

IBM Infoprint Manager for AIX Version 3.2



Configuring and Using Infoprint Fax and Email (8/29/2000)

Configuring the Fax and Email Features of Infoprint Manager

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Verifying Fax Prerequisites

By default, IBM Infoprint Manager 3.2.0 provides a single phone line for sending and receiving faxes. Before you can configure and run the Infoprint Manager Fax option, you must ensure that you have purchased and installed either the GammaLink ISA Fax Board, or the Interstar Lightning Fax Server version of this Board (such as may be referred to as 'Card' in subsequent documentation). For more information on how to obtain this Fax board, see either the [Dialogic Product Line Home Page](http://www.gammalink.com) at <http://www.gammalink.com> or the [Interstar Lightning Fax Home Page](http://www.faxserver.com) at <http://www.faxserver.com>.

1. Install the Fax card by putting it in any available ISA or PCI slot on the back of your Infoprint AIX server.
2. Once you have added the prerequisite software specified below and completed the configuration procedures that follow, you can verify that the card is active.
3. After installing the fax board, run the Infoprint Installer, using the *Installing Infoprint Manager on Your AIX System* PDF file (38 KB) that can be found on either the Publications CD-ROM for Infoprint Manager for AIX 3.2, or the Infoprint Manager for AIX web site at http://www.printers.ibm.com/R5PSC.NSF/Web/site_map32.

Specify either the Infoprint Fax (single line) or the Infoprint Fax (multiple lines) option and this utility will install the the following software applications:

- Interstar Lightning Fax Server Software Version 6.5

Note that if you have already installed Lightning Fax Version 6.5 on your Infoprint AIX server, you must see [Updating the Fax Feature when Lightning Fax 6.5 is Already Installed](#) and follow the directions there before continuing to Step 5 of this procedure.

- Interstar Lightning Fax Server version of the GammaLink ISA Fax Board (CPI/100) or the GammaLink ISA Fax Board
4. Once you have run the Infoprint Installer, reboot your AIX Infoprint server.

If you had previously installed an earlier version of the Infoprint Manager Fax feature, Infoprint Manager places copies of your old Fax configuration files in the **/tmp/FaxConfFiles** directory. You can access these files to ensure that any of your customizations of the Fax feature are not lost with each new install.

5. Allow for 60 MB of space in the `/var/psf/` directory. The `/var/psf/faxserver` file system will receive all fax input and provide a workspace for creating all fax and email output.
6. Allow for 60 MB of space in the `/usr/lpp/lightningfax` directory to ensure that the fax software has adequate work space.

Note that the java client, which is referenced as `/usr/lpp/lightningfax/lfaixjavaclient/start_java_client` does not work and is not supported by either Lightning Fax or IBM.

Note: If you select the Infoprint Fax (multiple lines) option, you must contact the IBM TECHLINE toll free number (1-888-426-5525 Option 1, Option 5) to obtain the key numbers and the correct license:

1. From an AIX window, specify `uname -a` to obtain the planner ID of your system.
2. Send that planner ID number in a file to your IBM service representative.
3. Your service representative will send you a file -- **LFlic.txt** -- which you must put on your Infoprint AIX server in the `/usr/lpp/lightningfax/lfaixserver` directory.
4. Note that these files replace files with the same name that reside on your system. If you do not obtain these files and overwrite the existing files on your server, you will be unable to use more than a single channel.

Once you have installed all the prerequisites, go to [Configuring Fax Options](#).

Updating the Fax Feature when Lightning Fax 6.5 is Already Installed

If you attempt to install Infoprint Manager 3.2 with PTF IY11526 and have installed Lightning Fax Verison 5.0 on your Infoprint AIX server, you can ignore this procedure.

If you have already installed Lightning Fax Version 6.5 on your Infoprint AIX server and then attempt to install Infoprint Manager 3.2 with PTF IY11526, the Infoprint Installer does not install the LightningFax that IBM supplies and does not put the IBM configuration files in the proper sub-directories.

To remove existing versions of Lightning Fax Version 6.5 from your Infoprint AIX server, use the following procedure:

1. Specify `smit` or `smitty` from an AIX command line and take the following path: **Software Installation and Maintenance --> Software Maintenance and Utilities --> Remove Installed Software**.
2. Use the **PF4** key to select the software filesets, then scroll down the list, and find all the `lightningfax.x` filesets for removal, where `x` (the second qualifier) indicates the fileset's purpose, such as `api` or `driver`.
3. Use the **PF7** key to select each fileset for removal, then press the **Enter** key to delete all the selected filesets at once.

Once you have completed this procedure, you can return to step 4 of the [Verifying Fax Prerequisites](#) topic and continue to follow those directions.

Configuring Fax Options

This topic describes how to make important changes to the files that the Infoprint Installer puts on your system so that the AIX server hardware and software can run with Infoprint Manager. These configuration changes consist of :

- [Configuring Fax for Output](#) that you must complete to send faxes
- [Configuring Incoming Fax](#) that you must complete to receive faxes
- [Configuring Advanced Output Options](#) that you can use to customize the faxes you send.
- [Verifying the Fax Option Configuration](#) provides a list of directories and files that should exist if you've configured for either Output or for Incoming Fax correctly.

Note: To make these changes, you must log into the IBM Infoprint AIX system as **root**.

Configuring Fax for Output

The following configuration tasks are required before you can send faxes with Infoprint Manager to other Infoprint Manager servers both inside and outside your print installation.

1. From the **/etc** directory, verify that the **/etc/inittab** file contains the following four lines towards the bottom of the file:

```
lfaixserver:2:once:/etc/rc.lfaixserver
```

```
lfaixdriver:2:once:/etc/rc.lfaixdriver
```

```
lfaixapi:2:once:/etc/rc.lfaixapi
```

```
lfapifbk:2:once:/etc/rc.lfapifbk
```

```
lfaixsap:2:once:/etc/rc.lfaixsap
```

Note: If these lines do not exist, edit the file and add them, because they ensure that the Fax server starts automatically when you reboot the Infoprint AIX server. You need the fifth line only if you will be using Infoprint to print data from a SAP R/3 system. If you edit the file, be sure to save it and exit the editor

2. From the **/etc** directory, verify that the **rc.lfapifbk** file has been created and contains the following line:

1. `/usr/lpp/lightningfax/lfaixapifbk/LFapifbk > /dev/null 2>&1 &`

2. **Note:** The Infoprint Installer should create this file for you. If it has not, you must create the file with the information described on this page. If you edit the file, be sure to save it and exit the editor.

3. Verify that the file permissions allow you to execute it. If they do not, change the permissions on this file to make it executable by specifying:

```
chmod +x /etc/rc.lfapifbk
```

4. To configure the Lightning Fax Server Software files that control the GammaLink Fax card, make the following changes from the `/etc` file system:

Fully-Qualified File Name/Changed Parameter	Value
<p><code>/etc/lfaixdriver.conf</code></p> <p><code>NumChanISA=</code></p> <p><code>NumChanMCA=</code></p> <p><code>NumChanPCI=</code></p>	<p>Specify a numeric value to match the number of lines on your physical fax card (usually either 1 or 4).</p> <p>Fill in the appropriate parameter to reflect the type of adapter (ISA, MCA, or PCI) in use at your installation.</p>
<p><code>/etc/lfaixdriver.conf</code></p> <p>Under the ;channel specific info section:</p> <p><code>ChannelX_ServerIP=</code> where X indicates the channel number. For example, Channel 2 could specify <code>Channel2_ServerIP=9.99.98.3</code></p>	<p>Specify the Internet Protocol (IP) address of your Infoprint AIX server.</p> <p>Note: Be sure to change this parameter for each channel that you specify in the file.</p> <p>You can obtain this value by specifying the following command: <code>ping -c3 servername</code></p>
<p><code>/etc/lfaixapi.conf</code></p> <p>Under the [server info] section:</p> <p><code>Address= value</code></p>	<p>Specify the Internet Protocol (IP) address of your Infoprint AIX server.</p>

Fully-Qualified File Name/Changed Parameter	Value
<p>/etc/lfaixapifbk.conf</p> <p>Under the [server info] section:</p> <p><i>Address=value</i></p>	<p>Specify the Internet Protocol (IP) address of your Infoprint AIX server.</p>
<p>/etc/lfaixserver.conf</p> <p>Under the [server info] section:</p> <p><i>Address=value</i></p> <p><i>RSAddress=value</i></p>	<p>Specify the Internet Protocol (IP) address of your Infoprint AIX server (<i>Address=value</i>).</p> <p>Specify the Internet Protocol (IP) address of the rasterization server (<i>RSAddress=value</i>).</p> <p>In the default Infoprint Manager for AIX Fax configuration, both these parameters have the same value.</p>
<p>/usr/lpp/psf/fax/infifax.cfg</p> <p>Under the [server info] section:</p> <p><i>FAX_PREFIX= value</i></p>	<p>Specify the prefix for your phone number.</p> <p>For example, if you must dial a '9' before the actual number, specify <i>FAX_PREFIX = 9 , .</i></p> <p>For example, if you must dial a '9' and a '1' before the actual number, specify <i>FAX_PREFIX = 9 , 1 .</i></p> <p>Note that the comma (,) indicates a five-second pause.</p>

Note: You can define up to 17 channels for both sending and receiving fax transmissions.

