



Linux

UFR II/UFRII LT Printer Driver

User's Guide

Contents

Introduction	2
How to Use the Manual	3
Notations Used in the Manual	4
Disclaimers	5
Copyright	6
Trademarks	7
About This Driver	9
Before Use	12
Installing the Driver	14
Pre-installation Check	15
System Requirements	16
Cautions for Installation	17
About the Readme File	18
Installation Procedures	19
Installing Using the Installer	20
Installing the Required Modules Individually	22
Registering a Printer	24
Checking the Driver Version	28
Overwriting the Module to Upgrade the Driver	29
Uninstalling a Driver	33
Printing	38
Printing Using the Driver UI	39
Printing from an Application	41
Registering the Printer with OpenOffice 1.xx	42
Registering the Printer with GIMP 2.x	43
Printing from an Application	44
Functions Not Available from Applications	45
Outputting PostScript Files from an Application	46
Caution When Printing from Applications	47
Cautions When Printing a PostScript File From the Driver UI	53
Printing from the Command Line	54
Settings List	56
[cnglp2] Screen	57
[General] Sheet	58
[Finishing] Sheet	59

[Paper Source] Sheet	63
[Quality] Sheet	64
[Device Settings] Sheet	67

Command List 70

Command Format	71
Basic Settings	72
Finishing - 1-sided/2-sided Printing	73
Finishing - Paper Output Method	74
Finishing - Paper Output Destination	76
Finishing - Booklet Printing	81
Finishing - Paper Folding	83
Finishing - Special Print Processing	85
Finishing - Secure Printing	88
Paper Source - Paper Source/Paper Type	89
Paper Source - Front/Back Cover	92
Quality - Color Adjustment	94
Quality - Image Processing	96
Quality - Toner Adjustment	98
Device Settings - Output Method	100
Device Settings - Authentication Function	102

Appendix 105

Main Restrictions	106
Support	107

Introduction

Introduction	2
How to Use the Manual	3
Notations Used in the Manual	4
Disclaimers	5
Copyright	6
Trademarks	7

Introduction

6X09-000

- ▶ **How to Use the Manual(P. 3)**
- ▶ **Disclaimers(P. 5)**
- ▶ **Copyright(P. 6)**
- ▶ **Trademarks(P. 7)**

How to Use the Manual

6X09-001

This explains things that you need to know in order to use this manual.

▶ **Notations Used in the Manual(P. 4)**

Notations Used in the Manual

6X09-003

This explains symbols and settings used in this manual.

Symbols Used in This Manual

In this manual, explanations of items and operations that must be followed while using the driver are set forth the symbols that indicate the following.

IMPORTANT

Indicates operational requirements and restrictions. Be sure to read these items carefully to operate the product correctly, and avoid damage to the product.

NOTE

Indicates a clarification of an operation, or contains additional explanations for a procedure. Reading these notes is highly recommended.

About Settings

In this manual, setting names displayed on the computer screen are represented as shown in the following examples.

Example:

[Print]

[OK]

Disclaimers

6X09-006

The information in this document is subject to change without notice.

CANON INC. MAKES NO WARRANTY OF ANY KIND WITH REGARD TO THIS MATERIAL, EITHER EXPRESS OR IMPLIED, EXCEPT AS PROVIDED HEREIN, INCLUDING WITHOUT LIMITATION, THEREOF, WARRANTIES AS TO MARKETABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OF USE OR NON-INFRINGEMENT. CANON INC. SHALL NOT BE LIABLE FOR ANY DIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, OR LOSSES OR EXPENSES RESULTING FROM THE USE OF THIS MATERIAL.

Copyright

6X09-007

Copyright CANON INC. 2020

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual, or otherwise, without the prior written permission of Canon Inc.

Trademarks

6X09-008

Microsoft, Windows, Internet Explorer, and Microsoft Edge are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

macOS and Safari are trademarks of Apple Inc.

Other product and company names herein may be the trademarks of their respective owners.

About This Driver

About This Driver 9

About This Driver

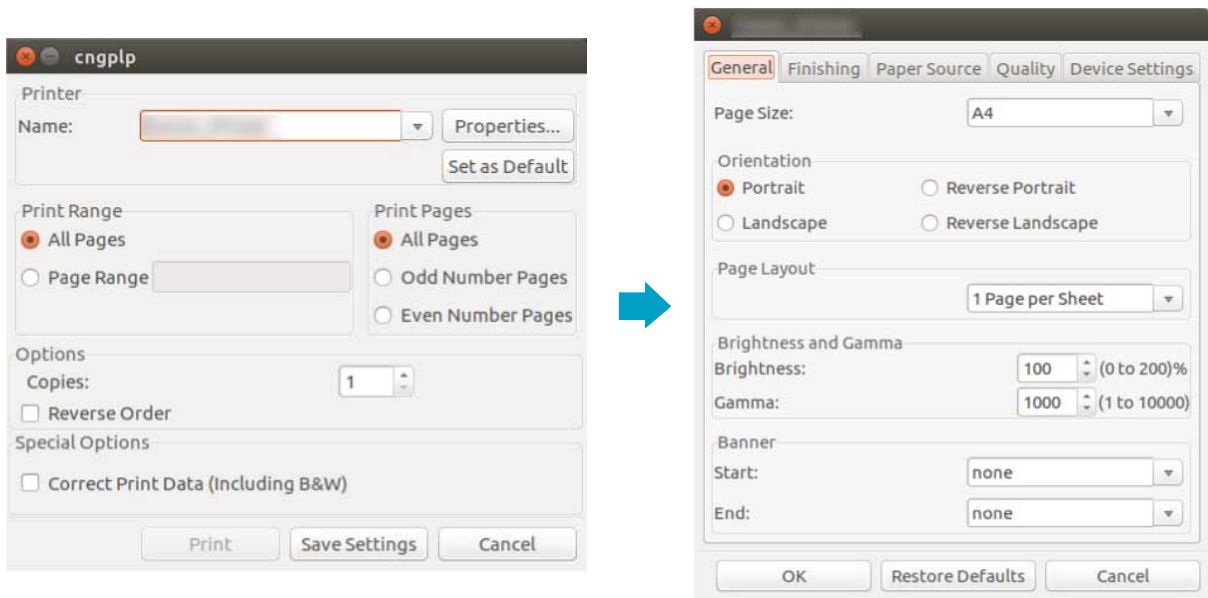
6X09-009

This driver is a Linux operating system printer driver that supports Canon devices. It uses CUPS (the Common UNIX Printing System) for Linux operating systems.

Installing this driver enables you to print with built-in device functions from the GUI (Graphical User Interface) settings screen and command line.

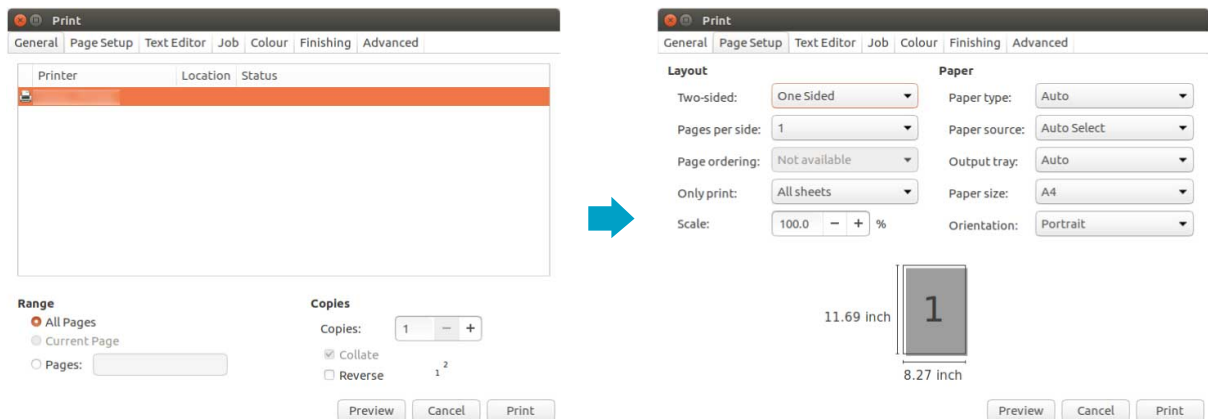
Printing from the Driver Settings Screen

You can execute a command and print from the displayed driver settings screen. You can also set the built-in device functions.



Printing from the Application Settings Screen

You can display the settings screen and print from the print menu of an application. The print functions that can be configured differ according to the application.



NOTE

- Print functions that cannot be configured from the application can be used by changing the default settings from the driver configuration screen or the command line.

Printing from the Command Line

You can use the `lpr` command to print. Built-in device functions can be specified as options.

Related Topics

- ▶ [Printing Using the Driver UI\(P. 39\)](#)
- ▶ [Printing from an Application\(P. 41\)](#)
- ▶ [Printing from the Command Line\(P. 54\)](#)

Before Use

Before Use 12

Before Use

6X09-00A

- The newest driver software is posted on the Canon web site. Please verify the operating environment etc. and download the appropriate software as required.
Canon Global Site: <https://global.canon/>
- The functions that you can use may vary according to the following conditions.
 - The device you are using and its settings
 - The firmware version of the device
 - The option structure of the device
 - The driver version
 - The computer environment you are using
- Depending on your screen resolution settings, the buttons at the bottom of the printer driver screen may not be displayed. If this is the case, drag the driver screen while holding down the [Alt] key or Super key to display the buttons.
- The screen content, procedures, etc. displayed and described in the manual may differ from those actually displayed.
- The driver module and package file name indicated in this manual may differ according to the driver version you are using.
- In this manual, examples using Ubuntu 16.04 are explained.
- For information on CUPS, see the following website.
CUPS Software Administrators Manual: <http://www.cups.org>

Installing the Driver

Installing the Driver	14
Pre-installation Check	15
System Requirements	16
Cautions for Installation	17
About the Readme File	18
Installation Procedures	19
Installing Using the Installer	20
Installing the Required Modules Individually	22
Registering a Printer	24
Checking the Driver Version	28
Overwriting the Module to Upgrade the Driver	29
Uninstalling a Driver	33

Installing the Driver

6X09-00C

This section describes the method for installing and uninstalling the driver.

- ▶ **Pre-installation Check(P. 15)**
- ▶ **Installation Procedures(P. 19)**
- ▶ **Installing Using the Installer(P. 20)**
- ▶ **Installing the Required Modules Individually(P. 22)**
- ▶ **Registering a Printer(P. 24)**
- ▶ **Checking the Driver Version(P. 28)**
- ▶ **Overwriting the Module to Upgrade the Driver(P. 29)**
- ▶ **Uninstalling a Driver(P. 33)**

Pre-installation Check

6X09-00E

This describes what needs to be checked beforehand in order to install the driver correctly.

- ▶ **System Requirements(P. 16)**
- ▶ **Cautions for Installation(P. 17)**
- ▶ **About the Readme File(P. 18)**

System Requirements

6X09-00F

Use one of the following system environments with this driver.

Hardware

A computer running Linux that is equipped with an x86 compatible 32-bit CPU or 64-bit CPU.

Software

- CUPS

Install the version of CUPS that supports the distribution you are using to the operating system and start it before installing the driver.

The adding of printers and printing must be enabled in the various security services.

- Ghostscript

Before printing, install or update the version of Ghostscript that supports the distribution you are using. Ghostscript can be obtained from the website for the distribution.

Cautions for Installation

6X09-00H

Note the following during installation.

- When installing the driver or registering a printer using the Canon Printer Setup Utility, start the CUPS spooler service first.
- If the CUPS status cannot be displayed in the network environment in which the IP address of your computer is specified, you must set CUPS security.

Add the IP address of the computer using CUPS to the following items in `/etc/cups/cupsd.conf` and restart CUPS.

```
<Location />
```

```
<Location /admin>
```

An example of adding the IP address `xx.xxx.xxx.xxx` to `cupsd.conf` is presented below.

```

:
<Location />
Order Deny,Allow
Deny From All
Allow From 127.0.0.1
Allow From xx.xxx.xxx.xxx
</Location>
:
<Location /admin>
:
Order Deny,Allow
Deny From All
Allow From 127.0.0.1
Allow From xx.xxx.xxx.xxx
:
</Location>

```

For information on the security settings, etc. related to networks for using CUPS, see the manual for CUPS.

- If you want to update version 3.70 or an earlier version of the driver to version 5.00 or later, delete the registered printers, then uninstall the existing driver before installing version 5.00 or later.

Related Topics

- ▶ [Installing Using the Installer\(P. 20\)](#)
- ▶ [Installing the Required Modules Individually\(P. 22\)](#)
- ▶ [Overwriting the Module to Upgrade the Driver\(P. 29\)](#)
- ▶ [Uninstalling a Driver\(P. 33\)](#)

About the Readme File

6X09-00J

The Readme file describes precautions for installing and using the driver.

The Readme file is saved under the following name in the [Documents] directory of the downloaded driver.
"x.xx" indicates the version.

README-ufr2-x.xxUK.html

Installation Procedures

6X09-00K

In order to perform printing, it is necessary to register the printer in the CUPS spooler service after installing the driver.

Select the installation method that suits your environment.

For Ubuntu/Fedora/CentOS 7.3 or later/Debian 8.6 or later

You can use the installer to newly install or update the driver.

Installing Using the Installer(P. 20)

↓

Registering a Printer(P. 24)

For other distributions

Newly Installing the Driver

Installing the Required Modules Individually(P. 22)

↓

Registering a Printer(P. 24)

Updating the Driver

Overwriting the Module to Upgrade the Driver(P. 29)

↓

Registering a Printer(P. 24)

Related Topics

- ▶ [System Requirements\(P. 16\)](#)
- ▶ [Cautions for Installation\(P. 17\)](#)

Installing Using the Installer

6X09-00L

You can use the installer to install a new driver.

You can also update a driver that is already installed using this procedure. Confirm the registered printer information in advance, as it is necessary to register the printer again after the update.

When using the installer, it is recommended that you use one of the following distributions.

Ubuntu/Fedora/CentOS 7.3 or later/Debian 8.6 or later

Prerequisites

- **System Requirements(P. 16)**
 - **Cautions for Installation(P. 17)**
 - The computer to install the driver to is connected to the internet
 - The installer has been prepared
- Download the latest version of the driver from the Canon website (<https://global.canon/>).
- Extract the downloaded driver to the computer.

Procedures

1 Start the installer using a command from the terminal.

An example in which the current directory is the directory where install.sh is stored is presented below.

Using the sudo command

```
$ sudo ./install.sh
```

Using the su command

```
$ su  
# ./install.sh
```

2 If a message confirming whether you want to proceed with the installation is displayed, check the message and enter [Y] if you wish to proceed.

