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Preface

Thank you for purchasing a product. To get the most out of the product, please read this manual in detail.
This manual provides information on the installation of the UX filter and the print operations using the utility software.
The contents of this manual are prepared on the presumption that the readers have already acquired basic knowledge and understanding pertaining to the workstation and the OS environment.
Please note that the contents of this manual are subject to change without prior notice.

October 2003
Oki Data Corporation

Using this Manual

* Organization
The contents of each chapter are described briefly below.

Chapter 1 Overview
This chapter describes the special features of the UX filter and its functional environment.

Chapter 2 Installation
This chapter describes the installation of the UX filter.

Chapter 3 Uninstallation
This chapter describes the uninstallation of the UX filter.

Chapter 4 Printing and Utility
This chapter describes print operations using the UX filter, the functions of the utility and ways to make use of these functions.

Chapter 5 Precautions and Limitations
This chapter describes the precautions and limitations pertaining to the use of the UX filter.

* Conventions used in this manual
1. The following terms are used in this manual.
Solaris ▸ Solaris 2.6/7/8/9 (SPARC)
Linux ▸ Red Hat Linux 7.1/7.2/7.3/8/9、SuSE Linux 8.2 (LPRng)(IA32)
HP ▸ HP-UX 10.2/11.0/11i (PA-RISC)
Important ▸ Instructions or information required to use the printer correctly.
See ▸ Describes reference items.
Note ▸ Describes supplementary information.

2. In this manual, an "interface board" refers to the following:
- Interface board (for Ethernet 10Base5)
- Interface board (for Ethernet 10Base2/T)
- Interface board (for Ethernet 100Base-TX)

3. In this manual, the following symbols are used.
" " This symbol indicates the name of a specific printer or host, a selection item of the menu or a reference item in this manual.
E.g. Set "lp" here.
Select "1" to set up the local printer.

< > This symbol indicates a key on the keyboard.
E.g. Press the <Return> key.

≪ ≫ This symbol indicates other manuals to be referred to.
E.g., The internal format of the filter description file complies with the lpfilter description of ≪ SunOS5.3 Reference Manual Section 1M. System Administration Commands≫.

4. When a selection is to be made in response to a message, the default value of the selection is indicated in a [ ] as shown in the following example [y]. In this case, when the <Return> key is pressed, the default value [y] will be selected. When it is selected and the <Return> key pressed, it will appear in bold, such as the letter y in the following example.
E.g., output-printer-name is 'b6300' (y/n)[y] : **y**

5. Text to be input from the keyboard will be indicated by bold lettering, such as "**/usr/local/okipsbin**" in the following example. In this case, unless otherwise specified, the <Return> key is usually pressed at the end.
E.g., Enter directory name [/usr/local/okipsbin]: **/usr/local/okipsbin**

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CHAPTER 1 OVERVIEW

1.1 The UX Filter

This section describes the features of the UX filter and its operating environment.

1.1.1 Features

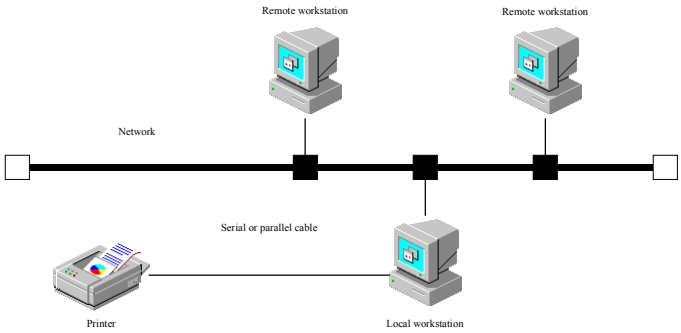
The UX filter is a utility software which converts files created by the UNIX workstation into a format which conforms to the PostScript language loaded in the printer. The utility provides software that converts EUC text files, SunRaster image files (for Sun/Solaris only), TIFF image files and XWD image files into the PostScript language program. Also, it makes use of the printer features to output in the following manner.

- Input paper selection
- 2-side printing
- Output paper selection

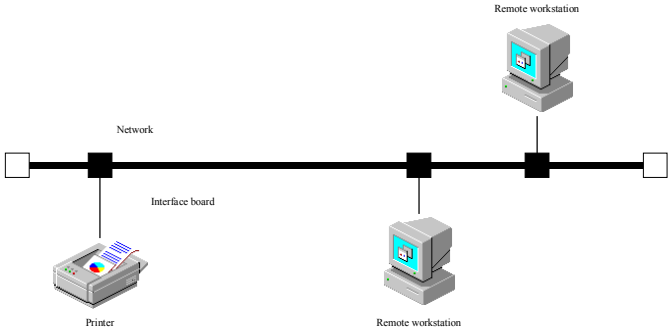
Important
- Depending on the models and configurations of the printers, some may not be able to use the UX filter.

1.1.2 Operating Environment

EUC text files, SunRaster image files (for Solaris only), TIFF image files and XWD image files received from a workstation connected to a printer by a serial cable or parallel cable (hereinafter referred to as the local workstation), or from one located on the network (hereinafter referred to as the remote workstation), can be converted into the PostScript language program and output to the printer.



In addition, it can also be used in an environment where a printer, installed with an interface board, is connected directly to the network.



1.1.3 Target Printer

The target printers include the following.

- OKI B6200/B6300

  Note: PostScriptKits are nessesary inside the printer.

1.2 Before Using UX Filter

Check the following items before using the UX filter.

Before setting up the workstation, please refer to the "User manual" and set up the printer as described below.

1 See if the lpd por is working or not when using the network environment. If the lpd port is not working, make it work. (Mandatory)
When a serial port or parallel port is to be used, see if these are working. (Mandatory)
2 Setup IP Address and Subnet Mask when the printer is used in the network environment. (Mandatory)
3 Set print mode to “Auto” or “PostScript”. (Mandatory)
4 Adjust the size of the buffer to receive data depending on the environment.
5 Make TBCPFilter function available if TBCPFilter function is equipped with the printer.

Note ▸ If the printer does not support those setting, please refer to the relevant manuals of the printer.

CHAPTER 2 INSTALLATION

2.1 Before Installation

This section provides information needed to begin the installation.

2.1.1 Installation Requirement

The following are required for the installation.

Supported OS is described in the operation manual included int theCD-ROM.

Disk capacity: 20MB of free disk space required, including temporary working space for installation.

The installation must be performed by a power user. Request the network administrator to do it if you do n't have the rights of a power user.

Output printer must be registered in the workstation before using UX filter. [HP-UX]

Use "sam" command for registration of output printer.

For more information, please read the HP-UX related mamual.

2.1.2 Files Added by the Installation

The following files will be added when the UX filter is installed.

[Solaris] (The directories listed are default directories)

Directory	File name	Contents
/usr/local/okipsbin	txt2ps2	Text conversion utility
	sunras2ps2	SunRaster conversion utility
	tiff2ps2	TIFF conversion utility
	xwd2ps2	XWD conversion utility
	okipsif	Input filter
/usr/lib/lp/postscript	okiposttxt	Symboric link file to call txt2ps2
	okipostps	Symboric link file to call okipsif
	okipsbinpath	Directory description file for the UX filter print tool
/usr/lib/lp/model	Model interface program	Source file of the model interface program (stored as the printer name during registration)
/etc/lp/interfaces	Model interface program	Interface program for PRINTER (stored as the printer name during registration)
/etc/lp/fd	okiposttxt.fd	filter description file for txt2ps2
	okib6300.fd	okipsif filter description file for OKI B6200/B6300
	okipostio.fd	okipostio Filter description file
	okidownload.fd	Okidownload Filter description file

[Linux] (The directories listed are default directories)

Directory	File name	Contents
/usr/local/okipsbin	txt2ps2	Text conversion utility
	tiff2ps2	TIFF conversion utility
	xwd2ps2	XWD conversion utility
	printcap. sample	Printcap file sample
	okipsif	Input Filter
	.okipsdefault	Default command option file

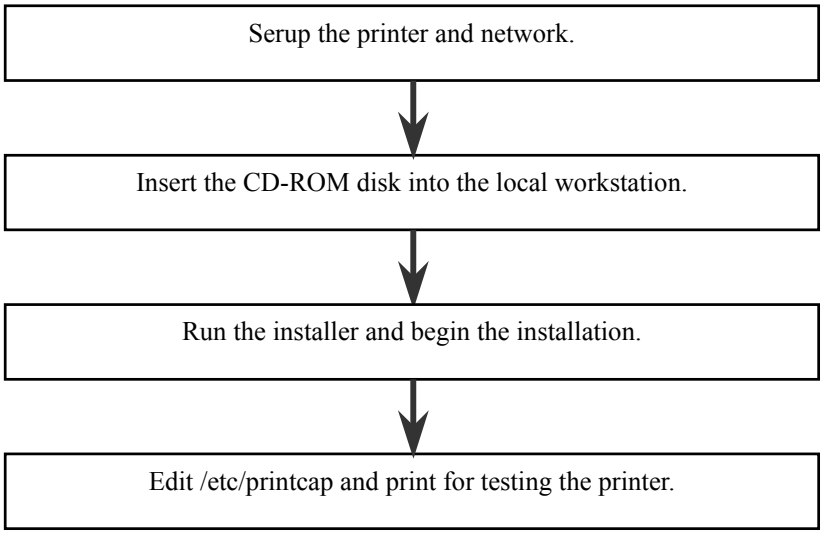
[HP-UX] (The directories listed are default directories)

