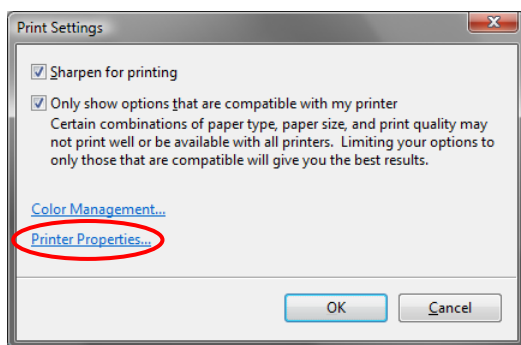This is an example using Windows Explorer.

Step 1. Select 2 or more images⇒Click "Print".
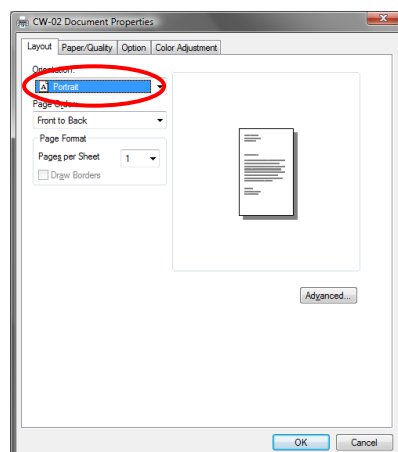
Select 2 or more images

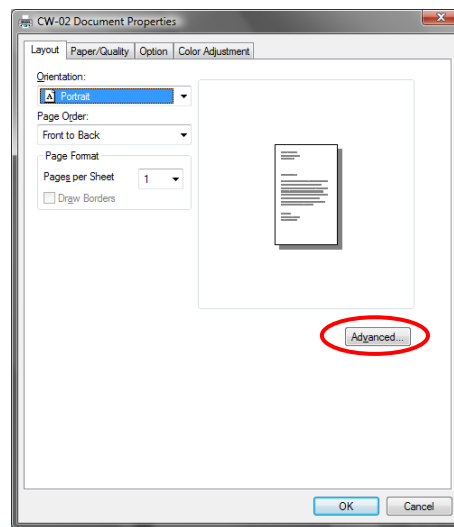Step 2. Check "Fit picture to frame" and click "Options".
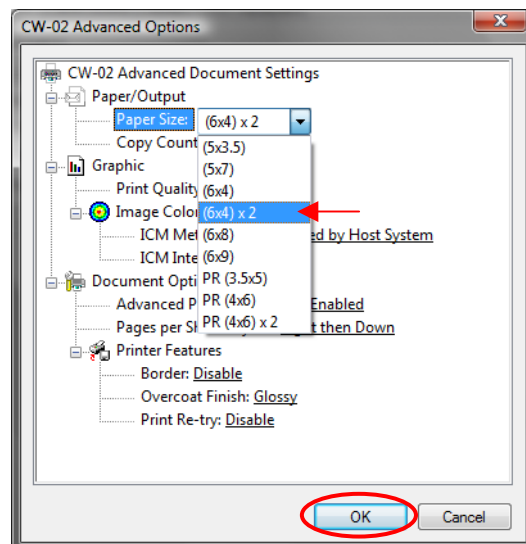
Step 3. Click on "Printer Properties".

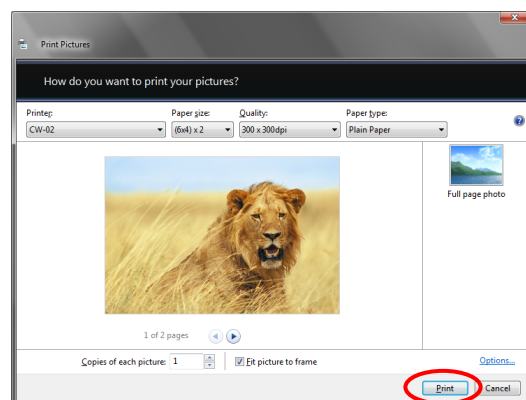Step 4. From the "Orientation" pull-down menu, select "Portrait".

Step 5. Click on "Advanced".

Step 6. Set the Paper Size to "(6x4)x2". Then click "OK" on the windows from steps 6⇒5, returning to the window displayed in Step 2.

Step 7. Click on "Print".

