

IBM Print Services Facility for AIX:



AFP Upload Configuration Guide Using TCP/IP

Version 2.1

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About This Publication

This publication contains examples and guidelines for configuring AFP Upload on TCP/IP networks.

Who Should Use This Publication

Any systems administrator or networking specialist responsible for configuring or using AFP Upload on TCP/IP networks.

Using the Documentation for PSF for AIX

IBM PSF for AIX provides the following types of documentation:

- Hardcopy publications
- Contextual help for the PSF for AIX SMIT panels
- PSF for AIX DynaText hypertext data base
- PSF for AIX online message catalog

Hardcopy Publications

PSF for AIX ships with the following hardcopy publications, some of which are also available as DynaText hypertext information and as BookManager information (on the *Printing and Publishing: Collection Kit*):

- *IBM Print Services Facility for AIX: AIX for Users of Print Services Facility*, G544-3877. For PSF users who are new to AIX, this publication helps you learn some of the basic AIX concepts and basic commands used in the AIX environment so that you can print using PSF for AIX.
- *IBM Print Services Facility for AIX: Print Administration*, S544-3817. This publication provides instructions for installing, customizing, configuring, and using PSF for AIX and is intended for the person who administers your system.
- *IBM Print Services Facility for AIX: Print Submission*, S544-3878. This publication provides instructions for submitting print jobs using PSF for AIX and is intended for the end user.
- *IBM Print Services Facility for AIX: PSF Direct Network Configuration Guide for S/370*, S544-5287. This publication is intended for a systems administrator or network specialist responsible for configuring their system for AFP Upload on TCP/IP networks, a function of PSF for AIX that allows another PSF program (PSF/VM, PSF/MVS, PSF/VSE, or PSF/400) to print remotely, using the SNA LU 6.2 protocol, on printers supported by PSF for AIX. The PSF program sends the print data stream directly to the PSF for AIX printer, bypassing the AIX spool.
- *IBM Print Services Facility for AIX: Guide for Printer and COM Operators*, S544-5286. This publication is intended for people whose PSF for AIX systems have been customized for restricted access to operations functions. This customization must be done at installation for each user ID.
- *AFP Conversion and Indexing Facility: User's Guide*, S544-5285. This publication is intended for application programmers interested in preparing their Advanced Function Presentation (AFP) files for archival and retrieval. In addition, users can view AFP files using the Viewer application of AFP Workbench for Windows on any workstation running Microsoft Windows.
- *IBM Page Printer Formatting Aid: User's Guide*, S544-5284. This publication provides instructions for creating form definitions and page definitions with Page Printer Formatting Aid for AIX (PPFA for AIX), a separately-orderable feature of PSF for AIX.

Note: This publication is only supplied when the PPFA for AIX feature is ordered.

The following publications are also provided with PSF for AIX:

- *Licensed Program Specifications for IBM Print Services Facility for AIX*, G544-3815. This publication describes PSF for AIX and the resources that are shipped with the program. It also lists hardware and software requirements for PSF for AIX.
- *AFP Fonts: Font Summary*, G544-3810 This publication describes the IBM Expanded Core Fonts and the IBM Compatibility fonts that are shipped with PSF for AIX.

Contextual Help for the PSF for AIX SMIT Panels

Contextual help is available for each field on each PSF for AIX System Management Interface Tool (SMIT) panel. This help provides additional information on print submission and printer configuration options.

To view the help information, select a title or a field on a SMIT panel (the border highlights when you select a title or a field), and press F1. PSF for AIX displays a separate Help Context window.

You can also select help from the action bar (only with the AIXwindows interface of SMIT). When you do this, a message box displays, and the highlighting on the panel changes.

PSF for AIX DynaText Hypertext Data Base

Use the PSF for AIX **dttext** command to view the PSF for AIX DynaText hypertext documentation. This data base contains the following PSF for AIX publications:

- *IBM Print Services Facility for AIX: Print Submission*
- *IBM Print Services Facility for AIX: Print Administration*
- *Facts about PSF for AIX*

You also use normal DynaText functions to print portions of PSF for AIX documentation.

Note: You must have the both **dttext.brswr** and the **psf.online.books** options installed to view PSF for AIX hypertext documentation.

PSF for AIX Online Message Catalog

PSF for AIX supplies a message catalog for the messages issued during the operation of PSF for AIX. For each message, the message catalog includes the text of the message, an explanation, a system action, and a response. You view this information by using the PSF for AIX **psfmsg** command.

