IBM InfoPrint Manager 3.1 for AIX

APAR IX88982 Documentation (6/30/99)

IBM Infoprint Manager 3.1 for AIX

APAR IX88982 Documentation

Support for InfoPrint Color 100 AFP

Now, Infoprint Manager Version 3 Release 1 gives an application programmer the ability to **add color to black and white documents** to be printed on the Infoprint Color 100 AFP printer and an Infoprint 4000 printer with an InfoPrint Hi-Lite Color Model HC2 Post-Processor (HCPP). For more information, refer to both the **cmt** utility on page I, and Generating Color Mapping Tables Source and Output Files on page 18.

You can also use **Infoprint Manager's new color fidelity option** to control how jobs with data stream errors should be handled at the Infoprint Color 100 AFP printer. Save wasted time and paper for true production work by preventing jobs with errors from printing. Or, allow work-in-progress jobs that contain color exceptions to print.

For important installation information, see Configuring the InfoColor 70 and the Infoprint Color 100 on page 2.

Performance Improvements on Infoprint Color Printers

Multiple RIP support is currently available for the InfoColor70 and Infoprint Color 100 printers. Jobs submitted through Infoprint Manager configured for multiple RIP support will automatically be routed to the available processor to enable simultaneous RIPing (processing) of jobs.

Large variable data split runs are supported through Infoprint Manager to enable multiple ripping on Infoprint color printers. You can create large variable data jobs and use Quark XPress to split the print run into multiple segments that are included in a single Infoprint Submit job ticket.

Optimize your Infoprint color printer Collator with Infoprint Manager controls. Infoprint Manager automatically deletes RIPed files from your collator if they were submitted without a retention period. If you intend to reprint a job, you can submit it as a retained job by specifying a retention period for the job. The next time you print, the RIPed file that is saved on your collator will be printed.

You can also delete jobs that are saved on the collator by simply deleting them from the list of jobs you manage using the Infoprint Manager Administrator's GUI.

For more information on Infoprint attribute changes available with this release, see Infoprint Object Attributes at the URL http://www.printers.ibm.com/R5PSC.NSF/Web/refip3991.

Configuring the Infoprint Color 100 and the Infoprint Color 70 Printers

The InfoColor 70 and Infoprint Color 100 printers require special configuration for optimal performance in an Infoprint Manager environment. The InfoColor 70 ships with its own AIX (RS/6000) system, and the Infoprint Color 100 ships with its own Windows NT system. These systems, refered to below as printer CPUs, are dedicated to performing raster image processing (RIP) and other management functions for the printers. In addition, you may have purchased one or more NT or AIX systems to function as additional "offline RIP" systems. These offline RIP systems are designed to accelerate the printing process. If your Infoprint Manager installation uses an InfoColor 70 or Infoprint Color 100 printer, the printer CPU must be configured as directed in the hardware documentation.

Configuring AIX Offline RIP Systems

The AIX printer CPU that shipped with the InfoColor 70 printer must be configured as an offline RIP system. At any time, you may add AIX systems to accelerate RIPs for your InfoColor 70 or Infoprint Color 100 printer. These systems must also be configured as offline RIP systems.

To configure an AIX system to function as an offline RIP system, install and configure the FastRip Postscript interpreter program as directed in its documentation. Then install and configure the **colorRipd** program by following these steps:

1. Log into the AIX system as **root**.
2. Insert the gold "Infoprint Manager for AIX Server 1" CD-ROM into the CD-ROM reader.
3. Open a terminal window. (If you are using the Common Desktop Environment (CDE), you may open a terminal window by clicking on the terminal icon contained in the front panel. (The front panel is the task bar that appears at the bottom of the screen.) By default, the terminal icon is contained in a popup menu above the text editor icon that appears on the front panel.
4. If you have not done so previously, create a CD-ROM file system as described below.
5. Type `mount /cdrom` at the command line.
6. Type `/cdrom/cfgColorRipd` at the command line.
7. Provide the information as prompted.

All that is left is to start the **colorRipd** process. The **colorRipd** process cannot be run as a daemon. (Do not attempt to automatically start colorRipd at boot time by making an entry into **/etc/inittab**.) The **colorRipd** process must be started manually. To start **colorRipd**, simply invoke the **runColorRipd** script that resides in the working directory specified during the configuration process. For example, if you specified **/rip1** as the working directory, the following command would start **colorRipd**:

```
/rip1/runColorRipd
```

If your AIX system has multiple processors, you may wish to run more than one instance of **colorRipd** simultaneously on the same AIX system. To do this, you must simply repeat the procedure described above, but specify a different working directory. Each running instance of **colorRipd** must have its own independent working space.

Creating the CD-ROM File System on AIX

Perform the following steps to create a CD-ROM file system only if you have not done so previously:

1. Type smit cdrfs on the command line.
2. Select **Add a CDROM File System** from the list of choices presented.
3. Click the **List** button and select your CD-ROM device name (`cd0`, for example).
4. Type `/cdrom` in the **MOUNT POINT** field.
5. Click **OK**. The running person will raise his arms to indicate success. If he instead falls down and you see

   ```
   crfs: 0506-909 /cdrom file system already exists
   ```

   do not interpret this as a failure. (The existing **/cdrom** file system should be usable.)
6. Press the **F12** key to exit SMIT.

