IBM InfoPrint Manager 3.1 for AIX

Installation Documentation from the Internet

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InfoPrint Manager Installation

The following procedures help you install the latest level of InfoPrint Manager:

Installing InfoPrint Manager Control on Your AIX System

Installing Optional Features

Performing Optional Configuration

Installing Applications on Client Systems

Applying Service Updates

Getting up and running in no time with IBM installation services

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Installing InfoPrint Manager Control on Your AIX System

The following procedures help you install InfoPrint Manager on your AIX system:

Understanding AIX Hardware Requirements

Understanding AIX Software Requirements

Preparing to Install InfoPrint Manager on Your AIX Server

Starting the InfoPrint Installer

Verifying Your InfoPrint Manager Install

Reviewing Installed Components

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Understanding Hardware Requirements

The following defines the minimum hardware requirements for the InfoPrint Manager Solution:

Clients

- Macintosh
- PC
- Scanner
- PC & Scanner

Servers

- Print Loads Light
- Print Loads Heavy
- Print Loads High Performance

Macintosh Requirements

Minimum configuration for InfoPrint Submit

- PowerMac
- MacOS 7.6.1, 8.0 or 8.1
- 32 MB RAM
- Open Transport
- 10 MV DASD for program storage
- LAN connection (either Ethernet or Token-Ring)
- Access to the InfoPrint Multiple Printer Controller
- TCP/IP

PC Requirements

Minimum configuration for InfoPrint Submit

- 486-66 MHz processor
- 16 MB RAM
- CD-ROM
- 3.5 - inch diskette drive
- 10 MB DASD for program storage
- Windows 95 or Windows NT 4.0
- LAN connection (either Ethernet or Token-Ring)
- IBM TCP/IP
- Access to the InfoPrint Multiple Printer Controller

Scanner Requirements

- Xerox DocuImage 620S (RPQ 8B4413)
- Ricoh IS420 Scanner (RPQ 8B4415)

PC & Scanner

Minimum configuration

- 100 MHz Pentium or Pentium Pro processor
- 32 MB of RAM (64 MB if frequent scanning of large images or for full gray imaging)
- 1 GB disk drive (DASD)
- PCI bus with a free slot
- Windows 95
- Windows 95 compatible plug-and -play bios
- 17 inch or larger SVGA monitor with 1024 x 768 resolution and 256 colors, preferably with .26 dot size
- Enhanced 101 keyboard with two-button serial mouse
- CD-ROM and diskette capability
- (Cable and adapter card are provided with the scanner)

AIX Hardware Requirements

Print Load Light

Minimum configuration

66 MHz Power2 or 133 MHz PowerPC RS6000

- 64 MB of memory (128 MB for the VSM GUI)
- 2 GB of DASD
- CD-ROM
- 17 inch graphical display

Print Load Heavy

Minimum configuration

IBM 7025 Model F50 RS/6000

- 512 MB of memory
- 4 - 4.5 GB SCSI disk drives
- CD-ROM
- 4 - 166 MHz processors
- 1.44 MB 3.5-inch diskette drive (DASD)
- Appropriate printer and LAN attachments
- 4 GB/8 GB 4-mm tape drive
- Additional disk space for the Library (optional)
- Additional optical or tape drives for Library archiving (optional)
- P200 graphical display

Print Load High Performance

Minimum configuration

IBM 7025 Model F50 RS/6000

- 512 MB of memory
- 2 - 4.5 GB SCSI disk drives (DASD)
- 5 - GB SSA disk drives DASD
- CD-ROM
- 4 - 332 MHz processors
- 1.44 MB 3.5-inch diskette drive
- Appropriate printer and LAN attachments
- 4 GB/8 GB 4-mm tape drive
- Additional disk space for the Library (optional)
- Additional optical or tape drives for Library archiving (optional)
- P200 graphical display

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Understanding AIX Software Requirements

To ensure correct operation, InfoPrint Manager requires that certain components of the AIX operating system be installed on your RS/6000 system. It is up to you to install the **base** level of these components from your AIX product CD-ROMs before installing InfoPrint Manager.

If you want to install the non-DCE version of the InfoPrint Manager base, we recommend that you simply run the InfoPrint Installer. If you are missing any required base AIX filesets, the Installer will list them and direct you to install them from your AIX product CD-ROMs.

If you want to install the DCE version of the InfoPrint Manager base, there are additional requirements. We strongly recommend that you install all required DCE filesets prior to running the InfoPrint Installer.

To make the installation as easy as possible, the InfoPrint Installer will automatically apply service to your AIX software to meet InfoPrint Manager prerequisites. This service is needed to ensure that InfoPrint Manager will function properly. Be advised, however, that the Installer will not automatically apply service that is hardware specific. For more details on updating AIX software to work with InfoPrint Manager, see Verifying Updates to AIX Filesets.

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Verifying AIX Filesets

InfoPrint Manager for AIX requires the AIX operating system to be installed at version 4.2.1 or later. InfoPrint Manager has specific dependencies on the base-level filesets listed below, all of which may be installed from the AIX operating system version 4.2.1 CD-ROMs. (If you are running a later version of AIX, such as 4.3.1, you will find that your CD-ROMs contain later versions of some of these filesets. Because this is a list of minimal requirements, you should install the later versions from your AIX CD-ROMs.)

The following topics provide fileset information for

- All InfoPrint Manager for AIX 3.1 Installations
- Additional Requirements for DCE Versions
- Additional Requirements for the SAP Transform
- Displaying Currently Installed Filesets

Verifying Requirements for All InfoPrint Manager Version 3.1 Installations

The following filesets are required on each AIX system on which you will install InfoPrint software:

- bos.loc.iso.en_US 4.2.1.0 (Base System Locale ISO Code Set - U.S. English)
- bos.mh 4.2.0.0 (Mail Handler)
- bos.rte 4.2.1.0 (Base Operating System Runtime)
- bos.rte.libc 4.2.1.0 (libc Library)
- bos.rte.libpthreads 4.2.1.0 (libpthreads Library)
- dce.pthreads.rte 2.1.0.4 (DCE Threads Compatibility Library)
- ipfx.rte 2.2.0.0 (Information Presentation Facility Runtime)
- printers.rte 4.2.1.0 (Printer Backend)
- X11.apps.msmit 4.2.1.0 (AIXwindows msmit Application)
- X11.base.rte 4.2.1.0 (AIXwindows Runtime Environment)
- X11.loc.en_US.Dt.rte 4.2.1.0 (AIX CDE Locale Configuration - U.S. English)
- X11.loc.en_US.base.lib 4.2.0.0 (AIXwindows Client Locale Configuration - U.S. English)
- X11.loc.en_US.base.rte 4.2.0.0 (AIXwindows Locale Configuration - U.S. English)
- X11.motif.lib 4.2.1.0 (AIXwindows Motif Libraries)

- X11.msg.en_US.base.rte 4.1.1.0 (AIXwindows Runtime Environment Messages - U.S. English)

- X11.vsm.rte 4.2.1.0 (Visual System Management Runtime Environment)

Note: Regardless of the language that you plan to use when installing InfoPrint Manager, you must apply the X11.loc.en_US* filesets, as well as the bos.loc.iso.en_US 4.2.1.0 fileset listed above.

The following fileset will be installed automatically by the InfoPrint Installer:

xlC.rte 3.1.4.8 (C Set ++ for AIX Application Runtime)

If you already have xlC.rte installed at a lower level, it will be automatically upgraded to the 3.1.4.8 level by the Installer.

Verifying Additional Requirements for DCE Version

There are additional requirements if you are installing the DCE version of the InfoPrint Manager base product. At a minimum, on every system on which you will be running DCE InfoPrint servers, you must have the following installed:

- dce.client.core.rte 2.1.0.0 (DCE Client Services)

- dce.msg.en_US.client.core.rte 2.1.0.0 (DCE Base Client Messages)

- dce.msg.en_US.compat.client.core.smit 2.1.0.0 (DCE SMIT Base Messages)

If you will be using the Installer to create your DCE cell, you will also need the following filesets on the primary InfoPrint server system:

- dce.cds.rte 2.1.0.0 (DCE Cell Directory Services)

- dce.msg.en_US.compat.cds.smit 2.1.0.0 (DCE SMIT Cell Directory Server Messages)

- dce.msg.en_US.compat.security.smit 2.1.0.0 (DCE SMIT Security Services Messages)

- dce.security.rte 2.1.0.0 (DCE Security Services)

Verifying Additional Requirements for the SAP Transform

At a minimum, on every system on which you will be running the SAP Transform (InfoPrint AIX servers and SAP R/3 application servers), you must have the following installed:

- bos.loc.adt.iconv (Language Converter Development Toolkit)

Verifying Currently Installed AIX Filesets

You can verify if the prerequisite filesets are already installed on the AIX system by using the AIX `lslpp` command. For example, you can check the Mail Handler fileset by entering the following at the command line:

```
lslpp -l bos.mh
```

If the fileset is installed, AIX displays the level, state, and description of the fileset. If the fileset is not installed, AIX issues an error message. For missing filesets, use the AIX system management interface tool (SMIT) to install the appropriate filesets from the AIX CD-ROM.

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Verifying Updates to AIX Filesets

The following lists the AIX system authorized program analysis reports (APARs) that you may need to apply to run InfoPrint Manager:

- APAR IX69926
- APAR IX68882
- APARs IX67818; IX69809; IX70359; IX71626

To verify that an APAR has been applied, consult Verifying Installed AIX APARs.

As a convenience, the filesets that comprise each of the APARs listed above are included on the InfoPrint Manager for AIX Server 1 CD-ROM. To apply service from the Server 1 CD-ROM, follow the Applying AIX Service from Server 1 CD-ROM procedure.

Filesets for the following APARs are not included with the InfoPrint Manager for AIX CD-ROMs:

None required.

These APARs were not available at the time this version of InfoPrint Manager shipped. Therefore, they must be obtained from the AIX Fix Distribution site. If you require additional assistance in obtaining these APARs, contact IBM Software Support.

The InfoPrint Installer automatically services AIX filesets whenever possible. To verify service automatically applied by the InfoPrint Installer, consult Verifying Filesets Updated by InfoPrint Installer.

Note: There are additional DCE requirements if you are using the DCE version of the InfoPrint Manager base.

APAR IX69926

Description:	Memory problem on Symmetrical multiprocessing (SMP) systems.
Needed by:	All SMP systems, including preloaded IBM 4161 MPC models and IBM F50 systems.
Affects Fileset levels:	• bos.adt.prof 4.2.1.5 (PTF **U451363**) • bos.mp 4.2.1.6 (PTF **U451393**) • bos.rte.libc 4.2.1.5 (PTF **U451631**) • bos.rte.libs 4.2.1.4 (PTF **U451483**)

To apply AIX service from the Server 1 CD-ROM, follow the Applying AIX Service from Server 1 CD-ROM procedure..

APAR IX68882

Description:	Problem using the graphics console systems.
Needed by:	Preloaded IBM 4161 MPC models and IBM F50 systems.
Affects Fileset levels:	bos.rte.console 4.2.1.2 (PTF **U450595**)

To apply AIX service from the Server 1 CD-ROM, follow the Applying AIX Service from Server 1 CD-ROM procedure..

APARs IX67818; IX69809; IX70359; IX71626

Description:	Problem using multiple InfoPrint Manager server systems in the same namespace.
Needed by:	Anyone planning to install the Adobe PostScript Extreme option. These APARs must be applied to the InfoPrint Manager AIX server, as well as the primary and secondary Adobe PostScript Extreme systems.
Affects Fileset levels:levels:	• bos.adt.prof 4.2.1.5 (Base Profiling Support) (PTF **U453578**) • bos.net.nfs.client 4.2.1.6 (PTF **U450590**) • bos.net.tcp.client 4.2.1.16 (TCP/IP Client Support) (PTF **U453578**) • bos.net.tcp.server 4.2.1.10 (TCP/IP Server) (PTF **U454753**) • bos.net.tcp.smit 4.2.1.1 (PTF **U448792**) • bos.rte.libc 4.2.1.7 (Library libc) (PTF **U453578**) • bos.net.tcp.adt 4.2.1.2 (TCP/IP Application ToolKit) (PTF **U454633**) **Note:** The TCP/IP Application ToolKit fileset PTF is not connected to a particular APAR. If your filesets are not at the correct level, you may have to order this fix as a PTF.

To apply AIX service from the Server 1 CD-ROM, follow the Applying AIX Service from Server 1 CD-ROM procedure.

Applying AIX Service from Server 1 CD-ROM

To apply the needed service directly from the Server 1 CD-ROM, follow this procedure:

1. Insert the gold InfoPrint Manager for AIX Server 1 CD-ROM into your CD-ROM drive.
2. Type the following at a command line:

   ```
   mount /cdrom

   smit install_all
   ```

3. Enter the following in the **INPUT device/directory for software** field:

   ```
   /cdrom/images
   ```

4. Click the **List** button next to the **Software to install** field.
5. Select the filesets you need to satisfy the given APAR. (If an exact match for a fileset is not available, select the latest level presented in the SMIT list.)
6. Click **OK** to apply the service.
7. Click **OK** when asked, "ARE YOU SURE?"
8. Push the F12 key to exit SMIT.

Verifying Installed AIX APARs

Use the `instfix` command for verifying the installation of any APAR on your AIX operating system. For example, to verify that APAR IX65879 is installed for AIX Connections 4.1.5, enter the command:

```
instfix -ivk IX65879
```

Not all prerequisite software for InfoPrint Manager is on the AIX CD-ROMs. You may need to perform several additional software upgrades to prepare your system to run an InfoPrint Manager server. You must obtain these upgrades, in the form of authorized program analysis reports (APARs), from IBM.

Verifying Filesets Updated by InfoPrint Installer

The InfoPrint Installer automatically updates AIX filesets to the following levels (if they are not already updated to higher levels):

- xlC.rte 3.1.4.8 (C Set ++ for AIX Application Runtime)
- bos.rte.libc 4.2.1.5 (libc Library)
- X11.vsm.rte 4.2.1.2 (Visual System Management Runtime Environment)
- X11.apps.msmit 4.2.1.2 (AIXwindows msmit Application)

If you you are having problems with InfoPrint Manager, you may verify that Installer has correctly updated these filesets by following the Verifying Currently Installed AIX Filesets procedure..

Verifying Recommended DCE Filesets

If you are using the Distributed Computing Environment (DCE) version of InfoPrint Manager, you should update any required DCE software to the following levels (if available in your geography):

- dce.cds.rte 2.1.0.19 (DCE Cell Directory Services)
- dce.client.core.rte 2.1.0.25 (DCE Client Services)
- dce.client.core.rte.admin 2.1.0.22 (DCE Client Administrative Tools)
- dce.client.core.rte.cds 2.1.0.14 (DCE Client CDS Tools)
- dce.client.core.rte.config 2.1.0.19 (DCE Client Configuration Tools)
- dce.client.core.rte.security 2.1.0.21 (DCE Client Secuity Tools)
- dce.client.core.rte.time 2.1.0.13 (DCE Client Time Tools)
- dce.client.dfs.rte 2.1.0.9 (DCE DFS Client Client Services)
- dce.compat.client.core.smit 2.1.0.5 (DCE SMIT ClientTools)
- dce.compat.security.smit 2.1.0.1 (DCE SMIT Security Services)
- dce.dfs_server.rte 2.1.0.7 (DCE DFS Base Server)
- dce.edfs.rte 2.1.0.6 (DCE Enhanced DFS)
- dce.msg.en_US.client.core.rte 2.1.0.12 (DCE Base Client Messages)
- dce.msg.en_US.compat.client.core.smit 2.1.0.1 (DCE SMIT Base Messages)
- dce.security.rte 2.1.0.23 (DCE Security Services)
- dce.tools.admin.rte 2.1.0.7 (DCE Administration Tools)
- dce.tools.appdev.adt 2.1.0.9 (DCE Application Development Tools)

Note: To install the DCE version of the InfoPrint Manager base requires only the 2.1.0.0 level of the DCE client software. However, the service levels listed above are strongly recommended for best results. If these levels are not available in your geography, we recommend that you upgrade your DCE software to the latest level that is available.

You may verify the levels of your DCE software filesets by following the Verifying Additional Requirements for DCE Version procedure.

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Preparing to Install InfoPrint Manager on Your AIX Server

The following procedures help you prepare to install InfoPrint Manager on your AIX system:

Migrating to InfoPrint Manager 3.1

Understanding Server Configuration Options

Collecting Required Information for the Install

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Migrating to InfoPrint Manager 3.1

If you have previously installed IBM Printing Systems software on your AIX system, you may have invested considerable time defining your printing system configuration. Redefining this configuration to work with InfoPrint Manager 3.1 might present a rather daunting, time-intensive task. Fortunately, the InfoPrint Installer will automatically migrate your predecessor product configuration to InfoPrint Manager 3.1.

Support is available to migrate from IBM Printing System Manager (PSM), IBM Print Services Facility (PSF), and previous releases of InfoPrint Manager. It is also possible to move easily between the two (DCE and non-DCE) versions of InfoPrint Manager 3.1.

Preparing to Migrate to InfoPrint Manager 3.1

Migrating from PSF or PSM

- Migrating from PSF
- Migrating from PSM

Migrating from InfoPrint Manager 2.1

Migrating Between Versions of InfoPrint Manager 3.1

Migrating from Primary Server to Secondary Server

The following table shows the supported migration paths:

From/To	Advanced	Advanced DCE	Basic	Basic DCE
PSF 2.1	X	*		
PSM 1.2.1 + PSF 2.1	X	X		
PSM 1.2.1	X	X		
InfoPrint 2.1 (Production)	X	X		
InfoPrint 2.1 (Commercial)			X	X
InfoPrint 3.1 (Advanced)		X		
InfoPrint 3.1 (Basic)				X
InfoPrint 3.1 (Advanced DCE)	X			
InfoPrint 3.1 (Basic DCE)			X	

* Requires two steps (two runs of the Installer)

Preparing to Migrate to InfoPrint Manager 3.1

Before running the InfoPrint Installer to migrate to InfoPrint Manager 3.1, it is extremely important to make a complete backup of your current printing system. Consult product documentation for details on how to back up your system. To be completely safe, it is recommended that you make a tape backup of each volume group before proceeding.

The only foolproof way to reverse the migration process (or to recover from a migration failure) is to restore your system from a backup.

The migration process will interrupt any active print jobs that have been submitted. You should take steps to delete all active and pending jobs prior to migrating.

During the process of installing the InfoPrint software, your AIX software may be updated to ensure that InfoPrint will function properly. For more details on the service-level prerequisites of InfoPrint Manager, click here. If you are missing any required base AIX filesets, the Installer will direct you to install them from your AIX product CD.

Migrating from PSF or PSM

The processes of migrating from Print Services Facility (PSF) and from Printing System Manager (PSM) are similar. First, information about your old printing system configuration is gathered and stored in a safe place. While this is taking place, you are informed that the InfoPrint Installer is "Preparing objects for migration." Second, the Installer replaces all predecessor product software with the new InfoPrint Manager software. While this is happening, you are informed that the Installer is "Loading software." Finally, the Installer takes the gathered information and creates analogous InfoPrint objects to correspond to each object formerly defined in the PSF or PSM environment. Details about how the objects are translated are included below.

As it migrates your system to InfoPrint Manager 3.1, the InfoPrint Installer will create the following file systems if they do not already exist:

- `/var/pd`
- `/var/psf`
- `/var/psm`

If these file systems do exist, the Installer leaves their current space allocations alone. If a **directory** exists with the same name as any of the required file systems, a file system is created and mounted, and the contents of the original directory are copied into the new file system.

Another important file system is `/var/psf/segments`. In most cases, the Installer will prompt you to create a `/var/psf/segments` file system. However, if a `/var/psf` file system exists when the Installer is run and a `/var/psf/segments` **directory** has already been defined within it, the Installer assumes that enough space has been allocated for `/var/psf` to accommodate `/var/psf/segments`. Therefore, in this case only, the Installer will not prompt you to create a `/var/psf/segments` file system.

Essentially, the Installer will not allow any use by InfoPrint Manager of space in the /var file system. This policy is enforced to prevent potential system failures that result when `/var`

runs out of space.

Migrating from PSF

You may directly migrate your IBM Print Services Facility (PSF) environment to the non-DCE version of InfoPrint Manager only. If you want to move to the DCE version of InfoPrint Manager, you must migrate to the non-DCE version, and then migrate between the versions of InfoPrint Manager 3.1. Before migrating to InfoPrint, it is extremely important to make a complete backup of your PSF environment.

After your PSF environment has been backed up, you are ready to run the Installer to migrate to InfoPrint Manager. This process will create a configuration of one InfoPrint server with a single default queue. For each previously defined PSF print queue (contained in the /etc/qconfig file), a number of InfoPrint objects will be created:

1. A logical destination with the same name as the PSF print queue. This will allow users and applications to continue to submit print requests to the same name. This logical destination will be associated with the default queue mentioned above.

2. A default job associated with the logical printer.

3. An actual destination based on the printer profile. This actual destination will be associated with the default queue mentioned above. The default job created above will request this actual destination.

If the migration is successful, the /etc/qconfig stanza and the old printer directories will be deleted from /var/psf.

Recovering from Migration Errors

The only way to recover from a failed PSF migration is to restore your system from backups.

Migrating from PSM

You may migrate your IBM Printing System Manager (PSM) environment to either the DCE or the non-DCE version of InfoPrint Manager. Before migrating to InfoPrint, it is extremely important to make a complete backup of your PSM environment.

After your PSM environment has been backed up, you are ready to run the Installer to migrate to InfoPrint Manager. This process will translate your existing PSM spooler and supervisor objects to analogous InfoPrint server objects. Typically, the migration process will merge a spooler and a supervisor into a single InfoPrint Manager server object for ease of administration and print management. This merging is disallowed if (1) the merging would create a thread limit violation, or (2) there are multiple spoolers and supervisors defined on the system.

If the merging of a spooler and supervisor violates a thread limit, then both the spooler and the supervisor are migrated to individual InfoPrint Manager server objects. If more than one spooler or more than one supervisor is defined, each spooler and each supervisor is translated to a server object.

In the course of the migration, you may be asked to specify the model of each PSF printer. This may become tedious, especially in environments where many printers are defined. To streamline the migration process, you may establish a default model by setting the environment variable *PD_PSF_DEFAULT_MODEL* prior to running the InfoPrint Installer. For

example, typing the following at a command would establish the InfoPrint 20 as the default model:

```
export PD_PSF_DEFAULT_MODEL=ibm4320
```

If you do this, any undefined printer-model attributes will automatically be set to ibm4320, and you will not be prompted.

If you have more than nine PSF printers that do not have the printer model defined, and if *PD_PSF_DEFAULT_MODEL* is not set, the printer model for each of the migrated printers will default to "none." You will not be prompted for printer models when migrating such large PSM environments.

Recovering from Migration Errors

If the event that the migration from PSM fails, you should restore your original system from backups. This is the only method for error recovery.

Migrating from InfoPrint Manager 2.1

Migrating from version 2.1 of the InfoPrint Manager base server software to version 3.1.0 is simple. Because the configuration objects are compatible across version updates in InfoPrint Manager, all that is required is a code refresh. To migrate to version 3.1, do the following:

1. Run the InfoPrint Installer.
2. Select **Install InfoPrint Manager** check box on the second Installer screen.
3. Click **Yes** when asked if you want to retain your configuration.
4. Restart all servers.

Migrating Optional InfoPrint Features

Any optional features of InfoPrint Manager 2.1 that are installed on the system will be removed when the base server software is migrated to version 3.1. This is done because optional features at version 2.1 may be incompatible with the version 3.1 server. The use of version 2.1 options with a version 3.1 server will not be supported. To load version 3.1 options, simply select them on the second Installer screen and enter keys as prompted.

Recovering from Migration Errors

The only way to recover from a failed migration from InfoPrint Manager 2.1 is to restore your system from backups. However, failure is extremely unlikely because the migration process does not change the configuration objects. Further, the Installer may be run multiple times to migrate your system from InfoPrint Manager 2.1 to version 3.1. Examine the install log and diagnose the failure before restoring your original system.

Migrating Between Versions of InfoPrint Manager 3.1

Migrating between the two (DCE and non-DCE) versions of InfoPrint Manager is simple. Because configuration objects are compatible across the two versions, all that is required is a code refresh. To migrate to or from the DCE version of InfoPrint Manager 3.1, do the following:

1. Run the InfoPrint Installer.
2. Select **Reinstall InfoPrint Manager** check box on the second Installer screen.
3. Click **Yes** when asked if you want to retain your configuration.
4. Restart all servers.

Be advised that when migrating between the DCE and non-DCE versions, security information (such as access control lists) is not preserved because the two versions use different security models.

Migrating Optional InfoPrint Features

All optional features of InfoPrint Manager 3.1 will be removed when the base server software is migrated between the DCE and non-DCE versions. Therefore, you must select the desired options for reinstallation and reenter the keys when migrating between versions of InfoPrint Manager 3.1.

Recovering from Migration Errors

The only way to recover from a failed migration between versions of InfoPrint Manager 3.1 is to restore your system from backups.

Migrating from Primary Server to Secondary Server

If you are running the non-DCE version of InfoPrint Manager, you may easily migrate an independent primary InfoPrint Manager server to interoperate with another primary InfoPrint Manager server. To do this, the independent server must become a secondary server:

1. Stop each InfoPrint Manager server process running on the future secondary system with the following command:

   ```
   stop_server -F ServerName
   ```

2. Remove the /var/pddir/default_cell directory on the future secondary system with the following command:

   ```
   rm -fr /var/pddir/default_cell
   ```

3. If an `/ipdata` file system is allocated on the future secondary system (and the primary system is using a different `/ipdata`), remove `/ipdata` from the future secondary system:

   ```
   umount /ipdata; rmfs -r /ipdata
   ```

4. On the primary system, perform the following steps:

    1. Invoke the InfoPrint Utilities SMIT interface.

    2. Click on **Configure Secondary Servers (NFS)**, then **Link from Primary Server to Secondary Server**. Provide the information about your secondary system as prompted.

5. On the future secondary system, perform the following steps:

    1. Invoke the InfoPrint Utilities SMIT interface.

    2. Click on **Configure Secondary Servers (NFS)**, then **Link from Secondary Server to Primary Server**. Provide the information about your primary system as prompted

Note: If any of the InfoPrint Utility procedures above fail because the user and group identifiers could not be set, you must set these values manually so they are the same on all servers in the namespace. To do this, follow these steps:

1. Invoke SMIT.

2. Click **InfoPrint Printing System**, then **Troubleshooting**, then **Standardize Default Users**.

3. Enter ID numbers as prompted.

Perform this procedure on both primary and secondary systems until the same IDs are in use by all servers in the namespace.

Note: There is currently no supported migration path to transform primary InfoPrint Manager DCE servers into secondary DCE servers.

Recovering from Migration Errors

The only way to recover from a failed migration from primary server to secondary server is to restore your system from backups.

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Understanding Server Configuration Options

Because InfoPrint Manager for AIX Version 3 Release 1 provides print management for many different environments, it provides two different types of installation on the InfoPrint AIX server, basic and advanced. Once you have decided to use InfoPrint Manager, the next decision you must make is whether to use the Basic Server option or the Advanced Server option. The following topics describe how each server runs and should give you an idea of which installation you need.

Note: If you read over the following information and are unsure about which server configuration is best for you, consult with your IBM representative to ensure that you create the environment that meets your needs.

The Basic Server Option

The basic printing environment is characterized by what has been defined as commercial print shops printing large runs of image data (usually in PostScript or TIFF format). These jobs often include variable data for direct mail programs. Users submit these jobs from a client (Windows or Macintosh) personal computer using the InfoPrint Submit graphical user interface, a scanning tool and related software, or the InfoPrint Library archive.

In a basic printing environment, InfoPrint Manager assigns jobs to printers through early binding. Early binding is much like standing in a checkout line at a supermarket. Once you pick the line, you "bind" yourself to it, no matter what happens. Whether the cashier has a problem with the cash register (much like a paper jam occuring in the physical printer) or a customer in front of you requires a few price checks (much like adding new forms to the server), the only way to change your position is to manually move to another line (much like manually moving a job from one print queue to another).

The Advanced Server Option

The advanced printing environment is characterized by what has been defined as data center printing or distributed printing of many different types of data (including ASCII, ditroff, GIF, JPEG, PCL, PDF, PostScript, and TIFF data). These jobs often consist of billing statements, payroll statements, and application forms. Users submit these jobs from a command line, a workstation application (such as the Netscape internet browser), or an application (such as InfoPrint Select).

In an advanced printing environment, InfoPrint Manager assigns jobs to printers through late binding. Late binding is much like going to a crowded restaurant and being put on a waiting list for the next available table: you are not "bound" to a particular table until one becomes available. You may have special requirements, such as a non-smoking table with six places (much like a job that requires document finishing capabilities or a particular paper size), but the hostess (much like the scheduler on the InfoPrint server) handles these qualifications for you.

