



## **OfficePath**

**Version 1 Release 6.1**

**Installation and Administration**

## **OfficePath Installation and Administration**

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Inquiries may be directed to:

#### ***TBS Software Inc.***

2201-278 Bloor St E.  
Toronto, ON  
Canada  
M4W 3M4

Phone: 905 940-9373

Fax: 905 940-9376

Web: [www.tbsoft.com](http://www.tbsoft.com)

eMail: [support@tbsoft.com](mailto:support@tbsoft.com)

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## **PART ONE - INTRODUCTION**

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## Chapter 1. Introduction

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### Purpose of this book

This book contains the information required to install, initialize and tailor OfficePath from the distribution media supplied by TBS Software Inc.

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### Audience for this book

This book is designed for use by the systems programmer responsible for the installation of CICS-based application software. It assumes a prior knowledge of CICS table administration procedures and VSAM file creation.

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### Pre-requisites

The successful implementation of OfficePath requires the prior installation of the following IBM software products:

- CICS/ESA Version 3.2.1 or above
- Language Environment Version 1.5 or above

In order to use the OfficePath DisplayWrite/370 print feature you will require:

- DisplayWrite/370 (for CICS) Release 2 or above

**Note:** See ["Updating MVS"](#) for details of specific actions required when the MVS environment is changed.

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## About this release

### Version 1 Release 6.1

#### **Important Notice**

In order to improve memory usage OfficePath programs have been converted from OS/VS COBOL to COBOL for MVS/VM. As a result Language Environment (V1.5 or later) is now a prerequisite and must be installed prior to upgrading to OfficePath V1.6.1.

#### **Bug Fixes**

A number of bug fixes have been incorporated in this release:

- Various errors relating to the transition from 1999 to have been corrected. Dates entered in panels are now treated as being in the range 1985-2084. Internally, dates are stored with a century indicator (previously always 0).
- A bug causing file transfers between AS/400s to fail has been corrected.
- The interface to OV/MVS now treats DOC DATE as optional for compatibility with the MEMO API.
- Previously OfficePath ignored any PC File Name specified. It will now relay this parameter.
- A bug which could cause a deadly embrace involving PIP3 & PIP5 has been corrected.
- A bug which could cause an invalid DIU to be built if the sender of an item was defined as a SNADS user but the request originated from OV/MVS has been fixed.
- OfficePath Control File Maintenance program PIPCTL, now correctly initializes DEST records of type SNADS and sets up valid defaults on the SYSTEM record.
- Various corrections and improvements have been made to the OfficePath manuals.
- The help text for the redirection feature has been corrected.
- A bug causing mail status not to be returned if a status was received from two different nodes has been corrected.
- Error messages produced by PIPV under CICS V4.1.0 have been removed.
- A bug causing errors to be displayed when PIPS was run with the FILES parameter has been corrected.
- Start up processing has been improved to avoid it causing CICS to go short on storage if a large number of 'M' records are present on the OfficePath log.
- Processing has been changed to allow OfficePath to start if the log file has been corrupted such that an 'M' record and an 'X' record are present for the same request number.
- The PIPDOCSZ exit has been improved so that messages indicating that the OfficePath control file is not allocated can be avoided.
- The SNADS receive program PIP7010 has been modified to accept format 41 DIU fields without subfields.

## Version 1 Release 6.0

### **Important Notice**

OfficePath has changed the way it processes LIST requests: it now temporarily logs the request and subsequently deletes it. This may cause a problem whereby the Personal Services transactions DMDC and DMDD or DMDF may deadlock; this is due to an inconsistent approach to updating the DMDMC30 dataset. Refer to ["Preventing the Deadlock between DMDC and DMDD or DMDF"](#) for further details.

A number of changes (both bug fixes and enhancements) have been made in this release.

### **Enhancements**

- A **Redirector** feature is added to allow both recipient and originator names to be automatically changed before mail is routed.
- A new on-line list program is provided to allow administrators to view lists of the various control file record types and select records to process from the list.
- Significant performance improvements have been made:
  1. The DIU build programs (PIP6010 and PIPRCVE) now build the DIU fields more efficiently.
  2. The SNADS send program (PIP6010) now copies the text records from PIPTEXT "a record at a time" rather than "a character at a time".
  3. The key of the PIPSTAT file has been changed such that the status programs only read the records that require reporting. This reduces the amount of CPU time require to report status (this is especially true when responding to LIST commands from API applications such as Personal Services).
  4. The API notify processing has been enhanced so that there is a delay between each notify: this will reduce the number LIST commands issued by API applications.
- OfficePath now provides basic RFT to print image and RFT to FFT document conversion, removing DisplayWrite/370 as a prerequisite for the conversion of RFT documents.
- The Log File Browse function has been enhanced to allow the viewing of the list of recipients and allowing individual recipients to be cancelled. This has resulted in the DELETE function for Log File (introduced in Version 1 Release 5.0) being removed.
- The Log File Browse function has been enhanced to allow the administrator to specify which records to display (selecting by command and/or requestor and/or specifying a start date/time).
- The Link Monitor function has been enhanced to allow the administrator to display a list of mail items waiting to be sent.
- The Log File Browse and Link Monitor functions have been enhanced to allow them to be used as "alert" monitors.
- All of the maintenance panels can now be displayed in 24, 32, and line modes and extended attribute support (colour and underlining) has been added. Use of highlighting on monochrome terminals has been modified.