Configuring Windows NT Offline RIP Systems

The NT printer CPU that shipped with the Infoprint Color 100 printer must be configured as an offline RIP system. To configure an NT system to function as an offline RIP system, install and configure the Postscript interpreter program you wish to use as directed in its documentation. Then install and configure the colorRipd program by following these steps:

1. Insert the blue "Infoprint Manager Clients: Windows 95, Windows NT, & Macintosh" CD-ROM into the drive.
2. Navigate to the **\colorRipd** directory on your CD-ROM drive.
3. Double-click on the **setup** icon and provide the information as prompted by InstallShield.

At any time, you may add a Windows NT system to accelerate RIPs for your Infoprint Color 100 or InfoColor 70 printer. Each NT offline RIP system must be configured by following the procedure described above.

Modifying Your colorRipd Configuration

To make changes to your **colorRipd** configuration, you must modify the property settings in the **colorRipd.cfg** file that resides in your working directory. A description of each configurable attribute follows.

crd_port

The TCP/IP port that this instance of **colorRipd** will monitor. Each instance of **colorRipd** running on a system must monitor a different port. The default is 11126.

crd_work_directory

A temporary working directory used for small files. By default, the ini subdirectory under the working directory is used.

crd_log_file

The file used to log output from colorRipd. A backup log is periodically created by appending **.BAK** to this file name. By default, **colorRipd.log** in the working directory is specified.

crd_log_file_size

The size of the log file before it wraps. Value is in bytes. The default value is 1024000 (almost 1 MB). The log file will have WWWWW placed at the wrap point. This marker appears at the end of file if the file has not yet wrapped.

rip_program

The name of the executable or script which performs the RIP.

rip_work_directory

The main temporary work directory. The files stored here are the original Postscript file, the .ini file with the RIP options (typically only a few Kbytes), and the output of the RIP. This output is 9 files--8 bitmap files and an index. All files are removed before the next RIP starts. Typically, the rip subdirectory in the working directory is used.

rip_hot_folder

The location the hot-folder daemon monitors for RIP files. This should be set only for the **colorRipd** running on the printer CPU. **colorRipd** places RIP files and book ticket files in this directory.

printer_name

The hostname or IP address of the printer CPU. If this attribute is set, **colorRipd** sends RIP files to the specified printer CPU. On the printer CPU, an instance of **colorRipd** must be listening on port 11126.

Configuring RIP Options

For jobs printing on an InfoColor 70 or Infoprint Color 100 printer, Infoprint Manager interprets RIP options in the following order:

1. Options specified at job submission.
2. Attribute values in the default document associated with the logical destination.
    - For default document attributes, refer to the *IBM Infoprint Manager for AIX: Reference* or to the **pd_att_document** man page.
    - For how to create a default document, see page 139 of the *IBM Infoprint Manager for AIX: Administrator's Guide*
    - For how to associate a default document with an actual destination, see page 140 of the *IBM Infoprint Manager for AIX: Administrator's Guide*

1. Options in the **.ini** file associated with the actual destination.

2. For image width and image length, actual destination attribute values. For actual destination attributes, refer to *IBM Infoprint Manager for AIX: Reference* or to the **pd_att_act_dest** man page.

The default **.ini** file shipped with Infoprint is called **/usr/lpp/pd/bin/default.ini**. All 3170 actual destinations use this **.ini** file unless you specify another file using the **rip-ini-file** actual destination attribute.

Attention: If you want to change the RIP options, do not edit the **/usr/lpp/pd/bin/default.ini** file. Copy it, make the changes in your copy, and specify your copy as the value of the **rip-ini-file** actual destination attribute. If there is a problem with your copy, you can restore the original values by resetting the **rip-ini-file** actual destination attribute to its default value.

Figure 1 shows an example of an **.ini** file.

Figure 1. Sample .ini File

```
^setup|
bps:              4
res:              600
output:           JobName
ocompress:        align72
oformat:          B/custdisk1/

duplex:           1
tumble:           0
orientation:      0
copies:           1
enablesettrap:    0
blackoverprint:   0
overprint:        P

stat:             2
profile:          0
machdebug:        0
centery:          0
pageclip:         C
outputfaceup:     0
jobtype:          M
cms_product:
cms_proclink:
monochrome:       0
resident:         0

outputbin:        1s
cutmedia:         1
controlstrip:
ssy:              1
centerx:          0
autotrap:         0
psx:
psy:
^job1|
name:             %stdin%
type:             ps
dot:
/c=r,170,15/m=r,170,75/y=r,170,90/k=r,170,45
scale:            1
hpos:             0
vpos:             0
```

The keywords in the **^setup|** section of the **.ini** file are as follows:

bps

Indicates the number of bits used to describe the gray value for each pixel. You can enter one of the following values:

2

Each pixel can have one of four levels of gray, from 0 to maximum density.

4

Each pixel can have one of sixteen levels of gray, from 0 to maximum density.

This keyword is equivalent to the document attribute **bits-per-spot**.

res

Indicates the resolution, in pels, at which the printer device should print the image data in documents. For InfoColor 70 printers, the only valid value is **600**.

This keyword is equivalent to the document attribute **default-printer-resolution**.

output

The name of the RIPped file. The value **JobName** indicates that this name should be the same as the job name.

ocompress

Indicates whether and how to compress the RIPped file. **align72** is the only valid compression algorithm. You should not change this value because in most cases it is desirable to compress the RIPped file. When you do not want to compress it, set the document attribute **compressed-output** to **false**.