5. To ensure that you can submit fax output through Infoprint Manager, you must [create a Fax destination on your Infoprint AIX server](#).

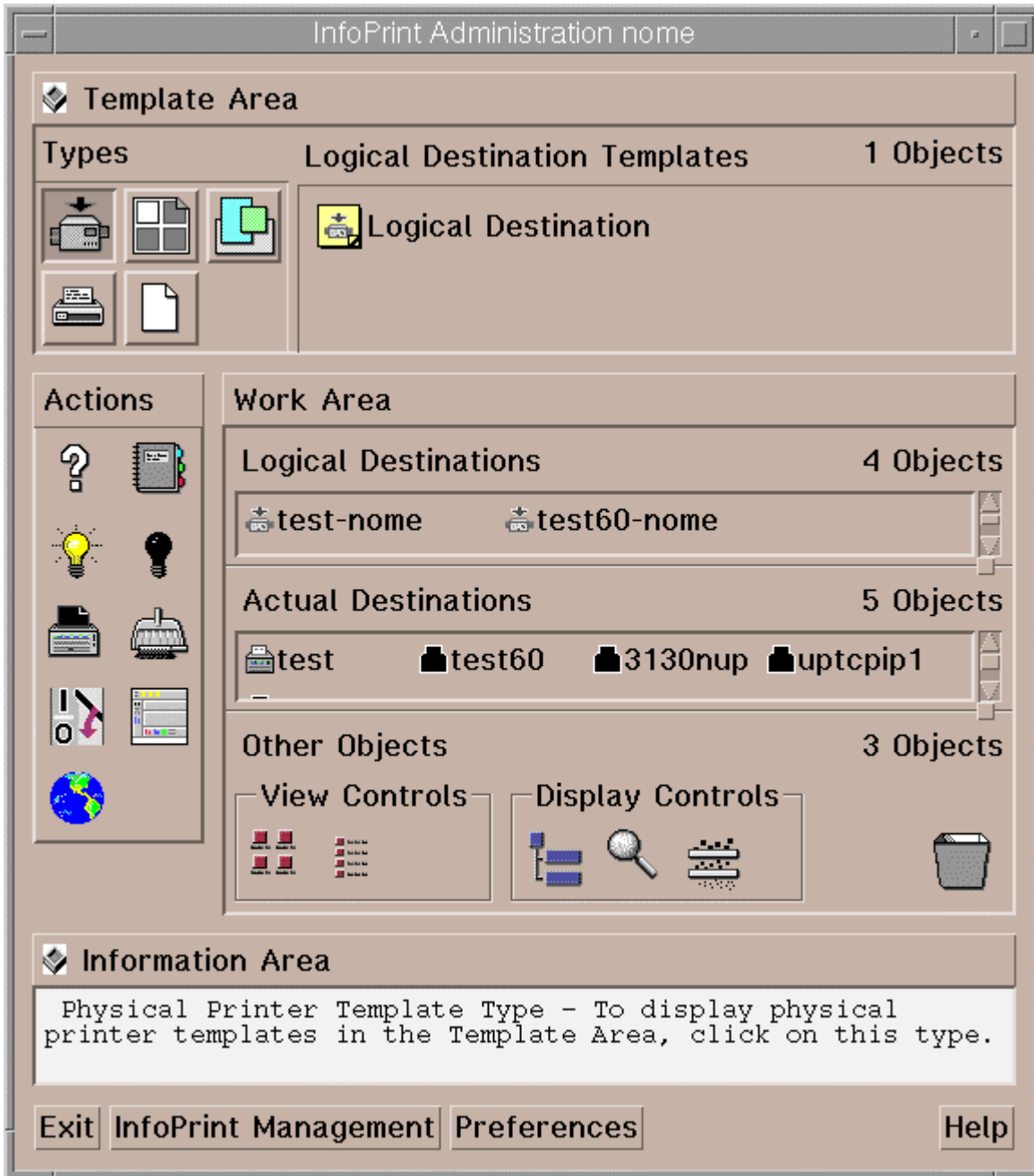
Creating a Fax or Email Destination on the Server

This topic describes how to create both an actual and a logical destination for fax and e-mail data. This task must be performed on the Infoprint AIX server before you can begin sending and receiving either fax or e-mail. While the examples provided on this page reflect a fax destination, the same path is followed to create a destination for Email.

Please note that you can use either the [Basic](#) or the [Advanced](#) Server graphical user interface (GUI) to perform this task. If you use the Advanced GUI, you must perform additional steps to define both a print queue and an actual destination for the fax jobs.

Using the Basic Server Interface

1. From the **Infoprint Administration** window, go to the **Template Area** and select the **Actual Destination Template** icon. This icon is in the first column of the second row (The **Information Area** field lists this as a Physical Printer Template Type). This step opens the **Actual Destination Templates** pane.



2. From the **Infoprint Administration** window, go to the bottom of the window and click on the **Preferences** button.

This step opens the **User Preferences** pop-up window.

If there is already a fax or email template in the set of templates, go to step 5. If a fax or email template does not exist, continue with step 3.

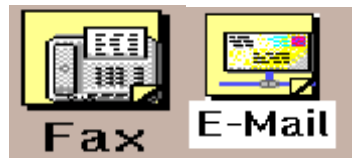
3. From the **User Preferences** pop-up window, click on the **List** button to the right of the **Display actual destination templates** field.

This step opens the **Template selection** pop-up menu.

4. From the **Template selection** pop-up menu, click on the Fax and Email names.

This step puts the **Fax** and **Email** templates inside the **Actual Destination Templates** pane.

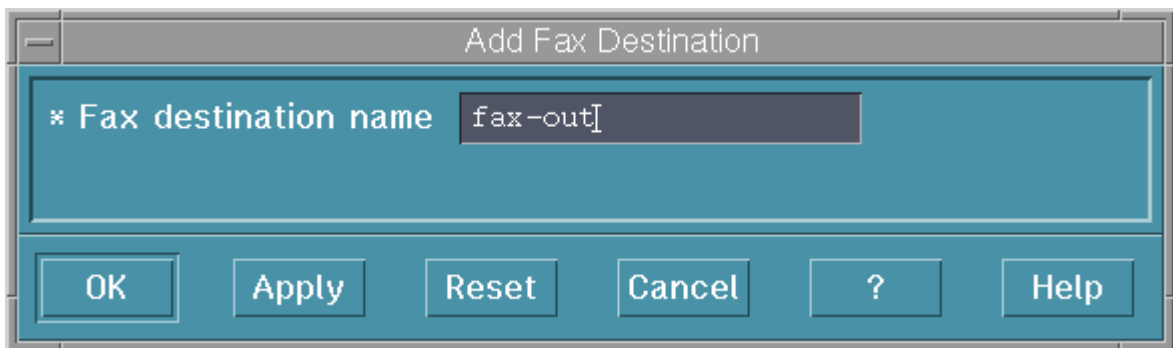
5. From the **Actual Destination Templates** pane, select the appropriate icon (either **Fax** or **Email**), and use the middle button of your mouse to drag it into the **Actual Destinations** pane.



6. From the **Select a Target Object** pop-up window, select the name of the AIX server where you want this destination to reside.

Note that this window appears only when you have more than one server.

7. From the **Add xxx Destination** pop-up window, where **xxx** is either **Fax** or **E-mail**, depending upon your selection, choose a name for your destination. This name should be no more than eight characters long.



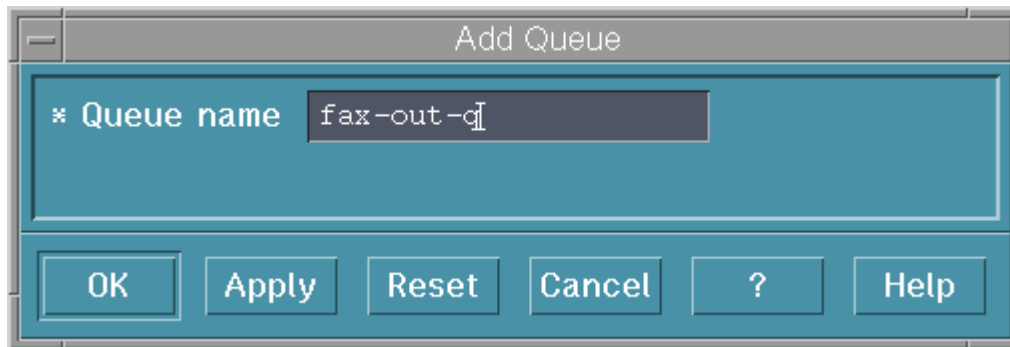
Once you choose a name for the destination (such as **faxout**, an icon with that name appears in the **Actual Destinations** area. In addition Infoprint Manager creates a logical destination in the Logical Destinations pane with a similar name (such as **faxout-server**, where **server** is the name of your AIX Infoprint server).