- The use of the user validation exit - PIPEXIT1 - has been enhanced to allow the modification of the destination and the DCA level.
- The start-up transaction - PIPS - has been enhanced to perform optional dataset consistency checks.
- Optional trace information can now be written to a CICS transient data queue.
- The maintenance suite can now be invoked by a user program using the OfficeVision/MVS SIB layout; the PIPX transaction can now be invoked via an ATD from within OfficeVision/MVS.

## Bug Fixes

- OfficePath will now send all outstanding mail across a SNADS link when it is acquired, previously it would only send one item per invocation.
- OfficePath now preserves the error detecting REN (the status node) when sending status information to other nodes, previously it would use the local node name (default location name).
- OfficePath now uses the SNADS status-type and status-contents as passed from remote regions, previously it was translating these to one of five internal codes.
- In certain circumstances the PIPFFTP program was overwriting CICS storage. This has been corrected.
- The PIP2 transaction abended if the CALENDAR used was defined as described in the OfficePath documentation. This has been corrected.
- Transaction PIP2 was not counting the confirmations for requests which have no reply destination. This has been corrected.
- Transaction PIP2 required that the corresponding PIPTTEXT record existed in order to cancel a request. This has been corrected.
- The PIPS transaction was being started a multiple number of times. This has been corrected.
- If PIPEXIT1 was used to change the originator then the DDN was incorrect. This has been corrected.
- If a SNADS link returned an ERROR without any error text, an abend occurred with a LENGERR due to attempting to write a TS Queue with zero length. This has been corrected.
- If a Personal Services user id was deleted before all status information was returned then the outstanding "M" records were not converted to "X" records when the status was returned. This has been corrected,
- The sample PIPEXIT2 program was generating document text which contained low-values; this was causing problems in the OfficeVision/MVS GAPI. The low-values have now been replaced by spaces.
- OfficePath was building an invalid DIU when it returns the HOP-count exceeded status code. This has been corrected.
- Transactions PIPS and PIPY were starting PIP2 with invalid start data. This has been corrected.
- Programs PIPPIRFT and PIPPIFFT were truncating text at column 133, this has been extended to

- The PIPZ transaction was using three digits for the request count, this has been extended to five digits.
- When receiving large documents from remote systems OfficePath could fill temporary storage. The PIP7 transaction now handles the NOSPACE condition and deletes its temporary storage queue.

## Version 1 Release 5.0

The number of changes (both bug fixes and enhancements) have been made in this release.

### **Enhancements**

- The CUSTOMIZE control record has been renamed to SYSTEM to avoid conflict with the COPYLIST record.
- Additional HELP text has been added.
- The automatic restarting of OfficePath can now be prevented by specifying a cleandown time of "00:00:00".
- Fields have been added to the Control File Maintenance Panels to include comments and to store who last changed the details.
- The SNADS HOP count field is now fully supported.
- An installation can now specify a maximum document size that OfficePath should process.
- An optional "time-stamp" can now be added to messages issued by OfficePath.
- Using the DELETE function on the Log File will now also remove the request from the STATUS and TEXT files. A new PURGE function has been added to act only on the log file.
- List processing has been added to PIPY: a user can select more than one request and details will be shown for each in turn.
- OfficePath message numbers (from the log file) are now displayed in HEX to aid problem determination.
- "M" records are now highlighted on the Log File Browse panel (PIPY).
- OfficePath can now be restarted from the Log File Browse panel (PIPY) and the date and time of the most recent restart is now displayed on this panel.
- The message details panel now include field showing the document size, the current SNADS HOP count, and the number of recipients completed successfully and rejected.
- Automatic updates of the Link Monitor (PIPZ) are now possible.
- A "Validation" exit has been added to provide customers with the ability to validate all distribution requests processed by OfficePath. See "[User Validation Exit](#)" for full details.
- An "Audit" exit has been added to provide customers with the ability to audit all distribution requests processed by OfficePath. See "[Audit Exit](#)" for full details.
- A "JCL Modification" exit has been added to provide customers with the ability to change the first ten lines of JCL submitted for distribution, status, and print (not including DisplayWrite/370) requests. See "[JCL Modification Exit](#)" for full details.
- OfficePath now deletes information from the PIPTEXT file when it is no longer required: rather than waiting for the start-up transaction to run.



- OfficePath used to require that mailbox file were defined in the CICS startup JCL instead of the CICS FCT. This restriction has been lifted.

## **Bug Fixes**

- A number of minor usability problems with the on-line transactions have been corrected.
- Transactions PIPZ and PIPY no longer use ENQUEUEs when reading the log file: this now prevents these transactions waiting a potentially large amount of time for the ENQ to become available.
- Documents of width 132 were losing the last character when being converted to FFT. This has been corrected.
- The host print program was using double spacing instead of single spacing and vice versa. This has been corrected.
- When DisplayWrite/370 converts an RFT document an additional page is sometimes created containing error messages. This is now removed.
- There were a number of problems with the "Remote PS" feature of OfficePath. These have been corrected by re-designing the implementation of this feature.
- OfficePath now will not send the subject field if it is missing. Previously it was sending a "blank" field.
- When sending to an invalid recipient at a remote node the status was returned as "ERROR". This has been changed to "INVALID".
- If an originator sends mail without COD, OfficePath was not generating a non-delivery status when appropriate. This has been corrected.
- Under certain circumstances programs were attempting to read a destination record of "INVALID". This has been corrected.
- Some mailing systems return status information more than once for a single distribution. When this occurs it caused OfficePath to abend. This has been corrected. The status is now ignored.
- Some mailing systems return status information for a recipient that was not in the original distribution list. When this occurs it causes OfficePath to abend. This has been corrected. The status is now ignored.
- When distributing items to a DEC system the returned status information is not correlated correctly. This has been corrected.
- When an APPC timeout occurred in CICS/ESA OfficePath abended. This has been corrected so that OfficePath retries the operation if any CICS error occurs during the communication.
- Batch jobs were not being submitted until another job arrived. This has been corrected.
- Messages missing from the documentation and control file have been added.
- The JCL update utility IMIUTIL1 did not conserve the position of line numbers. This has been corrected.
- The Batch Control file maintenance program was adding the Customization record with an incorrect layout. This has been corrected.