This keyword is similar to the document attribute **compressed-output**.

oformat

The directory where backup RIPped files are stored. Do not change this value.

duplex

Indicates whether to print on both sides of the paper. Enter **1** for true or **0** for false.

This keyword is similar to the document attribute **sides**.

tumble

Indicates whether to print successive pages so that the top of one page is at the same edge of the bottom of the next page. Enter **1** for true or **0** for false. If **duplex** is **0**, you must enter **0**.

This keyword is similar to the document attribute **plex**.

orientation

Indicates the placement of the image on the page. You can enter one of the following values:

0

Portrait

1

Landscape

2

Reverse portrait

3

Reverse landscape

This keyword is similar to the document attribute **content-orientation**.

copies

Indicates the number of document copies to print. Enter an integer from **1** to **2147483647**.

This keyword is equivalent to the document attribute **copy-count**.

enablesettrap

Indicates whether to turn on trapping for Quark XPress jobs. Enter **1** for true or **0** for false.

This keyword is equivalent to the document attribute **enable-settrap**.

blackoverprint

Indicates whether to print black over colors. You can enter one of the following values:

0

Omit colors from areas where black will be printed.

1

Print a colored background with black over it.

This keyword is equivalent to the document attribute **black-overprint**.

overprint

Indicates how to handle overprinting. You can enter one of the following values:

0

Ignore overprinting.

1

Render objects as if they would truly overprint each other.

P

Handle overprinting according to PostScript specifications, knocking out in separations where the object applies ink.

This keyword is equivalent to the document attribute **overprint**.

stat

Indicates the level of statistical information to report. You can enter an integer from **0** (none) to **4** (detailed).

profile

You can leave this value blank.

machdebug

Indicates the level of machine debugging information to report. You can enter an integer from **0** (none) to **4** (detailed).

centery

Indicates whether to center the image vertically. Enter **1** for true or **0** for false.

This keyword overrides the **vpos** keyword.

This keyword is equivalent to the document attribute **image-center-y**.

pageclip

Indicates how to clip images that are too wide for the page. You can enter one of the following values:

C

Center the image horizontally and clip both sides.

R

Clip the right side of the image.

E

Issue an error message and end the job.

This keyword is equivalent to the document attribute **page-clip**.

outputfaceup

Indicates whether to start the document on the side of the sheet that faces up in the output bin. Enter **0** for true or **1** for false. Note that these values are the opposite of what you would expect.

This keyword is similar to the document attribute **output-face-up**. Note that a value of **true** for the document attribute corresponds to a value of **0** for this keyword and results in face-up output. A value of **false** for the document attribute corresponds to a value of **1** for this keyword and results in face-down output.

jobtype

Indicates the type of data. You can enter one of the following values:

M

Master file

V1

Variable data that completely replaces the master file

V2

Variable data that replaces the master file where the variable data applies toner

V3

Variable data that replaces the master file where the variable data does not apply toner. This value is used to print variable data in white.

T

Test data

cms_product

Identifies the color correction program. You can enter a value of **xeikon** or leave the value blank. If you enable Xeikon color correction, you must specify a value for the **cms_proclink** keyword or for the document attribute **cms-proclink**.

This keyword is equivalent to the document attribute **cms-product**.

cms_proclink

Identifies the translation table used by the color correction program. You can enter one of these fixed values:

matchp_ndtg2xkn_2

Match print, normal dot gain, 2 bits per spot

matchp_ndtg2xkn_4

Match print, normal dot gain, 4 bits per spot

swop_crom2xkn_2

SWOP Cromalin, 2 bits per spot

swop_crom2xkn_4

SWOP Cromalin, 4 bits per spot

This keyword is equivalent to the document attribute **cms-proclink**.

monochrome

Indicates whether to print in black and white. Enter **1** for true or **0** for false.

resident

Indicates whether to retain the RIPped file on the collator after printing. Enter **1** for true or **0** for false.

output-bin

Indicates the output bin. Enter the name of an output bin.

This keyword is equivalent to the document attribute **output-bin**.

cutmedia

Indicates whether to cut the paper. Enter **1** for true or **0** for false.

controlstrip

Indicates the file name of the pre-RIPped control strip to print with all documents. The control strip must be on the collator.

This keyword is equivalent to the document attribute **control-strip**.

ssy

The length of the medium sheet. Enter the length in millimeters or one of these fixed values:

0

The sheet length equals the signature length. Because the InfoColor 70 requires some white space between signatures, a number of scan lines at the top, bottom, or both of the signature will not be included in the image.

1

The sheet length equals the signature length plus the minimum amount of white space that the InfoColor 70 requires between signatures.

centerx

Indicates whether to center the image horizontally. Enter **1** for true or **0** for false.

This keyword overrides the **hpos** keyword.

This keyword is equivalent to the document attribute **image-center-x**.

autotrap

Indicates whether to enable trapping. Enter **1** for true or **0** for false.

Note: Trapping is a licensed feature of the InfoColor 70. **1** is valid only if this feature is installed.

psx

Indicates the width in millimeters of an image after it has been transformed for printing.

This keyword is similar to the document attribute **image-width**.

psy

Indicates the length in millimeters of an image after it has been transformed for printing.

This keyword is similar to the document attribute **image-length**.