Directory	File name	Contents
/usr/local/okipsbin	txt2ps2	Text conversion utility
	xwd2ps2	XWD conversion utility
	tiff2ps2	TIFF conversion utility
/usr/lib/lp/postscript	okipsbinpath	Directory description file for the UX filter print tool
/usr/spool/lp/interface	Model interface program	Interface program for PRINTER (stored as the printer name during registration)

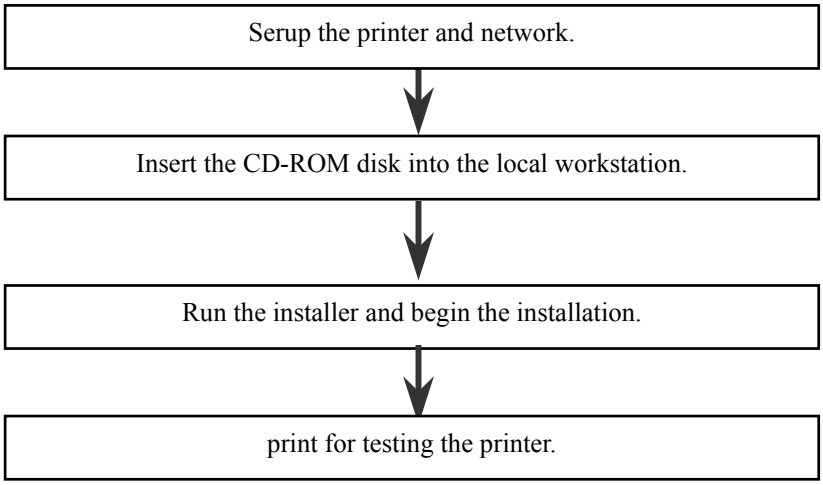
2.1.3 Installation Procedure Overview

This section provides information on the installation of the UX filter using the UNIX workstation.

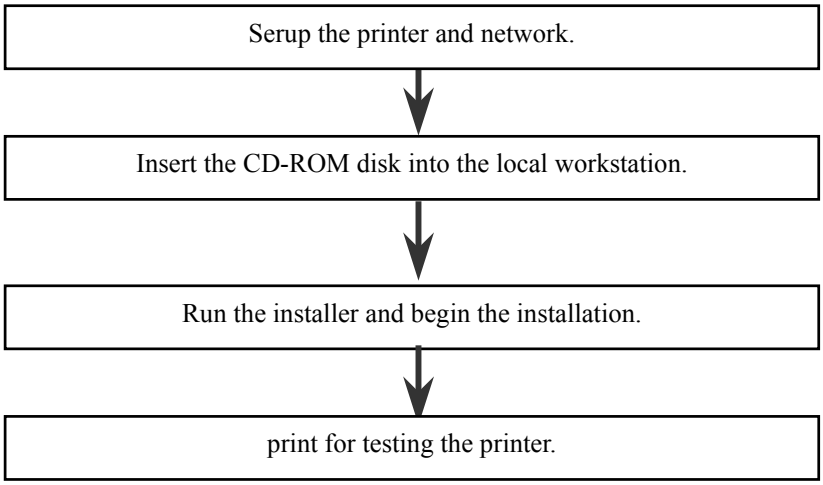
[Linux]



[Solaris]



[HP-UX]



2.2 Operation at Linux

2.2.1 Installation of Software

1 Insert the CD-ROM disk in the CD-ROM disk drive of the local workstation.

CD-ROM drive is not mounted on your workstation, take out files by using another workstation has CD-ROM drive to transfer those files to your workstation.

2 Log on as a power user and extract the files required for installation from the CD-ROM disk.

Important If you have no authorization as power user, please ask for your system administrator..

[Linux]

```
# mount /dev/cdrom /mnt/cdrom
# cd /tmp
# cp /mnt/cdrom/UXFILTER.tar /tmp
# tar xvf ./UXFILTER.tar
```

Note ▸ CD-ROM is sometimes mounted automatically.

3 Input "./install.sh" and run the installer.

```
#./install.sh
```

4 Select the printer model.

```
Printer Model?
      1. OKI B6200/B6300
      2. Exit
Enter Process No(1/2)? : 1
```

5 It asks whether you want to install the filter. Input "y".

```
Install Filter? (y/n) [y] : y
```

Note ▸ If [ ] appears in a message, the default value will appear inside the [ ]. It will be selected when the <Return> key is pressed.

The disk status on the workstation will be displayed. 20MB of free disk space is required for the installation of the filter.

6 Specify the directory to install the filter. To install into /usr/local/okipsbin, press the <Return> key. To change the directory, specify one. Let's change the directory to.

```
Enter Library directory name [/usr/local/okipsbin]
```

7 Confirm the directory to be installed.

```
directory is ‘/usr/local/okipsbin‘ (y/n)[y] : y
```

The software is installed.
With the above steps, the installation is completed.

2.2.2 Setting the printer

Write printer setting in /etc/printcap or /etc/printcap.local referencing /usr/local/okipsbin/printcap.sample.

[Linux](LPRng)

/etc/printcap.local or /etc/printcap

```
lp:¥
        :bk:¥
        :bkf:¥
        :lpd_bounce=true:¥
        :sd=/var/spool/lpd/lp:¥
        :af=/var/spool/lpd/lp/lp.acct:¥
        :lf=/var/spool/lpd/lp/log:¥
        :rm=PrinterHostName:¥
        :rp=ps:¥
        :if=/usr/local/okipsbin/okipsif:
```

Important The folder to spool can be created in the patition with sufficient memory.
If it is lacking of spooling directory, it is possible not to print the big size files.

Important The account files or logging files can be created with the file name specified in the directory path specified.

2.3 Operation at Solaris

2.3.1 Installation/ Printer Setting

1. Insert the CD-ROM disk in the CD-ROM disk drive of the local workstation
   CD-ROM drive is not mounted on your workstation, take out files by using another workstation has CD-ROM drive to transfer those files to your workstation

2. Log on as a power user and extract the installation script from the CD-ROM disk.

Important ▸ Request the system administrator to perform the installation if you do not have the rights of the power user.

```
# cd /tmp
# cp /cdrom/cdrom0/UXFILTER.tar /tmp
# tar xvf ./UXFILTER.tar
```

3. Input "./install.sh" and run the installer

```
# ./install.sh
```

4. Select the printer model that corresponds to the one to be used.

```
Printer Model ?
      1. OKI B6200/B6300
      2. Exit
Enter    Process No (1/2)? : 1
```

5. The following menu will be displayed. Select "1" and set up the local printer

```
Solaris Installation for OKI B6200/B6300 Type Printer
        1. Set Local Printer
        2. Set Remote Printer
Enter Process No (1/2)? : 1
```

6. Input the device name of the connection port.

```
Enter port-device-name? [/dev/term/a] : /dev/bpp0
```

Important Specify the devece file in the communication port available.

7. Set up the printer port monitor. When "y" is input, the TCP port and the print service will be added.

```
Do you want set port-monitor?(y/n)[y] : y
```

Important ▸ For machines running Solaris 2.6 or higher, this question will not be asked.

8. When “Set Remote Printe” is selected, input the host name of the server or the host name of the printer.

```
Enter server-hostname? : server
server-hostname is 'server' (y/n)[y] : y
```

Important ▸ The host name of the server must be pre-registered with DNS, NIS, NIS+ or /etc/hosts.

9. When “Set Remote Printe” is selected, input the remote printer name.

```
Enter server-printer-name? : ps
server-printer-name is 'ps' (y/n)[y] : y
```

Important ▸ Enter “ps” when the printer is a network connection printer.

10. Enter the printer name to be registered with Solaris.

```
Enter printer-name? [okib6300] : b6300
Printer-name is 'b6300' (y/n)[y] : y
```

11. Specify the directory to install the utility. To install into /usr/local/okipsbin, press the <Return> key. To change the directory, specify one.

```
Enter Binary directory name? [/usr/local/okipsbin] :
```

12. If this utility has been installed earlier, the user will be prompted whether to overwrite the earlier version.

```
directory is '/usr/local/okipsbin '(y/n)[y] : y
```

13. If the server inpur at step7 the printer connected by the network, input "y". If the server and the printer are connected locally, input "n".

```
'Server-hostname'is network printer?:(y/n)[y] : y
```

14. The software is installed.
    With the above steps, the installation is completed.

Important ▸ When the printing setting is modified or changed by the Administration Tool (admintool) after the installation, It’s possible that the printing does not work.

