

Software Guide

Please read this guide before operating this equipment.
After you finish reading this guide, store it in a safe place for future reference.

LASER CLASS 310 Software Guide



About the Manuals for the Machine

The manuals for this machine are divided as follows. Please refer to them for detailed information.
The manuals supplied with optional equipment are included in the list below.



Guides with this symbol are book manuals.



Guides with this symbol are PDF manuals included on the accompanying CD-ROM. (See footnote.)

- **Setting up the Machine**
- **Installing the Printer Driver**

Starter Guide



- **Document and Paper Handling**
- **Sending and Receiving Faxes**
- **Speed Dialling**
- **Making Copies**
- **Maintenance**
- **Troubleshooting**
- **The Menu System**

Basic Guide



- **Installing the Printer Driver Software**
- **Printer Properties**
- **Troubleshooting Printer Driver Issues**

Software Guide (This Document)



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- To view the manual in PDF format, Adobe Reader/Acrobat Reader/Acrobat is required. If Adobe Reader/Acrobat Reader/Acrobat is not installed on your system, please download it from the Adobe Systems Incorporated website (<http://www.adobe.com>).
 - Considerable effort has been made to make sure that the manuals for the machine are free of inaccuracies and omissions. However, as we are constantly improving our products if you need an exact specification, please contact Canon.

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Preface

Thank you for purchasing the Canon LASER CLASS 310. Please read this manual thoroughly before operating the product in order to familiarize yourself with its capabilities, and to make the most of its many functions. After reading this manual, store it in a safe place for future reference.

How to Use This Manual

Symbols Used in This Manual

This manual uses the following symbols to indicate important safety precautions or useful information about using the machine.



IMPORTANT

Indicates operational requirements and restrictions. Be sure to read these items to avoid problems caused by incorrect operation.



NOTE

Indicates notes for operation or additional explanations. Reading these is highly recommended.

See the *Basic Guide*

Refer to the Basic Guide for details on the topic of the previous sentence.

machine


The word "machine" refers to Canon LASER CLASS 310.

default

A setting that remains in effect unless you change it.

Button Used in This Manual

A button or an item is referred to in [brackets] as follows in this manual.

- A button or an item on the screen [OK]
- Name of window or dialog box [Add Printer Wizard]
- A button on a toolbar  (Help)

Displays Used in This Manual

Screen shots of computer operation screens used in this manual may differ from the ones you actually see depending on the model or options that come with your machine.

Abbreviations Used in This Manual

In this manual, product names and model names are abbreviated as follows:

Microsoft® Windows® 98 operating system is referred to as Windows 98.

Microsoft® Windows® Millennium Edition operating system is referred to as Windows Me.

Microsoft® Windows® 2000 operating system is referred to as Windows 2000.

Microsoft® Windows® XP operating system is referred to as Windows XP.

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In this manual, Microsoft and Microsoft Windows are referred to as Microsoft and Windows respectively.

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Before You Start

1

CHAPTER

This chapter describes the system environments required for using CARPS (Canon Advanced Raster Printing System) software. It also explains where to find help and information regarding the installation and use of this software.



Introduction

Your new machine has many advanced features, including Canon Advanced Raster Printing System (CARPS).

CARPS gives users of Windows 98, Windows Me, Windows 2000, or Windows XP operating system the ability to make full use of the printer. It enables you to print documents from any Windows application to your machine.

CARPS is also referred to as the [Canon LC310/L390/L408S], as it appears on your screen after it has been installed.

You can acquire information about Canon products and update your software on the Canon home page (<http://www.cusa.canon.com>).

System Requirements

The printer driver for Windows 98/Me/2000/XP can be used in the following system environments.

■ **Operating System**

Windows 98, Windows Me, Windows 2000, or Windows XP

■ **Computer**

Any computer on which Windows 98, Windows Me, Windows 2000, or Windows XP runs properly.

■ **Hardware Requirement**

- IBM or IBM-compatible PC
- CD-ROM drive or network environment with the access to CD-ROM
- PC equipped with a USB port and the USB class driver installed

OS	CPU	RAM	Available free disk space
Windows 98	Intel Pentium® 90 MHz or greater	32 MB or greater**	115 MB or greater****
Windows Me	Intel Pentium® 150 MHz or greater	32 MB or greater**	115 MB or greater****
Windows 2000* Professional	Intel Pentium® 133 MHz or greater, or compatible micro processors (up to 2 processors are supported)	64 MB or greater***	500 MB or greater
Windows 2000* Server	Intel Pentium® 133 MHz or greater, or compatible micro processors (up to 4 processors are supported)	128 MB or greater	500 MB or greater
Windows XP*	Pentium® Family 300 MHz or greater	64 MB or greater***	500 MB or greater

* Log on as a user account with Administrators' rights is recommended.

**64 MB or greater is recommended.

***128 MB or greater is recommended.

****200 MB or greater is recommended.

Where to Find Help

Here is where to find help if you are having problems with installation, or in using your machine:

■ In This Guide

See "Printer Problems," on p. 4-2 for common problems.

■ In the Basic Guide

See Chapter 13, "Troubleshooting."

■ README.TXT File


The hints, limitations, and restrictions you need to be aware of when installing and using your printer drivers are included in the README.TXT file provided with the drivers.

■ Online Help

You can locate additional help for questions you may have regarding your printer in the online Help file provided with the driver software. In the [Properties] dialog box, you can click the [Help] button to display additional information about every feature and option in the printer drivers.

■ Context Sensitive Help

This Help displays the explanation of each item in the current dialog box. To get the Help, use one of the following procedures.

- Click the  (Help) button in the title bar of the dialog box → click the desired item.
- Right-click the desired item → select the [What's this?] box.
- Select the desired item → press [F1].

■ Canon Support Center

If the above Help does not provide the information you need, please contact the Canon Support Center at 1-800-828-4040 between the hours of 8:00 A.M. to 8:00 P.M. EST Monday through Friday and 10:00 A.M. to 8:00 P.M. on Saturday.

■ Self Help

For 24 hour interactive troubleshooting, e-mail technical support, the latest driver downloads and answers to frequently asked questions please visit the Canon Support site at www.canontechsupport.com.

Installing Printer Driver

2

CHAPTER

This chapter provides instructions for installing the printer driver to use the Canon LASER CLASS 310 as a local printer (connected directly to your computer). If you want to set the machine as a shared printer, continue the steps in "Setting the Machine as a Shared Printer," on p. 2-13. If the machine is already on your network and you want to start using it, proceed to "Using as a Shared Printer on Your Network," on p. 2-21.

Installing the Printer Driver on Your Computer

Canon Advanced Raster Printing System (CARPS) is the software that extends the power of the Windows operating system to a printer to speed up and simplify print jobs. CARPS provides more printing control under Windows applications.

This section provides installation procedures of CARPS to use the Canon LASER CLASS 310 as a local printer (connected directly to your computer).

Using User Software

If you install CARPS for the first time and your computer has no printer driver installed through a USB connection, follow the steps in "Installing Printer Driver through a USB Connection," on p. 2-2. If you update CARPS or change the port setting, follow the steps in "Installing Printer Driver without a USB Connection," on p. 2-7.

Installing Printer Driver through a USB Connection

The following is the installation procedure of the user software using a USB connection, under Windows 98/Me/2000/XP. The screen shots shown are from Windows 2000.

Before you install the software, make sure you do the following:

- Confirm the machine is not connected to your computer.
- Turn on the machine. (See the *Basic Guide*.)
- Quit any Windows applications that are running on your computer.



IMPORTANT

- Do not connect the USB cable to the port on your computer when you start the procedure. During the installation of the software, the installation program will prompt you when it is appropriate to connect the machine to your computer.
- If you are using Windows 2000/XP, be sure to log on as a member of Administrators. The full control access right for the printer is necessary for the installation of CARPS.

1

Place the CD-ROM into your CD-ROM drive.

The CD-ROM menu is displayed.



NOTE

If the LASER CLASS 310 CD-ROM Setup screen is not displayed, double-click [My Computer] on the Windows desktop. Open the CD-ROM icon, then double-click [MInst (Minst.exe)].

2

Click [Easy Installation] or [Custom Installaion].

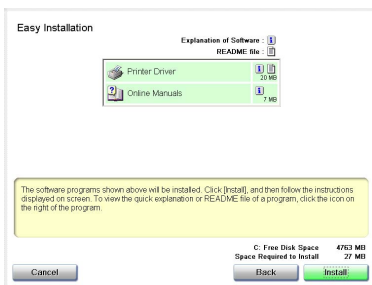


NOTE

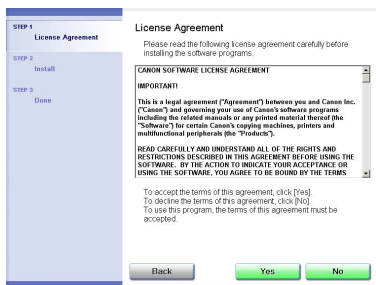
When you select [Easy Installation], Printer Driver and Online Manuals will be installed. If you do not want to install both items, select [Custom Installation], and select the item you want to install.

3

Click [Install].

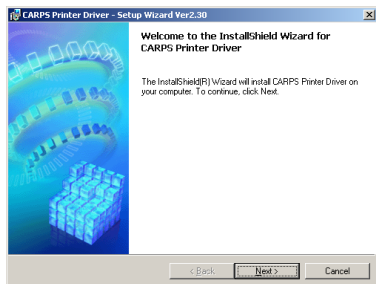
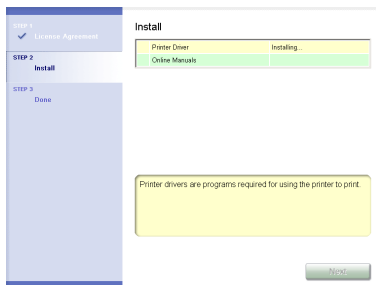


4 Read the contents of the [License Agreement] dialog box, and click [Yes].

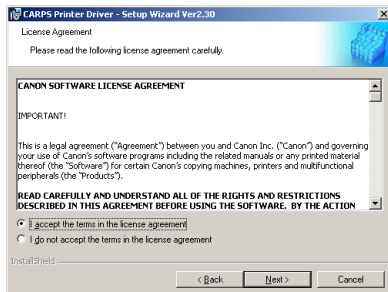


The Install screen appears.

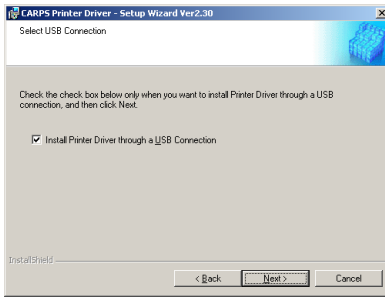
5 Click [Next] on the Setup Wizard dialog box.



6 After confirming the contents of the [License Agreement] dialog box, select [I accept the terms in the license agreement] → click [Next].



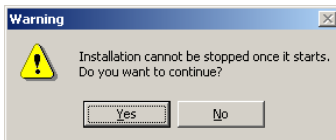
7 Confirm that [Install Printer Driver through a USB Connection] is selected → click [Next].



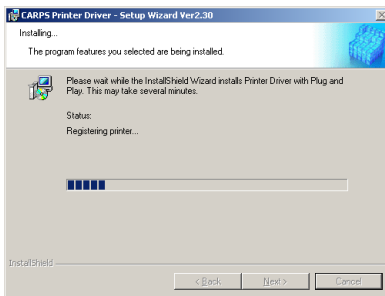
NOTE

A message recommending you to restart your computer may appear under some operating systems. In this case, continue installing after restarting your computer.

8 Click [Yes] to continue the installation through the USB connection.

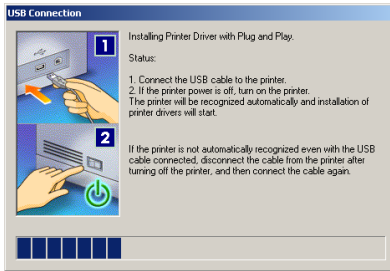


The installation starts.



The [USB Connection] dialog box appears.

9 Connect the machine to your computer with the USB cable.



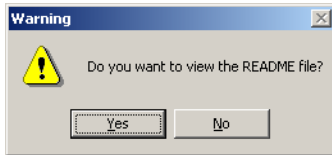
The printer driver is installed and the printer icon is added to the [Printers] folder.

IMPORTANT

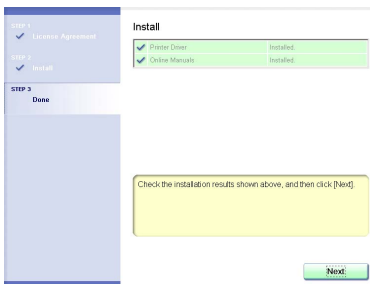
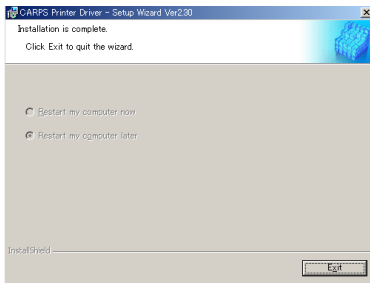
The USB cable must be connected to the port on your computer within 60 seconds after [Yes] in the [USB Connection] dialog box is clicked, otherwise the installation will not complete. For more information on connecting the USB cable, refer to the Basic Guide.

NOTE

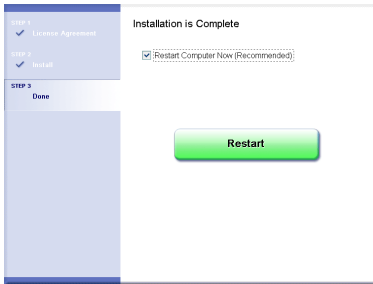
While the printer driver is being installed, the message asking you if you want to view the README file or not appears. If you want to view the README file now, click [Yes]. If not, click [No].



10 click [Exit] → click [Next].



Installation is complete.

11 Check [Restart Computer Now (Recommended)], and click [Restart].

You can restart the computer later. In this case, clear [Restart Computer Now (Recommended)] and click [Exit].

Installing Printer Driver without a USB Connection

The following is the installation procedure of the user software without using a USB connection, under Windows 98/Me/2000/XP. The screen shots shown are from Windows 2000.

Before you install the software, make sure you do the following:

- Connect the machine to your computer. (See the *Basic Guide*.)
- Turn on the machine. (See the *Basic Guide*.)
- If any Windows application is running on your computer, quit it.



IMPORTANT

- If your computer has no printer driver installed through a USB connection, follow the steps in "Installing Printer Driver through a USB Connection," on p. 2-2 first, then continue this procedure.
- If Plug and Play is automatically carried out and the [Found New Hardware Wizard] dialog box appears, click [Cancel] to follow the procedure below.
- If the machine has no power supplied when the installation starts, the installation may not complete successfully.
- If you are using Windows 2000/XP, be sure to log on as a member of Administrators. The full control access right for the printer is necessary for the installation of CARPS.

1

Place the CD-ROM into your CD-ROM drive.

The CD-ROM menu is displayed.



NOTE

If the LASER CLASS 310 CD-ROM Setup screen is not displayed, double-click [My Computer] on the Windows desktop. Open the CD-ROM icon, then double-click [Minst (Minst.exe)].