The keywords in the **^job1|** section of the **.ini** file are as follows:

name

Indicates the name of the job to which the keywords in this section apply. The value **%stdin%** indicates that they apply to any job submitted.

type

Indicates the data type. This value is always **ps**.

dot

Indicates the shape of pixels. Enter a value in this format:

/color=shape,lpi,angle...

where:

color

Indicates the dot color:

c

Cyan

m

Magenta

y

Yellow

k

Black

shape

Indicates the dot shape:

r

Round

c

Combined

l

Line

ln

Line not calibrated

lpi

Is the screen frequency in lines per inch.

angle

Is the screen angle.

Some possible values are:

Classic

```
/c=r,170,15/m=r,170,75/y=r,170,90/k=r,170,45
```

Combined

```
/c=c,170,15/m=c,170,75/y=c,170,90/k=c,170,45
```

Sofocles

```
/c=l,158,15/m=l,158,75/y=l,158,90/k=l,158,45
```

Sofocles not calibrated

```
/c=ln,158,15/m=ln,158,75/y=ln,158,90/k=ln,158,45
```

No screen

```
/c=r,600,15/m=r,600,75/y=r,600,90/k=r,600,45
```

This keyword is similar to the document attribute **dot-shape**.

scale

Indicates the image scaling factor. You can enter a numeric value from **0** to **2147483647**, which may optionally contain a decimal point. For example, to scale 120%, enter `1.2`.

This keyword is equivalent to the document attribute **image-scale**.

hpos

Indicates the horizontal offset of the logical page in millimeters to the right of the physical page origin.

The **centerx** keyword overrides this keyword.

This keyword is equivalent to the document attribute **x-image-shift**.

vpos

Indicates the vertical offset of the logical page in millimeters below the physical page origin.

The **centery** keyword overrides this keyword.

This keyword is equivalent to the document attribute **y-image-shift**.

Creating and Configuring the Actual Destination

Use the procedure on page 106 in the IBM Infoprint Manager for AIX: Administrator's Guide to create a 3170 physical printer to represent the InfoColor 70 or Infoprint Color 100 printer device. Then issue the following command to define the hot folder, the .ini file, the RIP servers, and the directory where the RIP servers store files:

```
pdset -c destination -x "printer-hot-folder=/custdisk1/HotFolder rip- ini-
file=/iniFilePath transform-output-location=/custdisk1" -x color-rip-
servers="IPAddress1:Port1...IPAddressN:PortN" PrinterName
```

For example, if the physical printer is called colorprint, the **.ini** file is called **/usr/lpp/pd/bin/colorprint.ini**, and the other values are taken from the example on page 87 in the *IBM Infoprint Manager for AIX: Administrator's Guide*, enter:

```
pdset -c destination -x "printer-hot-folder=/custdisk1/HotFolder rip- ini-
file=/usr/lpp/pd/bin/colorprint.ini" -x color-rip-servers="9.99.1.11:8433
9.99.1.12:5558" colorprint
```

Note that the system where the Infoprint Color 100 is attached is included among the RIP servers.

Generating Color Mapping Table Source and Output Files

To apply color to black and white documents, you must use the following procedure to create a Color Mapping Table Source (**.src**) and Output Files, using the **cmt** Utility on page I.

Once you have applied APAR IX88982 (Program Temporary Fix U464743), the following two files should be availabe in the **/usr/lpp/psf/bin** directory on your Infoprint AIX server: **cmt.exe** and **cmt.cfg**. Using the AFP architetural reference cited in the procedure below, you can apply color to existing black and white files.

The **cmt** Utility allows you to create color mappings in a variety of different color modes that are defined through the **ColorSpace** parameter. For example, the **Highlight** value can be used when printing to an IBM Infoprint 4000 printer with an InfoPrint Hi-Lite Color Model HC2 Post-Processor (HCPP). For more information on the HCPP, see the IBM Infoprint Hi-Lite Color Printer: Library Catalog at the URL http://www.printers.ibm.com/R5PSC.NSF/Web/hilitem.

In the procedure described below, we create a Color Mapping Table to print an Advanced Function Presentation (AFP) file that containins pie charts as the color green.

You must perform the following tasks from the AIX command line:

1. From the **/usr/lpp/psf/bin** directory, specify:

   `cp cmt.cfg pie1.cfg`

   This copies the Color Mapping Table configuration file into a file you can customize for your own purposes (in this case, `cmtpie.cfg`).