## **Version 1 Release 4.0**

The following changes have been made in this release:

- Support for remote Personal Services systems. OfficePath will now support Personal Services transactions which are installed in a different region to OfficePath. The program will support multiple Personal Services systems. These systems can be given different node names, if required. Remote Personal Services support is described in more detail in ["Support for multiple/remote Personal Services"](#).
- The AUTOSEND sample application has been included. This program allows you to automate the distribution of reports. The program will scan through an output report (in a dataset) and split it into departments (for example sales groups). The reports can then be automatically sent to the relevant manager's inbasket using the OfficePath batch feature.
- Personal Services SIGNON and LIST commands are not logged by default. This setting can be changed if required.
- A deadlock which could occur between the Startup transaction (PIPS) and the Personal Services transactions has been corrected. This problem would only occur if a Personal Services user was logged-on when the PIPS transaction ran.
- OfficePath has been changed so that it does not require the DISTRIBUTION CORRELATION field to be returned with a confirmation. Some SNADS devices, for example DEC, do not return the correlation field. In the previous release this resulted in requests which were never marked as delivered even though the recipient had received the mail item.
- When communicating with the LinkAge gateway the OfficePath transactions PIP6 and PIP7 could deadlock. This problem occurs when two requests are sent in opposite directions at the same time. This has been addressed by adding a read-timeout value to the PIP6 transaction and modifying the program logic to restart the transaction after a time-out.
- The start-up processing has been modified to:
  1. Continue processing even if a request cannot be restarted

The previous version would stop after any error restarting a request. In some cases, the requests were not processed because the CICS TCT entries for SNADS connections had been removed. The program will now issue a message and continue processing.

2. Delete all completed "M" records after a number of days

Some SNADS destinations do not return Confirmation of Delivery. OfficePath does not delete "M" records until the COD is returned. This can result in a large number of "M" records on the control file. You now specify a number of days after which "M" records awaiting COD are purged.

3. Restart itself on a timer

Some CICS systems run 24 hours a day. This means that the PIPS transaction is only run when the CICS system is first loaded. The program has now been changed to restart itself at a customizable time each day.

- Message text was not being correctly substituted into JCL  
When a request was sent to the internal reader only the first characters of each message line were substituted.
- The SNADS program was issuing message 053 instead of
- The batch maintenance program always ended with code  
The program has now been changed to issue the following return codes:
  - 4** All requests processed, some warning messages issued
  - 8** Some requests not processed due to errors
  - 12** Serious error, no requests processed
- The CICS interface programs PIPGS3 and PIPGT3 now return more meaningful return codes:
  - The PIPGS3 1nnn (error reading TSQ) and 2nnn (error writing to in-tray) groups of return codes now contain the CICS EIBRESP field rather than the TSQ item number.
  - The PIPGT3 return codes 0700 (error reading from out-tray), (error deleting from out-tray), and 0900 (error writing to TSQ) have been replaced by three new groups of return codes: 2nnn (error reading from out-tray), 3nnn (error deleting from out-tray), and 1nnn (error writing to TSQ). The return codes now contain the CICS EIBRESP field.
- The Host-print function did not update the status in Personal Services. This has now been corrected.
- The PIPPIFFT and PIPPIRFT programs would cause a storage violation if a print-image document was received with a line length of more than 255 bytes. This has been corrected.
- The SNADS program was always sending the message DIU field even if the request did not have a message. For some applications, for example SoftSwitch, this resulted in the distribution arriving as two files; a blank message with an attachment containing the original document. This has been corrected.

## **Version 1 Release 3.0**

The following changes have been made in this release:

- The REN field is now supported for SNADS distributions.
- Support for "API" applications which implement the same subset of DISOSS functions as Personal Services.
- Date sent and date printed can now be specified in the separator sheet produced by the OfficePath DisplayWrite/370 print feature.
- The REN/DGN bracketing which OfficePath used for SNADS requests was causing problems with the LinkAge gateway software. This has now been corrected.
- The userid restriction on applications using the Batch or CICS interfaces has been lifted. Applications may use any userid and receive confirmation. However, they will still only be able to receive mail if they have appropriate entries on the OfficePath control file.

- If the PIPS transaction encountered an error while restarting an outstanding request it was hard to determine the request causing the problem. The program now displays the request number of the request which caused the error.
- The PIPZ transaction has been altered to allow a single LU6.2 session to be released while the user count is non-zero.
- The following bugs in the OfficePath DisplayWrite/370 print feature have been corrected:
  - First page, last page and copies parameters were ignored in a host print request.
  - Only the first request in the OfficePath DisplayWrite/370 print queue was processed.
  - Document name was not printed on separator sheet.
- The ABM1 abend which was produced when the OfficePath SNADS transactions detected an error has been suppressed.
- The ASRA abend (in PIP7010) caused by the AS/400 returning an invalid date field has been corrected.
- The PIPZ transaction was issuing a CEMT command which produced an warning message under CICS 2.1x causing the program to issue a U129 abend. The program has been corrected.
- Customization of the OfficePath transaction ids caused problems in the following programs. These are now corrected:
  - PIPS010
  - PIP1010
  - PIPSNADS
- The PIPMAIL CLIST could loop if the DCB of the transmitted dataset was different from the PIPS.MAIL dataset DCB. The CLIST has been corrected.

