Print Client
User's Guide

Release 4

Important Safety Information

Pay attention to the following symbols to ensure your safety when working with the product.

CAUTION: MOVING PARTS, AVOID CONTACT
ATTENTION: EVITER LE CONTACT, PIECES EN MOUVEMENT
VORSICHT: BEWEGLICHE TEILE, BERUEHRUNG VERMEIDEN

<01-002>

CAUTION: HOT SURFACE, AVOID CONTACT
ATTENTION: EVITER LE CONTACT, PIECES BRULANTES
VORSICHT: HEISSE OBERFLAECHE, BERUEHRUNG VERMEIDEN

<01-003>

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Introduction

In this guide, the following icons are used.

This icon indicates that you should read the caution message that follows.

This icon indicates that you should take note of the important information that follows.

The Network Imaging System Print Client Software allows you to print files from your Sun Solaris system as part of a network printing system. The software captures user input, builds a print request, and transfers that print request either directly to a specified printer or to a print server. The print server handles the print request, resulting in the printing of the document. Input can be received through a graphical user interface (GUI) or a command line interface.

You determine what documents are to be printed and how they should be processed by printers and finishing devices. Once a specified printer is selected you then select from a list of printing, paper, and page options, such as stapling, paper type, and copy count. Print options may be saved for future use.

Features

Available features vary depending on the selected printer. Following is a list of printing features. Not all features are available on every printer.

- Two-sided printing
- Multiple set collating
- Stapling
- Printing pages on different paper stock
- Offset stacking
- Inserting separator sheets
- Using transparencies
- Booklet printing
- Folding
- Accent color

Interfaces

Graphical User Interface

The GUI for Print Client Software allows you to provide the input necessary for the print client to build print requests. It also provides you with some convenient functions, such as the ability to store and load saved print options and define paper types.

Command Line Interface

The command line interface allows you to provide input to the Print Client Software application and create print requests without executing the GUI. You can invoke the Print Client Software from the UNIX command line or UNIX scripts.

When you use the command line to input to the print client, a document file and a print options file are specified. The print options file is stored by the GUI and may be referenced in a command line when you invoke Print Client Software. Optional arguments can override some of the selections in the print options file (for example, number of copies, server, or print device).

A print options file may be created using an ASCII text editor. However, the preferred method for creating print options files is through the GUI.

For more information about command line interface input, refer to Appendix A "Command Line Interface".

Section 1 Installation and Configuration

This chapter provides the hardware, software, and network requirements, and general information that you should read prior to installing the Print Client Software. For detailed installation instructions refer to the Network Imaging System Installation Tool Guide publication.

Hardware Requirements

The following configuration is required to load Print Client Software:

*   Sun Ultra 10, Ultra 30 or Ultra 60 workstation, running Solaris 2.6, 5/98, and OpenWindows 3.X

*   CD-ROM drive

*   100 MB of swap space minimum

*   32 MB of RAM minimum

*   6.0 MB of available disk space minimum

Assumptions

You should be familiar with the following:

*   Solaris 2.6 environment

*   OpenWindows environment

*   UNIX directory structure

*   Basic file management tasks in a UNIX/OpenWindows environment

*   Document printing characteristics and printer features

Installing the Software

Refer to the Network Imaging System Installation Tool Guide publication for installation instructions.

Configuring the Software

Root user privileges are necessary for performing software configuration procedures. Before configuring the software, log in as root using the following procedure.

To log in as root:

1. Open a command tool.

2. Type **su –** [RETURN].

3. Type the root password and press [RETURN].

The following types of software configurations are documented in this chapter:

*   Setting up the available Network Imaging System servers and printers to which the Print Client Software will have access

*   Setting up each Print Client Software user's environment

*   Setting up the system defaults, including the preferences, paper catalog, and print options

- Setting up the user defaults, including the paper catalog, print options, and interface preferences

Setting Up the Available Servers and Printers

If you have not already set up access to the servers and printers, you need to do so before you can print using Print Client Software. You must be logged in as root to run the Product Configuration utility.

Setting Up Servers

Each print server must have print queues available. If a server has no print queues, jobs sent from Print Client Software will not print and no error message will appear.

To set up the servers:

1. In the root user command tool, type **/usr/srv/bin/config.scl** [RETURN].

   The following prompt appears.

```
      =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
                 Print Client Software
              Product Configuration Utility
      =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
This program modifies the list of Print Servers that the Print Client
Software has access to. For each Print Server, access to the server's
Printer Database must also be established. This is required so that
the Print Client knows what printers are available, and what they have
for finishing devices.
p
Do you still want to continue? [y|n]:
```

2. Type **y** [RETURN].

   The Current List of Servers prompt appears.

```
              ### CURRENT LIST OF SERVERS ###
 Entry          Name
 -----          ----
 Enter Server List command [s|a|d|x] (use ? for help):
```

3. Type **a** [RETURN] to add a server to the list.

   The following prompt appears.

The "<" and ">" characters must be included when you type <Local> or <None>.

```
    Adding a new server to the list.
<None> = No server, print directly to printers.
<Local> = Print Server Software on this host.
hostname = Name of remote machine with Print Server
Software installed.
Enter <None>, <Local> or the server's hostname:
```

The no server (<None>) and local server (<Local>) will have been set up automatically during installation.

When configuring access to printers which are attached to remote print servers, if there are queues for the remote printers on the local server, it is possible to access the printers by using <Local> for the server configuration. However, since the local server may not have an accurate representation of the finishing devices available on the remote printers, it is preferable to set up the remote server using its hostname and then select that server when printing to the remote printers.

Perform the following steps to set up servers or direct printing, or both.

4. If you will print through a print server on a remote machine:

    a. Type the name of the remote machine which has a Print Server Software installed, then press [RETURN].

        When you type the server's hostname, the software attempts to set up access to the remote Print Server's Printer Database using the Solaris automounter.
        Messages on the screen indicate whether the attempt was successful.

    b. If automount was not successful, you must manually establish access to the database by performing the steps to set up a remote server on page 1-4.

    When the printer database configuration is completed, the following prompt appears.

    ```
    Enter Server List command [s|a|d|x] (use ? for help):
    ```

5. Type **a** [RETURN] to add another server to the list.

    Repeat step 4–step 5 for each server you want to add.

6. Type **x** [RETURN] when you are finished adding servers.

    A message appears stating that the list of servers is being saved and that the Print Client configuration is complete.

Setting Up Printers

When you are printing without choosing a print server (that is, using the <None> server entry), you must create a database of printers before you can print to them using Print Client Software.

When attempting to print jobs to printers attached to remote servers, it is preferable to select the remote server by its host name for the server preference rather than the <Local> server, even if the local server has queues for the remote printers.

To set up printers:

1. In the root user command tool, type **`/usr/srv/bin/edit_printer_db.scl`** [RETURN].

   The following prompt appears.

   ```
   =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
                 Print Client Software
            Printer Database Configuration Utility
   =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=

   This program is used to identify the printers that the Print
   Client  has direct access to. You will be asked to enter each
   printer's network hostname, printer type, and what finishing
   devices are attached to it.

   Do you still want to continue? [y|n]:
   ```

2. Type **`y`** [RETURN].

   The Current List of Printers appears.

   ```
              ### CURRENT LIST OF PRINTERS ###

       Entry   Name    Type        Finishing Devices
       ----    -----   ----        -----------------

       Enter Printer List command [s|a|d|e|q|x]
       (use ? for help):
   ```

3. Type **`a`** [RETURN].

   A prompt appears asking you to enter the printer's network hostname.

4. Type your printer's network hostname and press [RETURN].

   A prompt appears asking you to select your printer type.

5. Type your response and press [RETURN].

   A prompt appears asking you to select the printer's finishing device.

6. Type your response and press [RETURN].

7. Repeat step 3–step 6 for each printer you want to add.

8. When you are finished adding printers to the list, type **`x`** [RETURN].

To set up a remote server:

To send jobs to Print Server Software installed on remote systems, Print Client Software must have access to the remote server's printer database.

If automount access was not possible in step 4 of "Setting Up Servers" on page 1-2, access must be established manually by copying the database from the remote server or by mounting the file system from the remote server.

> The local system must be listed in the remote server's */.rhosts* file in order to use the *rcp* command. See your system administrator to gain access to the remote server's */.rhosts* file or use *ftp* to obtain a copy of the database.
>
> Any changes made by Print Server Software will not be reflected in Print Client Software until the printer database is copied again from the remote system and Print Client Software is restarted.

To establish access by copying the database:

1. Open a command tool on the local system.

2. Type **su -** [RETURN].

3. Type the root password and press [RETURN].

4. Type **cd /usr/srv/lib/databases/databases.scl/printer_dbs/** ***remotehost*** [RETURN].

   Replace *remotehost* with the name of the remote system.

5. Type **rcp** ***remotehost*****:/usr/srv/lib/databases/databases.prt/** **installed_printer_db .** [RETURN].

   The period (.)is part of the command.

   Replace *remotehost* with the name of the remote system.

   The *installed_printer_db* file in the remote system's Print Server Software is copied into the current directory.

6. Type **cd ../***remotehost*** [RETURN] to set up the next remote system.

   Replace *remotehost* with the name of the remote system.

7. Type **rcp** ***remotehost*****:/usr/srv/lib/databases/databases.prt/** **installed_printer_db .** [RETURN].

   The period (.) is part of the command.

   Replace *remotehost* with the name of the remote system.

Continue the Print Client Software setup with "Setting Up the System Defaults" on page 1-7.

To establish access by mounting the remote server's filesystem:

1. Log in as root on the remote system.

2. Type **textedit /etc/vfstab** [RETURN].

3. Add the following text string to the file:

remotehost:/usr/srv/lib/databases/databases.prt – /usr/srv/lib/
databases/databases.scl/printer_dbs/*remotehost* nfs – yes ro,bg,soft

   The entire text string must be entered on one line without a [RETURN]. The line may automatically wrap to the next line. Replace r*emotehost* with the name of the remote system.

   The file system must be mounted as read only (ro).

4. Repeat step 3 for each remote system.

5. Save and exit the file.

6. Type **mountall** [RETURN].

7. The printer database directories must be made available on the remote host using the "share" or "export" command. To do this, refer to the Print Server User's Guide.

The remote server's file system is mounted.

Setting Up the Environment of Unix Users

Print Client Software requires that certain environment variables with specific values be set up for each Unix user.

This is done automatically for the root user and Network Imaging System operator user (kdkoper) at installation.

> If Unix/OpenWindows users accounts besides kdkoper and root are required, contact your systems engineer.

For the Network Imaging System operator user (kdkoper):

1. Open a command tool.

2. Type **su -** [RETURN].

3. Type the root password and press [RETURN].

4. Type **cd ~kdkoper** and press [RETURN].

5. Type **textedit .cshrc** and press [RETURN].

6. After the last line in the file, add a new line with the following, starting at the beginning of the line:
   setenv SCAN_DOC_INBASKET <TIFF document path>.

   Replace <TIFF document path> with the full pathname of the desired directory.

7. Save the file and quit textedit.

If the Print Client Software application was already opened, it needs to be restarted for the settings to take effect.

For other UNIX/OpenWindows user accounts (if they exist):

1. Type **su - <userid>** and press [RETURN].

2. Type the user's password and press [RETURN].

3. Type **textedit .cshrc** and press [RETURN].

4. After the last line in the file, add a new line with the following, starting at the beginning of the line:
   setenv SCAN_DOC_INBASKET <TIFF document path>.

   Replace <TIFF document path> with the full pathname of the desired directory.

5. Save the file and quit textedit.

6. The user must log out then log back in for the settings to take effect.

Setting Up the User's Default TIFF Document Directory

When a user starts the Print Client Software and attempts to add a TIFF document to the filename(s) list, the default starting directory for the Insert window is */var/spool/scanned_documents.scl*. If a different starting directory is desired, perform the following procedures.

Setting Up the System Defaults

The system defaults were established during installation. You should establish system defaults for the Preferences window before you use Print Client Software. You must be logged in as root in OpenWindows to modify any system default. The fields in the Preferences window are described on .

To modify the system default preferences file:

1. As root, type **cd /usr/srv/lib/databases/databases.scl** [RETURN].

2. Type **textedit sys_def_preferences** [RETURN].

    You are in the system default preferences file.

3. Edit the values after the colon for each configurable item in the file.

    For example, type **cm** after *Units* to change the default units from inches to centimeters. Value choices are listed within the brackets.

4. Save the file and quit textedit.

    The system default preferences file is set up. Continue with the following procedures to set up the system default paper catalog and the system default print options.

Default Paper Catalog:

Normally, the default paper catalog for the Print client is automatically updated to match the printer's catalog. It is possible to disable the automatic update of the Print Client default paper catalog by performing the following procedure.

To disable the automatic Paper Catalog update:

1. Open a command tool.

2. Type **su -** [RETURN].

3. Type the root password and press [RETURN].

4. Type **cd /usr/srv/lib/databases/databases.scl** [RETURN].

5. Type **textedit update_cat_conf.scl** [RETURN].

6. Find the line "value = TRUE". Replace the word "TRUE" with the word with the word "FALSE" so that the line reads, "value = FALSE."

7. Save the file and close textedit.

To modify the system default paper catalog:

The Print Client default paper catalog is normally updated to match the system paper catalog anytime the system paper catalog is changed. If you wish to maintain an independent paper catalog for the Print Client first perform the procedure above, "To disable the automatic paper catalog update. Then you may modify it using the following procedure:

1. As root, type **/usr/srv/bin/sclient.scl &** [RETURN].

Print Client Software starts up.

2. Use the Print Client Software Paper Catalog window to make modifications to the default paper catalog.

3. Position the pointer over the *File* button in the Paper Catalog window.

4. Hold down the Menu mouse button and select *Save Paper Catalog* on the File menu.

5. The paper catalog is saved. The changes will automatically be propagated to all users.

To switch to a different paper catalog:

If you are adding a new printer to your network that is a different type than used previously, you may want to add the standard paper definitions for that printer type to your current default paper catalog, or replace your default catalog with the Print Client combined paper catalog which includes the standard paper definitions for all printers.

For example, if you have been using the Print Client Software with a Network Imaging System and have added another copier-printer to your network, you may want to either switch to the combined paper catalog or add the additional copier-printer definitions to your current catalog.

> The period (.) is part of the command.

1. As root, type **cd /usr/srv/lib/databases/databases.scl/media** [RETURN].

2. Type **cp /.printdir/media_catalogs/def_media_catalog.mc .** [RETURN].

3. Enter the following command:

To add the paper definitions for all supported printers from the combined paper catalog to your current catalog:

Type **cat combined_media_catalog.mc >> def_media_catalog.mc** [RETURN].

Type **cp def_media_catalog.mc /.printdir/media_catalogs/** [RETURN].

4. Enter the following commands:

cp -p combined_media_colors media_colors [RETURN]

cp -p combined_media_sizes media_sizes [RETURN]

cp -p combined_media_types media_types [RETURN]

cp -p combined_media_weights media_weights [RETURN]

To set the system default print options:

After establishing the system default paper catalog, it is recommended that you set up the system default print options.

> Even if you do not have specific options that you want to set, it is recommended that you perform step 2-step 6.

1. Select the necessary options in the Print Client Software windows.

2. Position the pointer over the *File* button in the Print Client Software main window.

3. Hold down the Menu mouse button and highlight Save Print Options As from the File menu.

4. Slide the pointer to the right and select Standard Print Options on the Save As submenu.

   A list of standard print options files will appear, including <User Defaults> and <System Defaults>. <System Defaults> appears only for root.

5. Select <System Defaults>.

6. Click the Select mouse button on the *Apply* button.

   Changes are saved as the system default print options.

Follow the instructions for setting up the user default print options under "Setting Up the User Defaults" in this section.

Setting Up User Default

After you install Print Client Software, you can set up the user default paper catalog and user default print options.

It is recommended that the root user also follow these procedures.

To set the user default print options:

After you switch to a new paper catalog or change display languages, each Unix/OpenWindows user may need to save his or her user defaults again. To determine if you need to do this, perform the steps below.

You may get one of the following warning messages when you start up the Print Client Software.

• The attributes for the following paperpaper name which is in either the current job or in your user defaults does not match the current catalog. The attributes in the current catalog will be used.

   paper name: <papername>

• The following paper name which is in either the current job or your user defaults is not in the catalog. However, another paper has been found that has the same attributes. Substituting the new paper name for all references to the original paper name.

   paper name: <papername>

• The following paper name which is in either the current job or your user defaults is not in the catalog. References to this paper name will be replaced with the first entry in all lists containing paper names. References in the Paper Exceptions pop-up will be left unchanged.

   paper name: <papername>

If you receive one of these warnings:

1. Click the *OK* button on the warning box.

   The Print Client Software main window appears.