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Collecting Required Information for the Install

The InfoPrint Installer helps you load and configure InfoPrint Manager on your AIX system. If you have an AIX system with either Version 4.2.1 or Version 4.3.0 prerequisites, you can use your InfoPrint CD to install InfoPrint Control on your system. When you use the InfoPrint Installer, you may accept the default setup values provided for you or enter your own values. If you accept the default values, very little configuration information is required from you.

Before you install InfoPrint 3.1.0, you should back up your system. You should check that you have all prerequisite software installed. You may need to contact IBM support to obtain missing prerequisites.

You will need the following information:

- Decisions regarding configuration option**Error! Hyperlink reference not valid.**
- Your invoice or package list
- Communications Worksheet that you received from your IBM SE and have filled out.

Configuration Options you select during the Install

During the installation process, you will be asked to make decisions regarding the following ways you may choose to configure your InfoPrint Manager for AIX server:

- Will this be a DCE server?
- Will this be a Basic or Advanced configuration?
- Will this server be a primary or secondary server?

The Invoice shipped with your software

You will need the following information from your invoice:

- The names of the options you purchased
- Your access keys or passwords
- Your customer ID or number

Communications Worksheet

Do you currently use TCP/IP address over the Local Area Network? ___Yes ___No.

NOTE: A TCP/IP address is a set of four numbers seperated by periods. Each number is between 0 and 255. A typical TCP/IP address is 9.99.94.211.

Describe your Local Area Network:

Token Ring

___4MB ___16MB

Ethernet

Ethernet Protocol _____

Ethernet Cables _____

AIX Server Host Name_____

Internet Address ___.___.___.___

Network Mask ___.___.___.___

Secondary AIX Server Host Name_____

Internet Address__.__.___.___

Network Mask ___.___.___.___

Printer Name_____

TCP/IP Address ___.___.___.___

Printer Name_____

TCP/IP Address ___.___.___.___

Gateway Address_____

Once you have the necessary information, you can go to Starting the InfoPrint Installer.

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Starting the InfoPrint Installer

You should install InfoPrint Manager software using the most recent version of the InfoPrint Installer. Using an updated Installer will enable you to load and configure the very latest InfoPrint Manager features. You will find the most recent Installer on the the current service level CD-ROM. If you do not have the current service level (or no service is yet available), you may run the InfoPrint Installer from the InfoPrint Manager for AIX Server 1 CD-ROM.

Obtaining the Current Service Level

Starting the Installer from Current Service Level CD-ROM (README)

Starting the Installer from Server 1 CD-ROM (README)

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* *

IBM InfoPrint Manager for AIX
Version 3.1.0
Server 1

Read Me

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* *

This CD-ROM contains the IBM InfoPrint Manager software that runs on the AIX platform. This CD-ROM and its companion Server 2 CD-ROM are used to install the AIX software components and to configure the AIX components after installation.

LATEST INFORMATION

Information about this release of InfoPrint Manager is available on the World Wide Web, where it will be updated as necessary. To access this documentation, go to the IBM Printing Systems Company home page at http://www.printers.ibm.com and click the "InfoPrint" link.

The Publications CD-ROM contains a version of this documentation, but we strongly recommend that you access the Web site for the most current information.

INSTALLING SERVER SOFTWARE AND FEATURES

If you have an InfoPrint Manager 3.1.0 Authorized Program Analysis Reoprt (APAR) Service CD-ROM, ignore the steps described below and follow the procedures documented under INSTALLING SERVER SOFTWARE AND FEATURES in the readme.txt file on the APAR Service CD-ROM. The most recent APAR Service CD-ROM will contain installation options and software updates not previously available. For information about service availability, consult the InfoPrint Manager web site. (See LATEST INFORMATION above.)

If you do not have an APAR Service CD-ROM, perform the following steps to install InfoPrint Manager for AIX Version 3.1.0 on your AIX system:

1. Log into the AIX system as root.

2. Insert the gold Server 1 CD-ROM into the CD-ROM reader.

3. Open a terminal window. (If you are using the Common Desktop Environment, click on the terminal icon contained in the front panel. By default, the terminal icon is contained in a pop-up menu above the text editor icon that appears on the front panel.)

4. The first time you run the Installer, follow this procedure:

   a) Type the following on the command line:

      smit cdrfs

   b) Select "Add a CDROM File System" from the list of choices presented.

   c) Select your CD-ROM device name and type the following in the "MOUNT POINT" field:

      /cdrom

   d) Click "OK."

5. Type the following at the command line:

   mount /cdrom

6. To install InfoPrint Manager server software or optional InfoPrint features, enter the following command:

   /cdrom/setup

The Installer will open and guide you through the installation and configuration processes. The following section provides tips to assist you.

INSTALLING AIX CLIENT SOFTWARE

The InfoPrint AIX Client may be installed to provide a command-line interface to an InfoPrint Manager server running on a remote system. The AIX Client should NOT be installed on a system that already has the base InfoPrint Manager server code installed.

To install the AIX Client, follow steps 1-5 described in the INSTALLING SERVER SOFTWARE AND FEATURES section above. Then enter this command:

/cdrom/setup -c

An option to install the AIX Client without using the InfoPrint Installer GUI is also available. For more information, see INSTALLATION TIPS below.

INSTALLATION TIPS

* The setup script will print a help statement if you issue the following command:

  /cdrom/setup -h

* To install the AIX Client without using the Installer GUI, enter the following command:

  /cdrom/setup -C -n server_name -p port_number

For server_name, specify the host name or IP address of the InfoPrint Manager server system with which this AIX Client system will communicate. For port_number, specify the port that the server will be using for InfoPrint communication. Optionally, you may use the -P flag to specify a default logical destination for job submission and/or the -L flag to indicate a language preference for InfoPrint messages.

* Keys are required to unlock most InfoPrint software packages. These keys appear on your invoice, so be sure to have your invoice within reach when installing InfoPrint software on the AIX platform. If you cannot locate your invoice, click the "More Details..." button on the key-entry screen for information on how to contact IBM Customer Support.

  The following components require keys:

  InfoPrint Manager (base server code)
  InfoPrint Fax (Multiple Lines)
  InfoPrint Library
  Kanji Fonts
  Page Printer Formatting Aid (PPFA)
  SAP Print Feature
  High Speed Printers
  Medium Speed Printers

  The following components may be installed without keys:

  InfoPrint AIX Client
  InfoPrint Fax (Single Line)
  InfoPrint E-Mail

* If you selected the "Set AIX Locale" check box on the first Installer screen, your system locale will be reset to the selected language environment after you shut down and restart your AIX system.

* Before installing the Distributed Computing Environment (DCE) version of InfoPrint Manager, you must have DCE installed on your AIX system. For more information about purchasing or installing DCE, go to the RS/6000 web site at

  http://www.austin.ibm.com

* If you are installing the DCE version of InfoPrint Manager, we recommend that you do NOT log into DCE prior to running the Installer. If a DCE session expires while the Installer is executing, the Installer will be unable to complete.

* If you are asked if you want to reboot the system and you select "Now," the AIX system shuts down immediately without any message to other users that a shutdown is to take place.

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* *

IBM InfoPrint Manager for AIX
Version 3.1.0
InfoPrint APAR CD-ROM
Read Me

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* *

This CD-ROM contains updates for IBM InfoPrint Manager software running on the AIX platform. In addition, it contains the most recent version of the InfoPrint Installer. This updated Installer should be used to install and configure the very latest InfoPrint Manager software.

THE LATEST INFORMATION

Information about this release of InfoPrint Manager is available on the World Wide Web, where it will be updated as necessary. To access this documentation, go to the IBM Printing Systems Company home page at http://www.printers.ibm.com and click the "InfoPrint" link.

The Publications CD-ROM contains a version of this documentation, but we strongly recommend that you access the Web site for the most current information.

APPLYING SERVICE

1. Log onto your system as root.

2. Insert the InfoPrint Manager APAR CD-ROM into your CD-ROM drive.

3. Make sure no jobs are currently active on this server. (Any active jobs will be interrupted by the service process.)

4. Open a terminal window. If you are using the Common Desktop Environment (CDE), you may open a terminal window by clicking on the terminal icon contained in the front panel. By default, the terminal icon is contained in a popup menu above the text editor icon that appears on the front panel.

5. If you are using the Distributed Computing Environment (DCE) version of InfoPrint Manager, log into DCE as a principal capable of administering the InfoPrint server.

6. Type the following at the command line:

   ```
   mount /cdrom
   /cdrom/ip_update
   ```

To remove the CD-ROM from the drive, you must type the following command:

```
umount /cdrom
```

You may then push the eject button on the CD-ROM drive to retrieve the CD-ROM.

INSTALLING SERVER SOFTWARE AND FEATURES

To install InfoPrint Manager for AIX Version 3.1.0 on your AIX system using the InfoPrint Installer, do the following:

1. Log into the AIX system as root.

2. Insert this InfoPrint Manager APAR CD-ROM into the CD-ROM reader.

3. Open a terminal window. (If you are using the Common Desktop Environment, click on the terminal icon contained in the front panel. By default, the terminal icon is contained in a pop-up menu above the text editor icon that appears on the front panel.)

4. The first time you run the Installer, follow this procedure:

   a) Type the following on the command line:

      ```
      smit cdrfs
      ```

   b) Select "Add a CDROM File System" from the list of choices presented.

   c) Select your CD-ROM device name and type the following in the "MOUNT POINT" field:

      ```
      /cdrom
      ```

   d) Click "OK."

5. Type the following at the command line:

   ```
   mount /cdrom
   ```

6. To install InfoPrint Manager server software or optional InfoPrint features, enter the following command:

   ```
   /cdrom/setup
   ```

The Installer will open and guide you through the installation and configuration processes. The following section provides tips to assist you.

INSTALLING AIX CLIENT SOFTWARE

The InfoPrint AIX Client may be installed to provide a command-line interface to an InfoPrint Manager server running on a remote

system. The AIX Client should NOT be installed on a system that already has the base InfoPrint Manager server code installed.

To install the AIX Client, follow steps 1-5 described in the INSTALLING SERVER SOFTWARE AND FEATURES section above. Then enter this command:

```
/cdrom/setup -c
```

An option to install the AIX Client without using the InfoPrint Installer GUI is also available. For more information, see ADVANCED INSTALLATION TOPICS below.

INSTALLATION TIPS

* Keys are required to unlock most InfoPrint software packages. These keys appear on your invoice, so be sure to have your invoice within reach when installing InfoPrint software on the AIX platform. If you cannot locate your invoice, click the "More Details..." button on the key-entry screen for information on how to contact IBM Customer Support.

  The following components require keys:

  ```
  InfoPrint Manager (base server code)
  InfoPrint Fax (Multiple Lines)
  InfoPrint Library
  Kanji Fonts
  Page Printer Formatting Aid (PPFA)
  SAP Print Feature
  High Speed Printers
  Medium Speed Printers
  ```

  The following components may be installed without keys:

  ```
  InfoPrint AIX Client
  InfoPrint Fax (Single Line)
  InfoPrint E-Mail
  ```

* If you selected the "Set AIX Locale" check box on the first Installer screen, your system locale will be reset to the selected language environment after you shut down and restart your AIX system.

* Before installing the Distributed Computing Environment (DCE) version of InfoPrint Manager, you must have DCE installed on your AIX system. For more information about purchasing or installing DCE, go to the RS/6000 web site at

  ```
  http://www.austin.ibm.com
  ```

* If you are installing the DCE version of InfoPrint Manager, we recommend that you do NOT log into DCE prior to running the Installer. If a DCE session expires while the Installer is executing, the Installer will be unable to complete.

* If you are asked if you want to reboot the system and you select

"Now," the AIX system shuts down immediately without any message to other users that a shutdown is to take place.

* The setup script will print a help statement if you issue the following command:

```
/cdrom/setup -h
```

ADVANCED INSTALLATION TOPICS

* To install the AIX Client without using the Installer GUI, enter the following command:

```
/cdrom/setup -Cn server_name -p port_number
```

  For server_name, specify the host name or IP address of the InfoPrint Manager server system with which this AIX Client system will communicate. For port_number, specify the port that the server will be using for InfoPrint communication. Optionally, you may use the -P flag to specify a default logical destination for job submission and/or the -L flag to indicate a language preference for InfoPrint messages.

* To install software on remote systems, you must create an InfoPrint Manager Software Server. The /cdrom/mk_ip_remote script will create the Software Server for you automatically. To run this script, issue the following commands:

```
cp /cdrom/mk_ip_remote /tmp
/tmp/mk_ip_remote
```

  Insert the InfoPrint Manager for AIX Server 1 and Server 2 CDs when prompted by the script.

  After mk_ip_remote completes successfully, you will have a file system called /ip_remote that is readable (via NFS) by all systems in your network.

  For more information about the mk_ip_remote script, type the following:

```
/cdrom/mk_ip_remote -h
```

* When the InfoPrint Manager Software Server is in place, root users on remote systems, after NFS-mounting /ip_remote, may "pull" software from the server with the following command:

```
/ip_remote/setup -s /ip_remote
```

  The Installer GUI will open and prompt the users for information to define their installations.

* An unattended "pull" install option is also available. To perform this type of install, you must first create a response file containing all user input. (A set of response-file templates is included in the /cdrom/templates directory. The

/cdrom/templates/ipin_response file contains all potential input variables.) You must also NFS-mount the /ip_remote file system.

It is very easy to perform an unattended "pull" install. Assume, for example, you have created a response file and saved it as "/tmp/install.opts." To perform an unattended install on the local system that pulls software from the /ip_remote file system, issue the following command:

```
/ip_remote/setup -a /tmp/install.opts
```

This command will perform an install by reading values from the response file; the Installer GUI will not open. If you have elected to give the /ip_remote file system a different mount point, you must use the optional -s flag to identify it.

WARNING: Sensitive information such as DCE principal passwords and InfoPrint Manager keys may be included in your response file. To avoid potential security breaches, we strongly recommend that you restrict access to the response file PRIOR to saving any sensitive information in it. To begin, you should save the response file in a directory with restricted access (that is, one that is not NFS-exported to other systems). Further, you should modify the permissions and ownership of the response file to limit the users who may examine its contents. Assuming /tmp is not NFS-exported, the following commands would secure our example response file:

```
chmod 600 /tmp/install.opts
chown root:sys /tmp/install.opts
```

* You may also "push" software from an InfoPrint Manager Software Server system onto remote systems.

  To do this, you must first create response files in the /ip_remote/auto directory to define the installations for each remote system. Also, you must have the authority to open remote shells on each remote system (that is, an entry for your root user must appear in the .rhosts file in root's home directory on each remote system).

  For example, assume /ip_remote/auto has the following contents:

  ```
  /ip_remote/auto/srvr1.install
  /ip_remote/auto/srvr2.install
  /ip_remote/auto/srvr3.install
  ```

  If each of these files is in correct response-file format, you may initiate a concurrent remote unattended install on three systems with the following command:

  ```
  /ip_remote/setup -m
  ```

  If you have elected to give the /ip_remote file system a different mount point, you must use the optional -s flag to identify it.

WARNING: The "push" installation method may seriously compromise network security if you are including DCE principal passwords in the response files. If network security is a concern for you and if DCE passwords are required to install InfoPrint on your network's systems, we recommend that you use one of the "pull" installation methods described above.

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Verifying Your InfoPrint Manager Install

After you have completed installing InfoPrint and any optional features, you can start the InfoPrint GUI to view the initial configuration of your system. Ensure that you have logged off.

To start the GUI:

From the Front Panel on an AIX system configured as advanced:

1. Double-click the **Application Manager** icon on the Front Panel. The Application Manager window displays.

   Note: The **Application Manager** icon looks like an open file drawer with a calculator sticking out.

2. Double-click on the InfoPrint folder icon. The Application Manager - InfoPrint window displays.

3. Double-click on the GUI icon.

From the Front Panel on an AIX server configured as basic:

1. Double-click on the InfoPrint icon located on the Front Panel.

From the AIX command line:

1. Log in as **root**.

   To start the InfoPrint GUI from the command line, enter pdadmin.

Refer to *IBM InfoPrint Manager for AIX: Administrator's Guide* S544-5595 for information on using the InfoPrint GUI and InfoPrint configuration tasks that you can perform.

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Reviewing Installed Components

IBM InfoPrint Manager consists of a number of different hardware and software components. The following describes the major software components. Note that base components are included when you purchase IBM InfoPrint Manager for AIX, while optional components are additions to the base product, which you can purchase.

The following table lists the base components that are included with InfoPrint Manager server:

Base Server Component (Mode)	**Description**
InfoPrint Control (Basic & Advanced)	Consists of the AIX Graphical User Interface (GUI) and command line on the server. Used to configure and manage the printing system. Spools data. Schedules and manages jobs. Provides data transforms. Provides accounting data. Drives printers.
InfoPrint SMIT Production Printing System Interface (Basic & Advanced)	Starts and stops InfoPrint servers, accesses migration tools and the InfoPrint SMIT Production Print Operations interface. Used to perform miscellaneous configuration tasks, perform troubleshooting procedures, submit jobs using attributes files, submit jobs from tape using attributes files.
InfoPrint SMIT Production Print Operations Interface (Advanced)	Used to perform InfoPrint operator tasks, such as checking and controlling jobs, queues, and physical printer status.
Advanced Function Presentation Font Collection (Basic & Advanced)	Allows use of many fonts on IBM printers, including PostScript Outline fonts.
Transforms (Basic & Advanced)	Used to transform data sets into a format required by the printer. Transforms include: ditroff, Graphic Interchange Format (GIF), Joint Photographic Experts Group (JPEG), Printer Control Language (PCL), Portable Document Format (PDF), PostScript, Tag Image Format File (TIFF), and double-byte character set (DBCS) ASCII and Extended UNIX code (EUC).
Advanced Function Presentation (AFP) Viewer (Basic & Advanced)	Used to transform file formats into format that can be viewed online.
Adobe Acrobat Reader 3.0 (Basic & Advanced)	Used to preview or pre-flight job files and to view online PDF publications.

Adobe Distiller (Basic & Advanced)	Used to convert PostScript files into PDF files.
AFP Conversion and Indexing Facility (ACIF) (Advanced)	Used for printing ASCII and line-data files.
MVS Download (Advanced)	Allows MVS users to print data sets from the MVS JES spool on InfoPrint-Managed printer devices.
PSF Direct (Advanced)	Provides a direct-print connection between MVS. VSE, or VM and an InfoPrint-managed printer.
Tape-to-Print (Advanced)	Used to submit jobs from tape to a printer, either using the InfoPrint SMIT production printing system interface or the **pdpr** command.
Printer Control Language (PCL) Output driver (Advanced)	Used for PCL5 and PCL5e printers that are direct-attached.

The following table lists optional features that may be installed on your AIX server:

Optional Server Component (Mode)	**Description**
Medium- and high-speed printer keys (Basic & Advanced)	Used to license printers faster than 45 pages per minute (PPM). For example, the IBM InfoPrint 4000, IBM InfoColor 70, and the IBM InfoPrint 60 are ideal choices for high-volume printing applications that require high-speed, superior print quality, reliability, forms-size flexibility, simplexed or duplexed opage printing, and other rich printing functions.
InfoPrint Fax option (Basic & Advanced)	Allows you to send and receive faxes to any locations in the world.
InfoPrint Email option (Basic & Advanced)	Allows you to send and receive Email through either the Lotus Notes server or a UNIX mail file.
AFP Upload (Advanced)	An AIX client program that accepts AFP files (or files it can convert to AFP) and sends them to the MVS server, which places them on the JES spool.
Adobe PostScript Extreme (Basic & Advanced)	Allows the rasterized image processor (RIP) to occur on multiple processors at once.
InfoPrint Library (Basic)	Used for archiving print files. InfoPrint Library is a document-storage system that electronically stores job tickets and their related files (PostScript data, application source data, fonts, images, TIFF data, and pre- or post-RIP data) for future retrieval, customization, and

	printing. **Note:** There is a client interface (part of InfoPrint Submit) for working with jobs and documents in the library.
SAP print (Advanced)	Used for printing from SAP R/3 systems, includes support for SAP OTF and ABAP native data streams, as well as PCL and PostScript.
Kanji Package (Basic & Advanced)	Used for Printing Japanese characters.
Tivoli Plus Module (Basic & Advanced)	Used to provide print support that is eqivilent to other Tivoli data management tasks.
DCE (Distributed Computing Environment) (Basic & Advanced)	Used to increase the security and scalability of your print configuration. **Note:** This option involves installing server code as well as specific DCE-supported clients.
Remote Access for InfoPrint (Basic & Advanced)	Used by IBM Service to log into your AIX system. **Note:** Requires optional modem.
InfoPrint Manager for the Web (Basic)	Used for web-based job submission, management, and storage. This optional configuration includes server enablement and client applications.

Client Applications (Mode)	Description
InfoPrint Submit (Basic)	Used to submit jobs to InfoPrint Control. InfoPrint Submit submits jobs, receives customer job specifications, and changes those specifications. You can also obtain status about jobs. **Note:** Requires a Windows or Macintosh workstation.
InfoPrint Scan (Basic)	Used to process scanned images into print files. **Note:** Requires a scanner device.
InfoPrint Select (Basic & Advanced)	Used to submit jobs using your existing applications or command line interface. Submission clients are available on OS/2, Windows '95, Windows NT, Windows 3.1, and Sun OS 2.5.1.
AIX Client (Basic & Advanced)	Used to submit and manage jobs from a remote AIX system.
MergeDoc/Variable Data (Basic)	Desktop plug-ins for Quark, PageMaker, and server-based software.
Adobe Acrobat Reader 3.0 (Basic & Advanced)	Used to preview or pre-flight job files and to view online PDF publications.

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Installing Optional Features

The following procedures help you install InfoPrint Manager Options:

Installing the SAP R/3 Print Feature

Installing the InfoPrint Fax Option

Configuring Email

Installing and Configuring InfoPrint Library

Installing the PPFA Feature

Installing Kanji Fonts

Adding the Tivoli Plus Module

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Installing the SAP R/3 Print Feature

With few changes, you can configure SAP R/3 Release 3 to send both PS and PCL output data directly to InfoPrint Manager. Also, you can configure SAP R/3 to transform SAP output into AFP output to take advantage of all the features of AFP printing.

If you are running SAP R/3 Release 4, you can configure the system to use the SAP certified Output Management System (OMS) interface to send all data streams to InfoPrint Manager and receive event notification for print jobs back to the R/3 system.

The following procedures help you install the SAP R/3 option so that you can print using InfoPrint Manager for AIX, Version 3.1.

Printing PCL and PostScript with SAP R/3 Version 3

Printing ABAP and OTF with SAP R/3 Version 3

Printing with SAP R/3 Version 4 (Enhanced Status)

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Printing PCL and PostScript with SAP R/3 Version 3

Because the standard SAP host spool print command is a typical **lpr** or **lp** command, you can integrate your SAP R/3 Version 3 system with InfoPrint Manager Version 3.1 by configuring the host printer name of your R/3 devices to be an InfoPrint Manager logical destination.

If your SAP R/3 system is running on AIX, the InfoPrint Manager AIX client includes the InfoPrint Manager command line and the gateway for the standard UNIX print commands. This feature needs to be installed wherever a Spool Work Process resides that will make print requests for InfoPrint Manager logical printers.

To install the AIX client, you must install the AIX Client feature, using the InfoPrint Installer.

To integrate your SAP R/3 Version 3 system with InfoPrint Manager 3.1, use the procedure for Devices that Use InfoPrint Manager and SAP R/3 with Access Method L.

If your SAP R/3 system is running on HP-UX, you can use Access Method U to forward **lpr** requests to the InfoPrint AIX server.

Once you have defined the appropriate output devices, you must edit the profile of the application server where the spool work process runs by doing the following on the SAP R.3 graphical user interface:

1. Enter `RZ10` in the OK-Code field.
2. From the **Instance Profile Management for Experts** window, select the appropriate profile and click on the **Choose** push-button.
3. From the SAP R/3 window, use the scroll bar to go to the end of the file and add one of the options described in SAP Print Command Options at the bottom of the window.
4. Once you have notified other SAP R/3 application users, click on the **Save** folder and restart the R/3 application.

SAP Print Command Options

There are two potential print commands that SAP R/3 installations using InfoPrint Manager might want to use for submitting print commands. The following topic presents both commands, with their relative strengths and weaknesses.

Using the AIX qprt Command

The AIX **qprt** Command is the standard SAP R/3 print command. Using this option allows you to send jobs to both standard AIX printers and InfoPrint Manager printers. This print option is limited because you cannot use the InfoPrint Manager Fax option, provide box shading values to OTF jobs, or have the userid of the job creator available on job status reports or separator pages sent with a print job.

To use this print command, specify these three lines at the bottom of the **Instance Profile Management for Experts (Change)** window:

```
# sap2afp Spool Exit Parameter. 23.10.98

rspo/host_spool/print=qprt -dp -P&P -Bnn -N&C -r -R14 -X850 &F

rspo/host_spool/query=lpq -l -P&P
```

Using the InfoPrint ipm_print Command

The InfoPrint Manager **ipm_print** Command allows you to provide box shading values to OTF jobs and have the userid of the job creator available on job status reports or separator pages sent with a print job. Also, you do not have to specify a value in the **printer.tab** configuration file and need to perform less maintenance. For example, you can modify this print command on the InfoPrint AIX server and not have to modify anything on the SAP application server.

To use this print command, specify these three lines at the bottom of the **Instance Profile Management for Experts (Change)** window:

```
# sap2afp Spool Exit Parameter. 23.10.98

rspo/host_spool/print=ipm_print -P &P -F &F -O '&O' -o '&o' -R
'&R' -f '&f' -C &C -Y '&Y' -T '&T' -D '&D' -t '&t'

rspo/host_spool/query=lpq -l -P&P
```

Once you have completed these procedures, you can print either PostScript or PCL from your SAP R/3 Version 3 system, using InfoPrint Manager to drive the printer(s).

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Installing the SAP R/3 Transform

To install the **sap2afp** transform, you must install the SAP Print Feature, using the InfoPrint Installer. Follow the directions provided with the Using the InfoPrint Installer. Remember to select the **SAP Print Feature** on the InfoPrint Installer.

The SAP Transform includes two types of files:

- An executable named **sap2afp**, which converts Output Text Format (OTF) data into MO:DCA-P output data and Advanced Business Application Programming (ABAP) list format data into line data. This file is installed in the **/usr/lpp/psf/bin** directory.
- Installation configuration files that are installed in the **/usr/lpp/psf/sap2afp** directory.

Configuration File	Purpose	Use
Barcode.tab	Provides list of valid SAP bar codes.	OTF data only
Xxxxyyyy.tab	Maps ASCII code pages to EBCDIC code pages.	OTF data only
fonts.tab	Provides a list of raster fonts with the appropriate character set and code page.	OTF data only
Image.tab	Defines the dither matrix for half-tone color print jobs.	OTF data only
Pagedef.tab	Defines the form definition (PAPER TYPE) used, as well as the page definition and fonts for jobs that go through ACIF.	ABAP/OTF
Printer.tab	Maps four-character SAP printer name to an InfoPrint logical printer.	ABAP/OTF
defcp.tab	Converts ASCII into EBCDIC characters.	ABAP data only

For information about bar codes and fonts used by the SAP transform, click on the highlighted words.

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Printing ABAP and OTF with SAP Version 3

To print the ABAP and OTF data streams as AFP output, you must install the following:

- The SAP R/3 Print Feature from the InfoPrint Installer. Note that this option needs to be installed on your AIX InfoPrint server, as well as on your SAP R/3 Application server.

- The AIX Client from the InfoPrint Installer. Note that this feature needs to be installed wherever a Spool Work Process resides that will make print requests for InfoPrint Manager logical printers.

Once these options have been correctly installed, you can configure your SAP R.3 application server to print both ABAP and OTF data by completing the following tasks in the order listed:

- Activating Access Method Z

- Defining an Output Device Type

Activating Access Method Z

SAP Access Methods are the means the SAP spool system uses to pass output to the host spool system. They tell the Spool Work Process what is to be done with the final output data stream. Access Method **Z** is a spool exit that allows you to output ABAP and OTF data for the InfoPrint SAP (**sap2afp**) transform.

To activate Access Method **Z** when the R/3 spool exit, use the following procedure:

1. From the R/3 main menu, access the **Reporting** pull-down menu by selecting the Tools main menu and then selecting the **System**-- **Services**--**Reporting** path or typing /nSA38 in the **ok-Code** field.

2. From the **ABAP/4: Execute Program** window, specify **RSPO0049** for the **Program** field and press the **EXECUTE** button once.