Note: You cannot create more than one fax destination for each server. If you attempt to do so, the system responds with a message and does not allow you to proceed.

8. To enable this destination, drag the **Enable** icon from the Actions area and drop it on the Fax or Email actual destination that you just created.
9. To enable the logical destination, drag the **Enable** icon from the Actions area and drop it on either the Fax or Email destination that you just created.

Using the Advanced Server Interface

1. From the **Servers** window, click on the **Queue Template Type** button that resides in the Types area.
2. Drag the system-defined **Queue Template** icon from the Queue Templates pane onto the **server** icon that resides in the Servers pane of the Work Area.
3. From the Add Queue pop-up window, specify a queue name in the **Queue name** field, such as **faxout-q**. This step creates the print queue that connects the Logical Destination to the Actual Destination.



4. From the **Servers** window, click on the **Actual Destination Template Type** button that resides in the Types area.

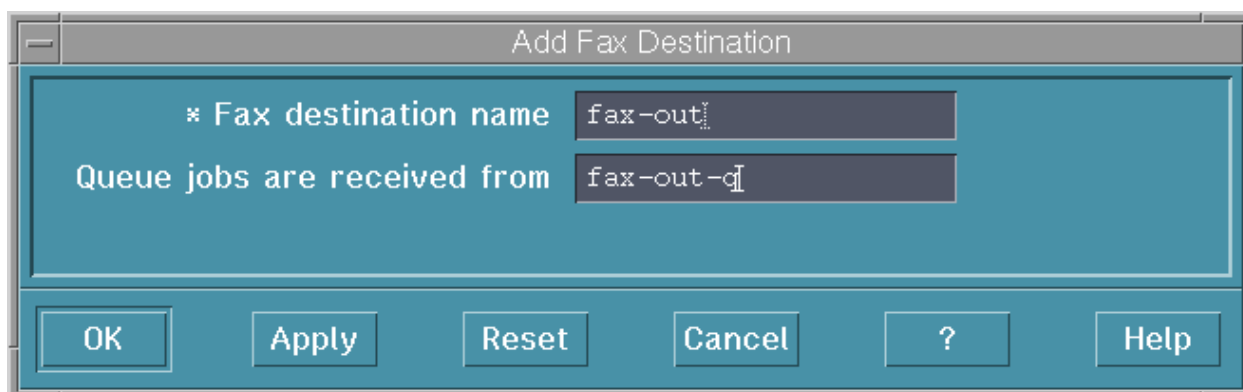
If there is already a fax or email template in the set of templates, go to step 8. If a fax or email template does not exist, continue with step 5.

5. From the **Servers** window, go to the bottom of the window and click on the **Preferences** button. This step opens the **User Preferences** window.
6. From the **User Preferences** window, click on the **List** button to the right of the **Display actual destination templates** field. This step opens the **Template selection** pop-up menu.

- From the **Template selection** pop-up menu, click on the Fax or Email names. This step puts the **Fax** and **Email** templates (displayed below) inside the **Actual Destination Templates** pane.



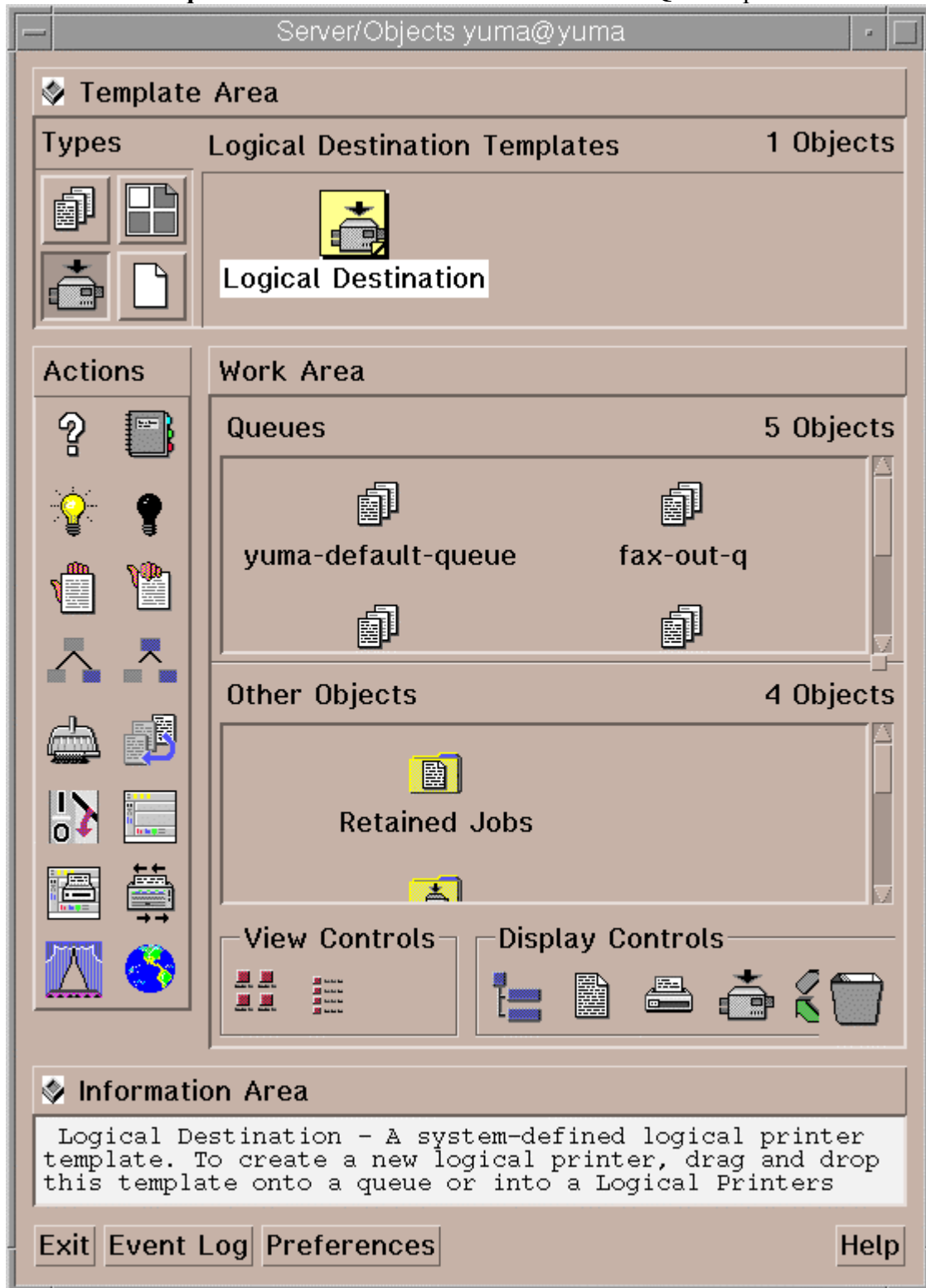
- Drag the system-defined **Fax Template** icon (or the **Email Template** icon) from the Actual Destination Templates pane onto the **server** icon that resides in the Servers area of the Work Area.
- From the Add Fax Destination pop-up window, specify an actual destination name in the **Fax destination name** field, such as **faxout**, and use the queue you just created (**faxout-q**) for the **Queue jobs are received from** field. Press **OK** to create the actual destination.



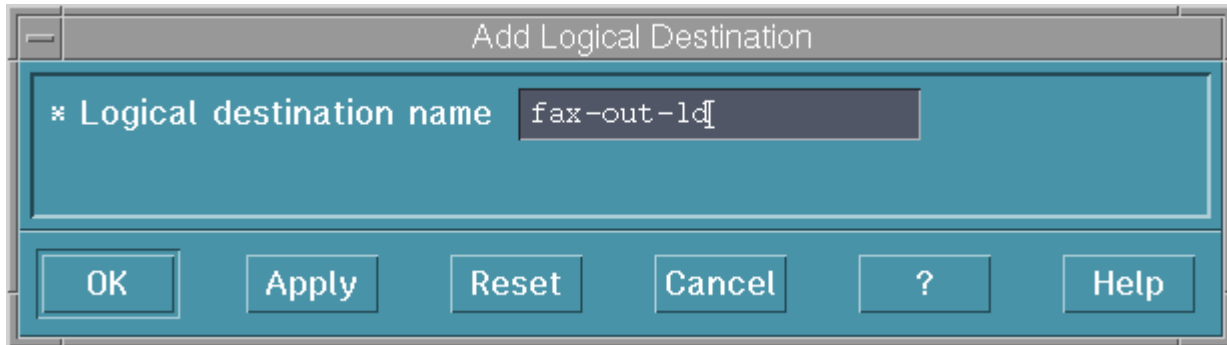
Note: You cannot create more than one fax destination on any one server. If you attempt to do so, the system responds with a message (cannot create more than 1 fax destinations) and does not allow you to proceed.