2. Pull down the File menu and select *Save Print Options As <User Defaults>*.

   When you exit Print Client Software and start it up again, no warnings will appear.

To change user interface preferences:

Each UNIX/OpenWindows user sets his or her own preferences.

1. Open a command tool.

2. Type **su - <userid>** and press [RETURN].

3. The the User's password and press [RETURN].

4. Type `/usr/srv/etc/usersetup.scl` [RETURN].

5. Start up the Print Client Software.

6. Select the *Preferences* button in the Print Client Software main window. The Preferences window opens
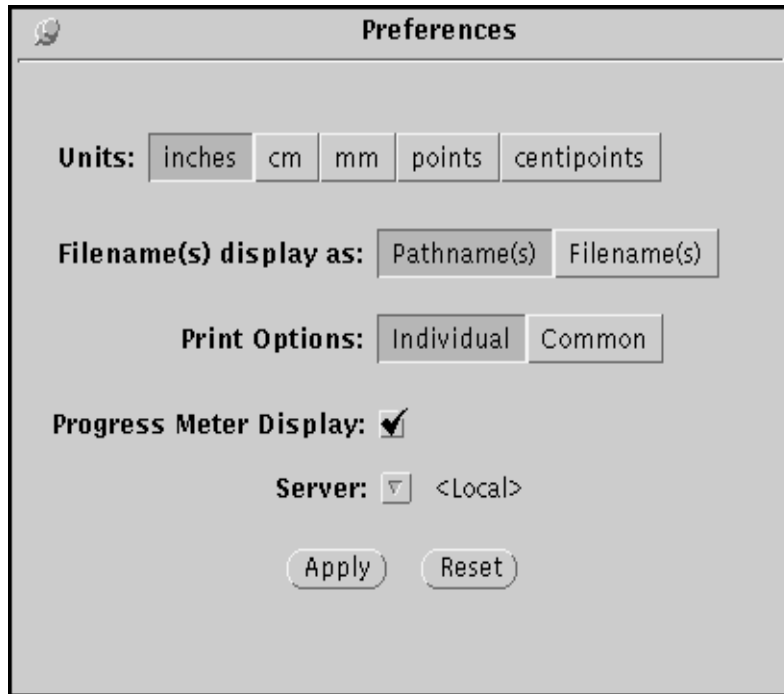

Figure 1-1 Preferences window

7. Make the desired changes and click the *Apply* button.

Field Descriptions

Available features vary by selected printer.

Units—sets the units used to specify the numeric values throughout the Print Client Software interface. You can select inches, cm, mm, points, or centipoints as the units in which values are shown. The default is determined when the system is set up.

Filename(s) display as—specifies the way filenames will appear in the Filename(s) list.

> **Pathname(s)**—the full pathnames of files dropped into the application will appear.

> **Filename(s)**—only the filenames of files dropped into the application will appear.

Print Options—specifies which print options file is used to print the job. The default is "Individual."

> **Individual**—options associated with each separate document are used to print the job.

> **Common** —options associated with the currently selected document are used to print listed documents. This feature allows similar documents to be printed with the same print options, without needing to update each individual document's print options. For example, to print six documents with blue covers, duplex with three staples, set up one document, then indicate through the Preferences window that all the documents should print with these options. The common print options feature assumes that all the documents are of the same general type. This means they must be the same file type (Adobe PostScript, for example), orientation, page ordering, and so forth.

Printing dissimilar documents with common print options will give unexpected results.

Progress Meter Display—when checked the Progress Meter is enabled. The Meter indicates the progress of transmission of the print file to the destination server or printer.

> When printing with the Progress Meter enabled, a delay of approximately one second of processing time is added for each document.

Sending File—The path of the file being transmitted.

Progress Bar—The percentage of the file that has been transmitted.

Server—Allows you to select a specific print server. You can also choose to print directly to a printer by selecting <None> in the Server list box. Once documents have been added to the document scrolling list, you cannot make any changes in the Server field.

> When attempting to print jobs to printers attached to remote servers, it is preferable to select the remote server by its hostname for the server preference rather than the <Local> server, even if the local server has queues for the remote printers.
>
> The <Local> server may not have an accurate representation of the finishing devices available on the remote printers.

Apply—Saves any changes you have made.

Reset—Resets all values in the window to what they were when the window was opened or the *Apply* button was last clicked.

Section 2   Overview

The Print Client Software allows you to print files from your Sun Solaris system as part of a network printing system. The software captures user input, builds a print request, and transfers that print request either directly to a specified printer or to a print server. The print server handles the print request, resulting in the printing of the document. Input can be received through a graphical user interface (GUI) or a command line interface.

You determine what documents are to be printed and how they should be processed by printers and finishing devices. Once a specified printer is selected you then select from a list of printing, paper, and page options, such as stapling, paper type, and copy count. Print options may be saved for future use.

Print Options Files

Printing and finishing options must be in place before you print your job. The options specify whether files should print single- or double-sided, which paper and finishing options to use, the number of document sets to print, and so forth. These options are stored in print options files.

Print options files are created using the Print Client Software windows. These windows, described in Section 4 "Print Options" and Section 5 "Paper Options", work together to define the print options file.

You can create several print options files, each one specifying print options for a particular type of print job or a specific document. For example, you might create a file for two-sided, flip on long edge format, stapled print jobs with blue covers, a second file for single-sided, three-hole print jobs, a third file for two-sided, flip on short edge format print jobs, and a fourth file for a document that has several pages printed on red paper.

Default Print Options Files

Print Client Software includes two special print options files:

- System default print options which are installed with the factory default options and can be modified by the root user.

- User default print options which are stored in the user's file system and can be modified by the user.

When a document is added to the document list, Print Client Software must determine which print options to use. If the document has specific print options already assigned (that is, a *.kco* or *,20* file), they are loaded and used. When a file has both a *.kco* and a *,20* file, Print Client Software uses the newer of the two as the default options. If no *.kc*o or *,20* file exists, the user default options are used. If the file is a PostScript level 2 file with Document Structuring Convention comments at the beginning of the file, these comments are described and used with the user default print options.

Using the File menu on the Print Client Software main window, you can apply system or user default print options to any file in the document list. To open system or user default print options, the document list must contain at least one file.

Paper Catalogs

Paper catalogs are sets of definitions for the papers that can be selected in print options files. These definitions associate a paper name with a size, color, weight, type, and mode (ability to be printed, printed one-sided, or printed two-sided).

Paper catalogs are created using the Paper Catalog window described in Section 5 "Paper Options". Instructions for opening a saved paper catalog, making changes to it, saving the changes, and saving the changes under a new name are included in Section 5 "Paper Options".

The Paper Catalog window allows you to:

- Add, modify, or delete paper definitions.

- Select a size, color, weight, mode, and type for paper definitions.

- Change the names of paper definitions.

Available Print Options

A table which indicates the options that are available for your printer can be found in Appendix D "Printer Specific Notes".

Print Options and <Any> Printer Types

When the selected printer type is <Any>, you can choose any options available within the Print Client Software. Not all options are available on every printer. It is possible to select a combination of options that may not print successfully. To avoid document configurations that cannot print correctly, select your printer from the printer type list.

Section 3   Printing

This chapter describes the basic steps for using Print Client Software. Also included in this chapter are specific examples detailing how to select print options and print under a variety of scenarios using the Print Client Software options described in Section 4 "Print Options" and Section 5 "Paper Options".

Using Print Client Software

Following are the basic steps for using Print Client Software:

1. Start up Print Client Software.

2. Select a server.

3. Select a paper catalog.

4. Add jobs to the list.

   • Select the following for each job in the list:

   • the document file

   • a printer

   • print options

5. Click the *Print* button.

> All jobs listed in the Filename(s) scrolling list are printed when you click the *Print* button. The job name does not need to be highlighted for it to print.
>
> Multiple jobs may not print in the same order in which they appear in the Filename(s) scrolling list.

Opening the Main Window from the Desktop

The Print Client Software main window allows you to access windows and menus that are used to specify print, paper, and page options. You can access the Print Client Software main window from the OpenWindows desktop menu.

To open the Main window from the desktop:

To access the Print Client Software main window from the OpenWindows desktop:

1. Place the pointer anywhere on the OpenWindows desktop.

2. Holding down the right mouse button, select printer on the Workspace menu.

3. Select "Print Client Software" from the printer submenu.

   The Print Client Software main window opens.

Opening the Main Window from a Command Tool

You can also access the Print Client Software main window from an OpenWindows command tool.

1. Access an OpenWindows command tool.

2. Type **/usr/srv/bin/sclient.scl &** [RETURN].

   The Print Client Software main window opens.

Setting Up a Print Job

The following steps describe how to select print options and send the job to the printer.

1. Start up Print Client Software.

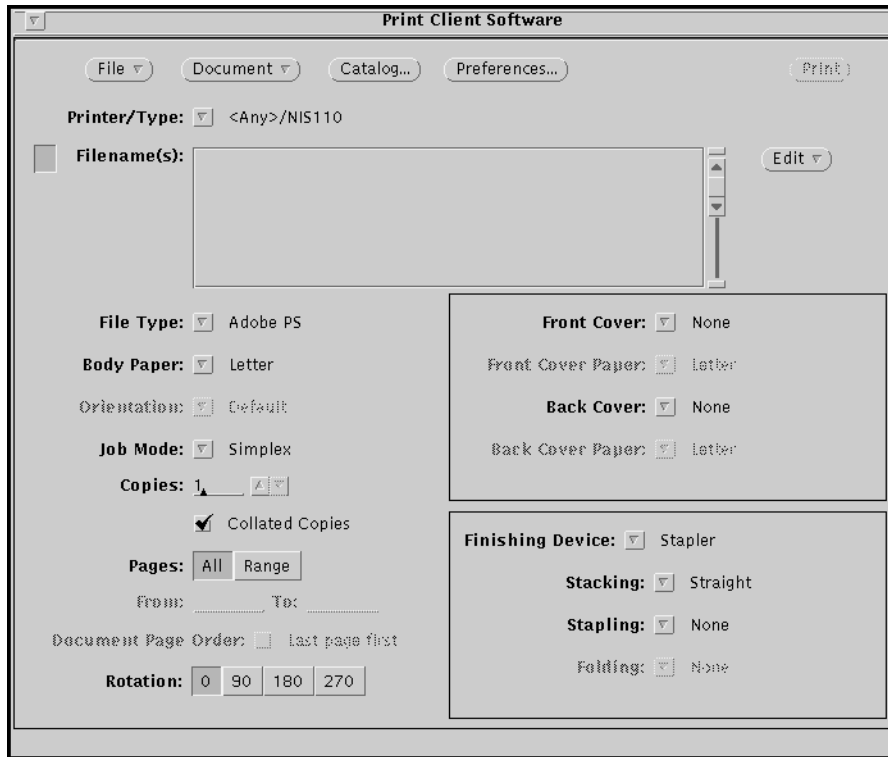   The Print Client Software main window opens.

Figure 3-1 Print Client Software window

2. Refer to "Selecting Preferences" on page 3-3 if you need to select a different server or modify any other Preferences.

3. Refer to "Modifying Paper Catalogs" on page 3-3 if you need to change or modify the paper catalogs.

4. Add jobs to print to the Filename(s) list box.

For more information about adding files, refer to "Filename(s) List Box" on page 3-5.

You can add files in several ways. One way is to use the Edit menu. Another way is to drag and drop one or more files onto the drop target or the Filename(s) list box in the Print Client Software main window.

5. Select a file by clicking on it in the Filename(s) list box.

6. Refer to "Applying Print Options" on page 3-3 if you need to apply standard or default print options.

7. Position the pointer over the *Printer/Type* menu button in the Print Client Software main window.

8. Holding down the Menu mouse button, select a printer on the Printer/Type submenu.

9. Refer to "Changing Document Print Options" on page 3-4 if you need to change any print options in the Print Client Software main window.

10. Refer to "Changing Document Print Options" on page 3-4 if you need to change any document print options.

11. Refer to "Changing Page Options" on page 3-5 if you need to change any page options.

12. Refer to "Creating Paper Exceptions" on page 3-5 if you need to create any paper exceptions.

13. Repeat step 5-step 11 for each file in the Filename(s) list box.

14. Click the *Print* button in the Print Client Software main window.

    Jobs are sent to the printer.

Selecting Preferences

1. Click the *Preferences* button in the Print Client Software main window.

2. Make any necessary changes in the Preferences window.

3. Click the *Apply* button to save any changes.

4. Click the push pin to close the Preferences window.

> For more information about the Preferences window, refer to Section 1 "Installation and Configuration".

Modifying Paper Catalogs

To make a temporary change to the paper catalog:

1. Click the *Catalog* button in the Print Client Software main window.

2. Make any necessary changes in the Paper Catalog window.

3. Click the *Apply* button to save any changes.

4. Click the push pin to close the Paper Catalog window.

> The changes will remain in effect only for the current client session.
>
> For more information about paper catalogs, refer to Section 5 "Paper Options".

Applying Print Options

1. Position the pointer over the *File* button in the Print Client Software main window.

2. Holding down the Menu mouse button, select "Open Print Options" on the File menu.

3. Slide to the right and select a print options file on the list of default and standard print options files on the Open submenu.

Changing Print Options in the Main Window

1. Position the pointer over the *File Type* menu button in the Print Client Software main window. Holding down the Menu mouse button, select a file type on the File Type submenu.

   The file type you select must match the file type of the file you are printing.

2. Position the pointer over the *Body Paper* menu button in the Print Client Software main window. Holding down the Menu mouse button, select a paper on the Body Paper submenu.

3. Position the pointer over the *Orientation* menu button in the Print Client Software main window. Holding down the Menu mouse button, select an orientation on the Orientation submenu.

4. Position the pointer over the *Job Mode* menu button in the Print Client Software main window. Holding down the Menu mouse button, select a job mode on the Job Mode submenu.

5. Select either the *All* or the *Range* button in the Pages field.

6. If you selected Range, type the page numbers in the From and To fields.

7. Type or use the increment/decrement buttons in the Copies field to enter the number of document sets you want to print.

8. Select or deselect the Document Page Order check box, if necessary.

For more information about options on the Print Client Software main window, refer to Section 4 "Print Options".

Changing Document Print Options

1. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select "General" on the Document menu to open the General Options window.

2. Make any necessary changes in the General Options window.

3. Click the *Apply* button to save any changes.

4. Click the push pin to close the General Options window.

5. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select "Printer Controls" on the Document menu to open the Printer Controls window.

6. Make any necessary changes in the Printer Controls window.

7. Click the *Apply* button to save any changes.

8. Click the push pin to close the Printer Controls window.

9. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select "Color" on the Document menu to open the Color window.

10. Make any necessary changes in the Color window.

11. Click the *Apply* button to save any changes.

12. Click the push pin to close the Color window.

For more information about document print options, refer to Section 4 "Print Options".

Changing Page Options

1. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select "Page Placement" on the Document menu to open the Page Placement Options window.

2. Make any necessary changes in the Page Placement Options window.

3. Click the *Apply* button to save any changes.

4. Click the push pin to close the Page Placement Options window.

5. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select "Background Forms" on the Document menu to open the Background Form Options window.

6. Make any necessary changes in the Background Form Options window.

7. Click the *Apply* button to save any changes.

8. Click the push pin to close the Background Form Options window.

Creating Paper Exceptions

1. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select "Paper Exceptions" on the Document menu to open the Paper Exceptions window.

2. Make any necessary changes in the Paper Exceptions window.

3. Click the *Apply* button to save any changes.

4. Click the push pin to close the Paper Exceptions window.

For more information about paper exceptions, refer to Section 5 "Paper Options".

Filename(s) List Box

You can add files to print by dragging and dropping one or more files from the OpenWindows file manager onto the drop target or the Filename(s) list box in the Print Client Software main window. Another way is to use the *Edit* button in the Print Client Software main window to access the Edit menu. The Edit menu allows you to manipulate the list of files in the Filename(s) list box. You can enter pathnames and filenames or drop a file onto the drop target in one of the submenu windows. The Edit menu is described below.

Change—accesses a window in which you can change the selected document in the list.

Insert—accesses the Local Disk and Storage Library menus.

    Local Disk—accesses the Add Document window in which you can specify the document that you want to add to the Filename(s) list box and where in the list it should be added.

    Storage Library—accesses the Add Document From Storage Library window in which you can choose the document that you want to add to the Filename(s) list box and where in the list it should be added.

Scanned Documents— accesses the Add Scanned Document window in which you can choose the document you want to add to the Filename(s) list box and where in the list it should be added.

Move—moves a selected file up or down one position in the Filename(s) list box.

Delete—removes the selected entry (or all entries) immediately from the Filename(s) list box. A confirmation prompt appears only if you made changes to the print options.

To add a file from the file system of your workstation:

1. Position the pointer over the *Edit* button in the Print Client Software main window. Holding down the Menu mouse button, select Insert/Local Disk from the Edit menu.