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2.2.3 Paper/Quality

Fig 2.2.3   Paper/Quality tab

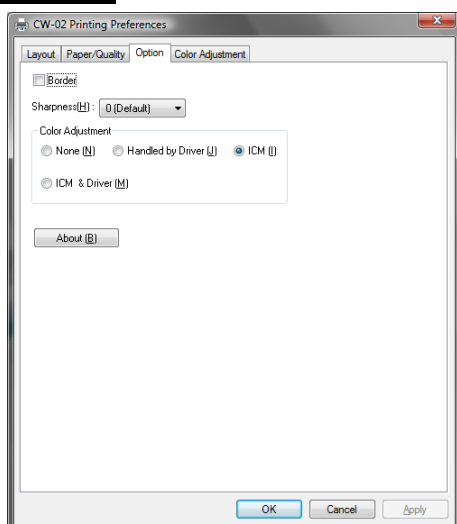**Color**   Please set to color print.   Do not use for black and white printing.
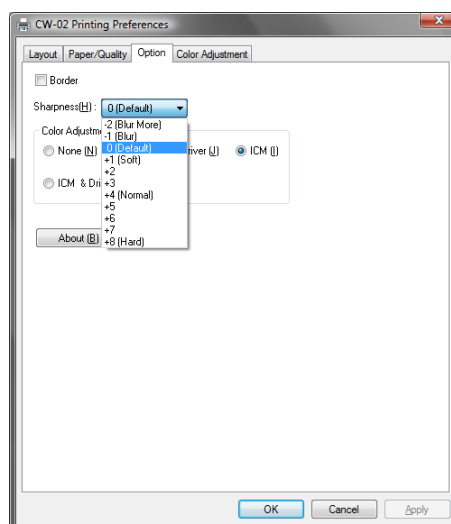
2.2.4 Option

Fig 2.2.4.1   Option tab

Fig 2.2.4.2   Sharpness setting

Border
> Designates yes or no for border (check means with border). Synchronous with border in the Advanced Settings.

Sharpness
> Processes for 11 sharpness levels (Fig 2.2.4.2). 0(Initial setting) means there is no sharpness processing. Minus(-) blurs the image, and plus(+) increases the sharpness.

Color Adjustment
> None
>> Synchronous with the ICM Method in the Advanced Settings. Checking this item disables ICM and the Color Adjustment tab, and color management does not occur from the driver.
>
> Handled by Driver
>> Checking this item disables ICM and 2.2.5 Color Adjustment is enabled. The adjustment values for gamma, brightness, contrast, and chroma are shown.
>
> ICM
>> Synchronous with the ICM Method in the Advanced Settings (ICM Handled by Host System). Checking this item enables color management from the driver.
>
> ICM & Driver
>> If you check this, ICM (color management) and 2.2.5 Color Adjustment will be enabled.

About
> Displays the driver version.

2.2.5 Color Adjustment

If you check Handled by Driver in 2.2.4 Option, the respective color adjustment values in the Color Adjustment tab are reflected in the image.
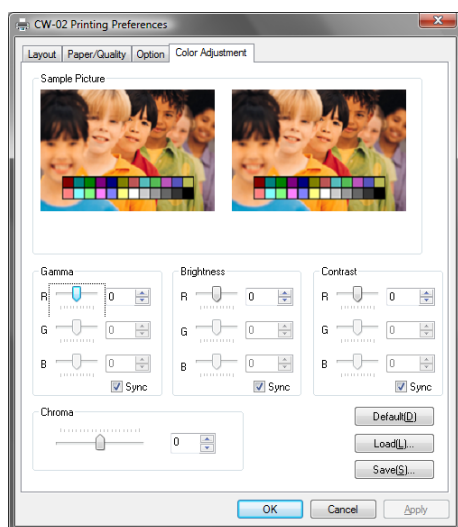

Fig 2.2.5 Color Adjustment tab

Setting ranges in the Color Adjustment tab are as follows:

Adjustment Item	Adjustment Value

Gamma	-100(dark) ~ 100(light) (0 means no adjustment, Gamma 2.0 ~ 0.5)
	Adjusts the density of the highlights in the image. The greater the gamma value, the brighter the highlights.
	Synchronous check box
	   ON **:** Sets RGB at the same value
	   OFF**:**Sets RGB at a different value

Brightness	-100(dark) ~ 100(light) (0 means no adjustment)
	Adjusts the brightness of the image. The larger the value, the greater the overall brightness of the image.
	Synchronous check box
	   ON **:**Sets RGB at the same value
	   OFF**:**Sets RGB at a different value

Contrast	-100(weak) ~ 100(strong) (0 means no adjustment)
	Adjusts the contrast of the image. The larger the value, the greater the contrast.
	Synchronous check box
	   ON **:** Sets RGB at the same value
	   OFF**:** Sets RGB at a different value

Chroma	-100(weak) ~ 100(strong) (0 means no adjustment) Adjusts the color saturation of the image.