2. Specify `vi pie1.cfg`.

   This allows you to edit the configuration file and insert the applicable values to create the appropriate color mapping (whether GOCA to RGB or OCA to CIELAB, etc.,) table. See the sample **cmt.cfg** configuration file below:

```
#-------------------------------------------------------

 # Required, starts a Color Mapping Definition.

 # One definition for each Source to Target mapping

 #-------------------------------------------------------
```

```
BeginMappingDef:


#-----------------------------------------------------
# BeginSourceDef:
# Required, starts the Source Parameters
#-----------------------------------------------------
  BeginSourceDef:
  #-----------------------------------------------------
  # ColorSpace:
  #  Required, values = OCA | Highlight | GOCA
  #-----------------------------------------------------
  #ColorSpace:


  #-----------------------------------------------------
  # ColorValue:
  #  Required, values depend on Color Space
  #-----------------------------------------------------
  #ColorValue:


  #-----------------------------------------------------
  # ObjectType:
  # Optional, values = ObjArea | ImageData | PTOCAData |
  #     GOCAData | BCOCAData | AllOCA | Page | Overlay |
  #     ObjsAll
# default = ObjsAll
#-----------------------------------------------------
#ObjectType: GOCAData
```

```
  #-----------------------------------------------------
  # PercentShading:
  #  Optional, only valid for SourceColorSpace: Highlight,
  #  values = 0 .. 100, 255 (all percentages),
  #  default = 100
  #-----------------------------------------------------
  #PercentShading:


  #-----------------------------------------------------
  # PercentCoverage:
  #  Optional, only valid for SourceColorSpace: Highlight,
  #  values = 0 .. 100, 255 (all percentages),
  #  default = 100
  #-----------------------------------------------------


#-------------------------------------------------------
# EndSourceDef:
# Required, ends the Source Parameters
#-------------------------------------------------- ---------
EndSourceDef:
```

```
#-----------------------------------------------------
# BeginTargetDef:
# Required, starts the Target Parameters
#-----------------------------------------------------
BeginTargetDef:

  #-----------------------------------------------------
  # ColorSpace:
  #  Required, values = RGB | CMYK | Highlight | CIELAB
  #-----------------------------------------------------
  #ColorSpace:

  #-----------------------------------------------------
  # ColorValue:
  #  Required, values depend on Color Space
  #-----------------------------------------------------
  #ColorValue:

  #-----------------------------------------------------
  # PercentShading:
  #  Optional, only valid for TargetColorSpace: Highlight,
  #  values = 0 .. 100, default = 100
  #-----------------------------------------------------
  #PercentShading:
```

```
    #-------------------------------------------------------
    # PercentCoverage:
    #  Optional, only valid for TargetColorSpace: Highlight,
    #  values = 0 .. 100, default = 100
    #-------------------------------------------------------
    #PercentCoverage:


  #-------------------------------------------------------
  # EndsTargetDef:
  # Required, ends the Target Parameters
  #-------------------------------------------------------
  EndTargetDef:


#-------------------------------------------------------
# Required, ends a Color Mapping Definition.
#-------------------------------------------------------
# EndMappingDef:
```

For our AFP file, this pie chart appears as a series of horizontal lines. By accessing the chapter on "Graphic Primitives and Attributes" in the the *Graphics Object Content Architecture for Advanced Function Presentation Reference* (S544-5498-00) manual, we can see that these horizontal lines are created by a Pattern Output Primitive with a hexedecimal value of `'0B'` (11).

To find how to turn these horizontal lines into a shade of green and we are using a **ColorSpace** value of `RGB`, ensure that you specify a low value for Red (10), a high value for green (250), and a value under 50 for blue (40) to provide a clear contrast.

3. Once you have finished editing the `pie1.cfg` file, save the file.

4. To generate the Color Mapping Table source (**.src**) file that will be used when you submit the job for printing, run the **cmt** Utility as the input file (**-i** flag):

   ```
   cmt -i pie1.cfg -o pie1.out
   ```

   This command produces a **pie1.out** output file.

5. To verify your color mapping values, respecify the the **cmt** Utility, using the newly-created **pie1.out** as the input file and **pie1.src** as the input file:

   ```
   cmt -i pie1.out -o pie1.src
   ```

6. Before you attempt to use this color mapping table to submit a job to Infoprint Manager, verify that the source file contains the intended values. In this case, the **pie1.src** file should resemble the following, where the source definition represents the input file (in this case AFP) that you are converting to the target definition (an RGB color value of green):

   ```
   BeginMappingDef:
     BeginSourceDef:
       ColorSpace: GOCA
       ColorValue: 11
       ObjectType: GOCADATA
     EndSourceDef:

     BeginTargetDef:
       ColorSpace: RGB
       ColorValue: 12 252 42
     EndTargetDef:
   EndMappingDef:
   ```

7. Once you have verified the contents of the source file, see Using a Color Mapping Table to Submit Jobs to Infoprint Manager on page 24.

Using a Color Mapping Table to Submit Jobs to Infoprint Manager

To submit a job using the color mapping tables for spot color, you must ensure that you also specify a **resource-context** attribute so that the server knows the location of the color mapping table.Once you have configured a Color Mapping Table, you must have defined a logical destination using the Infoprint Color AFP Template (named `prt1` for this example) to which you can send the job. You can submit jobs through either of the following methods.