2. Select Bottom from the Local Disk submenu.

   The Add Document to List window opens.

3. Select a document file.

   To select a document file, drag a file icon from the file manager and drop it onto the drop target or type the document's pathname and filename in the Directory and File text entry fields.

4. Click the *Apply* button.

To add a file from the Network Imaging System Document Library:

1. Position the pointer over the *Edit* button in the Print Client Software main window. Holding down the Menu mouse button, select Insert/Storage Library from the Edit menu.

2. Select Bottom from the Storage Library submenu.

   The Add Document From Storage Library window opens.

3. Browse through the library by selecting "Folders" in the Folders list.

4. Select a document file from the Files list.

5. Click the *Apply* button.

To add a TIFF document from the file system of your workstation:

This procedure can be used to print directories of single page TIFF CCITT Group IV compressed image files. The directory itself is considered a "TIFF document." The pages will be printed in alpha numeric order of the TIFF filename in the directory.

1. Position the pointer over the *Edit* button in the Print Client Software main window. Holding down the Menu mouse button, select Insert from the Edit menu..

2. Select Storage Library if the TIFF document is in Network Imaging System Document Library

   or

   Select Scanned Document if the TIFF document is elsewhere in the file system of the SCS Workstation.

3. Select "Bottom" from the Scanned Document submenu.

   The Add Document window opens.

4. Browse through the file system by selecting "Directories" in the Folders list.

> When browsing the file system, there may be delays in updating the Directories and Documents lists while each directory is scanned for TIFF documents.

5. Select a document from the Documents list.

> When using the Scanned Documents browser, the names listed in the Documents list are actually the names of any directories that have TIFF files in them. In order to be identified as TIFF files, the filenames must contain .tif, .r300, or .r600 somewhere in the name.

6. Click the *Apply* button.

To change a file:

1. Select a file in the Filename(s) list box in the Print Client Software main window by clicking it.

2. Position the pointer over the *Edit* button. Holding down the Menu mouse button, select Change from the Edit menu.

   The Change Document in List window opens.

3. Select a document file.

> To select a document file, drag a file icon and drop it onto the drop target or type the document's pathname and filename in the Directory and File text entry fields.

4. Click the *Apply* button.

To move a file:

You can move a selected file up or down in the Filename(s) list box in the Print Client Software main window.

1. Select a file in the Filename(s) list box in the Print Client Software main window by clicking it.

2. Position the pointer over the *Edit* button. Holding down the Menu mouse button, select Move from the Edit menu.

3. Slide the pointer to the right and select Up or Down from the Move submenu.

   The file is moved up or down one line in the Filename(s) list box.

To delete a selected file in the Filename(s) list box:

You can select the file to be deleted from the Filename(s) list box in the Print Client Software main window or delete all files at one time.

1. Select a file in the Filename(s) list box in the Print Client Software main window by clicking it.

2. Position the pointer over the *Edit* button. Holding down the Menu mouse button, select Delete from the Edit menu.

3. Slide the pointer to the right and select Selected from the Delete submenu.

The selected file is deleted.

If you made changes to the print options, a confirmation prompt appears.

To delete all files in the Filename(s) list box:

1. Position the pointer over the *Edit* button in the Print Client Software main window. Holding down the Menu mouse button, select Delete from the Edit menu.

You do not need to select the file(s) in the Filename(s) list box.

2. Slide the pointer to the right and select All from the Delete submenu.

   All of the files in the Filename(s) list box are deleted.

If you made changes to the print options for any of the documents in the list, a confirmation prompt appears. Only one prompt appears, even if you made changes to the print options of several documents.

Printing Using the Default Settings

To print using the default print options:

1. Add files to print to the Filename(s) list box on the Print Client Software main window.

2. Select a file from the Filename(s) list box by clicking it.

3. Position the pointer over the *File* button in the Print Client Software main window. Holding down the Menu mouse button, select Open Print Options from the File menu.

4. Slide the pointer to the right and select <User Defaults> from the Open submenu.

   The default user print options file becomes the current print options file.

5. Click the *Print* button in the Print Client Software main window.

   The job is sent to the printer specified in the user default print options file.

Printing a Two-sided, Stapled Document with Covers

To print a two-sided, stapled, document with front and back covers:

1. Add files to print to the Filename(s) list box in the Print Client main window.

2. Select a file by clicking on it in the Filename(s) list box.

3. Position the pointer over the *Job Mode* menu button. Holding down the Menu mouse button, select Duplex from the Job Mode submenu.

To specify stapling:

1. Position the pointer over the *Device* menu button in the Finishing Options window.

2. Holding down the Menu mouse button, select Finisher on the Device submenu.

The options available on this submenu depend on the selected printer type.

3. Position the pointer over the *Stapling* menu button in the Finishing Options window. Holding down the Menu mouse button, select Top from the Stapling submenu.

The options available on this submenu depend on the selected printer type and device.

To specify covers:

1. Position the pointer over the *Front Cover* menu button. Holding down the Menu mouse button, select Print Both Sides on the Cover submenu.

2. Position the pointer over the *Front Cover Paper* menu button. Holding down the Menu mouse button, select a paper from the Paper submenu.

3. Repeat step 1 and step 2 for the Back Cover.

   The Paper Exceptions window closes.

To print the document:

Click the *Print* button in the Print Client Software main window.

Printing Without Status Pages

To print a document so status pages are not printed:

1. Start up Print Client Software.

   The Print Client Software main window opens.

2. Add files to print to the Filename(s) list box.

3. Select a file by clicking on it in the Filename(s) list box.To deselect the Status Page control:

1. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select Printer Controls from the Document menu.
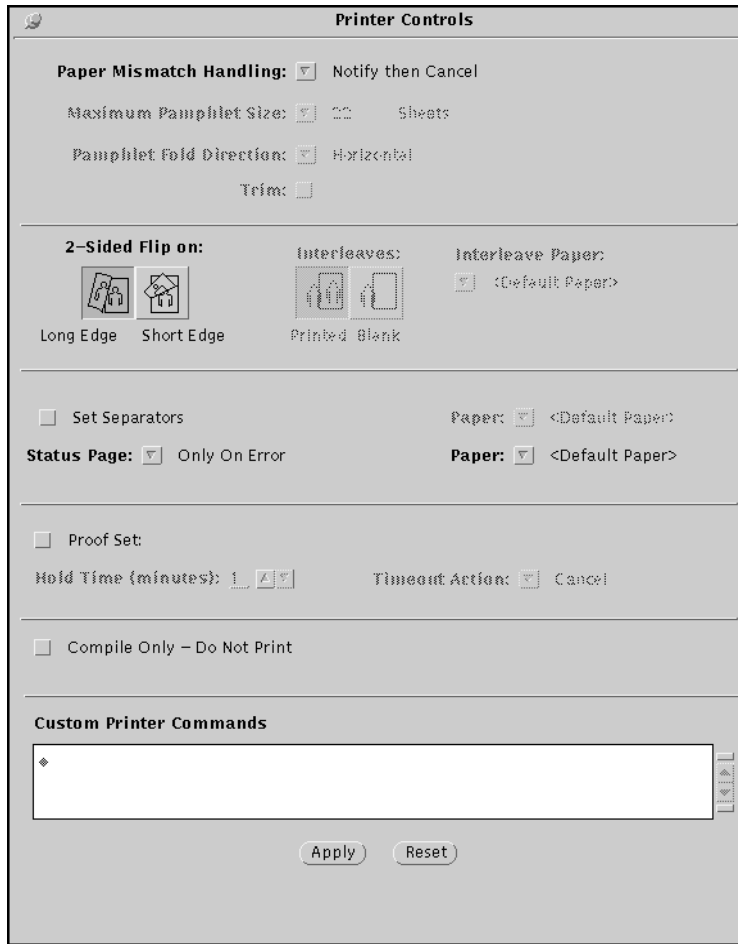
Printing

The Printer Controls window opens.

Figure 3-2 Print Controls window

2. Position the pointer over the *Status Page* menu button in the Printer Controls window. Holding down the Menu mouse button, select None from the Status Page menu.

3. Click the *Apply* button in the Printer Controls window.

    The changes are saved.

4. Click the push pin to close the Printer Controls window.

To print the document:

Click the *Print* button in the Print Client Software main window.

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Printing Using "Common" Print Options

Printing files with "Common" print options allows you to print each document in the list using the currently displayed print options.

To use "Common" print options, open the Preferences window and choose "Print Options: Common".

For more information about the Preferences window, refer to Section 1 "Installation and Configuration".

Adding Files and Changing Print Options

You can add files in several ways. One way is to use the Edit menu to enter pathnames and filenames. Another way is to drop one or more files onto the drop target or the Filename(s) list box in the Print Client Software main window.

To add files and change print options:

1. Add files to print to the Filename(s) list box.

2. Select a file that has the print options you want to use for all of the files in the Filename(s) list box.

Deleting the Document after Printing

Select the appropriate delete option from the Edit pulldown menu to delete the file from the Print Client Software main window.

Section 4   Print Options

This chapter discusses the following windows:

- Print Client Software main window

- General Options

- Printer Controls

- Color

Print Client Software Main Window

From the Print Client Software main window you can select print options, access submenus for page placement options and paper catalogs, and send the selected document to the selected printer.

Open the Print Client Software main window by placing the mouse pointer anywhere on the OpenWindows desktop and, holding down the Menu mouse button, select "Printer" on the Workspace menu. Select "Print Client Software" from the printer submenu.

> You also can access the Print Client Software main window from an OpenWindows command tool. Type:
> **/usr/srv/bin/sclient.scl &** [RETURN] at the command line prompt.

The Print Client Software main window opens.
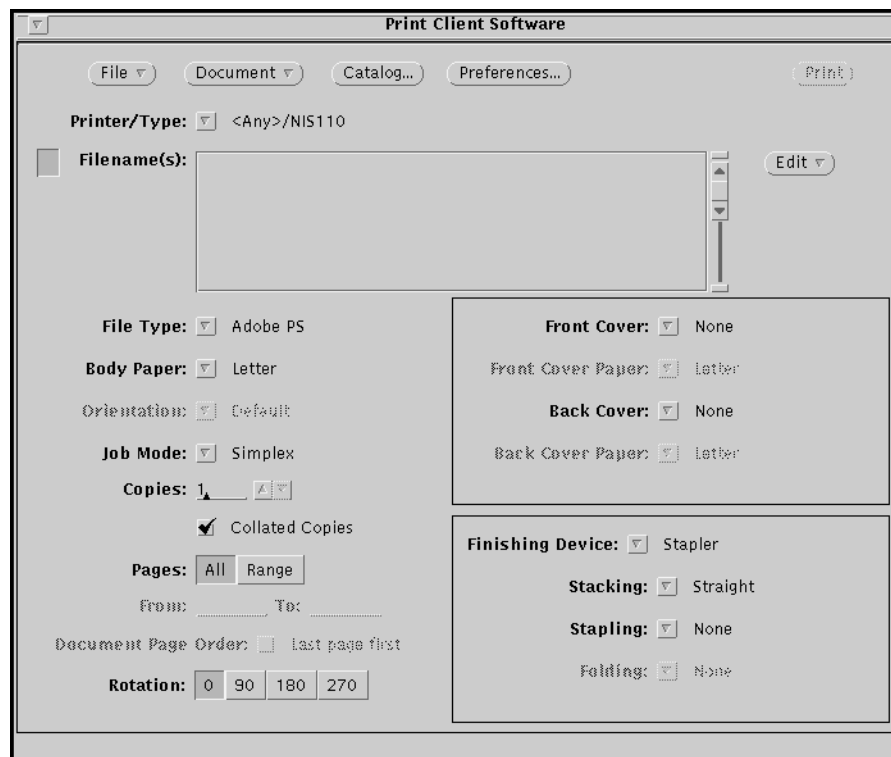
Figure 4-1 Print Client Software window

Field Descriptions

Available features vary by related printer.

File—accesses a menu that allows you to save and/or restore sets of print conditions.

Open Print Options—accesses a menu from which you can select an existing print options file.

Save Print Options—saves print options for the selected document to the document's print options file.

Save Print Options As—accesses a menu from which you can define a new print options file name and save the print options to it.

About—accesses a window that contains information about Print Client Software.

Exit Application—exits Print Client Software.

"Open Print Options" and "Save Print Options" are not available unless files are listed in the Filename(s) list box.

Document—accesses a menu that allows you to select document configuration and printer control windows.

General—accesses the General Options window, which allows you to change general-purpose settings, such as charge number, destination, and operator messages.

Paper Exceptions—accesses the Paper Exceptions window, which allows you to specify, on a page-by-page basis, pages within the document that should be printed on different kinds of paper.

Printer Controls—accesses the Printer Controls window, which allows you to specify features such as printing header and/or status pages.

Color—accesses the Color window, which allows you to customize the mapping of color components to toners installed.

For information about the General Options, Printer Controls, and Color windows, refer to the respective sections in this chapter. The Paper Exceptions window is described in Section 5 "Paper Options".

Catalog—accesses the Paper Catalog window.

For information about the Paper Catalog window, refer Section 5 "Paper Options"

Preferences—accesses the Preferences window.

For information about the Preferences window, refer to Section 1 "Installation and Configuration" and Section 3 "Printing".

Print—executes the print request and sends the job to the printer and/or stores the job on the Network Imaging System print server.

Edit—accesses a menu that allows you to manipulate the list of files in the Filename(s) scrolling list.

For information about the Edit menu, refer to "Filename(s) List Box" on page 3-5.

Printer/Type—allows you to select from the available printers on which you want your output printed.

If <Any> is selected, the server designated in the Preferences window selects the printer that will process the print request.

The <Any> entries do not appear when you select <None> for the Server in the Preferences window. There is no server involved to select the actual printer to which the job is sent.

PCL language jobs are not standardized. As a result, you may encounter problems if you try to send a PCL language job to a printer type of <Any>. Instead, select a specific printer type.

Filename(s)—displays the file(s) for the current print job. One file can be selected at a time, and the settings for that file are represented in the main window and any associated windows and submenus. Depending on the setting in the Preferences window, filenames appear as simple filenames or full pathnames.

Use one of the following methods to enter filenames to the scrolling list:

- Drag one or more file icons from File Manager and drop onto the drop target at the left of the Filename(s) field or into the Filename(s) list box.

- Use the *Edit* button to change or insert a file. Filename(s) and pathname(s) that exceed the width of the scrolling list are left-justified and truncated in appearance only. To view the filenames of names that exceed the width of the Filename(s) box, access the Preferences window and choose "Filename(s) display as" Filename(s).

- Specify filename(s) on the command line when launching the graphical user interface (GUI) version of Print Client Software to allow the file and its options to appear in the GUI document scrolling list.

For example, type `sclient.scl taxes.ps forms.ps` [RETURN].

When the Print Client Software main window opens, *taxes.ps* and *forms.ps* appear in the Filename(s) list box.

File Type—allows you to specify an emulation file type, based on the selected printer type. Refer to Appendix D "Printer Specific Notes" for more information

In most cases, when files are loaded into the file list, the Client will detect the file type. In cases where the Client cannot detect the file type, the user default file type will be used. After loading a file into the list, verify that the file type setting is correct before proceeding.

If the File Type is set incorrectly, jobs may not print as expected. When using the Print Client for modifying the options of jobs in the Network Imaging System print server queues, changing the File Type may yield unexpected results.

The same document may print differently for different users if their *emulation_options* files have different specifications.

PCL language jobs are not standardized. As a result, you may encounter problems if you try to send a PCL language job to a printer type of <Any> printer. Instead, select a specific printer.

Directories for TIFF CCITT Group IV compressed image files can be printed using the KGL Emulation Type. See "To add a TIFF document from the file system of your workstation:" on page 3-6.

Body Paper—allows you to select the paper to use.

For more information about defining new papers, refer to Section 5 "Paper Options".

Orientation—allows you to specify how logical page images are presented.

Default—no page image manipulation occurs.

Portrait—the page image is vertically oriented.

Landscape—the page image is horizontally oriented.

The Orientation field is not selectable for all printers. This is because information embedded in the page description language (Adobe PostScript, PCL5) overrides the selection in this field in documents where each logical page is mapped to a physical page.

The two orientations interact as shown below:

1
— Orientation (main window)
— Sheet Orientation (Page Placement window)
2
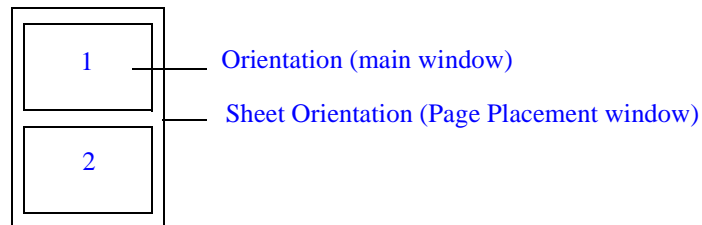
In grids of 1 by 1 (that is, each logical page is mapped to a physical page), the physical and logical orientations must match.