2

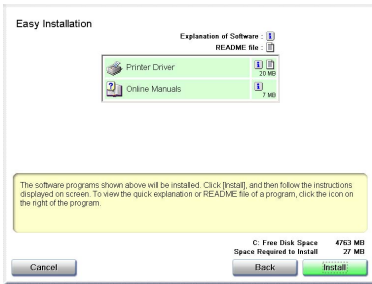
Click [Easy Installation] or [Custom Installation].



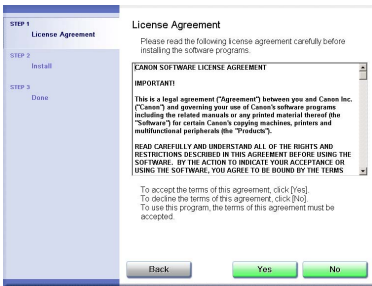
NOTE

When you select [Easy Installation], Printer Driver and Online Manuals will be installed. If you do not want to install both items, select [Custom Installation], and select the item you want to install.

3 Click [Install].

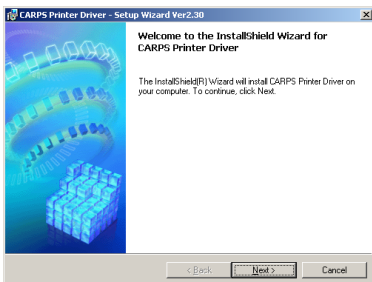
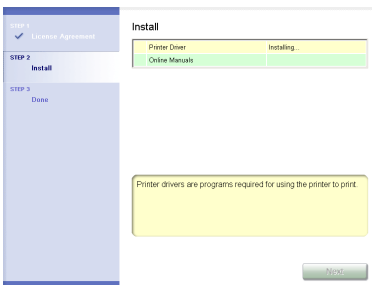


4 Read the contents of the [License Agreement] dialog box, and click [Yes].

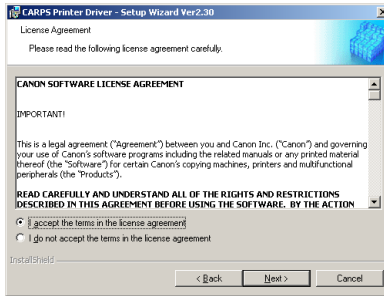


The Install screen appears.

5 Click [Next] on the Setup Wizard dialog box.



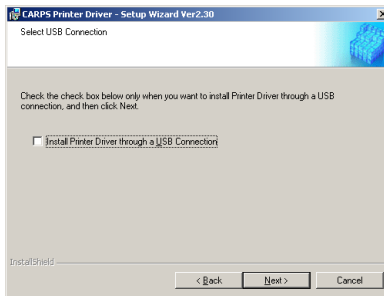
- 6** After confirming the contents of the [License Agreement] dialog box, select [I accept the terms in the license agreement] → click [Next].



NOTE

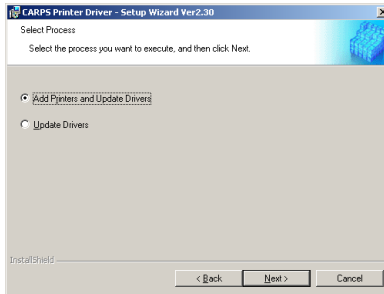
A message recommending you to restart your computer may appear under some operating systems. In this case, continue installing after restarting your computer.

- 7** Clear [Install Printer Driver through a USB Connection] → click [Next].



NOTE

If the same printer driver has already been installed, the dialog box asking you to select the installation process is displayed. In such a case, select [Add Printer and Update Drivers] → click [Next].



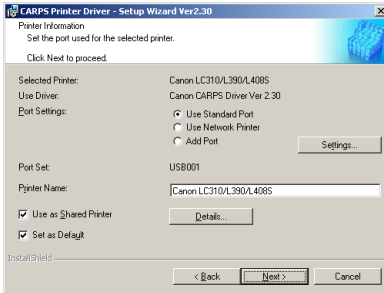
8 Configure the port settings.

1. Select [Use Standard Port], [Use Network Printer] or [Add Port] → click [Settings].
2. In the [Port Settings] dialog box, select the port you want to use → click [OK].
3. Enter the name of the printer in [Printer Name], or accept the default name.
4. Select [Use as Shared Printer] if you want to use the printer as the shared printer (only for Windows 2000/XP).

- **If you select [Use as Shared Printer]:**

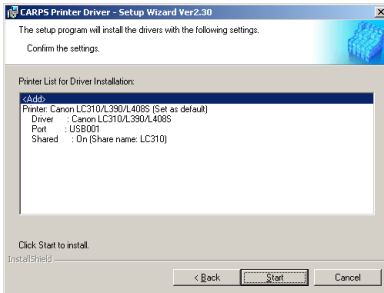
- Click [Details].
- In the [Detailed Settings for Shared Printer] dialog box, enter a share name you want to use.
- Click [OK].

5. Select [Set as Default] if you want to use the printer as the default printer.

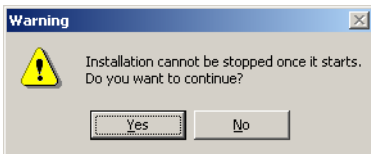


9 Click [Next].

10 Confirm the contents of the [Printer List for Driver Installation] list box → click [Start].

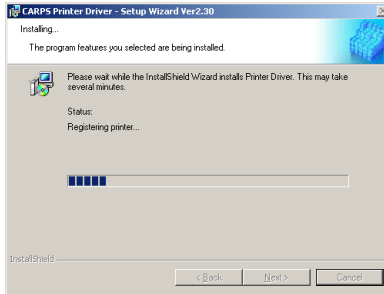


The confirmation message dialog box appears.



11 Click [Yes] to continue the installation.

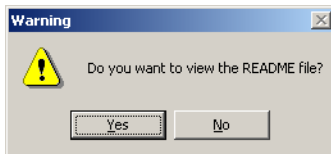
The installation starts.



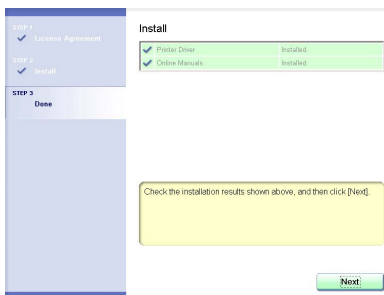
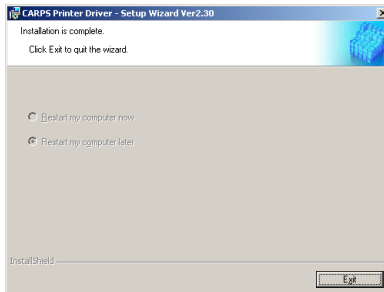
The printer driver is installed and the printer icon is added to the [Printers] folder.

NOTE

While the printer driver is being installed, the message asking you if you want to view the README file or not appears. If you want to view the README file now, click [Yes]. If not, click [No].

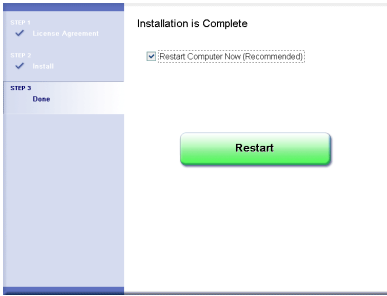


12 Click [Exit] → click [Next].



Installation is complete.

13 Check [Restart Computer Now (Recommended)], and click [Restart].



You can restart the computer later. In this case, clear [Restart Computer Now (Recommended)] and click [Exit].

Using the Machine on Your Network

This section provides instructions for using the LASER CLASS 310 on your network.

By setting your machine as a shared printer on your network, the network users can share the machine for printing. The print server and clients do not need to use the same operating system, and it is possible to print from a Windows 98/Me client to a Windows 2000/XP print server, or vice versa.

You can start printing simply by starting the server, even if the server was not running when the client was started.

If the server is running on Windows 2000/XP, you can print even if no one is logged into the server.

Setting the Machine as a Shared Printer

If you plan to share your Canon LASER CLASS 310 on a network, install the print server locally, then make the following settings. For more information, see your print server system documentation.

Windows 98/Me Server Settings

The following is the procedure to make your machine available to your network users, under Windows 98/Me. The screen shots shown are from Windows 98.

■ Adding Server Service

- 1 From the [Start] menu, select [Settings] → [Control Panel].

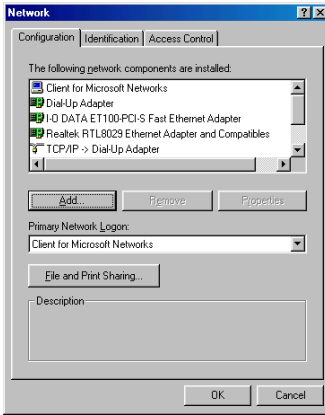
The [Control Panel] folder appears.



2 Double-click the [Network] icon.

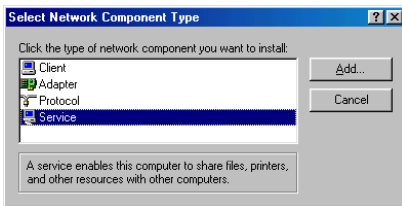
The [Network] dialog box appears.

3 Click [Add] in the [Configuration] tab sheet.



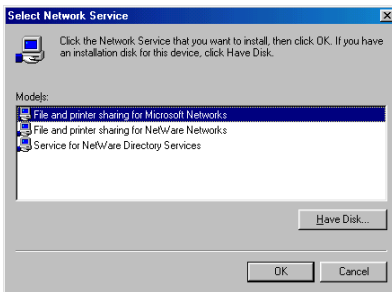
The [Select Network Component Type] dialog box appears.

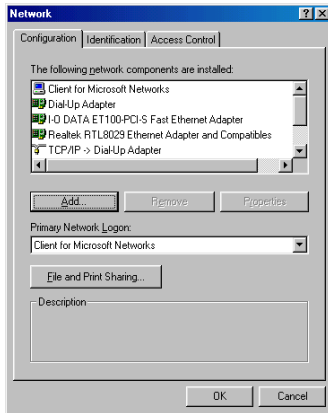
4 Select [Service] → click [Add].



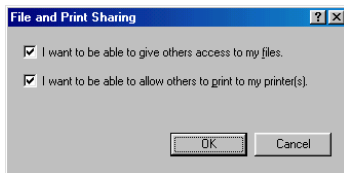
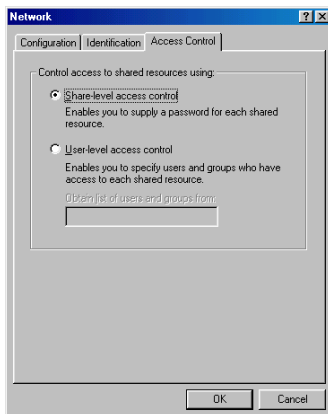
The [Select Network Service] dialog box appears.

5 Select [File and printer sharing for Microsoft Networks] → click [OK].



6 Click [File and Print Sharing].

The [File and Print Sharing] dialog box appears.

7 Select [I want to be able to allow others to print to my printer(s)] → click [OK].**8** Select the [Access Control] tab sheet → click either [Share-level access control] or [User-level access control].**9** Click [OK].

The server service is added.

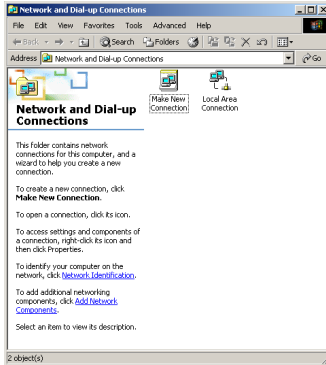
Windows 2000/XP Server Settings

The following is the procedure to make your machine available to your network users, under Windows 2000/XP.

■ Adding Server Service (Windows 2000)

1 From the [Start] menu, select [Settings] → [Network and Dial-up Connections].

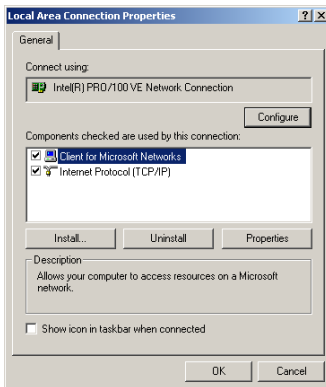
The [Network and Dial-up Connections] folder appears.



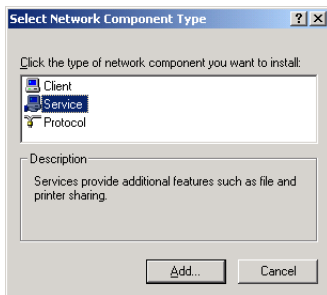
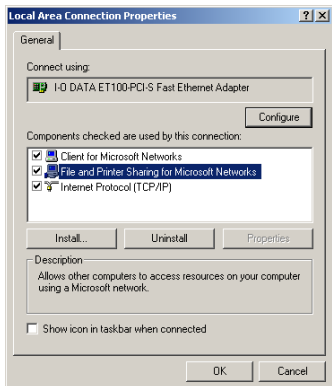
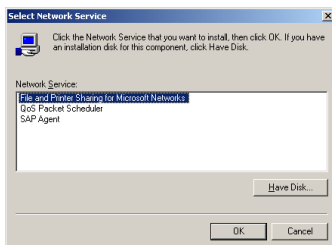
2 Right-click the [Local Area Connection] icon → select [Properties] from the pop-up menu.

The [Local Area Connection Properties] dialog box appears.

3 Click [Install].



The [Select Network Component Type] dialog box appears.

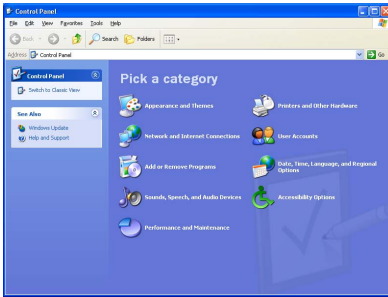
4 Click [Service] → click [Add].**5** Select [File and Printer Sharing for Microsoft Networks] → click [OK].

The server service is added.

■ Adding Server Service (Windows XP)

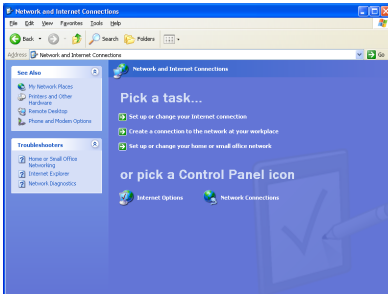
1 From the [Start] menu, select [Control Panel].

The [Control Panel] folder appears.



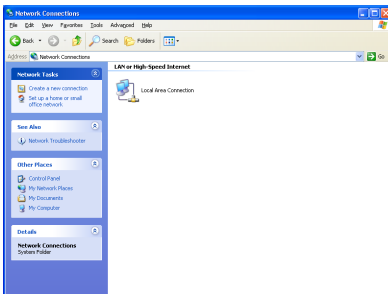
2 Click [Network and Internet Connections].

The [Network and Internet Connections] folder appears.