3 If [Installation is complete. Do you want to register the printer now?] is displayed, decide whether to proceed with printer registration.

Enter [Y] to proceed with printer registration. The utility (Canon Printer Setup Utility) is displayed.

If you do not want to register a printer or you want to register a printer that requires bi-directional printing connections via a USB connection, enter [N] to close the installer.

If the installation process cannot be performed correctly, see the limitations related to installation etc. in the Readme file.

Related Topics

- ▶ [Registering a Printer\(P. 24\)](#)
- ▶ [About the Readme File\(P. 18\)](#)
- ▶ [Installing the Required Modules Individually\(P. 22\)](#)

Installing the Required Modules Individually

6X09-00R

You can use a command to install the required modules individually. Follow this procedure if you cannot use the installer.

If this procedure cannot be performed correctly, see the limitations related to installation etc. in the Readme file.

Prerequisites

- **System Requirements(P. 16)**
- **Cautions for Installation(P. 17)**
- The computer to install the driver to is connected to the internet
- You have super user privileges
Perform this operation after executing the sudo command or su command.
- The modules required for installation have been prepared
Download the latest version of the driver from the Canon website (<https://global.canon/>).
Extract the downloaded driver to the computer.

Procedures

The procedures for both a Red Hat type distribution and Debian type distribution are indicated below.

"x.xx" in the file name indicates the version of the module to be installed.

The example command indicates an example when you have used the cd command to move to the directory where the file to be specified is stored.

For Red Hat Type Distributions

1 Install the printer driver module.

For 32-bit environments

```
# rpm -ivh cnrdrcups-ufr2-uk-x.xx-1.i386.rpm
```

For 64-bit environments

```
# rpm -ivh cnrdrcups-ufr2-uk-x.xx-1.x86_64.rpm
```

2 Install the PPD files.

Using wild cards, specify all PPD file installation packages that include drivers.

```
# rpm -ivh cnrcups*
```

3 Restart CUPS.

Use one of the following commands.

```
# /etc/init.d/cups restart
```

or

```
# service cups restart
```

Register the printer after CUPS has finished restarting. Do not register the printer until CUPS has completely finished restarting.

For Debian Type Distributions

1 Install the printer driver module.

For 32-bit environments

```
# dpkg -i cnrdrcups-ufr2-uk_x.xx-1_i386.deb
```

For 64-bit environments

```
# dpkg -i cnrdrcups-ufr2-uk_x.xx-1_amd64.deb
```

2 Install the PPD files.

Using wild cards, specify all PPD file installation packages that include drivers.

```
# dpkg -i cnrcups*
```

3 Restart CUPS.

Use one of the following commands.

```
# /etc/init.d/cupsys restart
```

or

```
# service cups restart
```

It may be necessary to use a command for the rpm package, depending on the operating system and distribution you are using.

Register the printer after CUPS has finished restarting. Do not register the printer until CUPS has completely finished restarting.

Related Topics

- ▶ [Registering a Printer\(P. 24\)](#)
- ▶ [About the Readme File\(P. 18\)](#)

Registering a Printer

6X09-00S

Register the printer to the spooler service of CUPS.

If you have started the utility (Canon Printer Setup Utility) from the driver installer, start the procedure from step 2.(P. 24) .

Prerequisites

- The driver has been installed
- The host name or IP address has been checked (when registering a network printer)
- A USB cable is not connected to the printer (when registering a printer via USB)

Procedures

1 Start the Canon Printer Setup Utility.

For Red Hat type distributions

Execute the following command with super user privileges from the terminal.

```
$ su  
# cnsetuputil2
```

For Debian type distributions

Start the Canon Printer Setup Utility by either one of the following methods.

- Select the following icon (Canon Printer Setup Utility) from the app list of the operating system.



If the above icon is displayed multiple times in the app list, check the explanation of each one by right-clicking the icon and select the Canon Printer Setup Utility corresponding to this driver.

- Execute the following command.

```
$ cnsetuputil2
```

2 Perform one of the following operations according to the printer connection method.

For network printers

Click [Add] → proceed to the next step.

For printers connected via USB

(1) Turn the main power of the printer ON → connect the computer and printer via USB cable → click [Refresh].

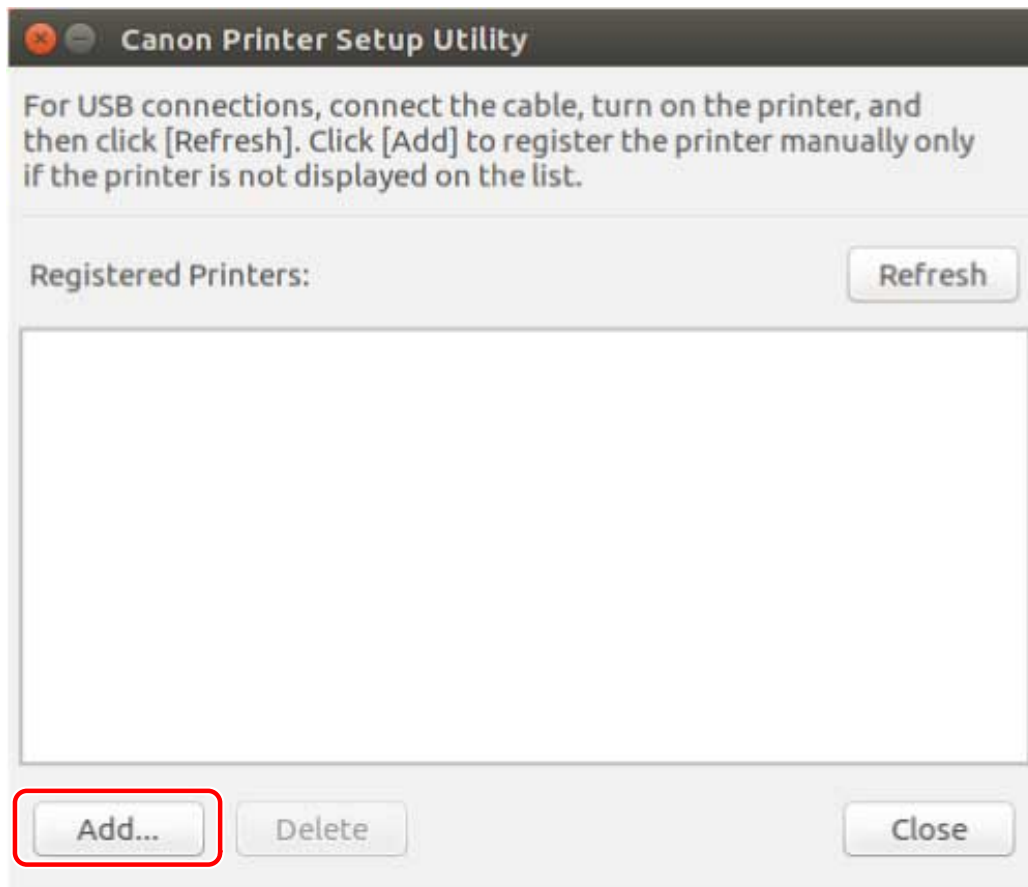
Installing the Driver

If the printer is displayed in the list, printer registration is complete.

If the printer is not displayed in the list, proceed to the next step.

(2) Disconnect and reconnect the cable with the main power of the printer ON → click [Refresh].

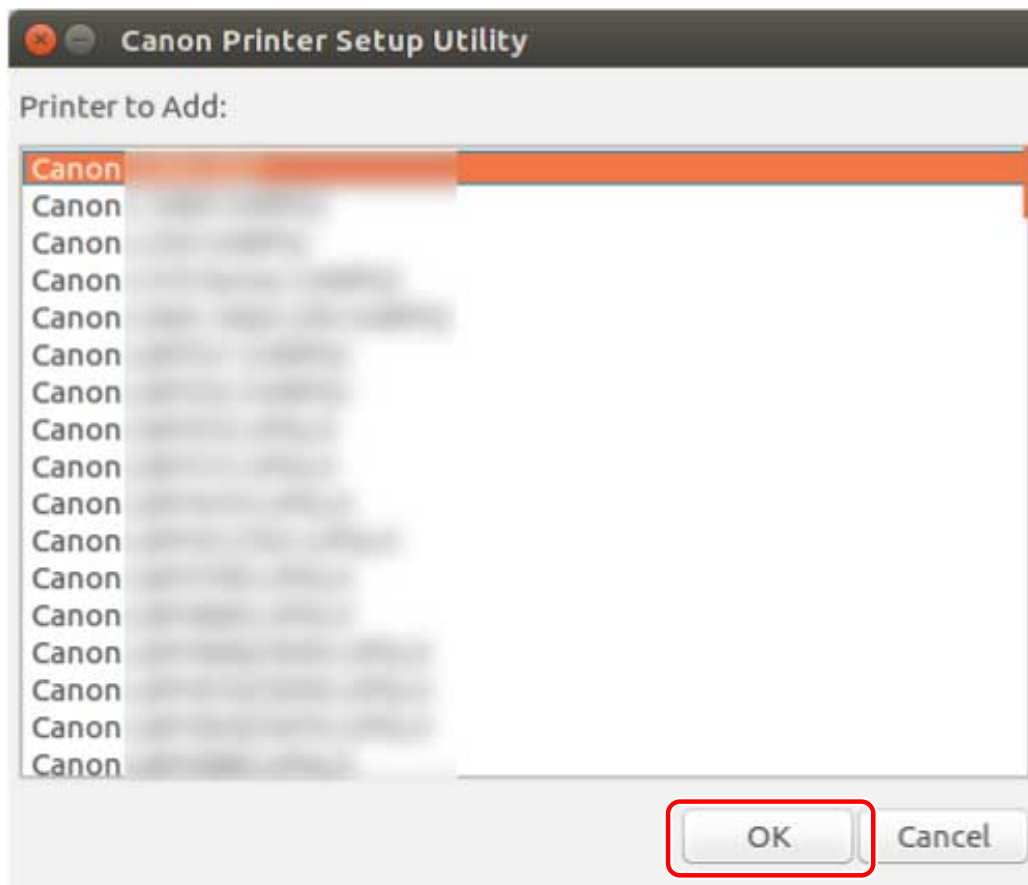
(3) If the printer is still not displayed in the list, click [Add] → proceed to the next step.



[Refresh]: Updates the list in [Registered Printers].

[Delete]: Deletes the selected printer.

3 Select the printer to be registered → click [OK].



4 Select the protocol or device URI, depending on how the printer is connected → click [Register].

For network printers

Select the [lpd] or [socket] protocol and enter [Host Name or IP Address].

Specify the IP address in one of the following formats, according to the protocol used.

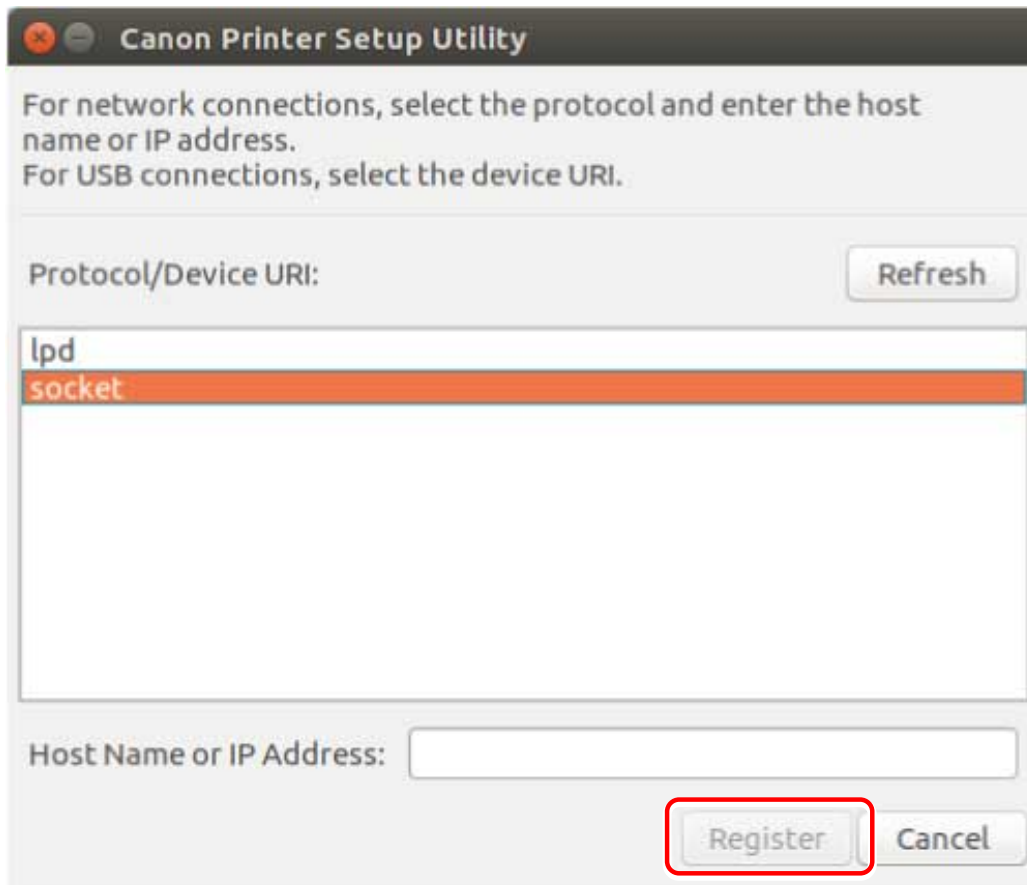
IPv4: "xxx.xxx.xxx.xxx"

IPv6 global address: "xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx"

IPv6 link-local address (example when the interface name is "eth0"): "xxxx:xxxx:xxxx:xxxx:xxxx:xxxx+eth0"

For printers connected via USB

Select the device URI starting with [usb://].



If you want to register multiple printers, repeat steps 2.(P. 24) to 4.(P. 26) .

5 When printer registration is complete, click [Close].

If printing cannot be performed correctly with the registered printer, use the Canon Printer Setup Utility to delete the printer by clicking [Delete] and then register the printer again by clicking [Add].

Checking the Driver Version

6X09-00U

This section describes the procedure for using a command to check the version of a currently installed driver and PPD files.

1 Display the package names of the installed driver.

For Red Hat type distributions

```
$ rpm -qa | grep cnrdrvups
```

For Debian type distributions

```
$ dpkg -l | grep cnrdrvups
```

2 Check the version of the driver.

The package names are displayed as indicated below. "x.xx" is the driver version.

```
cnrdrvups-ufr2-uk-x.xx-x
```

3 Display the package names of the installed PPD files.

For Red Hat type distributions

```
$ rpm -qa | grep cnrcups | grep zk
```

For Debian type distributions

```
$ dpkg -l | grep cnrcups | grep zk
```

4 Check the version of the PPD files.

The package names are displayed as indicated below. "x.xx" is the version of the PPD files.