Job Mode—sets the printing style for the body of the document. The default is Simplex.

Simplex—output is printed on one side of the paper.

Duplex—output is printed on both sides of the paper.

When the Job Mode is "Duplex" and the Body Paper is "Mode: 1-Sided," the software overrides the Job Mode to be consistent with the paper request.

Pamphlet—output is printed so sets can be saddle-folded (folded in half) and formatted as a book. Blank pages are added by the printer at the end of the document to make an even multiple of four pages.

They will be counted as part of the maximum pamphlet size. For example, if Preprinted/Blank is selected as the Front Cover option this cover would be counted as one sheet of the pamphlet.

> The Job Mode duplex setting will be overridden and printed simplex if the "Mode: 1-Sided" parameter is set for the selected body paper in the paper catalog.
>
> The "Mode: 1-sided" paper attribute is ignored (if specified) when Pamphlet is selected in the Job Mode field.

Interleaves—a sheet of regular paper (printed or non-printed) is inserted between pages. The body paper selection determines the interleaves material. When you select this job mode, values entered in the Paper Exceptions window are ignored. A common use for interleaves is to separate sheets when printing on transparency material.

> The selection in the Job Mode field may be overridden by commands in the print file when PostScript level 2 or 3 files are printed.

Copies—sets the number of document sets (copies) to be printed. See Appendix D "Printer Specific Notes" for more information.

Collated Copies—when checked, multiple sets of a print job should be delivered collated (as sets) into the exit bin. Collation means that all pages of one set are printed before any pages for the next set are printed.

For example, if you request three sets of a four-page job and the Collated Copies check box is selected, three sets of pages 1 through 4 print. If the check box is not selected, the requested number of each page are printed as a separate set (for example, three sets of page 1, three sets of page 2, three sets of page 3, and three sets of page 4).

The following example shows three sets of a four-page document with and without collation.
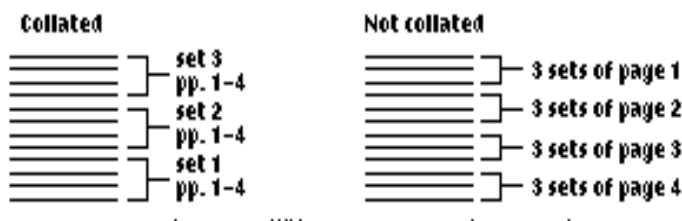
Figure 4-2 Example of collated and non-collated documents

> The selection in the Collated Copies field may be overridden by commands in the print file when PostScript level 2 files are printed.

Pages—allows you to specify whether all or only a portion of the document is to be printed. When "All" is selected, the entire document is printed. The default is All.

To print only certain pages of a document, select "Range." Type the number of the first page to be printed in the From field, and the number of the last page to be printed in the To field. (To print only one page, type the same number in both the From and To fields.)

Document Page Order—when checked, allows you to select the page order in which a document was created by a document composition application. If the check box is not checked, the document is in "First page first" order. This control only applies to TIFF documents. For more information see"To add a TIFF document from the file system of your workstation:" on page 3-6.

Rotation—option will allow you to rotate images 0, 90, 180 or 270 degrees. The rotation applies to all images in the document.

Covers

Different cover options will be available depending upon the printer type selected. Refer to your printer's user guide for information on available options.

Front Cover—accesses a menu that allows you to specify how covers will be applied to the document.

None—no cover is applied and the associated paper list is disabled.

Print Side 1—prints a simplex cover on the selected paper.

Print Side 2—prints on the back of the cover page of the selected paper, leaving the front blank.

Print Both Sides—prints on both sides of the selected paper.

The Cover "sides to print" selections "Print Side 2" and "Print Both Sides" will be overridden and printed simplex (Print Side 1) if the "Mode: 1-Sided" parameter is set for the selected cover paper in the paper catalog.

Preprinted/Blank—the selected paper is used and with no image from the document printed on it.

Front Cover Paper—allows you to specify the paper to be used for the Front Cover.

Back Cover—accesses a menu that allows you to specify how covers will be applied to the document.

None—no cover is applied and the associated paper list is disabled.

Print Side 1—prints a simplex cover on the selected paper.

Print Side 2—prints on the back of the cover page of the selected paper, leaving the front blank.

Print Both Sides—prints on both sides of the selected paper.

The Cover "sides to print" selections "Print Side 2" and "Print Both Sides" will be overridden and printed simplex (Print Side 1) if the "Mode: 1-Sided" parameter is set for the selected cover paper in the paper catalog.

Preprinted/Blank—the selected paper is used and with no image from the document printed on it.

Back Cover Paper—allows you to specify the paper to be used for the Back Cover.

Finishing Device—allows you to select an output device for your job. Different options are available depending on the selected printer type.

Stacking—allows you to specify if multiple sets of a document are delivered with or without a shift between sets.

The selection in the Stacking field may be overridden by commands in the print file when PostScript level 2 or 3 files are printed.

Offset—finished sets are delivered in a stack with each set shifted slightly.

Straight—finished sets are delivered in a single stack.
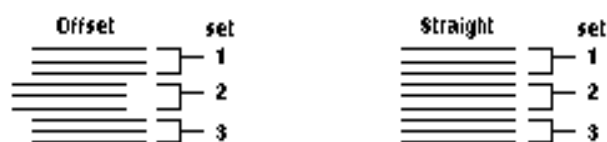
Figure 4-3 Example of offset and straight stacking

Stapling—allows you to specify if (and where) printed sets are stapled. Different options are available depending on the selected printer type.

> The selection in the Stapling field may be overridden by commands in the print file when PostScript level 2 or 3 files are printed.

None—the document is not stapled.

Top—a portrait document is stapled in the upper left corner.

Bottom—a landscape document is stapled in the upper left corner.

2 Left Edge—a portrait document is stapled near the upper left and lower left edge.

3 Left Edge—a portrait document is stapled near the upper left, center left, and lower left edge.

Saddle Stitch—a folded landscape document (usually a pamphlet) has staples in the upper and lower center.

> The finishing device attached to your printer has a maximum pamphlet size that it can handle. Refer to Appendix D "Printer Specific Notes" for more information.
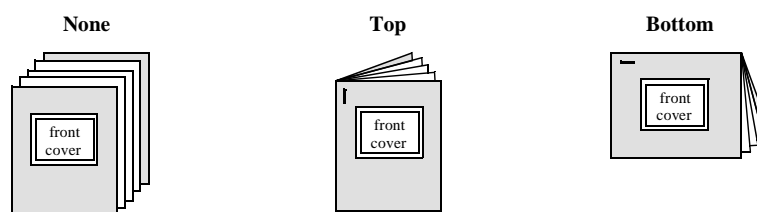
Figure 4-4 Examples of stapling

When you print a landscape job, selecting "Bottom" in the Stapling field generally gives you the correct results. However, not all software applications orient landscape documents in the same way. When the printer receives the document, it knows that a job is to print in landscape mode, but it does not know the orientation of the top and bottom of the images. It cannot automatically rotate the image to make up for the variations among software applications. Sometimes, your printing results may not be desirable.

Long-edge-fed, Bottom Staple
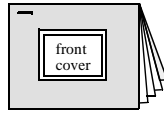
Expected Result   **Possible Result**
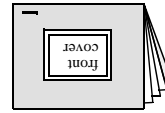
Figure 4-5 Examples of undesirable stapling

Folding—allows you to specify if (and how) printed sets are folded.

The options available depend on the printer type chosen.

The selection in the Folding field may be overridden by commands in the print file when PostScript Level 2 or 3 files are printed.

None—the output is not folded.

Saddle Fold—the output is folded in half to be stapled (saddle stitched). This setting is useful when you are creating pamphlets.

Do not attempt to saddlefold more than the maximum number of sheets for your printer.

Z-fold—the output is folded in accordion folds.
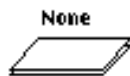
Figure 4-6 Examples of folding

Only 11 x 17-inch and A3 paper sizes can be used for z-folding. For more information about z-folding, refer to your printer's user's guide.

This feature is not available on the Network Imaging System.

Opening a Print Options File

Opening a print options file is possible only when a file is in the file list.

1. Position the pointer over the *File* button in the Print Client Software main window. Holding down the Menu mouse button, select Open Print Options from the File menu.

2. Slide the pointer to the right and select a print options file from the Open submenu.

   The options in the selected print options file become the current print options.

   or

   If you selected Other on the Open submenu, make any necessary changes in the Open Print Options window.

3. Click the Select mouse button on the *Apply* button in the Open Print Options window.

The selections on the Open menu are described below.

Any print options names that previously have been saved appear on the Open submenu.

<User Defaults>—opens the user default print options file.

<System Defaults>—opens the system default print options file.

Other—accesses a window to specify an options file to open..

Drag a stored print options file from the File Manager and drop it onto the drop target (the rectangle in the upper left corner), the Filename(s) list box, or type the name of a directory and file in the text fields. Click the *Apply* button. The selected print options file becomes the current print options file.

Saving Print Options

To save document print options:

1. Position the pointer over the *File* button in the Print Client Software main window. Holding down the Menu mouse button, select Save Print Options from the File menu.

2. Slide to the right and make a selection from the submenu.

The following selections are available on the Save Print Options submenu.

Selected—saves the print options for the selected file to its associated print options
(*.kco*) file.

All—saves the print options for all of the files listed in the file list box to their associated print options
(*.kco*) files.

To save default print options:

To save default options for a scanned document from the Scanned Document Browser, there must be a scanned document in the client file list and it must be selected.

1. Position the pointer over the *File* button in the Print Client Software main window. Holding down the Menu mouse button, select Save Print Options As from the File menu.

2. Slide to the right and select a print options file on the Save As submenu.

   If you selected Standard Print Options or Other on the Save As submenu, make any necessary changes in the Save as Standard Print Options or Save As Other Print Options windows.

3. Click the *Apply* button in the Save As Standard Print Options or Save As Other Print Options window.

The following selections are available on the Save As menu.

<User Defaults>—saves the displayed print options as the user default print options file.

Standard Print Options—accesses a window similar to choose a standard options file.

The <System Defaults> print options file is available to root users only.

Click the print options file you want to select, or type the file name in the text field. Click the *Apply* button. The selected print options are saved under the specified name and appear in the Open Print Options submenu.

Other—Type the name of a directory and file in the text fields, then click the *Apply* button. The print options are saved in the specified directory and file.

General Options

The General Options window allows you to select some general-purpose settings.

To open the General Options window:

1. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select General from the Document menu.

   The General Options window opens.

Figure 4-7 General Options window

Field Descriptions

Available features vary by selected printer.

User Id—allows you to change the user identification on the job header page and in accounting information.

The number of characters allowed in this field varies by printer type. Valid characters include spaces, numbers 0 through 9, all lowercase and uppercase letters (a–z, A–Z), diacritical characters (144–255 ASCII), and the following characters: ! @ # $ % – _ + = : ; , .

> Blank spaces at the end of a text string are considered part of that string.

Charge Number—allows you to enter a charge number for accounting purposes.

Up to 31 characters may be entered in the Charge Number text field. Valid characters include spaces, numbers 0 through 9, all lowercase and uppercase letters (a–z, A–Z), diacritical characters (144–255 ASCII), and the following characters: ! @ # $ % – _ + = : ; , .

> Blank spaces at the end of a text string are considered part of that string.
>
> Multiple jobs may not print in the same order in which they appear in the Filename(s) scrolling list.

Destination—allows you to specify if the file is sent directly to the printer, stored as a resource on the print server, or both. The default is "Printer."

Printer—specifies the printer you want to use.

Server File—requests that the job be saved on the Network Imaging System print server. You must specify the name of the file or some unique identifier in the Document Name field. The system print server will store the document into the system Document Library or the print server's Resource Manager, depending upon the server's configuration.

Document Name—allows you to specify the name of the file to be saved on the print server.

Up to 99 characters may be entered in the Server Filename text field. Valid characters include spaces, numbers 0 through 9, all lowercase and uppercase letters (a–z, A–Z), diacritical characters (144–255 ASCII), and the following characters: ! @ # $ % – _ + = : ; , .

> When Destination "Server File" is selected documents will be stored in the "Server" folder Network Imaging System of the Document Library in a folder named for the Client User ID from the User ID field. If no User ID is specified, the document is stored in a folder named "unknown_user".

Create TIFF—creates a TIFF file and save the file to the Document Library.

Document Name—allows you to specify the name of the TIFF file before it is stored in the Document Library.

Up to 99 characters may be entered in the Server Filename text field. Valid characters include spaces, numbers 0 through 9, all lowercase and uppercase letters (a–z, A–Z), diacritical characters (144–255 ASCII), and the following characters: ! @ # $ % – _ + = : ; , .

> The TIFF documents will be stored in the "RIP" folder in a folder named for the Client User ID from the User ID field. If no User ID is specified, the document is stored in a folder named "unknown_user".

Operator Message—allows you to enter a message to be printed on the job's header page (for example, "This is a RUSH job" or "Use letterhead paper"). This text may appear on the printer console menu while the job is processing and printing, depending on which printer type was selected. The number of characters allowed in this field varies by printer type. Valid characters include spaces, numbers 0 through 9, all lowercase and uppercase letters (a–z, A–Z), diacritical characters (144–255 ASCII), and the following characters:

! @ # $ % – _ + = : ; , .

Blank spaces at the end of a text string are considered part of that string.

With some printer types, the job will be paused and not printed until an operator responds to the message.

Deliver To—allows you to enter a name or message of up to 31 characters that will appear on a status page (if a status page is requested). This message can be used to tell an operator at the printer where to forward a job.

Blank spaces at the end of a text string are considered part of that string.

Email To—allows you to enter an e-mail address of up to 63 characters. If a Status Page has been requested, the status page information will be e-mailed to the addressee once the job has been processed..

Apply—saves any changes you have made.

Reset—resets all values in the window to what they were when the window was opened or when the *Apply* button was last clicked.

Printer Controls

The Printer Controls window allows you to specify special features beyond those required for normal printing. Some of these features affect the output only when options from other menus are selected.

To open the Printer Controls window:

1. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select Printer Controls from the Document menu.
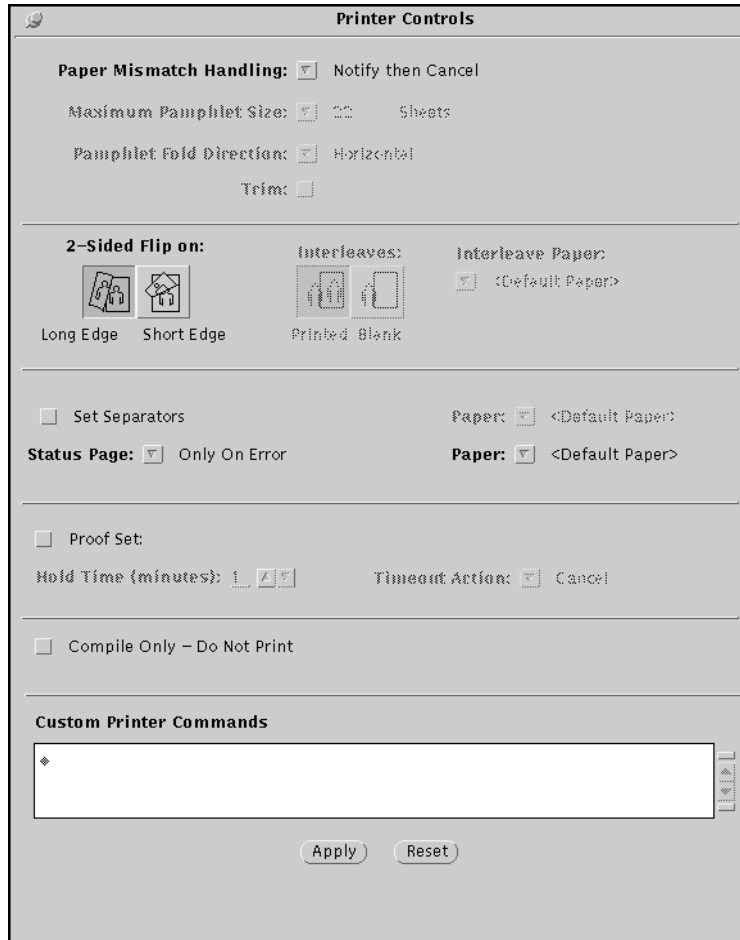
   The Printer Controls window opens.

Figure 4-8 Printer Controls window

Field Descriptions

Paper Mismatch Handling—the action the printer will take if a specified paper, stacking, and/or stapling option does not match the option displayed on the printer console.