Submitting Jobs through the AIX Command Line

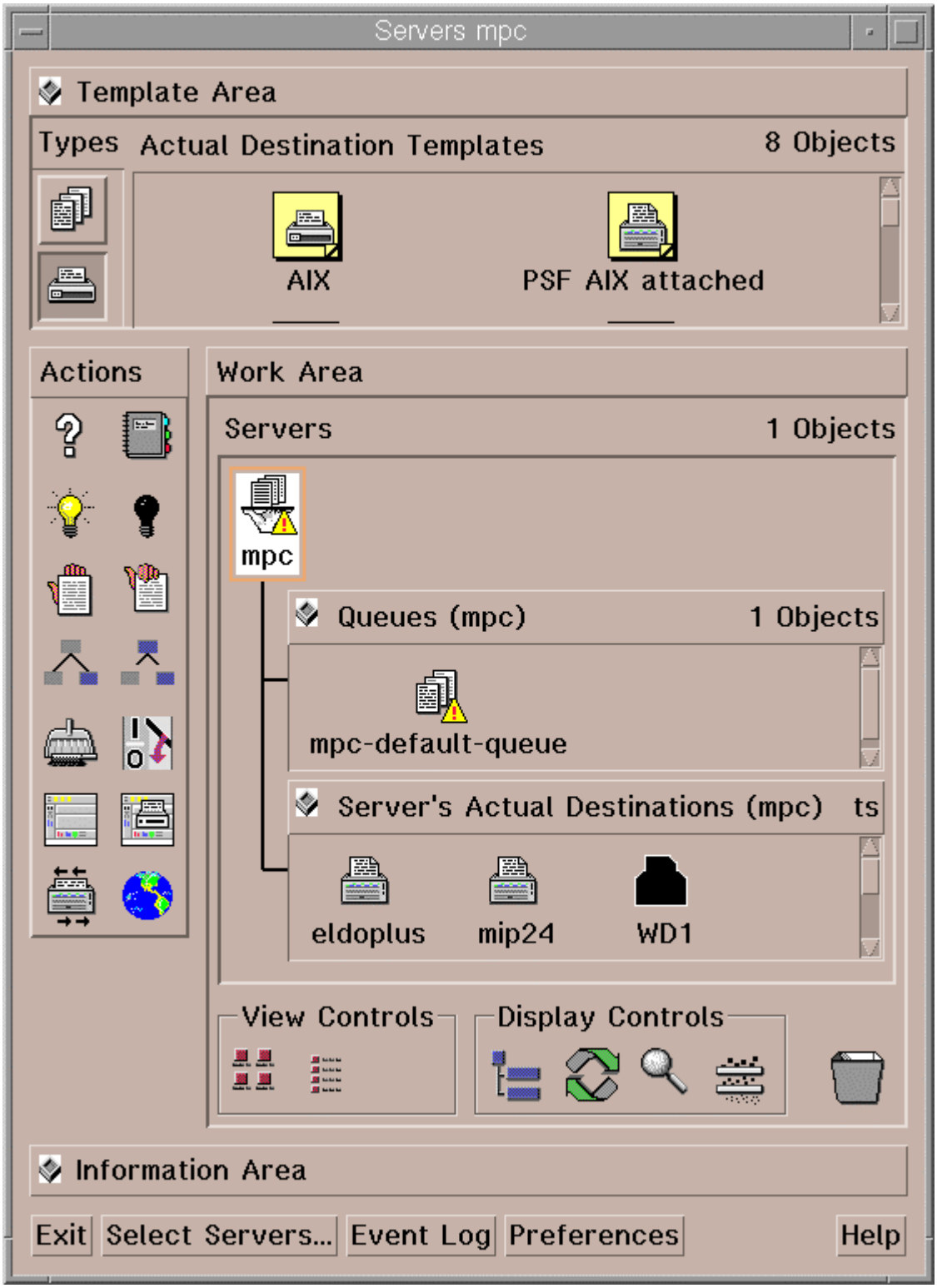
Once the logical destination has been defined, you can submit a job to an Infoprint Manager printer by specifying the following from the command line:

Command Values	Meaning
`pdpr -d prt1`	Print Command with logical destination name.
`-x job-name=report1`	Name of the AFP file you submit for printing.
`-x resource-context=/usr/lpp/psf/cmt/`	Explicit path name where the AFP file (in this case, `report1`), resides on your Infoprint AIX server.
`-x color-mapping-table=cmtpie.out`	Color Mapping table that you created for printing this file.
`/usr/lpp/psf/cmt/goca.afp`	Explicit pathname where the input file resides.

Submitting Jobs through the Advanced Server GUI

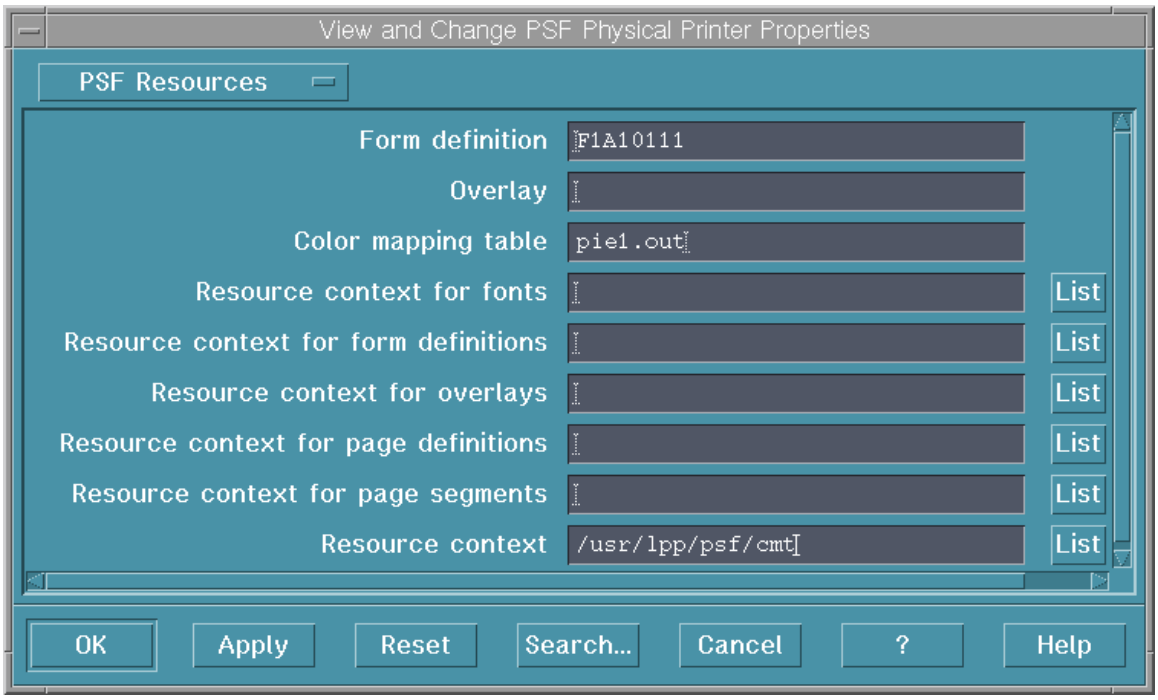
You can submit a job with a Color Mapping Table through Infoprint Manager Advanced Configuration GUI. This method is valuable if you are using the same color mapping table for a long run of print jobs. If you must switch between Color Mapping Tables, it might be easier to specify the mapping table from the command line (as shown above).