2.4 Operation at HP-UX

2.4.1 Installation Procedure

1. Insert CD-ROM disk into the CD-ROM device of the workstation.

2. Log on as a power user and extract the installation script from CD-ROM.

Important Request the system administrator to perform the installation if you do n't have the rights of the power user.

```
# mount -F cdfs -o cdcase /dev/dsk/c1t2d0 /cdrom
# cd /tmp
# cp /cdrom/UXFILTER.tar /tmp
# tar xvf UXFILTER.tar
```

Note ▸ "/dev/ds/clt2d0" is an example. Please specify the CD-ROM device file for all workstations.

3. Input "./install.sh" and run the installer.

```
# ./install.sh
```

4. Select the printer module to install.

```
Printer Model ?
      1. OKI B6200/B6300
      2. Exit
Enter Process No (1/2)? : 1
```

5. Specify the directory to install the utility.

```
Enter install directory name /usr/local/okipsbin] :
directory is '/usr/local/okipsbin' (y/n)[n] :  y
```

6. Input the name of the output printer. Let's input "okib6300". Please enter the printer name to be registered with the system.

```
Enter output-printer-name? : okib6300
output-printer-name is 'okib6300' (y/n)[y]: y
```

Note ▸ The registered printer name can be verified by executing "lpstat -v".

7. Input the logical printer name. Let's register "b6300". Please enter a printer name that has not been earlier registered with the system.

```
Enter logical-printer-name? : b6300
Printer-name is 'b6300' (y/n)[y]: y
```

8. The utility will be installed in the directory specified at step 5. Registration will be executed here so that the logical printer registered at step 7 can access the utility. As this process is automatically executed, no input is required. With the above steps, the installation is completed.

CHAPTER 3 UNINSTALLATION

3.1 About Uninstalling

The UX filter does not come with an uninstaller. To uninstall the UX filter, please follow the following procedure.

Important ▸ Please log on as a power user to perform the operation here. Request the system administrator to do it if you do not have the rights of a power user.

3.1.1 Linux

1. Please delete the descriptions for each printer from /etc/printcap.
2. Please delete the added spool directory.
3. Restart lpd.
4. Please delete all the directories that stores the UX filters during the installation and the files in these directories. The following directories must be deleted.
   /usr/local/okipsbin
   The above directories are standard directories created during the installation. If you had specified other directories for the installation, please delete those directories.

3.1.2 Solaris

1. Please delete the printer that was registered with the system. Please use the printer name created during the installation and the lpadmin command.
   # lpadmin -x printername
2. Please delete the filters registered with the system. Delete the filters registered during the installation using the lpfilter command.
   # lpfilter -f okib6300 –x (for OKI B6200/B6300)
   # lpfilter -f okidownload -x
   # lpfilter -f okipostio -x
   # lpfilter -f okiposttxt -x
3. Please delete the symbolic files required to call up the filter.
   Please delete the following files from /usr/lib/lp/postscript.
   okiposttxt
   okipostps
   okipsbinpath
4. If you are running Solaris2.6 or later, please delete the interface program files of "Selected printer type name" from /usr/lib/lp/model.
   Please also delete the interface program files of "Selected printer name" from /usr/lib/lp/interfaces.
5. Please delete all the directories that stores the UX filters during the installation and the files in these directories. The following directories must be deleted.
   /usr/local/okipsbin
6. Please delete the filer description files. Please delete the following files from /etc/lp/fd.
   Filter description files for various printers
   okib6300.fd (for OKI B6200/B6300)
   okidownload.fd
   okipostio.fd
   okiposttxt.fd

3.1.3 HP-UX

1. Please delete the printer that was registered with the system. Use the sam command to delete the printer set up during the installation.
   # sam
2. Please delete all the directories that stores the UX filters during the installation and the files in these directories. The following directories must be deleted.
   /usr/local/okipsbin（directory specified during the installation）

CHAPTER 4 PRINTING AND UTILITY

4.1 Printing (Linux)

This section contains information on printing that makes use of the filter.
To print, specify the printer registered with /etc/printcap as the output destination.

4.1.1 Printing from Linux

To print to the default printer:

If the printer is registered as the default printer, the name of the printer can be shortened and specified as shown in the example below.

```
% lpr filename
```

To print to other printers

To print to a printer named b6300, input as follows.

```
% lpr –Pb6300 filename
```

To select a paper tray for printing

To select a paper tray for printing, the .okipsdefault file must be executed in advance to define the printer which uses the desired paper tray.
To select tray 2 (second tray) for printing, execute the .okipsdefault file and define the printer so that it feeds paper from tray 2. Specify "tray2", which is the printer name of the defined printer name, as follows.

```
% lpr –Ptray2 filename
```

About /usr/local/okipsbin/.okipsdefault

This is the file for setting unique options when using various utilities via /etc/printcap. Hereinafter, it is referred to as the "default command option setting file".

Method

To define a printer named "a4d" which prints on A4 with the long-edge binding feature turned on, follow the steps below.

Procedure

1. Register the printer "a4d" with /etc/printcap.

[Linux](LPRng)
/etc/printcap.local or /etc/printcap

```
a4d:¥
        :bk:¥
        :bkf:¥
        :lpd_bounce=true:¥
        :sd=/var/spool/lpd/a4d:¥
        :af=/var/spool/lpd/a4d/a4d.acct:¥
        :lf=/var/spool/lpd/a4d/log:¥
        :rm=PrinterHostName:¥
        :rp=ps:¥
        :if=/usr/local/okipsbin/okipsif_a4d:
```

2. Log on as the power user and create the symbolic links for okipsif_a4d of IF Filter for printing on A4 with the long-edge binding feature turned on.

```
# ln -s /usr/local/okipsbin/okipsif /usr/local/okipsbin/okipsif_a4d
```

3. Add the following descriptions to the default command option setting file that specifies the unique commands of the okipsif_a4d of IF Filter.

/usr/local/okipsbin/.okipsdefault

```
okipsif_a4d -IA4 -D
```

4. When the printer name "a4d" is specified, printing can be done on A4 with the long-edge binding feature turned on.

% **lpr -Pa4d** *filename*

4.2 Printing (Solaris)

This section contains information on printing that makes use of the filter. To print from Solaris 2.X, specify the printer registered during the installation of filters as the output destination.

Important ▸ To use the lp command, please make sure the operating environment of the spooler has been set up correctly (enabled, available) using the lpstat command (lpstat-p all). For details on the options of the lp command and the lpstat command or how to make use of them, please refer to the related manuals of SunOS.

4.2.1 Printing from Solaris

To print to the default printer:

If the printer is registered as the default printer, the name of the printer can be shortened and specified as shown in the example below.

```
% lp filename
```

To print to other printers

To print to a printer named "b6300", input as follows.

```
% lp –d b6300 filename
```

Note ▸ The name of the printer can be confirmed by executing "lpstat -v".

To change the default printer temporarily for printing

To change the default printer, set the printer name in the environment variable LPDEST.
To set a printer named "b6300" as the default printer for printing, input as follows.

```
% setenv LPDEST b6300
% lp filename
```

Note ▸ Using this method, a default printer can be set up for each user.
▸ The above example describes the setup method executed when csh is used.

To select a paper tray for printing

To select a paper tray for printing, specify the paper tray after the -y option of the lp command.

See ▸ Depending on models and installed options, the available paper trays are different.

To select and print to a letter size paper of the printer named "b6300" with landscape, specify as follows.

```
% lp –d b6300 -y landscape -y letter filename
```

The following options can be specified by the lp command.

To print text files

Note ▸ It prints according to the length and width specified by the lpadmin command.

-y double	It sets printing to 2-stage printing
-y landscape	It rotates the image by 90o and uses the paper in the landscape orientation.
-y size=*n*	It sets the font size to n point.
-y outcolumn=*n*	This option converts text to single-byte text and sets printing to start from the nth column.
-y outline=*n*	It sets printing to start from the nth line.

-y font=*font* It sets the font for printing single-byte alphanumeric characters.
If the font specified is not available for the printer, the default fonts are used.

Note To specify a font, input the font name as-is after the "-y font="option.
% **lp -y font=Courier-Oblique** *filename*

See ▸For information on the available fonts, please refer to the PS-font list of the printer.。

-y margin=*u***:***b***:***r***:***l* It specifies the margin of a page in inches. The u (upper margin), b (bottom margin), r (right margin), and l (left margin) are positive real numbers (up to two decimal points). The default is 0.

-y ps The input file will be processed as the PostScript file. If the file does not begin with "%!", "%!" will be output to the beginning line. Regardless of whether the file contains "%!" will be ignored.