3 Click [Network Connections].

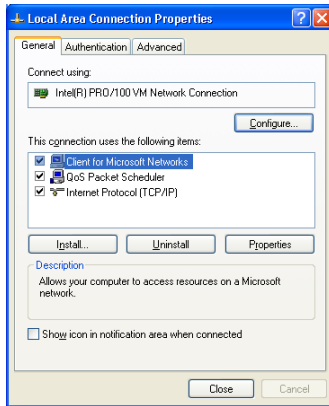
The [Network Connections] folder appears.



- 4 Right-click the [Local Area Connection] icon → select [Properties] from the pop-up menu.

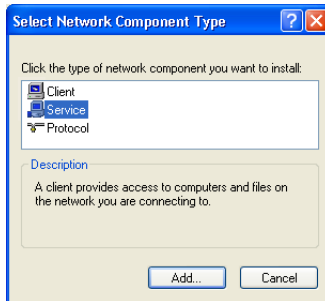
The [Local Area Connection Properties] dialog box appears.

- 5 Click [Install].

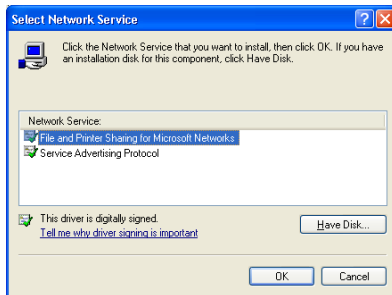


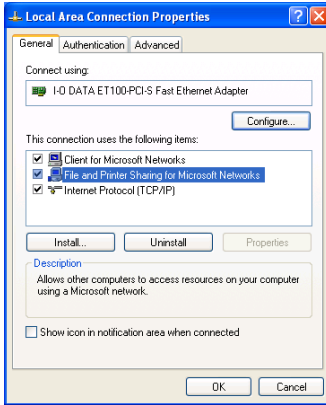
The [Select Network Component Type] dialog box appears.

- 6 Click [Service] → click [Add].



- 7 Select [File and Printer Sharing for Microsoft Networks] → click [OK].

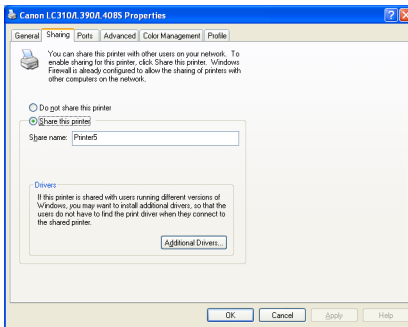




The server service is added.

■ Setting Printer Sharing

- 1 Open the [Canon LC310/L390/L408S Properties] dialog box → select [Share this printer] in the [Sharing] tab.



NOTE

For instructions on how to open the [Canon LC310/L390/L408S Properties] dialog box, see p. 3-18.

- 2 Enter the share name as needed.



NOTE

Do not enter space or special character in [Share name].

- 3 Click [OK].

The printer icon changes to indicate sharing.



NOTE

Sharing settings may also be made during installation.

Using as a Shared Printer on Your Network

When the Canon LASER CLASS 310 is already on your network and set as a shared printer, you can use it via the network. The easiest way to make the machine available for your computer is using network download. If your operating system is Windows 2000/XP, you cannot download the driver from Windows 98/Me servers. In that case, use [Add Printer Wizard].

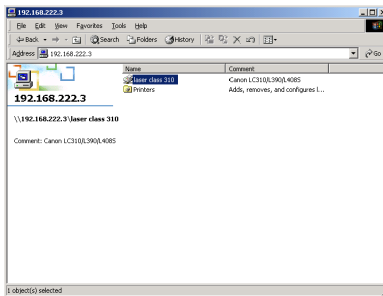
Network Download

The following is the procedure to connect to the shared printer on your network using network download.

NOTE

Windows 2000/XP clients cannot download the driver from Windows 98/Me servers.

- 1 Open Explorer → browse the network until you can see the [Canon LC310/L390/L408S] (or its corresponding) printer icon.



- 2 Double-click the printer icon, or drag the printer icon to your [Printers] (in Windows XP, [Printers and Faxes]) folder. The [Add Printer Wizard] dialog box appears.



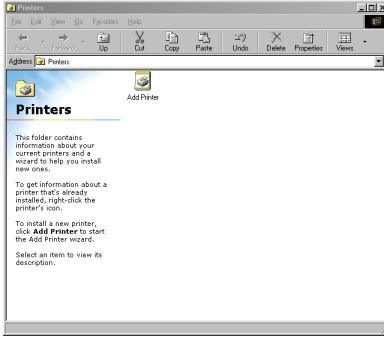
- 3 Follow the instructions on screen to complete the installation.

Windows 98/Me Add Printer Wizard

The following is the procedure to connect to the shared printer on your network using Windows 98/Me [Add Printer Wizard]. The screen shots shown are from Windows 98.

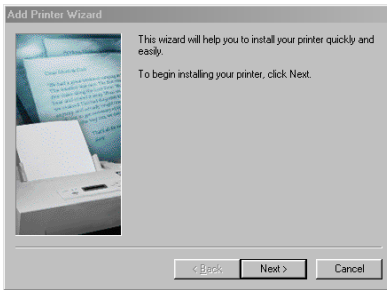
- 1 From the [Start] menu, select [Settings] → click [Printers].

The [Printers] folder appears.

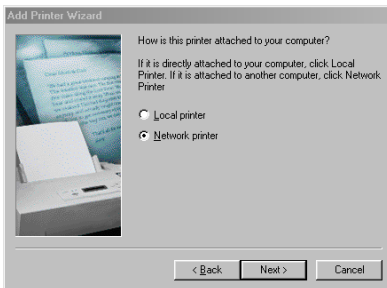


- 2 Double-click the [Add Printer] icon.

The [Add Printer Wizard] dialog box appears → click [Next].



- 3 Select [Network printer] → click [Next].

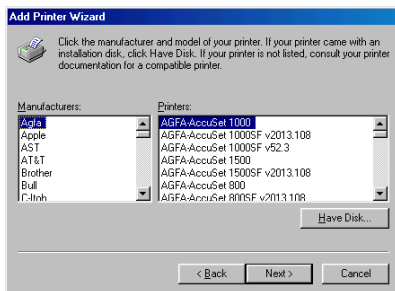


4 Enter the network path or print queue that you want to connect to, or use [Browse] to select the printer → click [Next].

NOTE

- Depending on your network environment, the installation of the driver may be carried out automatically. In this case you need not perform steps 5 through 7 below.
- When using a Windows 2000 or XP system logged on to a Workgroup instead of a Domain as a Server PC to share the printer, printing from a Client PC may not work correctly. If you experience this problem, you should either log on to a Domain, or setup an account on the Server PC for each user in the Workgroup that will print from a Client PC.

5 Click [Have Disk].



The [Install From Disk] dialog box appears.

6 Use [Browse] to select the directory that contains the CARPS software → click [OK].



You can also enter the path name directly in the edit box.

7 Enter the name of the printer you want to use → click [Next].

If you accept the default name, leave the edit box as it is → click [Next].

NOTE

- This step is only for Windows 98/Me.
- If the connection fails, you will be able to install the printer but you will not be able to use the printer until it comes back online.

8 Follow the instructions on screen to complete the installation.

Windows 2000/XP Add Printer Wizard

The following is the procedure to connect to the shared printer on your network using Windows 2000/XP.



IMPORTANT

Be sure that you have logged on as a member of Administrators. The full control access right for the printer is necessary for the installation of CARPS.

1 From the [Start] menu, select [Settings] → click [Printers] (in Windows XP, select [Printers and Faxes] from [Start] menu).

The [Printers] (in Windows XP, [Printers and Faxes]) folder appears.

2 Double-click the [Add Printer] icon (in Windows XP, click [Add a printer] in [Printer Tasks]).

The [Add Printer Wizard] dialog box appears. → click [Next].

3 Select [Network printer] (in Windows XP, select [A network printer, or a printer attached to another computer]) → click [Next].

The [Locate Your Printer] (in Windows XP, [Specify a Printer]) dialog box appears.

4 Enter the name of the printer you want to connect to → click [Next].

If you do not know the name of the printer, click [Next] without entering the name to proceed to the [Browse for Printer] dialog box. In this dialog box, select the printer → click [Next].



NOTE

- If the printer name is invalid, it means the client cannot connect to the shared printer.
- If a suitable driver is not found, it probably means the server is a Windows 98/Me computer.

5 Follow the instructions on screen to complete the installation.

3

CHAPTER

Printer Properties

This chapter describes the settings for the printer properties.

Windows 98/Me Properties

With CARPS, you initiate printing as you normally would from a Windows application. If you want to view or change the print options, access the properties dialog box of CARPS. You can access the [Canon LC310/L390/L408S Properties] dialog box both from the application's [Print] dialog box and the [Printers] folder.

To access the dialog box, follow the procedure below.

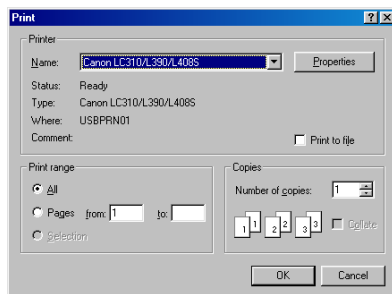
NOTE

- The number of tabs displayed in the [Canon LC310/L390/L408S Properties] dialog box will vary, depending on the type of operating system you are using and the method you use to access the dialog box.
- The method you use to access the dialog boxes determines how long the printing options remain in effect:
 - If you access the dialog box from an application's [Print] dialog box, your selected printing options apply only to the current print job. They will not be stored when you close the application.
 - If you access the dialog box from the [Printers] folder, selected printing options apply to all Windows applications and remain in effect until you change those settings.

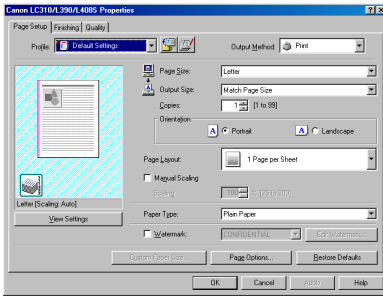
■ From a Windows Application

1 From the [File] menu of the application, select [Print].

The [Print] dialog box appears.



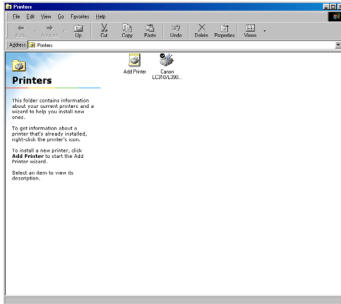
2 Click [Properties].



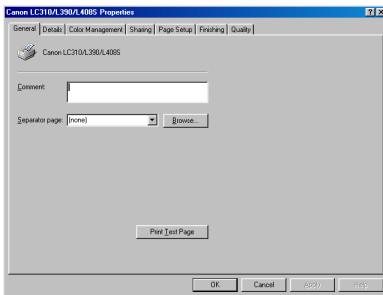
■ From the [Printers] folder

1 From the [Start] menu, select [Settings] → [Printers].

The [Printers] folder appears.



2 Select the corresponding printer icon → select [File] → [Properties].



You can also open the [Canon LC310/L390/L408S Properties] dialog box by right-clicking the [corresponding printer icon] and selecting [Properties] from the pop-up menu.

The [Canon LC310/L390/L408S Properties] dialog box appears.

The [Canon LC310/L390/L408S Properties] dialog box contains several tab sheets that enable you to set up the printer configuration and configure the print setting. The following is the description of each tab sheet.

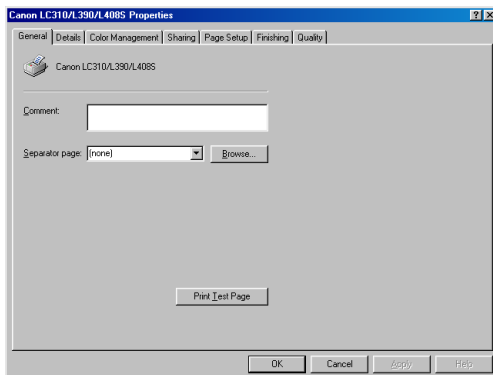


NOTE

- The screen shots shown are from Windows 98.
- For more information about the following features, see the online Help (see p. 1-3).

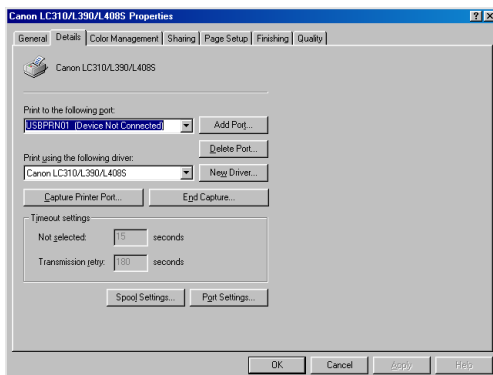
General Tab

Lets you print a test page or define separator pages. Refer to your Windows operating system documentation for more information.



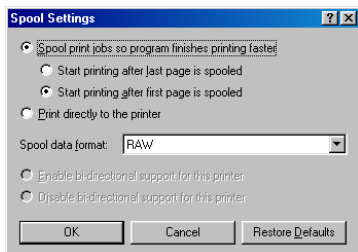
Details Tab

Specifies the printer port and time-out settings. Refer to your Windows operating system documentation for more information.



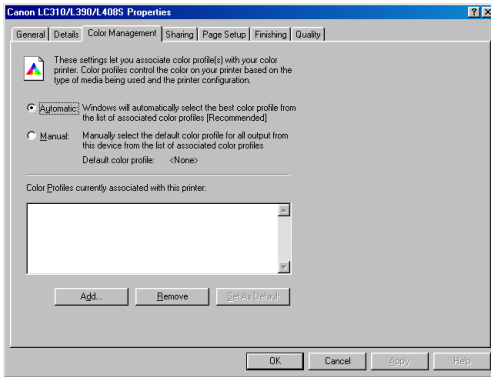
■ Spool Settings

The installer sets the following defaults.



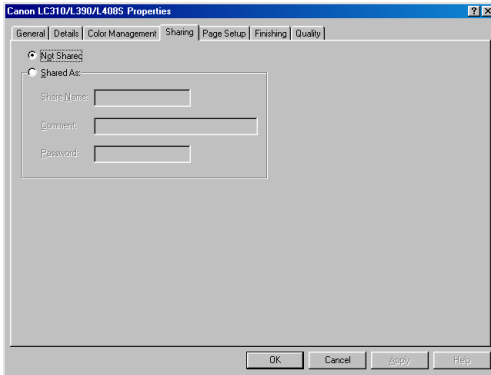
Color Management Tab

Associates color profiles with your color printer. Refer to your Windows operating system documentation for more information.



Sharing Tab

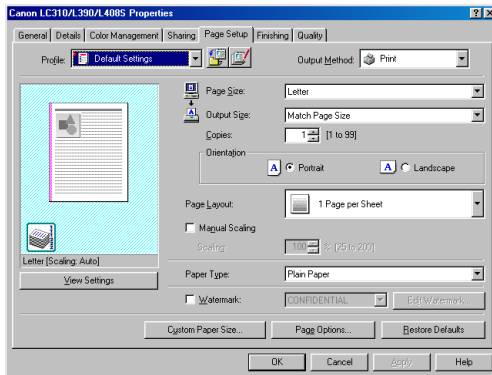
Specifies the printer sharing settings. This tab sheet is available only when the printer sharing is enabled (see p. 2-13). Refer to your Windows operating system documentation for more information.