2.3   Default Values for Various Settings

Default values for each option (at the time of installation) are shown below. If the printer driver does not work correctly after changing the options, please return the options to the default settings.
Note) According to the Service Pack and use environment of OS, the default value at the time of installation may differ from the following chart.
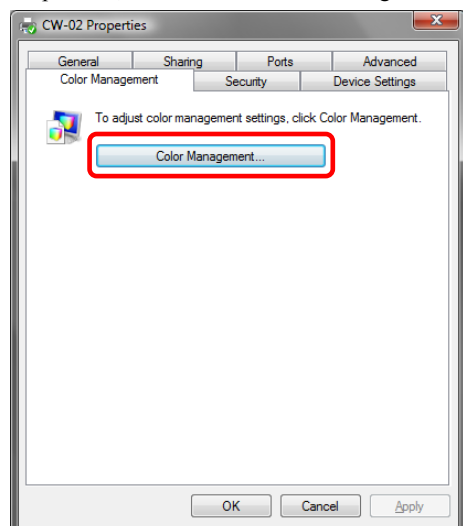
Tab	Options			Default
Layout	Orientation			Portrait
	Page Order			Front to Back
	Pages Per Sheet			1
Paper/Quality	Color			Color
Option	Border			Disable
	Sharpness			0 (Default)
	Color Adjustment			ICM
Color Adjustment	Gamma			0
	Brightness			0
	Contrast			0
	Chroma			0
Advanced (Click [Advanced] button of Layout tab)	Paper/Output	Paper Size		(6 x 4)
		Copy Count		1
	Graphic	Print Quality		300 x 300dpi
		Image Color Management	ICM Method	ICM Handled by Host System
			ICM Intent	Pictures
	Document Option	Advanced Printing Features		Enable
		Pages per Sheet Layout		Right then Down
		Printer Features	Border	Disable
			Overcoat Finsh	Glossy
			Print Re-try	Disable

Chart 2.3   Print Setting Default Values

2.4   Color Management

In [Color Management], this designates the color profile. Default at installation associates [CW02_xxxx.icm].
xxxx is a 4-digit number that refers to the version.

Step 1. Select "Color Management" tab in "Printer Properties", and click on "Color Management" button.

Step 2. Choose printer: CW-02 from a device.

Fig 2.4   Color Management

2.5 Print Area

Depending on the paper size designated at the driver, the image size and dot count will be as follows.

Paper	Paper Orientation	Image size（width x height）		Image pixel amount (width x height)		
		（inch）	（mm）	300 x 300 DPI	300 x 600 DPI	600x600 DPI
(5x3.5)	Portrait	5"x 3.5"	131.1 x 92.1	1548 x 1088	1548 x 2176	3096 x 2176
	Landscape	3.5"x 5"	92.1 x 131.1	1088 x 1548	2176 x 1548	2176 x 3096
(6x4)	Portrait	6"x 4"	156.1 x 105.0	1844 x 1240	1844 x 2480	3688 x 2480
	Landscape	4"x 6"	105.0 x 156.1	1240 x 1844	2480 x 1844	2480 x 3688
(5x7)	Portrait	5"x 7"	131.1 x 181.0	1548 x 2138	1548 x 4276	3096 x 4276
	Landscape	7"x 5"	181.0 x 131.1	2138 x 1548	4276 x 1548	4276 x 3096
(6x8)	Portrait	6"x 8"	156.1 x 206.2	1844 x 2436	1844 x 4872	3688 x 4872
	Landscape	8"x 6"	206.2 x 156.1	2436 x 1844	4872 x 1844	4872 x 3688
(6x9)	Portrait	6"x 9"	156.1 x 232.0	1844 x 2740	1844 x 5480	3688 x 5480
	Landscape	9"x 6"	232.0 x 156.1	2740 x 1844	5480 x 1844	5480 x 3688
PR (3.5x5)	Portrait	3.5"x 5"	92.1 x 131.1	1088 x 1548	2176 x 1548	2176 x 3096
	Landscape	5"x 3.5"	131.1 x 92.1	1548 x 1088	1548 x 2176	3096 x 2176
PR (4x6)	Portrait	4"x 6"	105.0 x 156.1	1240 x 1844	2480 x 1844	2480 x 3688
	Landscape	6"x 4"	156.1 x 105.0	1844 x 1240	1844 x 2480	3688 x 2480