## [Version 1 Release 2.0](#)

The following changes have been made in this release:

- The OfficePath DisplayWrite/370 print feature is now available, as an optional extra, to allow advanced function printers to be used from Host and MailRoom printing.
- The following bugs have been corrected:
  - Messages sent using **SNDNETMSG** were padded with low-values.
  - An internal Personal Services error would result if an application sent a document with a width of more than 133 characters.
  - The PIPX transaction id was hard-coded and could not be customized.
  - The "CLO" command (for the Link monitor) does not work with CICS

## [Version 1 Release 1.1](#)

The following changes have been made in this release:

- Added support for the AS/400 **SNDNETF** and **SNDNETMSG** commands.
- Fixed error which caused some profile fields to be initialized with low-values. This caused a problem for any applications attempting to use the Personal Services GAPI.

---

## How this book is organized

This book is divided into four further parts:

<b>Installation</b>	This deals with installing OfficePath from the distribution tape and verifying that the installation has been successful.
<b>Customization</b>	This provides information on those facilities which may be customized and how to customize them.
<b>Replaceable Exits</b>	This provides information on the customer replaceable exit programs within OfficePath.
<b>Administration</b>	This concerns itself with the administration of OfficePath. This includes descriptions of control file maintenance, log file enquiry and terminal monitor transactions.

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## Other books you may need

There are four volumes that accompany the OfficePath system software:

- *OfficePath Installation and Administration Guide*  
explains how to install, customize and administer the OfficePath system.
- *OfficePath Reference and Diagnosis Guide*  
describes the detailed working of OfficePath, and also gives a list of the most common problems encountered.
- *OfficePath Programming Interfaces*  
provides information on how to develop and install an interface between an OfficePath system and an application based in CICS, MVS/BATCH or TSO.  
This manual is only supplied if the CICS or Batch features have been purchased.
- *OfficePath Library Retrieval Feature Installation and User Guide*  
provides information on how to install and use the Library Retrieval feature, providing on-line search and retrieval of documents from an existing DISOSS library.  
This manual is only supplied if the Library Retrieval feature has been purchased.

In addition, the following IBM manuals may be required:

- *DisplayWrite/370 Printing Guide* (SH12-5659), which describes how to configure DisplayWrite/370 in order to print documents.
- *DisplayWrite/370 Version 2 Programming Interfaces for customers* (SH12-5660), which describes the commarea used to interface to DisplayWrite/370.

- *DISOSS Interchange Architecture Reference Guide* (SH30-3276), which describes the data formats used for by the SNADS interface and also for communicating with Personal Services.
  - *Installing OV/MVS Release 2.0* (SH21-0515), which describes how to customize Personal Services.
-

## Chapter 2. Product Overview

---

### What is OfficePath?

OfficePath is a CICS based node in the Office Systems Network. It provides "store and forward" Document Distribution Service facilities for routing from a **source** to one or more **destinations**.

The **source** can be one of the following:

- Personal Services** This can be either PS/CICS 1.3 or the Personal Services component of OfficeVision/MVS.
- An API application** An API application which uses the same subset of DISOSS commands as Personal Services<sup>1</sup>.
- A SNADS node** Any other SNADS node. This may be another OfficePath system.
- A CICS Application** The Mailsack VSAM KSDS is used as an in-tray between the CICS application and OfficePath.
- A Batch Application** The Mailbox VSAM KSDS is used as an in-tray between the batch application and OfficePath.
- TSO** A TSO User can use the supplied CLISTs to send TSO datasets and/or messages.

The **destination** can be one of the following types:

- Personal Services** This can be either PS/CICS 1.3 or the Personal Services component of OfficeVision/MVS.
- An API application** An API application which uses the same subset of DISOSS commands as Personal Services<sup>1</sup>.
- A SNADS node** Any other SNADS node. This may be another OfficePath system.
- A CICS Application** A VSAM KSDS, called an out-tray, is used as the interface between the CICS application and OfficePath.
- An Internal Reader** The document text is included, as in-stream data, in a JCL deck submitted

---

<sup>1</sup> The OfficePath programs intercept DISOSS API requests by replacing the API module DSVAW100 (or DMDAW130 module for Personal Services). This module is invoked via an EXEC CICS LINK command which contains a list of storage addresses. This means that OfficePath **must** be in the same region as the API programs.

to an internal reader.

**A Batch Application** The document text is written to a VSAM KSDS, called an out-tray, and a batch job is submitted to process the it.

**TSO** The document is sent to the TSO user using an internal reader. The user can view the document using the supplied CLISTs.

---

## Services not provided by OfficePath

The following facilities are not provided by OfficePath:

1. Document Library Services

The FILE, SEARCH, RETRIEVE and DELETE commands, which may be issued from within a DISOSS API application (for example, Personal Services), are not supported. These requests will be rejected, with an error status message.

2. Password Validation

OfficePath does not support password validation. It is the responsibility of CICS applications to carry out Password validation. OfficePath includes a sample user exit, which is invoked by the batch programs, and may be used to develop a password validation mechanism.

3. RGN (Routing Group Name)

OfficePath does not support the RGN: it is left blank for requests sent to another node and is ignored for requests from other nodes.

**Note:** The OfficePath Library Retrieval Feature provides on-line search and retrieval of documents from an existing DISOSS library. Full details are in the *OfficePath Library Retrieval Feature Installation and User Guide*.