To print text/PostScript files

-y DuplexBook It enables the long-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the longer edge of the pages can be bound.

-y DuplexList It enables the short-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the shorter edge of the pages can be bound.

-y *tray-input* The paper tray-related parameters that can be specified by the lp command are as follows.

tray1	Feed paper from tray 1.
tray2	Feed paper from tray 2.
tray3	Feed paper from tray 3.
tray4	Feed paper from tray 4.
a4	Feed paper from the tray loaded with A4 (210 x 297 mm).
a5	Feed paper from the tray loaded with A5 (148 x 210 mm).
a6	Feed paper from the tray loaded with A6 (105 x 148 mm).
b5	Feed paper from the tray loaded with B5 (182 x 257 mm).
letter	Feed paper from the tray loaded with Letter (8.5 x 11 inches).
folio	Feed paper from the tray loaded with Folio (8.5 x 13 inches).
legal	Feed paper from the tray loaded with Legal (8.5 x 14 inches).
executive	Feed paper from the tray loaded with Executive (7.25 x 10.5 inches).
monarch	Feed paper from the tray loaded with Monarch (3.875 x 7.5 inches).
com10	Feed paper from the tray loaded with COM-10 (4.125 x 9.5 inches).
dl	Feed paper from the tray loaded with DL (110 x 220 mm).
c5	Feed paper from the tray loaded with C5 (162 x 229 mm).
lp210x900	Feed paper from the tray loaded with LP210x900 (210 x 900 mm).
***M*x*N*mm**	Feed paper from the tray loaded with MxNmm defined by users Possible range specified: Width 75.5～215.9 mm Length 127.0～355.6 mm
***M*x*N*in**	Feed paper from the tray loaded with MxNinches defined by users Possible range specified: Width 2.97～8.50 inches Length 5.00～14.00 inches

If this option is not specified or the tray specified tray is not available, feed paper from the default tray.

-y *tray-output*	The output tray-related parameters that can be specified by the lp command are as follows.
center	Output to the center tray.
rear	Output to the rear tray.
offset	Output to the offset catch tray.
	If this option is not specified or if the specified tray cannot be used, paper will be output to the default tray.
-y toner_save	It turns on the "save toner" mode for printing. It prints pale compared with ordinary.
-y nc=*n*	It specifies the number of output copies (the value of copies must be a positive integer). If this option is not specified, 1 will be selected.
-y cl	It specifies that printing be output set-by-set. If the "copies" option is not specified, this option will be ignored.
-y ps	The input file will be processed as the PostScript file. If the file does not begin with "%!", "%!" will be output to the beginning line. If a file contains "%!", this option will be ignored.

4.3 Printing (HP-UX)

This section contains information on printing from the registered logical printer during the installation.

4.3.1 Printing from HP-UX

To print to the default printer:

If the printer is registered as the default printer, the name of the printer can be shortened and specified as shown in the example below.

```
% lp filename
```

To print to other printers

To print to a printer named " b6300", input as follows.

```
% lp -d b6300 filename
```

To change the default printer temporarily for printing

To change the default printer, set the printer name in the environment variable PRINTER
To set a printer named "b6300" as the default printer for printing, input as follows.

```
% setenv PRINTER b6300
% lp filename
```

To Print with Added Options

To print with the option. specify the option of the lp command using "-o" as follows.
The available options are the same as txt2ps2/tiff2ps/xwd2ps2.

See ▸ Depending on models and installed options, the available paper trays are different

```
%lp -d b6300 -o r -o ILT filename
```

To print using file format

To print text files

```
% lp -d b6300 filename
```

To Print XWD Files

```
% -lp d b6300 -o XWD filename
```

To Print TIFF format Files

```
% lp -d b6300 -o TIF filename
```

To Print PostScript Files

```
% lp -d b6300 filename
```

To print PostScript files as text files, specify as follows.

```
% lp -d b6300 -o TX filename
```

However, for PostScript files with options set up, such as paper selection, etc., when the same option is specified, it will be ignored.

4.4 txt2ps2 (Linux/Solaris/HP-UX)

◇ Format

/usr/local/okipsbin/txt2ps2 [**-d**] [**-D**] [**-I***tray-input*] [**-O***tray-output*] [**-J***jog*] [**-t**] [**-2**] [**-r**] [**-F**] [**-l***lines*] [-**w**columns] [**-o***outcolumns*] [**-L***outlines*] [**-e***n*] [**-s***size*] [**-E**] [**-f***font*] [**-Nc**=*copies*] [**-Cl**] [**-ps**] [-**mg**=*up*:*bottom*:*right*:*left*] [**-Hd=***position*:*format*:*page*] [**-Hf***font*] [*filename...*]

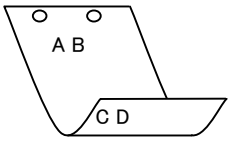
◇ Function

It reads text, converts it to the PostScript language program and writes to standard output. If the filename is not specified, the standard input will be taken as the command input.
By inputting character strings in the environmental variable TXT2PS2OPTION, the input of option at the command line can be omitted.
At the environmental variable TXT2PS2OPTION and the command line, if no option is specified, the printer will output in 10-point font size in the portrait orientation.
At the environmental variable TXT2PS2OPTION and the command line, if the same option is specified, the one specified at the command line will prevail.
txt2ps2 outputs the PostScript language program that adjusts the line/ column according to the paper size. For this reason, the user need not be aware of the paper size. If there is an option to specify the line/ column, automatic line feed according to the paper size will not be executed. Printing will be output according to the line/column specified.
txt2ps2 interprets the following control codes. Other control codes/ undefined codes will be converted to octal numbers and output as-is.

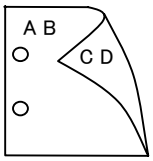
LF	Line feed
FF	Form feed (modifiable by option)
TAB	8-column tab stop (modifiable by option)
BS	Backspace 1 character

◇ Option

[**-d**] It enables the short-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the shorter edge of the pages can be bound. It applies to models with the 2-side printing function.



[**-D**] It enables the long-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the longer edge of the pages can be bound. It applies to models with the 2-side printing function.



[**-I***tray-input*] It specifies the paper tray.
A paper tray can be selected by directly specifying a tray or by specifying a paper size.
When a paper size is specified, the tray loaded with paper of the specified size will be searched and selected automatically.

The parameters for selecting a paper tray are as follows.

1	Feed paper from tray 1.
2	Feed paper from tray 2.
3	Feed paper from tray 3.
4	Feed paper from tray 4.
A4	Feed paper from the tray loaded with A4 (210 x 297 mm).
A5	Feed paper from the tray loaded with A5 (148 x 210 mm).
A6	Feed paper from the tray loaded with A6 (105 x 148 mm).
B5	Feed paper from the tray loaded with B5 (182 x 257 mm).
LT	Feed paper from the tray loaded with Letter (8.5 x 11 inches).
FL	Feed paper from the tray loaded with Folio (8.5 x 13 inches).
LG	Feed paper from the tray loaded with Legal (8.5 x 14 inches).
EX	Feed paper from the tray loaded with Executive (7.25 x 10.5 inches).
MO	Feed paper from the tray loaded with Monarch (3.875 x 7.5 inches).
COM10	Feed paper from the tray loaded with COM-10 (4.125 x 9.5 inches).
DL	Feed paper from the tray loaded with DL (110 x 220 mm).
C5	Feed paper from the tray loaded with C5 (162 x 229 mm).
LP 210x900	Feed paper from the tray loaded with LP210x900 (210 x 900 mm).
***M*x*N*mm**	Feed paper from the tray loaded with MxNmm defined by users Possible range specified: Width 75.5～215.9 mm Length 127.0～355.6 mm
***M*x*N*in**	Feed paper from the tray loaded with MxNinches defined by users Possible range specified: Width 2.97～8.50 inches Length 5.00～14.00 inches

If this option is not specified or the tray specified is not available, feed paper from the default tray.

[**-O***tray-output*] It specifies the output tray.

The parameters for selecting an output tray are as follows.

ce	Output to the center tray.
re	Output to the rear tray.
of	Output to the offset catch tray.

If this option is not specified or the tray specified is not available, feed paper from the default tray.

[**-J***jog*] Execute offset printing.

The parameters for selecting the offset unit are as follows.

no	Not execute offset printing.
job	Execute offset printing by job unit.
set	Execute offset printing by set unit.

[**-t**] It turns on the "save toner" mode for printing. The print result will be fainter than that of normal printing. For models without the "save toner" mechanism, this option will be ignored.

[**-2**] It sets printing to 2-stage printing.

[**-r**] It rotates the image by 90o and uses the paper in the landscape orientation.

[**-F**] It ignores the form feed code (FF).

[**-l***lines*] It specifies the number of lines per page.

[**-w***columns*] It specifies the number of columns per line.