Page Setup Tab

Specifies the page settings including the page size, scaling, number of copies, orientation, and number of pages per sheet.

For information on [Profile], refer to “Profiles,” on p. 3-14.



Preview image

Displays the image with the currently selected settings reflected. For details on preview image, see p. 3-14.

[Page Size]

Selects the original page size to work with in an application. Available options are: [Letter], [11x17], [Legal], [Executive], [A5], [B5], [A4], [B4], [A3], [Envelope Monarch], [Envelope COM10], [Envelope DL], [Envelope C5], and [Custom].

[Output Size]

Selects the output paper size to print on. When this option is set to anything other than [Match Page Size], the original page size is automatically reduced or enlarged to fit the selected output paper size when printed. However, when [11x17], [B4] or [A3] is selected in the [Page Size], the original page size is automatically reduced to fit [Letter] size.

NOTE

Up to 50 sizes can be defined for [Custom Paper Size] with the [Custom Paper Size Settings] option (see p. 3-8).

[Copies]

Specifies the number of copies to be printed (1 to 99).

[Orientation]

Selects the direction of printing relative to the paper ([Portrait] or [Landscape]).

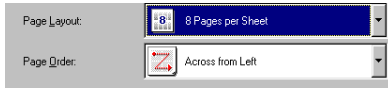
[Page Layout]

Selects the number (1, 2, 4, 6, 8, 9 or 16) of original pages per sheet or [Poster] (2 x 2, 3 x 3 or 4 x 4 pages to comprise one sheet). When this option is set to anything other than [1 Page per Sheet] and [Poster], the original page size is reduced to fit the selected page layout when printed.

NOTE

- When [Poster] is selected, [Manual Scaling], [Watermark] and [Page Options] are disabled.
- When [1 Page per Sheet] is selected, [Manual Scaling] appears. When this option is set to anything other than [1 Page per Sheet], [Manual Scaling] disappears and [Page Order] appears in its place.

- [Manual Scaling]** Reduces or enlarges the original page size. Selecting this check box enables the edit box on the right side to specify the magnification factor (25 to 200%).
- [Page Order]** Selects the order in which original pages are placed on each sheet of the output paper when more than one page is printed per sheet.



- [Paper Type]** Selects the paper type to print. Available paper types are as follows:
- Plain paper (17 to 24 lb (64 to 90 g/m²))
 - Plain Paper L
 - Heavy Paper
 - Heavy Paper H
 - Transparency

**NOTE**

If you select [Envelope Monarch], [Envelope COM10], [Envelope DL], or [Envelope C5] as [Output Size], [Paper Type] is automatically set to [Envelope].

- [Watermark]** Inserts the selected watermark to be printed on each page. 8 types of watermark are available as default:
- CONFIDENTIAL
 - COPY
 - DRAFT
 - FILE COPY
 - FINAL
 - PRELIMINARY
 - PROOF
 - TOP SECRET
- Selecting this check box enables [Edit Watermark] to add a watermark.

**NOTE**

This option is disabled when [Page Layout] is set to [Poster].

- [Edit Watermark]** Opens the [Edit Watermark] dialog box (see p. 3-7).
- [Custom Paper Size]** Opens the [Custom Paper Size Settings] dialog box (see p. 3-8).
- [Page Options]** Opens the [Page Options] dialog box (see p. 3-9).

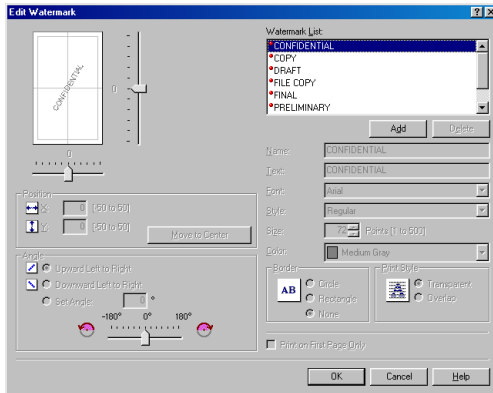
**NOTE**

This option is disabled when [Page Layout] is set to [Poster].

- [Restore Defaults]** Resets all the current settings to their default values.

■ Edit Watermark

Clicking [Edit Watermark] in the [Page Setup] tab sheet opens the [Edit Watermark] dialog box. This dialog box enables you to insert a text string as a watermark onto pages. This option is enabled only when the [Watermark] check box is selected in the [Page Setup] tab sheet (see p. 3-5).



[Watermark List]

Displays the names of registered watermarks. The preview image in the upper left part of the dialog box displays the selected watermark with the specified settings reflected.

[Add]

Registers a new watermark. Clicking this button adds a blank name field in [Watermark List] in which you enter the name of watermark to be registered. Up to 50 watermarks can be registered.

[Delete]

Removes the selected watermark from [Watermark List].

[Position]

Specifies the position where the watermark is printed on each page. You can enter the values in the [X] and [Y] edit boxes (in a range between -50 and 50), or use the X and Y slide bars to move the position.

[Move to Center]

Relocates the watermark to the page center.

[Angle]

Specifies the angle of watermark. You can select the corresponding radio button, or use the slide bar to move the angle.

[Name]

Displays the name of the currently selected watermark.

[Text]

Displays the text string of the currently selected watermark.

[Font]

Selects the font type of the watermark.

[Style]

Selects the font style of the watermark. Available styles are [Regular], [Italic], [Bold] and [Bold Italic].

[Size]

Specifies the font size of the watermark (1 to 500).

[Color]

Selects the font color of the watermark.

[Border]

Adds the frame to the watermark. You can select the frame type ([Circle], [Rectangle], or [None]).

[Print Style]

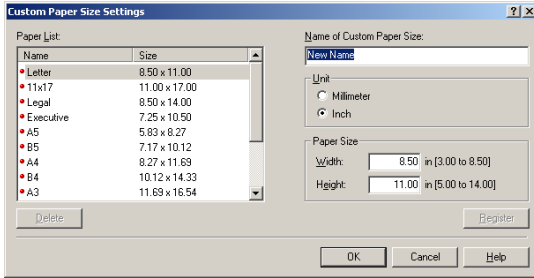
Selects the type of watermark ([Transparent] or [Overlap]).

[Print on First Page Only]

Prints the selected watermark only on the first page of the document.

■ Custom Paper Size Settings

Clicking [Custom Paper Size] in the [Page Setup] tab sheet opens the [Custom Paper Size Settings] dialog box. This dialog box enables you to define custom paper sizes for quick selection and register new custom paper sizes to the [Paper List] box. You can specify the name, width, and height of each size. Up to 50 custom paper sizes can be defined.



NOTE

You cannot register new custom paper sizes when the [Canon LC310/L390/L408S Properties] dialog box is opened from a Windows application. To register the custom paper size, follow the steps in "From the [Printers] folder," on p. 3-2 and perform the procedure above.

[Paper List] Displays the paper sizes actually available. Selects a paper size from which you can create a custom paper size.

[Name of Custom Paper Size] Specifies the name of custom paper.

[Unit] Selects the unit of measurement of paper size ([Millimeter] or [Inch]).

[Paper Size] Specifies the width and height of the custom paper.

NOTE

Be sure that [Width] does not exceed [Height] when specifying the values.

[Register] Registers the custom paper and adds its name to [Paper List].

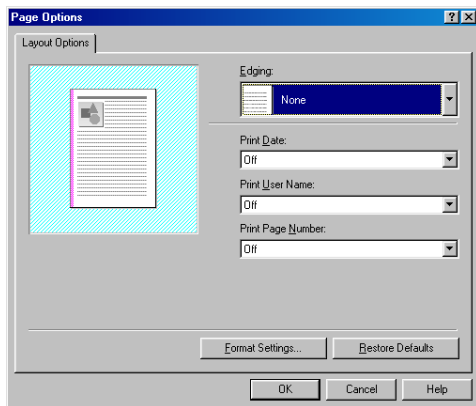
[Delete] Removes the selected custom paper from [Paper List].

NOTE

You cannot delete a pre-defined paper size.

■ Page Options

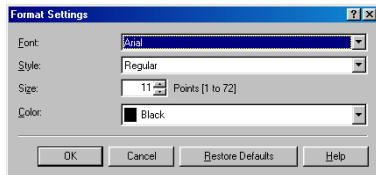
Clicking [Page Options] in the [Page Setup] tab sheet opens the [Page Options] dialog box. This dialog box enables you to print pages with a page frame, header, and footer. This option is disabled when [Page Layout] in the [Page Setup] tab sheet is set to [Poster] (see p. 3-5).



[Edging]	Adds a page frame to be printed on each page. 11 options are available.
[Print Date]	Selects if the date is printed on each page or not. Six positions to print the date are available.
[Print User Name]	Selects if the user name is printed on each page or not. Six positions to print the user name are available.
[Print Page Number]	Selects if the page number is printed on each page or not. Six positions to print the page number are available.
[Format Settings]	Opens the [Format Settings] dialog box (see p. 3-9).
[Restore Defaults]	Resets all the current settings to their default values.

■ Format Settings

Clicking [Format Settings] in the [Page Options] dialog box opens the [Format Settings] dialog box. This dialog box allows you to set the default font type, style, size, and color, or reset to the factory default font settings.

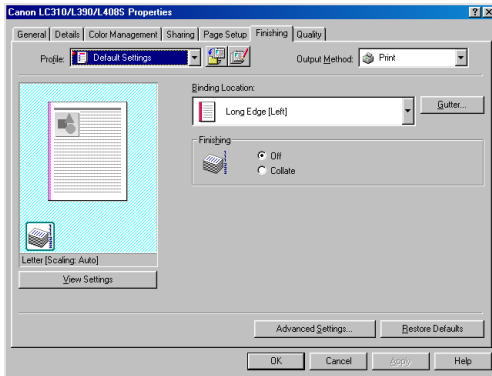


[Font]	Allows you to select the font for date, user name, and page number. Selection is limited to TrueType fonts.
[Style]	Allows you to select the style for the font. You can select Regular, Italic, Bold, or Bold Italic.
[Size]	Allows you to select the font size for date, user name, and page number.
[Color]	Allows you to select the color for date, user name, and page number.

Finishing Tab

Specifies the finishing settings for the printed pages including the collating and binding.

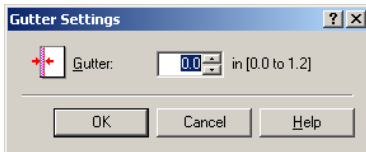
For information on [Profile], refer to “Profiles,” on p. 3-14.



- [Binding Location]** Selects a binding location for the printed pages.
- [Gutter]** Opens the [Gutter Settings] dialog box (see p. 3-10).
- [Finishing]** Selects if the printed pages are sorted by copy or not.
- [Advanced Settings]** Opens the [Advanced Settings] dialog box (see p. 3-10).
- [Restore Defaults]** Resets all the current settings to their default values.

■ Gutter Settings

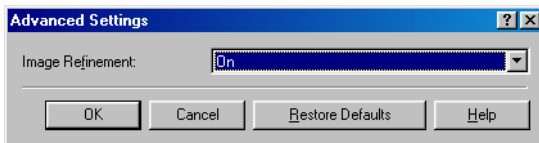
Clicking [Gutter] in the [Finishing] tab sheet opens the [Gutter Settings] dialog box.



- [Gutter]** Specifies the gutter width in a range between 0.0 and 1.2 inches.

■ Advanced Settings

Clicking [Advanced Settings] in the [Finishing] tab sheet opens the [Advanced Settings] dialog box.

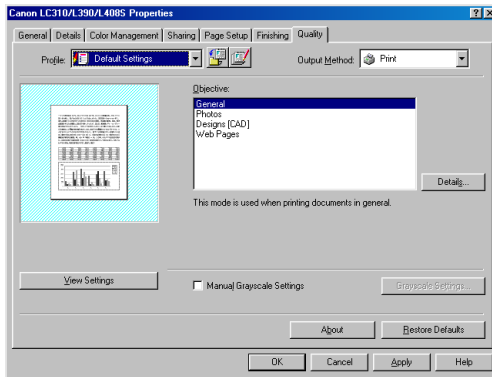


- [Image Refinement]** Sets the Super Smoothing function of the printer.
- [Restore Defaults]** Resets all the current settings to their default values.

Quality Tab

Specifies the settings for print quality including the resolution and contrast.

For more information on [Profile], refer to “Profiles,” on p. 3-14.



[Objective] Selects the best setting for the print job according to document content.

[Details] Opens the [Detailed Settings] dialog box (see p. 3-11).

[Manual Grayscale Settings] Enables the manual grayscale. Selecting this check box enables [Grayscale Settings] to access the dialog box which enables you to set the grayscale for images (see p. 3-12).

[Grayscale Settings] Opens the [Grayscale Settings] dialog box (see p. 3-12).



NOTE

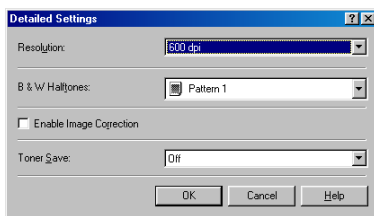
This option is enabled only when [Manual Grayscale Settings] is selected.

[About] Displays the version information on Canon LC310/L390/L408S.

[Restore Defaults] Resets all the current settings to their default values.

■ Detailed Settings

Clicking [Details] in the [Quality] tab sheet opens the [Detailed Settings] dialog box. This dialog box enables you to specify the detailed settings for print quality.



- [Resolution]** Selects the printer's resolution in dot per inch (600 dpi or 300 dpi).
- [B & W Halftones]** Selects a halftone pattern.
- [Enable Image Correction]** Corrects the roughness of image and inaccuracy in interpolating when printing an enlarged image in low-resolution.
- [Toner Save]** Selects the setting for saving the toner consumption ([Printer Default], [Off], or [On]).

■ **Grayscale Settings**

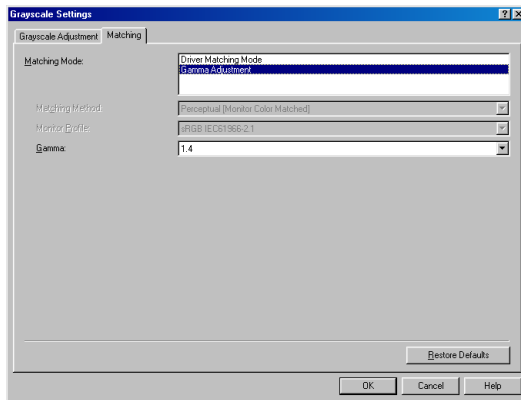
Clicking [Grayscale Settings] in the [Quality] tab sheet opens the [Grayscale Settings] dialog box. This dialog box enables you to control the brightness and contrast of images. This function is enabled only when [Manual Grayscale Setting] is selected in the [Quality] tab sheet (see p. 3-11). Two tab sheets are provided in this dialog box.