Maximum Pamphlet Size—allows you to specify the maximum size of your pamphlet. You also can use this field to break up a large job into multiple smaller pamphlets that can be bound together to make a book.

The size value is the number of sheets. Normally, this should be a number greater than the number of pages in the document, divided by 4.

"Pamphlet" must be selected in the Job Mode field in the Print Client Software main window. If you select "Other" from the menu, the Maximum Pamphlet Size window opens, allowing you to specify the number of sheets.

> When setting the maximum pamphlet size, take into account the effect of preprinted or blank covers, if selected. They will be counted as part of the maximum pamphlet size. For example, if Preprinted/Blank is selected as the Front Cover option this cover would be counted as one sheet of the pamphlet.
>
> Finishing devices limit the number of sheets that they can fold and staple. Refer to Appendix D Printer Specific Notes, to find the value permitted by your finishing device.

The maximum number of pages is printer-dependent.

Pamphlet Fold Direction—allows you to specify how pamphlets are folded.

Trim—when checked, pamphlets folded by the system booklet maker are trimmed to eliminate uneven edges.

Two Sided Format—contains two selectable icons that allow you to specify if two-sided jobs should be printed in barrel (Flip on Long Edge) or tumble (Flip on Short Edge) format.

   Long Edge—two-sided jobs are printed so the top of each image is oriented to the same edge of the paper. This may be useful if pages are bound on a side edge. Flip on Long Edge printing also is known as book or barrel duplex printing.

   Short Edge—two-sided jobs are printed so the top of each image is oriented to opposite edges of the paper. This may be useful if pages are to be bound on a top or bottom edge. Flip on Short Edge printing also is known as calendar or tumble duplex printing.

Interleaves—contains two selectable icons that allow you to specify if interleaves between transparencies are printed.

   Printed—interleaves will be printed with the image printed on the corresponding transparency page.

   Blank—interleaves are not printed.

Interleave Paper—allows you to choose a paper from the current paper catalog for the transparency interleaves.

Set Separators—when checked, document sets are delivered with a blank sheet of paper between sets when multiple sets are requested. Using separators provides easy retrieval of document sets and is an alternative to offset stacking. If the check box is selected, a finished job has separator sheets between sets.Example of set separators
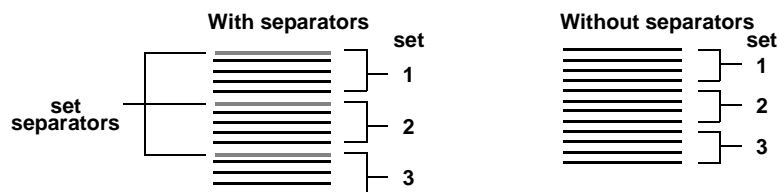
> Separators will not be added to a job when Stapling is selected.

Paper—allows you to choose a paper from the current catalog for the set separator sheets.

For information about defining new papers, refer to Section 5 "Paper Options".

Apply—saves any changes you have made.

Reset—resets all values in the window to what they were when the window was opened or the *Apply* button was last clicked.

Status Page—specifies when a status page is to be printed for each job.

    None—no status page is printed.

    Always—a status page is always printed for each job.

    Always – 1st Page Only—only the first of the status pages prints.

    Only On Error—a status page is printed only when an error occurs during printing.

Paper—subfields allow you to choose a paper for job header and status pages.

For more information about defining new papers, refer to Section 5 "Paper Options".

Proof Set—when checked, the system will print one copy of the job so you can review it before printing all of the copies.

Compile Only – Do Not Print—when checked, the system processes the job without printing it.

When you select the Compile Only – Do Not Print check box and save the print options, the selected Compile Only – Do Not Print option is saved with the print options file. If you want to recall and print the job, you must deselect the Compile Only – Do Not Print check box.

Since the document will not be printed, you should specify "Always" in the Status Page field so you can view the processing results.

Custom Printer Commands—allows you to type special commands to be sent with the print job. Alternately, you can type the name of a file containing print commands in the text box. The commands must be in the form of DSC (Document Structuring Convention) comments or KDK extensions. This is a way to request special options not available in the menus. An error in this field results in an error at the printer or print server.

If a file name is found in the first line in the Custom Printer Commands text box, it is used. Any other entries in the Custom Printer Commands text box will be ignored.

For more information about custom printer commands, contact your software support provider.

Apply—saves any changes you have made.

Reset—resets all values in the window to what they were when the window was opened or the *Apply* button was last clicked.

Color

This feature is not available on the Network Imaging System.

Section 5   Paper Options

This chapter discusses the following windows:

- Paper Exceptions

- Paper Catalog

Paper Exceptions

The Paper Exceptions window allows you to create a list of document page ranges that should print on paper other than the body paper. The job is printed on the paper previously specified in the Body Paper field, except for those pages specified in this menu. If the Paper Exceptions menu is empty, the entire job is printed on the body paper specified in the Body Paper field.

To open the Paper Exceptions window:

1. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select Paper Exceptions from the Document menu.

   The Paper Exceptions window opens.
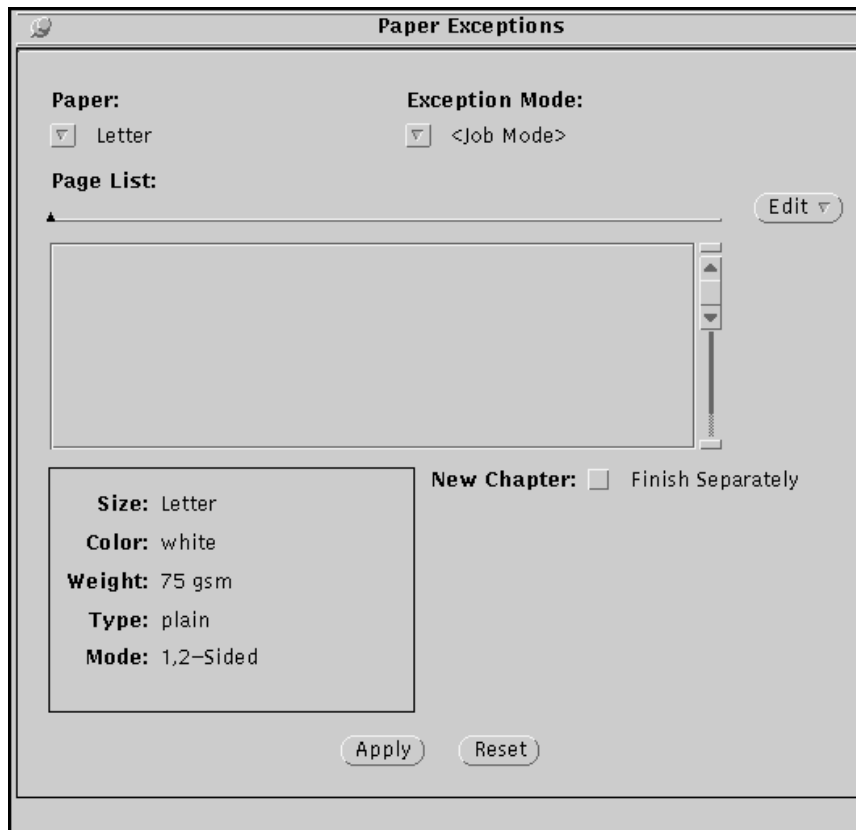
Figure 5-1 Paper Exceptions window

Paper Exceptions will be ignored if the Interleaves Job Mode is selected for the job.

Field Descriptions

Paper—indicates the paper that should be used for the indicated pages. A description of the currently selected paper appears in the box in the lower left area of the window.

> The paper selection "<New Chapter>" causes each page in the page list to be printed on the front of a sheet. This affects only duplex jobs. The <New Chapter> paper exception can also be used to accomplish subset finishing when used in conjunction with the New Chapter Finish Separately control described on page 5-3.

Exception Mode—allows you to select a printing style for the paper exception. The default is <Job Mode>.

The Exception Mode selection has no effect when the Exception Paper is <New Chapter>.

<Job Mode>—the paper exception follows the mode of the main body.

Simplex—output is printed on one side.

Duplex—output is printed on both sides.

> The Exception Mode will be overridden and printed simplex if the "Forced One-Sided" parameter is set for the Exception Paper in the paper catalog.

Page List—lists the page(s) where specified paper types are to be used in the document. Page ranges can be expressed as two numbers separated by any number of periods. For example, to express the page range "45 to 52," you can type 45.52 or 45............52 in the Page List text field. Multiple page ranges can be specified as long as each one is separated by a comma.

The syntax for the Page List text field is described in the following table. Page numbers refer to the actual pages and may not relate to the document page numbers.

> The Page List text field will accept a maximum of 256 characters.
>
> Once a paper exception page list has been added to the Exception list box, the entire Page List may not be visible. To view a long Page List, left-click on the Exception. The Page List for the Exception will be displayed in the Page List field at the top of the window.

Table 5-1 Syntax examples

Syntax	Definition	Example
n	A specific page number	45
n...n	A range of pages	45...52
n,n	More than one page number	45,52
^n	Insert a blank page before the specified page	^45
*n^*	Insert a blank page after the specified page	45^
n...	A range starting at the specified page and continuing through the final page	45...
...n	A range starting at the first page and continuing through the specified page	...45
1...	All pages	1...

If the "1..." or "n..." syntax is used, you are prompted for the number of pages in the document. If you do not enter the correct page count, unexpected results may occur.

The page numbers used in the Page List field refer to the sequence of page images as they are delivered to the printer. These numbers do not necessarily correspond to the page numbers assigned within the application that created the document.

If you create more than one exception for a particular page or range of pages, the paper specified by the exception highest in the list of paper exceptions is used. All other papers specified for that page or range of pages are ignored. Page ranges before and after a page, as well as substitutions for a page, are handled independently, and do not override each other (for example, an entry of "^2,^3,^4" will not override "2^,3^,4^" or "2,3,4").

If an entry has a paper specification but no entry in the Page List text field, it is ignored.

You may need to experiment when trying to print the final page on alternate paper. The best method is to enter the actual page number for the final page.

Slip sheets are supported with Pamphlet Mode when the page selected for this exception is the first image on the sheet. In this instance, <Job Mode> should be selected for the Exception Mode. As a note, other exception modes can be selected, but the job will always print in Pamphlet Mode.

Inserts are not supported with pamphlets.

Paper Exception Examples

Following are some examples of how page list entries are interpreted.

- If you want blank blue pages to be inserted before sections that begin on pages 3, 10, and 22, select "blue-11" in the Paper field and type **^3, ^10, ^22** in the Page List field.

- If you want pages 15 through 25 to print on transparency material, select "transparency" in the Paper field and type **15...25** in the Page List field.

If the paper you want to use for a paper exception is not listed in the Paper field, use the "Other" option to add the paper to the paper catalog. For more information, refer to "Paper Catalog Window" in this chapter.

The selections for inserts, slip sheets, and chapters may be overridden by commands in the print file when PostScript language files are printed.

New Chapter Finish Separately—when checked, indicates that each chapter entered as a <New Chapter> paper exception will be finished separately using the job finishing feature selections.

Edit—accesses a menu that allows you to manipulate the selected paper exception entry.

Update—changes the currently selected line in the paper list box with the values entered in the Paper and Page List fields.

Insert—creates a new line in the paper list and adds the selected paper type and page list value to the paper list. The Insert submenu allows you to select where in the page list box the specified entry should be placed.

Move—moves a selected paper list entry up or down one position on the list.

Delete—removes the selected entry (or all entries) from the paper list.

Apply—saves any changes you have made.

Reset—resets all values in the window to what they were when the window was opened or the *Apply* button was last clicked.

Paper Exception Entries

To add a Paper Exception entry:

1. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select "Paper Exceptions" on the Document menu.

   The Paper Exceptions window opens.

2. Select the paper in the Paper field that you want to use for the exception.

3. Select the Exception Mode that you want to use for the Exception.

4. Type the pages or page range in the Page List text field.

5. Position the pointer over the *Edit* button in the Paper Exceptions window. Holding down the Menu mouse button, select Insert from the Edit menu.

6. Slide to the right and select a placement selection on the submenu.

   The paper exception entry appears in the paper list box.

7. Click the *Apply* button in the Paper Exceptions window.

   Any changes are saved.

To delete a Paper Exception entry:

1. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select Paper Exceptions from the Document menu.

   The Paper Exceptions window opens.

2. Select the paper exception to be deleted from the list box.

3. Position the pointer over the *Edit* button in the Paper Exceptions window. Holding down the Menu mouse button, select Delete from the Edit menu.

4. Slide the pointer to the right and choose Selected from the submenu.

    If you want to delete all of the paper exception entries, choose "All" on the Delete submenu.

   The paper exception entry is deleted.

5. Click the *Apply* button in the Paper Exceptions window.

   Any changes are saved.

Paper Catalog Window

This window allows you to create one-time paper definitions beyond those in the list of predefined papers or to permanently add a paper to the catalog.

Not all paper definitions are compatible with all printers. Ensure that you use paper parameters that are compatible with the printers to which print requests are being sent.

The system administrator may disable the capability to add new papers to the catalog.

To open the Paper Catalog window:

Select "Other" on the Body Paper menu or any other menu that contains a list of papers, or click the *Catalog* button in the Print Client Software main window to open the Paper Catalog window.
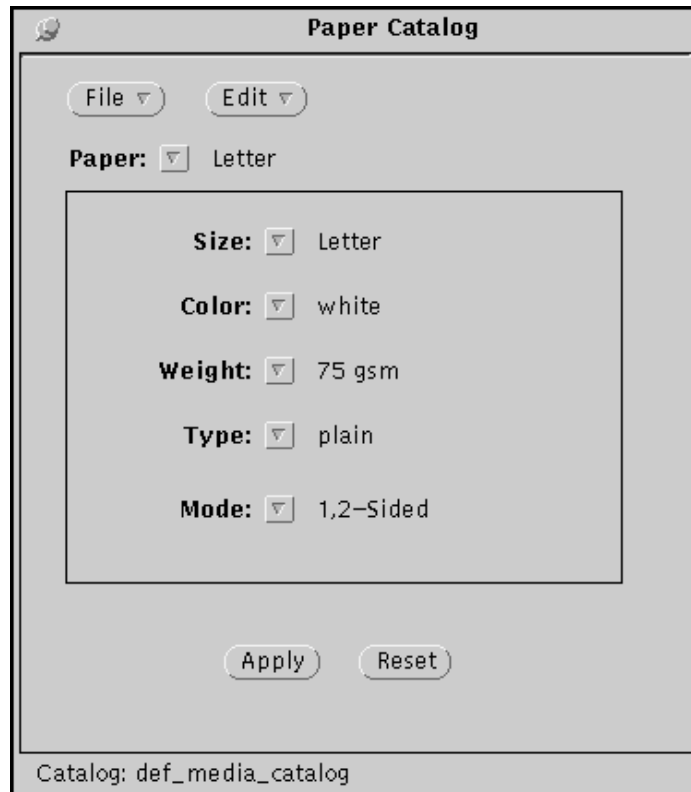
Figure 5-2 Paper Catalog window

Selecting "Other" in the Body Paper menu or any other paper list menu will access the Paper Catalog window. However, changes made in the Paper Catalog window when adding a new paper are not automatically selected for body paper or another paper list.

Field Descriptions

File—allows you to open, save, or delete a paper catalog.

> **Open Paper Catalog**—accesses a window in which you can select an existing paper catalog to become the current paper catalog.

This option is available only if the file list box is empty.

Save Paper Catalog—saves the current paper definitions to the current paper catalog.

Save Paper Catalog As—accesses a window in which you can save the current paper definitions to a catalog under a different name.

Only the root user can save changes to the default paper catalog.

Any changes made by the root user to the default paper catalog will be overwritten by changes subsequently made to the system paper catalog.

Delete Paper Catalog—deletes the selected paper catalog.

The currently open paper catalog cannot be deleted.

Edit—accesses the Edit menu, allowing you to create, rename, and delete paper definitions.

New Definition—accesses a window in which you can create and name a new paper definition from a copy of the current paper definition.

Up to 10 characters may be entered in the text field. Valid characters include spaces, numbers 0 through 9, all lowercase and uppercase letters (a–z, A–Z), diacritical characters (144–255 ASCII), and the following characters: @ # $ % – _ + = : ; , .

Rename—accesses a window in which you can rename the current paper definition.

Up to 10 characters may be entered in the text field. Valid characters include spaces, numbers 0 through 9, all lowercase and uppercase letters (a–z, A–Z), diacritical characters (144–255 ASCII), and the following characters: @ # $ % – _ + = : ; , .

Delete—deletes the currently selected paper definition.

Paper—allows you to select a paper for the current paper definition.

Size—allows you to select a paper size for the current paper definition.

Color—allows you to select a color for the current paper definition. When <Any> is selected, jobs are printed on the available paper, regardless of color.