The PPD file name for each model is "cnrcupsxxxxzk", where "xxxx" is the model name.

```
cnrcupsxxxxzk-x.xx-x
```

Overwriting the Module to Upgrade the Driver

6X09-00W

If the installer cannot be used in your environment, overwrite the module to update the installed driver to a newer version.

To update a driver, it is necessary to delete the registered printer. Confirm the registered printer information in advance, as it is necessary to register the printer again after the update.

Prerequisites

- The installation package has been obtained
Download the latest version of the driver from the Canon website (<https://global.canon/>).
Extract the downloaded driver to the computer.
- The settings for the department management function have been backed up
If you want to use the same information after updating the driver, back up the files in the following directory with super user privileges before updating the driver.
 - When version 5.00 or later is installed
/etc/cngplp2/account
 - When version 3.70 or earlier is installed
/etc/cngplp/account
- You have super user privileges
Perform this operation after executing the sudo command or su command.

Procedures

Execute the procedure corresponding to the installed driver and environment.

- **Updating Version 5.00 or Later**
 - ▶ **Red Hat Type Distributions(P. 29)**
 - ▶ **Debian Type Distributions(P. 30)**
- **Updating Version 3.70 or Earlier**
 - ▶ **Shared Distributions(P. 31)**

"x.xx" in the file name of the module in the procedure indicates the version.

The example command indicates an example when you have used the cd command to move to the directory where the module to be specified is stored.

Updating Version 5.00 or Later - Red Hat Type Distributions

1 Delete the registered printer.

(1) Execute the following command from the terminal to start the Canon Printer Setup Utility.

```
# cnsetuputil2
```

(2) Select the printer to be deleted on the displayed screen → click [Delete] → click [Close] when the printer has been deleted.

The Canon Printer Setup Utility closes.

2 Install the printer driver module.

For 32-bit environments

```
# rpm -Uvh cnrdrv cups-ufr2-uk-x.xx-1.i386.rpm
```

For 64-bit environments

```
# rpm -Uvh cnrdrv cups-ufr2-uk-x.xx-1.x86_64.rpm
```

3 Install the PPD files.

Using wild cards, specify all PPD file installation packages that include drivers.

```
# rpm -Uvh --replacepkgs cncups*
```

4 Confirm that only the new version of the driver exists.

Display and check the information about the driver version.

```
# rpm -qa | grep cnrdrv cups
```

Display and check the information about the PPD files.

```
$ rpm -qa | grep cncups | grep zk
```

5 Restart CUPS.

Use one of the following commands.

```
# /etc/init.d/cups restart
```

or

```
# service cups restart
```

If the printer was already registered, register it again. However, do not register the printer until CUPS has finished restarting.

If you want to back up the settings information of the department management function, save it to the following directory.

```
/etc/cngplp2/account
```

Updating Version 5.00 or Later - Debian Type Distributions

1 Delete the registered printer.

(1) Start the Canon Printer Setup Utility by performing one of the following operations.

- Select [Canon Printer Setup Utility 2] from the menu screen of the operating system.
- Execute the following command.

```
$ cnsetuputil2
```

(2) Select the printer to be deleted on the displayed screen → click [Delete] → click [Close] when the printer has been deleted.

The Canon Printer Setup Utility closes.

2 Install the printer driver module.

For 32-bit environments

```
# dpkg -i cnrdrv cups-ufr2-uk_x.xx-1_i386.deb
```

For 64-bit environments

```
# dpkg -i cnrdrv cups-ufr2-uk_x.xx-1_amd64.deb
```

3 Install the PPD files.

Using wild cards, specify all PPD file installation packages that include drivers.

```
# dpkg -i cnrcups*
```

4 Confirm that only the new version of the driver exists.

Display and check the information about the driver version.

```
# dpkg -l | grep cnrdrv cups
```

Display and check the information about the PPD files.

```
$ dpkg -l | grep cnrcups | grep zk
```

5 Restart CUPS.

Use one of the following commands.

```
# /etc/init.d/cups restart
```

or

```
# service cups restart
```

It may be necessary to use a command for the rpm package, depending on the operating system and distribution you are using.

If the printer was already registered, register it again. However, do not register the printer until CUPS has finished restarting.

If you want to back up the settings information of the department management function, save it to the following directory.

```
/etc/cngplp2/account
```

Updating Version 3.70 or Earlier - Shared Distributions

1 Uninstalling a Driver(P. 33)

2 Installing the Required Modules Individually(P. 22)

If the printer was already registered, register it again. However, do not register the printer until CUPS has finished restarting.

If you want to back up the settings information of the department management function, save it to the following directory.

/etc/cngplp2/account

Related Topics

- ▶ **Checking the Driver Version(P. 28)**
- ▶ **Registering a Printer(P. 24)**
- ▶ **Installing Using the Installer(P. 20)**

Uninstalling a Driver

6X09-00X

This section describes the procedure for uninstalling an unnecessary driver. It is necessary to uninstall the driver after deleting the printer registered with the utility (Canon Printer Setup Utility).

If you also need to uninstall the driver to update it, follow this procedure to do so.

Execute the procedure corresponding to the installed driver and environment.

- **Uninstalling Version 5.00 or Later**
 - ▶ **Red Hat Type Distributions(P. 33)**
 - ▶ **Debian Type Distributions(P. 34)**
- **Uninstalling Version 3.70 or Earlier**
 - ▶ **Red Hat Type Distributions(P. 34)**
 - ▶ **Debian Type Distributions(P. 35)**

Uninstalling Version 5.00 or Later - Red Hat Type Distributions

1 Switch to an account with super user privileges.

Using the `sudo` command

```
$ sudo su
```

Using the `su` command

```
$ su
```

2 Delete the registered printer.

(1) Execute the following command from the terminal to start the Canon Printer Setup Utility.

```
# cnsetuputil2
```

(2) Select the printer to be deleted on the displayed screen → click [Delete] → click [Close] when the printer has been deleted.

The Canon Printer Setup Utility closes.

3 Uninstall the PPD files.

```
# rpm -qa | grep cncups | grep zk | xargs rpm -e
```

4 Uninstall the printer driver module.

```
# rpm -e cnrdrcups-ufr2-uk
```

Uninstalling Version 5.00 or Later - Debian Type Distributions

1 Delete the registered printer.

- (1) Start the Canon Printer Setup Utility by performing one of the following operations.
- Select [Canon Printer Setup Utility 2] from the menu screen of the operating system.
 - Execute the following command.

```
$ cnsetuputil2
```

- (2) Select the printer to be deleted on the displayed screen → click [Delete] → click [Close] when the printer has been deleted.

The Canon Printer Setup Utility closes.

2 Switch to an account with super user privileges.

Using the sudo command

```
$ sudo su
```

Using the su command

```
$ su
```

3 Uninstall the PPD files.

```
# dpkg -l | grep cnrcups | grep zk | awk '{print $2}' | xargs dpkg -P
```

4 Uninstall the printer driver module.

```
# dpkg -P cnrdrcups-ufr2-uk
```

Uninstalling Version 3.70 or Earlier - Red Hat Type Distributions

1 Switch to an account with super user privileges.

Using the sudo command

```
$ sudo su
```

Using the su command

```
$ su
```

2 Delete the registered printer.

- (1) Execute the following command from the terminal to start the Canon Printer Setup Utility.

```
# cnsetuputil
```

(2) Select the printer to be deleted on the displayed screen → click [Delete] → click [Close] when the printer has been deleted.

The Canon Printer Setup Utility closes.

3 Uninstall the PPD files.

```
# rpm -qa | grep cncups | grep zk | xargs rpm -e
```

4 Uninstall the printer driver module.

```
# rpm -e cndrv cups-ufr2-uk
```

5 Uninstall the CUPS common driver module.

```
# rpm -e cndrv cups-common
```

6 Uninstall the Canon Printer Setup Utility.

```
# rpm -e cndrv cups-utility
```

Uninstalling Version 3.70 or Earlier - Debian Type Distributions

1 Delete the registered printer.

(1) Start the Canon Printer Setup Utility by performing one of the following operations.

- Select [Canon Printer Setup Utility] from the menu screen of the operating system.
- Execute the following command.

```
$ cnsetuputil
```

(2) Select the printer to be deleted on the displayed screen → click [Delete] → click [Close] when the printer has been deleted.

The Canon Printer Setup Utility closes.

2 Switch to an account with super user privileges.

Using the sudo command

```
$ sudo su
```

Using the su command

```
$ su
```

3 Uninstall the PPD files.

```
# dpkg -l | grep cncups | grep zk | awk '{print $2}' | xargs dpkg -P
```

4 Uninstall the printer driver module.

```
# dpkg -P cndrv cups-ufr2-uk
```

5 Uninstall the CUPS common driver module.

```
# dpkg -P cndrv cups-common
```

6 Uninstall the Canon Printer Setup Utility.

```
# dpkg -P cndrv cups-utility
```

Related Topics

- ▶ [Registering a Printer\(P. 24\)](#)

Printing

Printing	38
Printing Using the Driver UI	39
Printing from an Application	41
Registering the Printer with OpenOffice 1.xx	42
Registering the Printer with GIMP 2.x	43
Printing from an Application	44
Functions Not Available from Applications	45
Outputting PostScript Files from an Application	46
Caution When Printing from Applications	47
Cautions When Printing a PostScript File From the Driver UI	53
Printing from the Command Line	54

Printing

6X09-00Y

This section describes the printing method using the driver.

- ▶ **Printing Using the Driver UI(P. 39)**
- ▶ **Printing from an Application(P. 41)**
- ▶ **Printing from the Command Line(P. 54)**

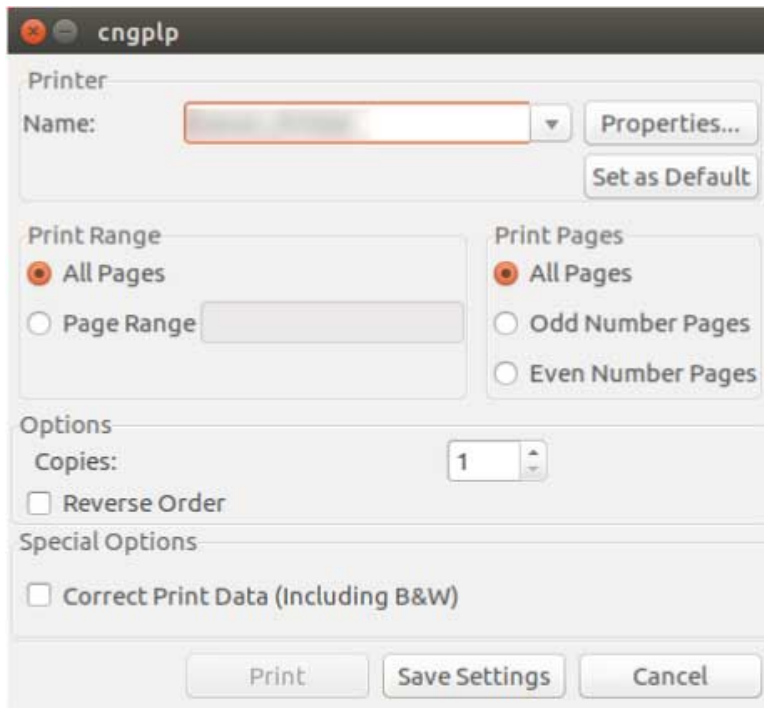
Printing Using the Driver UI

6X09-010

When editing default settings and performing printing using the driver UI, use the following command.

Specifying default settings: `$ cngplp2`

This command enables you to set the various default printing attributes. They are effective until updated or reset.



NOTE

- Because this command executes only default print attribute settings, it uses only the [Save Settings] and [Cancel] buttons on the UI.

Printing Using the UI Settings: `$ cngplp2 -p [File Name]`

This command enables you to print a target file, specifying the various print settings.

Printer
Name: Properties...
Set as Default

Print Range
 All Pages
 Page Range

Print Pages
 All Pages
 Odd Number Pages
 Even Number Pages

Options
Copies:
 Reverse Order

Special Options
 Correct Print Data (Including B&W)

Print Print and Save Settings Cancel

 **NOTE**

- When you finish specifying the settings by clicking the [Print] button, those settings are available only for the current print job.
- When you finish specifying the settings by clicking the [Print and Save Settings] button, the file is printed with those settings, and they are saved as the default printing attributes.
- When you finish specifying the settings by clicking the [Cancel] button, the settings are not updated.

 **NOTE**

- For details about print settings from the driver UI, refer to "**Settings List(P. 56)**."


Printing from an Application

6X09-011

When printing from an application, edit the print settings in the print settings dialog box displayed by the application. You can also set the various default printing attributes using the driver UI (see "**Settings List**(P. 56)"). However, the settings from the application take priority over those from the driver UI.

Depending on the application you use, you may need to register the printer with the application beforehand. To register the printer with OpenOffice or GIMP, follow the procedures in this section.

- ▶ **Registering the Printer with OpenOffice 1.xx**(P. 42)
- ▶ **Registering the Printer with GIMP 2.x**(P. 43)
- ▶ **Printing from an Application**(P. 44)
- ▶ **Functions Not Available from Applications**(P. 45)
- ▶ **Outputting PostScript Files from an Application**(P. 46)
- ▶ **Caution When Printing from Applications**(P. 47)
- ▶ **Cautions When Printing a PostScript File From the Driver UI**(P. 53)

 **NOTE**

- For detailed information about print settings from applications, refer to the manuals provided with the applications.
- When printing from OpenOffice under SuSE 9.2/9.3, you do not need to register the printer with OpenOffice.

Registering the Printer with OpenOffice 1.xx

6X09-012

- 1 On the Start menu, point to [Program] - [Office], and then select [OpenOffice Printer Administration].**

The [Printer Administration] dialog box is displayed.

- 2 Click the [New Printer] button.**

The [Add Printer] dialog box is displayed.

- 3 Select [Create Printer], and then click the [Next] button.**

- 4 Click the [Import] button.**

The [Install Driver] dialog box is displayed.

- 5 Enter '/usr/share/cups/model' under [Driver Directory], or click the [Browse] button to select the directory '/usr/share/cups/model', select the driver for your printer from the [Selection of drivers] list box, and then click the [OK] button.**

The [Add Printer] dialog box is displayed.