■ **Grayscale Adjustment Tab**



- [Preview]** Displays the image with the currently selected brightness and contrast reflected.
- [Original]** Displays the original image.
- [Brightness]** Adjusts the brightness of the preview image in the range between -5 and 5.
- [Contrast]** Adjusts the contrast of the preview image in the range between -5 and 5.
- [Restore Defaults]** Resets all the current settings to their default values.

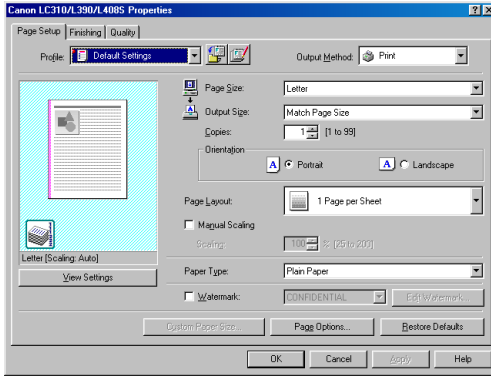
■ Matching Tab



- | | |
|---------------------------|---|
| [Matching Mode] | Specifies a color-matching mode ([Driver Matching Mode] or [Gamma Adjustment]). Selecting [Driver Matching Mode] enables [Matching Method] and [Monitor Profile]. Selecting [Gamma Adjustment] enables [Gamma]. |
| [Matching Method] | Selects the matching method. |
| [Monitor Profile] | Selects the profile appropriate for your monitor or scanner. |
| [Gamma] | Specifies the gamma correction factor. |
| [Restore Defaults] | Resets all the current settings to their default values. |

Profiles

A registered combination of settings for the [Page Setup], [Finishing] and [Quality] tab sheets is referred to as a profile. The profile function commonly provided in each of these tab sheets enables you to add, edit, and select a profile, which facilitates your print jobs.



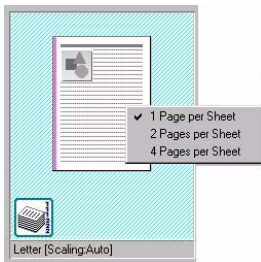
[Profile]

Selects the profile to apply.

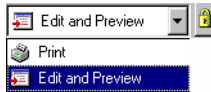
Displays the image with the currently selected settings reflected. Changes the setting for [Page Layout] every time you click anywhere inside the image of the page (see p. 3-5). The setting changes in the following order; [1 Page per Sheet] → [2 Pages per Sheet] → [4 Pages per Sheet] → [1 Page per Sheet]....

Preview image


Right-clicking the mouse button on the preview image displays the pop-up menu, from which you can also change the setting for [Page Layout]. Clicking the edges of the preview image of the page changes the binding location.



[Output Method] Switches the job mode between [Print] and [Edit and Preview].



[Print] Executes a normal print job.

[Edit and Preview] Saves the data in the Canon Page Composer dialog box. When [Edit and Preview] is selected,  (Lock) button appears on the right side. When you click this button, [Edit and Preview] mode is locked.




(Add Profile) Opens the [Add Profile] dialog box (see p. 3-16).

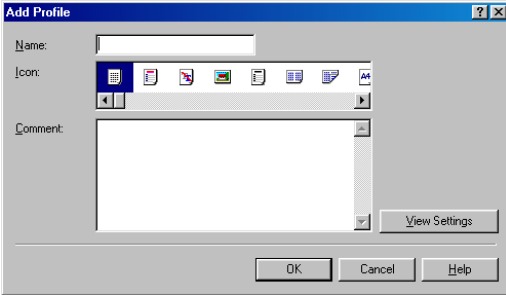


(Edit Profile) Opens the [Edit Profile] dialog box (see p. 3-16).

[View Settings] Opens the [View Settings] dialog box (see p. 3-17).


■ Add Profile

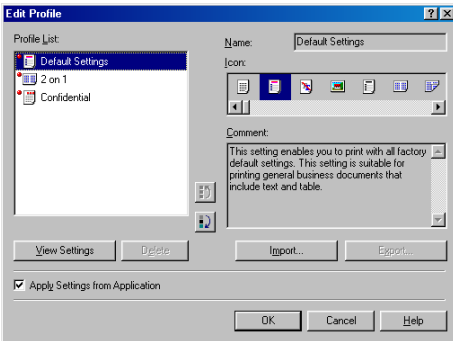
Clicking  (Add Profile) opens the [Add Profile] dialog box. This dialog box enables you to register a new profile with the current settings. You can add up to 50 new profiles.



- [Name]** Specifies the name of the profile to be registered.
- [Icon]** Selects an icon to represent the profile to be registered.
- [Comment]** Adds comments on the profile to be registered.
- [View Settings]** Opens the [View Settings] dialog box (see p. 3-17).

■ Edit Profile

Clicking  (Edit Profile) opens the [Edit Profile] dialog box. This dialog box enables you to edit the profile selected in [Profile List].



- [Profile List]** Displays the list of registered profiles. The order that profiles appear in this list is the order they appear in the [Profile] pull-down list in the [Page Setup], [Finishing], and [Quality] tab sheets.

[View Settings]

Opens the [View Settings] dialog box (see p. 3-17).



Moves the profile selected in the [Profile List] one position up.



Moves the profile selected in the [Profile List] one position down.

[Delete]

Removes the selected profile from [Profile List].

**NOTE**

When one of the pre-defined profiles is selected, this button is disabled.

[Name]

Displays and allows you to change the name of the currently selected profile.

**NOTE**

When one of the pre-defined profiles is selected, the name cannot be changed.

[Icon]

Displays and allows you to change the icon representing the currently selected profile.

**NOTE**

When one of the pre-defined profiles is selected, the icon cannot be changed.

[Comment]

Displays and allows you to change the comment on the currently selected profile.

**NOTE**

When one of the pre-defined profiles is selected, the comment cannot be changed.

[Import]

Enables you to import profile information from a file.

[Export]

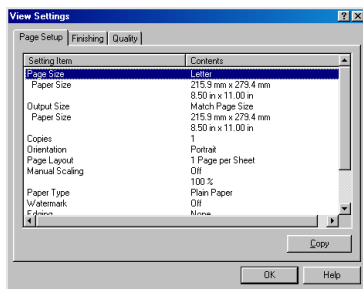
Enables you to export the selected profile information to a file.

[Apply Settings from Application]

Applies the selected profile only to the settings other than [Page Size], [Orientation] and [Copies].

■ View Settings

Clicking [View Settings] opens the [View Settings] dialog box. This dialog box displays the current settings in the [Page Setup], [Finishing], and [Quality] tab sheets.

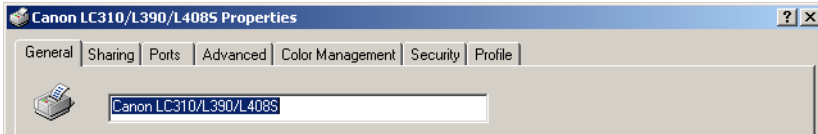
**[Copy]**

Copies the contents of the current settings to the clipboard.

Windows 2000/XP Properties and Printing Preferences

CARPS for Windows 2000/XP has the following two main dialog boxes:

■ The Properties Dialog Box



This dialog box enables you to set up the printer configuration and configure the print settings for all Windows applications. To access the dialog box, follow the procedure below.

1 From the [Start] menu, select [Settings] → [Printers] (in Windows XP, [Printers and Faxes]).

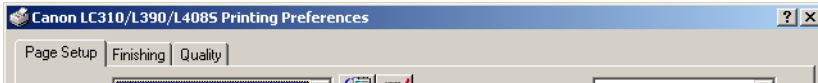
The [Printers] (in Windows XP, [Printers and Faxes]) folder appears.

2 Click the corresponding printer icon → select [Properties] from the [File] menu.

You can also open the [Canon LC310/L390/L408S Properties] dialog box by right-clicking the corresponding printer icon and selecting [Properties] from the pop-up menu.

The [Canon LC310/L390/L408S Properties] dialog box appears.

■ The Printing Preferences Dialog Box



This dialog box enables you to specify the default settings for the printing options available when you print on the Canon LC310/L390/L408S. To access the dialog box, follow the procedure on p. 3-19.

1 From the [Start] menu, select [Settings] → [Printers] (in Windows XP, [Printers and Faxes]).

The [Printers] (in Windows XP, [Printers and Faxes]) folder appears.

2 Click the corresponding printer icon → select [Printing Preferences] from the [File] menu.

You can also open the equivalent dialog box by selecting [Print] from the [File] menu of a Windows application, and clicking [Properties].

The [Canon LC310/L390/L408S Printing Preferences] dialog box appears.

Properties

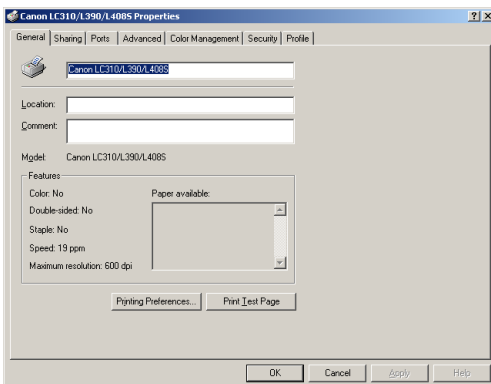
The [Canon LC310/L390/L408S Properties] dialog box contains several tab sheets that enable you to set up the printer configuration and configure the print settings. The following is the description of each tab sheet.

NOTE

- The number of tabs displayed in the properties dialog box depends on how you have your system set up.
- For more information about the following features, see the online Help (see p. 1-3).
- The screen shots shown are from Windows 2000.

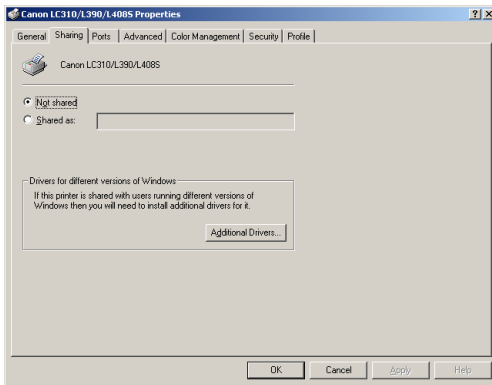
General Tab

Lets you print a test page and define printing preferences. Refer to your Windows operating system documentation for more information.



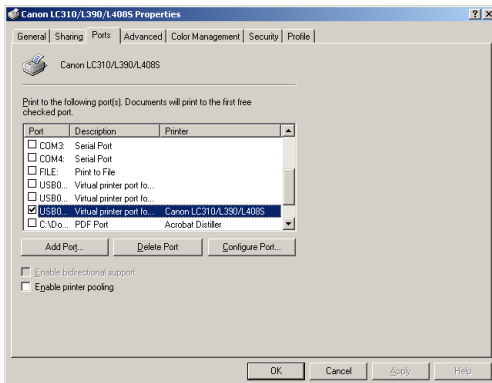
Sharing Tab

Specifies the printer sharing settings. This tab sheet is available only when the printer sharing is enabled (see p. 2-20). Refer to your Windows operating system documentation for more information.



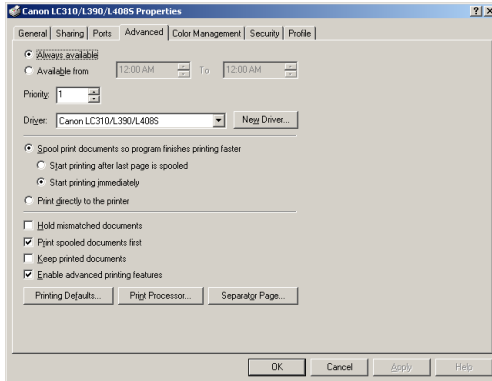
Ports Tab

Specifies the port to which the printer is attached. Refer to your Windows operating system documentation for more information.



Advanced Tab

Specifies the settings for print spooling. Refer to your Windows operating system documentation for more information.

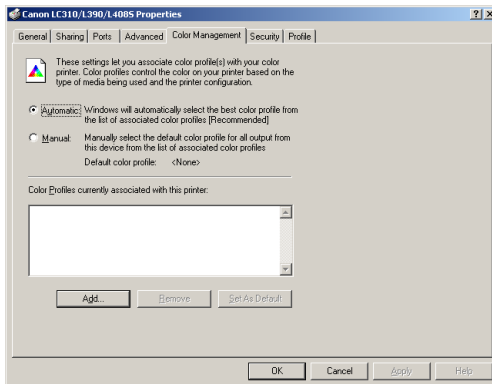


NOTE

[Spool print documents so program finishes printing faster] and [Start printing immediately] are set automatically when you install the printer driver.

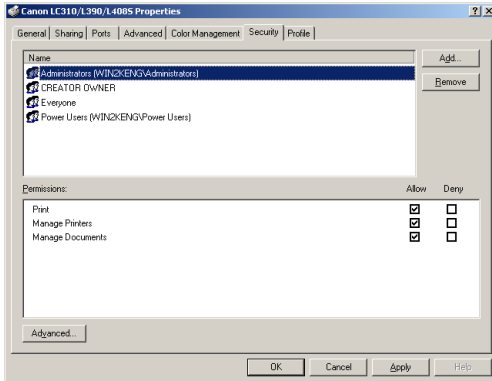
Color Management Tab

Associate color profiles with your color printer. Refer to your Windows operating system documentation for more information.



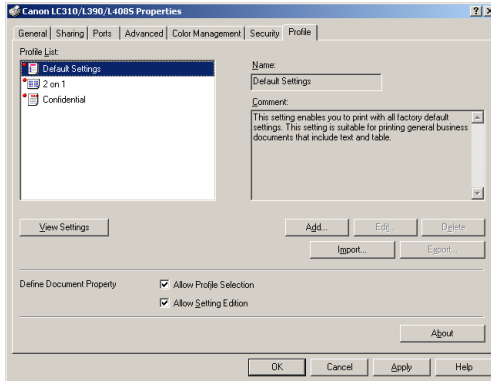
Security Tab

Specifies security settings. Refer to your operating system documentation for more information.



Profile Tab

Enables you to add, edit, and select a profile to be applied to print jobs.



- [Profile List]** Displays the list of registered profiles.
- [Name]** Displays the name of the profile currently selected in [Profile List].
- [Comment]** Describes the currently selected profile.
- [View Settings]** Displays the settings of the currently selected profile.
- [Add]** Opens the [Add/Edit Profile] dialog box which enables you to register a new profile (see p. 3-24).
- [Edit]** Opens the [Add/Edit Profile] dialog box which enables you to edit the registered profiles (see p. 3-24).

NOTE

When one of the pre-defined profile ([Default Settings], [2 on 1], or [Confidential]) is selected in [Profile List], this button is disabled.

- [Delete]** Removes the selected profile from [Profile List].

NOTE

When one of the pre-defined profiles is selected, this button is disabled.

- [Import]** Enables you to import profile information from a file.
- [Export]** Enables you to export the selected profile information to a file.
- [Define Document Property]** Controls the profile settings.
- [Allow Profile Selection]** Enables the selecting of profiles in the default document properties dialog box.
- [Allow Setting Edition]** Enables the adding and editing of profiles as well as selecting.