   This process makes Access Method **Z** available on R/3.

3. Once Access Method **Z** is available on R/3, you must edit the profile of the application server where the spool work process runs by:

   1. From R/3, enter **RZ10** in the ok-Code field. This choice produces a list of all profiles on your R/3 system.

   2. From the **Instance Profile Management for Experts** window, select the appropriate profile and click on the **Choose** push-button.

   3. From the SAP R/3 window, use the scroll bar to go to the end of the file and add one of the options described in SAP Print Command Options at the bottom of the window.

   4. Once you have notified other SAP R/3 application users, click on the **Save** folder and restart the R/3 application.

SAP Print Command Options

There are three potential print commands that SAP R/3 installations using InfoPrint Manager might want to use for submitting print commands. The following topic presents each command, with its relative strengths and weaknesses.

Using the AIX qprt Command

The AIX **qprt** Command is the standard SAP R/3 print command. Using this option allows you to send jobs to both standard AIX printers and InfoPrint Manager printers. This print option is limited because you cannot use the InfoPrint Manager Fax option, provide box shading values to OTF jobs, or have the userid of the job creator available on job status reports or separator pages sent with a print job.

To use this print command, specify these three lines at the bottom of the **Instance Profile Management for Experts (Change)** window:

```
# sap2afp Spool Exit Parameter. 23.10.98

rspo/host_spool/custom_print=qprt -dp -P&P -Bnn -N&C -r -R14 -X850 &F

rspo/host_spool/custom_query=lpq -l -P&P
```

Once you have completed this task, return to step 3 of the Activating Access Method Z procedure.

Using the InfoPrint sap2afp Command

The InfoPrint Manager **sap2afp** Command invokes the transform. Using this option allows you to provide box shading values to OTF jobs and have the userid of the job creator available on job status reports or separator pages sent with a print job. In addition, you can specify more than a single **defcp.tab** configuration file (the default conversion table for converting ASCII characters into EBCDIC characters) for printing ABAP jobs by installing different instances of the transform on different SAP application servers. For example, you could specify one code page on an application server where English data is printed and another code page on an application server where German data is printed.

This print option does require you to specify a value in the **printer.tab** configuration file and requires more maintenance of all the configuration files. For example, you must update the printer.tab file every time you either add or delete an R/3 AFP printer.

To use this print command:

1. Specify these three lines at the bottom of the **Instance Profile Management for Experts (Change)** window:

```
# sap2afp Spool Exit Parameter. 23.10.98

rspo/host_spool/custom_print=/usr/lpp/psf/bin/sap2afp -d &S -f &F -g

rspo/host_spool/custom_query=/usr/lpp/psf/bin/sap2afp -d &S –q
```

2. Map the R/3 output device to an IBM InfoPrint Manager logical printer through the **/usr/lpp/psf/sap2afp/printer.tab** configuration file.

   Because SAP R/3 Version 3 restricts the names of Output Devcies to four characters, the printer.tab configuration file allows you to map R/3 Output Devices to more meaningfully named devices.

   The **printer.tab** file uses the following keyword-value pairs:

   Dest

   Specifies the four-character R/3 Output Device.

   System

   Specifies the operating system from which **sap2afp** output is printed. You can specify either AIX or AIX system.

   Queue

   Specifies the name of the IBM InfoPrint Manager logical printer; the value is ignored for AIX systems.

   Node

   Specifies the IP address of the target operating system. The content (a maximum of 15 bytes) is not verified.

   You must specify a value for **Node**, but it is used only when **System=OS/2**.

   The following provides a sample **printer.tab** configuration file. Note that you can include comments in lines preceded by two slashes (//):

```
// Printer table

// Format: DEST=SPRT System=AIX Queue=pcl4039 Node=192.9.200.220

// Note: The Node parameter is not used for entries where the

// System field is AIX or MVS, but you must still enter a value.

Dest=MVSP System=MVS Queue=pcl4039 Node=192.9.200.220

Dest=AIX1 System=AIX Queue=pcl4029 Node=192.9.200.116

Dest=AIX2 System=AIX Queue=PSF4039 Node=192.9.200.220

Dest=OS2P System=OS2 Queue=OS2AFP Node=192.9.201.66

Dest=OS2 System=OS2 Queue=OS2AFP Node=192.9.201.66
```

   If you have defined an R/3 AFP printer called AFPT, you could map this printer to the IBM InfoPrint Manager logical printer psf3116 by adding the following line to the

printer.tab configuration file.

```
Dest=AFPT System=AIX Queue=psf3116 Node=0.0.0.0
```

3. Once you have completed this task, return to step 3 of the Activating Access Method Z procedure.

Using the InfoPrint ipm_print Command

The InfoPrint Manager **ipm_print** Command allows you to provide box shading values to OTF jobs and have the userid of the job creator available on job status reports or separator pages sent with a print job. Also, you do not have to specify a value in the **printer.tab** configuration file and need to perform less maintenance. For example, you can modify this print command on the InfoPrint AIX server and not have to modify anything on the SAP application server.

However, you can specify only one **defcp.tab** configuration file (the default conversion table for converting ASCII characters into EBCDIC characters) for printing ABAP jobs, no matter how many SAP application servers you use.

To use this print command:

1. Specify these three lines at the bottom of the **Instance Profile Management for Experts (Change)** window:

```
# sap2afp Spool Exit Parameter. 23.10.98

rspo/host_spool/custom_print=ipm_print -P &P -F &F -O '&O' -o '&o'
-R '&R' -f '&f' -C &C -Y '&Y' -T '&T' -D '&D' -t '&t'

rspo/host_spool/custom_query=lpq -l -P&P
```

2. Once you have completed this task, return to step 3 of the Activating Access Method Z procedure.

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Bar Codes Supported by the InfoPrint SAP Transform

Some SAP R/3 applications require that data is printed as a bar code. All the bar codes that can be specified in SAP R/3 are printable in AFP output. If OTF specifies bar code data, the **sap2afp** transform converts it into Bar Code Object Content Architecture (BCOCA) data, which is understood directly bar codes by the control unit of the AFP printer.

BCOCA is supported by the following printers:

- IBM 3112 Page Printer
- IBM 3116 Page Printer
- IBM 3130 Advanced Function Printer
- IBM 3160 Advanced Function Printer
- IBM InfoPrint 60 Printer
- IBM 3812 Page Printer
- IBM 3816 Page Printer
- IBM 3900-OW1 Advanced Function Printer
- IBM 3900-OW3 Advanced Function Printer
- IBM 3900 Advanced Function Duplex Printing System, Models D01, D02
- IBM 3900 Advanced Function Wide Duplex Printing System, Models DW1, DW2
- IBM 3912 Page Printer
- IBM 3916 Page Printer
- IBM 3930 Page Printer
- IBM 3935 Advanced Function Printer
- IBM InfoPrint 4000 Printer
- IBM LaserPrinter 4028
- Network Printer 12 (NP 12)
- Network Printer 17 (NP 17)
- Network Printer 24 (NP 24)
- Any printers that accept the Printer Control Language (PCL) PCL4, PCL5, or PCL5c data streams

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Installing InfoPrint Fonts for Printing with the SAP Transform

To print output from the **sap2afp** transform, you must install the Gothic fonts that are specified in the **fonts.tab** configuration file of the **/usr/lpp/psf/bin** directory, as well as the required code pages. You can obtain these resources from the AFP Font Collection CD-ROM that is provided with InfoPrint Manager.

To load the fonts that are required to transform OTF or ABAP data from SAP R/3 on an InfoPrint Manager system, use the following procedure:

1. Load the CD-ROM for the AFP Font Collection into the CD-ROM drive on your RS/6000 server.
2. Create a mount point from which to add fonts from this CD-ROM by typing `smitty cdrfs` from the AIX command line and taking the following path: **CDROM File Systems -- Add a CDROM File System**.
3. Select **F4** to set the **DEVICE name** field to the system-generated name (usually **cd0**).
4. For the **MOUNT POINT** field, specify `/cdrom`.
5. Press the **F10** key to exit SMIT.
6. From the AIX command line, mount the CD-ROM to your RS/6000 by specifying:

   ```
   mount /cdrom

   cd /cdrom
   ```

7. From the AIX command line, specify `smitty install_latest`.
8. For the **INPUT device /directory for software** field, specify `/cdrom/aix`
9. To ensure that you install the correct fonts without over writing any existing resources on your system, specify no for the **COMMIT software updates?** field and yes for the **SAVE replaced files?** field.
10. Specify the **F4** key to list all font options.
11. Use the **F7** key to select the following four options:

    - **afpfonts.bookmstr**
    - **afpfonts.compats**
    - **afpfonts.codepage**
    - **afpfonts.ocr**

12. To install the fonts, press **Enter**.

    Note: These fonts should take approximately 43 MB on your RS/6000.

13. Verify that the fonts cited in your **fonts.tab** configuration file have been installed.

14. InfoPrint Manager installs these fonts in the **/usr/lpp/afpfonts** directory.

15. To remove the IBM AFP Font Collection CD-ROM, specify the following at the AIX command line:

    ```
    unmount /cdrom
    ```

    Then you can remove the CD-ROM from your CD-ROM drive.

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Printing with SAP R/3 Version 4 (Enhanced Status)

SAP R/3 Release 4 provides support to more closely integrate an external Output Management System (OMS). InfoPrint Manager is a SAP-certified OMS that provides synchronous functions for submitting jobs, canceling jobs, querying jobs, and querying devices, as well as asynchronous event information. The InfoPrint SAP Callback daemon collects and delivers these events to the R/3 system

Note that while you can use Access Method **L** to print PCL and PostScript output from SAP R/3 Version 4, you will not have access to the enhanced status reporting that is made available by defining InfoPrint Manager as an Output Management System through Access Method **E**. Also, Access Method **Z** is available, but not supported in SAP R.3 Version 4.

If you are printing Output Text Format (OTF) data, ensure that you have installed the SAP R/3 Transform and the fonts necessary for printing.

To install and configure InfoPrint Manager as a SAP R/3 OMS, use the following procedures in sequence:

1. Install the AIX Client and the SAP Feature
2. Configure the SAP Print Feature
3. Define a SAP User for the OMS Callback Daemon
4. Define the InfoPrint Manager OMS to SAP R/3

Install the AIX Client and the SAP Feature

Use the InfoPrint Installer to install the SAP Print feature and the AIX client on every AIX server where any SAP application server will issue OMS commands. If you have configured your SAP R/3 installation to use alternate servers, you must repeat these installation tasks on the alternate servers.

Configure the SAP Print Feature

Each SAP R/3 system using the InfoPrint Manager Callback support needs to have one callback daemon running. Identify the SAP application server where you want to run this process and perform the following additional configuration tasks.

If you are using the DCE version of InfoPrint Manager, note that before running the **sapcfg.ksh** script on your SAP R/3 application server, you must have previously installed the DCE client code. If you are using the non-DCE version of InfoPrint Manager, set up the SAP application server to run as a secondary server.

To configure SAP OMS to work with the DCE version of InfoPrint Manager, do the following:

1. From the InfoPrint AIX server, open a **dtterm** window.
2. Enter the following command: `/usr/lpp/InfoPrint/install/bin/sapcfg.ksh -d`
3. Answer the questions as prompted.

To configure SAP OMS to work with the non-DCE version of InfoPrint Manager, enter the same command without the **-d** flag. This configuration requires that you have set up this server as an InfoPrint Manager secondary server.

Define a User for the OMS Callback Daemon

Because the OMS callback daemon must logon to the SAP system and its external management interface (XMI) to make RFC requests, you must define a user for it. You will need this user information when you Define the InfoPrint Manager OMS to SAP R/3.

To define a user for the InfoPrint Manager Callback daemon, choose the following path on the SAP R/3 graphical user interface:

Tools > Administration > User maintenance > Users

The user should be a CPIC type and requires `XOMI` permissions to log into the CCMS system management XOM application programming interface. These authorizations can be provided in the `S_XMI_XOM_A` profile. For assistance, see your SAP Systems Administrator. Remember to record the user, password, and client for later use.

Note that if you ever change or modify this SAP user, remember to make the changes to the **SAP configuration** pane on the **Spool Admn.: Real Output Management (Change)** window, and the **rc.iprsap** file in the **/etc** directory.

Define the InfoPrint Manager OMS to SAP R/3

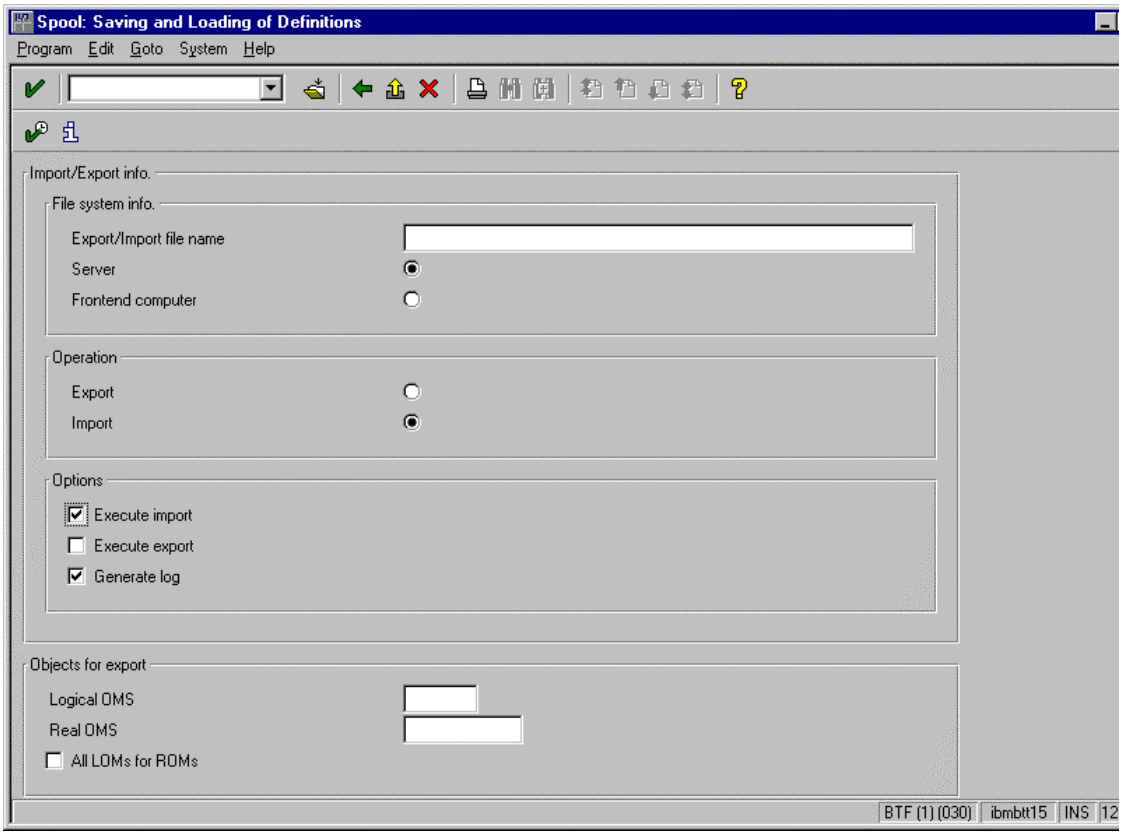
InfoPrint Manager provides a configuration file to assist in defining InfoPrint Manager as an OMS on your R/3 system. This procedure will define InfoPrint Manager as the Real Output Management System (ROMS) for your SAP R/3 installation, as well as defining a Logical Output Management System (LOMS) so you can define Access Method **E** devices in SAP R/3.

Defining a Real Output Management System

Use the following procedure to define a Real Output Management System for SAP R/3:

1. Log onto your SAP R/3 Version 4 system.
2. Import the configuration file by entering transaction `SA38`.
3. From the **ABAP: Execute Program** window, specify `RSPOXOMS` in the **Program** field and click on the **execute** (checkmark) icon.
4. From the **Spool: Saving and Loading of Definitions** window shown below, specify `/usr/lpp/pd/bin/ipm.omsdesc` in the **Export/Import file name** field, ensure that the **Operation** pane is set to *Import*, the **File system info** pane is set to *Server*, and check both the **Execute import** and **Generate log** options in the **Options** pane.

   Once you have set these options, click on the **Execute** (checkmark with a clock) icon.



5. Running the report displays a list of the ROMS and LOMS that have been imported into the system.

6. To complete the necessary definitions, specify the spad transaction.

7. From the **Spool Administration: Initial Screen** window, click on the **Extended admin** push-button (**f6** key) and select the **Real OMS** push-button from the **Output management systems** pane to obtain a list of the Real Output Management Systems (ROMS) available on your SAP application server.

   You should now see `IBM IPM` listed.

8. From the **Spool Admin.: List of Real Output Management Systems** window, select the `IBM IPM` ROM and click on the **Choose** (checkmark with a clock or **f2** key) icon.

9. From the **Spool Admin.: Real Output Management (Display)** window, click the **Change** (red pencil **f8** key) icon.

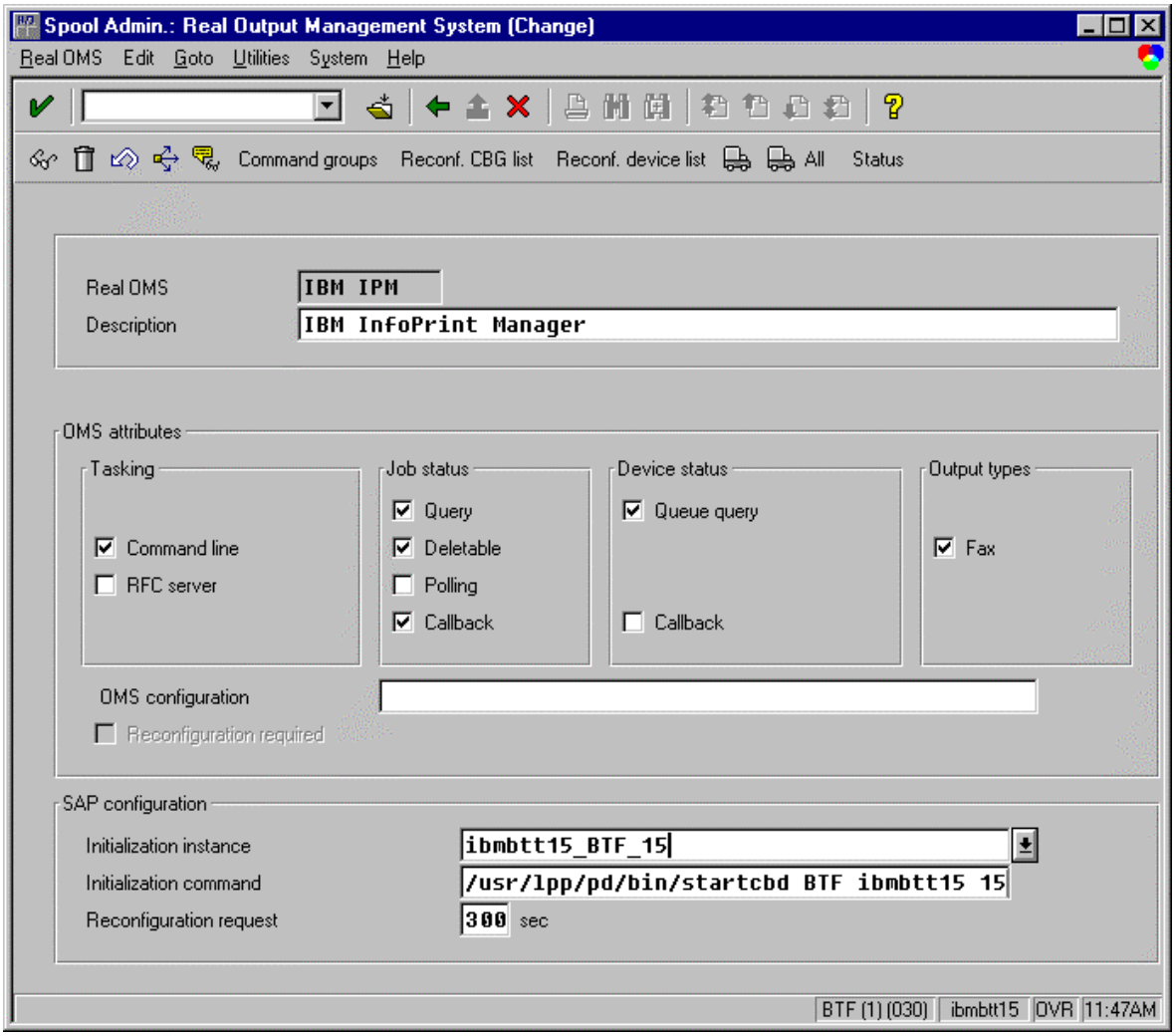
10. From the **Spool Admin.: Real Output Management System (Change)** window displayed below, complete the ROMS definition by selecting filling in the Initialization instance and filling in the parameters for the Initialization command. The initialization instance is the instance that starts the callback daemon, which you identified in Configure the SAP Print Feature.

    Please note that all variables are examples that apply to the screen captures presented on this page and will differ from the values that you specify.

Command to Start the Callback Daemon	
Field	**Variable**
fully-qualified path for the command	*/usr/lpd/pd/bin/startcbd* **Note:** This value is hard-coded and may not be modified.

SAP R/3 Instance Where Callback Daemon Logs On	
Field	**Variable**
<SystemName> Three-character system name	*BTF*
<Host Name>	*ibmbtt15*
<InstanceID>	*15*

User ID Information	
Field	**Variable**
<User>	*ibm* **Note:** This value and the two that follow were originally defined when you created a SAP userid.
<Client>	*030*
<Password>	*Newname*
<Language>	*En*



Note: Do not change any of the attributes specified in the **OMS attributes** pane above.

11. Save this information by clicking on the folder icon (or specifying the **Ctrl** + **S** keys).

12. From the AIX command line on the host identified in the initialization instance, access the **rc.iprsap** file in the **/etc** directory.

    This file was created when you configured the SAP Print Feature.

13. Edit the file and copy the commented **startcbd** command at the top of the file (`/usr/lpp/pd/bin/startcbd <SystemName> <Host Name> <InstanceID> <User> <Client> <Password> <Language>`)and specify the same values that you entered for the initialization command on the **Spool Admin.: Real Output Management System (Change)** window.

14. Save and exit the file.

Defining a Logical Output Management System

Use the following procedure to define a Logical Output Management System for SAP R/3:

1. From the SAP R/3 graphical user interface, complete the Logical Output Management System (LOMS) definitions by specifying the spad transaction.

2. From the **Spool Administration: Initial Screen** window, click on the **Extended admin** push-button (**f6** key) and select the **Logical OMS** push-button from the **Output management systems** pane to obtain a list of the Logical Output Management Systems (LOMS) available on your installation.

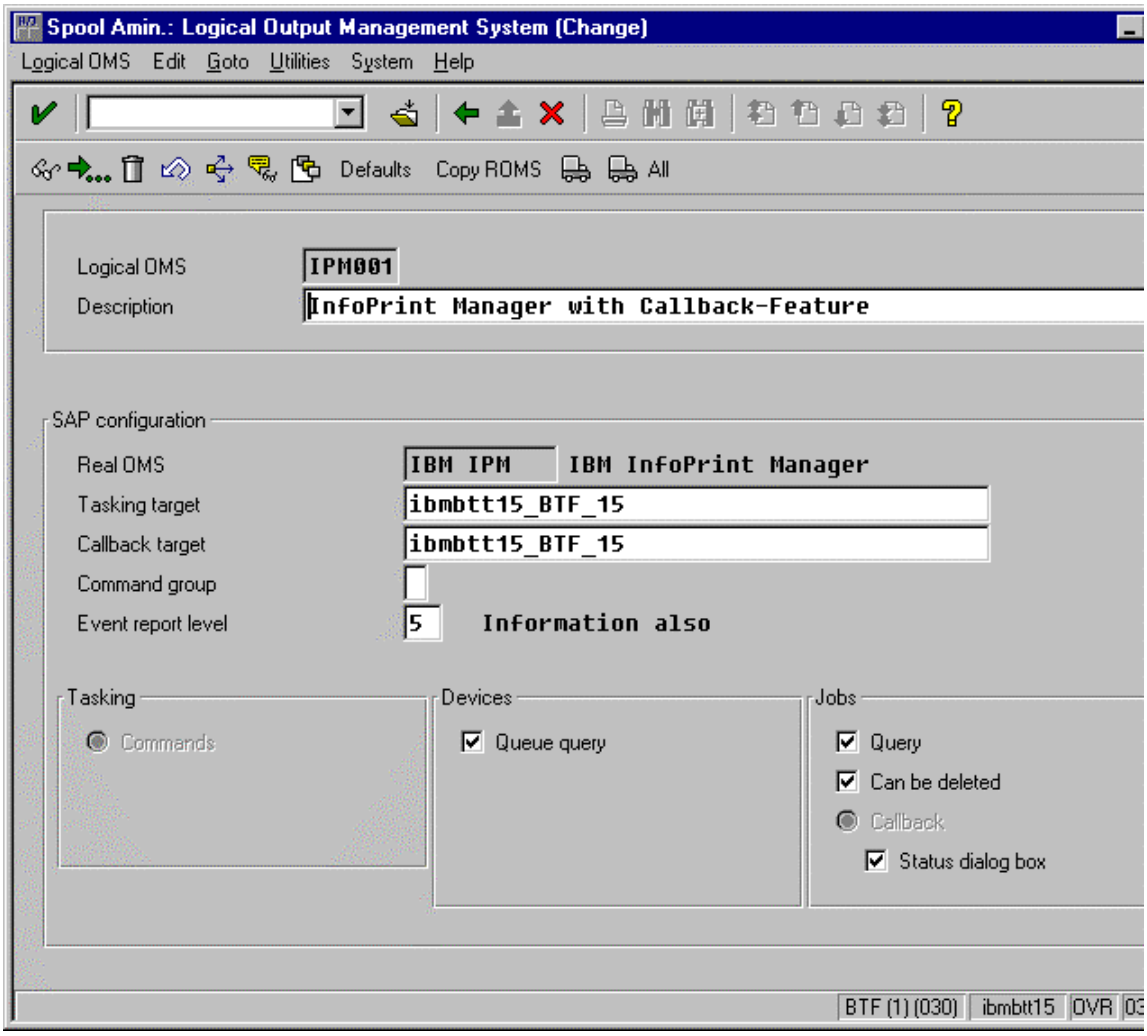
3. From the **Spool Admin.: List of Logical Output Management Systems** window, select the `IPM001` LOMS and click on the **Choose** (checkmark with a clock or **f2** key) icon.

4. From the **Spool Admin.: Logical Output Management (Display)** window, click the **Change** (red pencil **f8** key) icon.

5. From the **Spool Admin.: Logical Output Management (Change)** window displayed below, specify a value from the list of all active SAP application servers for both the **Tasking target** field and the **Callback target** field in the format: *hostname_systemname_instanceID*, such as `ibmbtt15_BTF_15`.

   The **Tasking target** field, specifies where the commands are invoked, while the **Callback target** field specifies where the asynchronous callbacks are delivered.

   In addition, you should specify a value for the **Event report level** field in the **SAP configuration** pane. Use the downward arrow to determine the message level you want (1 is the least and 5 is the most).