- From the **Servers** window, highlight the server icon from the **Work Area** pane and click on the **Open Window** icon from the Actions area. This step opens the **Server/Objects** window, where you can create the Logical Destination for Fax.
- From the **Server/Objects** window, you should see the **fax-out** queue or the email queue you created in the **Queues** area. If it is not visible, drag down the sash on the right side of the **Work Area** pane (a small raised square) to open the **Queues** area.

12. From the **Server/Objects** window, drag the system-defined **Logical Destination** icon onto the **faxout-q** icon or the email icon that resides in the **Queues** pane.



13. From the **Add Logical Destination** pop-up window, specify a logical destination name in the **Logical destination name** field, such as **faxout-Id**.



14. To verify that the logical destination is attached to the print queue, double-click on the **faxout-q** icon to show the logical destination and the actual destination for the **faxout-q** queue.

15. To enable this destination, drag the **Enable** icon from the Actions area and drop it on the Fax or Email actual destination that you just created.

16. To enable the logical destination drag the **Enable** icon from the Actions area and drop it on the Fax or Email logical destination that you just created.

Configuring Incoming Fax

Fax for input allows you to receive fax input from another Infoprint Manager server or an actual fax machine, and submit it to an Infoprint logical destination for printing.

For receiving fax input, use the System Management Interface Tool (SMIT) to map channel numbers to particular phone numbers and print queues in the **/usr/lpp/psf/fax/procfax.cfg** file. Note that the actual destination to which you submit incoming faxes must be a PSF DSS.

Use the following procedure to configure for incoming fax.

1. Using your AIX editor of choice, access the **procfax.cfg** file, which should resemble the completed file specified immediately below:

#
phone_number_1 = 9,13039999999
logical_destination_1 = ip201ab-serv1
#
#phone_number_2 = 9,13039991111
#logical_destination_2 = np24lab-serv1
#
fax_log_file = /var/psf/faxserver/procfax.log
#
trunc_fax_log = Yes
#
trace_log = Yes
#

2. Specify the incoming fax line phone number for the first channel by specifying a five-to-twelve digit number for the **phone_number_1** = parameter. The length of the value depends upon whether the number is a local extension (five digit) or to a long-distance fax machine (ten digit). In our example, we specify the twelve-digit extension: `phone_number_1 = 9,13039999999`. Note that you must leave a space between the 1 and the equal sign (=) for this and all other values in the file.

Note: If you purchase the [multi-line fax option](#), you can define the second through fourth lines after the first. Note that the **procfax.cfg** file has a `phone_number_2` parameter and a `logical_destination_2` parameter defined, but commented out:

```
#phone_number_2 = 9,13039991111
#logical_destination_2 = np24lab-
serv1
```

These parameters define the second line of a multi-line fax card.

2. Specify a logical destination (printer) for the **logical_destination_1** = parameter. In our example, we select a printer that resides on an Infoprint AIX server named **serv1**:

```
logical_destination_1 = ip201ab-serv1.
```

Note that these logical destinations must already exist on the Infoprint AIX server, having been created as [Fax destinations on the Infoprint AIX server](#).

Note:To specify more than one printer for the same fax number, repeat the **phone_number_n** and the **logical_destination_n** parameter pair, where *n* is the number of the fax card line. You can specify the same fax number with a different logical destination (printer) value. For example, you could specify the phone number 9,13039999999 to provide faxes for both the printer defined in step 3 (`logical_destination_1 = ip201ab-serv1`) and a second printer defined as `logical_destination_1 = np24lab-serv1`.

3. Before using these numbers, you must stop the server and then restart it for these values to take effect.

Once you have completed these tasks, you can [Verify the Fax Option](#) so that you can send and receive faxes through Infoprint Manager.

Verifying the Fax Option Configuration

To ensure that you have correctly configured the Infoprint Manager for AIX Fax option, take the time to verify that your Infoprint AIX server contains the following directories and files. If you have configured for either [Outgoing Fax](#) or [Incoming Fax](#), the following should exist on your server. Note that a copy of your fax configuration is stored in the **/tmp/FaxConf/Files** directory.

Ensure that the **/usr/lpp/psf/fax** directory contains the following five files:

1. **infofax.cfg**
2. **procfax.cfg**
3. **Channel00X.att**

(X represents the particular channel number. Note that each channel will have a separate file, such as **Channel001.att**, **Channel002.att** etc., .)

4. **fax.id**
5. **email.id**

Ensure that the **/usr/lpp/psf/bin** directory contains the following four files:

1. **procfxmsg**
2. **procfax**
3. **img2fax**
4. **sendmemo**

Ensure that the **/usr/lpp/lightningfax/lfaixserver** directory contains the following two files:

1. **LFlic.txt**
2. **LFserver**

Once you have verified these directories, you must reboot both the Infoprint AIX server and the AIX operating system by performing the following procedure:

1. From an AIX window stop the Infoprint AIX server by specifying:

```
pdshutdown -w now servername
```

where *servername* is the hostname of your Infoprint AIX server.

2. Stop and restart the AIX operating system by specifying:

```
Shutdown -Fr
```

3. Ensure that the GammaLink Fax Board links to the channels by checking how the fax lines have been plugged into the Board on the Infoprint AIX server.

For a four-line fax card, the back of the board has two sockets that should contain dual analog lines. If the text on the Board is on the left side and the writing moves from bottom to top, the first analog connection should be Channel 1, and the second analog connection should be Channel 2. Channels 3 and 4 should be on the socket furthest from the text, with the Channel 4 line on the outside.

4. Verify that the LightningFax software is working correctly with the fax card by dialing each fax phone number from an analog phone.

If working correctly, the fax card should make a connection after the second ring and produce the static sound that is peculiar to fax machines.

Once you restart both the AIX operating system and the Infoprint AIX server, you can begin [Submitting Fax Jobs](#).

Submitting Fax Jobs

Once you have installed the Fax option and defined destinations through either the Basic Server or the Advanced Server configuration, you can submit jobs to a particular output destination by using either [the command-line](#) on the Infoprint AIX server, or the [Infoprint Select](#) component.

Note: You cannot submit ASCII data through the Infoprint Manager fax option. You can, however, send ASCII data by performing this procedure:

1. Create a **Default Document** with Format=line-data and ensure that the PSF Line Data Properties notebook has the following:

Specify Font

Specify Pagedef

Specify Input Exit (use **asciinpe**)

Specify Transform message file name (to insure that error messages are kept separate from the fax output)

2. Create a **Logical Destination** and associate this **Default Document** to it:

```
pdset -cdest -xdestination-support-system=fax
fax-ld
```

Using the AIX Command Line

Faxes are sent through the **pdpr** command using the following syntax:

```
pdpr -p logical_destination -X fax_options -x fax_number=xxxxx... faxfilename
```

For an explanation of each variable in the command-line, consult the following table:

Variable	Definition
<p><i>logical_destination</i></p> <p>Example: -p faxout-ld</p>	<p>Specifies the logical destination that you defined when configuring the Fax option through either the Basic or the Advanced Server graphical user interface.</p>
<p><i>fax_options</i></p> <p>Example: -X /fax_scripts/samp.attr.sc1</p>	<p>Specifies the job attributes that you can specify for fax output. These attributes include cover sheet information, billing code information, and other options. To simplify the printing process, IBM recommends that you create a sample attribute script. In this example, there is a <i>samp.attr.sc1</i> scripts file that resides in the /fax_scripts directory.</p> <p>For specific information about the pdpr command and its attributes, refer to the <i>IBM Infoprint Manager for AIX Reference Guide Version 3 Release 1</i>, which is provided on the documentation CD-ROM.</p>
<p><i>fax_number=xxxxx...</i></p> <p>Example: -x <i>fax_number=3131234567</i></p>	<p>Specifies the fax number to which the fax is being sent. Note that for internal site faxes, you may not need to enter a 10-digit number.</p>
<p><i>faxfilename</i></p> <p>Example: ...faxcover memo1</p>	<p>Specifies the name of the file that you are faxing. Note that this can include more than a single file (for example, a cover sheet and a body file) specified in the sequence they should be received..</p>

The sample attribute file should look similar to the following:

```
# Sample Attribute File for Infoprint Manager Fax Option
# = comment
#
fax-to-name="Mr. John Doe"
account-text="Accounting Code 1234"
subject-text""Status Report for Quarter"
job-comment="Status Report"
callback-number=(123)555-5555
originating-company-text="My Digital Document Company"
destination-company-text="Your Destination Company"
document-type=printable
```

Using the Infoprint Select Client

Once you have successfully installed Infoprint Select and defined a Fax destination on the application, you can use the following procedure to print:

1. Specify **Print** from the screen menu.
2. From the **Print** window, ensure that the **Name** field contains the name of the logical destination that you defined to the Infoprint AIX server, then click on the **OK** button.
3. From the **Infoprint Fax** pop-up window, specify the attribute information in the fields as indicated.