NOTE

When [Allow Profile Selection] is cleared, [Allow Setting Edition] is disabled.

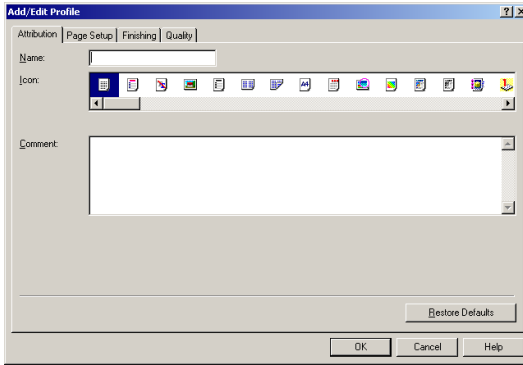
- [About]** Displays the version information on Canon LC310/L390/L408S.

■ Add/Edit Profile

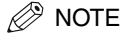
Clicking [Add] or [Edit] opens the [Add/Edit Profile] dialog box which enables you to register new profiles and edit existing profiles. This dialog box has four tab sheets.

■ Attribution Tab

The [Attribution] tab sheet enables you to specify attributions of the profile.



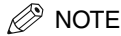
[Name] Specifies the name of the new profile, or allows you to change the name of the profile selected in the [Profile] tab sheet.



NOTE

When one of the pre-defined profiles is selected, the name cannot be changed.

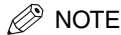
[Icon] Selects an icon to represent the new profile, or allows you to change the icon of the profile selected in the [Profile] tab sheet.



NOTE

When one of the pre-defined profiles is selected, the icon cannot be changed.

[Comment] Adds comments on the new profile, or allows you to change the comments on the profile selected in the [Profile] tab sheet.



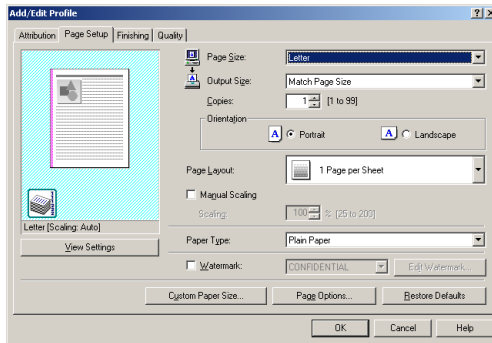
NOTE

When one of the pre-defined profiles is selected, the comment cannot be changed.

[Restore Defaults] Resets all the current settings to their default values.

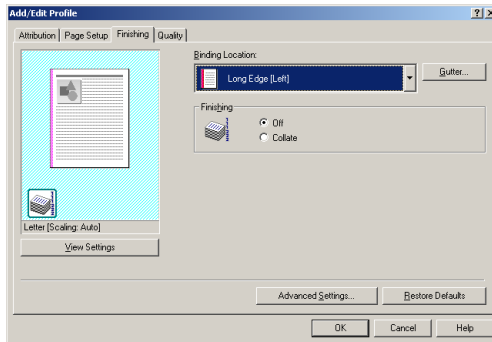
■ Page Setup Tab

Specifies the page settings including the page size, scaling, number of copies, orientation, and number of pages per sheet (see p. 3-26).



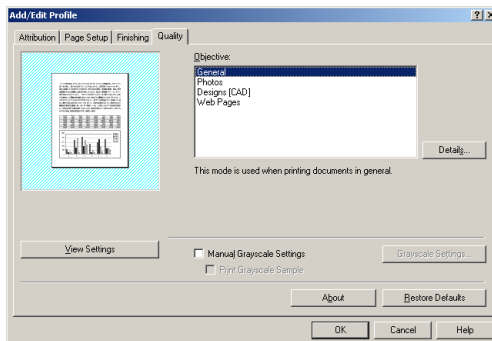
■ Finishing Tab

Specifies the finishing settings for the printed pages including the collating and binding (see p. 3-32).



■ Quality Tab

Specifies the print quality including resolution, brightness and contrast (see p. 3-33).



Printing Preferences

The [Canon LC310/L390/L408S Printing Preferences] dialog box contains three tab sheets that enable you to specify the default print settings for every print job. The following is the description of each tab sheet.



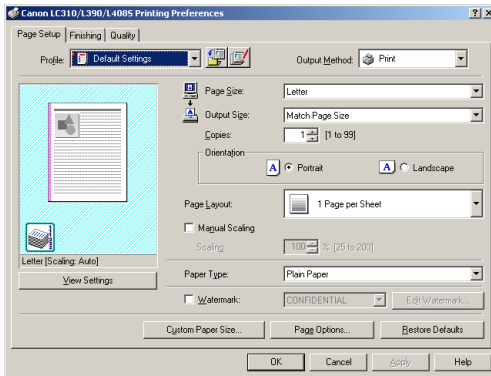
NOTE

- If you access the equivalent dialog box from an application's [Print] dialog box, your selected printing options apply only to the current print job.
- For more information about the following features, see the online Help (see p. 1-3).
- The screen shots shown are from Windows 2000.

Page Setup Tab

Specifies the page settings including the page size, scaling, number of copies, orientation, and number of pages per sheet.

For information on [Profile], refer to "Profiles," on p. 3-36.



Preview Image

Displays the image with the currently selected settings reflected. For details on preview image, see p. 3-37.

[Page Size]

Selects the original page size to work with in an application. Available options are; [Letter], [11 x17], [Legal], [Executive], [A5], [B5], [A4], [B4], [A3], [Envelope Monarch], [Envelope COM10], [Envelope DL], [Envelope C5], and [Custom].

[Output Size]

Selects the output paper size to print on. When this option is set to anything other than [Match Page Size], the original page size is automatically reduced or enlarged to fit the selected output paper size when printed. However, when [11 x17], [B4] or [A3] is selected in the [Page Size], the original page size is automatically reduced to fit [Letter] size.

- [Copies]** Specifies the number of copies to be printed (1 to 99).
- [Orientation]** Selects the direction of printing relative to the paper ([Portrait] or [Landscape]).
- [Page Layout]** Selects the number (1, 2, 4, 6, 8, 9 or 16) of original pages per sheet or [Poster] (2 x 2, 3 x 3 or 4 x 4 pages to comprise one sheet). When this option is set to anything other than [1 Page per Sheet] and [Poster], the original page size is reduced to fit the selected page layout when printed.



NOTE

- When [Poster] is selected, [Manual Scaling], [Watermark] and [Page Options] are disabled.
- When [1 Page per Sheet] is selected, [Manual Scaling] appears. When this option is set to anything other than [1 Page per Sheet], [Manual Scaling] disappears and [Page Order] appears in its place.

- [Manual Scaling]** Reduces or enlarges the original page size. Selecting this check box enables the edit box on the right side to specify the magnification factor (25 to 200%).
- [Page Order]** Selects the order in which original pages are placed on each sheet of the output paper when more than one page is printed per sheet.



- [Paper Type]** Selects the paper type to print. Available paper type are as follows:
- Plain paper (17 to 24 lb (64 to 90 g/m²))
 - Plain Paper L
 - Heavy Paper
 - Heavy Paper H
 - Transparency



NOTE

If you select [Envelope Monarch], [Envelope COM10], [Envelope DL], or [Envelope C5] as [Output Size], [Paper Type] is automatically set to [Envelope].

- [Watermark]** Inserts the selected watermark to be printed on each page. Eight types of watermark are available as default:
- CONFIDENTIAL
 - COPY
 - DRAFT
 - FILE COPY
 - FINAL
 - PRELIMINARY
 - PROOF
 - TOP SECRET
- Selecting this check box enables [Edit Watermark] to add a watermark.

 **NOTE**

This option is disabled when [Page Layout] is set to [Poster].

- [Edit Watermark]** Opens the [Edit Watermark] dialog box (see p. 3-28).
- [Custom Paper Size]** Opens the [Custom Paper Size Settings] dialog box (see p. 3-30).
- [Page Options]** Opens the [Page Options] dialog box (see p. 3-31).

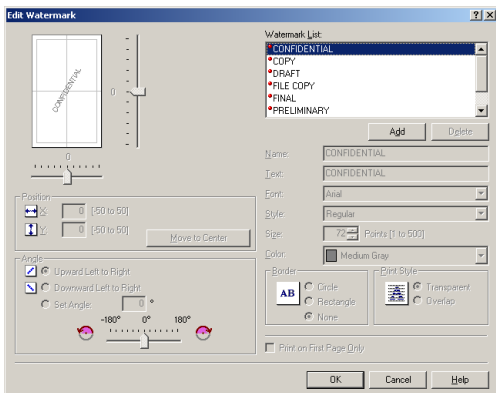
 **NOTE**

This option is disabled when [Page Layout] is set to [Poster].

- [Restore Defaults]** Resets all the current settings to their default values.

■ **Edit Watermark**

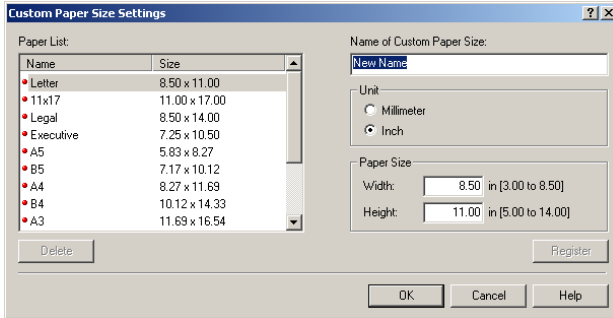
Clicking [Edit Watermark] in the [Page Setup] tab sheet opens the [Edit Watermark] dialog box. This dialog box enables you to insert a text string as a watermark onto pages. This option is enabled only when the [Watermark] check box is selected in the [Page Setup] tab sheet (see p. 3-26).



[Watermark List]	Displays the names of registered watermarks. The preview image in the upper left part of the dialog box displays the selected watermark with the specified settings reflected.
[Add]	Registers a new watermark. Clicking this button adds a blank name field in the [Watermark List] in which you enter the name of watermark to be registered. Up to 50 watermarks can be registered.
[Delete]	Removes the selected watermark from [Watermark List].
[Position]	Specifies the position where the watermark is printed on each page. You can enter the values in the [X] and [Y] edit boxes (in a range between -50 and 50), or use the X and Y slide bars to move the position.
[Move to Center]	Relocates the watermark to the page center.
[Angle]	Sets the angle of watermark. You can select the corresponding radio button, or use the slide bar to move the angle.
[Name]	Displays the name of the currently selected watermark.
[Text]	Displays the text string of the currently selected watermark.
[Font]	Selects the font type of the watermark.
[Style]	Selects the font style of the watermark. Available styles are [Regular], [Italic], [Bold] and [Bold Italic].
[Size]	Specifies the font size of the watermark (1 to 500).
[Color]	Selects the font color of the watermark.
[Border]	Adds the frame to the watermark. You can select the frame type ([Circle], [Rectangle], or [None]).
[Print Style]	Selects the type of watermark ([Transparent] or [Overlap]).
[Print on First Page Only]	Prints the selected watermark only on the first page of the document.

■ Custom Paper Size Settings

Clicking [Custom Paper Size] in the [Page Setup] tab sheet opens the [Custom Paper Size Settings] dialog box. This dialog box enables you to define custom paper sizes for quick selection and register new custom paper sizes to the [Paper List] box. You can specify the name, width, and height of each size.



- [Paper List]** Displays the paper sizes actually available. Selects a paper size from which you can create a custom paper size.
- [Name of Custom Paper Size]** Specifies the name of custom paper.
- [Unit]** Selects the unit of measurement of paper size ([Millimeter] or [Inch]).
- [Paper Size]** Specifies the width and height of the custom paper.



NOTE

Be sure that [Width] does not exceed [Height] when specifying the values.

- [Register]** Registers the custom paper and adds its name to [Paper List].



NOTE

To register a new custom paper size, be sure to log on as a member of Administrators (Windows 2000/XP) or Power User (Windows 2000 only). To change the paper size for the existing custom paper size, be sure to log on as a member of Administrators.

- [Delete]** Removes the selected custom paper from [Paper List].

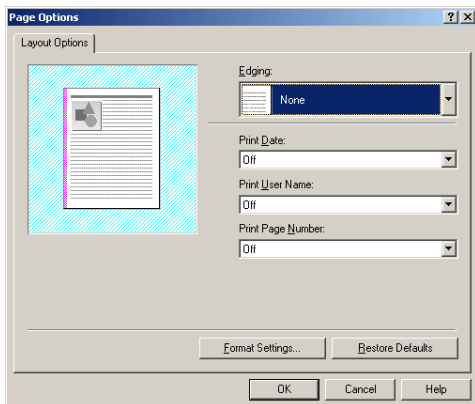


NOTE

- You cannot delete a pre-defined paper size.
- To delete a registered custom paper size, you be sure to log on as a member of Administrators.

■ Page Options

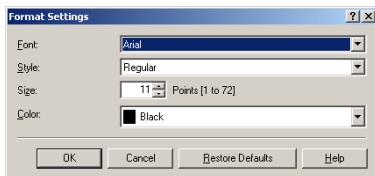
Clicking [Page Options] in the [Page Setup] tab sheet opens the [Page Options] dialog box. This dialog box enables you to print pages with a page frame, header, and footer. This option is disabled when [Page Layout] in the [Page Setup] tab sheet is set to [Poster] (see p. 3-26).



- [Edging]** Adds a page frame to be printed on each page. 11 options are available. Edging is not available to use with [Print Grayscale Sample] in the [Quality] tab sheet (see p. 3-33).
- [Print Date]** Selects if the date is printed on each page or not. Six positions to print the date are available.
- [Print User Name]** Selects if the user name is printed on each page or not. Six positions to print the user name are available.
- [Print Page Number]** Selects if the page number is printed on each page or not. Six positions to print the page number are available.
- [Format Settings]** Opens the [Format Settings] dialog box (see p. 3-31).
- [Restore Defaults]** Resets all the current settings to their default values.

■ Format Settings

Clicking [Format Settings] in the [Page Options] dialog box opens the [Format Settings] dialog box. This dialog box allows you to set the default font type, style, size, and color, or reset to the factory default font settings.

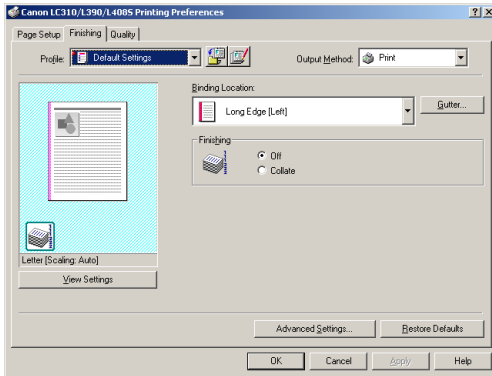


- [Font]** Allows you to select the font for date, user name, and page number. Selection is limited to TrueType fonts.
- [Style]** Allows you to select the style for the font. You can select Regular, Italic, Bold, or Bold Italic.
- [Size]** Allows you to select the font size for date, user name, and page number.
- [Color]** Allows you to select the color for date, user name, and page number.

Finishing Tab

Specifies the finishing settings for the printed pages including the collating and binding.