[**-o***outcolumns*] It converts print data to single-byte text and sets printing to start from outcolumns.

[**-L***outlines*] It prints text from the outlines column.

[**-e***n*] It expands horizontal tabs to n columns (space). The default is 8.

[**-s***size*] It specifies the font size as size point. The default is 10.

[**-E**] This function turns on the image enhancement function. For models without the "image enhancement" mechanism, this option will be ignored.

[**-f***font*] It sets the font.

See ▸ The available fonts is limited to the font in the printer, for more information please refer to the user manual of the printer.。

[**-Nc=***copies*] It specifies the number of output copies (the value of copies must be a positive integer).

[**-Cl**] It specifies that printing be output set-by-set. It is valid only on models that support this function. If the "copies" option is not specified, this option will be ignored.

[**-ps**] The input file will be processed as the PostScript file. If the file does not begin with "%!", "%!" will be output to the beginning line. If a file contains "%!", it will be processed in the same way as okipsif.

[**-mg=***up***:***bottom***:***right***:***left*]

It specifies the margin of a page in inches.
The upmargin, bottommargin, rightmargin, and leftmargin are positive real numbers (up to two decimal points). The default is 0.

-mg=0:0:0:3	Sets the left margin to 3 inches.
-mg=3:3:0:5	Sets the top margin to 3 inches; bottom margin, 3 inches; and left margin, 5 inches. If the margin is 0, it can be omitted.
-mg=:::3	Sets the left margin to 3 inches.

[**-Hd**=*position*:*format*:*page*]

It specifies the position that the user information of the header or footer is output at.

position specifies output position. But this option is available only for converting text files.

ul	output on the upper left corner of the paper
ur	outpur on the upper right corner of the paper
dl	outpur on the lower left corner of the paper.
dr	output on the lower right corner of the paper

format specifies the contents and the oder to output.This option is omissible.

If this option is omitted, “uh” is specified as the default value.

u	user name
h	host name
t	date and time

If the output contents are specified as “tuh”, it output as follows.

Date and Time User:*username* Host:*hostname*.

page specifies the page to output. This option is omissible.

f	output the only top page.

(default in case of PostScriptfiles conversion)

a	output all pages.

(default in case of Text files conversion)

Specify these options as follows.

In the case that convert text file, output the host name following the user name on the upper right corner of the paper, output all pages

(User name, Host name, all page output are default)

```
-Hd=ur
-Hd=ur:uh
-Hd=ur:uh:a
```

In the case that convert PostScript file, output the host name following the date and time on the lower left corner of the paper, output all pages

(“a” option value is necessary because that “output the only top page” is default whenPostScript file is converted.)

```
-Hd=dl:th:a
```

Important If the paper size is not specified, it output header and footer at the position of A4 size by default. If the paper size is specifiede by lp command, the output position of header or footer is not changed from the position of the paper size specified by txt2ps2. Specify the paper size at the same time when header and footer option is used. There is a case that all pages are not printed despite specifying all page output when PostScript file conversion is specified. In such case, Specify “output the only top page”. By using TZ environmental valiable, specify time zone(GMT etc.).

[**-Hf***font*]

Specify the font to print header and footer. The European font as same as the half size alphanumeric font can be specified. Helvetica is specified as default.

If the wrong font is specified, default European font of the printer can be used.

If header/footer output option is specified, the font specification of header/footer is igored.

◇ Example

To convert the program list of the "file.txt" file into the PostScript language program that sets the paper to the landscape orientation and prints in the 2-up mode, input as follows:

% txt2ps2 file.txt | lpr (for Linux)
% txt2ps2 file.txt | lp (for Solaris/HP-UX)

To convert file.txt to the PostScript language program and output it to the file.ps file, input as follows:

% txt2ps2 file.txt > file.ps
% lpr file.ps (for Linux)
% lp file.ps (for Solaris/HP-UX)

To convert the output result of the command into the PostScript language program using txt2ps2 and print it to the printer, input as follows:

% ls –alF | txt2ps2 | lpr (for Linux)
% ls –alF | txt2ps2 | lp (for Solaris/HP-UX)

◇ Environmental variable

TXT2PS2OPTION

Option setting based on the environmental variable.

To output in the 2-up mode, 8 points and the landscape orientation, input as follows:

% setenv TXT2PS2OPTION "-2 -s8 -r"

To use the same options as those of the okipif filter specified by printcap, input as follows:

% setenv TXT2PS2OPTION "<okipsif>"

◇ File

/usr/local/okipsbin/.okipsdefault

This is the default command option setting file for individual users.

◇ Important

- When the same option is specified twice, the later setting will prevail. As TXT2PS2OPTION is analyzed before the option of the command line, it is possible to temporarily modify the options already set in TXT2PS2OPTION by inputing at the command line.
- The comment description （%%page:m n）of the page number cannot be output to the PostScript program file which is output by the default option of txt2ps2. Thus, when the output of txt2ps2 is to be taken as the output of another application (psrev of TRANSCRIPT, etc.), please add the page number description by inserting the line command（-I*lines*）.
- If a BS code is found at the beginning of a line, the print position of the next character will be located at the left of the beginning of the line.
- When there are multiple tab codes in one line, the tab position may be off as a result of automatic line feed. In such case, please use the -I or -w option.
- The number of columns specified by the –w option is not the actual number of printed characters. The actual numnber of single-byte characters to be printed is derived by deducting the output column position (outcolumns) specified by the o option from the number of columns specified by the –w option.
  The –mg option cannot be specified when -w, -l, -o, and –L option are specified.
  The start positions of margin of the margin command (-mg=u:b:r:l) are not set against the edge of paper. The margins are set against the printable area of paper allowed by the printer. The printable area differs depending on the model of the printer. Please refer to the printer manual for details.
  Please use the –ps option only when a PostScript file that contains no “%!” at the beginning of the file is used as the PostScript file. If a normal text file is input, it will not function correctly.
- In HP-UX, txt2ps2 considers files written by PostScript that contains “%!” at the beginning of the file as the PstScript files. To print PostScript files as text files, specify the "TX" option. With this option, PostScript files will be processed as text files.

4.5 sunras2ps2 (Solaris)

◇ Format

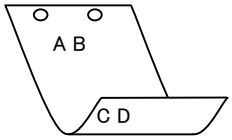
/usr/local/okipsbin/sunras2ps2 [**-d**] [**-D**] [**-I***tray-input*] [**-O***tray-output*] [**-t**] [**-r**] [**-n**] [**-l**=*left*,*bottom*] [**-s**=*width*,*height*] [**-S**=*width*] [**-E**] [**-Nc**=*copies*] [**-Cl**] [**-G4**] [**-Hd**=*position*: *format*] [**-Hf***font*] [*filename...*]

◇ Function

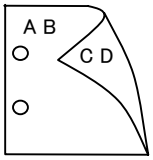
It reads SunRaster data, converts it to the PostScript language program and writes to standard output. If the filename is not specified, the standard input will be taken as the command input. SunRaster files with a pixel depth of 1, 8, 24, and 32 bits can be specified.
sunran2ps2 takes filename as having been created in 72dpi and calculates the output size. Thus, to convert SunRaster files created in other resolutions, please specify the size option (-s, -S) explicitly.

◇ Option

[**-d**] It enables the short-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the shorter edge of the pages can be bound. It applies to models with the 2-side printing function.



[**-D**] It enables the long-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the longer edge of the pages can be bound. It applies to models with the 2-side printing function.



[**-I***tray-input*] It specifies the paper tray.
A paper tray can be selected by directly specifying a tray or by specifying a paper size.
When a paper size is specified, the tray loaded with paper of the specified size will be searched and selected automatically.

The parameters for selecting a paper tray are as follows.

1	Feed paper from tray 1.
2	Feed paper from tray 2.
3	Feed paper from tray 3.
4	Feed paper from tray 4.
A4	Feed paper from the tray loaded with A4 (210 x 297 mm).
A5	Feed paper from the tray loaded with A5 (148 x 210 mm).
A6	Feed paper from the tray loaded with A6 (105 x 148 mm).
B5	Feed paper from the tray loaded with B5 (182 x 257 mm).
LT	Feed paper from the tray loaded with Letter (8.5 x 11 inches).
FL	Feed paper from the tray loaded with Folio (8.5 x 13 inches).
LG	Feed paper from the tray loaded with Legal (8.5 x 14 inches).
EX	Feed paper from the tray loaded with Executive (7.25 x 10.5 inches).
MO	Feed paper from the tray loaded with Monarch (3.875 x 7.5 inches).
COM10	Feed paper from the tray loaded with COM-10 (4.125 x 9.5 inches).
DL	Feed paper from the tray loaded with DL (110 x 220 mm).
C5	Feed paper from the tray loaded with C5 (162 x 229 mm).
LP 210x900	Feed paper from the tray loaded with LP210x900 (210 x 900 mm).
***M*x*N*mm**	Feed paper from the tray loaded with MxNmm defined by users Possible range specified: Width 75.5～215.9 mm Length 127.0～355.6 mm
***M*x*N*in**	Feed paper from the tray loaded with MxN inches defined by users Possible range specified: Width 2.97～8.50 inches Length 5.00～14.00 inches

If this option is not specified or the tray specified is not available, feed paper from the default tray.