- 6 Select the driver imported in step 5 from the list, and then click the [Next] button.**

- 7 Select or enter a command line that you want to use to print with your printer, and then click the [Next] button.**

Enter the following command:

```
lpr -P [the printer name registered with the print spooler]
```

- 8 Specify a name for your printer, and click the [Finish] button.**

If you want to set the printer as the default printer, select [Set as Default].

- 9 In the [Printer Administration] dialog box, click the [Close] button.**

Registering the Printer with GIMP 2.x

6X09-013

- 1** Start GIMP, and then display the print dialog box by right-clicking on an image to be printed, and selecting [File] and [Print] from the pop-up menu.
- 2** Select the printer registered with the print spooler from [Printer Name] in the [Printer Settings] sheet.
- 3** Click the [Setup Printer] button.

The [Setup Printer] dialog box is displayed.

- 4** Enter a command line that you want to use to print with your printer.

Enter the following command:

```
lpr -P [the printer name registered with the print spooler]
```

- 5** Click the [Browse] button to specify the PPD file for your printer, or enter the full path to the file.



NOTE

- The PPD file is located in /usr/share/cups/model.

- 6** Click the [OK] button, and then click the [Save Settings] button in the print dialog box.

Printing from an Application

6X09-014

The procedures and menus described below may differ depending on the application you use. This section describes the printing method with OpenOffice.org.

- 1 Open the application, and create a document.**
- 2 Select [Print] from the [File] menu.**
- 3 Select that the name of the printer you want to use is displayed in [Name], and click the [Properties] button.**

 **NOTE**

- In case of using OpenOffice.org, select the printer name which is not surrounded by "<Printer Name>" (<iR105+>). If you select the printer name surrounded by "<Printer Name>", you can't print.

- 4 Set the printing conditions in the Settings dialog box, and click the [OK] button.**
- 5 Click the [Print] button.**

 **NOTE**

- It may be necessary to specify printing commands and PPD files from within the application.

Functions Not Available from Applications

6X09-015

The following functions cannot be set from the print settings dialog box displayed from applications.

Use the driver UI or the command line to set these functions.

Function	Note
Gutter	*1
Creep (displacement) adjustment	*1
Trim width	*1
Print starting position (front/back, long edge/short edge)	*1
Offset number	*1
Secure print settings in output method	*2
Store destination settings in output method	*1
Department ID Management	*3
Stack Details (Number of Copies)	*1
Department ID Management, with black and white printing specified	*1
User Authentication	*3

- *1: Can be set from applications that accept command line input (example: Adobe Reader 7.x)
- *2: Can be set by starting the supplied cnjtool or driver UI from the command line with user privileges
- *3: Can be set from the command line using the supplied cnjtool

NOTE

If you want to use the above functions to perform printing from an application, output to a PostScript file and then print that PostScript file from the driver UI. (See " **Outputting PostScript Files from an Application(P. 46)** .")

Outputting PostScript Files from an Application

6X09-016

When you want to perform printing using functions that cannot be used from an application (see "**Functions Not Available from Applications(P. 45)**") or it is not obtained the print result that you aimed at (see "**Caution When Printing from Applications(P. 47)**"), output to a PostScript file, and then print that PostScript file from the driver UI.

The method for outputting a PostScript file differs according to the application. This section describes the procedure for outputting a PostScript file with Adobe Reader 7.x/8.x/9.x and Open Office 1.x/2.x/3.x.

1 Select [Print] from the [File] menu.

The [Print] dialog box is displayed.

2 Select [Print to file] → click [OK].



NOTE

Use the default settings of the application for the print settings.

3 Specify the location to save the file and the filename.



NOTE

If you can specify the file type (output format), select PostScript.

4 Click [Save] ([Print]/[OK]).



NOTE

- Use the default (initial values) for the print settings in the application. When you used it anything other than the default, the print result of no intention of you might come out.

Caution When Printing from Applications

6X09-017

This section describes problems that may occur when printing from applications, and how to avoid them.

- ▶ **Specifying Two-Sided (Short Edge) Printing (Adobe Reader 7.x/8.x and Open Office 2.x)(P. 47)**
- ▶ **Printing When Print Settings Are Disabled (Adobe Reader 7.x)(P. 47)**
- ▶ **Specifying the Page Layout (Open Office 2.x)(P. 48)**
- ▶ **Setting Secured Printing(P. 48)**
- ▶ **Setting Department ID Management(P. 49)**
- ▶ **Setting the User Authentication Function(P. 51)**

Specifying Two-Sided (Short Edge) Printing (Adobe Reader 7.x/8.x and Open Office 2.x)

When you specify two-sided (short edge) printing from the print settings dialog box of Adobe Reader 7.x/8.x or Open Office 2.x, you cannot perform two-sided printing. The method for avoiding this problem is indicated below.

1 Output a PostScript file from the application. (See " Outputting PostScript Files from an Application(P. 46) .")

2 Enter the following command from the command line to start the driver UI:

```
$ cngplp2 -p [PostScript filename].ps
```

The [cngplp2] dialog box is displayed.

3 Select the name of the printer you are using in [Printer Name] → click [Properties].

4 Click the [Finishing] tab → select [2-sided Printing] in [Print Style].

5 Select short edge in [Binding Location] → click [OK].

The screen returns to the [cngplp2] dialog box.

6 Click [Print].

Printing When Print Settings Are Disabled (Adobe Reader 7.x)

When you specify multiple print settings on the printer properties screen of the Adobe Reader 7.x print dialog box, the settings you specify become disabled. The method for avoiding this problem is indicated below.

1 Output a PostScript file from the application. (See " Outputting PostScript Files from an Application(P. 46) .")

2 Enter the following command from the command line to start the driver UI:

```
$ cnglp2 -p [PostScript filename].ps
```

The [cnglp2] dialog box is displayed.

3 Select the name of the printer you are using in [Printer Name] → click [Properties].

4 Specify the desired print settings → click [OK].

The screen returns to the [cnglp2] dialog box.

5 Click [Print].

Specifying the Page Layout (Open Office 2.x)

You cannot select the page layout in the print settings dialog box of Open Office 2.x.

The procedure for printing with the page layout specified is indicated below.

1 Output a PostScript file from the application. (See " Outputting PostScript Files from an Application(P. 46) .")

2 Enter the following command from the command line to start the driver UI:

```
$ cnglp2 -p [PostScript filename].ps
```

The [cnglp2] dialog box is displayed.

3 Select the name of the printer you are using in [Printer Name] → click [Properties].

4 Select the desired layout in [Page Layout] on the [General] sheet → click [OK].

The screen returns to the [cnglp2] dialog box.

5 Click [Print].

Setting Secured Printing

The user name and PIN for secured printing cannot be set from an application. Follow the procedure below to register the user name and PIN from the driver UI or cnjatool in advance.

From the Driver UI

- 1 Enter the following command from the command line to start the driver UI:

```
$ cngplp2 -p [PostScript filename].ps
```

The [cngplp2] dialog box is displayed.

- 2 Select the name of the printer you are using in [Printer Name] → click [Properties].

- 3 click [Device Settings], and select [Secured Print] from [Output Method].

- 4 Click [Settings].

The [Secured Print Settings] dialog box is displayed.

- 5 Enter the user name and PIN → click [OK].

- 6 Click [OK] in the [Device Settings] sheet.

- 7 Click [Save Settings].

From the cnjatool

- 1 Enter the following command with user privileges to start cnjatool.

```
$ cnjatool12 -ps [Printer Name]
```

- 2 Enter the user name and PIN.

Setting Department ID Management

The Department ID Management function cannot be enabled or disabled from an application. The ID and PIN for the Department ID Management function also cannot be registered from an application. Follow the procedure below to use the driver UI or cnjatool to enable the function with administrator privileges, and register the ID and PIN with user privileges.

From the Driver UI

- 1 Enter the following command from the command line to start the driver UI:

```
$ cnglp2 -p [PostScript filename].ps
```

The [cnglp2] dialog box is displayed.

2 Select the name of the printer you are using in [Printer Name] → click [Properties].

3 click [Device Settings], and Select [Job Accounting].

4 Click [Settings].

The [ID/PIN Settings] dialog box is displayed.

5 Enter the ID and PIN → click [OK].

6 Click [OK] in the [Device Settings] sheet.

7 Click [Save Settings].

8 Enter the following command with user privileges to start cnjatool.

9 Enter the ID and PIN again, and save the settings.

From the cnjatool

1 Enter the following command with administrator privileges to enable the Department ID Management function.

```
# cnjatool2 -e [Printer Name]
```

2 Enter the following command with user privileges to start cnjatool.

```
$ cnjatool2 -p [Printer Name]
```

3 Enter the ID and PIN.

NOTE

Also use the driver UI or cnjatool when disabling the Department ID Management function.

Setting the User Authentication Function

The User Authentication Function cannot be enabled or disabled from an application. The user name and PIN for the User Authentication Function also cannot be registered from an application. Follow the procedure below to use the driver UI or cnjatool to enable the function with administrator privileges, and register the user name and PIN with user privileges.

From the Driver UI

- 1 Enter the following command from the command line to start the driver UI:**

```
$ cngplp2 -p [PostScript filename].ps
```

The [cngplp2] dialog box is displayed.

- 2 Select the name of the printer you are using in [Printer Name] → click [Properties].**

- 3 click [Device Settings], and Select [Use User Authentication Function].**

- 4 Click [Settings].**

The [User Name/PIN Settings] dialog box is displayed.

- 5 Enter the user name and PIN → click [OK].**

- 6 Click [OK] in the [Device Settings] sheet.**

- 7 Click [Save Settings].**

- 8 Enter the cngplp2 command from the command line with user privileges.**

- 9 Enter the user name and PIN again, and save the settings.**

From the cnjatool


- 1 Enter the following command with administrator privileges to enable the User Authentication Function.**

```
# cnjatool2 -e [Printer Name]
```

2 Enter the following command with user privileges to start cnjatoool.

```
$ cnjatoool2 -pu [Printer Name]
```

3 Enter the User Name and PIN.

 **NOTE**

Also use the driver UI or cnjatoool when disabling the User Authentication Function.

Cautions When Printing a PostScript File From the Driver UI

6X09-018

If you print a PostScript file output from an application with the driver UI, the printed result may not be as intended, depending on the settings used. If the result is not as intended, when outputting the PostScript file from the application, use the default print settings.

Several examples of settings are given below, with expected results when the same setting is used in both the application and the driver.

Setting	Setting Content	Expected Result
[Page Layout]	4 pages per sheet	Because [4 Pages per Sheet] is set and then printed as [4 Pages per Sheet], the printed result resembles [16 Pages per Sheet].
[Print Range]-[Page Range]	1,3,5	If the document is 5 pages, only pages 1 and 3 are printed.
[Print Pages]	Odd number pages/Even number pages	If the document is 10 pages, only pages 1, 5, and 9 are printed.
[Reverse Order]		Reverse order is executed twice, resulting in the actual output order being normal.
[Copies]*	2	In the case of a 10-page document, 40 pages (10 pages x 2 x 2) are printed.

NOTE

If you set multiple copies for the number of copies to be printed, depending on the application, a PostScript file consisting of only part of the page data may be created. If this happens, even if you specify multiple copies in both the application and the driver UI, only the number of copies specified in the application will be printed.

Printing from the Command Line

6X09-019

In the command line mode, various printer driver parameters can be specified from the command line without using the GUI. If you want to print a file directly from the command line, use the following lpr command.

\$ lpr -P [Printer Name] [File Name]

NOTE

- When printing is executed from a terminal interface command line, printing is performed immediately without the settings window being displayed.
- Various printer options can be specified by combining keywords (e.g. "Duplex") and parameters included in the PPD file for the relevant printer, as shown below, after the -o option. For details about the keywords and parameters for printer options, see "**Command List(P. 70)**."

```
$ lpr -P [Printer Name] [File Name] -o [Option]=[Parameter]
```

1 Start the console.

The method for starting the console differs according to the operating system/distribution used.

2 Enter the lpr/lp command as follows.

E.g.: From the printer called iR105+, print the file sample.ps:

```
$ lpr -P iR105+ sample.ps
```

NOTE

- Specify printer options (option) and parameters (value) after -o (option) as "option name = value".
- If the printer name is omitted, the default printer will be used.
- Supported print options, parameters, and combinations thereof differ according to the type of printer used.
- If no options are specified or there is an error in a specified option, the option is ignored and print processing is executed using the default options and settings.

Settings List

Settings List	56
[cngplp2] Screen	57
[General] Sheet	58
[Finishing] Sheet	59
[Paper Source] Sheet	63
[Quality] Sheet	64
[Device Settings] Sheet	67

Settings List

6X09-01A

This section describes the settings for printing from the driver settings screen.

- ▶ **[cnglp2] Screen(P. 57)**
- ▶ **[General] Sheet(P. 58)**
- ▶ **[Finishing] Sheet(P. 59)**
- ▶ **[Paper Source] Sheet(P. 63)**
- ▶ **[Quality] Sheet(P. 64)**
- ▶ **[Device Settings] Sheet(P. 67)**

[cngplp2] Screen

6X09-01C

You can select the printer to use for printing and specify the basic print functions.

[Name]

Select the printer to use for printing.

[Properties]

Displays the driver settings screen, which enables you to set the functions of the printer selected from [Name].

[Set as Default]

Sets the printer selected from [Name] as the default printer.

[Print Range]/[Print Pages]

Specifies the pages to print.

If you select [Page Range], you can specify a range such as "1-4, 7, 9-12."

[Copies]

Specifies the number of copies to be printed.

[Reverse Order]

Prints from the last page.

[Correct Print Data (Including White Space on Colored Background)]

Corrects the data when data that includes light colors on colored backgrounds is not printed correctly.

[General] Sheet

6X09-01E

You can set the paper size, print layout, and brightness, etc.

[Page Size]

Specifies the paper size to print on.

[Orientation]

Specifies the orientation of the print data.

[Page Layout]

Specifies the number of pages to print on a single sheet.

[Brightness and Gamma]

Specifies the brightness and gamma to adjust the brightness.

[Banner]

Prints a banner page indicating the user name, job name, and print date/time when starting or finishing printing.

If you select [None], a banner page is not printed.

If you select [Standard], a standard banner page is printed.

If you select an item other than the above, a banner page with the label of the selected item is printed.

[Finishing] Sheet

6X09-01F

You can set the print layout and output method, etc.

[Print Style]

Select [1-sided Printing], [2-sided Printing], or [Booklet Printing].

If you select [Booklet Printing], the paper can be folded to create a booklet.

[Booklet] ► [Booklet] Dialog Box

Enables you to configure the detailed settings such as the binding direction and displacement correction, etc.

[Book Opening]

Select the binding direction of the booklet.