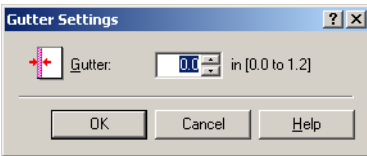
For information on [Profile], refer to “Profiles,” on p. 3-36.



- [Binding Location]** Selects a binding location for the printed pages.
- [Gutter]** Opens the [Gutter Settings] dialog box (see p. 3-32).
- [Finishing]** Selects if the printed pages are sorted by copy or not ([Collate] or [Off]).
- [Advanced Settings]** Opens the [Advanced Settings] dialog box (see p. 3-32).
- [Restore Defaults]** Resets all the current settings to their default values.

■ Gutter Settings

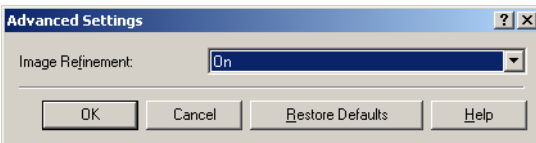
Clicking [Gutter] in the [Finishing] tab sheets opens the [Gutter Settings] dialog box.



- [Gutter]** Specifies the gutter width in a range between 0.0 and 1.2 inches.

■ Advanced Settings

Clicking [Advanced Settings] in the [Finishing] tab sheet opens the [Advanced Settings] dialog box.

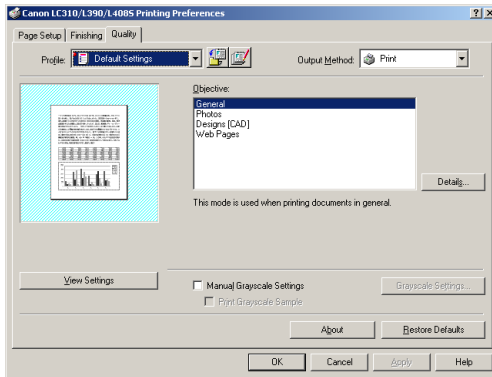


- [Image Refinement]** Sets the Super Smoothing function of the printer.
- [Restore Defaults]** Resets all the current settings to their default values.

Quality Tab

Specifies the settings for print quality including the resolution and contrast.

For information on [Profile], refer to “Profiles,” on p. 3-36.



- [Objective]** Selects the best setting for the print job according to document content.
- [Details]** Opens the [Detailed Settings] dialog box (see p. 3-34).
- [Manual Grayscale Settings]** Enables the manual grayscale. Selecting this check box enables [Grayscale Settings] to access the dialog box which allows you to set the grayscale for images (see p. 3-34).
- [Print Grayscale Sample]** Prints nine thumbnails per sheet to provide the print samples with the current grayscale settings when printing the document.

NOTE

This option is enabled only when [Manual Grayscale Settings] is selected.

- [Grayscale Settings]** Opens the [Grayscale Settings] dialog box (see p. 3-34).

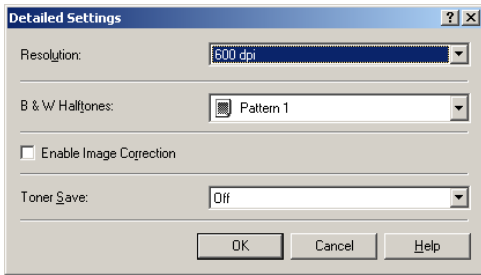
NOTE

This option is enabled only when [Manual Grayscale Settings] is selected.

- [About]** Displays the version information on Canon LC310/L390/L408S.
- [Restore Defaults]** Resets all the current settings to their default values.

■ Detailed Settings

Clicking [Details] in the [Quality] tab sheet opens the [Detailed Settings] dialog box. This dialog box enables you to specify detailed settings for print quality.

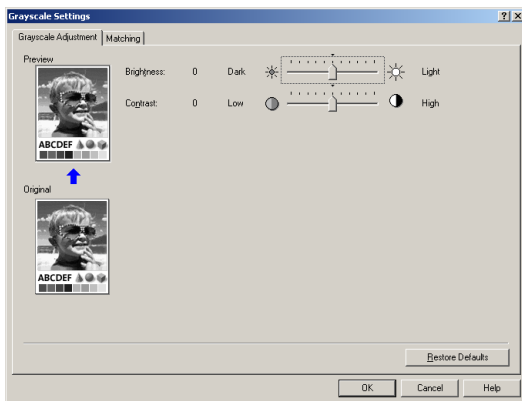


- | | |
|----------------------------------|--|
| [Resolution] | Selects the printer's resolution in dot per inch (600 dpi or 300 dpi). |
| [B & W Halftones] | Selects a halftone pattern. |
| [Enable Image Correction] | Corrects the roughness of image and inaccuracy in interpolating when printing an enlarged image in low-resolution. |
| [Toner Save] | Selects the setting for saving the toner consumption ([Printer Default], [Off], or [On]). |

■ Grayscale Settings

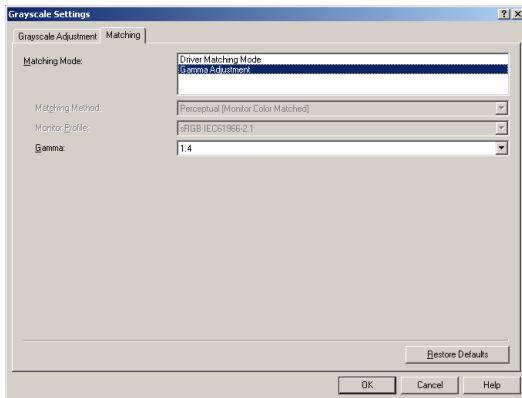
Clicking [Grayscale Settings] in the [Quality] tab sheet opens the [Grayscale Settings] dialog box. This dialog box enables you to control the brightness and contrast of images. This function is enabled only when [Manual Grayscale Settings] is selected in the [Quality] tab sheet (see p. 3-33). Two tab sheets are provided in this dialog box.

■ Grayscale Adjustment Tab



- [Preview]** Displays the image with the currently selected brightness and contrast reflected.
- [Original]** Displays the original image.
- [Brightness]** Adjusts the brightness of the preview image in the range between -5 and 5.
- [Contrast]** Adjusts the contrast of the preview image in the range between -5 and 5.
- [Restore Defaults]** Resets all the current settings to their default values.

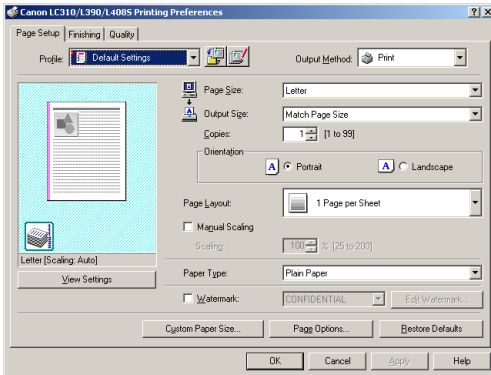
■ Matching Tab



- [Matching Mode]** Specifies a color-matching mode ([Driver Matching Mode] or [Gamma Adjustment]). Selecting [Driver Matching Mode] enables [Matching Method] and [Monitor Profile]. Selecting [Gamma Adjustment] enables [Gamma].
- [Matching Method]** Selects the matching method.
- [Monitor Profile]** Selects the profile appropriate for your monitor or scanner.
- [Gamma]** Specifies the gamma correction factor.
- [Restore Defaults]** Resets all the current settings to their default values.

Profiles

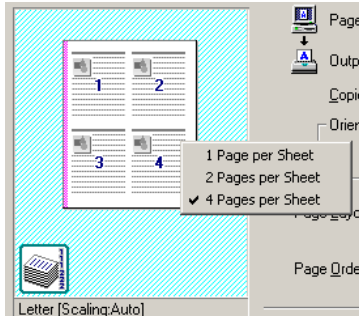
A registered combination of settings for the [Page Setup], [Finishing], and [Quality] tab sheets is referred to as a profile. The profile function commonly provided in each of these tab sheets enables you to add, edit, and select a profile, which facilitates your print jobs.



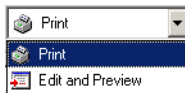
- [Profile]** Selects the profile to apply.
Displays the image with the currently selected settings reflected.
Changes the setting for [Page Layout] every time you click anywhere inside the image of the page (see p. 3-27). The setting changes in the following order; [1 Page per Sheet] → [2 Pages per Sheet] → [4 Pages per Sheet] → [1 Page per Sheet]....

Preview image

Right-clicking the mouse button on the preview image displays the pop-up menu, from which you can also change the setting for [Page Layout]. Clicking the edges of the preview image of the page changes the binding location.


**[Output Method]**

Switches the job mode between [Print] and [Edit and Preview].

**[Print]**

Executes a normal print job.

[Edit and Preview]

Saves the data in the Canon Page Composer dialog box. When [Edit and Preview] is selected,  (Lock) button appears on the right side. When you click this button, [Edit and Preview] mode is locked.

**(Add Profile)**

Opens the [Add Profile] dialog box (see p. 3-38).


**(Edit Profile)**

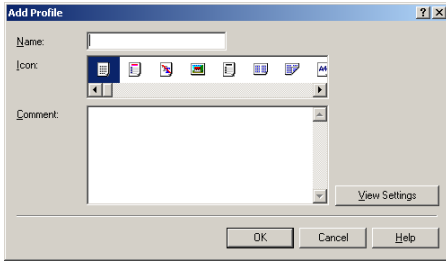
Opens the [Edit profile] dialog box (see p. 3-38).

[View Settings]

Opens the [View Settings] dialog box (see p. 3-40).


■ Add Profile

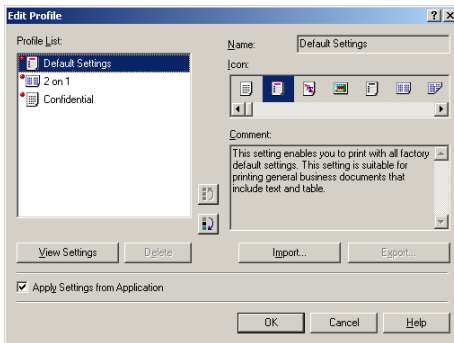
Clicking  (Add Profile) opens the [Add Profile] dialog box. This dialog box enables you to register a new profile with the current settings. You can add up to 50 new profiles.



- [Name]** Specifies the name of the profile to be registered.
- [Icon]** Selects an icon to represent the profile to be registered.
- [Comment]** Adds comments on the profile to be registered.
- [View Settings]** Opens the [View Settings] dialog box (see p. 3-40).

■ Edit Profile

Clicking  (Edit Profile) opens the [Edit Profile] dialog box. This dialog box enables you to edit the profile selected in [Profile List].



- [Profile List]** Displays the list of registered profiles. The order that profiles appear in this list is the order they appear in the [Profile] pull-down list in the [Page Setup], [Finishing], and [Quality] tab sheets.

[View Settings]

Opens the [View Settings] dialog box (see p. 3-40).



Moves the profile selected in the [Profile List] one position up.



Moves the profile selected in the [Profile List] one position down.

[Delete]

Removes the selected profile from [Profile List].

**NOTE**

When one of the pre-defined profiles is selected, this button is disabled.

[Name]

Displays and allows you to change the name of the currently selected profile.

**NOTE**

When one of the pre-defined profiles is selected, the name cannot be changed.

[Icon]

Displays and allows you to change the icon representing the currently selected profile.

**NOTE**

When one of the pre-defined profile is selected, the icon cannot be changed.

[Comment]

Displays and allows you to change the comment on the currently selected profile.

**NOTE**

When one of the pre-defined profile is selected, the comment cannot be changed.

[Import]

Enables you to import profile information from a file.

[Export]

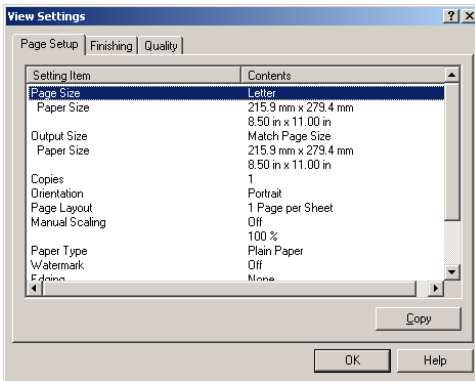
Enables you to export the selected profile information to a file.

[Apply Settings from Application]

Applies the selected profile only to the settings other than [Page Size], [Orientation] and [Copies].

■ View Settings

Clicking [View Settings] opens the [View Settings] dialog box. This dialog box displays the current settings in the [Page Setup], [Finishing], and [Quality] tab sheets.



[Copy]

Copies the contents of the current settings to the clipboard.

4

CHAPTER

Troubleshooting

This chapter provides information to help you solve printer problems.

Finding Information

If you have a printer problem, the problem might have one or a combination of causes, including a computer malfunction, software errors and the printer cable. Many printing problems are related to how your software interacts with the printer.

If you can print a self test, but the printer does not print other jobs or the output is not what you expected, the problem is with your computer, software or cable.

If your printer is not operating properly, try the suggestions in this chapter in the order listed.

The suggestions are grouped as follows:

- “Printer Problems,” on p. 4-2.
- “Printer Driver Problems,” on p. 4-4.
- “Uninstalling Printer Driver,” on p. 4-6.

If you cannot solve the problem by referring to the information in this chapter, please refer to the *Basic Guide*.

Printer Problems

Printer does not print.

Cause 1 The printer is out of paper.

Remedy Make sure paper is loaded.

Cause 2 A copy job has not been completed due to out of paper.

Remedy Load paper. The print job will start automatically when the copy job is completed.

Cause 3 The cartridge is not installed correctly.

Remedy Make sure the cartridge is installed correctly. (See the *Starter Guide*.)

Cause 4 Your BIOS port setting needs to be modified.

Remedy See your computer's documentation concerning available ports.

Cause 5 Your computer is not working properly.

Remedy Make sure your computer is turned on. If so, see your computer's documentation for troubleshooting.

Cause 6 A print job error occurred.

Remedy Set <AUTO ERROR SKIP> to 'ON' in the Menu or delete the error print job using [System Monitor]. (See the *Basic Guide*.)

No power is supplied.

Cause 1 The power cord is not plugged in.

Remedy Make sure the power cord is securely plugged into both the machine and the AC outlet.

Cause 2 The AC outlet is not supplying power.

Remedy Make sure the AC outlet is supplying power; try another outlet if necessary.

Cause 3 The AC voltage does not match printer.

Remedy Make sure the voltage of the AC outlet matches the ratings on the printer.

Printer stops printing.

Cause 1 The interface cable is loose.

Remedy Check your computer and cable.

Cause 2 Printing performance slows down because an application is working in the foreground.

Remedy Printer performance improves if you give priority to your print job.

INCORRECT PAPER SIZE message displays on the LCD of the printer.

Cause Paper setting of the machine is different from that of your computer.

Remedy Load the correct paper size or change the <PAPER SIZE> setting of the Menu. (See the *Basic Guide*.)

Printout is wrong.

Cause 1 There is a communication problem between the printer and your computer.

Remedy

- Make sure your cable connections are secure.
- Make sure your USB cable is less than 16.5 feet (5.0 m) long.
- Make sure you are not using a switch box.
- Make sure you have selected the correct printer driver in Windows.