[**-O***tray-output*] It specifies the output tray.

The parameters for selecting an output tray are as follows.

ce	Output to the center tray.
re	Output to the rear tray.
of	Output to the offset catch tray.

If this option is not specified or the tray specified is not available, feed paper from the default tray.

[**-t**] It turns on the "save toner" mode for printing. The print result will be fainter than that of normal printing. For models without the "save toner" mechanism, this option will be ignored.

[**-r**] It rotates the image by 90o and uses the paper in the landscape orientation.

[**-n**] It disables the addition of the showpage. It is used when files converted to the PostScript language program are merged with files created with other applications.

[**-l=***left***,***bottom*] It specifies the print position. Printing will be executed from the left and bottom of the page. The default is 0.25 inches for both left and bottom.

[**-s=***width***,***height*] It specifies the output size. Printing will be executed for the width and height in inches.

[**-S=***width*] It sets the width of the output size in inches. The height will be calculated automatically according to the width.

[**-E**] This function turns on the image enhancement function. For models without the "image enhancement" mechanism, this option will be ignored.

[**-Nc=***copies*] It specifies the number of output copies (the value of copies must be a positive integer).

[**-Cl**] It specifies that printing be output set-by-set. It is valid only on models that support this function. If the "copies" option is not specified, this option will be ignored.

[**-G4**] It executes G4 compression.

[**-Hd=***position***:***format*]

It specifies the position to be output the user information as the header or footer.

position specifies output position. But this option is available only for converting text files.

ul	output on the upper left corner of the paper
ur	outpur on the upper right corner of the paper
dl	outpur on the lower left corner of the paper.
dr	output on the lower right corner of the paper

format specifies the contents and the oder to output.This option is omissible.

If this option is omitted, “uh” is specified as the default value.

u	user name
h	host name
t	date and time

If the output contents are specified as “tuh”, it output as follows.

Date and Time User:*username* Host:*hostname*.

Specify these options as follows.

In the case that convert text file, output the host name following the user name on the upper right corner of the paper, output all pages

(User name, Host name, all page output are default)

-Hd=ur

-Hd=ur:uh

[**-Hf***font*]

Specify the font to print header and footer. The European font as same as the half size alphanumeric font can be specified. Helvetica is specified as default.

If the wrong font is specified, default European font of the printer can be used.

If header/footer output option is specified, the font specification of header/footer is igored.

◇ Example

To output the displayed screen image to a file using the snapshot command and convert the file into the PostScript language program using the sunras2ps2 command, input as follows.

% sunras2ps2 file.rs > file.ps

To output the displayed screen image to a file using the snapshot command, convert the file into the PostScript language program using the sunras2ps2 command and output it to a printer, input as follows.

% sunras2ps2 file.rs | lp

◇ Important

- When –s and –S are specified at the same time or when the same option is specified twice, the later setting will prevail.
- If the output size option （-s, -S） is not specified, scaling will be executed taking one pixel of the raster data as one pixel of the printer.
- If the print position option （-l left bottom） specifies a point beyond the printable area of the printer, data beyond the printable area will not be printed. The printable area differs depending on the model. For details, please refer to the printer manual.

4.6 tiff2ps2 (Linux/Solaris/HP-UX)

◇ Format

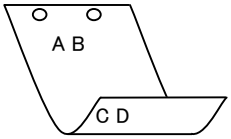
/usr/loacl/okipsbin/tiff2ps2 [**-d**] [**-D**] [**-I***tray-input*] [**-O***tray-output*] [**-t**] [**-r**] [**-n**] [**-l**=*left*,*bottom*] [**-s**=*width*,*height*] [**-S**=*width*] [**-E**] [**-Nc**=*copies*] [**-Cl**] [**-G4**] [**-Hd**=*position*:*format*] [**-Hf***font*] [*filename...*]

◇ Function

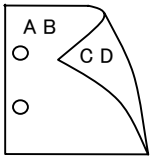
It reads TIFF data, converts it to the PostScript language program and writes to standard output. If the filename is not specified, the standard input will be taken as the command input. TIFF files with a pixel depth of 1, 4, 8, 24, and 32 bits can be specified.
There are four types of supported compression format.
Huffman compression (CCITT Group 3 transformed Huffman run length encoding)
Fax-CCITT3 compression (facsimile-compatible CCITT Group 3)
PackBits compression
Non-compression
Eeven if the above compression format, TIFF file that has maltiple images in the one file is not supported.
tiff2ps2 takes filename as having been created in 72dpi and calculates the output size. Thus, to convert TIFF files created in other resolutions, please specify the size option (-s, -S) explicitly for conversion.

◇ Option

[**-d**] It enables the short-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the shorter edge of the pages can be bound. It applies to models with the 2-side printing function.



[**-D**] It enables the long-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the longer edge of the pages can be bound. It applies to models with the 2-side printing function.



[**-I***tray-input*] It specifies the paper tray.
A paper tray can be selected by directly specifying a tray or by specifying a paper size.
When a paper size is specified, the tray loaded with paper of the specified size will be searched and selected automatically.

The parameters for selecting a paper tray are as follows.

1	Feed paper from tray 1.
2	Feed paper from tray 2.
3	Feed paper from tray 3.
4	Feed paper from tray 4.
A4	Feed paper from the tray loaded with A4 (210 x 297 mm).
A5	Feed paper from the tray loaded with A5 (148 x 210 mm).
A6	Feed paper from the tray loaded with A6 (105 x 148 mm).
B5	Feed paper from the tray loaded with B5 (182 x 257 mm).
LT	Feed paper from the tray loaded with Letter (8.5 x 11 inches).
FL	Feed paper from the tray loaded with Folio (8.5 x 13 inches).
LG	Feed paper from the tray loaded with Legal (8.5 x 14 inches).
EX	Feed paper from the tray loaded with Executive (7.25 x 10.5 inches).
MO	Feed paper from the tray loaded with Monarch (3.875 x 7.5 inches).
COM10	Feed paper from the tray loaded with COM-10 (4.125 x 9.5 inches).
DL	Feed paper from the tray loaded with DL (110 x 220 mm).
C5	Feed paper from the tray loaded with C5 (162 x 229 mm).
LP 210x900	Feed paper from the tray loaded with LP210x900 (210 x 900 mm).
***M*x*N*mm**	Feed paper from the tray loaded with MxNmm defined by users Possible range specified: Width 75.5～215.9 mm Length 127.0～355.6 mm
***M*x*N*in**	Feed paper from the tray loaded with MxNinches defined by users Possible range specified: Width 2.97～8.50 inches Length 5.00～14.00 inches

If this option is not specified or the tray specified is not available, feed paper from the default tray.

[**-O***tray-output*] It specifies the output tray.

The parameters for selecting an output tray are as follows.

ce	Output to the center tray.
re	Output to the rear tray.
of	Output to the offset catch tray.

If this option is not specified or the tray specified is not available, feed paper from the default tray.

[**-t**] It turns on the "save toner" mode for printing. The print result will be fainter than that of normal printing. For models without the "save toner" mechanism, this option will be ignored.

[**-r**] It rotates the image by 90o and uses the paper in the landscape orientation.

[**-n**] It disables the addition of the showpage. It is used when files converted to the PostScript language program are merged with files created with other applications.

[**-l=***left***,***bottom*] It specifies the print position. Printing will be executed from the left and bottom of the page. The default is 0.25 inches for both left and bottom.

[**-s=***width***,***height*] It specifies the output size. Printing will be executed for the width and height in inches.

[**-S=***width*] It sets the width of the output size in inches. The height will be calculated automatically according to the width.

[**-E**] This function turns on the image enhancement function. For models without the "image enhancement" mechanism, this option will be ignored.

[**-Nc=***copies*] It specifies the number of output copies (the value of copies must be a positive integer).

[**-Cl**] It specifies that printing be output set-by-set. It is valid only on models that support this function. If the "copies" option is not specified, this option will be ignored.

[**-G4**] It executes G4 compression.

[**-Hd=***position***:***format*]

It specifies the position to be output the user information as the header or footer.

position specifies output position. But this option is available only for converting text files.

ul	output on the upper left corner of the paper.
ur	outpur on the upper right corner of the paper.
dl	outpur on the lower left corner of the paper.
dr	output on the lower right corner of the paper.

format specifies the contents and the oder to output.This option is omissible.

If this option is omitted, “uh” is specified as the default value.

u	user name
h	host name
t	date and time

If the output contents are specified as “tuh”, it output as follows.