[Use Creep (Displacement) Correction]

Corrects the displacement between the print area of the inner pages and outer pages when the paper is folded.

Select the correction method from [Displacement Correction Method]. If you select [Manual Correction], specify the correction width.

[Binding Location]

Select the binding location.

[Gutter] ► [Gutter Settings] Dialog Box

Enables you to specify the gutter width.

[Finishing]

Specifies a separating method and whether to perform stapling when printing multiple copies.



Collate



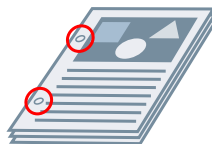
Group



Offset



Rotate



Hole Punch

Staple
Eco (Staple-Free)

[Offset]

Offsets each stack of output pages.

[Hole Punch]

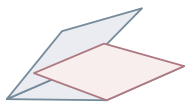
Punches holes in the margin of the output. The type of holes can be selected according to the optional installed in the printer.

[Rotate]

Rotates and outputs each stack at 90 degrees.

[Fold]

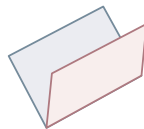
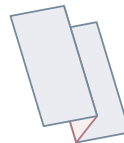
Outputs pages folded into one of a variety of forms.



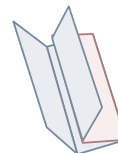
C-fold



Z-fold

[Half Fold] (Saddle
Fold)

Accordion Z-fold



Double Parallel Fold

[Fold Details]

Select the fold direction and document orientation for the folding method selected from [Fold].

[Sheets per Set]

Specifies the number of sheets per set when folding the output with multiple sets.

[Staple Position]

Select the staple position.

[Number of Copies for Offset]

Offsets the paper each specified number of copies.

[Saddle Stitch Setting]

Folds the paper in half and staples it in the center.

[Adjust Trim Width by]

Enables you to switch the trim width and adjustment method.

This can be set when [Fold + Trim] or [Fold + Saddle Stitch + Trim] is selected from [Saddle Stitch Setting].

If you selected [Manual Setting], specify the width in [Trim Width].

[Paper Output]

Specifies the printed paper output destination.

[Stack Details] ► [Stack Details] Dialog Box

Enables you to specify the number of copies for each stack and the timing for retrieving the paper when [Stacker] is selected from [Paper Output].

[Face Up/Face Down]

Select whether the printed side is output face up or face down.

[Transparency Printing]

Select the print method according to the projector that will be used.

[Special Print Mode]

Improves the problem where black streaks appear in the printed output. Try the settings in order, starting with [Mode 1].

[Special Print Mode (Plain Paper)]

Improves the fixability problem where the paper curls when printing on plain paper. Try the settings in order, starting with [Mode 1].

[Special Print Mode]

Improves the print result. Try the settings in order, starting with [Special Settings 1].

[Special Settings 1]/[Barcode Adjustment Mode]

Adjusts the line width when you want to print small text and thin lines more clearly. Try the settings in order, starting with [Mode 1].

[Special Print Adjustment A]/[Blurry Image Correction]

Improves the problem where black streaks appear in the printed output by thinning out the dots. Try the settings in order, starting with [Mode 1].

[Special Print Adjustment B]

Improves the problem where black streaks appear in the printed output by increasing the fixability. Try the settings in order, starting with [Mode 1].

[Special Print Adjustment C]/[Quiet Mode]

Lowers the print speed to improve the toner fixability and print more quietly.

[Image Special Process]

Corrects the data when thick text and lines are interrupted. Try the settings in order, starting with [Mode 1].

[Special Smoothing Mode]

Smooths the contours of characters, lines, images, and inside gradations.

Normally, select [Mode 1]. If [Mode 1] does not make things smoother, try another mode, according to the content of the data.

[Mode 1]

Smooths the contours of text, lines, and images.

[Mode 2]

Smooths the inside halftones in addition to the image contours.

[Mode 3]

Smooths dense letters and lines over halftone backgrounds.

[Mode 4]

Smooths the contours of large text and thick lines when they are jagged.

[Mode 5]

Corrects non-uniformity in images and halftones.

[Mode 6]

Smooths print data as a whole.

[Output Adjustment Mode]

Increases the resolution when the data includes a mix of text, images, and graphs, etc.

[Glossy Plain Paper Processing]

Performs processing with the glossy fixing mode when printing on plain paper.

[Prevent Postcard Fogging]

Alleviates the problem of the printed image being entirely or partially fogged when printing to postcards.

Select [Mode 1] for normal use. If the problem is not solved by [Mode 1], you can select [Mode 2], but this may affect the printed image itself.

[Advanced Settings] ► [Advanced Settings] Dialog Box

Enables you to adjust the print start position. Specify the amount to shift in the vertical direction and the horizontal direction.

This function is useful for adjusting the margins when the vertical margin differs from the horizontal margin, or when hiding the information in the header and footer.

[Finishing Details] ► [Finishing Details] Dialog Box

Enables you to embed a watermark or tracking information, etc. when printing to prevent leaks of confidential documents.

[Use Secure Watermark Function of Device]

Embeds hidden text in the background that appears when the document is copied, if the [Device Settings] sheet > [Secure Watermark Function of Device] is set.

[Use Secure Printing Function of Device]

Embeds restriction information and tracking information, if the [Device Settings] sheet > [Secure Printing Function of Device] is set.

[Copy Set Numbering]

Prints the copy set as a serial number. The number is faintly printed in the top, bottom, left, right, and center (five locations).

Specify the start number in [Starting Number].

Related Topics

► [Device Settings] Sheet(P. 67)

[Paper Source] Sheet

6X09-01H

You can set the paper type and paper source.

[Select by]/[Paper Source]/[Paper Type]

Specifies the paper to print on by paper source or paper type.

[Feed A5 Vertically]/[Feed A5 Horizontally]/[Feed A4/A5/Letter Vertically]/[Feed A4/Letter Vertically]

The paper is fed vertically or horizontally when the [General] sheet > [Page Size] > [A4]/[A5]/[Letter] is set.

[Insert Interleaf Sheets]

Select the type of paper to insert between transparencies when the [Paper Source] sheet > [Paper Type] > [Transparency] is set.

Select [Print on Interleaf Sheets] to print on the inserted paper.

[Use Document Insertion Unit]

Inserts the paper loaded in the Document Insertion Unit as covers or separators.

[Front/Back Cover Settings] ► [Front/Back Cover Settings] Dialog Box

Enables you to insert a cover and back cover. You can select the side to print on and the paper source for each.

Related Topics

- ▶ [General] Sheet(P. 58)
- ▶ [Paper Source] Sheet(P. 63)

[Quality] Sheet

6X09-01J

You can adjust the color, toner, and print processing method.

[Resolution]

Select the print resolution.

[Color Mode]

Switches between printing in color or in black-and-white.

Select [Auto Detect] to automatically determine whether each page is color or grayscale and switch the color mode accordingly.

[Number of Colors]

Switches between printing in full color or in two colors.

[Color to Use with Black]

If you select [Two Colors] from [Number of Colors], specify the color to combine with black.

The achromatic areas of the data are printed in grayscale and the chromatic areas are printed in the specified color.

[Color Halftones]/[B & W Halftones]/[Halftones]

Enables you to specify methods for representing halftones (areas between dark areas and light areas).

[Printer Default]

Uses the printer settings.

[Resolution]

Gives priority to resolution and prints contours smoothly.

[Gradation]

Gives priority to gradation and prints gradations smoothly.

[Color Tone]

Gives priority to gradation more than [Gradation].

[Toner Density]

Adjusts the toner density.

[Prioritize for Processing When in Raster Mode]

When the print data conversion method is set to raster mode, set the subject to be prioritized when processing. You can select images, graphics, or text.

[Toner Save]/[Draft Mode]

Thins out the print data to save toner.

[Ink Saving]

Thins out the print data to save ink.

[Line Control]

Improves reproduction of text and lines.

Select [Resolution Priority] to give priority to the resolution. Select [Gradation Priority] to give priority to the reproduction of gradations.

[Toner Volume Adjustment]

Adjusts the amount of toner to match the content of the print data.

For data that contains many graphics or computer graphics using gradations, select [Gradation Priority]. For data that contains mainly text, select [Text Priority].

[Image Refinement]

Smooths the contours of text, lines, and images.

[Line Refinement]

Corrects thin lines to clearly print small characters and barcodes.

[Advanced Smoothing]

Smooths the contours of text, lines, and images. [Smooth 2] performs a stronger smoothing process than [Smooth 1].

[Sharpness]/[Sharpness (Photo)]

Strengthens and blurs the contours of text and images.

[Image Compression Optimization]

Optimizes switching between lossy and lossless compression according to the content of the data.

[Width Adjustment]

Enhances the width of text and lines.

[Adjust Toner Volume Used for Color Printing]

Reduces the toner volume to prevent too much toner from being applied.

Select [Level 1] to reduce the toner volume for areas with high color density. Select [Level 2] to reduce the overall toner density.

[Profile Settings] ► [Profile Settings] Dialog Box

Enables you to set the profile when you want to adjust the colors.

Select the profile suitable for the monitor you are using from [Source Profile].

Settings List

Select the element to prioritize matching of from [Matching Method].

[Device Settings] Sheet

6X09-01K

You can configure print options and administrator settings.

[Output Method]

Enables you to switch the method for outputting print data. You can save the data to the printer or set a PIN for the data.

[Print]

Performs normal printing.

[Hold]

Saves print data in a hold queue (temporary storage area) in the printer. You can change the print order or settings of the stored data from the control panel of the printer or the Remote UI.

[Settings] ► [Name Setting] Dialog Box

Enables you to set the document name displayed on the control panel or Remote UI.

[Secured Print]

You can attach a PIN to print data and save it in the printer. This function is useful when printing confidential documents etc. The saved data can be printed by entering the PIN in the control panel of the printer.

[Settings] ► [Secured Print Settings] Dialog Box

Enables you to set the document name, user name, and PIN displayed on the control panel or Remote UI.

[Store]

Saves the print data to a box in the printer. You can change the settings of or combine the stored data from the control panel of the printer or the Remote UI.

[Settings] ► [Store Destination] Dialog Box

Enables you to set the document name and destination box number displayed on the control panel or Remote UI.

[Device Settings]

Sets the paper output options and paper source options, etc. attached to the printer.

Select [Secure Watermark Function of Device] to use the Secure Watermark Kit.

Select [Secure Printing Function of Device] to use the Job Lock Expansion Kit.

[Job Accounting]

Performs print management using the department ID management function. The ID and PIN must be entered when printing or saving settings.

This function can be enabled by logging in as an account with super user privileges.

[Settings] ► [ID/PIN Settings] Dialog Box

Enables you to set the ID and PIN registered in the printer. Leave the PIN blank if it is not registered.

If you are logged in as a general user, use a command to set them.

[Dept. ID Management Authentication]/[Secured Print Authentication]

Select the authentication method supported by the printer.

[Do Not Use Job Accounting When B&W Printing]

If you are using the department ID management function, selecting the [Quality] sheet > [Color Mode] > [Black and White] enables black-and-white printing without authentication.

[Use User Authentication Function]

Performs print management using the user authentication function. The user name and PIN must be entered when printing or saving settings.

This function can be enabled by logging in as an account with super user privileges.

[Settings] ► [User Name/PIN Settings] Dialog Box

Enables you to set the user name and PIN registered in the printer. Leave the PIN blank if it is not registered.

If you are logged in as a general user, use a command to set them.

Related Topics

- ▶ **[Quality] Sheet(P. 64)**
- ▶ **Device Settings - Authentication Function(P. 102)**

Command List

Command List	70
Command Format	71
Basic Settings	72
Finishing - 1-sided/2-sided Printing	73
Finishing - Paper Output Method	74
Finishing - Paper Output Destination	76
Finishing - Booklet Printing	81
Finishing - Paper Folding	83
Finishing - Special Print Processing	85
Finishing - Secure Printing	88
Paper Source - Paper Source/Paper Type	89
Paper Source - Front/Back Cover	92
Quality - Color Adjustment	94
Quality - Image Processing	96
Quality - Toner Adjustment	98
Device Settings - Output Method	100
Device Settings - Authentication Function	102

Command List

6X09-01L

This section describes the options for printing from the command line.

- ▶ **Command Format(P. 71)**
- ▶ **Basic Settings(P. 72)**
- ▶ **Finishing - 1-sided/2-sided Printing(P. 73)**
- ▶ **Finishing - Paper Output Method(P. 74)**
- ▶ **Finishing - Paper Output Destination(P. 76)**
- ▶ **Finishing - Booklet Printing(P. 81)**
- ▶ **Finishing - Paper Folding(P. 83)**
- ▶ **Finishing - Special Print Processing(P. 85)**
- ▶ **Finishing - Secure Printing(P. 88)**
- ▶ **Paper Source - Paper Source/Paper Type(P. 89)**
- ▶ **Paper Source - Front/Back Cover(P. 92)**
- ▶ **Quality - Color Adjustment(P. 94)**
- ▶ **Quality - Image Processing(P. 96)**
- ▶ **Quality - Toner Adjustment(P. 98)**
- ▶ **Device Settings - Output Method(P. 100)**
- ▶ **Device Settings - Authentication Function(P. 102)**

Command Format

6X09-01R

This section describes the notation used for the format of the list of commands.

Format

[]

Indicates optional options. Can be omitted.

{ }

Indicates mutually-exclusive options or parameters, which are separated by the | (separator character). Specify one of them.

The underlined parameter is the default parameter, as indicated by {True | False}.

Parameter Legend

This section describes the main parameters. Please check the explanation of each option together.

None: Do not specify (the printer settings may be used, depending on the options.)

Auto: Use the printer setting (may be set automatically, depending on the options.)

Manual: Manually set

True: Use

False: Do not use

On: On

Off: Off

< >: Specify a value or string of characters



NOTE

- The value or string of characters to specify depends on the model. Specify the value or string of characters within the range supported by the model you are using.

Basic Settings

6X09-01S

You can set the number of copies to be printed and paper to use.

Format

```
lpr <file path>
-o CNCopies=<Number of Copies>
-o PageSize=<Page Size>
-o CNFeedAFiveVertically={True | False}
-o CNFeedAFiveHorizontally={True | False}
```

Options

CNCopies

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

PageSize

Specifies one of the following document sizes. (default: A4)

Standard Size

A3 / A4 / A5 / A6 / B4 / B5 / SRA3 / Letter / Legal / Executive / Statement / 11x17 / 12x18 / 13x19 / Index_3x5

Local Standard Size

Foolscap / Oficio / A_Oficio (Argentina) / B_Oficio (Brazil) / E_Oficio (Ecuador) / M_Oficio (Mexico) / A_Letter (Argentina) / G_Letter (Government) / G_Legall (Government) / I_Legall (India) / F4A / A_Foolscap (Australia) / 16K / 8K

Envelope

Com10 / dl_envelope / Envelope_B5 / Envelope_C5 / Monarch

CNFeedAFiveVertically

Feeds the paper vertically when the A4, A5, or Letter size is specified.