Related Publications

This section contains lists of publications, by category, that may be helpful to you as you install and use AFP Upload on TCP/IP networks.

IBM Printing

The following publications contain information about or related to general concepts and procedures about IBM printing:

Why Enterprise Printing?, G544-3642

Printing for Fun and Profit Under AIX Version 4, GG24-3570

Printing and Publishing: Collection, SK2T-2921

Print Services Facility/MVS

The following publications contain information about or related to Print Services Facility/MVS:

PSF/MVS System Programming Guide, S544-3672

PSF/MVS Messages and Codes, S544-3675

AIX Operating System

The following publications contain information about or related to AIX general concepts and procedures:

IBM AIX Getting Started, GC23-2521

AIX General Concepts and Procedures, GC23-2202

IBM AIX Version System Management Guide: Communications and Networks, GC23-2487

AIX Version 3.2 Commands Reference, GBOF-1802

AIX and RISC System/6000 Hypertext Information Base Library, SC23-2163

TCP/IP for MVS

The following publications contain information about or related to TCP/IP for MVS:

IBM TCP/IP for MVS: Planning and Migration Guide, SC31-7189

IBM TCP/IP for MVS: Customization and Administration Guide, SC31-7134

IBM TCP/IP for MVS: Messages and Codes, SC31-7132

IBM TCP/IP for MVS: Diagnosis Guide, LY43-0105

Controller Guides

The following publication contains information about or related to the 3172 Interconnect Controller:

3172 Program User's Guide, SC30-3543

3172 Operator's Guide, GA27-3970

3172 Hardware Planning Guide, GA27-4003

PL/I

The following publications contain information about or related to running programs written in the PL/I language:

OS PL/I Version 2 Programming Guide, SC26-4307

Chapter 1. Configuration Overview

This chapter contains an overview of the components you need to configure AFP Upload on TCP/IP networks. This chapter contains these sections:

- What is AFP Upload?
- What is TCP/IP for MVS?
- Software prerequisites

What is AFP Upload?

AFP Upload includes an AIX client program (as part of PSF for AIX) and an MVS server program (available as a priced feature of PSF/MVS). The AIX client accepts MO:DCA-P files, or files it can convert to MO:DCA-P, and sends them to the MVS server which places them on the JES spool. Many of the attributes of the MO:DCA-P files, such as class, forms, and destination, are also communicated to the MVS system and recorded with the data sets on the JES spool. AFP Upload can use either TCP/IP or SNA LU 6.2 protocols to communicate between the AIX and MVS systems. This publication describes how to configure AFP Upload to use TCP/IP protocols.

What is TCP/IP for MVS?

TCP/IP for MVS is required to use AFP Upload on TCP/IP networks. TCP/IP for MVS is an implementation of TCP/IP protocols for the MVS operating system. It is a separately-purchased product that is not part of the MVS operating system.

For more information about TCP/IP for MVS, you can order the *IBM TCP/IP for MVS: Planning and Migration Guide* by calling 1-800-879-2755 (US only).

Software Prerequisites

The following software products are required to use AFP Upload on TCP/IP networks:

Host System

- MVS/ESA-JES SP 4.2.2 or later
- PL/I Version 2.3.0 or later (run-time library)
- TCP/IP for MVS Version 3.1 or later
- PSF/MVS Version 2.2 AFP Upload Feature

AIX System

- AIX Version 3.2.5 or AIX Version 4.1.3 or later
- PSF for AIX Version 2.1 with APAR IX59972 or later

Chapter 2. General Information About the Host Server Program

The host server program is a single MVS load module that can be purchased as a feature of PSF/MVS. Once started, the host server program runs continuously. It waits for connection requests from AIX clients and creates a subtask to process each client request. When a client request is completely processed, the subtask ends. The host server program creates a new subtask for each client request.

You can run the host server program in a startable address space or as a job managed by an MVS initiator.

The AIX client sends MOD:CA-P data which the server program places in a SYSOUT data set. When the host server program allocates the SYSOUT data set it accepts the default spool space allocation for the SYSOUT class definition in JES.

