

Using AFP Upload

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AFP Upload consists of an AIX client program (as part of Infoprint Manager) and an MVS or host server program (available as a priced feature of PSF/MVS). The AIX client program accepts AFP files (or files it can convert to AFP) and sends them to the MVS server, which places them on the JES spool. The host server program ensures that the attributes passed by the AIX client (such as `class`, `destination`, and `forms`) are also communicated to the MVS system and recorded with the data sets on the JES spool. For more information on how to pass these values to an MVS system, see "Transmitting AFP File Attributes to MVS" on page 4.

To communicate between the MVS system and the AIX system, AFP Upload uses either TCP/IP or SNA LU 6.2 protocols. Depending upon the protocol used at your site, you should use one of the following publications to customize and use the AFP Upload feature of Infoprint Manager:

- *AFP Upload Configuration Guide Using TCP/IP*, (S544-5423-01)
- *AFP Upload Configuration Guide Using SNA*, (S544-5422-01)

Both manuals are available from the Infoprint Manager for AIX Version 3.2 Publications CD-ROM and the web site at **Infoprint Manager for AIX Product Library page** (<http://www.ibm.com/printers/R5PSC.NSF/Web/ipmrefinfo32>).

In addition to the network configuration tasks described in these publications, you need to perform the following procedure before you can upload files to an MVS server from Infoprint Manager.

Creating an Actual Destination for AFP Upload and Print

To create an AFP Upload actual destination on your Infoprint AIX server for using the AFP Upload feature, you must invoke the System Management Interface Tool (SMIT) as **root** user. Note that when you create an actual destination, the logical destination that will drive the printer is both created (if it does not already exist) and enabled automatically as `servername-lp`, where `servername` is the symbolic name of your Infoprint AIX server. A queue name - `servername-q` is also created if it does not already exist.

If you create more than one actual destination, Infoprint Manager will use the same default logical destination to drive both actual destinations. If both actual destinations are enabled and available for a job, the first one created handles the job.

To create an actual destination for the AFP Upload feature, use the following procedure:

1. From an AIX window on your Infoprint AIX server, type either `smit` or `smitty` and take the following path:
Infoprint Printing System—>Miscellaneous—>Add a Printer
2. From the **Add a Printer** panel, select either **Upload-SNA** or **Upload-TCP/IP**, depending upon the communication protocol in use at your installation.

- From the **Add an Upload-protocol Printer** panel, where *protocol* is either TCP/IP or SNA, specify the required fields as you would when creating any actual destination object.

SNA-Specific Fields

For an SNA AFP Upload printer (SMIT fastpath of `psfup_add_prt_uploadSNA`), they should be similar to the following values.

Figure 1. SMIT SNA Printer Panel

Printer NAME (Path)

Specify a printer name from 1-to-8 characters in length. This field must match the **Current profile name** field on the LU 6.2 Side Information Profile. For more information on the LU 6.2 Side Information and other related profiles, see *AFP Upload Configuration Guide Using SNA*.

ASCII code set

Defines the code set used on the AIX system.

EBCDIC code set

Defines the code set used on the MVS system.

Maximum concurrent jobs (Num.)

Specifies an upper limit for the number of jobs that this actual destination can process at a time.

TCP/IP Specific Fields

For a TCP/IP AFP Upload printer (SMIT fastpath of `psfup_add_prt_uploadTCP`), they should be similar to the following values.