CNFeedAFiveHorizontally

Feeds the paper horizontally when the A5 size is specified.

Example

To print the file "sample.txt" with the following setting:

- Copies: 5
- Page Size: A3

```
$ lpr sample.txt -o CNCopies=5 -o PageSize=A3
```

Finishing - 1-sided/2-sided Printing

6X09-01U

You can switch between one-sided printing and two-sided printing. You can also adjust margins.

Format

```
lpr <file path>  
-o Duplex={None | DuplexNoTumble | DuplexTumble}  
-o BindEdge={Left | Top} [-o CNBindEdgeShift=<Gutter>]
```

Options

Duplex

Specifies None (one-sided), DuplexNoTumble (two-sided, long edge), or DuplexTumble (two-sided, short edge).

BindEdge

Specifies the margin position based on the portrait (vertical) orientation.

Left is the long edge. Top is the short edge. To specify this together with two-sided printing, match the margin position.

The CNBindEdgeShift option enables you to specify the margin width. (units: mm, default: 0)

Example

To print the file "sample.txt" with the following setting:

- 2-sided Printing: Long Edge
- Binding Location: Left
- Gutter: 20 mm

```
$ lpr sample.txt -o Duplex=DuplexNoTumble -o BindEdge=Left -o CNBindEdgeShift=20
```

Finishing - Paper Output Method

6X09-01W

You can set the method for sorting and processing output paper.

Format

```
lpr <file path>
-o Collate={{True | False | Group} | {Staple | StapleCollate | EcoStapleCollate | StapleGroup |
EcoStapleGroup} [-o StapleLocation={None | TopLeft | Top | TopRight | Left | Bottom}]}
-o CNOutputPartition={None | rotation | offset [-o CNOffsetNum=<Sheets per Set>]}
-o CNOutputFace={None | FaceUp | FaceDown}
-o CNPunch={None | Left | Top}
-o CNMultiPunch={Off | On | PUNU2 | PUNU3 | PUNU23 | PUNF2 | PUNF4 | PUNS4 | PUNM}
```

Options

Collate

Specifies the sorting method when printing multiple copies.

True: Collates by copy set, such as "123..., 123."

False / Group: Collates by page, such as "111..., 222."

Staple / StapleCollate / EcoStapleCollate: Collates by copy set and performs stapling or staple-free binding.

StapleGroup / EcoStapleGroup: Collates by page and performs stapling or staple-free binding.

When performing stapling or staple-free binding, the StapleLocation option can be used to specify the margin position.

CNOutputPartition

Specifies the method for collating by copy set.

rotation: Rotates the output.

offset: Offsets the output. To specify the number of copy sets to offset by, use the CNOffsetNum option. (default: 1)

CNOutputFace

Specifies whether the printed side is output face up or face down.

CNPunch

Specifies the hole punch position.

CNMultiPunch

Specifies the hole punch type.

On: 2 Holes (for printer models that support only two holes)

PUNU2: 2 Holes (for printer models that support two or more holes)

PUNU3: 3 Holes

PUNU23: 2/3 Holes

PUNF2: 2 Holes (French)

PUNF4: 4 Holes (French)

PUNS4: 4 Holes (Swedish)

PUNM: Multi Holes



NOTE

- If Off is specified for the CNMultiPunch option when the CNPunch option is specified, the CNPunch option is processed as None.

Example

To print the file "sample.txt" with the following setting:

- Copies: 5
- Finishing: Staple & Collate
- Staple Position: Upper Left (Single)

```
$ lpr sample.txt -o CNCopies=5 -o Collate= StapleCollate -o StapleLocation=TopLeft
```

Finishing - Paper Output Destination

6X09-01X

You can set a printed paper output destination.

Format

```
lpr <file path>
-o OutputBin=<Paper Output> [-o CNFinisher={None | <Output Options>}]
-o CNSpecifyNumOfCopiesStack={False | True -o CNStackCopiesNum=<Number of Copies> [-
o CNTimingOfAutoEjectStacker={None | NotEject | Before | After | BeforeAfter}]}
```

Options

OutputBin

Specifies the output destination.

If a paper output option is attached to the printer, specify the attached option in the CNFinisher option.

- ▶ **<Paper Output> parameter(P. 76)**
- ▶ **<Output Options> parameter(P. 77)**

CNSpecifyNumOfCopiesStack

Uses the Specify Number of Copies to Stack function.

To specify the number of copies to stack, use the CNStackCopiesNum option. (default: 1)

To specify the timing for retrieving the paper, use the CNTimingOfAutoEjectStacker option.

NotEject: Do not eject automatically

Before: Before printing starts

After: After printing ends

BeforeAfter: Before and after printing starts

<Paper Output> parameter

Auto: Auto

TrayA: Tray A

TrayB: Tray B

TrayC: Tray C

TrayUpper: Tray (Upper)

TrayMiddle: Tray (Middle)

TrayLower: Tray (Lower)

TrayInternal: Tray (Internal)

TrayRight: Tray (Right)

TrayUpperInternal: Tray (Upper Internal) / Tray (Finisher, Upper Internal)

TrayLowerInternal: Tray (Lower Internal) / Tray (Finisher, Internal)

TrayUpperLeft: Tray (Upper Left)
 TrayLowerLeft: Tray (Lower Left)
 Bin<NUM>: Bin (where <NUM> indicates the number)
 Stack: Stacker
 StackerAOutTray: Stacker a (Output Tray)
 StackerAStack: Stacker a (Stack)

<Output Options> parameter

Copy Tray

CPYTRAY: Copy Tray

Shift Tray/Shift Sorter

SHIFTRAY: Shift Tray

SHIFTRAY: Shift Tray-E1

INSSTRA1: Inner Shift Sorter-A1

INSSTRA1CT: Inner Shift Sorter-A1 + Copy Tray

INSSTRA1AT: Inner Shift Sorter-A1 + Inner Finisher Additional Tray

INSSTRA1ATCT: Inner Shift Sorter-A1 + Inner Finisher Additional Tray + Copy Tray

Finisher

FinAA1(SFinAA2): Finisher-AA1(2)

FINAC1(SFINAC2): Finisher-AC1(2)

FINAD1(SFINAD2): Finisher-AD1(2)

FINAE1: Finisher-AE1

FINAE1F: Finisher-AE1 + Finisher Tray

FINAE1(SFINAE2): Finisher-AE1(2)

FINAM1: Finisher-AM1

FINAM1STKU1: Finisher-AM1 + High Capacity Stacker-G1

FINP1: Finisher-P1

FINP1CT: Finisher-P1 + Copy Tray

FINQ3(SFINQ4): Finisher-Q3(4)

FINQ3FT(SFINQ4FT): Finisher-Q3(4) + Finisher Tray

FINR1(SFINR2): Finisher-R1(2)

FINR1FT(SFINR2FT): Finisher-R1(2) + Finisher Tray

FINS1: Finisher-S1

FINS1_CT: Finisher-S1 + Copy Tray

FINS1_CT_FT: Finisher-S1 + Copy Tray + Finisher Tray

FINS1_FT: Finisher-S1 + Finisher Tray

FINU2: Finisher-U2

FINU2FT: Finisher-U2 + Finisher Tray

FinV1: Finisher-V1/V1L

FinV1(SFinV2)_HCSA1_PBA1: Finisher-V1/V1L (V2/V2L) + High Capacity Stacker-A1 + Perfect Binder-A1

FinV1(SFinV2)_PBA1: Finisher-V1/V1L (V2/V2L) + Perfect Binder-A1

SFinV2: Finisher-V2/V2L

FinW1(SFinW2): Finisher-W1(2)

FinX1: Finisher-X1

FinY1(SFinY2): Finisher-Y1(2)

FinZ1: Finisher-Z1

FinZ1CT: Finisher-Z1 + Copy Tray

Saddle Finisher

SFINAE2: Saddle Finisher-AE2

SFINAE2FT: Saddle Finisher-AE2 + Finisher Tray

SFINAM2: Saddle Finisher-AM2

Inner Finisher

IFINK1: Inner Finisher-K1

IFINK1CT: Inner Finisher-K1 + Copy Tray

IFINK1AT: Inner Finisher-K1 + Inner Finisher Additional Tray

IFINK1ATCT: Inner Finisher-K1 + Inner Finisher Additional Tray + Copy Tray

2BINSS: Inner Finisher (2-bin)

IN2TRAY: Inner 2way Tray

In2CT: Inner 2way Tray + Copy Tray

IFinA1: Inner Finisher-A1

IFinA1CT: Inner Finisher-A1 + Copy Tray

IFinA1AT: Inner Finisher-A1 + Inner Finisher Additional Tray

IFinA1CTAT: Inner Finisher-A1 + Copy Tray + Inner Finisher Additional Tray

IFINB1: Inner Finisher-B1

IFINB1AT: Inner Finisher-B1 + Inner Finisher Additional Tray

IFINC1: Inner Finisher-C1

IFINC1CT: Inner Finisher-C1 + Copy Tray

IFINC1AT: Inner Finisher-C1 + Inner Finisher Additional Tray

IFINC1CTAT: Inner Finisher-C1 + Copy Tray + Inner Finisher Additional Tray

IFIND1: Inner Finisher-D1

IFIND1AT: Inner Finisher-D1 + Inner Finisher Additional Tray

IFINE1: Inner Finisher-E1

IFINE1CT: Inner Finisher-E1 + Copy Tray

IFINE1AT: Inner Finisher-E1 + Inner Finisher Additional Tray

IFINE1CTAT: Inner Finisher-E1 + Copy Tray + Inner Finisher Additional Tray

IFINF1: Inner Finisher-F1

IFINF1CT: Inner Finisher-F1 + Copy Tray

IFINF1AT: Inner Finisher-F1 + Inner Finisher Additional Tray

IFINF1CTAT: Inner Finisher-F1 + Copy Tray + Inner Finisher Additional Tray

IFING1: Inner Finisher-G1

IFING13W: Inner Finisher-G1 + 3 Way Unit

IFING13WCT: Inner Finisher-G1 + 3 Way Unit + Copy Tray

IFINH1: Inner Finisher-H1

IFINH1CT: Inner Finisher-H1 + Copy Tray

IFINJ1: Inner Finisher-J1

Staple Finisher

StFinA1: Staple Finisher-A1

STFINAA1: Staple Finisher-AA1

STFINAA1CT: Staple Finisher-AA1 + Copy Tray

STFINAC1: Staple Finisher-AC1

StFinB1: Staple Finisher-B1

StFinC1: Staple Finisher-C1

STFIND1: Staple Finisher-D1

STFINE1: Staple Finisher-E1

FINAF1: Staple Finisher-F1

STFING1: Staple Finisher-G1

STFINH1: Staple Finisher-H1

STFINJ1: Staple Finisher-J1

STFINK1: Staple Finisher-K1

STFINL1: Staple Finisher-L1

STFINM1: Staple Finisher-M1

STFINN1: Staple Finisher-N1

STFINP1: Staple Finisher-P1

STFINQ1: Staple Finisher-Q1

STFINR1: Staple Finisher-R1

STFINS1: Staple Finisher-S1

STFINT1: Staple Finisher-T1

STFINU1: Staple Finisher-U1

STFINV1: Staple Finisher-V1/V2

STFINW1: Staple Finisher-W1 PRO

STFINW1STKU1: Staple Finisher-W1 PRO + High Capacity Stacker-H1

STFINX1: Staple Finisher-X1

STFINY1: Staple Finisher-Y1

STFINY1CT: Staple Finisher-Y1 + Copy Tray

STFINZ1: Staple Finisher-Z1

Booklet Finisher

BFinA1: Booklet Finisher-A1

BFINAA1: Booklet Finisher-AA1

BFINAA1CT: Booklet Finisher AA1 + Copy Tray

BFINAC1: Booklet Finisher-AC1

BFinB1: Booklet Finisher-B1

BFinC1: Booklet Finisher-C1

BFIN1: Booklet Finisher-D1
 BFINE1: Booklet Finisher-E1
 SFINAF2: Booklet Finisher-F1
 BFIN1G: Booklet Finisher-G1
 BFIN1J: Booklet Finisher-J1
 BFIN1K: Booklet Finisher-K1
 BFIN1L: Booklet Finisher-L1
 BFIN1M: Booklet Finisher-M1
 BFIN1N: Booklet Finisher-N1
 BFIN1P: Booklet Finisher-P1
 BFIN1Q: Booklet Finisher-Q1
 BFIN1T: Booklet Finisher-T1
 BFIN1U: Booklet Finisher-U1
 BFIN1V: Booklet Finisher-V1/V2
 BFIN1W: Booklet Finisher-W1 PRO
 BFIN1W1STKU1: Booklet Finisher-W1 PRO + High Capacity Stacker-H1
 BFIN1X: Booklet Finisher-X1
 BFIN1Y: Booklet Finisher-Y1
 BFIN1YCT: Booklet Finisher-Y1 + Copy Tray

Perfect Binder

PBA1: Perfect Binder-A1

High Capacity Stacker

HCSA1: High Capacity Stacker-A1

HCSA1_PBA1: High Capacity Stacker-A1 + Perfect Binder-A1

STKU1: High Capacity Stacker-G1

STKU1: High Capacity Stacker-H1

Example

To print the file "sample.txt" with the following setting:

- Paper Output: Tray A
- Output Options: Staple Finisher-T1

```
$ lpr sample.txt -o OutputBin=TrayA -o CNFinisher=STFINT1
```

Finishing - Booklet Printing

6X09-01Y

You can print with the pages of a document arranged so that the paper can be folded in half to create a booklet. To configure detailed print quality settings, specify the required options after the Booklet option.

Format

```
lpr <file path> -o Booklet={None | Left | Right}
-o CNVfolding={None | True | False}
-o CNSaddleStitch={None | True | False}
-o CNTrimming={None | False | True [-o CNAdjustTrim={None | Manual [-o CNAdjustTrimNum=<Trim Width>}}]}
-o CNCreep={False | True [-o CNDisplacementCorrection={Device | Auto | Manual -
o CNGutterShiftNum=<Correction Width>}]}
```

Options

Booklet

Specifies the binding direction of the booklet.

CNVfolding

Folds the paper in two.

CNSaddleStitch

Staples in the center of the paper using the Saddle Stitch function.