2.6 Print Direction

Regarding the print direction setting, the relationship between the application-generated image and the print (feed direction) is as shown in the following chart.   The generated image is the image generated through enlargement/reduction to fit the size shown in 2.5 Print Area, without having the application rotate the original image.
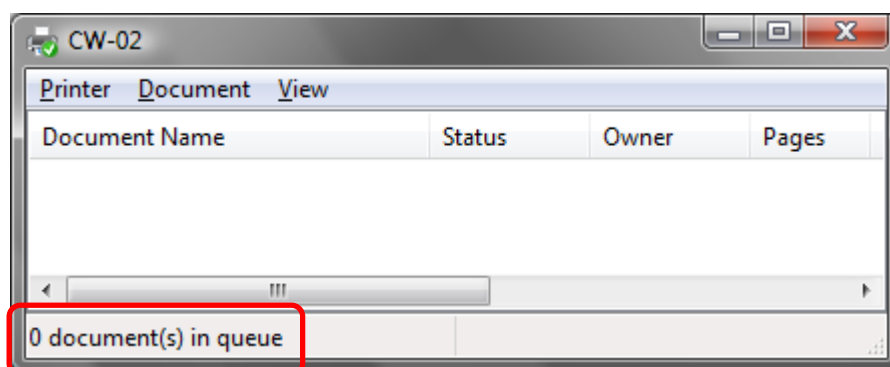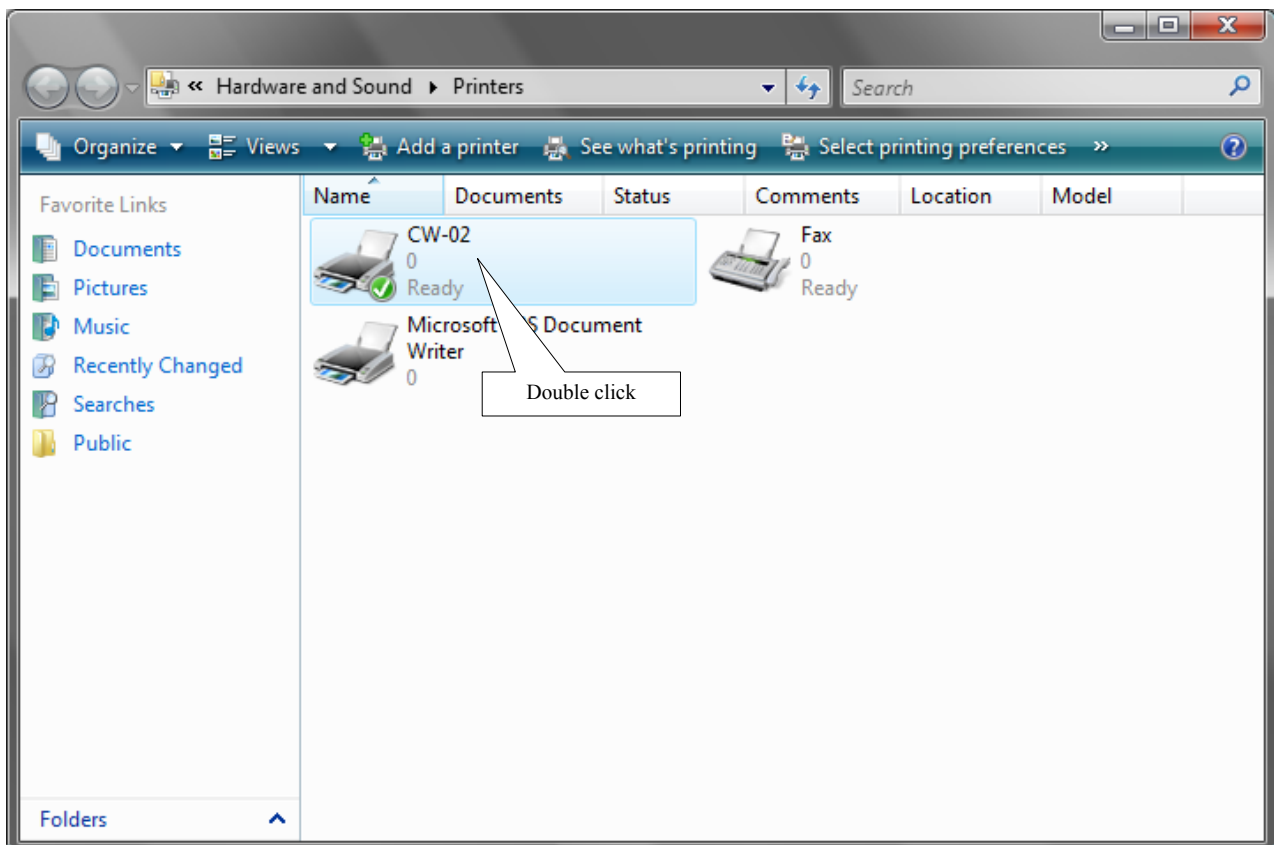
Original Image	Driver setting						
	Orientation setting	Paper setting					
		(5x3.5) (6x4) (6x4)x2		PR (3.5x5) PR (4x6) PR (4x6)x2		(5x7) (6x8) (6x9)	
		Generation image	Output image (direction ↓)	Generation image	Output image (direction ↓)	Generation image	Output image (direction ↓)
	Portrait						
	Landscape						
	Portrait						
	Landscape						

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Chapter 3 Updating the Driver

In order to update the printer-driver, follow the steps shown below.