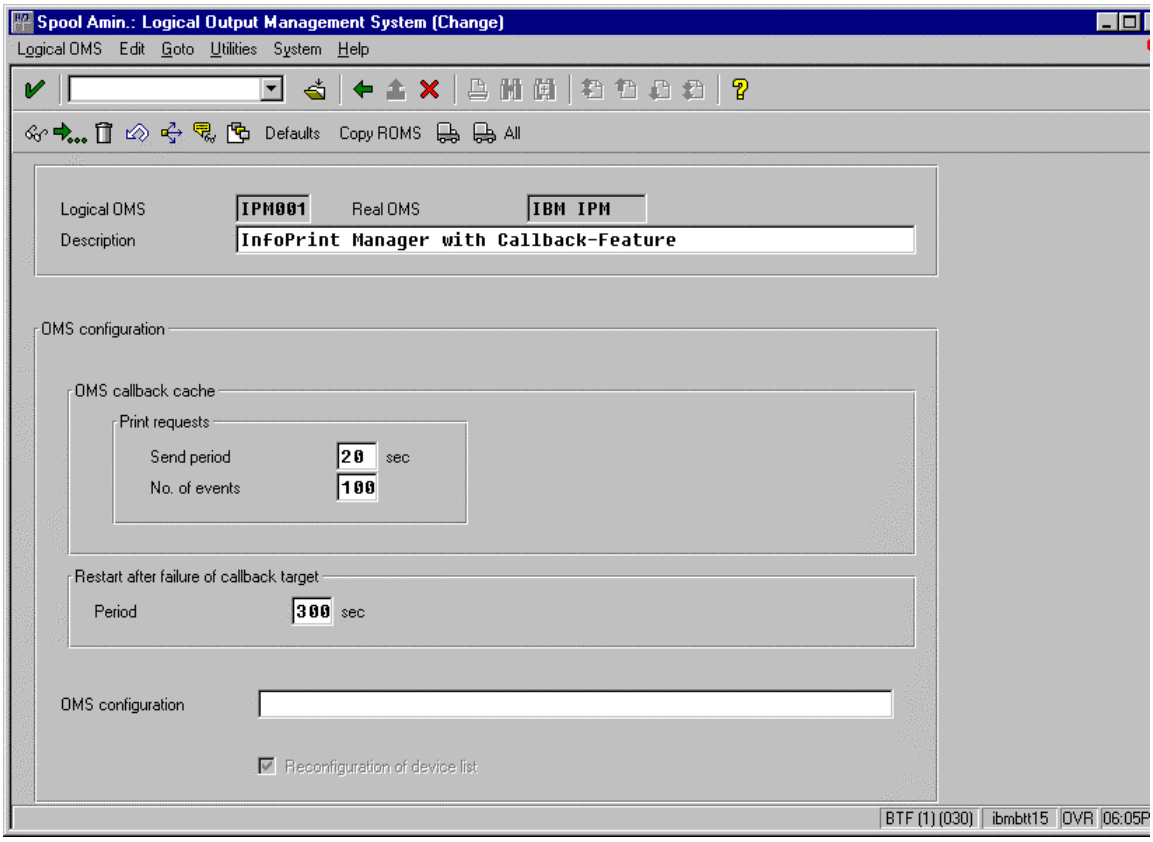


6. To ensure that users on your SAP R/3 system receive pop-up windows for both error and problem notification messages about a job's status, check the **Status dialog box** field in the **Jobs** pane.

7. Save this information by clicking on the **Save** (open folder) icon, or specifying the **Ctrl** + **S** keys.

8. From the top of the window, click on the **Next screen** (right-facing green arrow) icon, or specifying the **f5** key.

9. From this panel (displayed below), you can specify how often (**Send period** field) in seconds or how many (**No. of events** field) notification events the InfoPrint Manager callback daemon should collect before delivery to the SAP R/3 system. In other words, the callback daemon will only deliver events for jobs on printers associated with this LOMS if it has collected x number, or x seconds have passed since the last delivery.



10. To start the callback daemon, you can either restart the SAP R/3 initialization instance or run **/etc/rc.iprsap** file from the AIX command line on the initialization instance to start the callback daemon.

Once you have finished defining the InfoPrint Manager OMS to your SAP R/3 Version 4 system, you can begin to define devices so you can print from SAP R/3 with InfoPrint Manager.

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Installing the InfoPrint Fax Option

This page contains the following installation information for installing the InfoPrint Fax Manager feature:

Verifying Fax Prerequisites

Configuring Fax Options

Verifying the Fax Configuration

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Verifying Fax Prerequisites

By default, IBM InfoPrint Manager 3.1.0 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 CPI/100, or the Interstar Lightning Fax Server version of this Board (such 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 or the Interstar Lightning Fax Home Page.

1. Install the Fax card by putting it in any available ISA slot on the back of your InfoPrint AIX server.

Once you have added the prerequisite software specified below and completed the configuration procedures that follow, you can verify that the card is active.

1. After installing the GammaLink Fax Board, run the InfoPrint Installer.

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

   - InfoPrint Control
   - **tiff2afp** data stream transform
   - Adobe PostScript (**ps2afp**) data stream transform
   - Virtual Printer software
   - Interstar Lightning Fax Server Software Version 5.0
   - Interstar Lightning Fax Server version of the GammaLink ISA Fax Board (CPI/100) or the GammaLink ISA Fax Board
   - Lotus Notes Server

   Note: If you select the InfoPrint Fax (multiple lines) option, you must contact your AIX support line 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 to your IBM service representative.
   3. Your service representative will send you two files -- **LFlic.txt** and **LFserver** -- which you must put on your InfoPrint AIX server in the **/usr/lpp/lightningfax/lfaixserver** directory.

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.

2. Once you have run the InfoPrint Installer, reboot your AIX InfoPrint server.

3. 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.

4. Allow for 60 MB of space in the **/usr/lpp/lightningfax** directory to ensure that the fax software has adequate work space.

Once you have installed all the prerequisites, go to Configuring Fax Options.

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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 :

- Basic Fax Configuration Options that you must complete to either send or receive Faxes
- Advanced Fax Configuration Options that you can use to customize the faxes you send and receive.

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

Basic Fax Configuration Options

The following configuration tasks are required before you can either send or receive faxes with InfoPrint Manager.

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

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

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

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

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

   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. 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:

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

   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 755 /etc/rc.lfapifbk`

4. To configure the Lightning Fax Server Software files that control the GammaLink Fax card, log into the IBM InfoPrint AIX system as **root**, make the following changes from the **/etc** file system:

Fully-Qualified File Name/ **Changed Parameter**	**Value**
/etc/lfaixdriver.conf *NumChan=*	Specify a numeric value to match the number of lines on your physical fax card (usually either 1 or 4).
/etc/lfaixdriver.conf *Channel***X**_*ServerIP=* where **X** indicates the channel number. For example, Channel 2 could specify *Channel2_ ServerIP=9.99.98.3*	Specify the Internet Protocol (IP) address of your InfoPrint AIX server. **Note:** Be sure to change this parameter for each channel that you specify in the file. You can obtain this value by specifying the following command: `ping -c3` *servername*
/etc/lfaixserver.conf *Address=* value that is located under [server info] section.	Specify the Internet Protocol (IP) address of your InfoPrint AIX server. **Note:** Be sure to change this parameter for each channel that you specify in the file.
/etc/lfaixapi.conf *Address=* value that is located under [server info] grouping.	Specify the Internet Protocol (IP) address of your InfoPrint AIX server. **Note:** Be sure to change this parameter for each channel that you specify in the file.
/etc/lfaixapifbk.conf *Address=* value that is located under [server info] grouping.	Specify the Internet Protocol (IP) address of your InfoPrint AIX server. **Note:** Be sure to change this parameter for each channel that you specify in the file.

Note: You can define up to 96 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 .

6. For receiving fax input, use the System Management Inteface Tool (SMIT) to map channel numbers to particular phone numbers and print queues in the **/usr/lpp/psf/fax/procfax.cfg** file to map channel numbers to particular phone numbers and print queues.

    1. From the AIX command line, specify either `smit` or `smitty` and take the following path: **InfoPrint Printing System Miscellaneous Configuration Configure the Fax Input Attribute File.**

    2. From the **Fax channel selector** panel, enter the number (ranging from 1 to 17) fo the channel that you are configuring

    3. Note that you can configure all, some, or none of your channels for Fax Input, depending upon the design of your system.

    4. From the **Configure the Fax Input Attribute File** window, fill in both the **Incoming Fax Line Phone Number** and the **Logical Destination** fields.

        Note that while you can specify any phone number, you must use the f4 key to select from a list of logical destinations. These logical destinations must already exist on the InfoPrint AIX server, having been created as Fax destinations on the InfoPrint AIX server.

Once you have completed these tasks, you can Verify the Fax Option so that you can send and receive faxes through InfoPrint Manager.

Advanced Fax Configuration Options

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 proceed each comment in the AIX file.

You can perform the following tasks:

Enhancing Interstar Lightning Fax Server Performance

Pooling Fax Destinations

Scaling the Width and Height of Fax Output

Activating the InfoPrint Tracing Facilities

Customizing Fax Cover Sheets

Enhancing Interstar Lightning Fax Server Performance

The following changes can ensure that your Fax software runs smoothly and efficiently.

1. From a command line on your InfoPrint AIX server, type:

    - `cd /usr/lpp/lightningfax/lfaixjavaclient`.

2. Type `./start_java_client`.

1. Note that you cannot specify any spaces or the command may not run. Because this executable is a Java applet, it may take a few minutes to open.

2. From the **Lightning FAX -Administrator on** *Servername* window, where *Servername* is the name of your InfoPrint AIX server, click on the **Resource1** icon at the top of the left panel.

3. Right click on the **LFapi** icon and select the **edit user** option from the pop-up menu.

4. From the **Editing LFapi** window, open the **User Settings** tab and ensure that all the options under **Deleting Options** and **Notifying Options** have been checkmarked.

    These options ensure that the InfoPrint AIX server does not run out of space by retaining unnecessary data. Also, it ensures that any notification profiles that you set in fax attribute files are passed from the Lightning Fax card to the InfoPrint AIX server.

    Because the other options are set when you install the Fax option on the server, IBM recommends that you do not make changes to other sections.

5. Once you have made these changes, save them and exit the interface. You do not need to reboot either the server or the AIX operating system for these changes to take effect.

Pooling Fax Destinations

If you want all faxes to come from the same logical destination, edit the **/usr/lpp/psf/fax/procfax.cf**g 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.

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.

Customizing 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 buisiness enterprise.

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*.

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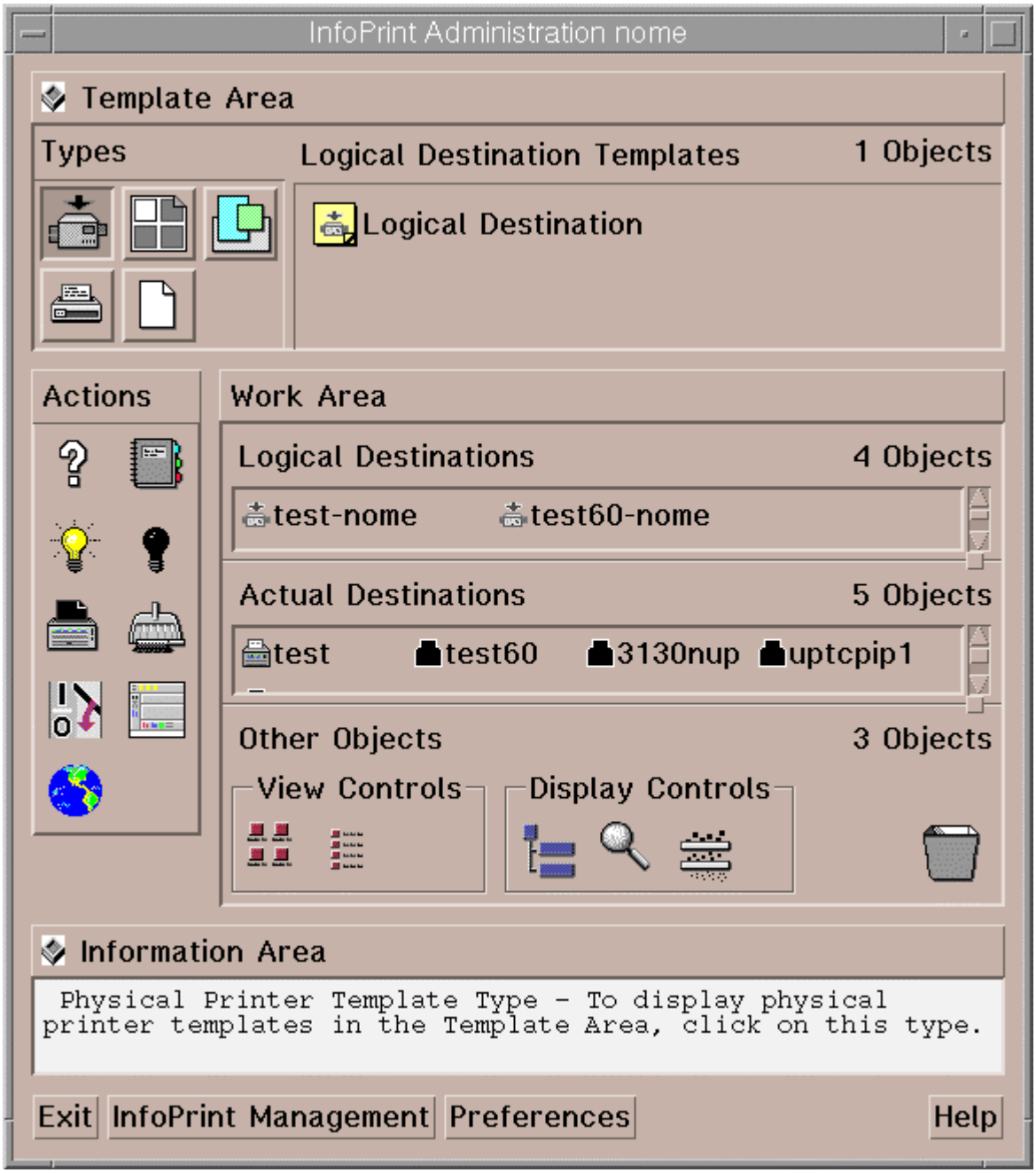
Creating a Fax and Email Destination on the Server

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 may list 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.

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.

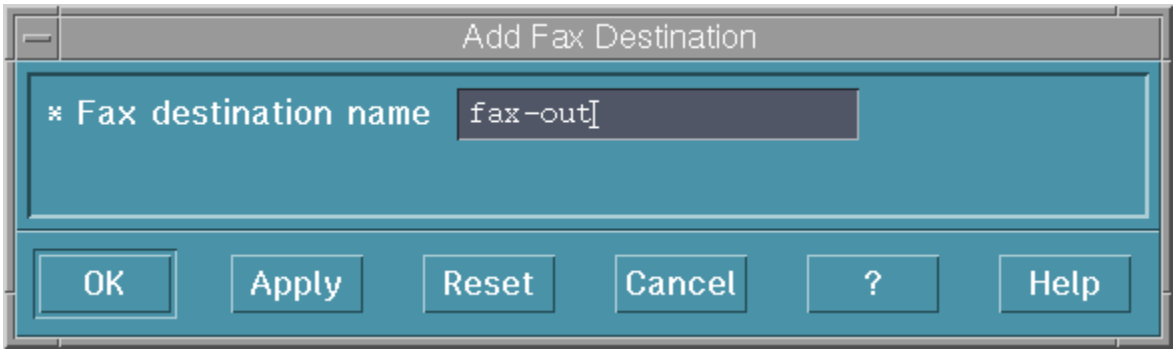
   This step puts the **Fax** and **Email** templates inside the **Actual Destination Templates** pane.

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 **Email**, 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 **fax-out**, 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 **fax-out-*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.

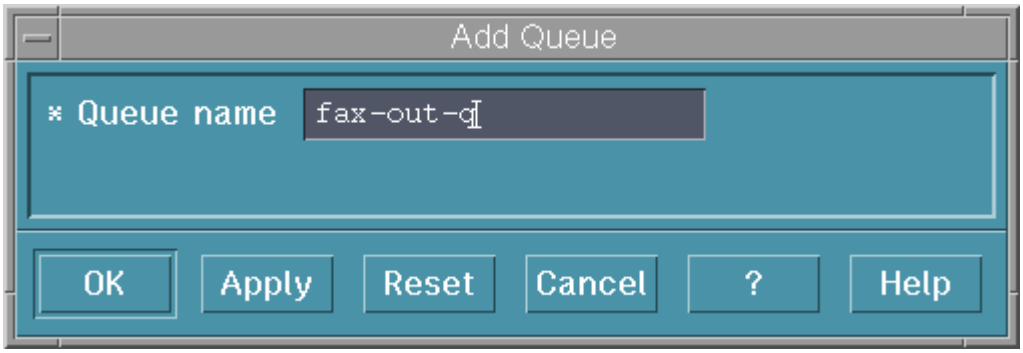
Once you have completed this procedure, return to the Configuring Fax Options page and use the SMIT option to map channel number to phone numbers, or the Configuring Email page to complete these tasks.

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 **fax-out-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.

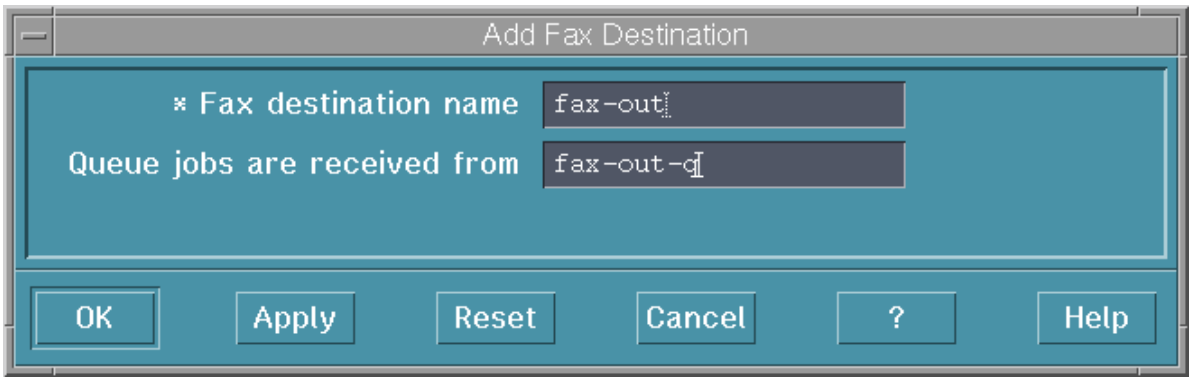
5. From the **Servers** window, go to the bottom of the window and click on the **Preferences** button. This step opens the **User Preferences** window.

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.

7. 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.

8. 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.

9. From the Add a Fax Destination pop-up window, specify an actual destination name in the **Fax destination name** field, such as **fax-out**, and use the queue you just created (**fax-out-q**) for the **Queue jobs are received from** field. This step creates the logical destination that will use the print queue to submit jobs to the Actual Destination which is created in the next series of steps.

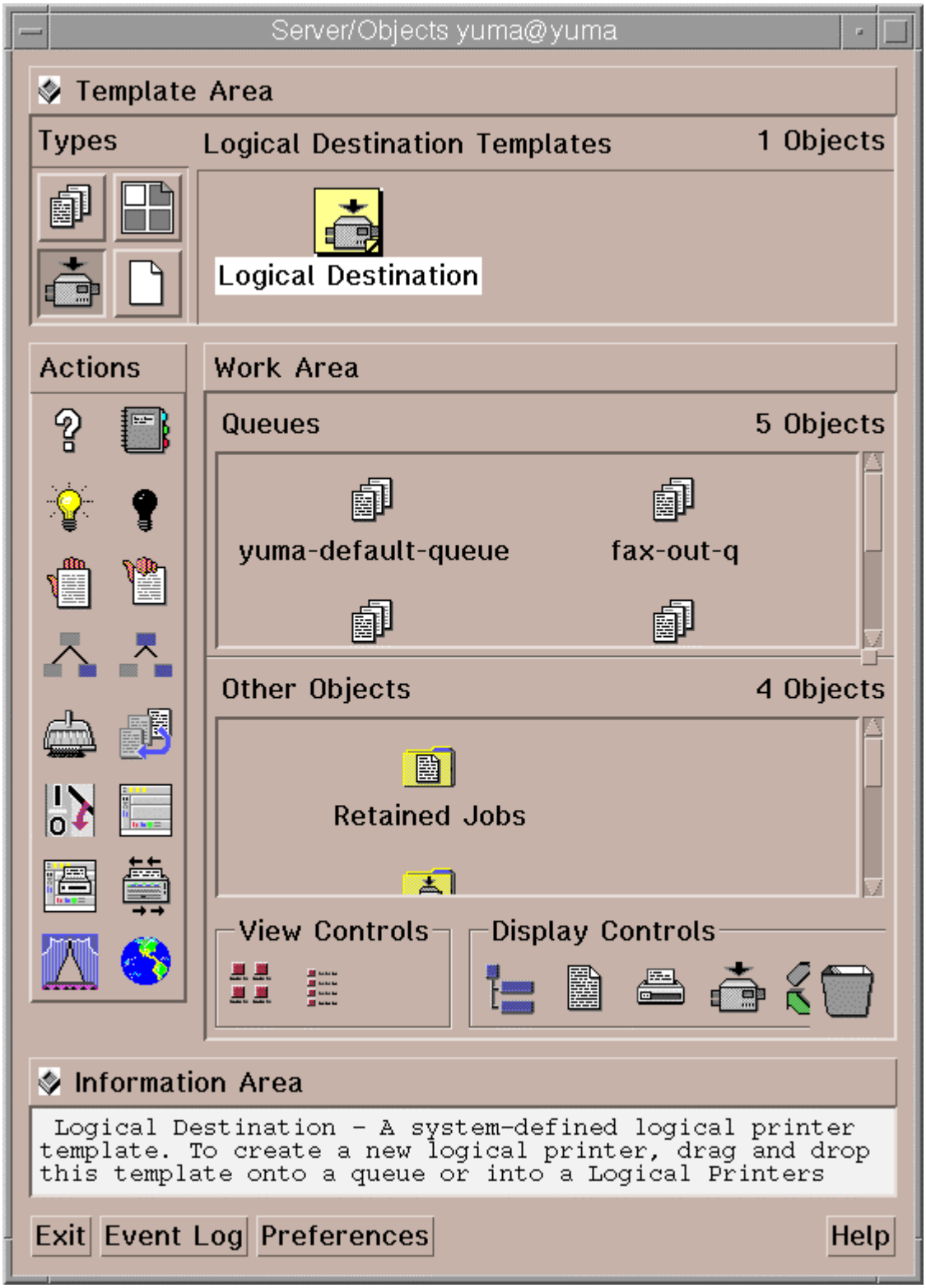


Note: You cannot create more than one fax destination at a time. If you attempt to do so, the system responds with a message and does not allow you to proceed.

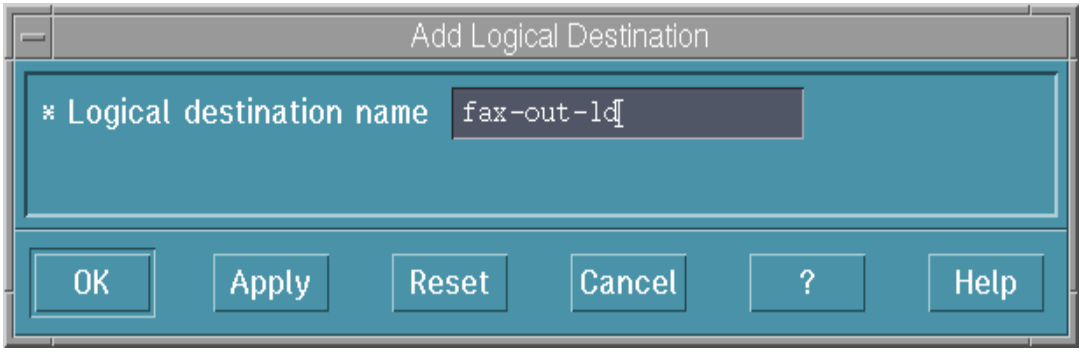
10. From the **Servers** window, highlight the server icon from the **Work Area** pane and click on the **Open Window** icon from the Actions area. This step opens the **Server/Objects** window, where you can create the Logical Destination for Fax.

11. From the **Server/Objects** window, 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 **fax-out-q** icon that resides in the **Queue**s pane.


Server/Objects yuma@yuma
Template Area
Types
Logical Destination Templates
1 Objects
Logical Destination
Actions
Work Area
Queues
5 Objects
yuma-default-queue
fax-out-q
Other Objects
4 Objects
Retained Jobs
View Controls
Display Controls
Information Area
Logical Destination - A system-defined logical printer template. To create a new logical printer, drag and drop this template onto a queue or into a Logical Printers
Exit
Event Log
Preferences
Help

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



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

Once you have completed this procedure, return to the Configuring Fax Options page and use the SMIT option to map channel number to phone numbers, or the Configuring Email page to complete these tasks.

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Verifying the Fax Configuration

This topic describes how to verify the AIX directories that you have just created for InfoPrint Fax Manager.

1. Ensure that your InfoPrint AIX server has the **/usr/lpp/psf/fax**, the **/usr/lpp/psf/bin**, and the **/usr/lpp/lightningfax/lfaixserver** directories.

   The **/usr/lpp/psf/fax** directory must contain the following:

   - **infofax.cfg**
   - **procfax.cfg**
   - **Channel00**X**.att** (where X represents the particular channel number. Note that each channel will have a separate file.)
   - **fax.id**
   - **email.id**

   The **/usr/lpp/psf/bin** directory must contain the following:

   - **procfxmsg**
   - **procfax**
   - **img2fax**
   - **sendmemo**

   The **/usr/lpp/lightningfax/lfaixserver** directory must contain the following:

   - **LFlic.txt**
   - **LFserver**

2. Once you have verified these directories, you must reboot both the InfoPrint AIX server and the AIX operating system:

   1. From an AIX window, specify

      ```
      pdshutdown-w now servername
      ```

      where *servername* is the name of the InfoPrint AIX server.

2. Specify

   ```
   Shutdown -Fr
   ```

   to shut down and subsequently restart the AIX operating system.

3. Ensure that 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 go to Sending and Receiving Fax Jobs.

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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 to other AIX servers.

Note that if you plan to use Email to send large PDF files consisting of fifty-page attachments, you will need to expand the size of the **/var/psf/segments** file system to 500 MB.