The 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:

- ADDRESS
- BUILDING
- CLASS
- COPIES
- DATACK
- DEPARTMENT
- DESTINATION
- FORMDEF
- FORMS
- NAME
- ROOM
- TITLE
- WRITER

Notes:

1. The host server program requires that MOD:CA-P statements sent by the AIX client be preceded by a 5A control character.
2. The AIX client program always passes a value for the DATACK parameter with each uploaded file. This DATACK value overrides the DATACK parameter in the PSF/MVS PRINTDEV statement.

Specifying the SYSPRINT DD Statement

The host server program records its configuration settings and information about errors in the data set referenced by the SYSPRINT DD statement. You must include a SYSPRINT DD statement in the JCL statements that run the host server program.

If the SYSPRINT DD statement refers to a data set other than SYSOUT or DUMMY, the data set must have the following attributes:

directory blocks:	0
record format:	VA
record length:	125

Supported Configuration Parameters

The AIX client provides most of the information required by the host server program. The host server program has only a few configuration parameters. The default values for these parameters are appropriate in most cases.

CASE

Specifies whether the host server program should convert text OUTPUT parameter values to upper case. The following OUTPUT parameters are affected:

- ADDRESS
- BUILDING
- DEPARTMENT
- NAME
- ROOM
- TITLE

The CASE parameter does not affect some other OUTPUT parameter values, which are always converted to upper case:

- CLASS
- DESTINATION
- FORMDEF
- FORMS
- WRITER

MIXED

Accept the text values as provided by the AIX client.

Note: Some code pages used by fonts printed on header and trailer pages do not include lower case characters.

UPPER

Convert all alphabetic English characters to upper case.

PORTNUM

Specifies the TCP port number at which the host server program accepts connection requests from clients. Valid values are 1 to 65535, but values above 5000 are recommended. The default value is 6001.

TASN

Specifies the name of the address space used by TCP/IP for MVS. The default value is TCPIP.

TRACE

Specifies whether the host server program should record its internal flow in the data set referenced in the SYSPRINT DD statement.

Note: Using a TRACE value other than NONE degrades performance. You should specify a value other than NONE only if directed to do so by an IBM service representative.

DS

Record transmitted and received data, as well as the internal execution path.

NONE

Do not record trace information. The host server program only writes configuration and error information in the SYSPRINT data set.

NORM

Record the internal execution path.

Specifying the Configuration Parameters

Specify host server program parameters and values as a program parameter on the JCL EXEC statement.

For example,

```
//STEP EXEC PGM=AUPTCPS,PARM='/CASE=MIXED'
```

or

```
//STEP EXEC PGM=AUPTCPS,PARM='/CASE=MIXED,TRACE=NORM'
```

The PARM value has the format:

'run-time options/program parameter'

Run-time options control aspects of the program's execution environment, such as the amount of storage available to the program.

The program parameter is passed to the program.

Specifying PL/I Run-Time Options

The host server program is written in the PL/I language. Like most PL/I programs, aspects of its execution environment can be controlled by run-time options.

You can specify run-time options in the PARM operand on the JCL EXEC statement.

For example,

```
//STEP EXEC PGM=AUPTCPS,PARM='SPAЕ,SPIE/CASE=MIXED'
```

The PARM value has the format:

'run-time options/program parameter'

The program parameter is passed to the program. The host server program accepts its configuration parameters in this way.

For more information about run-time options for PL/I programs, see *OS PL/I Version 2 Programming Guide*.

Chapter 3. General Information About the AIX Client Program

The AFP Upload AIX client program is part of PSF for AIX. The AIX client program operates as a PSF for AIX printer. Like other PSF for AIX printers, it accepts data from the AIX spool. It converts the data to MO:DCA-P, if possible, and uses TCP/IP protocols to send the data to the AFP Upload host server program. The host server program copies the data into a JES SYSOUT data set.

Because the AIX client program operates as a PSF for AIX printer, it can be controlled and monitored by the same commands used with other PSF for AIX printers (**psfctl**, **psfstat**, and **enq**). Refer to the *IBM Print Services Facility for AIX: Print Administration* publication for more information about these commands.

The AIX client program only sends MO:DCA-P data to the host server program. Therefore, files to be uploaded must contain MO:DCA-P data or data that PSF for AIX can transform to MO:DCA-P. The AIX client program cannot directly accept ASCII files. You must use the AFP Conversion and Indexing Facility (ACIF) to transform an ASCII file to MO:DCA-P data before enqueueing it to a PSF for AIX printer configured to upload files. Refer to the *AFP Conversion and Indexing Facility: User's Guide* for more information about ACIF.