1. Driver Removal

(1) Before removing the printer-driver, shut down all other applications. Also, double click the icon for the printer to be removed, and make sure there are no documents in the queue before you begin removal of the driver.

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(2) Select "Start"–"Control Panel", and click on "Printer" in the control panel. From the "Printer" window, select the CW-02 printer, display the pull-down menu with the right click, and click on "Delete".
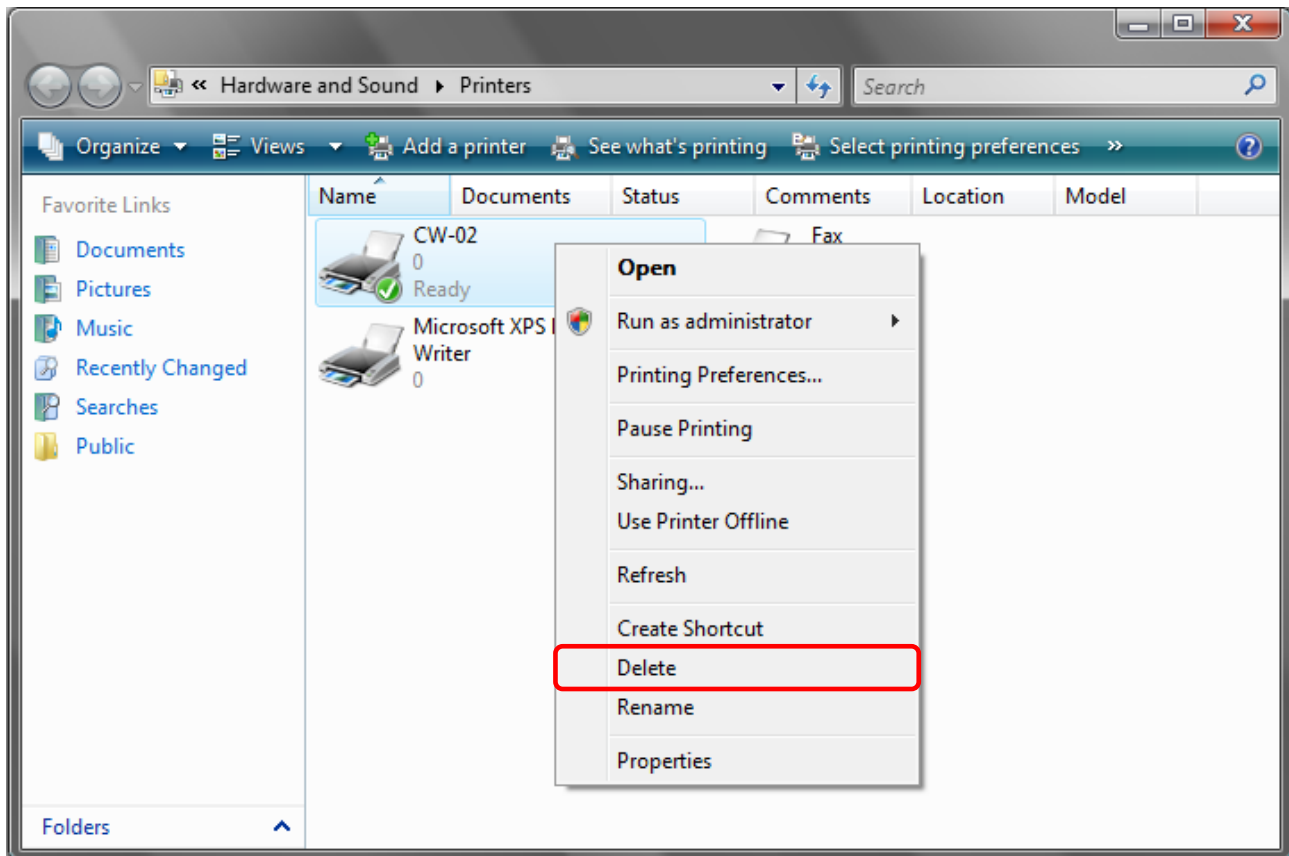

Fig 3.1   Printer window; CW-02 right-clicked menu

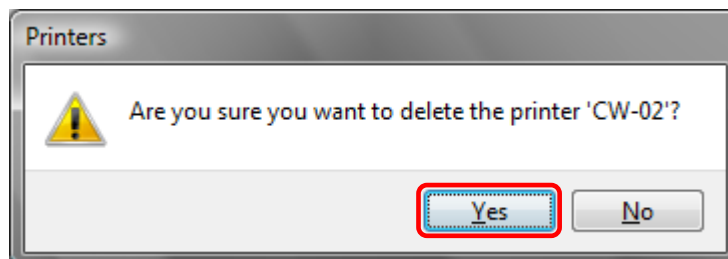(3) When "Are you sure you want to delete the printer `CW-02`?" appears, click on "Yes".