---

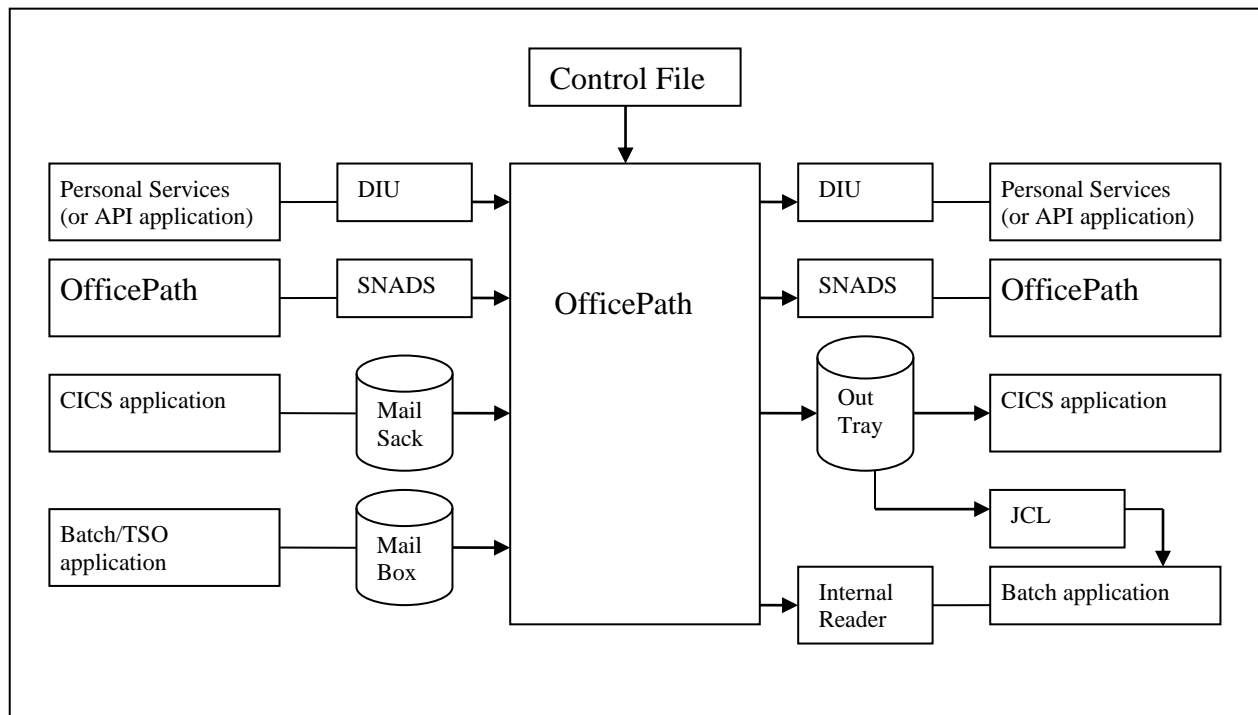


---

## System Overview

OfficePath is represented schematically as follows:

**Figure 1. OfficePath schematic arrangement**



In summary, OfficePath provides the following:

- Connectivity to Personal Services or API application  
OfficePath communicates with PS in the same way as DISOSS, using IBM's Document Interchange Architecture (DIA). However, OfficePath only supports a limited subset of DISOSS functions, specifically:
  - SIGNON** All DCA levels and GCIDs are ignored. The values from the OfficePath control file are used.
  - SIGNOFF** No options can be specified.
  - REQDIST** All options not involving library documents.
  - LIST** Unformatted LIST command only.
  - OBTAIN** Obtain all documents only.
- The following features are **not** supported:

**USERSETS** OfficePath does not support USERSETS. However, OfficePath provides an equivalent facility by allowing users to be registered generically (for example all users at the same address can be registered with a single registration record).

**FORMAT41** Format 41 addressing in either originator or recipient fields is not supported.

- Connectivity to other OfficePath systems.

OfficePath communicates with other OfficePath systems using IBM's SNA Distribution Services architecture (SNADS).

- Connectivity to CICS, batch and TSO applications.

OfficePath communicates with your applications using proprietary mechanisms which are described in the *OfficePath Programming Interfaces* manual.

- Conversion between the following document types defined by IBM's Document Content Architecture:
  - Revisable Form Text (RFT)
  - Final Form Text (FFT)
  - EDITABLE Notes and Documents

Document conversion is performed by "formatter" programs. For RFT documents, **DisplayWrite/370** can be used to perform conversions; alternatively OfficePath provides sample programs to perform the conversions.

---

## Chapter 3. The Redirector Feature

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### Introduction

**Redirector is a separate chargeable feature of OfficePath. Please do not install or use this feature unless it is included in your license. Please contact TBS Software if you require further information on this feature.**

The Redirector feature allows both recipient and sender user ids to be changed "en route" through OfficePath. There are a number of uses for this feature, descriptions of which follow.

The Redirector feature differs in a number of ways from TBS Software's OV/Re-router product:

1. OV/Re-router waits for the mail to arrive before sending it to the new recipient. OfficePath Redirector changes the recipient before it is delivered
2. OfficePath Redirector allows the sender user id to be changed; OV/Re-router does not
3. OV/Re-router will send a message to the originator informing them of the change of recipient; with OfficePath Redirector an organization must use the user exit programs to achieve this
4. OV/Re-router allows the mail to be copied or moved to two recipients; with OfficePath Redirector the mail is "moved" to a single new recipient
5. OV/Re-router allows mail to be "blocked" (the mail is actually delivered but a message is sent back to the originator); with OfficePath Redirector the exit programs must be used to achieve this

---

### Using the Redirector Feature during Migration

As organizations move away from host-based office systems, OfficePath can be used to redirect mail to the new users. OfficePath Redirector allows this to be achieved either in a phased implementation or as a total migration. To do this, create a User record for each user migrating, specifying that mail addressed to the user is to be redirected to the corresponding new userid.