In certain situations, both the Color choices "*" and <*> may appear on the color choice list. If a paper with Color <*> is defined and used, the printer receiving the job will use a paper which best matches the other parameters in the paper definition, ignoring the color. If a paper with color "any" is defined and used, the printer will only use a paper that has a color parameter that is the word, "any."

If you select Other, the Other Paper Colors window opens.

Up to 19 characters may be entered in the text field. Valid characters include spaces, numbers 0 through 9, all lowercase and uppercase letters (a–z, A–Z), diacritical characters (144–255 ASCII), and the following characters: ! @ # $ % – _ + = : ; , .

If the selected paper color does not match the color defined in the paper supply on the printer console, operator intervention may be necessary.

Weight—allows you to select a paper weight for the current paper definition. When <Any> is selected, jobs are printed on the available paper, regardless of weight.

The Weight menu contains various industry standards for common paper weights. Both U.S. and metric measurements are given.

If you select "Other," the Other Paper Weights window opens.

Up to three numeric characters may be entered in the text field. The paper weight can be in grams per square meter (gsm) or pounds (lb.). You must select a weight designation from the menu. The following menu is available only if "lb." is selected.

> If the specified paper weight does not match the weight defined in the paper supply on the printer console, operator intervention may be necessary.

Type—allows you to select a paper type for the current paper definition. When <Any> is selected, jobs are printed on the available paper, regardless of type. If you select "Other," the Other Paper Types window opens.

In certain situations, both the Type choices "*" and <*> may appear on the type choice list. If a paper with Type <*> is defined and used, the printer receiving the job will use a paper which best matches the other parameters in the paper definition, ignoring the type. If a paper with type "any" is defined and used, the printer will only use a paper that has a type parameter that is the word, "any."

Up to 19 characters may be entered in the text field. Valid characters include spaces, numbers 0 through 9, all lowercase and uppercase letters (a–z, A–Z), diacritical characters (144–255 ASCII), and the following characters: ! @ # $ % – _ + = : ; , .

You can string multiple paper type definitions together (for example, you can specify a paper type as "Recycled3Hole").

If you select "TransverseTray," the printer should draw paper from a transverse (or landscape) paper tray. "Transverse" refers only to the paper orientation, not to the orientation of the image on the page. This setting is useful for certain stapling and folding configurations.

> If the selected paper type does not match the type defined in the paper supply on the printer console, operator intervention may be necessary.

Mode—allows you to select a paper path (Inserter, 1-Sided, or 1,2-Sided).

1-Sided—indicates this paper should only be printed on the first side.

1,2-Sided—indicates this paper can be printed either one-sided (simplex), or two-sided (duplex).

Inserter—indicates this paper should only be fed from the Inserter supply and should not be printed on.

Modifying Paper Catalogs

> Only the root user can save changes to the default paper catalog.
>
> Users other than the root user can create catalogs separate from the default catalog using the steps in "To save a paper catalog with a new name" on page 5-8.

To open a paper catalog:

1. Click the *Catalog* button in the Print Client Software main window.

   The Paper Catalog window opens.

2. Position the pointer over the *File* button in the Paper Catalog window. Holding down the Menu mouse button, select Open Paper Catalog from the
File menu.

> Paper catalogs can be opened only if no files are in the list.

The Open Paper Catalog window opens.

3. Select an existing paper catalog.

4. Click the *Apply* button.

The selected paper catalog becomes the current paper catalog.

To save a paper catalog:

1. Position the pointer over the *File* button in the Paper Catalog window. Holding down the Menu mouse button, select Save Paper Catalog from the File menu.

The current paper definitions are saved to the current paper catalog.

To save a paper catalog with a new name:

1. Position the pointer over the *File* button in the Paper Catalog window. Holding down the Menu mouse button, select Save Paper Catalog As from the File menu.

The Save Paper Catalog window opens.

2. Type a name for the paper catalog in the Catalog Name text field.

3. Click the *Apply* button in the Save Paper Catalog window.

The current paper definitions are saved to the chosen paper catalog.

To delete a paper catalog:

1. Position the pointer over the *File* button in the Paper Catalog window. Holding down the Menu mouse button, select Delete Paper Catalog from the File menu.

The Delete Paper Catalog window opens.

2. Select a paper catalog to be deleted.

3. Click the *Apply* button in the Delete Paper Catalog window.

The paper catalog is deleted.

Paper Definitions

To create a new paper definition:

1. Position the pointer over the *Edit* button in the Paper Catalog window. Holding down the Menu mouse button, select New Definition from the Edit menu.

The New Paper Definition window opens.

2. Type a name in the Paper Name field.

3. Click the *Apply* button in the New Paper Definition window.

The new paper type is created. The new paper's attributes are those currently displayed. The New

Paper Definition window closes.

4. Position the pointer over the Size menu button in the Paper Catalog window. Holding down the Menu mouse button, select a size from the Size submenu.

5. Position the pointer over the Color menu button in the Paper Catalog window. Holding down the Menu mouse button, select a color from the Color submenu.

6. Position the pointer over the Weight menu button in the Paper Catalog window. Holding down the Menu mouse button, select a weight from the Weight submenu.

7. Position the pointer over the Type menu button in the Paper Catalog window. Holding down the Menu mouse button, select a type from the Type submenu.

8. Select the Mode from the drop down list.

9. Click the *Apply* button.

> If you want the paper catalog modification to be saved permanently, you must save the paper catalog as previously described in this chapter.

To rename a paper definition:

1. Position the pointer over the *Edit* button in the Paper Catalog window. Holding down the Menu mouse button, select Rename from the Edit menu.

   The Rename Paper window opens.

2. Type a name.

3. Click the *Apply* button.

   The selected paper is renamed with the specified name.

> If you want the paper catalog modification to be saved permanently, you must save the paper catalog as described on page 5-8.

To delete a Paper Definition:

1. Position the pointer over the *Edit* button in the Paper Catalog window. Holding down the Menu mouse button, select Delete from the Edit menu.

   The current paper is deleted immediately.

> You cannot delete the last media definition from a paper catalog.
>
> If you want the paper catalog modification to be saved permanently, you must save the paper catalog as described on page 5-8.

Paper Options

Appendix A Command Line Interface

The command line interface to Print Client Software is *sclient_cli.scl*, which provides a method to invoke the application from the UNIX command line or UNIX scripts, so print requests can be initiated without the graphical user interface (GUI).

Individual document file names or an argument file containing a list of document files to be printed can be entered on the command line.

- If individual document file names are specified, they must be specified last.

- If a print options file is present on the command line, these options will apply to all document files printed in the request.

- If a print options file is not specified on the command line, stored options from a .kco or ,20 file within the same directory are used for each document file.

- If stored options do not exist for a file, the user default print options are used.
  These defaults print options are located in **/.printdir/client_options/default_options.kco.**

Print options files may be constructed by manually editing a file. However, the preferred method for creating print options files is through the graphical user interface. Refer to "Opening a Print Options File" on page 4-8 and "Saving Print Options" on page 4-9. Optional arguments are available for you to override some of the selections in the print options file (for example, number of copies, server, printer, and so forth).

If print options are constructed manually or the selected printer is overridden by a command line argument, the print options may be invalid for the selected printer type. The command line interface does not flag such errors. The print request is sent to the print server, which may detect an error, or to a printer, where incompatible options are either ignored or cause the print request to fail. Print options can be viewed and edited as described on page 4-8 (preferred method), or within a command tool window by typing 'textedit <file name>' while in the directory where the file is located.

The command line interface cannot be used to print directories of TIFF files.

Options

–c Copies

This argument specifies the number of document sets to be printed. This argument overrides the number of copies specified in the print options file. If the operation is a document merge, this argument applies to the merged document.

–d Printer

This argument specifies the printer to use. The printer can specify a printer name, a printer type, or indicate any printer available ("Any"). This argument overrides the value for the printer specified in the print options file.

–f –
–f Filename

This argument specifies the full UNIX path for a file that lists the UNIX path for each document file to be included in the print request. Document files indicated this way are added to the list before any individual document files specified on the end of the command line.

−o −
−o Options_Filename

This argument indicates that common print options should be applied to all document files. If an *Options_Filename* is supplied, it indicates the UNIX path of the print options file to be used as the common print options. If "−" is specified, it indicates that the user default print options should be used.

−r −
−R −
−r Stored_Name
−R Stored_Name

This argument indicates that the document files should be stored as resources on the Network Imaging System print server as part of the print request. "−R" specifies that the document files should be stored, but not printed, "−r" specifies that the document files should be stored and printed. If a *Stored_Name* is specified, it indicates the resource name to use on the system print server. If "−" is specified, then the UNIX filenames of the document files will be used.

> If a *Stored_Name* is specified for multiple documents, each file is written to this name and will overwrite the previous file. Therefore, only the last file of the document list is stored.

−s Server

This argument specifies the Network Imaging System print server to be used to handle the print request.

−x

This argument indicates that Print Client Software should delete the document file and any associated print options file after printing it.

Examples

Following are examples of the command line interface.

```
sclient_cli.scl  /home/lmr/taxes.ps
```

This prints the document */home/lmr/taxes.ps* and uses the user's preferences and the document's stored print options. If the stored print options do not exist, the user's default print options are used.

```
sclient_cli.scl  -o  /home/lmr/tkt  -c  2  -d  lab1  /home/lmr/junk.ps
```

This prints a single document */home/lmr/junk.ps* using the print options file */home/lmr/tkt*. Two copies are printed on the printer "lab1," overriding the number of copies and the printer in the print options file.

```
sclient_cli.scl  -f  /home/lmr/psfiles  -d  lab1  -s  845Pserver  -R  -
```

This stores all documents listed in the argument file */home/lmr/psfiles* on the Network Imaging System print server. Stored print options files for each document are used. The print server "845Pserver" is used, overriding the value in the user's preferences. The printer "lab1" is used, overriding the value in any print options files. Each document's UNIX filename is used as its resource name on the system print server.

```
sclient_cli.scl  -f  /home/lmr/psfiles  -o  -  /home/lmr/taxes.ps  /
home/lmr/phonelist.ps
```

This prints the documents listed in */home/lmr/psfiles*, followed by the documents */home/lmr/taxes.ps* and */home/lmr/phonelist.ps*, all with the same print options. The print options used are the user's default print options.

Appendix B Configuration Files

This appendix describes some of the Print Client Software configuration files. You can use any standard ASCII text editor to modify the configuration files. You must be logged in as root to edit these files.

> If Print Client Software can be used to modify or create a file, you should use it instead of an ASCII text editor.

The configuration files reside in three areas:

- **/usr/srv/lib/defaults/defaults.scl**

  Files in *defaults.scl* are "factory default" files and should never be modified.

- **/usr/srv/lib/databases/databases.scl**

  Files in *databases.scl* are "system default" files and can be modified by the system administrator.

- **~/.printdir**

  Files in each user's *.printdir* are "user default" files. Some of these files are modified by the user and others are modified by Print Client Software.

File Descriptions

Following are descriptions of the Print Client Software configuration files.

databases.scl/server_list

The *databases.scl/server_list* file lists all of the print servers to which Print Client Software desires access. This file can be modified by the system administrator using */usr/srv/bin/config.scl*.

databases.scl/printer_types_list

The *databases.scl/printer_types_list* file lists printer types that should appear in the menus, even if that type of printer is not available from the print server.

databases.scl/client_config

The *databases.scl/client_config* file allows the system administrator to restrict access to certain features and functions of Print Client Software.

databases.scl/sys_def_options.kco

The *databases.scl/sys_def_options.kco* file contains the system default print options. The file can be modified by the system administrator using Print Client Software. The first time a user starts the Print Client software, these options are copied to create the user's default options which can then be modified by the user. If the user wishes to reset to the system defaults, they should delete the contents of the *.printdir* directory in their *home* directory and restart the Print Client software.

databases.scl/sys_def_preferences

The *databases.scl/sys_def_preferences* file contains the system default preferences. The first time a user starts Print Client Software, these preferences are copied to create the user's default preferences.

databases.scl/media/def_media_catalog.mc

The *databases.scl/media/def_media_catalog.mc* file is the system default media catalog.

databases.scl/printer_dbs/*[hostname]*/installed_printer_db

The *databases.scl/printer_dbs/*[hostname]*/installed_printer_db* files are database files created by Print Server Software. These files are used by Print Client Software to determine the printers that each print server knows about and the configuration information for each printer.

databases.scl/update_cat.cfg.scl

The *databases.scl/update_cat.cfg.scl* file controls whether or not the Print Client system default paper catalog is automatically updated to match the Network Imaging System default paper catalog or not.

~/.printdir/client_preferences

The *~/.printdir/client_preferences* file contains the user preferences. When Print Client Software is first started up, this file is created from a copy of the system default preferences file. This file is modified through the Preferences window which is accessed from the Print Client Software main window.

> This file exists for each Print Client Software user. You do not have to be logged in as root to edit this file.

~/.printdir/client_options/default_options.kco

The *~/.printdir/client_options/default_options.kco* file contains the user default print options. When Print Client Software is first started up, this file is created from a copy of the system default print options file. This file is modified through the File menus which are accessed from the Print Client Software main window.

> This file exists for each Print Client Software user. You do not have to be logged in as root to edit this file.

~/.printdir/media_catalogs/...

The *~/.printdir/media_catalogs/...* files are other media catalogs created by the user through the Paper Catalog window which is accessed from the Print Client Software main window.

> This file exists for each Print Client Software user. You do not have to be logged in as root to edit this file.

/.printdir/media_catalogs/def_media_catalog.mc

The */.printdir/media_catalogs/def_media_catalog.mc* file is the Print Client default catalog for all users. Depending upon the catalog configuration, see "Default Paper Catalog:" on page 1-7. This file is either automatically updated whenever the Network Imaging System Paper Catalog is modified or it is not automatically updated. If it is not automatically updated, this file is modified by the root user using the Paper Catalog window which is accessed from the Print Client Software main window.

> Each Print Client user has a Unix link from *~/.printdir/media_catalogs/ def_media_catalog.mc* to the root's default catalog file. Only the root user can modify the file.

Appendix C Modify Options

The Modify Options Interface

The Modify Options interface for the Print Server Software has been replaced with an enhanced version of the Print Client Software. When a job is chosen to be modified, the Sun print client is launched according to the following requirements. These requirements represent differences between the behavior of the Network Imaging System print client and its behavior as the Modify Options interface.

1. The initial values that are to be displayed for all print options are based on the job's DSC/KDK header except when there is a Printer Command Set (PCS) file associated with the print file which contains the true representation of the desired options. For print options not specified in the job header or PCS file, whichever is appropriate, Sun Client default values are used, consistent with the current behavior of the Sun Client.

   The following are the cases for which the PCS values are used instead of the options expressed in the print file header:

   If all of the following conditions are true, the print options in the PCS file are used.

   • The job was submitted from a remote queue on another Network Imaging System print server.

   • The job was modified on that server.

   • The sending server is running a previous version of the Print Server Software and so the modified options are represented in the accompanying PCS file.

   If both of the following conditions are true, the print options in the PCS file are used.

   • The job was submitted via the scan directory.

   • A PCS file associated with the job was provided in the tkt scan directory, and it contains either a PCS Protocol Mode code (PM0) or no Protocol Mode.

   If the following condition is true, the print options in the PCS file are used.

   • The job is a PPD pamphlet job.

2. The Job ID appears as the Filename.

3. The *Print* button is relabeled "Reprint."

4. Printer/Type is set to the printer name and type originally requested in the job.

5. The File Type is set to the value determined by the Print Server Software which is represented by the PCS file.

6. The following controls are disabled. The default behavior is shown in parentheses, where appropriate:

   • Edit menu

   • Preferences → Filename Display As (Filename)

   • Preferences → Server (Local)

   • Drag and Drop Target

7. When you select the *Reprint* button, a header is prepended consistent with the print client with the following addition:

• If a Job ID had been assigned to the job by the Network Imaging System print server, the Job ID value found in the PCS file is prepended.

8. When you select Reprint, the job is submitted to NCS using the dqp.scl protocol after prepending a new header specifying the options that were indicated in the system print client user interface at the time (consistent with the current functionality of the system print client). This causes the job to be re-autoqueued to the local system print server.

9. After the job is resubmitted, the Print Client Software interface will be automatically exited.

10. If the Print Client Software window is closed using the OpenWindows window controls or by choosing Exit from the File menu, the user interface is exited and the job is placed in its original queue.

11. The modify operation is logged in the Job Management log as a Modify of the original job. When the job is re-autoqueued, it goes through the same job states as a newly arriving job (that is, spooled, queued) although the Job ID will be the same as before it was modified.

12. All Print Client Software user-specific files which would normally be stored under the client user's home directory are stored in */var/spool/srv_modify/.printdir* instead.