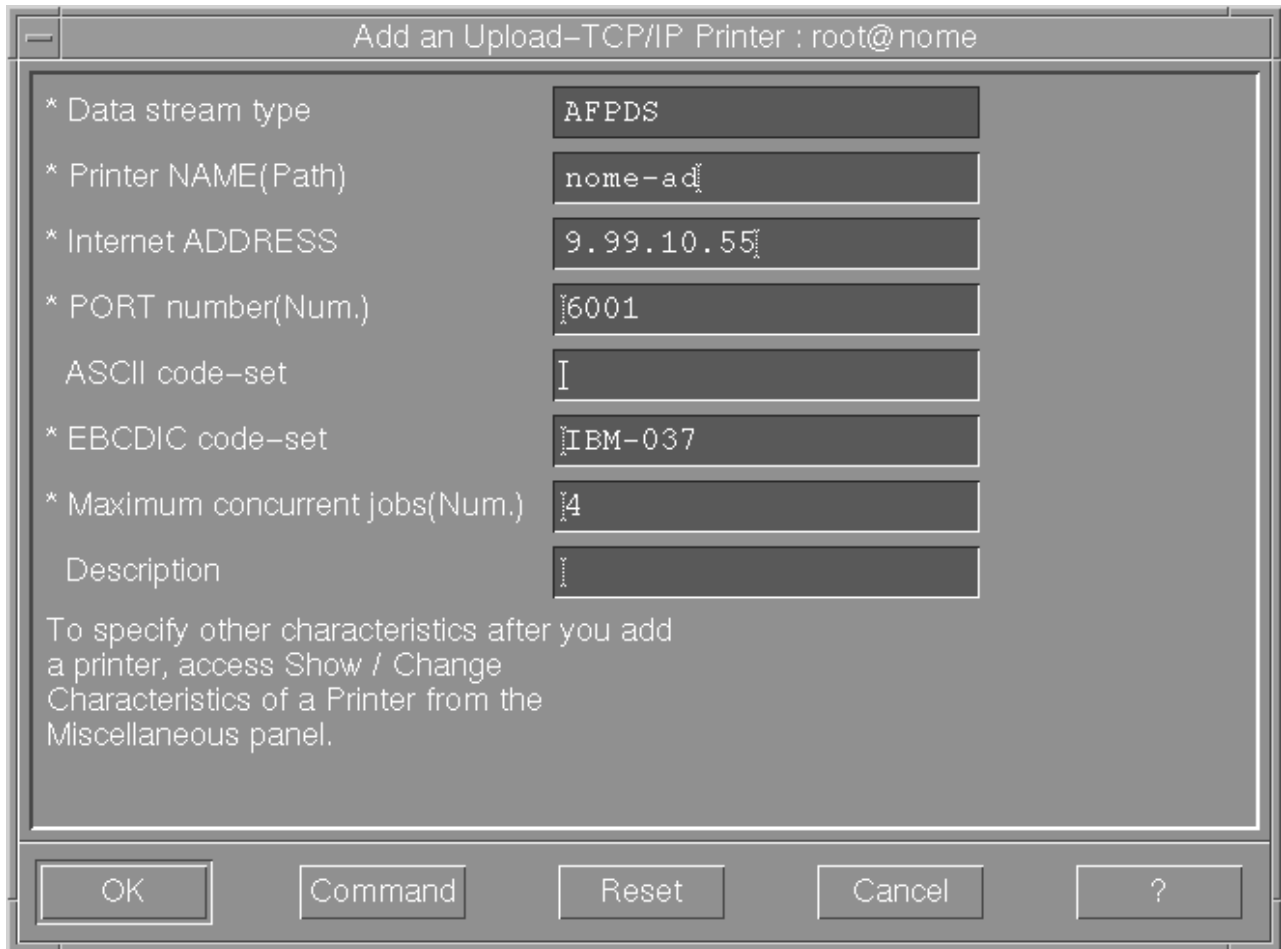


Figure 2. SMIT TCP/IP Printer Panel

Printer NAME (Path)

Specify a printer name from 1-to-8 characters in length.

Internet Address

Specify as either dotted decimal notation or hostname.

PORT number

Specifies the location where the MVS server program on the target system receives access requests. Specify a number from 1-to-65535. **6001** is the default. IBM recommends you specify a number larger than 5000.

ASCII code set

Defines the code set used on the AIX system.

EBCDIC code set

Defines the code set used on the MVS system.