The AIX client program passes the following attributes to the host server program along with each file:

- address1
- address2
- address3
- address4
- building
- class
- copies
- datack
- department
- destination
- formdef
- forms
- name
- room
- title
- writer

“Specifying Attributes Using the AIX enq Command” on page 8 briefly describes how to specify these attributes to the AIX client program using the **enq** command. Refer to the *IBM Print Services Facility for AIX: Print Submission* publication for detailed information about how to specify these attributes when you submit a file.

Notes:

1. The AIX client program does not accept files read from tape by the PSF for AIX Input Manager.
2. The maximum length of a MO:DCA-P data stream statement that can be accepted by the AIX client program is 32,756 bytes.
3. The AIX client program always passes the effective **datack** value with each uploaded file. This **datack** value overrides the DATAACK parameter in the PSF/MVS PRINTDEV statement.

Specifying Attributes Using the AIX enq Command

Figure 1 indicates how to specify passed attributes using the AIX **enq** command.

Figure 1. Passing Attributes Using the AIX *enq* Command

Attribute	enq Option
address1	-o address1= <i>address1</i>
address2	-o address2= <i>address2</i>
address3	-o address3= <i>address3</i>
address4	-o address4= <i>address4</i>
building	-o building= <i>building</i>
class	-o passthru=class= <i>class</i> ¹
copies	-o copies= <i>copies</i>
datack	-o datack= <i>datack</i>
department	-o department= <i>department</i>
destination	-o passthru=destination= <i>destination</i> ¹
formdef	-o formdef= <i>formdef</i>
forms	-o passthru=forms= <i>forms</i> ¹
name	-o name= <i>name</i>
room	-o room= <i>room</i>
title	-o title= <i>title</i>
writer	-o writer= <i>writer</i>

¹ To specify the **class**, **destination**, and **forms** attributes, you must use the -o passthru option.

You should use one -o passthru specification that includes all the attributes that you want to provide:

```
enq -P upload1 -o passthru=class=k,forms=std smp.file
```

In this example, the PSF for AIX printer **upload1** will upload the file **smp.file** and correctly pass the **class** and **forms** attributes.

If you use the -o passthru specification more than once, PSF for AIX only processes the last specification:

```
enq -P upload1 -o passthru=class=k -o passthru=forms=std smp.file
```

In this example, the PSF for AIX printer **upload1** will upload the file **smp.file** and correctly process the **forms** attribute, but ignore the **class** attribute.

To combine passthru parameters with other values:

```
enq -P upload1 -o passthru=class=k -o name="John Doe" smp.file
```

In this example, the PSF for AIX printer **upload1** will upload the file **smp.file** and correctly process the **class** and **name** attributes.

See the *IBM Print Services Facility for AIX: Print Submission* publication for detailed information about how to specify these attributes using the **enq** command and the **psfin** command.

See relevant MVS publications for information about acceptable values for each of the passed attributes.

Chapter 4. Understanding SYSOUT Data Set Attributes

This chapter describes the origin of attributes of the SYSOUT data set into which the AFP Upload host server program places MO:DCA-P data sent by the AIX client program.

Print Attributes Passed from AIX to MVS

For each MO:DCA-P file that the AFP Upload client program sends to the host server program on MVS, it passes the following AIX print file options:

- address1
- address2
- address3
- address4
- building
- class
- copies
- datack
- department
- destination
- formdef
- forms
- name
- room
- title
- writer

Refer to the *IBM Print Services Facility for AIX: Print Submission* publication for information about how to specify these attributes when you submit a file to a PSF for AIX printer.

The host server program uses values passed by the AIX client program to set the following OUTPUT descriptor parameters on the SYSOUT data set into which the uploaded MO:DCA-P data is placed:

- ADDRESS
- BUILDING
- CLASS
- COPIES
- DATACK
- DEPARTMENT
- DESTINATION
- FORMDEF
- FORMS
- NAME
- ROOM
- TITLE
- WRITER

Attributes Obtained from JCL Statements

The JOBNAME and ACCOUNT attributes come from the JCL statements that you use to start the host server program. If you want to use several different accounts, you can start several host server programs. Each host server program must use a different TCP port number. Refer to “Supported Configuration Parameters” on page 4 for information about specifying the TCP port number used by the host server program.