Note: You must specify a number for the **Fax number** field, or Infoprint Select cannot submit the job to the server.

Specifying Outgoing Fax Cover Sheets

You can specify two different types of cover sheets with the Infoprint Fax Manager output device:

- Text cover page
- PCL cover page

For examples, see the directory `/var/psf/faxserver/covers`. When making a PCL header sheet, make sure that your PCL driver outputs non-image PCL data, so that the PCL data has characters and font references. If your PCL driver creates image data, the PCL cover page that you have created will not work with the defined variable names.

You can customize your fax header sheets by using the following set of Lightning Fax parameters:

Configuration Value	Mapping
@LFVAR_FAX_NUMBER@	Telephone number of the fax machine called.
@LFVAR_APPLICATION_NAME@	Job ID from Infoprint Manager.
@LFVAR_CSID@	Identity of the person sending the fax.
@LFVAR_CALL_BACK_NUMBER@	Number to call in case the fax did not come out of the receiving fax machine.
@LFVAR_BILLING_CODE@	Department code to bill for the fax.
@LFVAR_DESTINATION_NAME@	Person to whom you have addressed the fax
@LFVAR_COMPANY@	Company for which the person to whom you are sending the fax works
@LFVAR_SUBJECT@	Subject of the fax
@LFVAR_USER_DEFINED1@	User-defined text.
@LFVAR_USER_DEFINED2@	User-defined text.
@LFVAR_USER_DEFINED3@	User-defined text.
@LFVAR_USER_DEFINED4@	User-defined text.
@LFVAR_COMMENTARY@	Fax document commentary

Sample Text Cover Sheet

A typical text header sheet:

((Infoprint Fax Manager))

From: @LFVAR_CSID@
Callback Number: @LFVAR_CALL_BACK_NUMBER@

TO: @LFVAR_DESTINATION_NAME@
Company Name: @LFVAR_COMPANY@
TO: @LFVAR_SUBJECT@

Commentary: @LFVAR_COMMENTARY@

Address: @LFVAR_USER_DEFINED1@
Address: @LFVAR_USER_DEFINED2@
Address: @LFVAR_USER_DEFINED3@
Address: @LFVAR_USER_DEFINED4@

-->Job Number: @LFVAR_APPLICATION_NAME@ <--
-->Billing Code: @LFVAR_BILLING_CODE@ <--

Customizing Incoming Fax Cover Sheets

You can customize Fax cover sheets by editing the **Channel00X.att** file (where **X** indicates the channel number) in the **/usr/lpp/psf/fax** directory. This file serves as the **pdpr** print command and **tiff2afp** data stream transform command configuration file. By configuring a separate attribute file for each channel, you can define sets of attributes for different printers that reside in different departments of your business enterprise.

Note: You must specify `start-sheets-supported=full` on your actual destination for this job to work correctly. You can specify this value for your actual destination either by invoking the **Infoprint Manager Administration GUI** and following the online help to access the appropriate Printer Properties notebook, or by specifying `start-sheets-supported=full` on the **pdpr** print command.

Use the examples provided below to configure your Infoprint Fax Manager. Note that a pound sign (#) should proceed each comment in the AIX file.

A Basic Example

```
other-transform-options = "-r600 -alg alg1 -fit scale"
```

An Expanded Example

From this example, you can specify a specific department and location that will automatically appear on a fax that uses this channel:

```
other-transform-options = "-r600 -alg alg1 -fit scale"
```

```
department-text = "Accounting"
```

```
building-text = "Building 002-C5-10"
```

```
address1-text = "NewCompany Press"
```

```
address2-text = "1234 Primrose Street"
```

```
address3-text = "Box 1234, DeptR66"
```

For the complete set of document attributes, specify the following command from an AIX window:

```
man pd_att_document
```

For the complete set of job attributes, specify the following command from an AIX window:

```
man pd_att_job
```

Note that these attributes are also listed under the **pdpr** print command attributes that are provided in the *Infoprint Manager Reference Guide*.

Advanced Fax Configuration Options

To perform the following advanced Fax configuration options, you must have installed the LightningFax client 6.5 for AIX 3.2. When installing this software product, you must provide both the Infoprint AIX server name and the host IP address.

To activate the advanced configuration procedures, use the following procedure:

1. From the main menu, select the **Start-->Program--LightningFax 6.5--Explore 6.5** path.
2. Fill in your system administrator in the **UserID** field, the Infoprint AIX server dotted decimal notation in the **Server** field, and leave the **Password** field blank.
3. Click **ok**.
4. Expand the resource that you either selected or had assigned to you.
5. Highlight and right-click on the the **LFapi** setting.
6. Select **User Properties**.
7. Select the **User settings** tab.
8. Checkmark all options under **Deleting Options** and **Notification Options**.

You can also review the **Archiving Options** and the **Printing Options** to see if any values would enhance your printing environment.

9. Click **OK**.

By editing the following configuration files, you can perform advanced configuration tasks for sending and receiving through the Infoprint Fax option. Note that a pound sign (#) should precede each comment in the AIX file.

You can perform the following tasks:

[Pooling Fax Destinations](#)

[Scaling the Width and Height of Fax Output](#)

[Activating the Infoprint Tracing Facilities](#)

Pooling Fax Destinations

If you want all faxes to come from the same logical destination, edit the `/usr/lpp/psf/fax/procfax.cfg` file and ensure that all logical destination parameters point to the same logical destination:

```
logical_destination_1 = fax1-ld
```

```
logical_destination_2 = fax1-ld
```

Note: Ensure that the logical destination you specify (in this case, `fax1-ld`) is correctly defined on your Infoprint AIX server and connected to a queue and actual destination as described in [Creating Fax destinations on the Infoprint AIX server](#). IBM recommends you use the Fax device support system (DSS).

Scaling the Width and Height of Fax Output

You can scale a fax document to any size that you want, modify the following two values on the **infofax.cfg** file:

fax_height_scale=1.5

Specifies the number of inches in height that a fax document should be scaled back. For example, if you take the 1.5 inch default value and submit the fax to a page 11 inches long, the output will be scaled to 9.5 inches.

fax_width_scale=0.5

Specifies the number of inches in width that a fax document should be scaled back. For example, if you take the 0.5 inch default value and submit the fax to a page 8.5 inches wide, the output will be scaled to 8.0 inches.

Activating the Infoprint Tracing Facilities

You can activate the Infoprint Fax tracing facilities by editing both the **/usr/lpp/psf/fax/infofax.cfg** file and the **/usr/lpp/procfax.cfg** file and changing the `trace_log` parameter values to 'yes'. To further modify these trace logs, use the following options:

fax_log_file = /var/psf/fax/infofax.log

Specifies the default log file for fax output information.

fax_log_file = /var/psf/fax/procfax.log

Specifies the default log file for fax input information.

trunc_fax_log = Yes | No

Specifies whether or not you want to truncate either logging file after it reaches a size of 200K bytes.

trace_log = Yes | No

Specifies whether or not you want the InfoFax Tracing facility activated or not.

Configuring Email

Once Email has been installed, you can verify that you have all the necessary executables required to run the Email feature and configure the Lotus Notes server in your Infoprint AIX server to send email.

Note that if you plan to use Email to send large PDF files consisting of fifty pages or more, you will need to expand the size of the `/var/psf/segments` file system to 500 MB.

Verifying Email Files

Ensure that:

1. the `sendmemo` file resides in the `/usr/lpp/psf/bin` directory.
2. the `libnotes_r.a` file (which points to an executable) resides in the `/usr/local/lib` directory.
3. the `infofax.cfg` file resides in the `/usr/lpp/psf/fax` directory and contains the following line to indicate that your email system uses the Lotus Notes Server facility:

```
smtp_server = notes #Using the Lotus Notes Server
```

Note: If you change this value to specify UNIX, Infoprint Manager does not provide any PDF file attachments. Instead, there is only an imbedded PDF in the mail message that must be extracted manually.