1. From the **Server** window, double-click on the server object to open the **Queues** and **Server's Actual Destinations** views.
2. From the **Server's Actual Destinations** view, drag and drop the enable Action icon (a yellow light blub) over the appropriate printer object (in this case, `eldoplus`, as shown below).


Servers mpc
Template Area
Types
Actual Destination Templates
8 Objects
AIX
PSF AIX attached
Actions
Work Area
Servers
1 Objects
mpc
Queues (mpc)
1 Objects
mpc-default-queue
Server's Actual Destinations (mpc)
ts
eldoplus
mip24
WD1
View Controls
Display Controls
Information Area
Exit
Select Servers...
Event Log
Preferences
Help

3. Ensure that both the Color Mapping Table (`pie1.out`) and the resource context

(`/usr/lpp/psf/cmt/`) have been specified in the **Printer Notebook** view, as shown below:



4. Submit your job to Infoprint Manager, using either the command line or the Infoprint Select client.

cmt Utility: Builds Color Mapping Table source and object files

Syntax

cmt {**-i** *input file*}
[**-o** *output file*]
[**-n** *internal CMT name*]
[**-t**]

Description

cmt, the Color Mapping Table Utility, generates color mapping table source and object files. If the input file is an object color mapping table, **cmt** generates a source output file; and if the input file is a source file, **cmt** generates an object file. Object color mapping tables are used to map OCA (Object Content Architecture) colors and fills to printer specific colors.

Flags

The **cmt** utility uses the following flags:

-i The file name of the input file. The input file can be a source or object file. When you use the **cmt** utility, you must specify this flag.

-o The file name of the output file. If this flag is not specified, **stdout** is used. This is a optional flag.

-n The name that appears on the MO:DCA Begin Object Container (BOC) structured field. This is a optional flag.

-t Use this flag to turn on trace. This is a optional flag.

Color Mapping Table Source File

The source file describes the contents of the color mapping table object file.

Each mapping definition of one source color or fill to a target color is bracketed by the keywords `BeginMappingDef:` and `EndMappingDef:`. The **cmt** utility requires one mapping definition for each source target mapping.

Each source definition within a mapping definition is bracketed by the keywords `BeginSourceDef:` and `EndSourceDef:`. The **cmt** utility requires one source definition for each mapping definition.

Valid keywords and values for a source definition follow:

ColorSpace
You must specify **OCA**, **Highlight**, or **GOCA**.

ColorValue
You must specify a value that depends upon the value specified for **ColorSpace**:

- When **ColorSpace=OCA**, **ColorValue** is a one string component of the following:
  Default
  Blue
  Red
  Pink
  Green

Cyan
Yellow
Black
Brown
Medium

Note: The binary representation for all **OCA** colors are supported by the cmt utility.

- When :ColorSpace=Highlight, the **ColorValue** has one component, integer 0 through 3. For example, **ColorValue: 2**.
- When **ColorSpace=GOCA**, the **ColorValue** has one component, integer 0 through 16 or 64. For example, **ColorValue: 13**.

Each target definition within a mapping definition is bracketed by the keywords `BeginTargetDef` and `EndTargetDef` The **cmt** utility requires one target definition within each mapping definition. Valid keywords and values for a target definition follow:

ColorSpace
You must specify **RGB**, **CMYK**, **Highlight**, or **CIELAB**.

ColorValue
You must specify a value determined by the value specified by **ColorSpace** as follows:

- When **ColorSpace=RGB**, the **ColorValue** has three components from 0 through 255. For example, 33 167 247.
- When **ColorSpace=CMYK**, the **ColorValue** has four components from 0 through 255. For example, 135 26 37 255.
- When **ColorSpace=CIELAB**, the **ColorValue** has three components with the first integer from 0 through 100, and the second and third integers from -127 through 127. For example 65 -120 111.

PercentShading
Valid values are integers 0 through 100. This optional value defaults to 100.

PercentCoverage
Value values are integers 0 through 100. This optional value defaults to 100.

setup Utility: Starts the Infoprint Installer

Syntax

| **setup -c** [**-R**] [**-s** *FileSystem*] [**-e**] [**-L** *locale*]

| **setup -C -n** *ServerName* **-p** *PortNumber* [**-P** *DestinationName*] [**-L** *locale*] [**-R**] [**-s** *FileSystem*] [**-e**]

| **setup** [**-s** *FileSystem*] **-m** [**-R**] [**-e**]

| **setup** [**-s** *FileSystem*] **-M** [**-R**] [**-e**] [**-S**]

| **setup** [**-R**] [**-e**] [**-q**] [**-a** *ResponseFile*] [**-s** *FileSystem*]

Description

Issue the **setup** utility to start the Infoprint Installer. The Infoprint Installer installs either the entire Infoprint Control component of IBM Infoprint Manager for AIX, including an Infoprint server and an Infoprint AIX client, or the Infoprint AIX client alone.