This approach has the following limitations:

• When default options are used, embedded print options (such as setpagedevice) may be overridden.

• When the job is resubmitted, it may not return to the same queue.

• When the job is resubmitted, the job will autoqueue as the last job in its queue. If the user wishes to prioritize the job, a separate top-queuing step will be required.

13. Consistent with the behavior of the Print Client Software, if any papers specified in the original job are not in the Print Client Software paper catalog, the mismatching paper definitions are replaced with papers that are in the catalog. In such cases, a warning is displayed. The modify options interface uses the root's paper catalog as the default paper catalog.

14. You can select multiple files to be modified at once. When this is done, the jobs use individual or common options consistent with the current functionality of the Print Client Software.

Appendix D Printer Specific Notes

Network Imaging System

Setting Up Printers

When you are printing without choosing a print server (that is, using the <None> server entry), you must create a database of printers before you can print to them using Print Client Software.

When attempting to print jobs to printers attached to remote servers, it is preferable to select the remote server by its host name for the server preference rather than the <Local> server, even if the local server has queues for the remote printers.

> While Network Imaging Systems can be set up with a server device of "<None>," print requests sent to those printers are routed through the Print Server Software loaded on the printer's Sun workstation.

Available Print Options

The following table contains the Print Client Software options that are supported by the Network Imaging System.

Print Options and <Any> Printer Types

When the selected printer type is <Any>, you can choose any options available within the Print Client Software. Not all options are available on every printer. It is possible to select a combination of options that may not print successfully. To avoid document configurations that cannot print correctly, select your printer from the printer type list.

Table D-1 Print options

Feature	Option	Window
Body Paper		**Main**
Copies	1–99,999	
Document Page Order	First Page First	
	Last Page First	
File Type	Adobe PostScript	
	PCL5	
	PCL6	
	Lineprinter	
	CCITT	
	PDF	
	KGL	
Job Mode	Simplex	
	Duplex	
	Pamphlet	
	Interleaves	
Pages	Range	
Front/Back Covers	Preprinted/Blank	
	Print Side 1	
	Print Side 2	
	Print Both Sides	
Front/Back Cover Paper		
Collated Copies		

Feature	Option	Window
Device	Stacker	**Main**
	Booklet Maker	
	Top Exit	
	Stapler	
Folding	None	
	Saddle Fold, 22 sheets, max	
Stacking	Offset	
	Straight	
Stapling	None	
	Top	
	Bottom	
	2 Left Edge	
	Saddle Stitch	
Rotation	0	
	90	
	180	
	270	
Charge Number	31 characters, max	**General Options**
Deliver To	64 characters, max	
Destination	99 characters, max	
Operator Message	80 characters, max	
User ID	63 characters, max	
E-mail to	63 characters, max	

Feature	Option	Window
Paper Color	White	**Paper Catalog**
	Red	
	Yellow	
	Blue	
	Green	
	Clear	
	Any	
Paper Size	Letter	
	Legal	
	Ledger	
	A4	
	A3	
	Letter Tab	
	A4 Tab	
	8 x 10.5	
	manual	
	9 x 14 in.	
	8 x 10 in.	
	8.5 x 10 in.	
	RA4 (215 x 305 mm)	
	RA3 (305 x 430 mm)	
	14 x 17 in.	
	12 x 18 in.	
	14 x 18 in.	
Paper Type	plain	
	cover	
	transparency	
	color	
	punched	
	recycled	

Feature	Option	Window
Paper Weight	20 lb. Bond	**Paper Catalog**
	24 lb. Bond	
	32 lb. Bond	
	50 lb. Bond	
Mode	Inserter	
	1-Sided	
	1, 2-Sided	
New Chapter	n, n...n, n..., ...n, 1...	**Paper Exceptions**
Inserts	^n, n^	
Slipsheets	n, n...n, n..., ...n, 1...	
New Chapter	Finish Separately	
Paper		
Exception Mode	<Job Mode>	
	Simplex	
	Duplex	
Filename(s) display as	Pathname(s)	**Preferences**
	Filename(s)	
Print Options	Individual	
	Common	
Units	inches	
	cm	
	mm	
	points	
	centipoints	

Feature	Option	Window
Compile Only-Do Not Print		Printer Controls
Custom Printer Commands		
Interleave Paper		
Interleaves	Printed	
	Blank	
Maximum Pamphlet Size	1–999 (4–3997 pages)	
Paper Mismatch Handling	Notify then Cancel	
Proof Set		
Status Page	None	Printer Controls
	Always	
	Always-1st Page Only	
	Only on Error	
Status Page Paper		
Two Sided Format	Flip on Long Edge	
	Flip on Short Edge	
Set Separators		
Set Separator Paper		

* The indicated printers accept fewer characters than the Print Client Software permits.

Printing a Two-Sided, Stapled Document with Covers

For the Network Imaging System, you can have front and back covers that have different attributes (plex of the job and paper type).

For example, you can specify a duplex front cover on plain paper *and* a simplex back cover on blue paper. Pamphlets, however, can have only one cover specified.

Print Options

Job Mode—

Interleaves—

Paper exceptions will be ignored when the Interleaves Job Mode is selected.

File Type—

If the file type is set incorrectly, jobs may not print as expected. When using the Print Client for modifying the options of the jobs in the Network Imaging System print server queues, changing the File Type may yield unexpected results.

Emulation Types—

File Type
Adobe PostScript
PCL5
PCL6
Lineprinter
CCITT
Adobe PDF
KGL

Covers—

For optimum printer throughput with the Network Imaging System, if the document is to be printed as a pamphlet with cover options "Print Side 1" or "Print Side 2," it is preferrable to recreate the document with duplex covers. To change the covers to duplex, in the original document, insert a blank page or page break adjacent to the cover page and then when using the print client, choose "Print Both Sides" for the cover option.

Choosing Cover "Print Side 1" in jobs sent to the Booklet Maker will cause the job to be redirected to the top exit. To avoid this problem, regenerate the print-ready file with a blank page on page 2. When reprinting the file using the Print Client, choose "Print Both Sides."

Stapling—allows you to specify if (and where) printed sets are stapled. Different options are available depending on the selected printer type.

Short-edge-fed, Top Staple—

On the Network Imaging System printers, you can work around image orientation problems by using the Rotation features in the Page Placement Options window. Refer to Section 4 "Printer Controls" for more information.

Rotate Front and Back are not operational for the Network Imaging System. Choose Both to rotate both sides of the pages.

Z-fold—

This feature is not available on the Network Imaging System.

Printer Controls

Paper Mismatch Handling—the action the printer will take if a specified paper, stacking, and/or stapling option does not match the option displayed on the printer console.

Table D-2 Paper mismatch handling

Printer Type	Paper Mismatch Handling Options		
	Substitute	**Notify then Cancel**	**Trust Me**
Network Imaging System	Not supported	A message describing the mismatch appears on the printer console. Jobs that time out are put into a hold queue.	Not supported

Maximum Pamphlet Size—allows you to specify the maximum size of your pamphlet. You also can use this field to break up a large job into multiple smaller pamphlets that can be bound together to make a book.

The maximum number of pages is printer-dependent.

Table D-3 Maximum pamphlet sizes

Printer Type	Maximum Pamphlet Size
Network Imaging System	22 sheets (88 pages) folded and stapled 250 sheets (999 pages) not folded or stapled

Set Separators—when checked, document sets are delivered with a blank sheet of paper between sets when multiple sets are requested. Using separators provides easy retrieval of document sets and is an alternative to offset stacking. If the check box is selected, a finished job has separator sheets between sets.
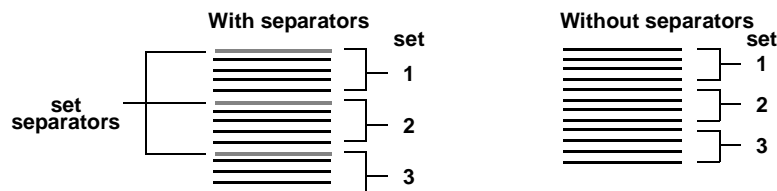
Figure D-1 Example of set separators

Paper Options

> The Network Imaging System honors only six paper type requests in a job, including body paper, covers, paper exceptions, and so forth.

70cp-II Printers

Setting Up the System Defaults

The system defaults were established during installation. You should establish system defaults for the Preferences window before you use Print Client Software. You must be logged in as root in OpenWindows to modify any system default. The fields in the Preferences window are described on .

To switch to a different paper catalog:

If you are adding a new printer to your network that is a different type than used previously, you may want to add the standard paper definitions for that printer type to your current default paper catalog, or replace your default catalog with the Print Client combined paper catalog which includes the standard paper definitions for all printers.

For example, if you have been using the Print Client Software with a Network Imaging System and have added a copier-printer to your network, you may want to either switch to the combined paper catalog or add the copier-printer paper definitions to your current catalog.

> The period (.) is part of the command.

1. As root, type **cd /usr/srv/lib/databases/databases.scl/media** [RETURN].

2. Type **cp /.printdir/media_catalogs/def_media_catalog.mc .** [RETURN].

3. Enter the following command:

To add the 70cp-II copier-printer paper definitions to your current catalog:

Type **cat is70_media_catalog.mc >> def_media_catalog.mc** [RETURN].

To add the paper definitions for all supported printers from the combined paper catalog to your current catalog:

1. Type **cat combined_media_catalog.mc >> def_media_catalog.mc** [RETURN].

2. Type **cp def_media_catalog.mc /.printdir/media_catalogs/** [RETURN].

3. Enter the following commands:

   cp -p combined_media_colors media_colors [RETURN]

   cp -p combined_media_sizes media_sizes [RETURN]

   cp -p combined_media_types media_types [RETURN]

   cp -p combined_media_weights media_weights [RETURN]

Available Print Options

The following table contains the Print Client Software options that are supported by the 70cp/70cp-II and 1580 printers.

When the selected printer type is <Any>, you can choose any options available within the Print Client Software. Not all options are available on every printer. It is possible to select a combination of options that may not print successfully. To avoid document configurations that cannot print correctly, select your printer from the printer type list.

Table D-4 Print options

Feature	Option	Window
Body Paper		**Main**
Copies	1–999	
Document Page Order	First Page First	
File Type	Adobe PostScript	
	PCL5	
Job Mode	Simplex	
	Duplex	
	Pamphlet	
	Interleaves	
Orientation	Default	
	Portrait	
	Landscape	
Pages	Range	
Front/Back Covers	Preprinted/Blank	
	Print Side 1	
	Print Both Sides	
Front/Back Cover Paper		

Feature	Option	Window
Red	Automatic	**Color**
	Red	
	Green	
	Blue	
	Yellow	
	Black	
Green	Automatic	
	Red	
	Green	
	Blue	
	Yellow	
	Black	
Blue	Automatic	
	Red	
	Green	
	Blue	
	Yellow	
	Black	
Cyan	Automatic	
	Red	
	Green	
	Blue	
	Yellow	
	Black	
Magenta	Automatic	
	Red	
	Green	
	Blue	
	Yellow	

Feature	Option	Window
Yellow	Automatic	**Color**
	Red	
	Green	
	Blue	
	Yellow	
	Black	
Black	Automatic	
	Red	
	Green	
	Blue	
	Yellow	
	Black	
All Bitmaps	Automatic	
	Red	
	Green	
	Blue	
	Yellow	
	Black	
Collated Copies		**Main**
Device	Finisher	
Folding	None	
	Saddle Fold	
	Z-fold	
Stacking	Offset	
	Straight	
Stapling	None	
	Top	
	Bottom	
	2 Left Edge	
	3 Left Edge	
	Saddle Stitch	

Feature	Option	Window
Charge Number	31 characters, max	**General Options**
Destination	99 characters, max	
Operator Message	80 characters, max	
User ID	63 characters, max	
Adjust Orientation		
Mode	1-Sided	**Paper Catalog**
	1,2-Sided	
Paper Color	White	
	Red	
	Yellow	
	Blue	
	Green	
	Clear	
Paper Size	Letter	
	Legal	
	Ledger	
	A4	
	A3	
	Letter Tab	
	A4 Tab	

Feature	Option	Window
Paper Type	plain	**Paper Catalog**
	cover	
	transparency	
	color	
	punched	
	recycled	
	3hole	
	4hole	
	letterhead	
	label	
	shortedge	
	inserttray	
	Transverse Tray	
	tab	
	special	
	tray1	
	tray2	
	tray3	
	\<Any\>	
	Other	
Paper Weight	20 lb. Bond	
	24 lb. Bond	
	32 lb. Bond	
	50 lb. Bond	
New Chapter	n, n...n, n..., ...n, 1...	**Paper Exceptions**
Inserts	^n, n^	
Slipsheets	n, n...n, n..., ...n, 1...	
Paper		
Exception Mode	\<Job Mode\>	
	Simplex	
	Duplex	

Feature	Option	Window
Filename(s) display as	Pathname(s)	**Preferences**
	Filename(s)	
Print Options	Individual	
	Common	
Units	inches	
	cm	
	mm	
	points	
	centipoints	
Compile Only-Do Not Print		**Printer Controls**
Custom Printer Commands		
Interleave Paper		
Interleaves	Printed	
	Blank	
Maximum Pamphlet Size	1–30 (4–120 pages)	
Paper Mismatch Handling	Substitute	
	Notify then Cancel	
	Trust Me	
Proof Set		
Status Page	None	**Printer Controls**
	Always	
	Always-1st Page Only	
	Only on Error	
Status Page Paper		
Two Sided Format	Flip on Long Edge	
	Flip on Short Edge	
Set Separators		
Set Separator Paper		

* The indicated printers accept fewer characters than the Print Client Software permits.

Printing a Two-Sided, Stapled Document with Covers

> For the 70cp-II copier-printer, you can have front and back covers that have different attributes (plex of the job and paper type).
>
> For example, you can specify a duplex front cover on plain paper *and* a simplex back cover on blue paper. Pamphlets, however, can have only one cover specified.

Print options

Pamphlet—output is printed so sets can be saddle-folded (folded in half) and formatted as a book. Blank pages are added by the printer at the end of the document to make an even multiple of four pages.

Any blank pages selected with Pamphlet mode are counted as part of the maximum pamphlet size. For example, if Preprinted/Blank is selected as the Front Cover option for a 100 page pamphlet, a maximum pamphlet size greater than 25 sheets should be selected.

> When printing pamphlets on a 70cp-II copier printer, specify a paper that is pulled from a short-edge-fed paper supply.
>
> When folding and stapling pamphlets with a 70cp-II copier-printer, you may have to adjust mechanical settings inside the printer accessories. For more information about pamphlets, refer to your printer's user guide.

On the 70cp-II copier-printer, you can get the desirable printed result if you set up the target paper supply in the "short-edge-fed" orientation and select "Top" in the Stapling field.

Short-edge-fed, Top Staple
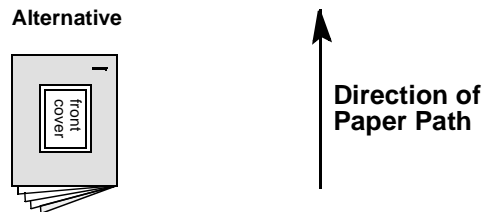
Figure D-2 Example of stapling on the short edge

Printer Controls

Paper Mismatch Handling—the action the printer will take if a specified paper, stacking, and/or stapling option does not match the option displayed on the printer console.

Table D-5 Paper mismatch handling options

Printer Type	Paper Mismatch Handling Options		
	Substitute	**Notify then Cancel**	**Trust Me**
70cp-II	A message describing the mismatch appears on the printer console. If no operator action is taken within the printer- controlled time span (120 seconds), the printer selects the closest match to the requested option.	A message describing the mismatch appears on the printer console. If no operator action is taken within the printer-controlled time span (120 seconds), the job is cancelled.	The printer selects the closest match to the requested option.

Maximum Pamphlet Size—allows you to specify the maximum size of your pamphlet. The maximum number of pages is printer-dependent.

Printer Type	Maximum Pamphlet Size
70cp-II	15 sheets (60 pages) folded and stapled 30 sheets (120 pages) not folded or stapled

Paper—subfields allow you to choose a paper for job header and status pages.

> When you use the 70cp-II copier-printer, if you select "<Default Paper>," status pages will print on the paper that is in the main paper supply, regardless of the selection in the Body Paper field in the Print Client Software main window.
>
> For more information about defining new papers, refer to Section 5 "Paper Options".

Color

The Color window allows you to customize the mapping of color components to toners when printing with accent color.

To open the Color window:

1. Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select Color from the Document menu.

   The Color window opens.

Field Descriptions

Accent Color—when checked, accent color is available. When this box is not checked, the other fields in this window are grayed out and accent color is not available.

Accent Color will not print on half-Letter pamphlets for IS70-II printers.

If the file you are printing contains an encapsulated PostScript language file created using "XV" on the Sun system, the file does not print when using accent color.