If all users at a particular node are to be migrated to a different node but maintaining the same userids, then a single generic User record may be used to specify the redirection.

---

### Maintaining a single node image

Organizations moving away from a single host-based office system may choose to implement a "multi-node" LAN-based system where each department becomes its own node. By placing OfficePath at the centre of the system an organization can be made to look as though it is only one node externally. This is achieved with two User records for each user. One record changes the senders name when mail is sent externally, and the other changes the recipient name when mail arrives from outside the organization.

One example of this is by maintaining a "single node image" OfficePath can be used to connect to IBM's Mail Exchange system without requiring the definition of additional "down-stream" nodes.

---

## **Defining Redirection for a user**

To use the Redirector feature, for the users you wish to redirect simply enter the appropriate fields on the **USER** records which are held on the OfficePath control file. These **USER** records are maintained "on-line" using the **PIPX** transaction as detailed in "[User Records](#)" of this manual.

---

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## **PART TWO - INSTALLATION STEPS**

---

## Chapter 4.Introduction

The steps required to install this version of OfficePath will depend on the whether you are installing OfficePath for the first time and whether you already have DISOSS. The table below shows the steps required, by chapter, for the different types of installation.

<b>Installation Step</b>	<b>Migration from a previous release</b>	<b>Installing OfficePath to replace DISOSS</b>	<b>Installing OfficePath for the first time</b>
<a href="#">"Unload the distribution tape"</a>	Required	Required	Required
<a href="#">"Run The Migrate JCL"</a>	Required	-	-
<a href="#">"Change Destination Records"</a>	Optional	-	-
<a href="#">"Create the System Files"</a>	-	Required	Required
<a href="#">"Load the Control File"</a>	-	Required	Required
<a href="#">"Update The CICS Tables and JCL"</a>	Required	Required	Required
<a href="#">"Update Personal Services"</a>	See below	Optional	Required
<a href="#">"Update Application Services"</a>	Optional	Optional	Optional
<a href="#">"Migrate DISOSS HUP Entries"</a>	-	Required	-
<a href="#">"Migrate DISOSS API applications"</a>	-	Optional	-
<a href="#">"Migrating RAPID Applications"</a>	-	Optional	-
<a href="#">"Updating MVS"</a>	Required	Required	Required
<a href="#">"Update DisplayWrite/370"</a>	Optional	Optional	Optional
<a href="#">"Installation Verification"</a>	Required	Required	Required

### Special Notes

#### Migrating from a previous release using Personal Services

Releases of OfficePath prior to V1.6.0 required that the DMDC and DMDD transaction were "single threaded" if all requests were being logged; **single threading of DMDC and DMDD is now a requirement**. See ["Preventing the Deadlock between DMDC and DMDD or DMDF"](#) for further details.

#### Migrating replaceable exits from a previous release of OfficePath

If you are migrating from a release of OfficePath prior to V1.6.0 and have installed replaceable exits, then these should be recompiled using the copybooks supplied with this release of

OfficePath as some of the control block layouts have changed. See ["Exit Control Blocks"](#) for details of these control blocks.

---

## Chapter 5. Unload the distribution tape

OfficePath is supplied on a standard label (6250 bpi) 3480 cartridge whose serial number is PDNxxx. The value of xxx is given on the Software Shipment form. The cartridge holds seven datasets. A short description of each dataset is given in [Figure 2](#).

**Figure 2. Contents of the distribution cartridge**

<b>FILE</b>	<b>DSN</b>	<b>DESCRIPTION</b>
1	PIPS.INSTALL	JCL Library for unloading the cartridge
2	PIPS.JCL	JCL Library for OfficePath
3	PIPS.LOAD	Load library for OfficePath
4	PIPS.SAMPLIB	Source library with subset of OfficePath programs
5	PIPS.TEXT	Text library with OfficePath documentation
6	PIPS.CLIST	CLIST library for TSO sub-system (Batch Feature)
7	PIPS.PANELS	Panel library for TSO sub-system (Batch feature)

The JCL library holds set-up data for the VSAM files used by OfficePath. The data contains hexadecimal characters care; when editing this data take care to invoke options which preserve these special characters.

All JCL provided is sample JCL only and will require tailoring to your own installation standards.

All disc space parameters are based on IBM 3380 (single density) devices and may need to be altered for different equipment.

---

### **Step 1 - Unload the INSTALL library**

The first dataset on the cartridge contains JCL to assist the unload process. It should be unloaded first. Sample JCL to do this is shown in [Figure 3](#).