Fig 3.2   Delete Printer confirmation window

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(4) After the CW-02 has been deleted, right-click where there is no icon, and get the pull-down menu. In the pull-down menu, click on "Run as administrator"— "Server Properties".
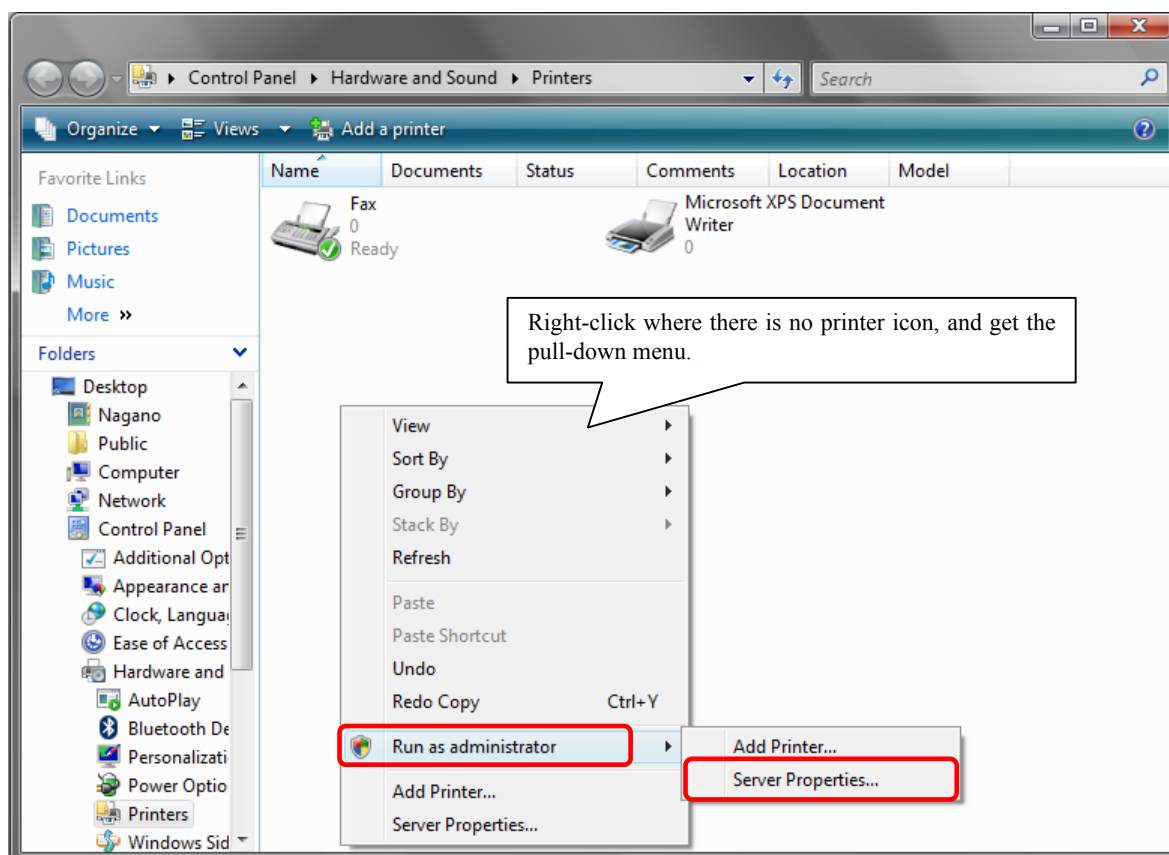

Fig 3.3　Pull-down menu opened by right-clicking on the Printer window

(5) After this, user account control will request confirmation with "Windows needs your permission to continue." Click on the "Continue" button.

(6) When the Print Server Properties window appears, click on the Drivers tab. From the list of installed printer drivers, select "CW-02", and click the "Remove" button.
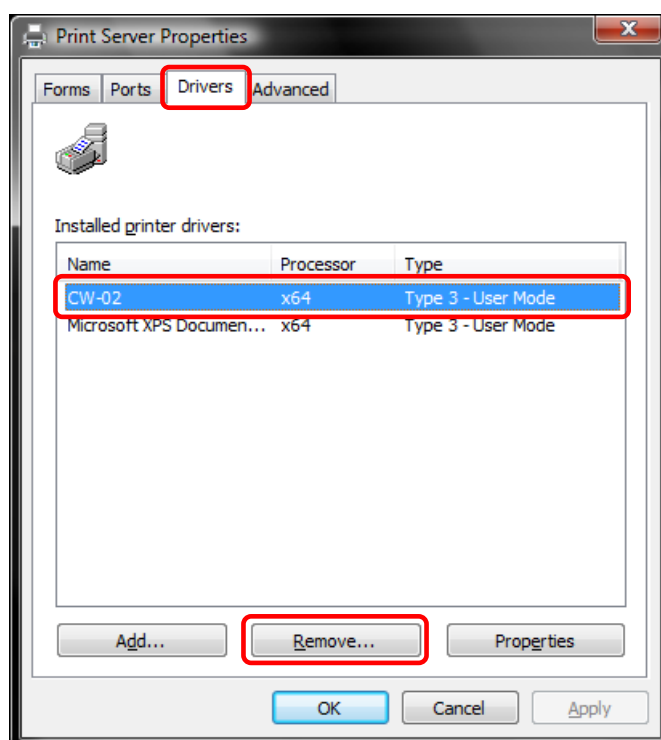