Identification Attribute

The USERID attribute is the MVS userid that started the host server program.

Assigning Default Print Attributes to Uploaded Files

You can use AIX shell scripts to define default print file options for uploaded files rather than manually specifying them each time a file is enqueued.

The following example AIX shell script assigns defaults for the class and destination options:

```
#!/bin/ksh
#####
##
## NAME:          upsubmit          ##
##
## DESCRIPTION:  Add default class and destination values to ##
##              files that are uploaded to MVS.             ##
##
##              Since the default values are inserted prior ##
##              to the options specified by the user, options ##
##              specified by the user take precedence.      ##
##
##              Note that a user who specifies the -o passthru ##
##              option MUST specify all the subparameters (forms, ##
##              class, destination). The user's passthru ##
##              specification completely overrides the default ##
##              one in this shell script.                   ##
##
## EXAMPLE:     Put this shell script in a directory in users' ##
##              PATH statement. For instance, /usr/lpp/psf/bin. ##
##
##              Ensure that the file has its execute permissions ##
##              set (chmod 755 upsubmit).                   ##
##
##              User invokes "upsubmit" instead of "enq" but ##
##              specifies normal enq options.               ##
##
##              upsubmit -P upload1 -o copies=2 sample.afp ##
##
##              The upsubmit script adds default options and ##
##              enqueues the file.                          ##
##
#####

command="enq -o passthru=class=x,destination=prt1 $@"
exec $command
```

Figure 2. Sample AIX Shell Script To Set Default Class And Destination Values.

Chapter 5. Troubleshooting Problems with AFP Upload on TCP/IP Networks

This chapter describes some of the places where information about errors is recorded. It also lists a few common errors and their most likely causes.

Places Where Error Information Is Recorded

This section lists a few of the places you should look to get information about errors configuring and using AFP Upload on TCP/IP networks:

error.log for the PSF for AIX printer

The AFP Upload AIX client program operates as a PSF for AIX printer. Like all PSF for AIX printers, it records error messages in a file named **error.log** in the directory for the PSF for AIX printer. The directory is named

/var/psf/printername

where *printername* is the name of the PSF for AIX printer.

You can use the **psfmsg** command to display detailed information about any PSF for AIX message. For more information about the **psfmsg** command, refer to the *IBM Print Services Facility for AIX: Print Submission* publication.

MVS console log

The MVS console log contains information about host server program errors, especially if the host server program runs in a startable address space.

MVS held output

If the host server program runs as a job managed by an MVS initiator, check the job's held output for information about errors. You must use a MSGCLASS on the JCL JOB statement that causes job execution data sets to be held.

SYSPRINT data set

The AFP Upload host server program records its configuration values and information about run-time errors in the data set referenced by the SYSPRINT DD statement. Refer to "Specifying the SYSPRINT DD Statement" on page 3.

Common Errors with AFP Upload Using TCP/IP Networks

The following contains common errors when using AFP Upload on TCP/IP networks on TCP/IP networks. Each problem displays the **Symptom** and its **Likely Causes and Resolutions**:

Symptom:

You run the host server program as a job managed by an MVS initiator. After running for a period, the host server program abends with system code 522.

Likely Causes and Resolutions:

System code 522 indicates that all of the tasks in a job step were in a wait state for the time specified in the JWT parameter of the SMFPRMxx parmlib member. However, lengthy waits are normal during periods when no AFP Upload AIX clients send files to the host server program.

Specify TIME=NOLIMIT in the JCL EXEC statement for the host server program to bypass job step wait limits.

Symptom:

You provide values for **class**, **destination**, and **forms** when you enqueue a print file, but some of the values are not reflected on the SYSOUT data set created in the MVS JES spool.

Likely Causes and Resolutions:

If you use the AIX **enq** command and want to specify **class**, **destination**, and **forms** values, you must use the -o passthru option.

You should use only one -o passthru specification that includes all the values you want to provide. For example,

```
enq -P upload1 -o passthru=class=k,forms=std sample
```

is correct.

If you use the -o passthru specification more than once, only the last specification will be processed. For example,

```
enq -P upload1 -o passthru=class=k -o passthru=forms=std sample
```

is incorrect. The **enq** command will process the **forms** value, but will ignore the **class** value.