Configuring the Lotus Notes Server

You must use the following procedure to configure the Simple Message Transfer Protocol (SMTP) MTA for sending mail beyond your Infoprint AIX server.

Accessing the Lotus Notes Interface

From an AIX window, use the following procedure to access the Lotus Notes interface so you can configure the mail server:

1. Verify that the **/notesr4/notes.ini** file contains the following line:

```
ServerTasks=Replica,Router,Update,Stats,AMgr,Adminp,Sched,C  
alConn,http,SMTPMTA
```

If this line is missing the SMTP mailbox will not be able to connect with external internet and send your mail outside primary Infoprint AIX server.

2. From the AIX command line, type:

```
. /opt/lotus/scripts/domino_env
```

This procedure exports the path necessary to display the Lotus Notes server configuration window. Note that the dot (.) that precedes the first forward slash (/) must be separated from that slash by at least one space and is necessary to ensure that the current shell is set by this script.

Note: This step must be repeated any time you modify your Lotus Notes server configuration.

3. Open the Lotus Notes interface by typing the following at the AIX command line:
notes.

You can ignore the following message, should it display:

```
Warning: The operating system version is newer than  
expected. The OS minor revision 3 is greater than the  
expected revision 2.
```

4. From the **Lotus Notes - Workspace at PrintServer** window, double-click on the **Infoprint Manager's Address Book** (an open book) icon.

From the **Lotus Notes - InfoPrint Manager's Address Book - Server\Servers** window, you will see a number of views in the left column. To configure the Lotus Notes server, you will be opening each of these views that display under the **Server** view to either make a few changes or ensure that they have the correct settings:

- [Connections View](#)
- [Domains View](#)
- [Servers View](#)

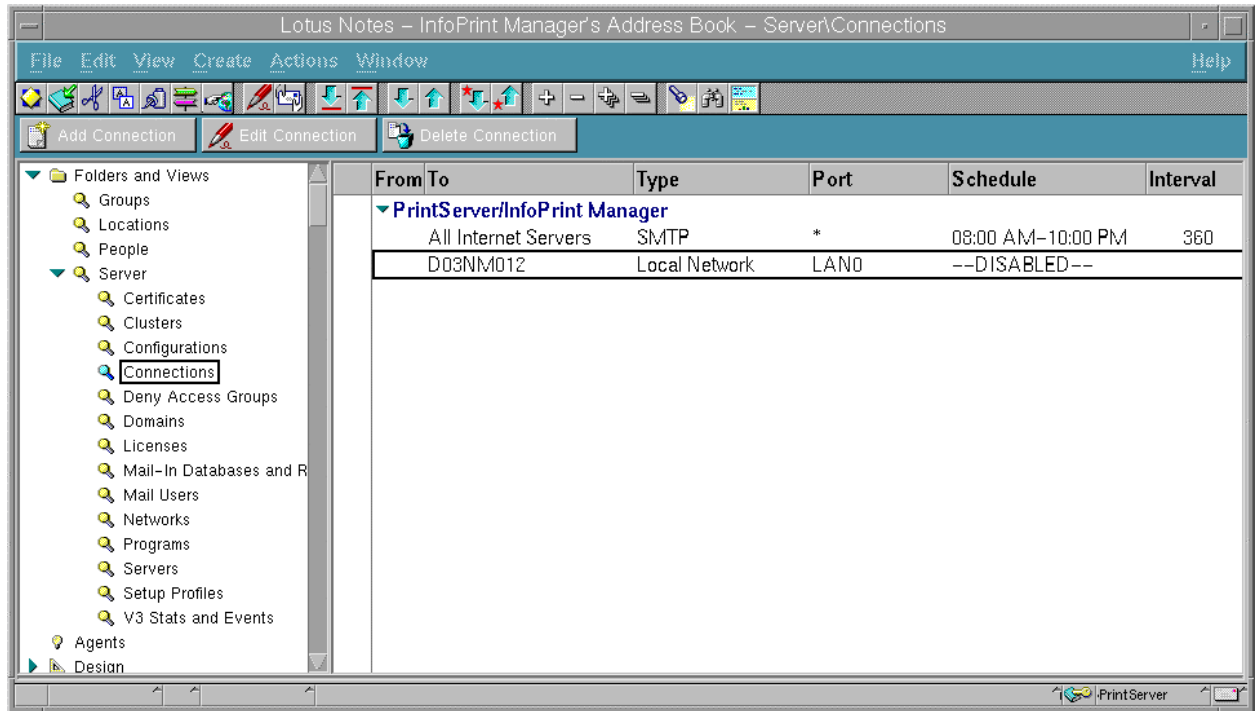
Configuring the Connections View

This record is used during the transfer of mail from your SMTP mailbox to the Internet. To complete this procedure, you will need the following Infoprint Manager information:

- the fully-qualified name of the email server used at your installation.

1. In the **Lotus Notes - Infoprint Manager's Address Book**. Select the **Connections** view under the **Server** view.

This action changes the right side of the screen to show a **PrintServer/Infoprint Manager** category that consists of a default document (**Type** is SMTP) and a default **Local Network** document (**Type** is Local Network), as shown on the following page:



2. Double-click on the SMTP document.

3. Fill in the values displayed in the table on the following page. Note that these values must be specified exactly as shown below, unless otherwise indicated. If you need to change these values, you must click the **Edit Connections** button.

Note that the values for the **Source Server** and **Source Domain** fields are not case sensitive.

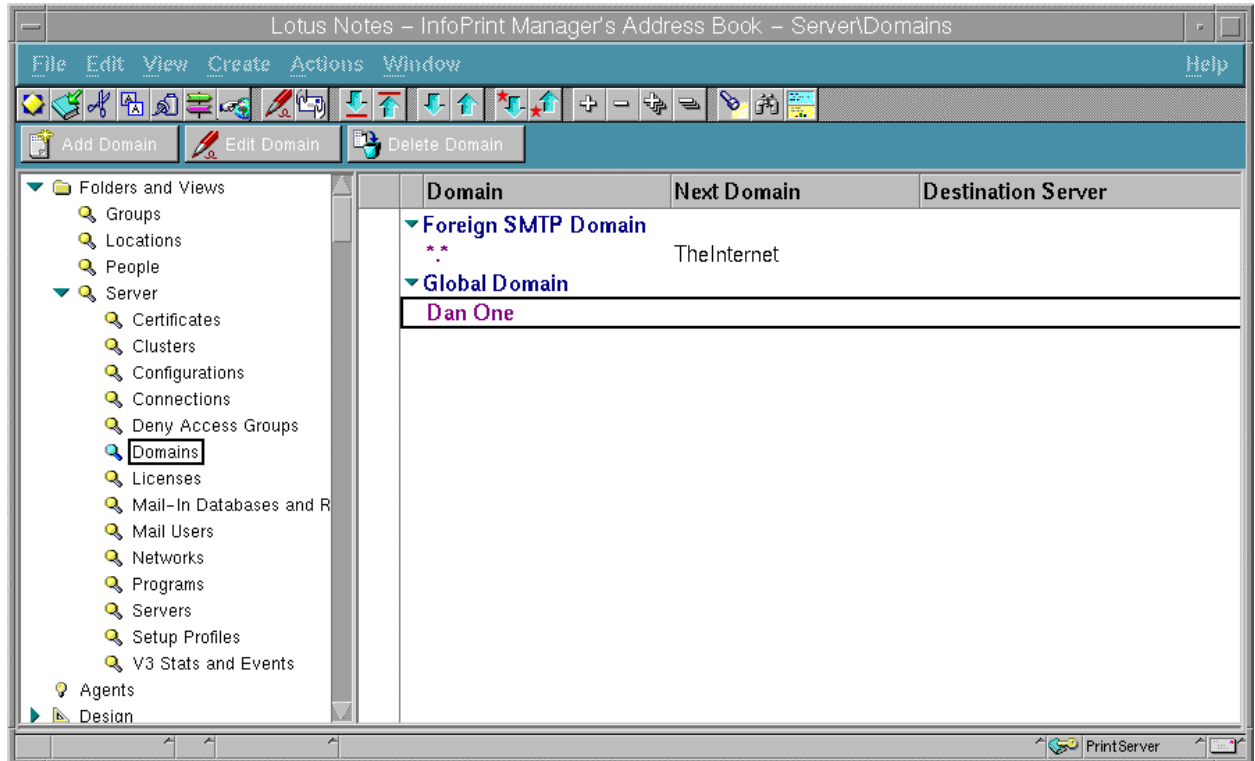
Field	Variable
Connection type	<i>SMTP</i>
Source server	<i>PrintServer/Infoprint Manager</i>
Source domain	<i>Infoprint Manager</i>
Destination server	<i>All internet servers</i> Specifies the mail server name. This is a text field that can be used for descriptive purposes.
Destination domain	<i>TheInternet</i>
Connection	<i>ENABLED</i>
Optional network address	<i>smtpDNSservername</i> where <i>smtpDNSservername</i> indicates fully-qualified name of the email server used at your installation, such as relay.us.ibm.com. Note that you must define this field to send email outside your company.