**Figure 3. Example JCL to unload the INSTALL library from cartridge**

```
//UNLOAD JOB <=== INSERT JOB INFO
//UNLOAD PROC OUTC='*',
// WORK='SYSDA', <=== WORK AREA
// PREFIX='ZZZZZZZ', <=== INSERT PREFIX
// UNITT='(3480,,DEFER)', <=== ENSURE THAT UNITT
```



```

//          UNITD='DASD',                <=== & UNITD ARE VALID
//          TAPE='PDNxxx',              <=== TAPE VOLSER
//          DISK='NNNNNN',             <=== DISK VOLSER
//STEPA    EXEC PGM=IEBCOPY
//SYSPRINT DD  SYSOUT=&OUTC
//SYSUT3   DD  UNIT=&WORK,SPACE=(80,(100,100))
//IN       DD  DSN=PIPS.INSTALL,DISP=(OLD,PASS),
//          LABEL=(1,SL),UNIT=&UNITT,VOL=SER=&TAPE
//OUT      DD  DSN=&PREFIX..INSTALL,DISP=(NEW,CATLG),
//          UNIT=&UNITD,VOL=SER=&DISK,SPACE=(TRK,(2,1,10)),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=6080)
//          PEND
//STEP10   EXEC UNLOAD
//SYSIN    DD  *
COPY      INDD=IN,OUTDD=OUT
/*
//

```

---

## [Step 2 - Unload the remaining datasets](#)

The **INSTALL** library contains members which:

1. unload the remaining datasets from the cartridge
2. give details of the CICS table changes required by OfficePath
3. modify the unloaded JCL.

To unload the remaining datasets from the tape, modify and submit the **LOAD** member in the **INSTALL** library.

**Note:** The **TEXT** library contains the DCF source for the OfficePath manuals. You can remove the DD cards if you do not wish to unload this library. You will need to remove the **CLISTPANELS** DD cards if you do not have the Batch feature.

**Note:** The DCF source is provided for inclusion in your own manuals. Not all macros and members are included.

---

## [Step 3 - Tailor the JCL library](#)

Once all the datasets have been unloaded from the tape, tailor the **JCL** library for your installation by executing member **IMIUTIL1** on the **INSTALL**. Once this has been done, the subsequent installation steps should be easier, since few, if any, changes are required to the **JCL**. **IMIUTIL1** is shown in [Figure 4](#).

### [Figure 4. JCL to tailor the JCL Library](#)

```

//IMIUTIL1 JOB                                <=== INSERT JOB INFO
//*
//* THIS JOB IS USED TO CUSTOMIZE THE JCL LIBRARY
//* THE PROGRAM SCANS THROUGH THE JCL LIBRARY AND PERFORMS ALL THE
//* CHANGE REQUESTS INDICATED BY THE INPUT DATASTREAM.
//*
//* M=XXXX
//*     SELECT MEMBER THAT CHANGES APPLY TO
//*     OR 'ALL' IF CHANGES APPLY TO ALL MEMBERS
//*
//* /FROM/TO/
//*     THE CHARACTERS 'FROM' ARE REPLACED BY THE 'TO' CHARACTERS
//*     THE FROM/TO STRING MUST NOT CONTAIN A '/' CHARACTER
//*
//*
//CHANGE     EXEC PGM=IMIUTIL1
//STEPLIB    DD  DISP=SHR,DSN=PIPS.LOAD        <=== INSERT LOAD LIB NAME
//REPORT     DD  SYSOUT=*
//INPDS     DD  DISP=SHR,DSN=PIPS.JCL        <=== INSERT JCL LIB NAME
//SYSIN     DD  *
M=ALL                                CHANGE ALL MEMBERS
/JOBNAME/JOBNAME/                    7 CHARACTER JOB PREFIX
/ACCOUNT/ACCOUNT/                    ACCOUNT INFORMATION (EXCLUDING ( ) )
/PROGNAME/PROGNAME/                  PROGRAMMER NAME      (EXCLUDING ' ' )
/NOTIFY=XXXXXXX/NOTIFY=XXXXXXX/     NOTIFY=
/CLASS=0/CLASS=0/                    CLASS=
/MSGCLASS=A/MSGCLASS=A/              MSGCLASS=
/PIPS.LOAD/PIPS.LOAD/                 LOAD LIBRARY
/PIPS.JCL/PIPS.JCL/                  JCL LIBRARY
/PIPS.VSAM/PIPS.VSAM/                VSAM DATASET PREFIX
/PIPS.SCRIPT/PIPS.SCRIPT/            TEXT PDS
/VOLSER/VOLSER/                      VOLUME USED FOR VSAM DATASETS
/JES001/JES001/                      NJE NAME FOR JES SYSTEM
/PIPHOST/PIPHOST/                    NAME OF HOST NODE
/LOCAL-GCID/00313-00285/             LOCAL GCID
/AUTHCODE/AUTHCODE/                  AUTHORIZATION CODE
//*
//END          EXEC PGM=IEFBR14,COND=(0,NE)
//

```

The *To* string should be altered, before the job is executed, so that it meets your installation standards.

When **IMIUTIL1** is executed, it scans through the members in the **JCL** library and replaces every occurrence of the specified *From* string with the value specified for the *To* string.<sup>2</sup>

The character "/" before the *From* string indicates that the subsequent character is the first of the *From*. The end of the *From* string is indicated by a "/" which is followed immediately by the first character of the *To*. The end of the *To* string is marked by another "/".

---

<sup>2</sup> The job is intended to be executed only once. If you are going to execute the job for each CICS region, then you must copy the **JCL** library and run the job against the copy.

**Note:** It is not possible for either the *From* or the *To* strings to contain an embedded "/", since this is used as a delimiter to mark the beginning and ending of strings.

The parameter "PIPHOST" will be used as the address of Personal Services users. If you have been using DISOSS, set PIPHOST to the host node name formerly used for DISOSS. If you have not previously used Office Systems, this name needs to be chosen with care. This name will be used by other Office users when sending mail. If you are planning to connect to any other electronic mail systems then you must ensure that each node in the network has a unique name. This is particularly important if you plan to connect to IBM Mail Exchange.

It is recommended that you choose a location name with the following format:

ccnnnn99

where, cc is the country code; nnnn your company name and 99 is a sequence number to allow for more than one node in the company. For example, company ABCD's main office system would be called **GBABCD00**.