CNTrimming

Trims and aligns the edges of the pages.

To specify the adjustment method for the trim width, use the CNAdjustTrim option. If you specify Manual, the CNAdjustTrimNum option can be used to specify the trim width. (units: mm, increments: 0.01, default: 0 or 2.00)

CNCreep

Corrects the displacement between the print area of the inner pages and outer pages when the paper is folded.

To specify the displacement correction method, use the CNDisplacementCorrection option.

Device: Follows the printer settings.

Auto: Performs automatic adjustment according to the paper.

Manual: To specify the correction width, use the CNGutterShiftNum option. (units: mm, increments: 0.01, default: 0)

Example

To print the file "sample.txt" with the following setting:

- Book Opening: Left Binding
- Half Fold: Use
- Trim: Use
- Adjust Trim Width by: Manual Setting
- Trim Width: 15.6 mm

```
$ lpr sample.txt -o Booklet=Left -o CNVfolding=True -o CNTrimming=True -o CNAdjustTrim=Manual -o CNAdjustTrimNum=15.6
```

Finishing - Paper Folding

6X09-020

You can output pages folded into one of a variety of forms.

You can also use an option to specify the folding direction and original orientation. With face down, the printed surface is on the outside. With face up, the printed surface is on the inside.

Format

```
lpr <file path>
-o CNZfolding={None | True | False}
-o CNCfolding={None | False | True [-o CNCfoldSetting={pattern1 | pattern2 | pattern3 | pattern4}]}
-o CNSaddleFolding={None | False | True [-o CNSaddleFoldSetting={pattern1 | pattern2}] [-o CNSaddleFoldSheetsNum=<Sheets per Set>]}
-o CNHalfFolding={None | False | True [-o CNHalfFoldSetting={pattern1 | pattern2}]}
-o CNAccordionZfolding={None | False | True [-o CNAccordionZfoldSetting={pattern1 | pattern2}]}
-o CNDoubleParallelFolding={None | False | True [-o CNDoubleParallelFoldSetting={pattern1 | pattern2 | pattern3 | pattern4}]}
```

Options

CNZfolding

Performs Z-folding.

CNCfolding

Performs C-folding.

pattern1: Face Down + Portrait
 pattern2: Face Down + Landscape
 pattern3: Face Up + Portrait
 pattern4: Face Up + Landscape

CNSaddleFolding

Performs saddle folding.

pattern1: Face Down + Portrait
 pattern2: Face Up + Landscape

The CNSaddleFoldSheetsNum option enables you to specify the number of pages for each stack. (default: 1)

CNHalfFolding

Performs bi-folding.

pattern1: Face Down + Portrait
 pattern2: Face Up + Landscape

CNAccordionZfolding

Performs accordion Z-folding.
pattern1: Portrait
pattern2: Landscape

CNDoubleParallelFolding

Performs double parallel folding.
pattern1: Face Down + Portrait
pattern2: Face Down + Landscape
pattern3: Face Up + Portrait
pattern4: Face Up + Landscape

Example

To print the file "sample.txt" with the following setting:

- Saddle Fold: Use
- Folding Direction & Original Orientation: Face Down + Portrait
- Sheets per Set: 5

```
$ lpr sample.txt -o CNSaddleFolding=True -o CNSaddleFoldSetting=pattern1 -o CNSaddleFoldSheetsNum=5
```

Finishing - Special Print Processing

6X09-021

You can set the print processing method when you want to improve the print result or use special paper.

Specify a function supported by the model you are using.

Format

```
lpr <file path>
-o CNSpecialPrintMode={None | Mode1 | Mode2 | Mode3 | Mode4 | True | False}
-o CNPlainPaperCurlCorrect={None | Off | Mode1 | Mode2}
-o CNSpecialPrintAdjustment={Off | Settings1 | Settings2}
-o CNBarCodeMode={None | Off | Mode1 | Mode2 | Mode3 | Mode4 | Mode5}
-o CNSpecialPrintAdjustmentA={None | Off | Mode1 | Mode2 | Mode3 | Mode4}
-o CNSpecialPrintAdjustmentB={None | Off | Mode1 | Mode2 | Mode3}
-o CNSpecialPrintAdjustmentC={None | On | Off}
-o CNImageSpecialProcess={None | Off | Level1 | Level2}
-o CNSpecialSmooth={None | Mode1 | Mode2 | Mode3 | Mode4 | Mode5 | Mode6}
-o CNOutputAdjustment={True | False}
-o CNGlossyPlainPaperProc= {None | True | False}
-o CNPreventPostcardFogging= {None | Off | Mode1 | Mode2}
-o CNShiftStartPrintPosition={False | True [-o CNShiftFrLongEdge=<Start Position>] [-o CNShiftFrShortEdge=<Start Position>] [-o CNShiftBkLongEdge=<Start Position>] [-o CNShiftBkShortEdge=<Start Position>}]
```

Options

CNSpecialPrintMode

Improves the problem where black streaks appear in the printed output by using the Special Print Adjustment function. Try the settings in order, starting with Mode1.

CNPlainPaperCurlCorrect

Improves the fixability problem where the paper curls when printing on plain paper by using the Special Print Mode (Plain Paper) function.

Try the settings in order, starting with Mode1.

CNSpecialPrintAdjustment

Improves the print result by using the Special Print Mode function. Try the settings in order, starting with Settings1.

CNBarCodeMode

Adjusts the line width when you want to print small text and thin lines more clearly by using the Special Settings 1 function or Barcode Adjustment Mode function.

Try the settings in order, starting with Mode1.

CNSpecialPrintAdjustmentA

Improves the problem where black streaks appear in the printed output by thinning out the dots by using the Special Print Adjustment A function or Blurry Image Correction function.

Try the settings in order, starting with Mode1.

CNSpecialPrintAdjustmentB

Increases the toner fixability when black streaks appear in the printed output by using the Special Print Adjustment B function.

Try the settings in order, starting with Mode1.

CNSpecialPrintAdjustmentC

Lowers the print speed to improve the toner fixability and print more quietly by using the Special Print Adjustment C or Quiet Mode function.

CNImageSpecialProcess

Corrects the data when thick text and lines are interrupted by using the Image Special Process function.

Try the settings in order, starting with Level1.

CNSpecialSmooth

Smooths the contours of characters, lines, images, and inside gradations by using the Special Smoothing Mode function.

Normally, specify Mode1. If Mode1 does not make things smoother, click the subsequent "Open details" and try another mode, according to the content of the data.

Mode1: Smooths the contours of text, lines, and images.

Mode2: Smooths the inside halftones in addition to the image contours.

Mode3: Smooths dense letters and lines over halftone backgrounds.

Mode4: Smooths the contours of large text and thick lines when they are jagged.

Mode5: Corrects non-uniformity in images and halftones.

Mode6: Smooths print data as a whole.

CNOutputAdjustment

Increases the resolution when the data includes a mix of text, images, and graphs, etc. by using the Output Adjustment Mode function.

CNGlossyPlainPaperProc

Performs processing with the glossy fixing mode when printing on plain paper by using the Glossy Plain Paper Processing function.

CNPreventPostcardFogging

Alleviates the problem of the printed image being entirely or partially fogged when printing to postcards by using the Prevent Postcard Fogging function.

Specify Mode1 for normal use. If the problem is not solved by Mode1, you can specify Mode2, but this may affect the printed image itself.

CNShiftStartPrintPosition

Adjusts the print start position by using the Shift the Position to Start Printing function. This function is useful for adjusting the margins when the vertical margin differs from the horizontal margin, or when hiding the information in the header and footer.

The following options enable you to specify the start position (displacement width). (units: mm, default: 0)

CNShiftFrLongEdge option: Long Edge (Front Side)

CNShiftFrShortEdge option: Short Edge (Front Side)

CNShiftBkLongEdge option: Long Edge (Back Side)

CNShiftBkShortEdge option: Short Edge (Back Side)

Example

To print the file "sample.txt" with the following setting:

- Shift the Position to Start Printing: Use
- Long Edge (Front Side): 50.0 mm
- Short Edge (Front Side): 40.0 mm
- Long Edge (Back Side): -30.0 mm
- Short Edge (Back Side): -20.0 mm

```
$ lpr sample.txt CNShiftStartPrintPosition=True -o CNShiftFrLongEdge=50.0 -o CNShiftFrShortEdge=40.0 -o CNShiftBkLongEdge=-30.0 -o CNShiftBkShortEdge=-20.0
```

Finishing - Secure Printing

6X09-022

You can embed a watermark or tracking information, etc. when printing to prevent leaks of confidential documents.

Format

```
lpr <file path>  
-o CNTrustPrint={True | False}  
-o CNCopySetNumbering={None | False | True [-o CNStartingNumber=<Starting Number>]}
```

Options

CNTrustPrint

Embeds hidden text in the background that appears when the document is copied, if you are using the Secure Watermark function of the printer.

Embeds restriction information and tracking information, if you are using the Secure Printing function of the printer.

CNCopySetNumbering

Prints the copy set as a serial number. The number is faintly printed in the top, bottom, left, right, and center (five locations).

The CNStartingNumber option enables you to specify the start number. (default: 1)

Example

To print the file "sample.txt" with the following setting:

- Copy Set Numbering: Use
- Starting Number: 5

```
$ lpr sample.txt -o CNCopySetNumbering=True -o CNStartingNumber=5
```

Paper Source - Paper Source/Paper Type

6X09-023

You can set the paper to print on by paper source or paper type.

Format

```
lpr <file path>
-o InputSlot=<Paper Source>
-o MediaType={{None | Auto | <Paper Type>} | OHP -o CNInterleafSheet={None | False | True [-o CNInterleafMediaType=<Paper Type>] [-o CNInterleafPrint={None | True | False}]} | OHP -o CNOHPPrintMode={Transparent | Reflective}}
```

Options

InputSlot

Specifies one of the following paper sources.

Auto (Auto) / Manual (Multi-purpose Tray) / Cas<NUM> (Cassette, where <NUM> indicates the number) / PodDeck (POD Deck/Cassette 4) / Deck3_Cas<NUM> (Cassette, where <NUM> indicates the number) / PodDeckLite (POD Deck Lite) / SideDeck (Side Paper Deck) / Env (Envelope Feeder/Envelope Tray) / Env2 (Envelope Feeder)

MediaType

Specifies the paper type.

▶ **<Paper Type> parameter (P. 89)**

CNInterleafSheet

Inserts sheets between transparencies when transparency is specified as the paper type.

To specify the paper type to insert, use the CNInterleafMediaType option. However, Transparency cannot be specified.

To print on the inserted paper, specify True for the CNInterleafPrint option.

CNOHPPrintMode

Specifies the print method according to the projector that will be used when transparency is specified as the paper type.

Transparent: Transmissive Projector

Reflective: Reflective Projector

<Paper Type> parameter

Plain Paper

PlainPaper / PlainPaper1 / PlainPaper2 / PlainPaper3 / PlainPaper4 / PlainPaperL / PlainPaperL2 / PlainPaperL3

Thin

THIN1 / THIN2

Recycled Paper

RECYCLED / RECYCLED1 / RECYCLED2 / RECYCLED3 / RECYCLED4

Color Paper

COLOR / COLOR1 / COLOR2

Bond Paper

BOND / BOND1 / BOND2 / BOND3

Heavy Paper

HEAVY / HEAVY1 / HEAVY2 / HEAVY3 / HEAVY4 / HEAVY5 / HEAVY6 / HEAVY7 / HEAVY8 / HEAVY9 / ThickPaperH

Envelope

ENVELOPE / ENVELOPE1 / ENVELOPE2 / EnvelopeH

Film

OHP / CLEARFILM

Pre-punched Paper

PREPUNCHED / PREPUNCHED1 / PREPUNCHED2

Tab Paper

TAB / TAB1 / TAB2 / TAB3 / TAB4

Texture Paper

EMBOSS1 / EMBOSS2 / EMBOSS3 / EMBOSS4 / EMBOSS5 / EMBOSS6 / EMBOSS7 / EMBOSS8

Vellum

VELLUM1 / VELLUM2 / VELLUM3

1-sided Coated

1SIDECOATEDF1 / 1SIDECOATEDF2 / 1SIDECOATED1 / 1SIDECOATED2 / 1SIDECOATED3 / 1SIDECOATED4 / 1SIDECOATED5 / 1SIDECOATED6 / 1SIDECOATED7 / 1SIDECOATED8 / 1SIDECOATED9

2-sided Coated

2SIDECOATEDF1 / 2SIDECOATEDF2 / 2SIDECOATED1 / 2SIDECOATED2 / 2SIDECOATED3 / 2SIDECOATED4 / 2SIDECOATED5 / 2SIDECOATED6 / 2SIDECOATED7 / 2SIDECOATED8 / 2SIDECOATED9

Matte Coated

MATTECOATEDF1 / MATTECOATEDF2 / MATTECOATED1 / MATTECOATED2 / MATTECOATED3 / MATTECOATED4 / MATTECOATED5 / MATTECOATED6 / MATTECOATED7 / MATTECOATED8 / MATTECOATED9

Rough Paper

ROUGH / ROUGH1 / ROUGH2 / ROUGH3

Glossy Paper

GLOSSY / GLOSSY1 / GLOSSY2 / GLOSSY3 / GLOSSY4

Letterhead

LHEAD / LHEADHEAVY / LHEADPLAIN

Others

CoatedPaper (Coated Paper) / LABELS (Labels) / TRACING (Tracing) / MATTEPHOTO (Matte Photo) / SYNPP (Synthetic (Polypropylene)) / SYNPEP (Synthetic (Polyester))

Example

To print the file "sample.txt" with the following setting:

Command List

- Paper Type: Transparency
- Insert Interleaf Sheets: Use (Paper Type: Plain Paper)
- Print on Interleaf Sheets: Use

```
$ lpr sample.txt -o MediaType=OHP -o CNInterleafSheet=True -o CNInterleafMediaType=PlainPaper -o CNInterleafPrint=True
```

Paper Source - Front/Back Cover

6X09-024

You can insert a cover and back cover. You can select the side to print on and the paper source for each.

Format

```
lpr <file path>
-o CNSetFrontSheet={False | True [-o CNFrontPrintOn={Off | OnlyFrontSide | OnlyBackSide | BothSides}]} [-
o CNFrontPaperSrc=<Paper Source>]}
-o CNSetBackSheet={False | True [-o CNBackPrintOn={Off | OnlyFrontSide | OnlyBackSide | BothSides}]} [-
o CNBackPaperSrc=<Paper Source>]}
-o CNInserter={True | False}
```

Options

CNSetFrontSheet/ CNSetBackSheet

Inserts the front or back cover.