4. Once you have specified these values, save and close the file before returning to the **Lotus Notes - Infoprint Manager's Address Book - Server/Connections** window.
5. Double-click on the default **Local Network** document.
6. From the **SERVER CONNECTION:PrintServer/Infoprint Manager to deflocnet** window, where *deflocnet* is the name of the default Local Network, ensure that the **Schedule:** value in the **Scheduled Connection** section is *DISABLED*.
7. Once you have specified these values, save and close the file before returning to the **Lotus Notes - Infoprint Manager's Address Book - Server/Connections** window.
8. Now you are ready to configure the [Domains](#) view.

Configuring the Domains View

1. Access the **Lotus Notes - Infoprint Manager's Address Book**. Select the **Server** view, and then select the **Domains** view.

This action changes the right side of the screen to show a **Foreign SMTP Domain** category and a **Global Domain** category, as shown below:



2. Double-click on the document within the **Foreign SMTP Domain** category that has **TheInternet** specified in the **NextDomain** column.

4. Fill in the values displayed in the table on the following page. Note that these values must be specified exactly as shown below, unless otherwise indicated. If you need to change these values, you must click the **Edit Domain** button.

Field	Variable
Domain type	<i>Foreign SMTP Domain</i>
Domain name	<i>TheInternet</i>

4. Once you have specified these values, save and close the file before returning to the **Lotus Notes - Infoprint Manager's Address Book - Server/Domains** window.

5. Double-click on the **DAN ONE Domain** document.

6. Fill in the following values. Note that these values must be specified exactly as shown below.

Field	Variable
Domain type	<i>Global Domain</i>
Global Domain name	<i>Dan One</i>
Global Domain role	<i>SMTP MTA</i>

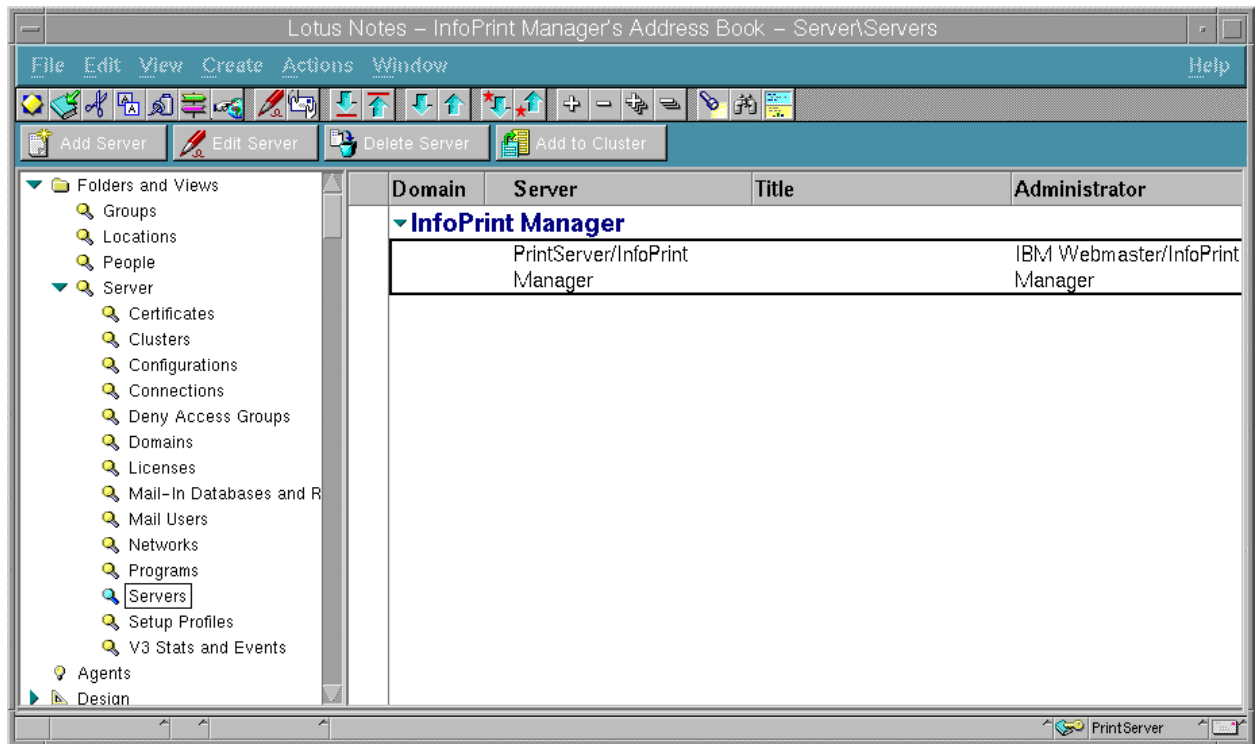
7. Once you have specified these values, save and close the file before returning to the **Lotus Notes - Infoprint Manager's Address Book - Server/Domains** window.

8. Now you are ready to configure the [Servers](#) view.

Configuring the Servers View

1. From the **Lotus Notes - Infoprint Manager's Address Book - Server/Servers** window, click on the **Servers** file that is listed under the **Server** folder on the left side of the screen. To complete this procedure, you will need the following Infoprint Manager information: the fully-qualified name of this Infoprint AIX server.

This action changes the right side of the screen to show an **Infoprint Manager** document, which contains a **PrintServer/Infoprint Manager** document, as shown below:



2. From the **Lotus Notes - Infoprint Manager's Address Book - Server/Servers** window, click on the **PrintServer/Infoprint Manager** document.

- Fill in the following values. Note that these values must be specified exactly as shown below, unless otherwise indicated. If you need to change these values, you must click the **Edit Server** button.

Field	Variable
Server name	<i>PrintServer/Infoprint Manager</i>
Domain name	<i>Infoprint Manager</i>

- Open the **Network Configuration** link and ensure that you have specified the following on the first line:

Port	Notes Network	Net Address	Enable
<i>LAN0</i>	<i>TCP/IP</i>	The fully-qualified host name of the Infoprint AIX host server where this Lotus Notes server resides.	

5. Use the twisty arrow to open the **Internet Message Transfer Agent (SMTP MTA)** section so you can verify that the following values have been specified under the **General** topic:

Field	Variable
Global domain name	<i>Dan One</i>
Fully qualified Internet host name	<p><i>servername</i></p> <p>where <i>servername</i> is the fully-qualified name of this Infoprint AIX server, such as <i>iris.penn.boulder.ibm.com</i>.</p> <p>To find this value, specify <code>ping hostname</code> from an AIX command line.</p>
Message typeface	Specify the font of choice to replace the Courier default, such as <i>Times Roman</i> .
Message point size	Specify the point size for the messages you send, such as either <i>10</i> or <i>12</i> .
Message Content	<p>Users without Lotus Notes</p> <p>Specify 'Users without Lotus Notes' to ensure that your Email does not attach a second file named encap2.ond with each submission. .</p>

7. Once you have specified these values, save and close the file before returning to the **Lotus Notes - Infoprint Manager's Address Book - Server/Servers** window.

8. Now you are ready to [exit the Lotus Notes Interface](#).

Exiting the Lotus Notes Interface

Once you have verified that all three views have been properly configured, do the following before attempting to use the Infoprint Manager Email feature:

1. Close all Lotus Notes windows.
2. Once you have completed configuring and saving these three records, you must [create an Email destination on the Infoprint AIX server](#). Note that it does not matter whether you create these destinations before or after you configure the Lotus Notes server.
3. Shut down and reboot the Infoprint AIX server (which will start the resident Lotus Notes server) before you can begin [Submitting Email Jobs](#).

Submitting Email Jobs

Once you have installed and configured the Email option, you can submit jobs to a particular output destination by using the command-line anywhere that you have the **pdpr** command installed. The following topic shows the command syntax and provides three examples for submitting email jobs:

- [Submitting attributes through a file with the -Z option](#)
- [Submitting files with a Korn Shell Script](#)
- [Submitting text files with a Korn Shell Script](#)

For specific information about the **pdpr** command and its attributes, refer to the *IBM Infoprint Manager for AIX Reference Guide Version 3 Release 1*, which is provided on the documentation CD-ROM (S5445475).