Maximum concurrent jobs (Num.)

Specifies an upper limit for the number of jobs that this actual destination can process at a time.

To find more information about AFP Upload printers, see “Using Infoprint Manager Commands with AFP Upload” on page 6.

Transmitting AFP File Attributes to MVS

Infoprint Manager allows you to specify values to MVS through two methods:

1. “Using Specific Infoprint Manager Attributes”
2. “Using the destination-pass-through Attribute” on page 5

Note that the CLASS, FORMS, and DESTINATION values allow you to specify values through either method. If you want to send these three values through AFP Upload and Print, as well as the BURST value, you must use the **destination-pass-through** attribute. If you specify the CLASS, FORMS, and DESTINATION attributes as specific attributes (**mvs-class**, **mvs-destination**, or **mvs-forms**) and then specify a BURST value on the same command or actual destination, Infoprint Manager ignores the specific document attributes and only passes the BURST value onto the MVS host program. To pass BURST with the other three values, you must use the method described in “Using the destination-pass-through Attribute” on page 5.

Note: To pass the BURST value, you must ensure that you have the correct level of support on both your Infoprint AIX server and your MVS host system. On AIX, the BURST enhancement is available on Infoprint Manager Version 3 Release 1 with PTF U472075, APAR IY11187 (released in July 2000). With Infoprint Manager for AIX Version 3 Release 2, this support is available in the base product. On MVS, this support is available in PTF UW70082, APAR OW44510.

Using Specific Infoprint Manager Attributes

You can specify a series of document attributes that map to MVS values by associating them with a job, specifying them on a **pdpr** print command, or setting them on an actual destination.

Table 1 provides specific attributes that can be used to pass values to an MVS host system through AFP Upload and Print.

Table 1. Specific Infoprint Manager Attributes to Pass Values to an MVS Host System

MVS Values	Infoprint Manager Attribute(s)
ADDRESS	<ul style="list-style-type: none"> • address1-text= • address2-text= • address3-text= • address4-text=
BUILDING	building-text=
CLASS	<ul style="list-style-type: none"> • mvs-class= • (destination-pass-through=)
COPIES	copy-count=
DATAACK	data-fidelity-problem-report=
DESTINATION	<ul style="list-style-type: none"> • mvs-destination= • (destination-pass-through=)
DEPARTMENT	department-text=
FORMDEF	form-definition=
FORMS	<ul style="list-style-type: none"> • mvs-forms= • (destination-pass-through=)

Table 1. Specific Infoprint Manager Attributes to Pass Values to an MVS Host System (continued)

NAME	name-text=
ROOM	room-text=
TITLE	title-text=

For example, to pass a BUILDING value of 004 and a ROOM value of A5, you could use the **pdpr** print command to pass attributes for a single job with a **test1.tif** file:

```
pdpr -p nome-lp -x"building-text=004 room-text=A5" test1.tif
```

For specific syntax rules, refer to the latest draft of the *IBM Infoprint Manager Reference*, (S5445475), which is available on the **Infoprint Manager for AIX Product Library page** (<http://www.ibm.com/printers/R5PSC.NSF/Web/ipmrefinfo32>).

Using the destination-pass-through Attribute

For a subset of MVS values that do not match specific Infoprint Manager attributes, Infoprint Manager allows you to specify values to MVS as **destination-pass-through** (also called **printer-pass-through**) attribute values. These values can be associated with a job, specified on a **pdpr** print command, or set on an actual destination. The MVS host server program associates attributes passed by the AIX client with the SYSOUT data set. These attributes are similar to JCL OUTPUT statement parameters.

They include

- BURST
- CLASS
- DESTINATION
- FORMS

The following procedures describe how you can pass these values to an MVS host server program using AFP Upload and Print, using the following syntax:

```
-x "destination-pass-through='PASSTHRU=MVS_PARM=value'"
```

where *MVS_PARM* can be BURST, CLASS, DESTINATION, and FORMS, either individually or in any combination. When more than one attribute is being passed, each value must be separated by a comma, as shown in the examples below.