CNFrontPrintOn/ CNBackPrintOn

Specifies the side to print on.

Off: None

OnlyFrontSide: Only Front Side

OnlyBackSide: Only Back Side

BothSides: Both Sides

CNFrontPaperSrc/ CNBackPaperSrc

Specifies one of the following paper sources.

Manual: Multi-purpose Tray

Cas<NUM>: Cassette (where <NUM> indicates the number)

PodDeck: POD Deck/Cassette 4

SideDeck: Side Paper Deck

Deck3_Cas<NUM>: Cassette (where <NUM> indicates the number)

PodDeckLite: POD Deck Lite

InsertionUnit: Insertion Unit

InsertionUnit<NUM>: Insertion Unit (where <NUM> indicates the number)

CNInserter

Inserts the paper loaded in the Document Insertion Unit as covers or separators.

Example

To print the file "sample.txt" with the following setting:

Command List

- Set Front Cover: Use
- Print on: Both Sides
- Paper Source: Cassette 2

```
$ lpr sample.txt -o CSetFrontSheet=True -o CNFrontPrintOn=BothSides -o CNFrontPaperSrc=Cas2
```


Quality - Color Adjustment

6X09-025

You can switch between color printing and black-and-white printing. You can also adjust colors.

Format

```
lpr <file path>
-o CNColorMode={Auto | color [-o CNColorHalftone={None | Resolution | Gradation | ColorTone}] | mono
[-o CNHalftone={None | Resolution | Gradation | ColorTone}]}
-o CNObjectPrioritizeProcessing={Images | Graphics | Text}
-o CNNumberOfColors={FullColor | TwoColors -o CNColorToUseWithBlack={Red | Green | Blue | Yellow |
Magenta | Cyan}}
-o CNMonitorProfile={sRGBv1.20(Canon) | sRGBv3.0(Canon) | HDTVgamma1.5 | HDTVgamma1.8 |
HDTVgamma2.1 | HDTVgamma2.4}
-o CNMatchingMethod={None | Saturation | Monitor | Photographic | Colorimetric | Vividphoto |
CustomColor_1}
```

Options

CNColorMode

Specifies whether to print in color or in black-and-white.

CNColorHalftone / CNHalftone

Enables you to specify methods for representing halftones (areas between dark areas and light areas).

Resolution: Gives priority to resolution and prints contours smoothly.

Gradation: Gives priority to gradation and prints gradations smoothly.

ColorTone: Gives priority to gradation more than Gradation.

CNObjectPrioritizeProcessing

When the print data conversion method is set to raster mode, set the subject to be prioritized when processing. You can select images, graphics, or text.

CNNumberOfColors

Specifies whether to print in full color or in two colors.

If you specify TwoColors, use the CNColorToUseWithBlack option to specify the color to combine with black.

CNMonitorProfile

Specifies the profile that matches your monitor when you want to adjust the colors.

CNMatchingMethod

Specifies the element to prioritize matching of.

To use a special red to print vivid rec colors, specify CustomColor_1.

Example

To print the file "sample.txt" with the following setting:

- Number of Colors: Two Colors
- Color to Use with Black: Red

```
$ lpr sample.txt -o CNumberOfColors=TwoColors -o CColorToUseWithBlack=Red
```

Quality - Image Processing

6X09-026

You can set the processing to perform, such as smoothing and sharpness.

Specify a function supported by the model you are using.

Format

```
lpr <file path>
-o Resolution={300 | 600 | 1200}
-o CNLineControl={None | Resolution | Gradation}
-o CNImageRefinement={None | True | False}
-o CNLineRefinement={None | True | False}
-o CNAdvancedSmoothing={None | Off | Smooth1 | Smooth2}
-o CNSharpness={None | -3 | -2 | -1 | 0 | 1 | 2 | 3}
-o CNHyperSharpness={None | Off | Low | Middle | High}
-o CNOptimizeImageComp={None | On | Off}
-o CNWidthAdjustment={None | On | Off}
```

Options

Resolution

Specifies the print resolution in dpi (dots per inch).

CNLineControl

Improves reproduction of text and lines by using the Line Control function.

To give priority to the resolution, specify Resolution. To give priority to the reproduction of gradations, specify Gradation.

CNImageRefinement

Smooths the contours of text, lines, and images by using the Image Refinement function.

CNLineRefinement

Widens small text and barcodes for higher visibility by using the Line Refinement function.

CNAdvancedSmoothing

Smooths the contours of text, lines, and images by using the Advanced Smoothing function.

Smooth2 gives priority to gradation more than Smooth1.

CNSharpness / CNHyperSharpness

Strengthens and blurs the contours of text and images by using the Sharpness function or Sharpness (Photo) function.

The CNSharpness option is specified with a value from -3 (weak) to 3 (strong). 0 is the default value.

CNOptimizeImageComp

Optimizes switching between lossy and lossless compression according to the content of the data by using the Image Compression Optimization function.

CNWidthAdjustment

Enhances the width of text and lines by using the Width Adjustment function.

Example

To print the file "sample.txt" with the following setting:

- Line Control: Gradation Priority

```
$ lpr sample.txt -o CNLineControl=Gradation
```

Quality - Toner Adjustment

6X09-027

You can adjust the toner density and volume.

Specify a function supported by the model you are using.

Format

```
lpr <file path>
-o CNTonerDensity={None | <Toner Density>}
-o CNTonerSaving={Auto | True | False}
-o CNDraftMode={Auto | True | False}
-o CNTonerVolumeAdjustment={None | Normal | Gradation | Text}
-o CNSmallSizeCurl={None | On | Off}
-o CNColorTonerVolumeAdjustment={None | Off | Level1 | Level2}
```

Options

CNTonerDensity

Specifies the toner density with a value from 1 (low) to 17 (high). 9 is the default value.

CNTonerSaving

Thins out the data to print using the Toner Save function or Ink Saving function.

CNDraftMode

Thins out the data to print using the Draft Mode function.

CNTonerVolumeAdjustment

Adjusts the amount of toner to match the content of the print data by using the Toner Volume Adjustment function.

For data that contains many graphics or computer graphics using gradations, specify Gradation. For data that contains mainly text, specify Text.

CNColorTonerVolumeAdjustment

Reduces the toner volume when printing in color to prevent too much toner from being applied by using the Adjust Toner Volume Used for Color Printing function.

To reduce the toner volume for areas with high color density, specify Level1. To reduce the overall toner density, specify Level2.

Example

To print the file "sample.txt" with the following setting:

- Toner Save: Use

Command List

- Toner Volume Adjustment: Text Priority

```
$ lpr sample.txt -o CNTonerSaving=True -o CNTonerVolumeAdjustment=Text
```

Device Settings - Output Method

6X09-028

You can switch the method for outputting print data.

When data is saved to the printer, it can be operated from the control panel of the printer or the Remote UI.

Format

```
cnjatool2 {-ps | -xs} <printer name>
lpr <file path>
-o CNJobExecMode={print | hold | secured [-o CNUseCSModeSecured={Mode1 | Mode2}]} | store [-o CNMailBox=<Inbox Number>]}
-o CNDocName=<Document Name>
-o CNUsrName=<User Name>
```

Options

-ps

Enables you to set the user name and PIN when using the secure print function.

Press the [Enter] key after entering each item.

-xs

Deletes the user name and PIN for the secure print function.



NOTE

- You can set the user name and PIN for the secure print function in the [Device Settings] sheet of the driver settings screen.
- If you print specifying the secure print function and user authentication function at the same time, the user name set for the user authentication function will be used.

CNJobExecMode

Specifies the method for outputting print data.

print: Performs normal printing.

hold: Saves to the hold queue (temporary storage area) of the printer.

secured: Uses the secure print function to save the data to the printer with a PIN set. To specify the authentication method supported by printer, use the CNUseCSModeSecured option. (Mode1: Encryption not supported, Mode2: Encryption supported)

store: Saves to a box of the printer. To specify the box number, use the CNMailBox option. (default: 0)

CNDocName / CNUsrName

Specifies the document name or user name displayed in the printer using 32 bytes or less.



NOTE

- If you print from the command line without specifying the document name or user name, the name set on the [Device Settings] sheet of the driver settings screen is applied.

Example

To print the file "sample.txt" with the following setting:

- Output Method: Secured Print
- Secured Print Authentication: Mode1 (Encryption supported)

```
$ lpr sample.txt -o CNJobExecMode=secured -o CNUseCSModeSecured=Mode1
```

Related Topics

- ▶ [\[Device Settings\] Sheet\(P. 67\)](#)
- ▶ [Device Settings - Authentication Function\(P. 102\)](#)

Device Settings - Authentication Function

6X09-029

You can perform print management by means of the department ID management function or the user authentication function.

Format

```
cnjatool2 {-e | -eu | -d | -p | -x | -pu | -xu} <printer name>
lpr <file path>
-o CNDisableJobAccountingBW={False | True -o CNColorMode=mono}
-o CNUseCSModeJobAccount={Mode1 | Mode2}
```

Options

-e / -eu / -d

Activates or deactivates the authentication function. Execute the command with super user privileges.

-e: Activates the department ID management function.

-eu: Activates the user authentication function.

-d: Deactivates the department ID management function and user authentication function.

-p

Enables you to set the ID and PIN registered in the printer when using the department ID management function.

Press the [Enter] key after entering each item. If a PIN is not registered, leave it blank.

-x

Deletes the department ID and PIN for department ID management.

-pu

Enables you to set the user name and PIN registered in the printer when using the user authentication function.

Press the [Enter] key after entering each item. If a PIN is not registered, leave it blank.

-xu

Deletes the user name and PIN for the user authentication function.

CNDisableJobAccountingBW

Performs black-and-white printing without authentication when the department ID management function is activated.

CNUseCSModeJobAccount

Specifies the authentication method supported by the printer when the department ID management function is activated.

Mode1: Encryption not supported

Mode2: Encryption supported

Example

To print the file "sample.txt" with the following setting:

- Do Not Use Job Accounting When B&W Printing: Use
- Color Mode: Black and White

```
$ lpr sample.txt -o CNDisableJobAccountingBW=True -o CNColorMode=mono
```

Appendix

Appendix	105
Main Restrictions	106
Support	107

Appendix

6X09-02A

Contains additional information about the printer driver, such as restrictions, etc.

- ▶ **Main Restrictions(P. 106)**
- ▶ **Support(P. 107)**

Main Restrictions

6X09-02C

The main restrictions when using this driver are as follows.

Usage Restrictions Based on CUPS Operation Settings

When you use CUPS system to print data, the following restrictions apply:

- When you print an image file directly with the lpr command of CUPS, the image may be divided and printed across several sheet of paper. If this happens, adjust the size of the image.

Exemptions from Operation and Program Warranties

- The warranties do not guarantee operations for procedures and methods described in the operations guide.
- Canon, Inc. ("Canon") and any local Canon company or sole distributor ("local Canon company") disclaims all liability arising out of the application of operation methods and procedures described in the operations guide, even if any of the following occurs:

If an error caused by an applicable operation or procedure is recognized in a program installed in your system or in the system

If a malfunction is recognized in the operation of your printer (it is acknowledged that your printer does not operate normally)

If you are not satisfied with the print operation or results (appearance, quality, etc.)

Support

6X09-02E

This Software and Related Information are independently developed by Canon and distributed by your Canon local company. Canon (as a manufacturer of printers supporting this Software and Related Information) and your Canon local company (as a distributor), will not respond to any inquiries about this Software or Related Information. However, any inquiries about printer repair, consumable supplies, and devices should be directed to your Canon local company.

This Font Software is licensed under the SIL Open Font License, Version 1.1.

This license is copied below, and is also available with a FAQ at: <http://scripts.sil.org/OFL>

SIL OPEN FONT LICENSE Version 1.1 - 26 February 2007

PREAMBLE

The goals of the Open Font License (OFL) are to stimulate worldwide development of collaborative font projects, to support the font creation efforts of academic and linguistic communities, and to provide a free and open framework in which fonts may be shared and improved in partnership with others.

The OFL allows the licensed fonts to be used, studied, modified and redistributed freely as long as they are not sold by themselves. The fonts, including any derivative works, can be bundled, embedded, redistributed and/or sold with any software provided that any reserved names are not used by derivative works. The fonts and derivatives, however, cannot be released under any other type of license. The requirement for fonts to remain under this license does not apply to any document created using the fonts or their derivatives.

DEFINITIONS

"Font Software" refers to the set of files released by the Copyright Holder(s) under this license and clearly marked as such. This may include source files, build scripts and documentation.

"Reserved Font Name" refers to any names specified as such after the copyright statement(s).

"Original Version" refers to the collection of Font Software components as distributed by the Copyright Holder(s).

"Modified Version" refers to any derivative made by adding to, deleting, or substituting -- in part or in whole -- any of the components of the Original Version, by changing formats or by porting the Font Software to a new environment.

"Author" refers to any designer, engineer, programmer, technical writer or other person who contributed to the Font Software.

PERMISSION & CONDITIONS

Permission is hereby granted, free of charge, to any person obtaining a copy of the Font Software, to use, study, copy, merge, embed, modify, redistribute, and sell modified and unmodified copies of the Font Software, subject to the following conditions:

- 1) Neither the Font Software nor any of its individual components, in Original or Modified Versions, may be sold by itself.
- 2) Original or Modified Versions of the Font Software may be bundled, redistributed and/or sold with any software, provided that each copy contains the above copyright notice and this license. These can be included either as stand-alone text files, human-readable headers or in the appropriate machine-readable metadata fields within text or binary files as long as those fields can be easily viewed by the user.
- 3) No Modified Version of the Font Software may use the Reserved Font Name(s) unless explicit written permission is granted by the corresponding Copyright Holder. This restriction only applies to the primary font name as presented to the users.
- 4) The name(s) of the Copyright Holder(s) or the Author(s) of the Font Software shall not be used to promote, endorse or advertise any Modified Version, except to acknowledge the contribution(s) of the Copyright Holder(s) and the Author(s) or with their explicit written permission.
- 5) The Font Software, modified or unmodified, in part or in whole, must be distributed entirely under this license, and must not be distributed under any other license. The requirement for fonts to remain under this license does not apply to any document created using the Font Software.

TERMINATION

This license becomes null and void if any of the above conditions are not met.

DISCLAIMER

THE FONT SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF COPYRIGHT, PATENT, TRADEMARK, OR OTHER RIGHT. IN NO EVENT SHALL THE COPYRIGHT HOLDER BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, INCLUDING ANY GENERAL, SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF THE USE OR INABILITY TO USE THE FONT SOFTWARE OR FROM OTHER DEALINGS IN THE FONT SOFTWARE.