Symptom:

You enqueue an ASCII file to be uploaded, but PSF for AIX issues the following error message:

```
0423-659, File _____ contains data of a type that cannot be processed by this PSF/6000 instance. For example, the PSF/6000 instance cannot process ASCII datatype files.
```

Likely Causes and Resolutions:

You cannot directly enqueue an ASCII file to be uploaded; you must use ACIF to transform the file into a MO:DCA-P data stream file.

Symptom:

The host server program fails immediately after you start it. The SYSPRINT data set contains the following error:

```
INITAPI ERROR = 10191
```

Likely Causes and Resolutions:

The host server program referenced a TCP/IP address space name that is not correct. Or the address space name is correct but the address space is not running.

If you do not specify a TCP/IP address space name (TASN) when you start the host server program then TCP/IP is assumed. If the TCP/IP address space name is not TCP/IP, the host server program records this INITAPI macro error and ends.

If you specify a TCP/IP address space name (TASN) when you start the host server program but it is incorrect, the host server program also records this INITAPI macro error and ends.

Ask your MVS system programmer for the address space name of TCP/IP for MVS. Specify it to the host server program using the TASN configuration parameter. For details about the TASN configuration parameter and how to specify it, refer to Chapter 2, “General Information About the Host Server Program” on page 3.

Symptom:

PSF for AIX issues the following error message:

```
0423-655 PSF/6000 cannot communicate with the server program
at TCP port number ____ at Internet Protocol (IP) address ____.
```

Likely Causes and Resolutions:

The host server program is not started at the given IP address and TCP port number.

Ensure that the IP address is correct. Start the host server program. Ensure that the **PORT number** configuration parameter for the PSF for AIX printer equals the PORTNUM value that you specified when you started the host server program. If you do not specify a PORTNUM value when you start the host server program then 6001 is used. For details about specifying the **PORT number** configuration parameter, refer to “Specifying the PSF for AIX Printer” on page 19. For details about specifying the **PORTNUM** configuration parameter, refer to Chapter 2, “General Information About the Host Server Program” on page 3.

Chapter 6. Configuration Example and Guidelines

This chapter includes an example and guidelines for configuring AFP Upload using TCP/IP.

Configuration Examples

For an explanation of pertinent configuration parameters, see “Guidelines for Configuring AFP Upload Using TCP/IP” on page 19.

PSF for AIX Printer Example

For an explanation of these values, see “Specifying the PSF for AIX Printer” on page 19.

```
smit
  PSF for AIX Printing and Configuration
    Administer PSF for AIX
      Manage a PSF for AIX Printer
        Add a Printer or PSF Queue
          Upload-TCP/IP
```

Figure 3. SMIT Panel Sequence for PSF for AIX Printer

```
* Data stream type          AFPDS
* Printer NAME              [upload1]      /
* Internet ADDRESS         [9.99.55.132]
* PORT number              [6001]        #
  ASCII code-set           []
* EBCDIC code-set          [IBM-037]
* Number of QUEUE DEVICES  [4]          #
  Description               []
```

Figure 4. Sample PSF for AIX Printer

Example JCL Statements to Run the Host Server Program in a Startable Address Space

For an explanation of these values, see “Specifying JCL Statements to Run the Host Server Program in a Startable Address Space” on page 20.

```
//UPLOAD PROC
//STEP EXEC PGM=AUPTCPS
//STEPLIB DD DSN=AUP.SAUPLOAD,DISP=SHR
// DD DSN=PLI.V2R3M0.PLILINK,DISP=SHR
// DD DSN=PLI.V2R3M0.SIBMLINK,DISP=SHR
//SYSPRINT DD SYSOUT=*
```

Figure 5. Sample JCL Statements to Run the Host Server Program in a Startable Address Space

Example JCL Statements to Run the Host Server Program as a Job

For an explanation of these values, see “Specifying JCL Statements to Run the Host Server Program as a Job” on page 20.

```
//JOBNAME JOB ACCOUNT
//STEP EXEC PGM=AUPTCPS,TIME=NOLIMIT
//STEPLIB DD DSN=AUP.SAUPLOAD,DISP=SHR
// DD DSN=PLI.V2R3M0.PLILINK,DISP=SHR
// DD DSN=PLI.V2R3M0.SIBMLINK,DISP=SHR
//SYSPRINT DD SYSOUT=*
```

Figure 6. Sample JCL Statements to Run the Host Server Program as a Job

Guidelines for Configuring AFP Upload Using TCP/IP

The following guidelines explain the values provided for parameters used in the examples from “Configuration Examples” on page 17.