The MVS value WRITER must be specified through the **destination-pass-through** attribute, but it does not conflict with specifying either **mvs-class**, **mvs-destination**, or **mvs-forms**. As you can see in the table below and the examples that follow, the syntax for passing the MVS WRITER value differs from that used for the other options.

The following table shows how you can use the **destination-pass-through** attribute to pass values to an MVS host system through AFP Upload and Print.

Table 2. Using the destination-pass-through Attributes to Pass Values to an MVS Host System

MVS Values	Infoprint Manager Pass Through Syntax
BURST	destination-pass-through='PASSTHRU=BURST=xxx'

Table 2. Using the destination-pass-through Attributes to Pass Values to an MVS Host System (continued)

CLASS	destination-pass-through='PASSTHRU=CLASS=xxx'
DESTINATION	destination-pass-through='PASSTHRU=DESTINATION=xxx'
FORMS	destination-pass-through='PASSTHRU=FORMS=xxx'
WRITER	destination-pass-through='WRITER=xxx'

Examples Using the destination-pass-through Attribute

The first two-step example creates an initial value document and associates it with the default logical destination so that all jobs sent to this destination will pass the specified attributes.

- Using the destination objects created in the example for “Creating an Actual Destination for AFP Upload and Print” on page 1, specify the following **pdcreate** command to create an initial value document named **upload1-dd** on the Infoprint AIX server **nome**:

```
pdcreate -c initial-value-document \
-x"destination-pass-through='WRITER=WTR1 PASSTHRU=BURST=YES,CLASS=A'" \
nome:upload1-dd
```

- Specify the following **pdset** command to associate the initial value document named **upload1-dd** with the **nome-lp** logical destination:

```
pdset -c destination\
-x"destination-initial-value-document=upload1-dd" \
nome:nome-lp
```

The second example uses the **pdpr** command to pass attributes for a class of A, a form of B, a job destination of B205, and a BURST value of YES on a single job with a **test2.tif** input file:

```
pdpr -p nome-lp\
-x"destination-pass-through='PASSTHRU=CLASS=A,FORMS=B,DESTINATION=B205,BURST=YES'" \
test2.tif
```

The third example uses the **pdset** command to specify a class of A, a form of B, a BURST value of YES, and a WRITER value of WTR1 on all jobs sent to the actual destination **nome-ad**.

```
pdset \
-x"destination-pass-through='WRITER=WTR1 PASSTHRU=CLASS=A,FORMS=B,BURST=YES'" \
nome:nome-ad
```

Using Infoprint Manager Commands with AFP Upload

Because the AIX client program for AFP Upload operates as an Infoprint Manager actual destination, you can control and monitor it through the commands used with other Infoprint actual destinations:

- To shut down an AFP Upload actual destination, use the **pdshutdown** command that is documented in *Infoprint Manager: Reference*.
- To find status about AFP Upload actual destinations, use the **psfstat** command.

Note that there are limitations to the tasks that you can perform with an AFP actual destination. You can neither forward space, back space, nor pause a job to an AFP Upload actual destination.

When the Connection to the MVS Host Fails

If you experience connection problems with the MVS host after having submitted a job through AFP Upload and Print, how to ensure that the job prints depends upon whether or not Infoprint Manager detected the loss of connectivity.

If Infoprint Manager detected the lost connection, the AFP Upload logical destination becomes red and the job goes into the PENDING state. Once you have re-established connectivity to the MVS host program, re-enable the AFP Upload destination. Then Infoprint Manager will restart the job and continue printing.

If Infoprint Manager does not detect the lost connection, the job remains in the PENDING state, while the printer goes into a needs-key-operator state. To resolve this condition and print your job, you must regain connectivity to the MVS host program, cancel the job in the PENDING state, and then resubmit the job to the AFP Upload actual destination.