For an explanation of each variable on the command-line, consult the following table:

Variable	Definition
<p><i>logical_destination</i></p> <p>Example: -p email-ld</p>	<p>Specifies the logical destination that you defined when configuring the Email option through either the Basic or the Advanced VSM graphical user interface.</p> <p>For more information about configuring both logical and actual destinations and using the pdpr command, see the <i>Infoprint Manager Reference</i>, (S544-5475).</p>
<p><i>emailfilename</i></p> <p>Example: -Z /email_script/s amp.script</p>	<p>Specifies a file that contains the job attributes, the name of the file you are sending, and the email destination to which you are sending the e-mail.</p> <p>Email attributes include cover sheet information, billing code information, and other options.</p> <p>Note that only subject-text, email-body, and email-signature are the only required attributes.</p>

```
pdset -cdest -xdestination-support-system=email email-ld
```

IBM recommends that you create sample attribute scripts that you can customize for your particular site. While you can specify email attributes on the command line, IBM recommends using an attribute file.

Example 1: Submitting Attributes through a File with the -Z Option

You can create a sample attribute file using an input date type of AFP, PostScript, or Portable Document Format and submit it as the *emailfilename* for the syntax listed above:

```
-x email-from-address=root@serv.us.name.com
-x email-to-address=johndoe@us.name.com
-x subject-text="Test Script"
-x document-type=printable
/usr/lpp/ps/sample.pdf
-x document-type=email-body
/email_script/body.txt
-x document-type=email-signature
/email_script/sig.txt
```


At the command-line, this attribute file would use the following syntax:

```
pdpr -p logical_destination -Z emailfilename
```

where *logical_destination* is **email-ld** and *emailfilename* could be named **/email_script/samp.script** and stored on your local system. Note that you must have defined a **body.txt** file and a **sig.txt** file for this script to work correctly.

This attribute file sends a report to a 'johndoe' Internet ID, using a logical destination (printer) named **email-ld** that you specify from the command line. Note that the convention *us.name.com* is used to indicate a company-wide addressing system, where it indicates the country (*us*), the company name (*name*) and the communications name (*com*) for all fully-qualified addresses in the company.

In this example, note that the document being sent (**sample.pdf**), the body of the note (**body.txt**), and the signature for the Email note (**sig.txt**) all reside in the **email_script** directory of the AIX Infoprint server where you configured the Lotus Notes server.

Note that you cannot put comments in an attributes file using the **-Z** option.

This script does not print ASCII input data. To print ASCII input files, see [Submitting Text Files with a Korn Shell Script](#).

Example 2: Submitting Files with a Korn Shell Script

You can create a Korn shell script (named **sendfile** for this example) with a simpler command syntax because the **pdpr** command is included within the shell script.

Create a file that contains the **pdpr** command and all its attributes. Create the following Korn shell script and place it in a directory on the AIX system where you have installed the **pdpr** command.

The file should look similar to the example that appears on the following page:

```

# Sample Attribute File for Infoprint Manager Email
# using a script to submit
# sendemail $1 $2
# $1 is required as the name of the file to send.
# $2 is optional as the recipient of the email.
#
#! /usr/bin/ksh

if [[ -a $1 && -n $1]]
then

if [ $2 ]
then
WHOTO=$2
else
WHOTO="johndoe@us.name.com"
fi
/usr/lpp/pd/bin/pdpr -p email-ld \
-r brief \
-x email-to-address=$WHOTO \
-x email-from-address=root@serv.us.name.com \
-x "subject-text='Your requested Email file'" \
-x document-type=printable $1 \
-x document-type=email-body /email_script/body.txt \
-x document-type=email-signature /email_script/sig.txt

else
echo " sendfile: could not locate file [$1]"
fi

```

At the command-line, this Korn shell script would use the following syntax:

```
sendfile outputfilename [destination]
```

where *outputfilename* specifies the file that you are sending (**sample.pdf**) and *destination* is the email address (**johndoe**) to which you are sending the file.

This script sends a note to either the *destination* value that you specify as the second argument on the AIX command line, or a 'johndoe@us.name.com' Lotus Notes ID, if you take the default. The script uses a logical destination (printer) named **email-ld** on your Infoprint AIX server.

Note that the convention *us.name.com* is used to indicate a typical Internet address for a business.

Example 3: Submitting Text Files with a Korn Shell Script

You can create a Korn shell script (named **sendtxtfile** for this example) to submit ASCII text files as Email.

Create a file that contains the **pdpr** command and all its attributes. Create the following Korn shell script and place it in a directory on the AIX system where you have installed the **pdpr** command.

The file should look similar to the following (note that this coded example has been split across two pages):

```
# Sample Korn Shell Script for Infoprint Manager Email Text
#
# Uses a script to submit:
# sendtxtemail $1 $2
# $1 is required as the name of the file to send.
# $2 is optional as the recipient of the email.
#
# This script takes an ASCII file as input and creates
#PostScript output that is submitted with the pdpr command
# as email.

#!/usr/bin/ksh
if [[ -a $1 && -n $1]]
then

if [ $2 ]
then
WHOTO=$2
else
WHOTO="johndoe@us.name.com"
fi
# Make temporary PostScript file
enscript -p /tmp/$$email.txt $1
```

```

/usr/lpp/pd/bin/pdpr -p email-ld \
-r brief \
-x email-to-address=$WHOTO \
-x email-from-address=root@serv.us.name.com \
-x "subject-text='Your requested Email file'" \
-x document-type=printable /tmp/$$email.txt \
-x document-type=email-body /email_script/body.txt \
-x document-type=email-signature /email_script/sig.txt
# Delete temporary PostScript file
rm /tmp/$$email.txt

else
echo " sendtxtfile: could not locate file [$1]"
fi

```

At the command-line, this Korn shell script would use the following syntax:

```
sendtxtfile outputfilename [destination]
```

where *outputfilename* specifies the file that you are sending (**email.txt**) and *destination* is the email address (**johndoe**) to which you are sending the file.

This script sends an email to either the *destination* value that you specify as the second argument on the AIX command line, or to 'johndoe' Internet ID, if you take the default. The script uses a logical destination (printer) named **email-ld** on your Infoprint AIX server. This file uses the **enscript** AIX command to convert the text file to PostScript, stores that PostScript file in the **/tmp** directory on the submitting AIX system, and then deletes that file once the **pdpr** command has submitted the PostScript file to the Infoprint AIX server.

Note that the convention *us.name.com* is used to indicate a typical Internet address for a business.

Printing Color Email

If you have color Portable Document Format (PDF) or PostScript files, you can send these files to target email address through Infoprint Manager and receive color output. Ensure that no matter what method you use to submit the job to the Infoprint Manager AIX server, you specify the **-x job-ripped-by-server = false** job attribute to ensure that the Infoprint AIX server either prints the file directly to the IBM Infoprint 2000 printer or sends it as email without converting the data stream to **MOD:CA-P** format..

Note: Color Email is not supported if your Email job sent to an Actual Destination contains any of the attributes specified in the lists that follow. If these attributes or conditions are sent to an Actual Destination, the file will print as black-and-white (MO:DCA-P) output.

Document Attributes Not Supported for Color Email:

ACCOUNT_TEXT
ADDRESS1_TEXT
ADDRESS2_TEXT
ADDRESS3_TEXT
ADDRESS4_TEXT
CARRIAGE_CONTROL_TYPE
CHARS
CONVERT_TO_EBCDIC
DEFAULT_CHARACTER_MAPPING
FONT_FIDELITY_ACTION
FONT_RESOLUTION
FORM_DEFINITION
IMAGE_FIT
IMAGE_LENGTH
IMAGE_WIDTH
INPUT_EXIT
NEW_LINE_OPTION
NUMBER_UP
OTHER_TRANSFORM_OPTIONS
OUTPUT_BIN

OUTPUT_FORMAT
OVERLAY
PAGE_DEFINITION
PAGE_SELECT
PLEX
RESOURCE_CONTEXT
RESOURCE_CONTEXT_FONT
RESOURCE_CONTEXT_FORM_DEFINITION
RESOURCE_CONTEXT_PAGE_DEFINITION
RESOURCE_CONTEXT_PAGE_SEGMENT
RESOURCE_CONTEXT_OVERLAY
RESOURCE_CONTEXT_USER
SHIFT_OUT_SHIFT_IN
SIDES
TABLE_REFERENCE_CHARACTERS
TRANSFORM_MESSAGE_FILE_NAME
TRANSFORM_OUTPUT_FILE_NAME
X_IMAGE_SHIFT
Y_IMAGE_SHIFT

Job Attribute Conditions Not Supported for Color Email:

1. Any use of the JOB_FINISHING attribute.
2. If the job is a variable data job or contains:
 - More than one printable document
 - an insert sheet
 - a file-reference document
 - a document with document_format=modca
 - a document with job_rip_action=rip_and_hold or job_rip_action=rip_only
 - a copy_count attribute set higher than 1.