Specifying the PSF for AIX Printer

The pertinent parameters for the PSF for AIX printer are illustrated in Figure 7 and described below:

* Printer NAME	[<i>printer_name</i>]	/
* Internet ADDRESS	[<i>ip_address</i>]	
* PORT number	[<i>port_number</i>]	#
ASCII code-set	[<i>ascii_code-set</i>]	
* EBCDIC code-set	[<i>ebcdic_code-set</i>]	
* Number of QUEUE DEVICES	[<i>#qdevices</i>]	#

Figure 7. PSF for AIX Printer Guidelines

Printer NAME

Choose any meaningful value.

Internet ADDRESS

Specify the Internet Protocol (IP) address of the system where you intend to send print files. You can specify the address in either dotted decimal format (for example, 9.99.55.132) or host name format (for example, galaxy.abc.com).

PORT number

Specify the TCP port number at which the AFP Upload host server program on the target system receives access requests. Valid values are 1 to 65535, but values above 5000 are recommended. The default value is 6001.

Note: The value you enter here must match the value used in configuring the host server program.

ASCII code-set

Specify the ASCII code-set in which attributes such as class, forms, and destination are specified on your AIX system. Before sending the attributes to the host server program, PSF for AIX converts the attributes from the specified ASCII code-set to the specified EBCDIC code-set.

If you do not specify an ASCII code set, PSF for AIX uses the current code set on your AIX system.

EBCDIC code-set

Specify the EBCDIC code-set used on the host system to which print files are sent and spooled. Before sending the attributes to the host server program, PSF for AIX converts attributes such as class, forms, and destination from the specified ASCII code-set to the specified EBCDIC code set.

Number of QUEUE DEVICES

Specify the number of queue devices to be created for the PSF for AIX printer. Multiple queue devices allow PSF for AIX to simultaneously send one file while converting the next file.

You can define up to nine queue devices. However, note that PSF for AIX requires more RISC System/6000 memory for each queue device.

Specifying JCL Statements to Run the Host Server Program in a Startable Address Space

You can run the host server program either in a startable address space or as a job managed by an MVS initiator. This section describes how to run the host server program in a startable address space.

You must place a JCL PROC in a PROCLIB and use the MVS START command to run the PROC. The JCL must execute the AFP Upload server program, named AUPTCPS. This program is written in the PL/I language. It requires that the PL/I PLILINK and SIBMLINK libraries be included in the STEPLIB definition. The AFP Upload server program also requires that the SYSPRINT DD name be allocated. For more information about the SYSPRINT DD name used by the host server program, refer to “Specifying the SYSPRINT DD Statement” on page 3.

You can use the MVS START and CANCEL commands to control execution of the host server program. The host server program does not support or respond to the MVS STOP and DISPLAY commands.

Note: The host server program runs continuously. If you run the host server program in a startable address space, the host server program runs until you cancel the address space.

Specifying JCL Statements to Run the Host Server Program as a Job

You can run the host server program either in a startable address space or as a job managed by an MVS initiator. This section describes how to run the host server program as a job managed by an MVS initiator.

The JCL must execute the AFP Upload server program, named AUPTCPS. This program is written in the PL/I language. It requires that the PL/I PLILINK and SIBMLINK libraries be included in the STEPLIB definition. The AFP Upload server program also requires that the SYSPRINT DD name be allocated. For more information about the SYSPRINT DD name used by the host server program, refer to “Specifying the SYSPRINT DD Statement” on page 3.

Specify TIME=NOLIMIT in the JCL EXEC statement. This specification causes job step wait limits to be bypassed. If this specification is omitted, the job will abend with system code 522 if all of the tasks are in a wait state for the time specified in the JWT parameter of the SMFPRMxx parmlib member. Lengthy waits are normal during periods when no AFP Upload AIX clients send files to the host server program.

Note: The host server program runs continuously. If you run the host server program as a job managed by an MVS initiator, the host server program runs until you cancel the job.

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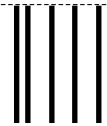


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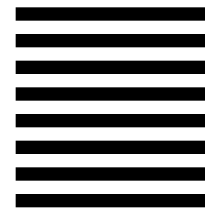
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