Verifying Email Files

If you are using the UNIX mail facility, there are no special executables. If you are using the Lotus Notes Server, ensure that:

1. **sendmemo** resides in the **/usr/lpp/psf/bin** directory cited above.
2. the **libnotes_r.a** 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 define whether your email system uses the UNIX mail facility (unix) or the Lotus Notes Server facility (*notes*):

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

smtp_server = unix      #Using UNIX for mail
```

Configuring the Lotus Notes Server

If you are using the Lotus Notes Server facility to send email, you must use the following procedure to configure the Simple Message Transfer Protocol (SMTP) MTA for sending mail beyond your InfoPrint AIX server. After you have run the InfoPrint Installer, complete the following procedure:

1. Logon to your InfoPrint AIX server as **root**.
2. Verify that the **/notesr4/notes.ini** file contains the following line:

   - ServerTasks=Replica,Router,Update,Stats,AMgr,Adminp,....SMTPMTA

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

3. 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 (/) is necessary to ensure that the current shell is set by this script.

4. From the AIX command line, move to the directory where your Notes Server configuration code is stored by typing `cd /notesr4`.

5. Open the Lotus Notes interface by typing `notes`.

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

7. From the **Lotus Notes - InfoPrint Manager's Address Book - Server** window, you must make changes to the following three records if you want to send jobs to remote servers. Access the three configuration tasks topics that follow this section before proceeding to step 8.

   - Connections
   - Domains
   - Servers

8. Once you have completed configuring and saving these three records, you must create an Email destination on the InfoPrint AIX server.

Once you have defined Email destinations on the InfoPrint AIX server, you can reboot the InfoPrint AIX server (which will start the resident Lotus Notes server) and begin Submitting Email Jobs.

Configuring the Connections Record

This record is used during the transfer of mail from your SMTP mailbox to the Internet.

1. From the **Lotus Notes - InfoPrint Manager's Address Book - Server** window, click on the **Connections** record that is listed under the **Server** folder on the left side of the screen.

   This action changes the right side of the screen to show a **PrintServer / InfoPrint Manager** document that consists of a default *smtpaddr* where *smtpaddr* indicates a Simple Message Transfer Protocol (SMTP) address in dotted decimal notation format and a default **Local Network**. Your network administrator should know the SMTP address required at your site.

2. From the **Lotus Notes - InfoPrint Manager's Address Book - Server / Servers** window, click on the *smtpaddr* address.

3. From the **SERVER CONNECTION:PrintServer / InfoPrint Manager to** *smtpaddr* window, fill in the following values. Note that these values must be specified exactly as shown below.

Field	Variable
Connection type	*SMTP*
Source server	*PrintServer/InfoPrint Manager*
Source domain	*InfoPrint Manager*
Destination server	*All internet servers* Specifies the mail server name. This is a text field that can be used for descriptive purposes.
Destination domain	*TheInternet*
Connection	*ENABLED*
Optional Network Address	*SmtpDNSservername* Where *smtpDNSservername* indicates fully-qualified name used at your installation, such as relay.us.company.com.

4. Once you have specified these values, save, then close the file.

5. From the **Lotus Notes - InfoPrint Manager's Address Book - Server/Servers** window, click on the default **Local Network**.

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 this value, save, then close the file.

8. Now you are ready to configure the Domains records.

Configuring the Domains Records

1. From the **Lotus Notes - InfoPrint Manager's Address Book - Server/Servers** window, on the **Domains** file that is listed under the **Server** folder on the left side of the screen.

   This action changes the right side of the screen to show a **Foreign SMTP Domain** document and a **Global Domain**, both of which are dormant by default.

2. From the **Lotus Notes - InfoPrint Manager's Address Book - Server/Servers** window, click on the **TheInternet** portion of the **Foreign SMTP Domain** record.

3. From the **DOMAIN:*.*** window, fill in the following values. Note that these values must be specified exactly as shown below.

Field	Variable
Domain type	*Foreign SMTP Domain*
Domain name	*TheInternet*

4. 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.

5. Click on the **DAN ONE Domain** record.

6. From the **DOMAIN: DAN ONE** window, fill in the following values. Note that these values must be specified exactly as shown below.

Field	Variable
Domain type	*Global Domain*
Global Domain name	*Dan One*
Global Domain role	*SMTP MTA*

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 configure the Servers record.

Configuring the Servers Record

1. From the **Lotus Notes - InfoPrint Manager's Address Book - Server/Servers** window, on the **Servers** file that is listed under the **Server** folder on the left side of the screen.

   This action changes the right side of the screen to show an **InfoPrint Manager** document, which contains a **PrintServer/InfoPrint Manager** document.

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

3. From the **SERVER:PrintServer/InfoPrint Manager** window, fill in the following values. Note that these values must be specified exactly as shown below.

Field	Variable
Server name	*PrintServer/InfoPrint Manager*
Domain name	*InfoPrint Manager*

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

Port	Notes Network	Net Address
LAN0	*TCP/IP*	*n.nn.nnn.nn* where *n.nn.nnn.nn* represents the dotted decimal IP address of the InfoPrint AIX server where this Lotus Notes server resides.

Ensure that you Enable this set of values in the final column.

5. Open the **Internet Message Transfer Agent (SMTP MTA)** link to verify that the following values have been specified under the **General** topic:

Field	Variable
Global domain name	*Dan One*
Fully qualified Internet host name	*Servername* where *servername* is the fully-qualified name of this InfoPrint AIX server.

6. From this **Internet Message Transfer Agent (SMTP MTA)** link, go to the **Conversion Options** topic to modify message formats:

Message typeface

Specify the font of choice to replace the Courier default, such as *Times Roman*.

Message point size

Specify the point size for the messages you send, such as either *10* or *12*.

Message Content

Specify 'Users without Lotus Notes' to ensure that your Email does not append a second file named **encap2.ond** with each submission.

7. Save these values and return to the main procedure.

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Installing and Configuring InfoPrint Library

In the past, print shops stored metal plates or camera-ready copy on warehouse shelves, with a note indicating the information contained on the media. In today's digital environment, print shops must be able to store data in digital or electronic format on some sort of storage and retrieval device: magnetic tapes, disks, or optical platters loaded in a juke box.

InfoPrint Library is optional for InfoPrint Manager, but it offers an excellent means of digitally storing data. The Library consists of two basic components:

- A Library server that runs on the InfoPrint AIX server
- A library client that runs on the Windows or Macintosh client where InfoPrint Submit is installed.

Once you create a job in InfoPrint Submit, you can archive that job into InfoPrint Library. You can retrieve any job (or file) that has been archived. You access the library client through the InfoPrint Submit application.

This page consists of the following procedures:

- Configuring the InfoPrint Library on the Server
- Configuring the InfoPrint Library on a Windows Client
- Configuring the InfoPrint Library on a Macintosh Client

Configuring the InfoPrint Library on the Server

To configure InfoPrint Library on the InfoPrint AIX server, ensure that you have used the InfoPrint Installer and selected the InfoPrint Library option. This process installs all the necessary code.

Once the InfoPrint Installer has completed and you have rebooted the server, you can configure the InfoPrint AIX server by using the following procedure:

1. From an AIX window, type `smitty` and take the following path: InfoPrint Printing System -- InfoPrint Utilities --Configure InfoPrint Library
2. From the **LOCALE** pop-up menu that appears at the bottom of your screen, specify the language that you want for the server.

   Note that this value should correspond to whatever you specified for the Preferred Language on the InfoPrint Installer.
3. Specify a value for the size of the **/ipdata/library** file system, which is where InfoPrint files and job tickets will reside.
4. Specify a value for the size of the **/libdb** file system, which is where the data base code and data will reside.
5. In the **ARE YOU SURE?** dialog box that appears, click **Enter**.

Once you receive notification that Library is configured, you can define the Client on either a Windows or a Macintosh system.

Configuring the InfoPrint Library on a Windows System

Once you have installed and configured Library on the InfoPrint AIX server, you can install the InfoPrint Library client support (DB/2 Windows) by using the following procedure:

1. Insert the InfoPrint Manager client CD and navigate to the submit/winnt/db2cae directory.

2. From the same directory, open a DOS window and enter the following command:

   `ipdb2ins` *`servername`* `d:`

   where *`servername`* defines the InfoPrint AIX server where you have installed and configured InfoPrint Library and where `d:` is the drive where the InfoPrint Library client (DB/2 Windows) will be installed.

3. This can take 2 or 3 minutes to complete. Once it has completed successfully, you will see a message requesting that you reboot the client system before attempting to start InfoPrint Library.

Configuring the InfoPrint Library on a Macintosh System

Once you have installed and configured Library on the InfoPrint AIX server, you can install the DB/2 Macintosh client by using the following procedure:

1. From the client CD-ROM provided with InfoPrint Manager, install InfoPrint Submit on your system.

2. Click on the **CAEMacUS** file in the CAEMacUS folder to start this executable.

3. Press Continue. Note: DB2 client enabler instructions display. Ignore them and press continue.

4. When the install has completed and the system reboots, expand the **DB/2** entry from the system's top level folder and click on the **Command Line Processor** to start the DB/2 Command Line Processor.

5. Using the **DB/2 Command Line Processor**, catalog the TCP/IP node:

   `CATALOG TCPIP NODE` *`infodb`* `REMOTE` *`servername`* `SERVER 1447`

   where *`infodb`* specifies an arbitrary name you give to the node that contains the DB/2 server, and *`servername`* specifes the host name of the InfoPrint AIX server where the Library resides.

   `1447` specifies the port number for the DB/2 service. Because this port number is used on the DB/2 server, you cannot change this value.

6. Using the **DB/2 Command Line Processor**, catalog the database:

   CATALOG DATABASE *infoprt* AT NODE *infodb*

   where *infoprt* specifies the name of InfoPrint data base, and *infodb* is the arbitrary name you give to the node that contains the DB/2 server.

   Note: For InfoPrint Library to work correctly, you must use this *infoprt* name.

7. Using the **DB/2 Command Line Processor**, connect to the data base:

   CONNECT TO infoprt USER root USING root_password

   where *infoprt* specifies the name of InfoPrint data base, *root* specifies the root user of the server, and *root_password* specifies the password for the AIX root user.

   Note: For InfoPrint Library to work correctly, you must use this *infoprt* name.

   Enter quit to exit the Command Line Processor.

8. Completing the DB/2 Configuration

   - Go to the the Control Panel and specify the following path: ODBC Setup PPC -- Setup Data Sources-->ADD
   - Select the IBM ODBC DB2 for PPC driver.
   - To add the INFOPRT data base that you created above, select OK.
   - To close the window, click on the box in the top left corner.

Once you have completed these tasks, reboot the client and you will be ready to begin Using the InfoPrint Library option.

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Installing the Kanji Fonts Feature

You can install Kanji fonts on your InfoPrint Manager server to print documents requiring these specialized fonts.

To enable your InfoPrint Manager server to support Kanji fonts, use the InfoPrint installer located on the InfoPrint Manager CDROM. You will be prompted to supply your customer ID as well as the access key located on the invoice that was shipped with your CD.

Note: Remember to save your customer ID and the access key in a safe place. If you reinstall InfoPrint Manager, you will need both your customer ID and the access key number again.

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Installing the PPFA Feature

The Page Printer Formatting Aid (PPFA) is an IBM licensed program that enables users of IBM's Advanced Function Presentation (AFP) products to create form definitions and page definitions.

To enable your InfoPrint Manager server to support PPFA, use the InfoPrint installer located on the InfoPrint Manager CDROM. You will be prompted to supply your customer ID as well as the access key located on the invoice that was shipped with your CD.

Note: Remember to save your customer ID and the access key in a safe place. If you reinstall InfoPrint Manager, you will need both your customer ID and the access key number again.

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Installing the Tivoli Plus Module

You can add InfoPrint Manager support to your Tivoli desktop.

The initial software requirement for a Tivoli system on AIX is the TME10 Framework. The TME 10 Software Distribution, TME 10 Distributed Monitoring, and TME 10 Enterprise Console applications must be installed and configured before their corresponding Tivoli/Plus feature is operational.

For information about installing and configuring Tivoli Plus Module support, contact IBM technical experts by calling 1-800-237-5511 in the U.S. and 1-800-426-7378 in Canada. Outside the U.S. and Canada, contact your local IBM Printing Systems Representative.

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Performing Optional Configuration

The following procedures help you configure your InfoPrint Manager environment:

Configuring Your Server to Support Saving RIP Files and Preflighting

Creating Default Users

Enabling/Disabling Autostart

Adding or Removing Languages

Installing AFP Upload

Installing Secondary InfoPrint Servers

Tuning the RS/6000 Server to Improve Performance

Setting Up and Tuning SNMP Communication

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Configuring Your Server to Support Saving RIP Files and Preflighting

AIX Connections is the default communications program supported by InfoPrint Manager to save RIP files and preflight jobs. The following procedures describe how to configure AIX Connections for use with InfoPrint Manager. These procedures assume that you are using AIX Connections only in conjunction with InfoPrint Manager.

WARNING: If you are currently using AIX Connections for other applications, **do not** use the following procedures. They may cause your other applications to fail. Instead, manually add file services for the /ipdata file system to your already existing AIX Connections configuration. Contact IBM Customer Support if you have problems with this manual configuration.

Consult the following topics before configuring AIX Connections:

- Required Filesets If Using AIX Connections
- AIX Connections Software Maintenance Support

Configuring AIX Connections

This page describes four configuration procedures:

- Configuring NetBIOS Over NetBEUI
- Configuring AppleTalk
- Configuring Netware Over IPX
- Configuring NetBIOS Over TCP/IP

You must configure NetBIOS over NetBEUI before configuring any of the other protocols. This must be done even if you are not using NetBEUI for network communication. You must configure AppleTalk only if you will be using Macintosh clients. You must configure Netware only if your LAN uses Novell's IPX/SPX protocols for communication. Finally, you must configure NetBIOS over TCP/IP only if your LAN uses TCP/IP exclusively for communication with PC systems.

Required Filesets If Using AIX Connections

The following lists the fileset levels (including Program Temporary Fix (PTF) maintenance levels) recommended for AIX Connections. If you enter the following commands, you should see the following filesets on your AIX operating system if you have installed the latest levels.

If you specify `lslpp -l "connect.*"`, you should see the following:

AIX Connection Version 4.1.5	AIX Connection Version 1.1 (4.1.6)
connect.Bnd 4.1.5.0	connect.Bnd 4.1.6.0
connect.client 4.1.5.2	connect.client 4.1.6.0
connect.html.en_US.data 4.1.5.0	connect.html.en_US.data 4.1.6.0
connect.protocols 4.1.5.1	connect.protocols 4.1.6.0
connect.ps.en_US.client 4.1.5.0	connect.ps.en_US.client 4.1.6.0
connect.ps.en_US.lsserve 4.1.5.0	connect.ps.en_US.lsserve 4.1.6.0
connect.ps.en_US.macserv 4.1.5.0	connect.ps.en_US.macserv 4.1.6.0
connect.ps.en_US.nwserve 4.1.5.0	connect.ps.en_US.nwserve 4.1.6.0
connect.ps.en_US.up_n_running 4.1.5.0	connect.ps.en_US.up_n_running 4.1.6.0
connect.server.admin 4.1.5.0	connect.server.admin 4.1.6.0
connect.server.com 4.1.5.6	connect.server.com 4.1.6.0
connect.server.lsserve 4.1.5.5	connect.server.lsserve 4.1.6.0
connect.server.macserve 4.1.5.3	connect.server.macserve 4.1.6.0
connect.server.nwserve 4.1.5.3	connect.server.nwserve 4.1.6.0

If you specify `lslpp -l "netbios.*"`, you should see the following:

AIX Connection Version 4.1.5	AIX Connection 1.1 (4.1.6)
netbios.api 2.1.4.1	netbios.api 2.1.4.1
netios.msg.en_US 2.1.4.0	netios.msg.en_US 2.1.4.1
netbios.rte 2.1.4.3	netbios.rte 2.1.4.3

AIX Connections Software Maintenance Support

If you will be running InfoPrint Manager in a commercial environment using AIX Connections, you need either AIX Connections Version 4.1.5 or AIX Connections Version 1.1 (which is also called Version 4.1.6). AIX Connections Version 4.1.5 also requires APAR IX65879, which includes a fix for configuring the NetBIOS protocol. AIX Connections Version 1.1 (4.1.6) has no maintenance requirements.

Note: To obtain the recommended AIX Connections and NetBIOS maintenance levels for Version 4.1.5, you must apply the following APARS:

AIX Connection V 4.1.5	NetBIOS
IX68811; IX65228; IX68090; IX70657; IX70131; IX67154	IX69231; IX65879

For more information about the current version of AIX Connections, see their website.

Configuring NetBIOS Over NetBEUI

To configure AIX Connections to use the default Microsoft LAN protocols (NetBIOS Over NetBEUI), perform the following steps:

1. Invoke the InfoPrint Utilities SMIT interface on the AIX system that holds the /ipdata file system.
2. Click **Configure AIX Connections**, then **NetBIOS Over NetBEUI.**
3. Enter the name of the Windows workgroup that will be used to hold the /ipdata file server.
4. If this is not a preloaded system, enter the volume group you wish to hold /ipdata and the number of megabytes you wish to allocate for /ipdata in the fields provided. If this is a preloaded system, leave these two fields blank.
5. Click **OK**.

Configuring AppleTalk

To configure AIX Connections to use AppleTalk for communicating with Macintosh clients, do the following:

1. Invoke the InfoPrint Utilities SMIT interface on the AIX system that holds the /ipdata file system.
2. Click **Configure AIX Connections**, then **AppleTalk.**
3. In the field provided, enter the AppleTalk network zone in which you want the /ipdata file server to reside.
4. Select the TCP/IP interface that the server uses to communicate with the LAN.
5. Click **OK**.
6. Provide a password when prompted. The password you enter will become the AIX Connections password for the ipuser user. This user name and password will be required to access the AIX Connections AppleTalk file server from Macintosh clients.

TIP: You may need to reboot the AIX system before client systems can access the AIX Connections AppleTalk file server (at*hostname)*.

Configuring Netware Over IPX

To configure AIX Connections to work using Netware protocols, do the following:

1. Invoke the InfoPrint Utilities SMIT interface on the AIX system that holds the /ipdata file system.
2. Click **Configure AIX Connections**, then **Netware Over IPX**.

3. Enter the Maximum Transfer Unit of your Netware network. (In most cases, you will not need to change the default value.)

4. Select the TCP/IP interface that the server uses to communicate with the LAN.

5. Select the frame type that your LAN uses.

6. Enter the external network number provided by your Netware network administrator.

7. Enter the internal network number if required by your Netware network.

8. Click **OK**.

9. Provide a password when prompted. The password you enter will become the AIX Connections password for the ipuser user. This user name and password will be required to access the AIX Connections Netware file server from client systems.

TIP: You may need to reboot the AIX system to establish communication between the AIX Connections Netware file server (nw*hostname*) and client systems.

Configuring NetBIOS Over TCP/IP

To configure AIX Connections to use NetBIOS over TCP/IP, do the following:

1. Invoke the InfoPrint Utilities SMIT interface on the AIX system that holds the /ipdata file system.

2. Click **Configure AIX Connections,** then **NetBIOS Over TCP/IP.**

3. Select the correct LANA number from the list provided.

4. Select the TCP/IP interface that the server uses to communicate with the LAN.

5. Click **OK.**

On all Microsoft Windows 95 clients, do the following:

1. Make sure that Client for Microsoft Networks is installed and bound for TCP/IP.

2. Add an entry to the C:\WINDOWS\LMHOSTS file that maps the server IP address to the AIX Connections service name. The entry should have the following form:

   9.99.12.34 ls*hostname*

3. Refresh the client configuration by issuing the following command at a DOS prompt:

   `nbtstat -R`

On all Microsoft Windows NT clients, do the following:

1. Add an entry to the C:\WINNT\system32\drivers\etc\lmhosts file that maps the server IP address to the AIX Connections service name. The entry should have the following form:

   9.99.12.34 ls*hostname*

2. Refresh the client configuration by issuing the following command at a DOS prompt:

   ```
   nbtstat -R
   ```

TIP: On NetBEUI clients, AIX Connections services using NetBIOS over TCP/IP will not show up in the Network Neighborhood browser. This is because the browser only recognizes broadcasts over NetBEUI. Therefore, these TCP/IP services will only be seen if NetBEUI is also available on the network.

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Creating Default Users

If you are using the non-DCE version of InfoPrint Manager and are running a "Basic" configuration (formerly known as "commercial"), your should control access to InfoPrint administrator and operator functions by creating the default users **admin** and **oper**.

If you are using the DCE version of InfoPrint or are running an "Advanced" configuration, you must follow different procedures to control access to InfoPrint.

Running InfoPrint as the **root** user is not recommended under any circumstances. The **admin** user will be allowed to perform both administrator and operator tasks on basic, non-DCE InfoPrint systems. The **oper** user will be able to perform operator tasks, but will be prohibited from performing administrative tasks. To set up these users, do the following:

1. Invoke the InfoPrint Utilities SMIT interface.
2. Click Create Default Users.
3. Click OK when asked, "Are you sure?"
4. Note the passwords you set for the **admin** and **oper** users because they will be needed in the future.

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Accessing InfoPrint Manager Utilities

To access the InfoPrint Utilities main menu, do the following:

1. If you do not have an InfoPrint Manager icon on your front panel, open the **InfoPrint** folder in the Application Manager and double click on the **InfoPrint SMIT** icon.

2. If you do have an InfoPrint Manager icon on your front panel, open InfoPrint Manager's popup menu and click on the **InfoPrint SMIT** icon.

3. Click **InfoPrint Utilities.**

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Enabling/Disabling Autostart

The server created for you by the InfoPrint Installer will start automatically when the system reboots. You may enable or disable the automatic starting of any InfoPrint servers present on your AIX system.

Enabling Autostart

To enable the automatic starting of a server, do the following:

1. Invoke the InfoPrint Utilities SMIT interface.
2. Click **Enable/Disable Autostart**.
3. Select **on** in response to the question, "Do you wish to turn autostart on or off?"
4. Click **List** and select the InfoPrint server you wish to start automatically on reboot.
5. Enter the port number which this server uses for communication with other programs. (Leave blank to use the default port number.)
6. Click **List** and select the locale (language environment) in which you want the server to run.
7. Click **OK**.

Disabling Autostart

To disable the automatic starting of a server, do the following:

1. Invoke the InfoPrint Utilities SMIT interface.
2. Click **Enable/Disable Autostart**.
3. Select **off** in response to the question, "Do you wish to turn autostart on or off?"
4. If prompted, select the server you want to disable for automatic starting.

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Accessing InfoPrint Manager Utilities

To access the InfoPrint Utilities main menu, do the following:

1. If you do not have an InfoPrint Manager icon on your front panel, open the **InfoPrint** folder in the Application Manager and double click on the **InfoPrint SMIT** icon.

2. If you do have an InfoPrint Manager icon on your front panel, open InfoPrint Manager's popup menu and click on the **InfoPrint SMIT** icon.

3. Click **InfoPrint Utilities.**

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Adding or Removing Languages

The InfoPrint Installer will install U.S. English (en_US) filesets on all InfoPrint Control systems. If you will be installing a version of InfoPrint Manager in a language other than U.S. English, you will need to install additional language support so that the InfoPrint Installer can provide support for the language selected for use during install. The following topics provide the software prerequisites required, as well as procedures for adding and removing InfoPrint Manager language support.

Software Prerequisites for Translated Versions of InfoPrint Manager

You must install such support from the AIX operating system version 4.2.1 CD-ROM, onto each AIX system on which you will install InfoPrint Manager and run an InfoPrint Manager server. InfoPrint Manager supports French, German, Italian, Spanish, and Japanese.

To install a language on an AIX operating system, use the following procedure:

1. From an AIX command line, access the smit fastpath by specifying: `smitty lang`
2. Select the **Add Additional Language Environments** option.
3. From the **Add Additional Language Environments** panel, press the **f4** key to determine value to specify in the **CULTURAL convention to Install** field.

   Note that languages that are already installed on this AIX system will not appear in this list.
4. Press the **f4** key to determine the value to specify in the **LANGUAGE translation to install** field.

   Note that languages that are already installed on this AIX system will not appear in this list.
5. Ensure that the **INPUT device/directory for software** field is pointing to your CD-ROM drive.
6. Press the **enter** key to install the language.

Note: For more information about installing different languages on your AIX operating system, access the **info** data base.

Adding a Language

You may add support for an InfoPrint Manager language only if your system is able to provide system messages in the chosen language. To add support for a language, do the following:

1. Insert your InfoPrint product CD.
2. Invoke the InfoPrint Utilities SMIT interface.
3. Click **Add or Remove Languages**, then **Add Language**.

4. Select one or more locales to add from the list presented. (The list will only contain locales that your system is able to support.)
5. Enter your customer ID and InfoPrint Manager Control Key in the fields provided.
6. Click **OK**.

Removing a Language

To remove support for an InfoPrint Manager language environment, do the following:

1. Invoke the InfoPrint Utilities SMIT interface.
2. Click **Add or Remove Languages**, then **Remove Language**.
3. Select one or more locales to remove from the list presented.
4. Click **OK.**

Note: The English locale may not be removed because some default messages must be presented in English.

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Installing AFP Upload

AFP Upload consists of an AIX client program (as part of InfoPrint Manager) and an MVS server program (available as a priced feature of PSF/MVS). The AIX client accepts AFP files (or files it can convert to AFP) and sends them to the MVS server, which places them on the JES spool. Many of the AFP file attributes, such as class, destination, and forms, are also communicated to the MVS system and recorded with the data sets on the JES spool.

To communicate between the AIX and MVS systems, 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:

Title	Publication Number
AFP Upload Configuration Guide Using TCP/IP	(S544-5423-01)
AFP Upload Configuration Guide Using SNA	(S544-5422-01)

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 through InfoPrint Manager:

Configuring a Physical Printer for AFP Upload

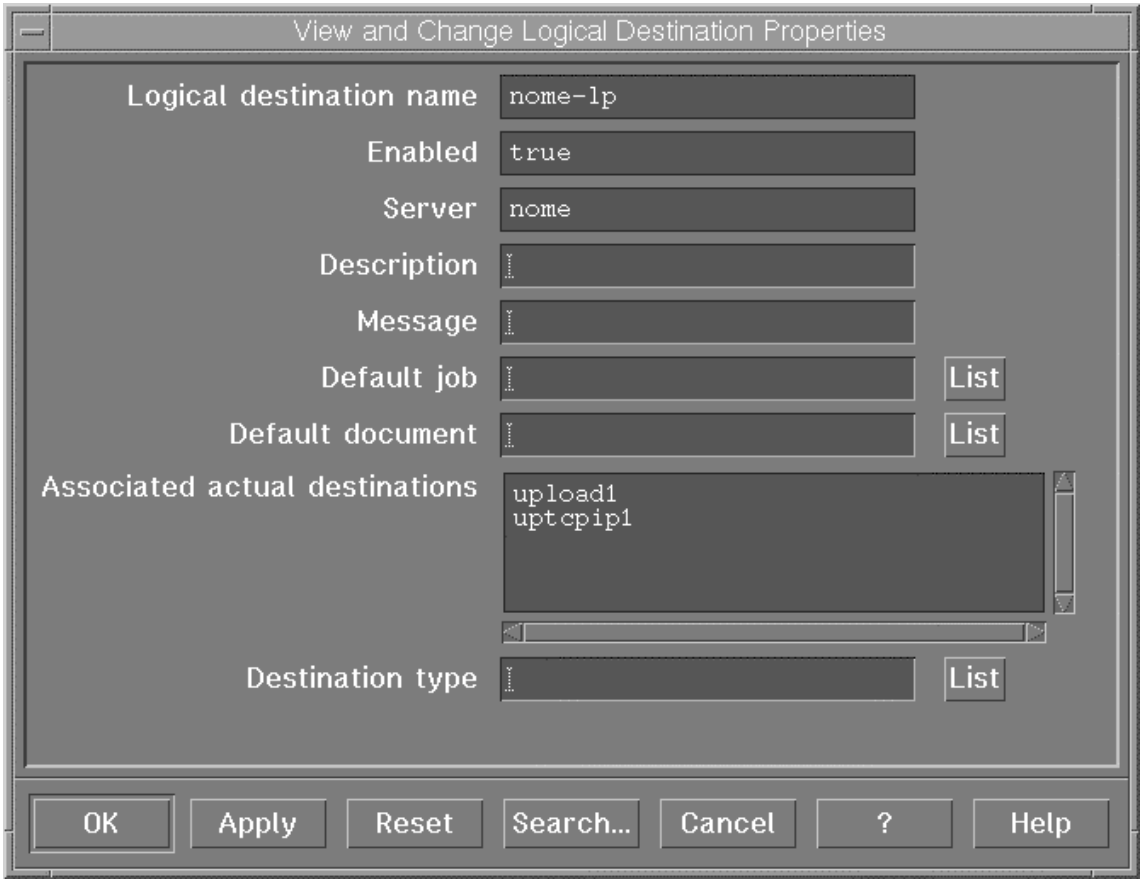
To configure a physical printer to your InfoPrint Manager installation for using the AFP Upload feature through either SNA Server/6000 protocols or TCP/IP protocols, you must invoke the System Management Interface Tool (SMIT) program as root. Note that when you configure a physical printer, the logical printer to drive that printer is created automatically, with the name `server-lp`, where server is the symbolic name of your InfoPrint AIX server.

To configure a physical printer for the AFP Upload feature, use the following procedure:

1. From an AIX window on your InfoPrint AIX server, type either `smit` or `smitty`, then take the following path: **InfoPrint Printing System** - **Miscellaneous Configuration** -- **Add a Printer**

2. From the **Add a Printer** panel, select either **Upload-SNA** or **Upload-TCP/IP**, depending upon the communication protocol you will be using.

Note: If you specify more than one physical printer, InfoPrint Manager will use the same logical printer for both options, always taking the first one created if both are enabled and available for the job. The logical printer attributes are displayed below:



3. 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 physical printer object:

TCP/IP-Specific Fields:

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 and a number greater than 5000 is recommended.
ASCII code-set	Defines the code-set used on the AIX system.
EBCDIC code-set	Defines the code-set used on the MVS system.

SNA-Specific Fields:

For SNA protocols, the **Printer Name** field must match the **Current profile name** field on the LU 6.2 Side Information Profile. For more information about the LU 6.2 Side Information and other SNA profiles, refer to *AFP Upload Configuration Guide Using SNA*.

To find more information about AFP Upload printers, see Using InfoPrint Manager Commands with AFP Upload.

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Installing Secondary InfoPrint Servers

InfoPrint Manager allows you to configure multiple AIX systems to work together to meet your printing needs. Installing secondary servers using the Distributed Computing Environment (DCE) version of InfoPrint Manager is simple. All that is required is to run the InfoPrint Installer on each system. DCE will provide the services that your primary and secondary InfoPrint servers require to communicate with each other.

If, however, you are installing secondary servers in a non-DCE InfoPrint environment, you will be using Network File System (NFS) to enable communication between servers. To make this work correctly, you must use one of the following two procedures:

- Installing Secondary InfoPrint Servers Using NFS (No Job Ticketing)
- Installing Secondary InfoPrint Servers Using NFS (Job Ticketing)Multiple CommercialMultiple CommercialMultiple Commercial

---

Installing Secondary InfoPrint Servers Using NFS (No Job Ticketing)

To set up multiple InfoPrint servers that do not require full job ticketing services, do the following:

1. Complete the installation of the primary InfoPrint server.
2. Apply current APAR service, if available.
3. Complete the configuration of the primary InfoPrint server:
    1. Invoke the InfoPrint Utilities SMIT interface.
    2. Click on **Configure Secondary Servers (NFS)**, then **Link from Primary Server to Secondary Server**.
    3. Provide the information about your secondary system as prompted.

Note: If you are using DNS or NIS name resolution services, be sure to update these services with all new server information before proceeding. (DNS and NIS are centralized services used to resolve host names into IP addresses. Whenever a new machine is added to the network, these services must be advised of the host name and IP address of the new system. These services may or may not be used on your LAN. If you are unsure about about your network's name resolution services, contact your network administrator.)

4. Do the following for each secondary server:
    1. Run the InfoPrint Installer
    2. Apply current APAR service, as necessary.

Installing Secondary InfoPrint Servers Using NFS (Job Ticketing)

To set up multiple InfoPrint servers with job ticketing fully enabled:

1. Complete the installation of the primary InfoPrint server.
2. Apply current APAR service, if available.
3. Run InfoPrint Utilities on the primary InfoPrint server as described in Setting Up the Primary Server.
4. Run InfoPrint Utilities on the secondary InfoPrint server as described in Setting Up the Secondary Server.

Note: You must set up the Primary Server before setting up the Secondary Server.

Setting Up the Primary Server

1. Invoke the InfoPrint Utilities SMIT interface.
2. Click on **Configure Secondary Servers (NFS)**, then **Link from Primary Server to Secondary Server**. Provide the information about your secondary system as prompted.
3. If the **/ipdata** filesystem was not allocated on the primary server, you must perform the necessary steps to make **/ipdata** accessible to all InfoPrint servers before proceeding. (This is necessary if, for example, you have elected to use a PC to store shared information instead of your primary server.)

Note: If you are using DNS or NIS name resolution services, be sure to update these services with all new server information before proceeding. (DNS and NIS are centralized services used to resolve host names into IP addresses. Whenever a new machine is added to the network, these services must be advised of the host name and IP address of the new system. These services may or may not be used on your LAN. If you are unsure about about your network's name resolution services, contact your network administrator.)

Setting Up the Secondary Server(s)

Do the following for each secondary server.

1. Run the InfoPrint Installer.
2. Apply current APAR service, as necessary.
3. Invoke the InfoPrint Utilities SMIT interface.
4. Click on **Configure Secondary Servers (NFS)**, then **Link from Secondary Server to Primary Server**. Provide the information about your primary system as prompted.

Note: If any of the procedures above fail because the user and group identifiers could not be set, you must set these values manually so they are the same on all servers in the namespace. To do this, follow these steps:

1. Invoke SMIT.

2. Click **InfoPrint Printing System**, then **Troubleshooting**, then **Standardize Default Users**.

3. Enter ID numbers as prompted.

Perform this procedure on both primary and secondary systems until the same IDs are in use by all servers in the namespace.

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Tuning the RS/6000 Server to Improve Performance

If an AIX system administrator suspects that the InfoPrint Manager RS/6000 server is either limiting overall print throughput or contributing to excessive print job response times, they can use this section to tune the server. However, administrators should use caution when modifying default configuration values: they could improve InfoPrint Manager performance while degrading the performance of another application running on the same InfoPrint Manager RS/6000 server. Any tuning changes should be evaluated for effectiveness after they have been applied.

The performance of an InfoPrint Manager RS/6000 server can differ, depending upon the environment they have been configured to support. This topic describes how the InfoPrint Installer modifies the configuration defaults for both a Basic Server configuration and an Advanced Server Configuration. In addition, this section provides tuning recommendations for Input Manager, InfoPrint Manager's utility for processing input from tape, file, or standard input that must be processed and printed.

Basic Server Configuration

During the install of a Basic InfoPrint Manager 3.1 configuration, the InfoPrint Installer sets the InfoPrint Manager RS/6000 tuning parameters for large print-on-demand documents that contain compressed images and are printed on high-speed printers, such as the InfoPrint 4000 IR3/IR4 printer. These performance options are contained in the /etc/rc.net.ipr file.

Note that if you have a pre-configured Model 4161-002 RS/6000 server, the InfoPrint Installer not perform any additional performance tuning. Because the serial storage architecture (SSA) disk array performance within this model is dependent upon the **vmtune** settings, IBM does not recommend modifying tuning parameters on a Model 4161-002 RS/6000 server for any other applications.

Advanced Server Configuration

During the install of an Advanced InfoPrint Manager 3.1 configuration, the InfoPrint Installer does not make any changes to the tuning parameters for a general RS/6000 environment. If system administrators decide to tune parameters, they should use the System Management Interface Tool (SMIT) to make changes.

1. Logon to the AIX system as **root**.
2. From the AIX command line, type either `smit` or `smitty` and take the following path: InfoPrint Printing Systems InfoPrint Utilities Tune System Performance Optimize InfoPrint Performance

   This option sets system tuning parameters that affect TCP/IP memory and disk I/O characteristics that are contained in the /etc/rc.net.ipr script.
3. From an AIX window, specify

   `pdshutdown-w now` *`servername`*

   where *servername* is the name of the InfoPrint AIX server.

4. Specify

   ```
   Shutdown -Fr
   ```

   to shut down and subsequently restart the AIX operating system so these values can take effect.

Tuning Input Manager

Input Manager is InfoPrint Manager's internal component for processing input from a variety of sources. The following section provides tuning suggestions for some of Input Manager's key components:

- File Sync Parameter
- Segment Size Parameter
- Work Area Allocation
- Tuning Input Manager through SMIT

File Sync Parameter

In InfoPrint Manager 3.1, the **File Sync THRESHOLD LIMIT (K Bytes)** is set to 0 to disable it. The /etc/rc.net.ipr file performance settings help sequential disk I/O performance. However, if your installation does not call the **vmtune** options from this file, you may need to specify a file sync setting to improve the performance of some print applications.

Segment Size Parameter

The **Default SEGMENT SIZE** parameter affects the disk I/O performance of the **/var/psf/segments** file system. This parameter determines the maximum size of any temporary file created by the Input Manager component that is stored in **/var/psf/segments**. This setting determines the number of temporary files that Input Manager requires for all print jobs submitted to InfoPrint Manager: the smaller the setting, the more files required to process the AFP input data.

For Basic Server configurations, the default setting of 5000 KB per segment can be raised to reduce the disk I/O usage associated with reading and writing data to the **/var/psf/segments** file system.

For Advanced Server configurations, the default setting of 1000 KB per segment can be raised to reduce the disk I/O usage associated with reading and writing data to the **/var/psf/segments** file system; however, the default setting usually works well with most AFP production applications.

Work Area Allocation

The SMIT field **PERCENTAGE of work area for retained jobs** determines how much of the **/var/psf/segments** file system is allocated for retained segment files. The lower this number, the better Input Manager's performance. The default setting is 50 percent, but you may want to lower the setting to 5 percent.

Tuning Input Manager through SMIT

Use the following procedure to tune Input Manager settings with SMIT:

1. Logon to the AIX system as **root**.
2. From the AIX command line, type either `smit` or `smitty` and take the following path: InfoPrint Printing Systems Miscellaneous Configuration Customize the Input Manager
3. From the **Customize the Input Manager** panel, set the following values as indicated in the table below.

Field	Variable
PATH used for work area & percentage usage threshold	`/var/psf/segments`
Work area MANAGEMENT	`automatic`
PERCENTAGE of work area for retained jobs	`5`
File Sync THRESHOLD LIMIT (K Bytes)	`0`
Default SEGMENT SIZE (K Bytes)	`5000` for Basic Server Configuration `1000` for Advanced Server Configuration

Contents of the /etc/rc.net.ipr Script

This script modifies three AIX commands that are necessary to set network, memory, and I/O tuning parameters: **chdev**, **vmtune**, and **no**. The **chdev** command acts upon the system device (in this case, sys0) to enable pacing. The **vmtune** command options are optimal for sequential I/O operations, especially the -c4 setting, which enables the memory-to-disk write behind algorithm. This **-c** parameter keeps memory from being over committed to large sequential files, reducing the potential for real memory thrashing.

The **no** commands help improve system-wide network performance for all network devices. If you have Ethernet devices at 1,492 bytes Maximum Transmission Unit (MTU) size (both **10 BaseT** and **100 BaseT**), Token-Ring devices at 4,096 bytes MTU, or FDDI devices at 4,352 bytes MTU, the settings shown below are helpful:

```
# TCP/IP PERFORMANCE TUNING

if [ -f /usr/sbin/no] ; then

/usr/sbin/no -o rfc1323=1

/usr/sbin/no -o thewall=16384

/usr/sbin/no -o sb_max=262144

/usr/sbin/no -o tcp_sendspace=131072

/usr/sbin/no -o tcp_recvspace=131072

/usr/sbin/no -o udp_sendspace=65536

/usr/sbin/no -o udp_recvspace=65536

/usr/sbin/no -o tcp_keepidle=240

/usr/sbin/no -o tcp_keepintvl=60

fi

# VMTUNE MEMORY MANAGEMENT PERFORMANCE TUNING

if [ -f /usr/samples/kernel/vmtune ] ; then

/usr/samples/kernel/vmtune -r 2 -R 16 -f 120 -F 200 -c 4

fi

# I/0 PACING TO HELP TUNE READ AND WRITE I/O PERFORMANCE

if [ -f /usr/sbin/chdev ] ; then

/usr/sbin/chdev -l sys0 -a maxpout=41 -a minpout=16

fi
```

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Setting Up and Tuning SNMP Communication

If you are printing to network printers you may choose to control how your InfoPrint servers issue SNMP requests. You can use your InfoPrint Administrator's GUI to specify:

- Whether or not to attempt SNMP communication with a printer
- The name of the SNMP community to which the printer device belongs
- How many times to retry failed SNMP requests
- How many seconds to wait for an SNMP printer response before timing out.

The following SNMP attributes can be modified through the InfoPrint Administrator's GUI to setup/tune the SNMP communication with network printers. To display the current settings, Select the SNMP tab located on the printer properties notebook.

Use SNMP (use-snmp)

This attribute defaults to "yes," but you may want to set it to "no" under the following types of conditions:

- Printer is off-line: the printer is turned off or removed from the network for an extended period of time and you don't want to use system resources to poll the device.
- Performance: it's taking too much time to query and poll the SNMP status.
- Invalid status/defaulting: the destination status is being reported incorrectly and you want to disable SNMP while service investigates the problem.

Community name (snmp-community-name)

Use this attribute to indicate the name of the SNMP community to which the printer belongs. The name must match one of the community names configured in the printer.

Number of times to retry (snmp-retry-count)

Use this to specify the number of times to retry an SNMP request if it fails. The higher the number of retries, the more possible traffic there will be on the network. Use higher numbers for remote printers. Increasing this number too much may cause reduced performance.

Timeout (snmp-timeout)

Use this to specify the number of seconds the server should wait for the printer to respond to an SNMP request. If the printer is remote(on a different subnet), this number may need to be increased from the default. The amount of increase depends on a number of network factors, including routing and network loading. Increasing this number too much may cause reduced performance.

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Installing InfoPrint Manager on Client Systems

The following procedures help you install print management and job submission clients on workstations:

Installing and Configuring InfoPrint Submit and InfoPrint Scan

Installing and Configuring InfoPrint Select Clients

Installing and Configuring the AIX Client (README)

Installing the Sun Client (README)

Installing and Configuring the InfoPrint Job and Printer Management GUI

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Installing and Configuring InfoPrint Submit and InfoPrint Scan

InfoPrint Submit is a print file submission application that you use to work with print jobs, submit jobs for printing, and track and archive jobs. InfoPrint Submit runs on Windows 95, Windows NT, or Macintosh. It must be installed on the Windows or Macintosh workstation that you use to submit jobs to the InfoPrint printers.

InfoPrint Scan is a scan application that you use to clean up and align scanned images for printing, zone pages automatically using the Xerox DocuImage 620S or Ricoh IS 420 scanner, and save scanned files for viewing, printing, and distribution on the Web. InfoPrint Scan runs on Windows 95 or Windows NT.

Click the following to access InfoPrint Submit and InfoPrint Scan installation procedures:

- Installing InfoPrint Submit and Scan on Windows Workstations (Readme)
- Installing InfoPrint Submit on Macintosh Workstations (Readme)

The following sections describe configuration procedures:

- Configuring InfoPrint Submit and InfoPrint Scan to Communicate with the Server
- Providing InfoPrint Submit to Customers

Configuring InfoPrint Submit and InfoPrint Scan to Communicate with the Server

After installing the InfoPrint Submit software on a Windows or Macintosh system, you need to verify that you can communicate with your InfoPrint server. InfoPrint Submit is configured for default IBM 4161 MPC installation. You must specify the server IP address and your workstation IP addresses to the system. This information is also necessary if you are using InfoPrint Library as a means of digitally storing data.

Setting IP addresses for InfoPrint Submit

Note: When you install InfoPrint Submit, the configuration file is updated and is used by InfoPrint Scan if that application is installed. Therefore, you need to do this configuration procedure only for the first program you install.

Use this procedure to determine the IP address of your server and specify that address in InfoPrint Submit on Windows or Macintosh.

1. To find out the IP address of your server, open an MS-DOS window and type:

   `ping` *servername*

   where *servername* is the name of your InfoPrint AIX server.

   A number in the format *xxx.xxx.xxx.xxx* displays. This is the IP address of your server.

2. From the InfoPrint Submit Job Ticket window, select the **Options** menu.
3. Select **Setup...**. The **Settings** window displays.
4. Enter the IP address of your server in the **Server IP address** field.
5. Enter your workstation IP address in the **Workstation IP address** field.
6. Click **OK** to save the IP addresses in the configuration file.

Changing default installation configurations for InfoPrint Submit

If you want to change the default installation configuration for folders, applications, and connections, you can do the following:

1. From the InfoPrint Submit Job Ticket window, select the **Options** menu.
2. Select **Setup...**. The **Settings** window displays.

The values specified in the Connections, Folders, and Applications pages identify how InfoPrint Submit communicates with or access data on the server:

- The Connections page specifies the default port number for your server and its IP address.
- The Folders page identifies the server file system and also lets you specify folders for tickets, files, PDF files, and library files.
- The Applications page lets you specify the applications used for viewing files. Here InfoPrint Manager references the Adobe Distiller that you installed on your server.

You can use the context-sensitive help system for assistance in specifying values in each field. Click F1 while the cursor is positioned in a field to get help for the selected field.

Setting IP addresses for InfoPrint Scan

Note: When you install InfoPrint Scan, the configuration file is updated and is used by InfoPrint Submit if that application is installed. Therefore, you need to do this configuration procedure only for the first program you install.

Use this procedure to determine the IP address of your server and specify that address in InfoPrint Scan on Windows.

1. Ask your system administrator for the IP address of your server.
2. From the InfoPrint Scan window, select the **Options** menu.
3. Select **Server Settings...**. The **Setup Print Server Configuration** window displays.
4. Enter the IP address of your server in the **Server IP address** field.
5. Enter your workstation IP address in the **Workstation IP address** field.
6. Click **OK** to save the IP addresses in the configuration file.

Providing InfoPrint Submit to Customers

You can give copies of InfoPrint Submit to your customers so that they can build their own jobs. Although they will not have access to your shared directory of files, they can modify their own files and job tickets.

Note: Because customers are likely to install the software on systems that are not on the same network as your printers and server, much of the application's function does not pertain. Customers can create jobs using their own source files, and they can package the job ticket and file so that it can be given to the print shop for printing.

If you want to provide these customers with InfoPrint Submit, lend them the CD-ROM and have them perform the appropriate Windows or Macintosh installation, as described in Installing InfoPrint Submit and Scan on Windows Workstations (Readme) and Installing InfoPrint Submit on Macintosh Workstations (Readme).

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IBM InfoPrint Submit and InfoPrint Scan
for Windows 95 and Windows NT
Version 3.1.0
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This file contains information that you need to install InfoPrint Submit and InfoPrint Scan, plus additional information not included in the product documentation.

Note: Before beginning the installation, determine whether you will download InfoPrint Submit from the Web or from the product CD-ROM. See either "Downloading InfoPrint Submit from the InfoPrint Manager 3.1.0 Web Page" or "Downloading InfoPrint Submit and InfoPrint Scan from the InfoPrint Manager 3.1.0 CD-ROM." InfoPrint Scan is downloaded with InfoPrint Submit from the CD-ROM; it cannot be downloaded from the web page.

This README file contains the following sections:

- Before installing InfoPrint Submit and InfoPrint Scan
- Downloading InfoPrint Submit from the InfoPrint Manager 3.1.0 web page
- Downloading InfoPrint Submit and InfoPrint Scan from the InfoPrint Manager 3.1.0 CD-ROM
- Expanding the Downloaded Files
- Installing Associated Software and Printer Drivers
- Accessing InfoPrint Submit and InfoPrint Scan

BEFORE INSTALLING INFOPRINT SUBMIT AND INFOPRINT SCAN

- Back up your system prior to the install.

- InfoPrint Scan requires DDRAW.DLL, which is not included in some early versions of Windows 95.
  If you do not have DDRAW.DLL, download DirectX 6.0 from http://www.microsoft.com/directx/resources/dx6end.htm.

DOWNLOADING INFOPRINT SUBMIT FROM THE INFOPRINT MANAGER 3.1.0 WEB PAGE

1. Go to the IBM Printing Systems Company home page at http://www.printers.ibm.com. Select InfoPrint," then "Downloads."

2. Select "InfoPrint Submit for Windows 95/NT" and click "Submit." You will be prompted to accept a license agreement and to provide some information about yourself.

3. In the Save As window, select a temporary directory where you want to store the Submit.exe file. Note the drive and path name of this directory. For example, you could save the file to a temporary drive named c:\InfoPrint\temp. Click "Save" to save the file into the specified directory.

4. Select "Run" from the Start menu.

5. In the Open field, enter the full path name of the Submit.exe file, without the .exe extension. For example, c:\InfoPrint\temp\Submit.

6. Click "OK" to continue. This expands the Submit.exe file into a set of installation files, one of which is the Setup.exe.

7. Continue with the installation instructions under EXPANDING THE DOWNLOADED FILES.

DOWNLOADING INFOPRINT SUBMIT AND INFOPRINT SCAN FROM THE INFOPRINT MANAGER 3.1.0 CD-ROM

1. Insert the blue InfoPrint Manager Client 1 CD-ROM into the drive.

2. Note the file name of the InfoPrint Submit and InfoPrint Scan installation exec. It is called:

   d:\submit\win\locale\Setup.exe

   where d: is the CD-ROM drive and locale is one of the following locales:

Locale	Language
dan	Danish
deu	German
eng	English
esp	Spanish
fin	Finnish
fra	French
ita	Italian
jpn	Japanese
nor	Norwegian
sve	Swedish
chs	Simplified Chinese
cht	Traditional Chinese

3. Continue with the installation instructions under EXPANDING THE DOWNLOADED FILES.

EXPANDING THE DOWNLOADED FILES

1. Select "Run" from the Start menu.

2. In the Open field, enter one of the following file names:

   - If you downloaded InfoPrint Submit from the web, enter:

     c:\InfoPrint\temp\Setup

     where c:\InfoPrint\temp is the drive and path name of the directory where you downloaded and expanded the Submit.exe file.

   - If you are installing InfoPrint Submit and InfoPrint Scan from the CD-ROM, enter:

     d:\submit\win\locale\Setup

     where d: is the CD-ROM drive and locale is your locale, for example, eng.

3. Click "OK" to continue. The InstallShield setup program starts.

4. Follow the instructions on the InstallShield screens to install the program. During the installation, you will be prompted to select either InfoPrint Submit, InfoPrint Scan, or both programs.

INSTALLING ASSOCIATED SOFTWARE AND PRINTER DRIVERS

After InfoPrint Submit and InfoPrint Scan are installed, you can install any of these associated software items: Adobe Acrobat Reader; PostScript drivers (for Windows 95, Windows NT, and Windows 3.1); the IBM AFP WorkBench program; and the IBM Variable Data Support Software, which provides support for the following: PageMaker Plug-in and QuarkXPress XTension.

To install the software programs, open the readme files from the following folders on the InfoPrint Manager 3.1.0 CD-ROM and follow the instructions provided in the readme files to install each program:

Folder name	Description
Acroread	Adobe Acrobat Reader
Psdrv95	PostScript Driver for Windows 95
Psdrvnt	PostScript Driver for Windows NT 4.0
Psdrv31	PostScript Driver for Windows 3.1
Vardata	IBM Variable Data Support Software
Wrkbench	IBM AFP Workbench

You should install printer drivers and PPDs on every Windows or Macintosh system that you use to create PostScript jobs for InfoPrint

Manager. Printer drivers are needed on the Windows or Macintosh workstations that are used to submit jobs to the InfoPrint Control component (on the AIX server) to ensure that the correct driver is used. In addition, if you have users who are producing PostScript files on their Windows or Macintosh workstations that they want printed on the InfoPrint printers, you need to load InfoPrint Control printer drivers onto these workstations.

The IBM InfoPrint Control printer drivers consist of the following:

- An Adobe PostScript driver for Windows and Macintosh systems
- Three PPDs for Macintosh and Windows systems

The PPDs support the InfoPrint 60, InfoColor70, and InfoPrint4000 printers; they can be used on Macintosh and Windows 95 and NT workstations that generate PostScript output.

Note: After installing InfoPrint Submit, InfoPrint Scan, and associated software, you can access the programs from the Start menu.

ACCESSING INFOPRINT SUBMIT AND INFOPRINT SCAN

To access InfoPrint Submit or InfoPrint Scan after installation:

1. Click the Start button on the Windows taskbar. The Start menu displays.

2. Select Programs. A second menu displays.

3. Select InfoPrint. A third menu displays.

4. Select InfoPrint Submit or InfoPrint Scan.

Note: After installing InfoPrint Submit and InfoPrint Scan, you need to configure the logical destination on the AIX server to accept jobs from the workstation printer drivers. See "IBM InfoPrint Manger: Administrator's Guide," S544-5595 for information about creating and managing logical destinations.

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This file contains information that you need to install InfoPrint Submit, plus additional information not included in the product documentation.

This README file contains the following sections:

- Downloading InfoPrint Submit from the InfoPrint Manager 3.1.0 CD-ROM
- Expanding the Downloaded Files
- Installing Associated Software and Printer Drivers
- Accessing InfoPrint Submit

DOWNLOADING INFOPRINT SUBMIT FROM THE INFOPRINT MANAGER 3.1.0 CD-ROM

1. Insert the blue InfoPrint Manager Client 1 CD-ROM into the drive. The Submit:Mac folder opens automatically.

EXPANDING THE DOWNLOADED FILES

1. Click on the icon for one of these Submit:Mac: folders:

Folder	Language
Eng	English
Esp	Spanish
Fra	French
Ita	Italian
Jpn	Japanese
Chs	Simplified Chinese
Cht	Traditional Chinese

2. Click on the InfoPrint 2.2.024 icon.

3. Follow the instructions as directed from the installer.

INSTALLING ASSOCIATED SOFTWARE AND PRINTER DRIVERS

To install Acrobat Reader, Variable Data, or PostScript Driver and PPDs, open the correct folder and repeat the process with the

applications' installers. The Acrobat Reader is used with the InfoPrint Submit View function.

You should install printer drivers and PPDs on every Windows or Macintosh system that you use to create PostScript jobs for InfoPrint Manager. Printer drivers are needed on the Windows or Macintosh workstations that are used to submit jobs to the InfoPrint Control component (on the AIX server) to ensure that the correct driver is used. In addition, if you have users who are producing PostScript files on their Windows or Macintosh workstations that they want printed on the InfoPrint printers, you need to load InfoPrint Control printer drivers onto these workstations.

The IBM InfoPrint Control printer drivers consist of the following:

- An Adobe PostScript driver for Windows and Macintosh systems
- Three PPDs for Macintosh and Windows systems

The PPDs support the InfoPrint 60, InfoColor70, and InfoPrint4000 printers; they can be used on Macintosh and Windows 95 and NT workstations that generate PostScript output.

Note: After installing InfoPrint Submit, you need to configure the logical destination on the AIX server to accept jobs from the workstation printer drivers. See "IBM InfoPrint Manager: Administrator's Guide," S544-5595 for information about creating and managing logical destinations.

ACCESSING INFOPRINT SUBMIT

After installing InfoPrint Submit and associated software, you can

access the programs by clicking on the Hard Drive icon, then on InfoPrint, then on InfoPrint Submit.

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Installing and Configuring InfoPrint Select Clients

Users can submit jobs to InfoPrint printers with existing print applications on networked workstations. The InfoPrint Manager for AIX system administrator configures the InfoPrint logical printer that sends jobs to the printer device so that it accepts jobs submitted from the InfoPrint Select clients. To find out how to install InfoPrint Select, choose from the following Readme file links:

- Installing InfoPrint Select on Windows NT Workstations (readme)

  Configuration tasks for InfoPrint Select on Windows NT (readme)

- Installing InfoPrint Select on Windows '95 Workstations (readme)

  Configuration tasks for InfoPrint Select on Windows '95 (readme)

- Installing InfoPrint Select on Windows 3.1 Workstations (readme)

- Installing InfoPrint Select on OS/2 Workstations (readme)

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for Windows 95 and Windows NT
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This file contains information that you need to install InfoPrint Select for Windows 95 and InfoPrint Select for Windows NT, plus additional information not included in the product documentation.

Note: Before beginning the installation, determine whether you will download InfoPrint Select from the Web or from the product CD-ROM. See either "Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 Web Page" or "Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 CD-ROM."

This README file contains the following sections:

- Commands
- Before installing InfoPrint Select for Windows NT
- Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 web page
- Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 CD-ROM
- Expanding the Downloaded Files
- Using DCE Support for Select on Windows NT

COMMANDS

InfoPrint Select for Windows 95 and Windows NT provides the following commands:

- pdclean
- pdcreate
- pddelete
- pddisable
- pdenable
- pdls
- pdmod
- pdq
- pdpause
- pdpr
- pdpromote
- pdreorder
- pdresubmit
- pdresume
- pdrm
- pdset

- pdshutdown
- pdspace

The documentation for these commands can be found in the InfoPrint Manager for AIX Reference, S544-5475.

You can always use the pdpr, pdls, and pdq commands.

If your InfoPrint server is configured to use the Distributed Computing Environment (DCE), you must also configure your Windows NT workstation to use DCE in order to use the other commands. See the instructions under BEFORE INSTALLING INFOPRINT SELECT FOR WINDOWS NT.

If your InfoPrint server is not configured to use DCE, you can use all the commands if the server security level is "none."

BEFORE INSTALLING INFOPRINT SELECT FOR WINDOWS NT

If your InfoPrint server is configured to use DCE, and if you wish to perform job management tasks from your workstation, you must also configure the Windows NT workstation where you will install InfoPrint Select to use DCE. Follow these steps:

1. Install DCE on the Windows NT workstation.

2. Configure the workstation so that it is in the same DCE cell as the InfoPrint server.

3. Make sure that the DCE user ID (principal) used on the workstation is included in the DCE cell.

4. Log into DCE before performing job management tasks.

DOWNLOADING INFOPRINT SELECT FROM THE INFOPRINT MANAGER 3.1.0 WEB PAGE

1. Go to the IBM Printing Systems Company home page at http://www.printers.ibm.com. Select "InfoPrint," then "Downloads."

2. Select an InfoPrint Select application and click "Submit." You will be prompted to accept a license agreement and to provide some information about yourself.

3. In the Save As window, select a temporary directory where you want to store the executable file. Note the drive and path name of this directory.

   For example, when you click "Begin the Download", the Save As window will display. Click "Save" to save the file into the specified directory.

4. Select "Run" from the Start menu. In the Open field, enter:

   command

   Click on the OK button to open a DOS window.

5. In the DOS window, do the following:

a. Enter the drive and path name of the directory where you downloaded the files, for example:

   c:\InfoPrint\temp\

b. Use an unzip utility, such as WINZIP or PKUNZIP, to extract the FILENAME.tar file to the c:\InfoPrint\temp\ you specified.

6. Continue with the installation instructions under EXPANDING THE DOWNLOADED FILES.

DOWNLOADING INFOPRINT SELECT FROM THE INFOPRINT MANAGER 3.1.0 CD-ROM

1. Insert the InfoPrint Manager Client 1 CD-ROM into the drive.

2. Note the file name of the InfoPrint Select installation exec. It is called:

   d:\select\win\locale\Setup.exe

   where d: is the CD-ROM drive and locale is one of the following locales:

Locale	Language
dan	Danish
deu	German
eng	English
esp	Spanish
fin	Finnish
fra	French
ita	Italian
jpn	Japanese
nor	Norwegian
sve	Swedish
chs	Simplified Chinese
cht	Traditional Chinese

3. Continue with the installation instructions under EXPANDING THE DOWNLOADED FILES.

EXPANDING THE DOWNLOADED FILES

1. Select "Run" from the Start menu.

2. In the Open field, enter one of the following file names:

   - If you downloaded InfoPrint Select from the web, enter:

     c:\InfoPrint\temp\Setup

     where c:\InfoPrint\temp is the drive and path name of the directory where you downloaded and expanded the Select.exe file.

- If you are installing from the CD-ROM, enter:

  d:\select\win\locale\Setup

  where d: is the CD-ROM drive and locale is your locale, for example, eng.

3. Click "OK" to continue. The InstallShield setup program starts.

4. Follow the instructions on the InstallShield screens to install the program.

USING DCE SUPPORT FOR INFOPRINT SELECT ON WINDOWS NT

If you have IBM Distributed Computing Environment (DCE) for Windows NT, Version 2.0 installed on your computer, you may choose to install DCE support through the "Custom" installation method.

DCE Support will allow you to use administrative InfoPrint Manager commands like pdenable, pdpause, and pdcreate when communicating with InfoPrint Manager servers which require DCE authorization.

In addition, your InfoPrint Manager administrator may restrict access to a printer to users who are logged into DCE with a particular DCE user ID or DCE group ID. Before you can print to that restricted printer, you must:

1. Install the DCE Support component of InfoPrint Select for Windows NT.

2. Log into DCE as an authorized user or member of an authorized group.

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IBM InfoPrint Select
for Windows 3.1
Version 3.1.0
Read Me

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****

This file contains information you need for installing this product as well as information that was not available for our printed publications.

Note: Before beginning the installation, determine whether you will download InfoPrint Select from the Web or from the product CD-ROM. See either "Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 Web Page" or "Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 CD-ROM."

This README.ENG file is divided into the following categories:

- Before You Install
- Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 web page
- Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 CD-ROM
- Expanding the Downloaded Files
- Trademarks

BEFORE YOU INSTALL

InfoPrint Select 3.1 requires the following software:

DOS-Windows 3.1 or Windows for Workgroups 3.11:
- DOS 5.0 or greater
- TCP/IP, for example:
  IBM TCP/IP 2.1.1 for DOS (Winsock 1.1 compliant, 87G7184).
  For Windows for Workgroups, Microsoft TCP/IP-32 3.11)

OS/2-WINOS2 Environment:

- OS/2 3.0 or greater with WINOS2 support
- IBM TCP/IP for OS/2, version 2.0 or greater
- IBM TCP/IP DOS/Windows Access Kit

DOWNLOADING INFOPRINT SELECT FROM THE INFOPRINT MANAGER 3.1.0 WEB PAGE

1. Go to the IBM Printing Systems Company home page at http://www.printers.ibm.com. Select "InfoPrint," then "Downloads."

2. Select an InfoPrint Select application and click

"Submit." You will be prompted to accept a license agreement and to provide some information about yourself.

3. In the Save As window, select a temporary directory where you want to store the Select.exe file. Note the drive and path name of this directory. For example, you could save the file to a temporary drive named c:\InfoPrint\temp. Click "Save" to save the file into the specified directory.

4. Select "Run" from the Program Manager's File menu.

5. In the Open field, enter the full path name of the Select.exe file, without the .exe extension. For example, c:\InfoPrint\temp\Select.

6. Click "OK" to continue. This expands the Select.exe file into a set of installation files, one of which is the Setup.exe.

7. Continue with the installation instructions under EXPANDING THE DOWNLOADED FILES.

DOWNLOADING INFOPRINT SELECT FROM THE INFOPRINT MANAGER 3.1.0 CD-ROM

1. Insert the blue InfoPrint Manager Client 1 CD-ROM into the drive.

2. Note the file name of the InfoPrint Select installation exec. It is called:

   d:\select\win31\Setup.exe

   where d: is the CD-ROM drive.

3. Continue with the installation instructions under EXPANDING THE DOWNLOADED FILES.

EXPANDING THE DOWNLOADED FILES

1. Select "Run" from the Program Manager's file menu.

2. In the Open field, enter one of the following file names:

   - If you downloaded InfoPrint Select from the web, enter:

     c:\InfoPrint\temp\Setup

     where c:\InfoPrint\temp is the drive and path name of the directory where you downloaded and expanded the Select.exe file.

   - If you are installing from the CD-ROM, enter:

     d:\select\win31\Setup

     where d: is the CD-ROM drive.

3. Click "OK" to continue. The InstallShield setup program starts.

4. Follow the instructions on the InstallShield screens to install the program.

ENABLING USERS TO INSTALL INFOPRINT SELECT FROM A LAN SERVER

1. Create a directory on the LAN server to store the install files. For example:

   mkdir j:\wininst

2. Copy all of the product files into this directory. You can do this using the DOS XCOPY command. For example:

   xcopy a:*.* j:\wininst

3. Give all users access to the LAN drive that you copied the diskettes into (in this example, the J drive).

4. From the Program Manager's File menu, select Run. Type:

   j:\wininst\setup

After following the installation dialog for the product, the LAN users are now ready to use it on their workstations.

AUTOMATED INSTALLATION

To perform an automated installation, you must first record responses to the dialog boxes during a manual installation with the "-r" option. This generates a "setup.iss" file which is placed in the Windows directory (c:\windows for Windows 3.1 and \os2\mdos\winos2 on the boot drive for WINOS2). This file can then be used with setup for an automated installation using the "-f1" parameter.

For example, suppose installation files are placed in j:\wininst. Perform the following steps to prepare an automated install:

1. j:

2. cd \wininst

3. setup -r

4. Answer all dialog prompts. For the installation directory, you may omit the drive letter and colon so that setup will automatically select the Windows system drive.

5. After installation completes:

   copy c:\windows\setup.iss j:\wininst

   -or-

   copy c:\os2\mdos\winos2\setup.iss j:\wininst

On a second computer, perform the following steps to run the automated install:

1. j:

2. cd \wininst

3. setup -f1j:\wininst\setup.iss

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IBM InfoPrint Select
for OS/2
Version 3.1.0
Read Me

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****

This file contains information you need to install InfoPrint Select for OS/2 and additional information not included in the product documentation.

Note: Before beginning the installation, determine whether you will download InfoPrint Select from the Web or from the product CD-ROM. See either "Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 Web Page" or "Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 CD-ROM."

This README.ENG file is divided into the following categories:

- What is new in this version
- Before you install InfoPrint Select for OS/2
- Downloading InfoPrint Select from the InfoPrint Manager 3.1.0 Web page
- Downloading InfoPrint Select from the InfoPrint Manager CD-ROM
- Expanding the downloaded files
- Enabling users to install InfoPrint Select from a LAN server
- Making installation diskettes
- Cancelling the installation
- Trademarks

WHAT IS NEW IN THIS VERSION

In addition to the previously shipped commands (pdls, pdpr, and pdq), this version provides the following commands:

- pdclean
- pdcreate
- pddelete
- pddisabl
- pdenable
- pdmod
- pdpause
- pdpromot
- pdreorde
- pdresubmi
- pdresume
- pdrm
- pdset
- pdshutdo

- pdspace

If you are installing onto an HPFS drive, you can also install the following longer command names:

- pddisable
- pdpromote
- pdreorder
- pdresubmit
- pdshutdown

The documentation for these commands can be found in the InfoPrint Manager for AIX Reference, S544-5475.

If your InfoPrint server is configured to use the Distributed Computing Environment (DCE), you must also configure your OS/2 workstation to use DCE in order to use these commands. Follow these steps:

1. Install DCE on the OS/2 workstation.

2. Configure the workstation so that it is in the same DCE cell as the InfoPrint server.

3. Make sure that the DCE user ID (principal) used on the workstation is included in the DCE cell.

4. Log into DCE.

If your InfoPrint server is not configured to use DCE, you can use these commands if the server security level is "none."

BEFORE YOU INSTALL INFOPRINT SELECT FOR OS/2

Read through the following requirements information before installing InfoPrint for OS/2 on your workstation.

InfoPrint Select for OS/2 requires the following software:

- OS/2 Warp version 3.0 or above
  - Having the latest fix packs applied is strongly recommended
- IBM TCP/IP for OS/2 version 3.0 or above

If you will be installing DCE support for InfoPrint administrative commands, you will need the following:

- IBM Directory and Security Server for OS/2 Warp version 4 or above (for DCE Support only)

If you will be installing long command names such as "pdshutdown.exe", you must have the installation drive formatted with HPFS.

DOWNLOADING INFOPRINT SELECT FROM THE INFOPRINT MANAGER 3.1.0 WEB PAGE

1. Go to the IBM Printing Systems Company home page at

http://www.printers.ibm.com. Select "infoPrint," then "Downloads."

2. Select an InfoPrint Select application and click "Submit." You will be prompted to accept a license agreement and to provide some information about yourself.

3. In the Save As window, select a temporary directory where you want to store the install.exe file. Note the drive and path name of this directory. For example, you could save the file to a temporary drive named c:\InfoPrint\temp. Click "Save" to save the file into the specified directory.

4. Continue with the installation instructions under EXPANDING THE DOWNLOADED FILES.

DOWNLOADING INFOPRINT SELECT FROM THE INFOPRINT MANAGER 3.1.0 CD-ROM

1. Insert the blue InfoPrint Manager Client 2 CD-ROM into the drive.

2. Note the file name of the InfoPrint Select installation exec. It is called:

```
d:\select\os2\locale\install.exe
```

where d: is the CD-ROM drive and locale is one of the following locales:

Locale	Language
dan	Danish
deu	German
eng	English
esp	Spanish
fin	Finnish
fra	French
ita	Italian
jpn	Japanese
nor	Norwegian
sve	Swedish
chs	Simplified Chinese
cht	Traditional Chinese

3. Continue with the installation instructions under EXPANDING THE DOWNLOADED FILES.

EXPANDING THE DOWNLOADED FILES

1. Insert the InfoPrint Manager CD-ROM into the CD-ROM drive. From an OS/2 full screen or window session, enter one of the following commands:

   - If you downloaded the files from the Web, enter the full path name of the install.exe file, for example:

```
c:\InfoPrint\temp\install
```

- If you downloaded the files from the CD-ROM, enter:

    d:\select\os2\locale\install

2. Press Enter.

3. Follow the on-screen prompts.

4. Follow the instructions in the InfoPrint Select online help under "Start Here" to set up desktop printer objects.

ENABLING USERS TO INSTALL INFOPRINT SELECT FROM A LAN SERVER

1. Create a directory on the LAN server to store the InfoPrint for OS/2 files. For example:

    mkdir j:\os2inst

2. Copy all of the InfoPrint for OS/2 files from the InfoPrint CD-ROM into this directory. You can do this using the OS/2 COPY command. For example:

    copy d:\os2\eng*.* j:\os2inst

    Substitute the drive letter of the CD-ROM drive on the OS/2 workstation for d.

3. Give all users access to the LAN drive that you copied the files into (in this example, the J drive).

Users with access to the LAN drive can access the alias drive and directory and then install the product by typing:

```
install
```

After completing the installation procedure for the product, the LAN users are now ready to use it on their workstations.

MAKING INSTALLATION DISKETTES

You can make InfoPrint installation diskettes from the InfoPrint for OS/2 files on the InfoPrint CD-ROM. Either use a workstation that has both a CD-ROM drive and a diskette drive, or use a workstation that has LAN access to a CD-ROM drive on another OS/2 workstation.

1. Load the InfoPrint for OS/2 CD-ROM into the CD-ROM drive on the appropriate workstation.

2. Open an OS/2 window to access the OS/2 command line.

3. Format two diskettes. The diskettes should be 1.44MB or greater in capacity. Label the diskettes InfoPrint for OS/2 Disk 1 and InfoPrint for OS/2 Disk 2. Insert Disk 1 in the diskette drive after formatting.

4. Change to the drive letter of the CD-ROM drive containing the InfoPrint CD-ROM.

5. Create the installation diskettes. When entering the following command, substitute the drive letter of your diskette drive for a: if necessary.

```
makedsks a:
```

6. Insert Disk 2 when prompted.

7. After creating the diskettes, you can install InfoPrint for OS/2 by inserting Diskette 1 and using the command:

```
a:\install
```

CANCELLING THE INSTALLATION

If you need to stop the installation on InfoPrint for OS/2 for any reason, the installation program allows you to do so. It then prompts you as to whether it should delete any files that were installed. You should confirm the file deletion and allow the installation program to remove the files. Otherwise, you should manually delete the files yourself. If you do not and you choose to install again, you will receive messages throughout installation that certain files already exist and prompts that ask you to confirm whether they should be overwritten.

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Installing and Configuring the AIX Client

To prepare for installing the InfoPrint AIX client on your AIX system using the InfoPrint Installer, do the following:

1. Log into the AIX system as **root**.
2. Open an aixterm or dtterm window.
3. Insert the InfoPrint Manager CD-ROM into the CD-ROM reader.
4. At the AIX command prompt, type **cd** / and press **Enter**.
5. Type **ls cdrom**, **ls -al**, and press **Enter**.
6. If the message:

   `The file cdrom does not exist`

   displays, you must create a directory for the CD-ROM; type **mkdir /cdrom** and press **Enter**.

   If there is already a cdrom directory, no message displays; you do not have to create a directory.
7. Type **mount -v cdrfs -r /dev/cd*n* /cdrom** where **cd*n*** is the identifier of your CD-ROM drive. Press **Enter**.
8. At the AIX command prompt (as **root**), type **cd** and press **Enter**.
9. Type **ksh** and press **Enter**.
10. Decide whether you want to invoke the InfoPrint Installer with or without the graphical user interface (GUI). If you use the GUI, you will be prompted to select options for the AIX client. If your AIX workstation does not support the GUI, you must specify options on the command line.

Using the Installer GUI

1. Type **/cdrom/setup -c** and press **Enter**. The `InfoPrint Installer` window displays.

   - Select the language you want from the **Preferred Language:** list if you want a language other than U.S. English for the rest of the InfoPrint Installer screens.
   - Select the **Set AIX Locale** check box if you want to set your AIX system to the same language as you just selected for the InfoPrint Installer.

   Notes:

   (1) The text you see in the remaining screens during installation will be in the language you just selected.

(2) If the language you selected is not the same as the server language, the server must run in English.

(3) If you selected the **Set AIX Locale** check box, your system locale will change once you have logged off and back on or shut down and restart the AIX system after completing the installation of InfoPrint.

2. Click on **Next >>**. You will now see several screens to allow you to configure your InfoPrint AIX client.

Using the AIX Command Line

Type **/cdrom/setup -C -n** *ServerName* **-p** *PortNumber* and press **Enter**.

locale

is the locale of the AIX client. The default is **en_US** (U.S. English). If this locale is not the same as the server locale, the server locale must be **en_US**.

ServerName

is the name of the InfoPrint server to which this AIX client will submit jobs. To determine the name of your server, type `hostname` at the AIX command line.

PortNumber

is the port where the InfoPrint server is running. By default, InfoPrint Manager uses 6874 as the default port number for servers. You may want to verify which port numbers are being used by your AIX system by viewing the list in the **/etc/services** file.

Remember that you must shut down and restart the system after completing the install of InfoPrint Manager.

This page last updated on December 16, 1998

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```
************************************************************************
                      IBM InfoPrint Manager for AIX
                              Version 3.1.0
                         Sun Solaris 2.5.1 Client
                                Read Me

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************************************************************************

This file explains the Command line sample code provided by InfoPrint.

## ********************************************************************/
##                                                                    */
##   THIS PROGRAM IS PROVIDED ON AN "AS-IS" BASIS AND NO              */
##   SUPPORT OR MAINTENANCE WILL BE PROVIDED WITH RESPECT TO THIS     */
##   PROGRAM SAMPLE.  The licensee of the InfoPrint product is free to  */
##   copy, revise, modify, and make derivative works of this program  */
##   sample as they see fit.                                          */
##   The licensee of this sample code may not resell this code or     */
##   include it in a product that is resold.                          */
##                                                                    */
## ********************************************************************/

PURPOSE OF THIS PROGRAM SAMPLE

This program sample provides a mechanism for UNIX (non-AIX or
non-RISC System/6000) customers to issue InfoPrint commands over a
TCP/IP-connected network to an InfoPrint server. Using a UNIX
command line or shell script, customers may query server, printer
and print job status; change the state of a server, printer or print
job; create, delete or reorder a print job on the the server.  A
complete list of InfoPrint commands available on the command line
follows. In addition, complete command line documentation can be found
in the InfoPrint Reference found in the same directory as this file and
named S5445475.PDF.  View this file using Adobe Acrobate Reader or
print it using an InfoPrint Manager client interface.

With this package a customer can use the executable included for the Sun
Solaris 2.5.1 Operating System or use the sample source code and makefile
included to build an executable for a particular UNIX operating system
brand name.

NOTE: To obtain source code that can be used to support a non-Sun Solaris
      2.5.1 Operating system, contact your IBM SE.

FILES INCLUDED IN THIS PROGRAM SAMPLE

        Makefile  - used by the make facility to generate the executable
        README    - this file
```

The following are source code files:

```
        bytebuf.cc
        catmsg.cc
        climsg.cc
        command.cc
        ctrace.cc
        lpdprot.cc
        nlsstrg.cc
        nlswchar.cc
        pdclient.cc
        sock.cc
        sslistb.cc
        str.cc
        tcpsock.cc
        thinbind.cc
        thinclnt.cc
        thinlocl.cc
        attrstr.h
        bbuf_inl.h
        boolean.h
        bytebuf.h
        catmsg.h
        climsg.h
        ctrace.h
        dllsupp.h
        fpa.h
        fstchkacc.h
        getxopt.h
        lpdprot.h
        nlsmbcs.h
        nlsstrg.h
        nlswchar.h
        nstr_inl.h
        nwch_inl.h
        oid_def.h
        pdclient.h
        portdefs.h
        sock.h
        sslist.h
        sslistb.h
        sstorage.h
        sstorb.h
        stempb.h
        str.h
        str_inl.h
        tcpsock.h
        thinbind.h
```

INSTALLATION DIRECTIONS

```
 NOTE:  In order to compile and install this sample code for a non-Sun
        Solaris 2.5.1 Operating system, you must have an ANSI C++
        compiler installed on the target CLIENT system.  The Makefile
        included with this sample indicates the path to a typical
        installation for each type of system, but yours may vary.
```

On the UNIX CLIENT(s):
---

1. Log in as 'root'.

2. Copy the program sample directory to the client system. This directory is /pd_sun on the InfoPrint server, or where you found the file you are now reading.

3. Change to the client program sample directory you just copied.

4. If you are running on Solaris 2.5.1, skip to step 6, otherwise modify the Makefile file as appropriate for your system. (Uncomment those lines specific to the system.)

5. Type 'make'. This will compile 'pdcommand' and set its permissions and owner/group.

6. In the client program sample directory copy the "pdcommand" executable to the name of each supported command that you wish to make available. See section titled "Supported InfoPrint Commands" for the names of the commands. For example, to support the "pdls" command that lists information on InfoPrint objects, type:

```
cp -p pdcommand pdls
```

7. Optionally create a shell script in the language of your choice or manually set the following environment variables.

   PDHOST - contains the name of the InfoPrint Controller that will perform the printing operations.

   PD_SOCKET - TCP/IP socket number of the InfoPrint Controller job daemon. The default socket is "6874". Use "6874" unless your system has been specifically setup differently.

   PDPRINTER - default Printer Queue on the InfoPrint Controller. The commands will use this value if you do not specify a printer on the command line.

   The following is a C-Shell example of setting the environment variables:

```
setenv PDHOST "hostname-of-infoprint-controller"
setenv PD_SOCKET "6874"
setenv PDPRINTER "name-of-default-print-queue"
```

8. Test the system:

   a. Open a command line window
   b. Set environment variables as show in step 7 or with an optional shell script.
   c. Issue one of the chosen comands followed by "-h". This will display command syntax for that particular command and will verify the installation. For example:

```
pdls -h
```

9. Make sure the pdcommand(s) and optional shell script are found in the system or user's execution search path (change the default shell configuration files). Notify your user base of the change and instruct them to add this path to their shell configuration files.

SUPPORTED INFOPRINT COMMANDS

pdclean
pdcreate
pddelete
pddisable
pdenable
pdls
pdmod
pdpause
pdpr
pdpromote
pdq
pdreorder
pdresume
pdrm
pdset
pdspace
pdshutdown

SAMPLE SOURCE CODE TESTED ON THE FOLLOWING SYSTEMS

Sun Solaris 2.5.1 - Compiler: Sun Workshop C++ 4.2

EXAMPLES

1. Query the status of the Infoprint server.

```
pdls -cserver
```

2. Query the status of all printers on the Infoprint server whose hostname is "pauper."

```
pdls -cprinter pauper:
```

3. List the jobs in the printer queue whose name is "LPQUEUE." Show detailed information (-rverbose) and do not filter for particular criteria (such as submitter id) (-F).

```
pdq -pLPQUEUE -rverbose -F
```

4. Submit a file called "test.ps" in the directory "/users/rothman/projects/" to the default print queue (PDPRINTER environment variable). Name the print job "MyPrintJob" on the InfoPrint server.

```
pdpr -tMyPrintJob  /users/rothman/projects/test.ps
```

5. Change the job-name attribute of a print job on the server named "pauper." The job number was obtained by a previous "pdq" command.

```
pdset -cjob pauper:job#frompdq -x "job-name=NewJobName"
```

6. Remove a print job from the print queue on InfoPrint server named "pauper."

```
pdrm -cjob pauper:job#frompdq
```

7. Print out the usage help information for the "pdpr" command.

```
pdpr -h
```

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Installing and Configuring the InfoPrint Job and Printer Management GUI

The InfoPrint Job and Printer Management GUI is an operator interface for managing InfoPrint jobs and actual destinations. It runs on Windows 95, Windows NT, or AIX, so you can use it either from a workstation client or from the AIX server.

Click the following to access the InfoPrint Job and Printer Managment GUI installation procedures:

- Installing the InfoPrint Job and Printer Management GUI on Windows Workstations (README)

Configuring the InfoPrint Job and Printer Management GUI

After you install the InfoPrint Job and Printer Management GUI, three icons are added to your desktop and to the **Start Programs** menu: **InfoPrint Basic**, **InfoPrint Advanced**, and **InfoPrint Distributed**. Because each view of the InfoPrint Job and Printer Management GUI is suited to a different environment, you will probably use only one view. To remove the unused icons from the Windows desktop:

1. Point to the icon you want to remove.
2. Click the right mouse button.
3. Select **Delete**.

To remove unused icons from the **Start Programs** menu:

1. Select **Settings** from the Start menu.
2. Select **Taskbar**.
3. Select the **Start Menu Programs** tab.
4. Select the icon you want to remove.
5. Select **Remove**.

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IBM InfoPrint Job and Printer Management GUI
for Windows 95 and Windows NT
Version 3.1.0
Read Me

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This file contains information that you need to install the InfoPrint Job and Printer Management Graphical User Interface (GUI), plus additional information not included in the product documentation.

Note: Before beginning the installation, determine whether you will download the InfoPrint Job and Printer Management GUI from the Web or from the product CD-ROM. If you want a language other than English, or if you need to install the Java Runtime Environment (JRE) 1.1.6, you must download from the product CD-ROM. See either "Downloading InfoPrint Job and Print Management GUI from the InfoPrint Manager 3.1.0 Web Page" or "Downloading InfoPrint Job and Print Management GUI from the InfoPrint Manager 3.1.0 CD-ROM."

This README file contains the following sections:

- Before installing the InfoPrint Job and Printer Management GUI
- Downloading the InfoPrint Job and Printer Management GUI from the InfoPrint Manager 3.1.0 web page
- Downloading the InfoPrint Job and Printer Management GUI from the InfoPrint Manager 3.1.0 CD-ROM
- Expanding the downloaded files
- Accessing the InfoPrint Job and Printer Management GUI
- Removing unused icons
- Uninstalling the InfoPrint Job and Printer Management GUI

BEFORE INSTALLING THE INFOPRINT JOB AND PRINTER MANAGEMENT GUI

Verifying the JRE

The InfoPrint Job and Printer Management GUI requires the Java Runtime Environment (JRE) at version 1.1.6 or later. If you have an IBM-built version of the JRE, it must be dated July 14, 1998, or later.

1. Verify the installed version of the JRE by entering the following command on the DOS command line:

   ```
   jre -d
   ```

   The system returns the version and, for IBM builds, the date, for example:

   ```
   IBM Build n116-19980714
   ```

   where:

   ```
   n116 is version 1.1.6
   1998 is the year
   07 is the month
   14 is the day.
   ```

2. If a version of the JRE earlier than 1.1.6 is installed, or if the IBM-built version 1.1.6 is dated before July 14, 1998, delete it.

   a. Remove the directory where the JRE is installed.

   b. Remove the JRE entry from the PATH environment variable.

You will install the correct version of the JRE as part of the installation of the InfoPrint Job and Printer Management GUI. You must download the JRE from the InfoPrint Manager 3.1.0 CD-ROM.

Configuring Your Workstation to Use DCE

If your InfoPrint server is configured to use the Distributed Computing Environment (DCE), you must also configure the Windows NT workstation where you will install the InfoPrint Job and Printer Management GUI to use DCE. Follow these steps:

1. Install DCE on the Windows NT workstation.

2. Configure the workstation so that it is in the same DCE cell as the InfoPrint server.

3. Make sure that the DCE user ID (principal) used on the workstation is included in the DCE cell.

4. Log into DCE before starting the InfoPrint Job and Printer Management GUI.

DOWNLOADING THE INFOPRINT JOB AND PRINTER MANAGEMENT GUI FROM THE INFOPRINT MANAGER 3.1.0 WEB PAGE

1. Go to the IBM Printing Systems Company home page at http://www.printers.ibm.com. Select InfoPrint," then "Downloads."

2. Select "InfoPrint Job and Printer Management Java GUI for Windows 95/NT" and click "Submit." You will be prompted to accept a license agreement and to provide some information about yourself.

3. In the "Save As..." window, select a temporary directory to store the InfoPrint Job and Printer Management GUI installation files. Note the drive and path name of this directory. Click "Save" to save the file in the specified directory.

4. Continue with the installation instructions under "Expanding the Downloaded Files."

DOWNLOADING THE INFOPRINT JOB AND PRINTER MANAGEMENT GUI FROM THE INFOPRINT MANAGER 3.1.0 CD-ROM

1. Insert the blue InfoPrint Manager Clients: Windows 95, Windows NT, & Macintosh CD-ROM into the drive.

2. Note the location of the InfoPrint Job and Printer Management GUI installation files. They are in the following directory:

   d:\ipgui\win\locale

   where d: is the CD-ROM drive and locale is one of the following locales:

Locale	Language
da_DK	Danish
de_DE	German
en_US	English
es_ES	Spanish
fi_FI	Finnish
fr_FR	French
it_IT	Italian
Ja_JP	Japanese
no_NO	Norwegian
sv_SE	Swedish
zh_CN	Simplified Chinese
Zh_TW	Traditional Chinese

3. Continue with the installation instructions under "Expanding the Downloaded Files."

EXPANDING THE DOWNLOADED FILES

1. If you need to install JRE 1.1.6, follow these steps:

   a. Select "Run" from the Start menu.

   b. Use the Browse button to find the following file name:

      d:\ipgui\win\ibm-jre-n116-win32x86

      where d: is the CD-ROM drive. Select this file so that its name appears in the Open field.

   c. Select "OK," then the drive where you want to install the JRE, then "Unzip."

   d. Use one of these methods to add c:\jre\bin to the PATH

environment variable, where c: is the drive where you installed the JRE:

- On Windows 95, open an MS-DOS window and edit the autoexec.bat file. At the end of the current value of the PATH variable, enter:

  ;c:\jre\bin

- On Windows NT, click the right mouse button on "My Computer." Select "Properties," then "Environment." In the System Variables window, select "PATH." The current value of PATH appears in the Value window. At the end of this value, enter:

  ;c:\jre\bin

  Click on the Set button, then on the OK button.

e. Restart Windows to make the change in the PATH environment variable effective.

2. Select "Run" from the Start menu. In the Open field, enter:

   command

   Click on the OK button to open a DOS window.

3. In the DOS window, do the following:

   - If you downloaded the InfoPrint Job and Printer Management GUI from the Web:

     a. Enter the drive and path name of the directory where you downloaded the files, for example:

        c:\directory\

     b. Use an unzip utility, such as WINZIP or PKUNZIP, to extract the FILENAME.tar file to the c:\directory you specified.

     c. Enter:

        ipgui

   - If you are installing the InfoPrint Job and Printer Management GUI from the CD-ROM, enter:

     d:\ipgui\win\locale\ipgui

     where d: is the CD-ROM drive and locale is your locale, for example, en_US.

4. Follow the instructions on the InstallShield screens.

5. Use one of these methods to add c:\ipgui to the PATH environment variable, where c: is the drive where you installed the InfoPrint Job and Printer Management GUI:

   - On Windows 95, open an MS-DOS window and edit the autoexec.bat file. At the end of the current value of the PATH variable, enter:

     ;c:\ipgui

   - On Windows NT, click the right mouse button on "My Computer." Select "Properties," then "Environment." In the System Variables window, select "PATH." The current value of PATH appears in the Value window. At the end of this value, enter:

     ;c:\ipgui

     Click on the Set button, then on the OK button.

6. Restart Windows to make the change in the PATH environment variable effective.

ACCESSING THE INFOPRINT JOB AND PRINTER MANAGEMENT GUI

After you install the InfoPrint Job and Printer Management GUI, three icons are added to your desktop and to the Start Programs menu: InfoPrint Basic, InfoPrint Advanced, and InfoPrint Distributed. Double-click on any one of these icons to start the InfoPrint Job and Printer Management GUI. Each icon starts a different view of the GUI.