Date and Time User:*username* Host:*hostname*.

Specify these options as follows.

In the case that convert text file, output the host name following the user name on the upper right corner of the paper, output all pages

(User name, Host name, all page output are default)

-Hd=ur

-Hd=ur:uh

[**-Hf***font*]

Specify the font to print header and footer. The European font as same as the half size alphanumeric font can be specified. Helvetica is specified as default.

If the wrong font is specified, default European font of the printer can be used.

If header/footer output option is specified, the font specification of header/footer is igored.

◇ Example

To convert the TIFF image into the PostScript language program and output it to a file, input as follows.

% tiff2ps2 file.tiff > file1.ps

To output the TIFF image to a printer, input as follows.

% tiff2ps2 file.tiff | lpr (for Linux)

% tiff2ps2 file.tiff | lp (for Solaris/HP-UX)

◇ Important

- When –s and –S are specified at the same time or when the same option is specified twice, the later setting will prevail.
- When the output size option （-s, -S） is not specified, scaling will be executed taking one pixel of the TIFFdata as one pixel of the printer.
- If the print position option （-l left bottom） specifies a point beyond the printable area of the printer, data beyond the printable area will not be printed. The printable area differs depending on the model. For details, please refer to the printer manual.

4.7 xwd2ps2 (Linux/Solaris/HP-UX)

◇ Format

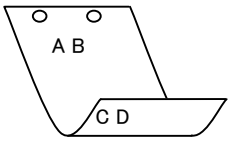
/usr/loacl/okipsbin/xwd2ps2 [**-d**] [**-D**] [**-I***tray-input*] [**-O***tray-output*] [**-t**] [**-r**] [**-n**] [**-l**=*left*,*bottom*] [**-s**=*width*,*height*] [**-S**=*width*] [**-E**] [**-Nc**=*copies*] [**-Cl**] [**-G4**] [**-Hd**=*position*:*format*] [**-Hf***font*] [*filename...*]

◇ Function

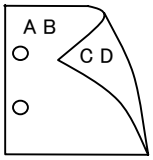
It reads XWD data, converts it to the PostScript language program and writes to standard output. If the filename is not specified, the standard input will be taken as the command input. XWD files with a pixel depth of 1, 4, 8, 24, and 32 bits can be specified.
There are three types of supported compression format.
The visual class is StaticGray and the pixel is 1 bit.
The visual class is PseudoColor and the pixel is 4 bits or 8 bit. The image format is Zpixmap.
The visual class is TrueColor and the pixel is 24 bits or 8 bit. The image format is Zpixmap.
xwd2ps2 takes filename as having been created in 72dpi and calculates the output size. Thus, to convert XWD files created in other resolutions, please specify the size option (-s, -S) explicitly for conversion.

◇ Option

[**-d**] It enables the short-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the shorter edge of the pages can be bound. It applies to models with the 2-side printing function.



[**-D**] It enables the long-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the longer edge of the pages can be bound. It applies to models with the 2-side printing function.



[**-I***tray-input*] It specifies the paper tray.
A paper tray can be selected by directly specifying a tray or by specifying a paper size.
When a paper size is specified, the tray loaded with paper of the specified size will be searched and selected automatically.

The parameters for selecting a paper tray are as follows.

1	Feed paper from tray 1.
2	Feed paper from tray 2.
3	Feed paper from tray 3.
4	Feed paper from tray 4.
A4	Feed paper from the tray loaded with A4 (210 x 297 mm).
A5	Feed paper from the tray loaded with A5 (148 x 210 mm).
A6	Feed paper from the tray loaded with A6 (105 x 148 mm).
B5	Feed paper from the tray loaded with B5 (182 x 257 mm).
LT	Feed paper from the tray loaded with Letter (8.5 x 11 inches).
FL	Feed paper from the tray loaded with Folio (8.5 x 13 inches).
LG	Feed paper from the tray loaded with Legal (8.5 x 14 inches).
EX	Feed paper from the tray loaded with Executive (7.25 x 10.5 inches).
MO	Feed paper from the tray loaded with Monarch (3.875 x 7.5 inches).
COM10	Feed paper from the tray loaded with COM-10 (4.125 x 9.5 inches).
DL	Feed paper from the tray loaded with DL (110 x 220 mm).
C5	Feed paper from the tray loaded with C5 (162 x 229 mm).
LP 210x900	Feed paper from the tray loaded with LP210x900 (210 x 900 mm).
***M*x*N*mm**	Feed paper from the tray loaded with MxNmm defined by users

Possible range specified:

Width	75.5～215.9 mm
Length	127.0～355.6 mm

***M*x*N*in**	Feed paper from the tray loaded with MxNinches defined by users

Possible range specified:

Width	2.97～8.50 inches
Length	5.00～14.00 inches

If this option is not specified or the tray specified is not available, feed paper from the default tray.

[**-O***tray-output*] It specifies the output tray.

The parameters for selecting an output tray are as follows.

ce	Output to the center tray.
re	Output to the rear tray.
of	Output to the offset catch tray.

If this option is not specified or the tray specified is not available, feed paper from the default tray.

[**-t**] It turns on the "save toner" mode for printing. The print result will be fainter than that of normal printing. For models without the "save toner" mechanism, this option will be ignored.

[**-r**] It rotates the image by 90o and uses the paper in the landscape orientation

[**-n**] It disables the addition of the showpage. It is used when files converted to the PostScript language program are merged with files created with other applications.

[**-l=***left***,***bottom*] It specifies the print position. Printing will be executed from the left and bottom of the page. The default is 0.25 inches for both left and bottom.

[**-s=***width***,***height*] It specifies the output size. Printing will be executed for the width and height in inches.

[**-S=***width*] It sets the width of the output size in inches. The height will be calculated automatically according to the width.

[**-E**] This function turns on the image enhancement function. For models without the "image enhancement" mechanism, this option will be ignored.

[**-Nc=*copies***] It specifies the number of output copies (the value of copies must be a positive integer).

[**-Cl**] It specifies that printing be output set-by-set. It is valid only on models that support this function. If the "copies" option is not specified, this option will be ignored.

[**-G4**] It executes G4 compression.

[**-Hd=***position*:*format*]

It specifies the position to be output the user information as the header or footer.

position specifies output position. But this option is available only for converting text files.

ul	output on the upper left corner of the paper
ur	outpur on the upper right corner of the paper
dl	outpur on the lower left corner of the paper.
dr	output on the lower right corner of the paper

format specifies the contents and the oder to output.This option is omissible.

If this option is omitted, “uh” is specified as the default value.

u	user name
h	host name
t	date and time

If the output contents are specified as “tuh”, it output as follows.

Date and Time User:*username* Host:*hostname*.

[**-Hf***font*]

Specify the font to print header and footer. The European font as same as the half size alphanumeric font can be specified. Helvetica is specified as default.

If the wrong font is specified, default European font of the printer can be used.

If header/footer output option is specified, the font specification of header/footer is igored.

◇ Example

To convert the XWD image into the PostScript language program and output it to a file, input as follows.

% xwd2ps2 file.xwd > file.ps

To output the XWD image to a printer, input as follows.

% xwd2ps2 file.xwd | lpr (for Linux)

% xwd2ps2 file.xwd | lp (for Solaris/HP-UX)

◇ Important

- When –s and –S are specified at the same time or when the same option is specified twice, the later setting will prevail.
- When the output size option（-s, -S）is not specified, scaling will be executed taking one pixel of the TIFFdata as one pixel of the printer.
- If the print position option（-l left bottom）specifies a point beyond the printable area of the printer, data beyond the printable area will not be printed. The printable area differs depending on the model. For details, please refer to the printer manual.

4.8 okipsif (Linux)

◇ Format

/usr/local/okipsbin/okipsif -w *width* **-l** *length* **-i** *indent* **-n** *login* **-h** *host accountfile*

◇ Function

If the first two characters of the input data are not "%!", the okipsif filter will convert it to the PostScript language program that can be output according to the paper size. If the first two characters of the input data are "%!", it will be considered the PostScript language program and no data conversion will be executed. The following control codes are interpreted for the conversion of input data.

LF	Line feed
FF	Form feed
TAB	8-column tab stop
BS	Backspace 1 character

The okipsif is the hard link file of txt2ps2.
The okipsif filter will be used as the IF filter specified by /etc/printcap.
The lpd daemon will specify the following command options and start up the okipsif filter.

okipsif -w *width* **-l** *length* **-i** *indent* **-n** *login* **-h** *host accountfile*

In addition, options usuable by txt2ps2 can be specified by the /usr/local/okipsbin/.okipsdefault file. With this option, detailed control can be achieved. However, if the input data are PostScript files, only the following options of txt2ps2 will become valid.

[**-d**] It enables the short-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the shorter edge of the pages can be bound. It applies to models with the 2-side printing function.