When printing to the 70cp-II copier-printer, some documents created by drivers may print in color even when the Accent Color check box is not selected. These documents contain embedded PostScript language commands which allow the 70cp-II copier-printer to detect that the documents contain color. You can override the default color mode of these documents and force black-only printing on the 70cp-II copier-printer by performing the following steps:

Position the pointer over the *Document* button in the Print Client Software main window. Holding down the Menu mouse button, select Printer Controls from the Document menu.

The Printer Controls window appears.

Move the pointer into the Custom Printer Commands text box.

Type `%KDKAccentColor: off` in the text box. This command is case-sensitive.

Click the *Apply* button to save the changes.

The *%KDKAccentColor: off* command is supported only by the 70cp-II copier-printer. If this custom command is sent to another printer, unexpected printing results will occur.

Custom printer commands are saved with the rest of the selected options in the print options file. As a result, if you retrieve the document and its associated print options file, it prints in black-only unless you delete the *%KDKAccentColor: off* command from the Custom Printer Commands text box.

The *%KDKAccentColor: off* command takes precedence over the status of the Accent Color check box in the Color window. However, you can still use the Color window to customize display color mapping.

Display Color—lists the color components that can be mapped to the toners installed in the system. This represents the colors of objects and text on your screen.

Printer Color—allows you to map color components either to automatic or custom specifications. You can customize the mapping of color components to toners through selections in this field. For example, the black component could be mapped to a red toner. You can customize the mapping of any or all of the eight color components. The components that are not custom mapped continue to be mapped automatically.

Up to four toners (black and three colors) can be selected. If you select more than four toners and click the *Apply* button, a warning message appears.

The default selection is "Automatic." If you select "Automatic" in the Printer Color field, the printer will automatically map the color components that you selected and applied to the document to the installed toners at print time. No user intervention is necessary.

Apply—saves any changes you have made.

Reset—resets all values in the window to what they were when the window was opened or the *Apply* button was last clicked.

Accent Color Mapping

The Accent Color filter takes color specifications in red, green, and blue (RGB) and cyan, magenta, yellow, and black (CMYK) color spaces. The color mapping algorithm used by the Accent Color filter converts the color spaces into the HSB (hue, saturation, and brightness) color model. The hue is a value between "0" and "1" that indicates which of the following colors is represented: black, gray, white, red, green, blue, cyan, magenta, or yellow.

Table D-6 HSB Color Mapping

Color	Hue	Saturation	Brightness	Default Toner
Black	0	0	0	Black
Gray	0	0	>0 to <1.0	Black
White	0	0	1	n/a
Red	0.875 to 1.0 0 to 0.125	>0 to 1.0	>0.4 to 1.0	Red
Green	0.208 to 0.458	>0 to 1.0	>0.4 to 1.0	Green
Blue	0.542 to 0.792	>0 to 1.0	>0.4 to 1.0	Blue
Cyan	0.458 to 0.542	>0 to 1.0	>0.4 to 1.0	50% Blue
Magenta	0.792 to 0.875	>0 to 1.0	>0.4 to 1.0	50% Red
Yellow	0.125 to 0.208	>0 to 1.0	>0.4 to 1.0	Yellow or 50% Green
Dark Colors	>0 to 1.0	>0 to 1.0	>0 to 0.4	Black

The following chart shows the relationship between hue and the color it indicates.
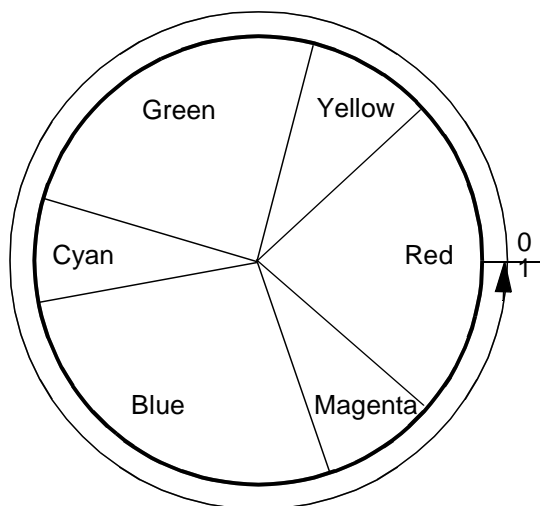
Figure D-3 Hue versus color

The saturation value is calculated by the following formula:

saturation value = *maxRGB – minRGB / maxRGB*

The brightness value is the maximum value of the RGB representation of color. A brightness value of "1" represents a pure color (for example, 1 0 0 RGB is a pure red). A brightness value less than "1" represents a darker shade of a color approaching black.

Brightness values of 0.4 or less are represented as shades of gray, as determined by the following formula:

% gray = 1 – (0.3R + 0.59G = 0.11B) ∗ 100

The percentage of toner used to represent the requested RGB values for colors other than black, gray, or white is determined by the following formula:

if brightness < 0.98 and brightness > 0.4

then brightness = 1.0 – brightness + 0.4

% toner = brightness ∗ saturation ∗ 100

Cyan, magenta, and yellow (if yellow toner is not present), are mapped to 50% of their default toner as defined on the previous page. If these colors are mapped specifically to a color in the printer driver, they will be mapped 100% to the requested toner.

A pure color is represented by applying 100% of a toner. A darker shade of a color cannot be represented without mixing it with black; however, toners cannot be mixed. Darker shades of a color are represented by 40 to 100% of a toner (represented in the formula shown above, where brightness < 0.98).

If any of the red, green, or blue toners is not available and the colors are mapped to "Automatic" in the Printer Driver, they will be represented by the first available toner in the following priority order: red, green, blue, yellow.

The following formula is used to calculate the percent of toner that will be used by the 1580 copier-printer, the 70cp copier-printer, or the 70cp-II copier-printer:

% toner = 1.0 – (0.3R + 0.59G + 0.l11B) ∗ 100

The following illustration shows the relationship between brightness and saturation.
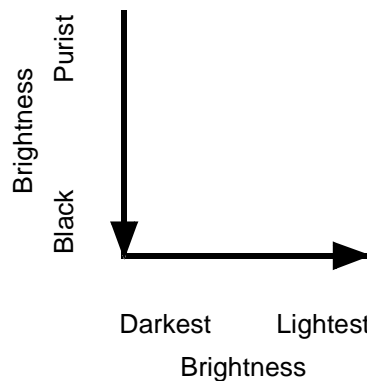
Figure D-4 Brightness versus saturation

For every brightness level, a dark-to-light range can be specified.

Some applications give you color editing capabilities that can control the hue, saturation, and luminance. A 0.5 luminance value equals a 1.0 brightness value. As the luminance goes from 0.5 to 1.0, the shade of the color will become darker. As the value goes from 0.5 to 0, the shade will become lighter.

Color Mapping Tables

The tables in this section may help you understand how the 70cp-II copier-printer map display colors.

RGB and CMYK Color Mapping Table

The following table shows the *setrgbcolor* and *setcmykcolor* values that will be used for each display color, respectively.

Table D-7 RGB and CMYK color mapping

Color	Red	Green	Blue	Yellow	Magenta	Cyan	Black	White
RGB	1 0 0	0 1 0	0 0 1	1 1 0	1 0 1	0 1 1	0 0 0	1 1 1
CMYK	0 1 1 0	1 0 1 0	1 1 0 0	0 0 1 0	0 1 0 0	1 0 0 0	0 0 0 1	0 0 0 0

Filter Tables

If a selected color is a mixture of the color separations that are available, then the most dominant of the RGB values determines the toner that will be used. The mapping for RGB color separations is based on the following formula:

$$\% \text{ gray} = (\text{red} * 0.30) + (\text{green} * 0.59) + (\text{blue} * 0.11)$$

The following tables show how the filter will map the display color requested in the job to the color toners (one, two, or three) that are installed in the 1580 copier-printer, the 70cp copier-printer, and the 70cp-II copier-printer.

Table D-8 One color station in printer

Display Color	Red Toner Only	Green Toner Only	Blue Toner Only	Yellow Toner Only
Red	100%	70%	70%	70%
Green	41%	100%	41%	41%
Blue	89%	89%	100%	89%
Yellow	11%	50%	11%	100%
Magenta	50%	59%	59%	59%
Cyan	30%	30%	50%	30%

Table D-9 Two color stations in printer

Display Color	Red & Green Toners	Red & Blue Toners	Red & Yellow Toners	Green & Blue Toners	Green & Yellow Toners	Blue & Yellow Toners
Red	100% Red	100% Red	100% Red	70% Green	70% Green	70% Blue
Green	100% Green	41% Red	41% Red	100% Green	100% Green	41% Blue
Blue	89% Red	100% Blue	89% Red	100% Blue	89% Green	100% Blue
Yellow	50% Green	11% Red	100% Yellow	50% Green	100% Yellow	100% Yellow
Magenta	50% Red	50% Red	50% Red	59% Green	59% Green	59% Blue
Cyan	30% Red	50% Blue	30% Red	50% Blue	30% Green	50% Blue

Table D-10 Three color stations in printer

Display Color	Red & Green & Blue Toners	Red & Green& Yellow Toners	Red & Blue & Yellow Toners	Green & Blue & Yellow Toners
Red	100% Red	100% Red	100% Red	70% Green
Green	100% Green	100% Green	41% Red	100% Green
Blue	100% Blue	89% Red	100% Blue	100% Blue
Yellow	50% Green	100% Yellow	100% Yellow	100% Yellow
Magenta	50% Red	50% Red	50% Red	59% Green
Cyan	30% Red	30% Red	50% Red	50% Blue

Paper Options

> You can use two exception papers with the 70cp-II copier-printer.

Type—allows you to select a paper type for the current paper definition.

These special paper types provide for customization of the paper catalogs and printer configuration.

Table D-11 Special paper types

Type	Intended Use
shortedge	Some jobs require paper that is short-edge-fed. Paper can be loaded in the short edge orientation and have one of the usual type designations such as "plain." However, it may be helpful to designate the paper type as "shortedge."
tray1, tray2, tray3, inserttray	You may prefer to select paper by tray number, rather than by paper attributes. These types allow you to do so.

To use these paper types, you must first configure the printer paper supplies. Except for "inserttray," these paper types are not used in any of the predefined entries in the paper catalogs. You must create the custom paper definitions.

> Any paper type can be used in any paper supply. However, it is easy to confuse "Insert Supply," which is a paper supply that is located in the printer's finisher, with "inserttray," which is a paper type that is valid for any paper supply. For ease of use, you can designate the "inserttray" paper type only for the Insert Supply.
>
> The Insert Supply is intended only for blank pages or preprinted inserts. You cannot print on paper in the Insert Supply.
>
> If you do not have a finisher, you can use the "inserttray" paper type for another paper supply. You can also use "inserttray" for another paper supply to use more than one insert paper.

Setting Up Printers

When you are printing without choosing a print server (that is, using the <None> server entry), you must create a database of printers before you can print to them using Print Client Software.

When attempting to print jobs to printers attached to remote servers, it is preferable to select the remote server by its host name for the server preference rather than the <Local> server, even if the local server has queues for the remote printers.

> While 92p/92sp printers can be set up with a server device of "<None>," print requests sent to those printers are routed through the Print Server Software loaded on the printer's Sun workstation.

Setting Up the System Defaults

The system defaults were established during installation. You should establish system defaults for the Preferences window before you use Print Client Software. You must be logged in as root in OpenWindows to modify any system default. The fields in the Preferences window are described on page 1-10.

To switch to a different paper catalog:

If you are adding a new printer to your network that is a different type than used previously, you may want to add the standard paper definitions for that printer type to your current default paper catalog, or replace your default catalog with the Print Client combined paper catalog which includes the standard paper definitions for all printers.

For example, if you have been using the Print Client Software with a Network Imaging System and have added a copier-printer to your network, you may want to either switch to the combined paper catalog or add the copier-printer paper definitions to your current catalog.

> The period (.) is part of the command.

1. As root, type **cd /usr/srv/lib/databases/databases.scl/media** [RETURN].

2. Type **cp /.printdir/media_catalogs/def_media_catalog.mc .** [RETURN].

3. Enter the following command:

To add the 92p printer paper definitions to your current catalog:

1. Type **cat 92p_media_catalog.mc >> def_media_catalog.mc** [RETURN].

To add the paper definitions for all supported printers from the combined paper catalog to your current catalog:

1. Type **cat combined_media_catalog.mc >> def_media_catalog.mc** [RETURN].

2. Type **cp def_media_catalog.mc /.printdir/media_catalogs/** [RETURN].

3. Enter the following commands:

   cp -p combined_media_colors media_colors [RETURN]

   cp -p combined_media_sizes media_sizes [RETURN]

```
cp -p combined_media_types media_types [RETURN]

cp -p combined_media_weights media_weights [RETURN]
```

Setting Up User Defaults

After you install Print Client Software, you can set up the user default paper catalog and user default print options.

Server—Allows you to select a specific print server. You can also choose to print directly to a printer by selecting <None> in the Server list box. Once documents have been added to the document scrolling list, you cannot make any changes in the Server field.

> While 92p/92sp printers can be set up with a server device of "<None>", print requests sent to those printers are routed through the Print Server software loaded on the printer's Sun workstation .

Available Print Options

The following table contains the Print Client Software options that are supported by the 92p/92sp printers.

Print Options and <Any> Printer Types

When the selected printer type is <Any>, you can choose any options available within the Print Client Software. Not all options are available on every printer. It is possible to select a combination of options that may not print successfully. To avoid document configurations that cannot print correctly, select your printer from the printer type list.

Table D-12 Print options

Features	Option	Window
Body Paper		**Main**
Copies	1–65535	
Document Page Order	First Page First	
File Type	Adobe PostScript	
Job Mode	Simplex	
	Duplex	
Front/Back Covers	Print Side 1	
	Print Both Sides	
Front/Back Cover Paper		
Collated Copies		
Device	Finisher	
	Top Exit	
	Side Exit	
Stacking	Offset	
	Straight	
Stapling	None	
	Top	
	Bottom	
	2 Left Edge	
Charge Number	31 characters, max	**General Options**
Deliver To	64 characters, max	
Destination	99 characters, max	
Operator Message	80 characters, max	
User ID	63 characters, max	
E-mail to	64 characters, max	

Features	Option	Window
Mode	1-Sided	**Paper Catalog**
	1, 2-Sided	
Paper Color	White	
	Red	
	Yellow	
	Blue	
	Green	
	Clear	
	<Any>	
	Other	
Paper Size	Letter	
	Legal	
	A4	
	Letter Tab	
	A4 Tab	
	8 x 10.5	
Paper Type	plain	**Paper Catalog**
	cover	
	transparency	
	color	
	punched	
	recycled	
	3hole	
	4hole	
	letterhead	
	<Any>	
	Other	
Paper Weight	20 lb. Bond	
	24 lb. Bond	
	32 lb. Bond	
	50 lb. Bond	

Features	Option	Window
New Chapter	n, n...n, n..., ...n, 1...	**Paper Exceptions**
Slipsheets	n, n...n, n..., ...n, 1...	
Paper		
Exception Mode	<Job Mode>	
	Simplex	
	Duplex	
Filename(s) display as	Pathname(s)	**Preferences**
	Filename(s)	
Print Options	Individual	
	Common	
Units	inches	
	cm	
	mm	
	points	
	centipoints	
Custom Printer Commands		**Printer Controls**
Job Header Page		
Paper Mismatch Handling	Substitute	
Status Page	None	
	Always	
	Only on Error	
Two Sided Format	Flip on Long Edge	
	Flip on Short Edge	
Set Separators		
Set Separator Paper		

* The indicated printers accept fewer characters than the Print Client Software permits.

Printing a Two-Sided, Stapled Document with Covers

> For the 92p/92sp printers, if both front and back covers are selected, they must have the same attributes (sides and paper type).

Printer Controls

Paper Mismatch Handling—the action the printer will take if a specified paper, stacking, and/or stapling option does not match the option displayed on the printer console.

Table D-13 Paper mismatch handling options

Printer Type	Paper Mismatch Handling Options		
	Substitute	**Notify then Cancel**	**Trust Me**
92p/92sp	A warning message appears at the 92p/92sp system console, but no operator intervention is required. The printer selects the closest match to the requested options.	Not supported	Not supported

Paper Options

> You can use one exception paper in the 92p/92sp printer.

Page List—lists the page(s) where specified paper types are to be used in the document.

> The $^\wedge n$ and $n^\wedge$ options are not available for the 92p/92sp printers.

Size—allows you to select a paper size for the current paper definition.

> The printable image area for a 92p/92sp printer is limited to 8.5″ x 13.65″.

Paper Definition—

> When you are defining a paper for use with the 92p/92sp printer, the paper name you enter should be exactly as specified on the 92p/92sp printer as a paper tag.

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