Fig 3.4　Print Server Properties window

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(7) When the Remove Driver and Package window appears, select "Remove driver and driver package", and click on the"OK" button.
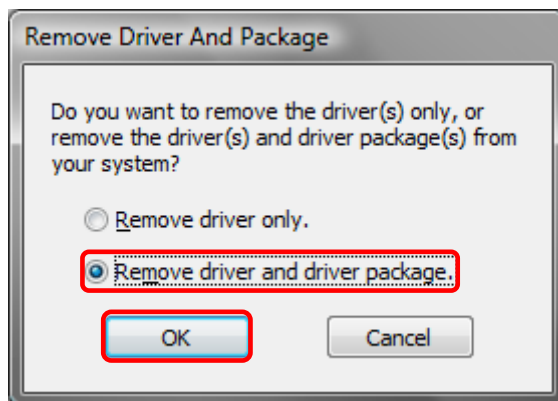

Fig 3.5　Remove Driver and Package window

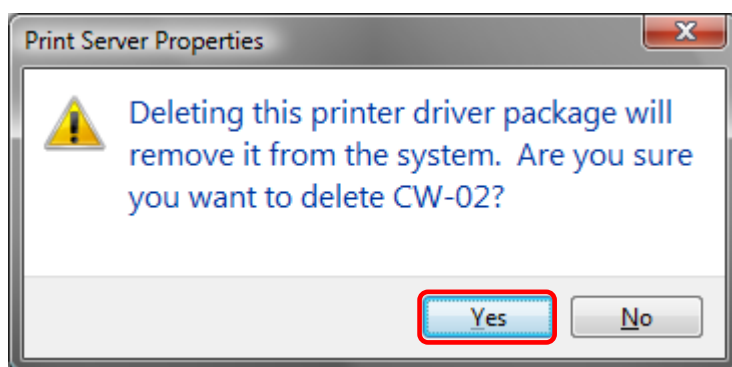(8) When the Print Server Properties confirmation window appears, click on the "Yes" button.

Fig 3.6　Print Server Properties confirmation window

(9) When the Remove Driver Package window appears, click on the "Delete" button.
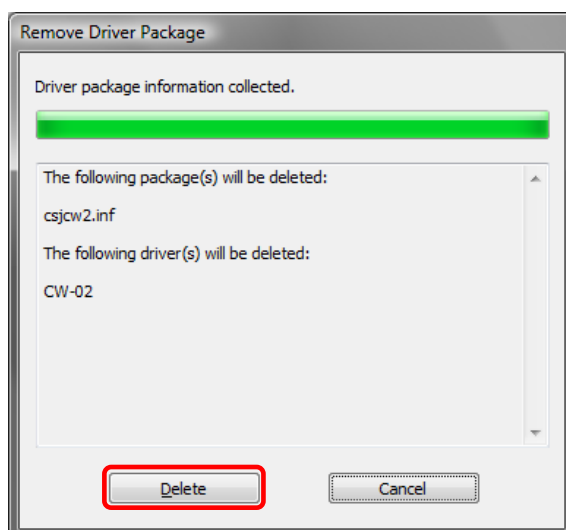