You can also access the InfoPrint Job and Printer Management GUI from the DOS command line. Enter one of the following commands:

```
ipguibasic
ipguiadv
ipguidist
```

REMOVING UNUSED ICONS

Because each view of the InfoPrint Job and Printer Management GUI is suited to a different environment, you will probably use only one view. To remove the unused icons from the Windows desktop:

1. Point to the icon you want to remove.

2. Click the right mouse button.

3. Select "Delete."

To remove unused icons from the Start Programs menu:

1. Select "Settings" from the Start menu.

2. Select "Taskbar."

3. Select the "Start Menu Programs" tab.

4. Select the icon you want to remove.

5. Select "Remove."

UNINSTALLING THE INFOPRINT JOB AND PRINTER MANAGEMENT GUI

To uninstall the InfoPrint Job and Printer Management GUI:

1. Select "Settings" from the Start menu.

2. Select "Control Panel."

3. Select "Add/Remove Programs."

4. Select "InfoPrint Job and Printer Management GUI."

5. Select "Add/Remove..."

6. Follow the instructions on the Uninstall screens.

    Note: To save the GUI configuration file, which contains information about window size and position, answer, "No," when you are asked if you want to remove it.

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Applying Service Updates to Your InfoPrint Server

The following procedures help you update your InfoPrint server.

Obtaining the Current Service Level

Applying Service to InfoPrint Manager (README)

Verifying AIX Filesets

Verifying Updates to AIX Filesets

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Obtaining the Current Service Level

To obtain the latest program temporary fix (PTF) level for your InfoPrint Manager system (AIX server and client applications), just dial 1-800-CALLAIX. Be prepared to indicate whether you are applying a PTF on an InfoPrint Manager 2.1.1 system or an InfoPrint Manager 3.1.0 system. Since these PTFs contain cumulative fixes, you will only need to apply the most current level that corresponds to your InfoPrint Manager system.

The following lists the InfoPrint Manager authorized program analysis reports (APARs) and program temporary fixes (PTFs) that you may want to apply. Note that 'client' refers to the InfoPrint Submit component, whether installed on a Windows 95, Windows NT, or Macintosh operating system.

- Version 2.1.0
- Version 2.1.1v211v211v211
- Version 3.1.0

The Version 2.1.0 information is provided for historical reasons only; you cannot order these fixes. Also, when you order service, IBM upgrades you to the latest APAR provided automatically.

Version 2.1.0

APAR	PTF	Applies to:	Available
IR36441	UR48692	Client and Server	9/29/97
IR36441	UR36441	Server only	9/29/97

Contents of IR36441

Font Support:	Provides correct output for double-byte fonts that contain only one section. Corrects FGID (Font Global ID) printing error when mapped file not found in **fgid.grd** file. New grid map file **charset.grd.nomes.sample** provides easier method for users to turn off the mapping of data stream fonts to resident outline fonts.
jpeg2afp transform:	Transform supported for *-rot 90* value.
N-UP enhancements:	A constant page no longer repositions in the wrong sequence. Output that specifies Page Modification Control (PMC) overlays now print on each page.
ps2afp transform:	Adds latest calibration curves.
SAP Transform enhancements**:**	Enhancements to the **-s** option. Correct bar code widths are now passed to the **barcode.tab** configuration file.
tiff2afp transform:	Correction for tiff image output cut off on one side. Correction for tiff image when both image-width and image-length are mapped to the **-scale** value. Correction so the **image-fit** attribute applies from the command line.
VSM GUI enhancements:	Added the physical printer **output-appearance-supported** attribute to the Commercial VSM GUI scheduling tabof the PSF physical printer notebook and template.
InfoPrint Control enhancements:	Core file no longer created when you attempt to shutdown a printer that is printing a job. Physical Printer Queue no longer deletes recently scheduled jobs. Support for requeuing and rescheduling a job to another printer within the same **pdserver** object.
InfoPrint Scan	Invalid characters no longer allowed to be specified in job

enhancements:	names. Files containing thumbnails no longer hang. Files containing GOTO page with no target specified no longer hang. Problem copying an alignment value corrected. Scanner shift file can now be removed from InfoPrint Submit. **Add Directory** option now available. Custom page size is now displayed in reverse order. Scan **Edit** no longer destroys alignment. Scan **Enhancement** has been removed. Opening non-job ticket file no longer causes the system to crash. Can create a new job ticket and add pages without crashing the system. Can submit a hardcopy job with a scanner using **save-and-rip** files.
InfoPrint Submit enhancements:	**Add Directory** option now available. Can open a job without having to specify a file extension. Dialog now supports the Stacker option for the IBM InfoPrint 60 printer. Dialog now initializes file date while checking for RIP file. Default preference for units is now set correctly. Interface now supported on Windows NT systems. No longer allowed to cancel a job when the **Wait** dialog box is active. No longer crashes when removing many hardcopy files. No longer are finished page values incorrect for some of the paper sizes. No longer are job ticket description fields incorrect for jobs retrieved from InfoPrint Library.

	No longer crashes when you press the **Remove** push-button from the **Var-Data** tab. RIP file now displays on submit panel in the files to print specification.

Version 2.1.1

APAR	PTF	Contents	Available
IR37086	UR49431	Client and Server	1/14/98
IR37086	UR49430	Server only	1/15/98
IR37205	UR49696	Client and Server	3/24/98
IR37205	UR49689	Server only	5/6/98
IR37579	UR49900	Client and Server	5/20/98
IR37948	UR50032	Client and Server	6/11/98
IR38043	UR50131	Client and Server	8/6/98
IR38441	UR50220	Client and Server	8/27/98
IR38755	UR50443	Client and Server	10/16/98
IR38886	UR505231	Server	11/4/98

Contents of IR37086

InfoPrint Control enhancements:	A problem with the **afpsplit** utility forward space option has been corrected. A problem creating symbolic links to the job files rather than making temporaray copies (**-l** flag on the **pdpr** command) has been corrected.
InfoPrint Scan enhancements:	When selected pages are printed, the **Number of Files in Progress** is now correct. The interface no longer fails when creating a new job ticket.
InfoPrint Submit enhancements:	A job ticket of over 1200 tiff files can now be added to a document. Job ticket offsets are no longer incorrectly set. Large files (over 22 MB) no longer cause **Progress** percentages to be incorrect. Macintosh client job tickets with saved RIP files now show the name of the the RIP files in the **Files** tab. When media objects are either added or deleted on the InfoPrint Control, InfoPrint Submit now notes the changes. RIP files are now displayed in the **Files to Print** panel. The full path names of both RIP and PDF files are now stored.

Contents of IR37205

By ordering the PTF UR49696, you can pick up all the fixes listed for both the server and client code.

pdf2afp transform:	File conversion has been enhanced.
SAP Transform enhancements**:**	The **11000000.tab** configuration file has been added
tiff2afp transform:	A series of hangs and core dumps related to this data stream transform have been corrected.
InfoPrint Control enhancements:	AIX help volumes now display the correct release of Windows for the **windows-nt-driver-names** and **windows-driver-name** attributes. Note that the **windows-nt-driver-names** attribute applies to all 32-bit Windows operating systems, including Windows 95. An enhanced algorithm for detecting PCL files has been added through IR37408). A performance enhancement has been added to the Adobe PostScript Extreme feature. Input Manager component now deletes orphan segment files (IR36852). Input Manager component now deletes AFP files (IR37129). Migrating from Print Systems Manager for AIX 1.2.1 now creates the directory **$PDBASE/psmd.***hostname* when using the default socket (6874). The **pdcapture** command has been enhanced to preserve the **/var/pd** file system.
InfoPrint Submit enhancements:	A copy of a RIP file is no longer recopied at the InfoPrint Control. Migration of QuickPrint job tickets to InfoPrint Submit job tickets. Performance problem corrected (IR36732).

Contents of IR37579

Font Support:	Added bold fonts for 64xx printers to the Global Resource Identifier (GRID) files. Problem activating a font character set global character set ID (FCS GCSGID) when a resident font character set does not have a global character set ID has been corrected.
ps2afp transform:	Enhanced Greyscale image scaling. Halo effect when printing PDF files with InfoPrint Manager-supplied halftones has been corrected. Light image halftone effect when printing PostScript files with InfoPrint Manager-supplied halftones has been corrected.
SAP Transform enhancements**:**	Added Version 1 ABAP support for printing the backslash character. Both ABAP and OTF files removed from the system automatically after printing. Expanded both **PJPAPER** and **PJFORM** fields from 12 to 16 characters. Performance enhancement for printing PTOCA data. Trace path name has been changed from **/tmp** to the more meaningful **/var/psf/sap2afp**.
VSM GUI enhancements:	**dthelp** window can be opened with the **MORE Details...** push-button after you change the host name on the server. Printer updates of the **document-format-supported** attribute are retained by the GUI. **PSF for AIX-attached Printer** creation dialog corrected so that **Printer Model** is a required field, while **Device Name** and **Print Queue** are not. Image shift controls enhanced in the Commercial GUI. Remote physical printer queue has been added to both the Commercial and Production GUIs.

InfoPrint Control enhancements:	Added Input Manager support for specifying an adjustable default segment size through the **/var/psf/js/system.option**s file. Added menu for configuring AIX Connections for Appletalk (IR36843). Added **delete-segment-list** attribute so that the segment list and all associated segment files are deleted after printing if this attribute is set to **true**. Adobe PostScript Distiller has been enhanced to run more securely. Automatic retry of jobs on problem printer that has a retry limit. Default address for the InfoPrint 4000 printer has been corrected. Input Manager now deletes orphaned jobs and interrupted jobs that have been cancelled during segment file clean up. Input Manager now processes AFP data that does not contain **0x5A** characters in the data stream. Maximum number of both page definitions and prihters has been increased from 500 to 2500. Parsing file lists of over 5000 files no longer causes core dumps from the **gif2afp**, **jpeg2afp**, and **tiff2afp** transforms. Page Overlay rotation on jobs is now supported. Print jobs sent to an InfoPrint 60 printer that specifies a top stacker no longer print on the side stacker. InfoPrint 60 printer attribute files now include: **set output-bin-numbers =top:1 side3.** Second server installation has been enhanced to install even if LAN configuration on the second server is not yet complete. Support for more than 254 overlays in a print job. Support for transforming IM1 Page Segments to IOCA, even when 240 IM1 data is being sent to a 240-pel printer. When processing is complete, the spooler removes segment lists from the system.

InfoPrint Scan enhancements:	Job ticket directory information is saved. Scanned pages are no longer out of order. Support for specifying the right margin on registration.
InfoPrint Submit enhancements:	Attributes (such as **job_id**, l**ibrary name**, **description**, and **comment**) no longer disappear when you change the copies of a job. View PDF files while the **Viewer** window remains open. **Screen Frequency** now supports a value of 141and the **hz** option is no longer supported**.** Windows NT client logon corrected so the 'white space' on the screen no longer causes a failure (IR36724).

Contents of IR37948

InfoPrint Control enhancements:	A booklet or side-by-side job on the IBM InfoPrint 4000 printer now prints correctly.
InfoPrint Submit enhancements:	Macintosh PostScript files no longer hang during **pdpr** command processing at the server.

Contents of IR38043

SAP Transform enhancements**:**	The **-s** flag has been removed and all justification of a print job is handled internally. When printing an Output Text Format (OTF) file that contains an extended **ST** (**String**) User Data Command in the data stream, the transform now places the **ST** command correctly by specifying an absolute move inline that is based upon the metrics passed by the data stream. As a result, you no longer need to use the **-s** flag.
VSM GUI enhancements:	Job objects now appear in the GUI when it is first opened or refreshed. The problem fix came from APAR IR38351 because of a period (".") in the name of the InfoPrint AIX server.
InfoPrint Control enhancements:	The **pdserver:** • socket can be used after a core dump. You no longer have to reboot the InfoPrint AIX server or modify the **PD_SOCKET** environment variable to specify a different socket. • logs messages about corrupted**.pdb** (print data base) files and continues to run. (Note that each InfoPrint AIX server maintains a **.pdb** file to store the persistent copies of each object's data in the **/var/pd***servername* directory). The InfoPrint AIX server no longer: • Hangs as a result of a command to pause a job. • Core dumps if you cancel a print job in the **PROCESSING** state. • Experiences a memory leak when you enter a **pdls** command. • Hangs when processing jobs that are in the **HOLD** state. • Adds **PPO_ENV_FILE=/usr/lpp/pd/bin/ppo.env** to the **/etc/environment** file as a result of APAR IR38274. • Leaves old rasterized image processes (RIPs) in

	storage. • Hangs while waiting for responses to operator commands. The Input Manager utility has been enhanced to: • No longer hang when an Output exit returns quickly • Delete jobs that are in the Input Manager "retained" state. • Delete jobs that have already been processed, but remain in the Input Manager "queued/printing" state. • Ensure that the segmenter does not clean up segment files required for printing. Please note that internal Input Manager processing states do not refer to the job states displayed on the InfoPrint graphical user interfaces.
InfoPrint Submit enhancements:	AIX-attached InfoPrint printers now print in landscape rather than portrait format if either the form definition or medium map specifies "landscape."

Contents of IR38441

InfoPrint Control enhancements:	The threshold array files in used for printer calibration are now correctly installed in the format ***.ta.ps**, where ***** indicates the first name qualifier of the file. When you apply this PTF, be sure to delete any files in the format ***.ta.ps.def** from your InfoPrint AIX server. Support for cancelling and pausing jobs has been enhanced. PCL transform support has been enhanced. Images that are rotated either 90 or 270 degrees now print correctly. Input Manager enhancements provide for more rapid throughput of short, image-data jobs, such as single-page TIFF jobs that consist of less than 100 printed pages.
InfoPrint Submit enhancement:	Job submission from Macintosh systems enhanced by standardizing the locale of all InfoPrint Manager clients.

Contents of IR38755

InfoPrint Control enhancements:	InfoPrint Control data stream checker enhanced to work with custom-generated PostScript input files. Images that are internally rotated 90 degrees now print correctly. ASCII code page support has been enhanced for IBM 6400, IBM 6408, and IBM 6412 printers. The following Page Printer Formatting Aid (PPFA) form definitions have been corrected so they compile: • **F100LS** • **F100LT** • **F100LD** Performance of InfoPrint Manager driving Network printers on that use data stream sharing (for example, printing both PostScript and PCL documents) has been enhanced. InfoPrint Manager PTF installation has been enhanced. Pause job on a copy boundary command corrected. The SAP transform **ST** command has been corrected to allow programmers to specify two consecutive commands. BAAN application working with a **pdpr** Command to generate ASCII header file data now prints correctly.
InfoPrint Submit enhancements:	InfoPrint Submit sends the special instructions portion of a job ticket correctly. Duplexed print jobs submitted to the Ricoh Scanner now emerge in the correct order.

Contents of IR38886

InfoPrint Control enhancements:	Forward space and Backward space commands are now supported on IBM 6400, IBM 6408 and IBM 6412 printers, with appropriate error checking provided. The InfoPrint Control now processes the special instructions sent from an InfoPrint Submit client job ticket correctly. The SAP transform has been enhanced to support all 240-pel bar codes. The VSM GUI has been enhanced to ensure that the Media field is retained on the Jobs/Queue window after the GUI display is refreshed. Support has been added to the InfoPrint Control so that jobs received from Windows 95 or Windows NT clients can display the destinations-used job attributes on a **pdls** status command.

Version 3.1.0

APAR	PTF	Contents	Available
IX893423	U461561	Client and Server	12/11/98

Contents of IX83423

InfoPrint Control enhancements:	The InfoPrint AIX server returns a Server busy message rather than core dumping when too many jobs have been submitted from a remote Select client. Support process (increased per-process thread limit) improvements included with AIX 4.3.1. Improve all AIX GUI event handling. Correct memory errors associated with the **pdpr** command. Improve quality of information returned with the **pdls** command. Improve performance of **pdcreate** and **pdenable** commands. Add print quality enhancements for FAX. Fix forward space capability on 64XX printer. Improve GUI behavior in multiple server environment. Remove requirement for device_name attribute in Administrator GUIs. Improve non-DCE security. Update Java Runtime Environment to 1.1.6.0.
SAP Transform enhancements**:**	Add additional event types supported by SAP R/3. Add SAP R/3 fax support. Add support for Version 1 Output Text Format (OTF) image data. Consecutive **ST** commands work correctly for relative (justified) spacing. Add **sap-abap** option to **document-formats-supported** attributes in the VSM graphical user interface.
InfoPrint Submit enhancements:	Improve allignment settings as they correspond to InfoPrint 4000 output. Improve Pageflex style variable data support. Fix "Start on new sheet" at the document level.

InfoPrint Scan enhancements:	Enhance jam recovery. Resize image and enhance on invert.
InfoPrint Select enhancements:	Improve client/server communication to allow users to print from clients without logging in to the server. Fix memory leak on Windows 95/NT client. Support filenames longer than eight characters.
InfoPrint Installer enhancements:	Improve 4161 model 2 system type recognition. Improve migration script error reporting. Ensure adequate space exists in / . Provide unattended and remote installation support. Provide prerequisite verification when options are selected.
InfoPrint AIX Client enhancements:	Add **pdmigpp** command.

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Verifying AIX Filesets

InfoPrint Manager for AIX requires the AIX operating system to be installed at version 4.2.1 or later. InfoPrint Manager has specific dependencies on the base-level filesets listed below, all of which may be installed from the AIX operating system version 4.2.1 CD-ROMs. (If you are running a later version of AIX, such as 4.3.1, you will find that your CD-ROMs contain later versions of some of these filesets. Because this is a list of minimal requirements, you should install the later versions from your AIX CD-ROMs.)

The following topics provide fileset information for

- All InfoPrint Manager for AIX 3.1 Installations
- Additional Requirements for DCE Versions
- Additional Requirements for the SAP Transform
- Displaying Currently Installed Filesets

Verifying Requirements for All InfoPrint Manager Version 3.1 Installations

The following filesets are required on each AIX system on which you will install InfoPrint software:

- bos.loc.iso.en_US 4.2.1.0 (Base System Locale ISO Code Set - U.S. English)
- bos.mh 4.2.0.0 (Mail Handler)
- bos.rte 4.2.1.0 (Base Operating System Runtime)
- bos.rte.libc 4.2.1.0 (libc Library)
- bos.rte.libpthreads 4.2.1.0 (libpthreads Library)
- dce.pthreads.rte 2.1.0.4 (DCE Threads Compatibility Library)
- ipfx.rte 2.2.0.0 (Information Presentation Facility Runtime)
- printers.rte 4.2.1.0 (Printer Backend)
- X11.apps.msmit 4.2.1.0 (AIXwindows msmit Application)
- X11.base.rte 4.2.1.0 (AIXwindows Runtime Environment)
- X11.loc.en_US.Dt.rte 4.2.1.0 (AIX CDE Locale Configuration - U.S. English)
- X11.loc.en_US.base.lib 4.2.0.0 (AIXwindows Client Locale Configuration - U.S. English)
- X11.loc.en_US.base.rte 4.2.0.0 (AIXwindows Locale Configuration - U.S. English)
- X11.motif.lib 4.2.1.0 (AIXwindows Motif Libraries)

- X11.msg.en_US.base.rte 4.1.1.0 (AIXwindows Runtime Environment Messages - U.S. English)

- X11.vsm.rte 4.2.1.0 (Visual System Management Runtime Environment)

Note: Regardless of the language that you plan to use when installing InfoPrint Manager, you must apply the X11.loc.en_US* filesets, as well as the bos.loc.iso.en_US 4.2.1.0 fileset listed above.

The following fileset will be installed automatically by the InfoPrint Installer:

xlC.rte 3.1.4.8 (C Set ++ for AIX Application Runtime)

If you already have xlC.rte installed at a lower level, it will be automatically upgraded to the 3.1.4.8 level by the Installer.

Verifying Additional Requirements for DCE Version

There are additional requirements if you are installing the DCE version of the InfoPrint Manager base product. At a minimum, on every system on which you will be running DCE InfoPrint servers, you must have the following installed:

- dce.client.core.rte 2.1.0.0 (DCE Client Services)

- dce.msg.en_US.client.core.rte 2.1.0.0 (DCE Base Client Messages)

- dce.msg.en_US.compat.client.core.smit 2.1.0.0 (DCE SMIT Base Messages)

If you will be using the Installer to create your DCE cell, you will also need the following filesets on the primary InfoPrint server system:

- dce.cds.rte 2.1.0.0 (DCE Cell Directory Services)

- dce.msg.en_US.compat.cds.smit 2.1.0.0 (DCE SMIT Cell Directory Server Messages)

- dce.msg.en_US.compat.security.smit 2.1.0.0 (DCE SMIT Security Services Messages)

- dce.security.rte 2.1.0.0 (DCE Security Services)

Verifying Additional Requirements for the SAP Transform

At a minimum, on every system on which you will be running the SAP Transform (InfoPrint AIX servers and SAP R/3 application servers), you must have the following installed:

- bos.loc.adt.iconv (Language Converter Development Toolkit)

Verifying Currently Installed AIX Filesets

You can verify if the prerequisite filesets are already installed on the AIX system by using the AIX `lslpp` command. For example, you can check the Mail Handler fileset by entering the following at the command line:

```
lslpp -l bos.mh
```

If the fileset is installed, AIX displays the level, state, and description of the fileset. If the fileset is not installed, AIX issues an error message. For missing filesets, use the AIX system management interface tool (SMIT) to install the appropriate filesets from the AIX CD-ROM.

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Verifying Updates to AIX Filesets

The following lists the AIX system authorized program analysis reports (APARs) that you may need to apply to run InfoPrint Manager:

- APAR IX69926
- APAR IX68882
- APARs IX67818; IX69809; IX70359; IX71626

To verify that an APAR has been applied, consult Verifying Installed AIX APARs.

As a convenience, the filesets that comprise each of the APARs listed above are included on the InfoPrint Manager for AIX Server 1 CD-ROM. To apply service from the Server 1 CD-ROM, follow the Applying AIX Service from Server 1 CD-ROM procedure.

Filesets for the following APARs are not included with the InfoPrint Manager for AIX CD-ROMs:

None required.

These APARs were not available at the time this version of InfoPrint Manager shipped. Therefore, they must be obtained from the AIX Fix Distribution site. If you require additional assistance in obtaining these APARs, contact IBM Software Support.

The InfoPrint Installer automatically services AIX filesets whenever possible. To verify service automatically applied by the InfoPrint Installer, consult Verifying Filesets Updated by InfoPrint Installer.

Note: There are additional DCE requirements if you are using the DCE version of the InfoPrint Manager base.

APAR IX69926

Description:	Memory problem on Symmetrical multiprocessing (SMP) systems.
Needed by:	All SMP systems, including preloaded IBM 4161 MPC models and IBM F50 systems.
Affects Fileset levels:	• bos.adt.prof 4.2.1.5 (PTF **U451363**) • bos.mp 4.2.1.6 (PTF **U451393**) • bos.rte.libc 4.2.1.5 (PTF **U451631**) • bos.rte.libs 4.2.1.4 (PTF **U451483**)

To apply AIX service from the Server 1 CD-ROM, follow the Applying AIX Service from Server 1 CD-ROM procedure.

APAR IX68882

Description:	Problem using the graphics console systems.
Needed by:	Preloaded IBM 4161 MPC models and IBM F50 systems.
Affects Fileset levels:	bos.rte.console 4.2.1.2 (PTF **U450595**)

To apply AIX service from the Server 1 CD-ROM, follow the Applying AIX Service from Server 1 CD-ROM procedure..

APARs IX67818; IX69809; IX70359; IX71626

Description:	Problem using multiple InfoPrint Manager server systems in the same namespace.
Needed by:	Anyone planning to install the Adobe PostScript Extreme option. These APARs must be applied to the InfoPrint Manager AIX server, as well as the primary and secondary Adobe PostScript Extreme systems.
Affects Fileset levels:levels:	• bos.adt.prof 4.2.1.5 (Base Profiling Support) (PTF **U453578**) • bos.net.nfs.client 4.2.1.6 (PTF **U450590**) • bos.net.tcp.client 4.2.1.16 (TCP/IP Client Support) (PTF **U453578**) • bos.net.tcp.server 4.2.1.10 (TCP/IP Server) (PTF **U454753**) • bos.net.tcp.smit 4.2.1.1 (PTF **U448792**) • bos.rte.libc 4.2.1.7 (Library libc) (PTF **U453578**) • bos.net.tcp.adt 4.2.1.2 (TCP/IP Application ToolKit) (PTF **U454633**) **Note:** The TCP/IP Application ToolKit fileset PTF is not connected to a particular APAR. If your filesets are not at the correct level, you may have to order this fix as a PTF.

To apply AIX service from the Server 1 CD-ROM, follow the Applying AIX Service from Server 1 CD-ROM procedure.

Applying AIX Service from Server 1 CD-ROM

To apply the needed service directly from the Server 1 CD-ROM, follow this procedure:

1. Insert the gold InfoPrint Manager for AIX Server 1 CD-ROM into your CD-ROM drive.
2. Type the following at a command line:

   ```
   mount /cdrom

   smit install_all
   ```

3. Enter the following in the **INPUT device/directory for software** field:

   ```
   /cdrom/images
   ```

4. Click the **List** button next to the **Software to install** field.
5. Select the filesets you need to satisfy the given APAR. (If an exact match for a fileset is not available, select the latest level presented in the SMIT list.)
6. Click **OK** to apply the service.
7. Click **OK** when asked, "ARE YOU SURE?"
8. Push the F12 key to exit SMIT.

Verifying Installed AIX APARs

Use the `instfix` command for verifying the installation of any APAR on your AIX operating system. For example, to verify that APAR IX65879 is installed for AIX Connections 4.1.5, enter the command:

```
instfix -ivk IX65879
```

Not all prerequisite software for InfoPrint Manager is on the AIX CD-ROMs. You may need to perform several additional software upgrades to prepare your system to run an InfoPrint Manager server. You must obtain these upgrades, in the form of authorized program analysis reports (APARs), from IBM.

Verifying Filesets Updated by InfoPrint Installer

The InfoPrint Installer automatically updates AIX filesets to the following levels (if they are not already updated to higher levels):

- xlC.rte 3.1.4.8 (C Set ++ for AIX Application Runtime)
- bos.rte.libc 4.2.1.5 (libc Library)
- X11.vsm.rte 4.2.1.2 (Visual System Management Runtime Environment)
- X11.apps.msmit 4.2.1.2 (AIXwindows msmit Application)

If you you are having problems with InfoPrint Manager, you may verify that Installer has correctly updated these filesets by following the Verifying Currently Installed AIX Filesets procedure..

Verifying Recommended DCE Filesets

If you are using the Distributed Computing Environment (DCE) version of InfoPrint Manager, you should update any required DCE software to the following levels (if available in your geography):

- dce.cds.rte 2.1.0.19 (DCE Cell Directory Services)
- dce.client.core.rte 2.1.0.25 (DCE Client Services)
- dce.client.core.rte.admin 2.1.0.22 (DCE Client Administrative Tools)
- dce.client.core.rte.cds 2.1.0.14 (DCE Client CDS Tools)
- dce.client.core.rte.config 2.1.0.19 (DCE Client Configuration Tools)
- dce.client.core.rte.security 2.1.0.21 (DCE Client Secuity Tools)
- dce.client.core.rte.time 2.1.0.13 (DCE Client Time Tools)
- dce.client.dfs.rte 2.1.0.9 (DCE DFS Client Client Services)
- dce.compat.client.core.smit 2.1.0.5 (DCE SMIT ClientTools)
- dce.compat.security.smit 2.1.0.1 (DCE SMIT Security Services)
- dce.dfs_server.rte 2.1.0.7 (DCE DFS Base Server)
- dce.edfs.rte 2.1.0.6 (DCE Enhanced DFS)
- dce.msg.en_US.client.core.rte 2.1.0.12 (DCE Base Client Messages)
- dce.msg.en_US.compat.client.core.smit 2.1.0.1 (DCE SMIT Base Messages)
- dce.security.rte 2.1.0.23 (DCE Security Services)

- dce.tools.admin.rte 2.1.0.7 (DCE Administration Tools)
- dce.tools.appdev.adt 2.1.0.9 (DCE Application Development Tools)

Note: To install the DCE version of the InfoPrint Manager base requires only the 2.1.0.0 level of the DCE client software. However, the service levels listed above are strongly recommended for best results. If these levels are not available in your geography, we recommend that you upgrade your DCE software to the latest level that is available.

You may verify the levels of your DCE software filesets by following the Verifying Additional Requirements for DCE Version procedure.

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Let IBM technical experts install InfoPrint Manager for you! Call 1-800-237-5511 in the U.S. In Canada, call 1-800-426-7378. Outside the U.S. and Canada, contact your local IBM Printing Systems Representative to arrange for IBM Installation Services to install InfoPrint Manager quickly and easily.

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