The AIX client allows users to enter Infoprint commands on the command line for transmission to the Infoprint server, which may be on another AIX system. The AIX client has no graphical user interface.

Notes:

1. You can install the Infoprint server or Infoprint AIX client in any of the following languages:

English	Italian
French	Japanese
German	Spanish

   If the Infoprint AIX client and server do not use the same language, the Infoprint server must run in English.

2. If you use Infoprint Manager DCE, and if the Infoprint AIX client and server are not in the same DCE namespace, the client can issue only the **pdpr**, **pdls**, and **pdq** commands.

Flags

The **setup** utility uses the following flags:

| **-a** | Specifies a response file for use with an unattended installation. By default, unattended installations do not display any Installer screens. Further, when the **-a** flag is used, the default mount point is `/ip_remote`. All unattended installations must be performed using an Infoprint Manager Software Server, not the IBM Infoprint Manager for AIX CD-ROMs.

-c Invokes the Infoprint Installer graphical user interface (GUI) to install only the Infoprint AIX client.

Note: The **-L**, **-n**, **-p**, and **-P** flags are not valid with this flag. The Infoprint Installer GUI will prompt you to specify the locale, server name, port number, and optional default logical destination.

-C Invokes the Infoprint Installer to install only the Infoprint AIX client using the command line, without invoking the Installer GUI.

Note: If you use this flag, you must specify the **-n** and **-p** flags.

-e Echos the Installer log updates to **stdout** as they occur.

-L *locale* Specifies the locale of the AIX client. The default is **en_US** (U.S. English).

Note: This flag is not valid with the **-c** flag. It is optional with the **-C** flag.

-m Performs unattended installations on one or more remote systems. Before you can you this flag, you must create an Infoprint Manager Software Server on the local machine. After the software server is in place, you must copy response files to its `/ip_remote/auto` subdirectory to specify the which installations to complete. The default mount point for unattended installation is `/ip_remote`. The **-m** flag performs the specified installations concurrently.

-M Performs unattended installations like the **-m** flag, but the installations are performed serially. That is, an installation on the first system will complete before the installation on the second system begins.

-n *ServerName*
Specifies the name of the Infoprint server.

Note: This flag is not valid with the **-c** flag. It is required with the **-C** flag.

-p *PortNumber*
Specifies the port number that the remote Infoprint server is using for communications.

Note: This flag is not valid with the **-c** flag. It is required with the **-C** flag.

-P *DestinationName*
Specifies the default logical destination to which the Infoprint AIX client submits jobs.

Note: This flag is not valid with the **-c** flag. It is optional with the **-C** flag.

-q Displays the Installer screens during an unattended install.

-R Replaces any currently installed version of the Infoprint Installer on your AIX system with the Installer code from the Infoprint CD-ROMs.

-s *FileSystem*
Specifies the file system where the installable software images may be accessed. For example, you could specify the file system that you defined for installing Infoprint, or the drive where you mounted the Infoprint server CD-ROM. The default mount point for all installations that use the Installer GUI is `/cdrom`. The default mount point for all unattended installations is `/ip_remote`.

Note: The ***/*cdrom** file system may be predefined.

-S Saves the .wlog files from any prior installation. This flag is usually used with the **-M** flag to maintain a record of all installations performed on a machine as part of a serial sequence of unattended remote installations.

-h Displays help for the **setup** utility.

Examples

To install Infoprint in the file system `/cdrom`, follow these steps:

1. Log onto AIX as **root**.
2. If available, insert the latest Infoprint Manager server APAR Service CD-ROM into the drive. Otherwise, insert the gold IBM Infoprint Manager for AIX Server 1 CD-ROM into the drive.

3. If this is the first time you are running the Infoprint Installer on this system, create the **/cdrom** file system. Enter:

   ```
   smit cdrfs
   ```

4. Select **Add a CDROM File System**.
5. Complete the **Add a CDROM File System** panel.
   a. In the **DEVICE Name** field, enter the identifier of your CD-ROM drive. If you do not know the identifier, select **List** in the AIXwindows version of SMIT, or press **PF4** in the ASCII version of SMIT, to see a list of CD-ROM drives. Select one.
   b. In the **MOUNT POINT** field, enter **/cdrom**.
   c. Select **OK** (AIXwindows version) or press **Enter** (ASCII version).
   d. Press **F10** to exit from SMIT.
6. To mount the CD-ROM, enter the following command on the AIX command line:

   ```
   mount /cdrom
   ```

7. To read the **/readme.txt** file, enter:

   ```
   dtpad /cdrom/readme.txt
   ```

8. Enter:

   ```
   /cdrom/setup
   ```

You want to install only a German-language Infoprint AIX client in the previously defined file system `/cdrom`, and to replace the previous version of the Infoprint Installer. The client will communicate with the English-language server `martha`, running on port number `6874`. Because your AIX console does not support graphics, you cannot invoke the Infoprint Installer GUI. Follow these steps:

1. Log onto AIX as **root**.
2. Insert the gold IBM Infoprint Manager for AIX Server 1 CD-ROM into the drive.
3. To mount the CD-ROM, enter:

   ```
   mount /cdrom
   ```

4. Enter:

   ```
   /cdrom/setup -C -L de_DE -n martha -p 6874 -R
   ```