[**-D**] It enables the long-edge binding feature. When it is specified, the printing direction or position will be adjusted and both sides of the paper printed so that the longer edge of the pages can be bound. It applies to models with the 2-side printing function.

[**-I***tray-input*] It specifies the paper tray.
The parameters to be able to specify are the sme as txt2ps2.

[**-O***tray-output*] It specifies the output tray.
The parameters to be able to specify are the sme as txt2ps2.

[**-t**] It turns on the "save toner" mode for printing. The print result will be fainter than that of normal printing. For models without the "save toner" mechanism, this option will be ignored.

[**-E**] This function turns on the image enhancement function. For models without the "image enhancement" mechanism, this option will be ignored.

[**-Nc=*copies***] It specifies the number of output copies (the value of copies must be a positive integer).

[**-Cl**] It specifies that printing be output set-by-set. It is valid only on models that support this function. If the "copies" option is not specified, this option will be ignored.

[**-ps**] The input file will be processed as the PostScript file. If the file does not begin with "%!", "%!"will be output to the beginning line. For files with "%!", this option will be ignored.

◇ File

/usr/local/okipsbin/.okipsdefault
This is the default command option setting.

◇ Important

- The okipsif filter ignores the pw and pl entries of /etc/printcap. Thus, the pw and pl entries cannot be used to change the option of each paper size.
- If the same option is specified for PostScript files which already have added options, such as paper selection, it will be ignored.
- Please use the –ps option only when a PostScript file that contains no "%!" at the beginning of the file is processed as the PostScript file. If a normal text file is input, it will not function correctly.

CHAPTER 5 PRECAUTIONS AND LIMITATIONS

5.1 During Installation

Please pay attention to the following points during the installation.

[Solaris]

- Use lpadmin command to register the default printer.
  # lpadmin -d PrinterName
- To inhibit the banner sheets output, change the value of “nobanner=no” to “nobanner=yes” that includes in the file coppesponding to the printer mame in /etc/lp/interfaces/.
- The printer registered by UXFilter must not be changed by admintool.
- [Solaris] When "Content types: postscript" is displayed by typing "lpstat –p *printername* -l", It’s necessary to delete the printer and reinstall.
- [HP-UX] The printer to specify as an output printer must be registered in your system. To register an output printer, use sam command and so on. Please refer to the HP-UX related manual for details.
- [Linux/Solaris/HP-UX] To install UXFilter into the default directory (/usr/local/okipsbin), It’s necessary to make /usr/local directory before.

5.2 During Printing

Please pay attention to the following points during printing.

Using lp/lpr command(Linux/Solaris/HP-UX)

- If an option is specified incorrectly, no error message will be output. If printing is not executed after the lp command is executed, activate each utility individually and error messages will be output.
  (Using Solaris, the error message is displayed on the screen. Using Linux, the error massage is written into the eroor log file specified by printcap.)
- In text printing, the environmental variable TXT2PS2OPTION will be ignored.
- In text printing, if a BS code is found at the beginning of a line, the print position of the next character will be on the left of the beginning of the line.
- In text printing, when there are multiple tab codes in one line, the positions of tab may be off due to automatic line feed. If this happens, please specify l or w option.
- In text printing, the number of columns specified by the w option does not reflect the number of characters actually printed. The actual number of single-byte characters to be printed is derived by deducting the output column position (outcolumns) specified by the o option from the number of columns specified by the w option.
- If the same option is specified, or if s, S are both specified, the one specified later will prevail.
- In printing images, If the print position option (l) specifies an area beyond the printable area of the printer, data beyond the printable area will not be printed. The printable area differs depending on the model. For details, please refer to the printer manual. (Using Solaris, It’s impossible to output images by lp command.)

Using txt2ps2 (Linux/Solaris/HP-UX)

- When the same option is specified twice, the later setting will prevail. As TXT2PS2OPTION is analyzed before the option of the command line, it is possible to temporarily modify the options already set in TXT2PS2OPTION by inputting at the command line
- The default output of txt2ps2 cannot output the comment description (%%page:m n)of the page number. This is because the converted PostScript language program controls line feed and form feed. Thus, when the output of txt2ps2 is to be taken as the output of another application (psrev of TRANSCRIPT, etc.), please add the page number description by inserting the line command (-Ilines).
- If a BS code is found at the beginning of a line, the print position of the next character will be on the left of the beginning of aline.
- When there are multiple tab codes in one line, the positions of tab may be off due to automatic line feed. If this happens, please specify the -l or -w option.
- The number of columns specified by the -w option does not reflect the number of characters actually printed. The actual number of single-byte characters to be printed is derived by deducting the output column position (outcolumns) specified by the o option from the number of columns specified by the w option.
- The -mg option cannot be specified when -w, -l,-o, and -L option are specified.
- The start positions of margins of the margin command (-mg=u:b:r:l) are not set against the edge of paper. The margins are set against the printable area for paper allowed by the printer. The printable area differs depending on the model of the printer. For details, please refer to the printer manual.
- Please use the -ps option only when a PostScript file that contains no "%!" at the beginning of the file is used as the PostScript file. If a normal text file is input, it will not function correctly.

- To use the same options as those of the okipsif filter by TXT2PS2OPTION, please set the user's home directory in the environmental variable HOME. If the environmental variable HOME is not set up, the same options as those of the okipsif filter cannot be used. [Linux]

Using sunras2ps2/tiff2ps2/xwd2ps2 (sunras2ps2 apply to Solaris only)
- If the same option is specified, or if s, S are both specified, the one specified later will prevail.
- If the size option (s, S) is not specified, scaling will be executed taking one pixel of the image data as one pixel of the printer.
- If the print position option (-l left bottom) specifies a point beyond the printable area of the printer, data beyond the printable area will not be printed. The printable area differs depending on the model. For details, please refer to the printer manual.

Using tiff2ps2 (Linux/Solaris/HP-UX)
- There are four types of supported compression format.
  Huffman compression (CCITT Group 3 transformed Huffman run length encoding)
  Fax-CCITT3 compression (facsimile-compatible CCITT Group 3)
  PackBits compression
  Non-compression

Even if the format is those supported format, the tiff that has multipul images in one file is not supported.

Using xwd2ps2 (Linux/Solaris/ HP-UX)
- There are three types of supported compression format.
  The visual class is StaticGray and the pixel is 1 bit.
  The visual class is PseudoColor and the pixel is 4 bits or 8 bit. The image format is Zpixmap.
  The visual class is TrueColor and the pixel is 24 bits. The image format is Zpixmap.

Using okipsif (Linux)
- Please use the -ps option only when a PostScript file that contains no "%!" at the beginning of the file is used as the PostScript file. If a normal text file is input, it will not function correctly.
- -w, -l option usually correspond to pw,pl entry of /etc/printcap.However, this UXfilter ignore pw,pl entry of /etc/printcap. So, the option cannot be changed by each page size using pw, pl entry.

Printing PostScript Files (Linux/Solaris/ HP-UX)
- If same options for the PostScript file that contains options, such as paper size, are specified using okipsif (Linux) or the lp command (Solaris/HP-UX), the specified option will be ignored.

Printing Image Files (Solaris)
- To print image files from Solaris the user cannot specify the image file directly with the lp command for printing. Please make use of sunras2ps2, tiff2ps2, xwd2ps2 and convert the file to a PostScript file. Output it using the lp command after the conversion.
  % xwd2ps2 file.xwd | lp

The double-sized printing (Linux/Solaris/HP-UX)
- The printer without a double-sized printing unit is unabe to do double-sized printing.

Header/footer option(-Hd=*position:format:page,* -Hf*headerfont*)(txt2ps2,sunras2ps2,tiff2ps2,xwd2ps2)
- If the paper size is not specified when using options, it output header/footer at the position of A4-size paper. To specify the paper size at the same time to use header/footer option. (If the paper size for the PsstScript file converted by using the option is specified by the option of lp command for example, the position of header and footer can not be changed.)
- The margin is specified automatically when the option is used. When the option to specify the margin is used at the same time, the value that is smaller than the value specified automatically as described below is ignored.

  In case of text files

upper margin	0.23 inch
lower margin	0.06 inch
right margin	0.03 inch
left margin	0.09 inch

  In case of images

lower margin	0.3inch

- When using the optin, the number of lines and the number of columns specified are igunored. Also, it is impossible to specify landscape and two-deck.
- In case of the PostScript file, it happes that the printer doesn't output all pages despite that "output all page" is specified. In such a case, specify "print the only top page".
- It's impossible to use lp command in Solaris.

TBCPFilter(Solaris/Linux/HP-UX)

- Make sure to make TBCPFilter available for the printer possible to specify the availableness of TBCPFilter.

Linux/Solaris/HP-UX supported.

Utility software for PostScript printers

U X F i l t e r User manual

Version 1.0 October 2003

Released by Oki Data Corporation

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