Cause 2 The wrong printer is selected in the [Printers] folder.

Remedy Make sure [Canon LC310/L390/L408S] is selected in the [Printers] (in Windows XP, [Printers and Faxes]) folder.

Printer locks up system.

Cause Your system setup has a problem.

Remedy

- Make sure that you have a high-quality shielded interface cable.
- The problem might be your BIOS. Verify that your BIOS setup is correct. (See your computer's documentation for details.)
- Verify that your physical memory is working correctly.
- If you have a Toshiba laptop, change the following line in your CONFIG.SYS file:
c:\winutils\mxtime.exe
to:
REM c:\winutils\mxtime.exe

Computer indicates a device time-out.

Cause Your computer is sending data to the printer but the printer is not responding because the printer is off, offline, or not connected to the computer.

Remedy

- Make sure the printer is not paused.
- Make sure the printer's interface cable is securely connected to both the printer and computer.
- Make sure paper is properly loaded from the cassette or multi-purpose feeder.
- Change the <ERROR TIME OUT> setting in the Menu. (See the *Basic Guide*.)
- Reset the printer and computer.
- Try the print operation again.
- Try a different cable.

Printer Driver Problems

CARPS is not working properly.

Cause CARPS (Canon LC310/L390/L408S) is not selected as the default printer driver for the LASER CLASS 310.

Remedy Specify CARPS (Canon LC310/L390/L408S) as the default driver for the LASER CLASS 310.

Cannot use Adobe Type Manager (ATM) fonts.

Cause Adobe Type Manager (ATM) is not supported.

Cannot print with a printer driver other than the Canon LC310/L390/L408S.

Cause The printer driver is connected to the same port as the Canon LC310/L390/L408S printer driver.

Remedy Connect the printer driver to a port different from the Canon LC310/L390/L408S printer driver.

Cannot install CARPS using the USB port.

Cause USB class driver is not properly installed.

Remedy Perform the following steps.

1. Make sure the printer is connected to your computer using a USB cable and the printer is turned on.
2. For Windows 98/Me/2000, open the [System] dialog box from the [Control Panel]. For Windows XP, click [Performance and Maintenance] in the [Control Panel] → [See basic information about your computer] in the [Performance and Maintenance] folder. The [System Properties] dialog box appears.
3. For Windows 98/Me, select the [Device Manager] tab sheet → double-click [Universal Serial Bus Controllers]. For Windows 2000/XP, select the [Hardware] tab sheet → click [Device Manager] → double-click [Universal Serial Bus Controllers].
4. Locate the USB class driver under [Universal Serial Bus Controllers]. Delete ONLY the USB class driver specified for you operating system. (If the USB class driver is displayed under [Other device], delete ONLY one of the following, depending on your operating system: [Canon LC310/L390/L408S], [Canon CARPS USB Printer], or [Unknown].) For Windows 98, select [Canon LC310/L390/L408S] → click [Remove]. For Windows Me, select [Canon CARPS USB Printer] → click [Delete]. For Windows 2000/XP, select [USB Printing Support] or [Canon CARPS USB Printer] → uninstall from the [Action] menu.



IMPORTANT

Never delete other devices or device drivers. Windows may not operate properly.

5. Close the [Control Panel] → unplug the USB cable.
6. Restart Windows.
7. Follow the steps in "Installing Printer Driver through a USB Connection," on p. 2-2.



NOTE

The procedure for Windows XP is given for Category Views Mode.

Strings of garbled characters are printed.

Cause The software is not installed properly.

Remedy Check if the printer icon is displayed in the [Printers] (in Windows XP, [Printers and Faxes]) folder. If not, install the software. If the printer icon is displayed, right-click the printer icon → check if [Set as Default printer] is selected in the pull-down menu. Refer to Chapter 2 for more information.

Edge of output is missing.

Cause The gutter width exceeds the allowable range.

Remedy Make sure the gutter setting for the document is within the specified range. The maximum gutter width is 1.2 inches, For envelope, 0.4 inches.

Cannot print correctly with the resolution of 600 dpi.

Cause The resolution setting of 600 dpi is not appropriate for the application. Some applications do not support 600 dpi resolution.

Remedy Set the resolution to 300 dpi.

Uninstalling Printer Driver

If CARPS is not working properly, it might help to remove the CARPS software and install it again. Before you remove the software, make sure the following.

- You have the installation software available for installation.
 - No program is running on your computer.
-

■ From Printer Driver Uninstaller:

1 From the [Start] menu, select [Programs] (in Windows XP, [All Programs]) → [Canon Printer Uninstaller] → click [CARPS Printer Driver Uninstaller Ver.2.0].

The [Delete Printer] dialog box appears.

2 Select the corresponding printer → click [Delete].

The confirmation message dialog box appears.

3 Click [Yes].

The uninstallation is complete.



NOTE

The CARPS software can be uninstalled using the [Run] dialog box from the [Start] menu. To uninstall, enter "C:\Program Files\Canon\PrnUninstall\CARPS Printer Driver 2.0\UNINSTALL.exe".

■ **From the [Printers] folder:**

1 From the [Start] menu, select [Settings] → click [Printers].

The [Printers] (in Windows XP, [Printers and Faxes]) folder appears.

2 Select the corresponding printer icon.

3 From [File] menu, select [Delete].

The confirmation message dialog box appears.

4 Click [Yes].

The uninstallation is complete.



NOTE

In Windows 2000/XP, you cannot uninstall the CARPS software unless you have administrative privileges.

Printer Specifications

• Hardware

Printing speed: 19 pages per minute (LTR-size paper)

Resolution: 1200 dpi enhanced x 600 dpi*

Paper sizes:

Cassette: LTR, LGL, A4
Plain paper
Maximum capacity: 500 sheets of 17 lb bond (64 g/m² paper)

Multi-purpose feeder: 8 1/2" x 14" (216 mm x 356 mm) to 3" x 5" (76 mm x 127 mm)
Plain paper, colored paper, recycled paper, transparencies, envelopes and heavy paper (up to 34 lb (128 g/m²))
Maximum capacity: 1 sheet

Paper delivery (Face down output way):

50 sheets (17 to 24 lb (64 to 90 g/m²))

Host interface

USB interface

• Software

Printing software: CARPS (Canon Advanced Raster Printing System)

Valid printing area: Max. 13/64" (5mm) blank margins at each edge

* LASER CLASS 310 is equipped with a printer engine of 600 dpi resolution. By adopting Canon's own Image Refinement, a 1200 dpi enhanced x 600 dpi image can be obtained.

Glossary

A

AC

Alternating Current. The type of electrical current typically available from household wall outlets.

B

Bold

A characteristic of a printed character that indicates wider, darker representation. Also referred to as emphasized or double-strike printing.

Brightness

The relative proportion of light and dark areas. Decreasing brightness darkens the overall image; increasing brightness lightens it.

C

Canon Advanced Raster Printing System (CARPS)

Software that extends the power of the Windows operating system to a printer to speed up and simplify printing. The Canon Advanced Raster Printing System provides more printing control under Windows applications.

Client

A computer that is connected to the printer over a network. A client does not control the printer directly. It interacts with the printer through a server. See also Server.

Collate (Finishing)

To print multiple copies of a multi-page document in sequential page order.

Command

An instruction that tells the printer to perform a certain function. Commands are sent from the computer to the printer via the interface cable when the printer is ready.

Contrast

The degree of difference between the lightest and darkest areas of an image. Decreasing contrast lightens the dark areas and darkens the light areas; increasing it darkens the dark areas and lightens the light areas.

Control Panel

The set of Windows programs you can use to change system, hardware, software, and Windows settings.

D

Default setting

A setting that is automatically used if no other setting is specified.

Desktop

The entire Windows screen that represents your work area in Windows. Icons, windows, and the taskbar are displayed on the Windows desktop.

dpi

Dots per inch. A unit of measurement for indicating a printer's resolution. The Canon LASER CLASS 310 prints at a resolution of 1200 dpi enhanced x 600 dpi dpi.

Driver

A program that controls how the computer and an external device interact. The printer driver supplies Windows with information such as descriptions of the fonts and features of the installed printer. When you print with the Canon Advanced Raster Printing System, you are using its printer driver.

F

Fixing assembly

The device used during the print process to fix the toner onto the paper (or other media) through applying heat and pressure. The assembly, located inside the printer, gets extremely hot (374°F (190°C)) during operation.

Folder

A container in which documents, program files, and other folders are stored on your disks. Formerly referred to as a directory.

Font

A complete set of characters of the same size and style. For example, 12-point Courier bold.

Form

A custom paper size, with width and height defined by the user.

G

Grayscale image

A bitmap image that stores data for each dot as a shade of gray, rather than as black or white.

H

Halftones

The process of converting a grayscale image to black dots and white (unprinted) dots that simulate the gray shades in the original image.

I

Image Refinement

A printer technology from Canon which automatically senses and refines the jagged edges and ragged curves of characters and graphics.

Interface

The connection between two devices through which they communicate with each other. The Canon LASER CLASS 310 feature USB interface, which makes it compatible with IBM and similar personal computers.

Interface port

The port through which the printer communicates with the computer. The Canon LASER CLASS 310 have a USB port, located on the back of the machine. See also USB interface.

Italic

A font style distinguished by slanted characters (the upright strokes of the characters are at an angle to the vertical axis).

J

Jam

A situation created when paper becomes caught along the paper path. You must remove jammed paper before you can continue printing.

K

Kilobyte (KB)

A unit of measurement, representing the binary number 1024, used to describe printer or computer memory size in thousand-byte units.

L

Landscape

A horizontal print orientation. Text and graphics are printed across the longer axis of the page.

Local printer

A printer that is directly connected to your computer, using a USB cable.

M

Megabyte (MB)

A unit of measurement, representing one million bytes, used to describe printer or computer memory size.

My Computer

The Windows program that you can use to browse through your computer's filing system, and to open drives, folders, and files. You can also use [My Computer] to manage your files and your filing system, by moving, copying, renaming, and deleting items.

N

Network

A group of computers connected by cables or other means and using software that enables them to share equipment (such as printers) and exchange information.

O

Orientation

The printing of text either along the width (portrait) or length (landscape) of the page.

P

Paper feed

The act of guiding a sheet of paper into the printer's paper path.

Paper jam

A situation created when paper becomes caught along the paper path. You must remove jammed paper before you can continue printing.

Paper path

The route that paper travels through the printer.

Paper source

Source of paper feed. The machine has a cassette and a multi-purpose feeder.

Paper type

All kinds of paper (plain paper, colored paper, recycled paper, transparencies, thick paper, envelopes, etc.) are grouped under several Paper Types. You can access this setting from the Paper Type field on the [Page Setup] tab of the [Properties] or [Printing Preferences] dialog screens.

PDF

Stands for Portable Document Format. A widely used format for transmitting and viewing documents on computers. PDF documents can be read or printed out with Adobe's Acrobat Reader program.

Physical RAM

Random Access Memory (RAM) that is physically present in the computer in the form of memory chips, as opposed to virtual memory. See also Virtual Memory.

Point size

Character height is defined in points: one point is 1/72 of an inch.

Portrait

A vertical print orientation. Text and graphics are printed across the shorter axis of the page.

Print job

A document that a Windows application has processed and sent to the Spooler to be added to the print queue or directly to the printer.

Print queue

A list of files that are either waiting to be printed or are currently printing. Once a file has been printed, it is removed from the print queue.

Printer driver

A program that controls how the computer and printer interact. The printer driver supplies Windows with information such as descriptions of fonts and features of the installed printer. When you print with the Canon Advanced Raster Printing System, you are using its printer driver.

Printers folder

The container in which your printer information is stored.

Properties dialog box

The dialog box that contains information about a particular device, such as your printer.

Proportional spacing

The spacing of characters according to the width of each character. This variable spacing between each character closes up awkward space and makes text easier to read.

Q**Queue**

A list of files that are either waiting to be printed or are currently printing. Once a file has been printed, it is removed from the print queue.

R**Random Access Memory (RAM)**

The working memory of the computer in which programs and data are temporarily stored while you use them. Resetting or shutting off the computer clears all information from RAM. Printing very complicated documents might require closing other running programs or adding more RAM to the computer. See also Physical RAM, Virtual Memory.

Resolution

The density of dots for any given output device, expressed in terms of dots per inch (dpi). Low resolution causes font characters and graphics to have a jagged appearance, but prints faster than higher resolutions. Higher resolution provides smoother curves and angles as well as a better match to traditional typeface designs, but prints more slowly. This printer can produce output with 300 or 600 dpi resolution. Resolution values are represented by horizontal data and vertical data, for example, 1200 dpi enhanced x 600 dpi.

S

Scalable fonts

Scalable fonts allow characters to be printed in various sizes and rotation angles. This is different from bitmap fonts, which are printed in fixed sizes and angles.

Scaling

Enlarging or reducing the printed image.

Separator page

Optional pages printed at the beginning of each document to help separate one print job from another.

Server

A network computer that is directly attached to the printer. The server controls the printer and handles print jobs sent from the clients. See also Client.

Shielded

A type of cable that contains a metallic sheath over the conductor material to protect the data passing through the cable from electromagnetic interference. You need to use a double-shielded interface cable with this printer.

Spooling

A process by which an application sends a document to the spooler, rather than directly to the printer, thus freeing the computer and application for other tasks. Spooled documents are printed in the order they are received.

T

Title bar

The horizontal bar that contains the title of a window or dialog box. On many windows, the title bar contains the [Control] menu box and Maximize and Minimize buttons.

Toner

A black, resin-coated powder contained in the cartridge. The printer applies the toner to the surface of the photosensitive drum inside the printer via an electrophotographic mechanism.

Toner saver

Because the black areas of print data are thinned, toner consumption is reduced.

Tool bar

In the Status Window, the area in the tab sheet that includes buttons for pausing, resuming, and deleting the current print job.

Transfer roller

Presses the paper against the drum, to aid the transfer of toner to the paper.

TrueType fonts

Scalable fonts used for both screen display and printing. TrueType fonts can be sized to any height, and print exactly as they appear on the screen, but with higher resolution.

U

Universal Serial Bus (USB) interface

These are new serial interface standards. This bus automatically recognizes connections (Plug and Play) to allow plugging and unplugging connectors with the power still turned on to the PC or peripheral equipment.

V

Virtual Memory

Space on the hard disk that Windows uses for temporary data storage as if it were actually Random Access Memory (RAM). Windows does this by means of a swap file. This provides Windows with more usable memory, but reduces speed of access to it when the swap file must be used. See also Physical RAM.

W

Weight

Refers to the thickness of a font: light, medium, or bold. Also refers to the thickness of paper.

Windows Explorer

The Windows program you can use to browse through, open, and manage the disk drives, folders, and files on your computer in a network system. You can also use Windows Explorer to view and open shared folders on other computers on the network. You can use Windows Explorer to manage your files by moving, copying, renaming, and deleting files.

WYSIWYG

Pronounced wizzy-wig, an acronym for “what you see is what you get.” For example, when you format a paragraph, the line breaks that appear on the printed page are exactly the same as they are on the screen.

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