Fig 3.7　Remove Driver Package window

(10) When the Driver Package Deleted window appears, click on the "OK" button.
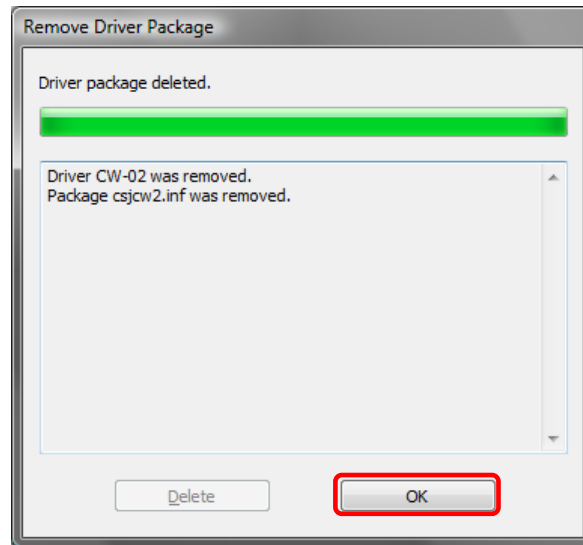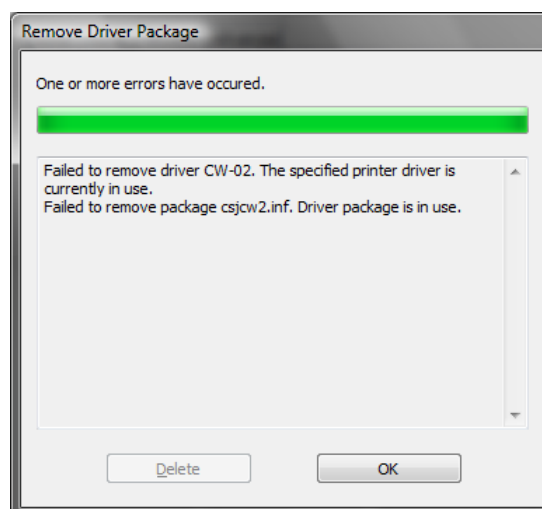

Fig 3.8   Driver Package Deleted window

Note) Before removing the printer-driver, if the following error message appears, please reboot the computer.   After the computer has been rebooted, repeat the steps to remove the printer-driver.

(11) Using the Print Server Properties window, confirm that "CW-02" has been removed, and click on the "Close" button. Now the removal of the printer driver is complete. After removal, reboot the computer.
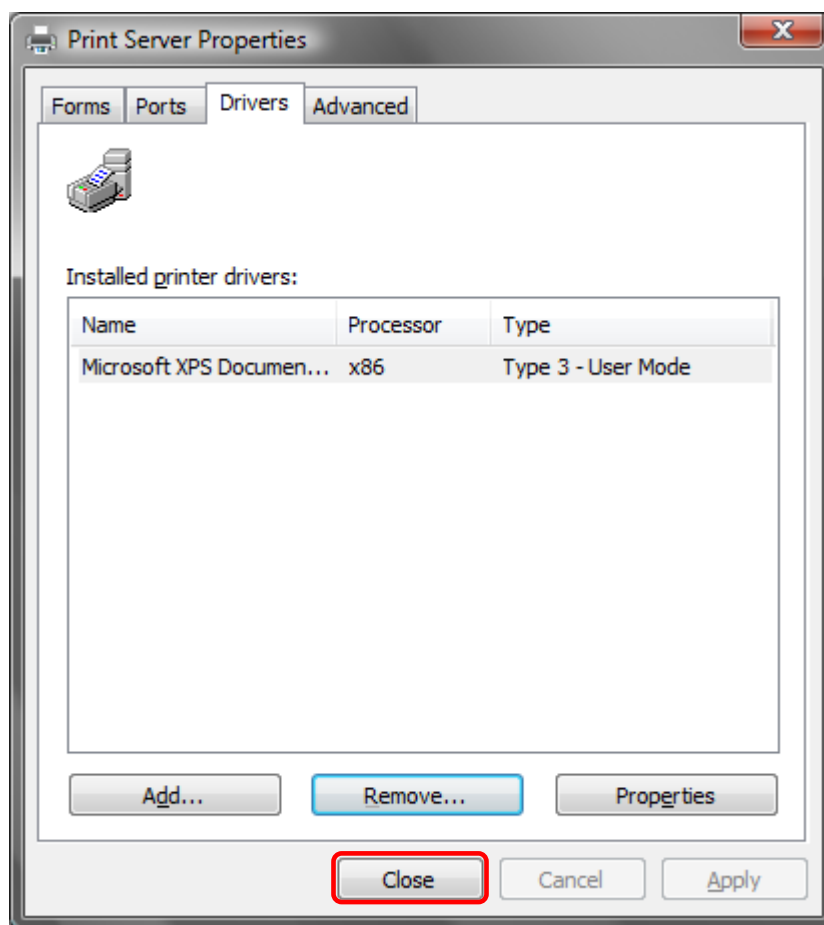

Fig 3.9 Print Server Properties window

2. Installing the printer-driver upgrade

After removing the printer and printer-driver, install the new printer-driver. For installation steps, please refer to Chapter 1 "Install".

3. Rebooting the computer

After installation of the printer-driver is complete, be sure to reboot the computer.
(Do not print immediately after installation. First reboot the computer.)

Chapter 4　　Driver Removal

For steps to remove the printer-driver, refer to Chapter3-1 "Driver Removal"