The parameter "LOCAL-GCID" must be set to one of the values indicated in [Appendix A, "Document type and Character Set Code Numbers"](#). If you wish to use a value other than one listed there refer to ["Adding GCID Translation Tables"](#), which explains how to add additional GCID records to the OfficePath control file.

The parameter "AUTHCODE" must be set to the 8 byte authorization code supplied with the distribution tape.

---

## Chapter 6. Run The Migrate JCL

To migrate from an earlier release of OfficePath it is necessary to update the OfficePath files. as follows:

---

### Migration from Version 1.6.0

The **MIGRAT2** JCL on the **PIPS.JCL** library must be run to perform two tasks:

1. Execute the MIGRATE program update the version number on the control file.
  2. Execute the PIPCTL program to update the control file with amended help information.
- 

### Migration from Version 1.5.0 or earlier releases

A number of changes to the file layouts have been made during the different releases of OfficePath:

- additional fields have been added to the log file,
- additional fields have been added to the status file,
- additional fields have been added to the system record on the control file,
- the key of the status file has been changed,
- the record length of the status file has been increased,
- additional message and help records have been added to the control file.

The **MIGRATE** JCL on the **PIPS.JCL** library must be run to perform four tasks:

1. Redefine the PIPSTAT file.
2. Take back up copies of the five OfficePath data sets (if you have to restore the data sets then you **must** restore all the files, as the contents are interdependent, **and** use the old version of the programs).
3. Execute the MIGRATE program to create the additional fields.

This also removes all message, option, and help records from the control file.

4. Execute the PIPCTL program to update the control file.

The input to this program depends on the version of OfficePath previously in use. The JCL must be modified to specify the correct CARDFILE concatenation before running the MIGRATE job.

## **Chapter 7. Change Destination Records**

This chapter describes the changes to destination records needed if you are migrating from a release of OfficePath prior to Version Release 3.0.

Version 1 Release 3.0 of OfficePath added support for RENs. Prior to this release, when sending SNADS requests the REN used was the same as the DGN. The REN is now the name of the OfficePath DEST record used.

To ensure compatibility with earlier releases, it is recommended that you ensure the name of each DEST record is the same as the address (DGN) on the corresponding USER record.

For example, in your OfficePath system you may have a user record IBMMAIL-\* which addresses a destination record SNADS. Prior to Release 1.3.0, OfficePath created a SNADS DIU which has a REN of IBMMAIL (the same value as the address field). From Release 1.3.0 onwards OfficePath creates a SNADS DIU with a REN of SNADS. This may cause problems with routing requests through your network. To prevent this, if you are migrating from a release earlier than 1.3.0, create a new DEST record IBMMAIL and change the user record to point to it.

---

## Chapter 8. Create the System Files

You should have already unloaded the cartridge containing the OfficePath distribution data sets (see ["Unload the distribution tape"](#)).

This section describes the steps involved in the creation and initialization of the OfficePath files. The **JCL** dataset on the installation cartridge contains members which are used to create the required files. For each file that is to be created, there is a member in the JCL library whose name matches the relevant dataset's DD name.

Each of the jobs that create the VSAM files have DELETE statements before the DEFINE statements on the first IDCAMS step. This allows the JCL to be used to re-create the file, for example during file maintenance. (This will cause a non-zero return code if the file does not already exist.)

**Note: If any of the jobs are to be executed after OfficePath has been installed, the OfficePath system must first be shut down and the files closed in CICS.**

The supplied JCL will define files with a size suitable for completing the installation, and operating OfficePath in a test environment. Before moving to a production system, suitable files sizes for the predicted throughput should be calculated, and the OfficePath files re-created with the new sizes. For guidance on estimating file sizes refer to [Appendix B, "Dataset Sizing"](#).

---

### PIPAFP - OfficePath DisplayWrite/370 print feature holding file

This file is used to hold requests for processing by the OfficePath DisplayWrite/370 print feature. If you have not purchased the OfficePath DisplayWrite/370 print feature, you do not need to create this dataset. Member **PIPAFP** on the **JCL** library contains the JCL to create and initialize this file.

### PIPCNTL - The Control File

The control file is a VSAM KSDS and contains control records used by the OfficePath modules. Member **PIPCNTL** in the **JCL** library contains JCL to create and initialize the Control file.

### PIPLOG - The Log File

The Log file is a VSAM KSDS which contains information about requests passed to OfficePath. Member **PIPLOG** in the **JCL** library contains JCL to create and initialize the Log file.

---

## [PIPMAIL - The Mail File](#)

The Mail file is a VSAM KSDS which is used to contain a list of mail waiting to be delivered to an interface. Member **PIPMAIL** the **JCL** library contains JCL to create and initialize the Mail file.

## [PIPSTAT - The Status File](#)

The Status file is a VSAM KSDS which contains one record for each recipient of each distribution request passed to OfficePath. Member **PIPSTAT** in the **JCL** library contains JCL to create and initialize the Status file.

## [PIPTEXT - The Text File](#)

The Text file is a VSAM KSDS which contains the DIA profile and document content of distribution requests. Member **PIPTEXT** the **JCL** library contains JCL to create and initialize the Text file.

## [ZPMAILSK - The CICS Intraday File](#)

The ZPMAILSK file is a VSAM KSDS which your CICS applications can use to pass requests into OfficePath. Member **ZPMAILSK** in the **JCL** library contains JCL to create and initialize the ZPMAILSK file.

**Note:** If you have formerly used RAPID then this file will have been created as part of the original RAPID installation. OfficePath can use the RAPID file without any changes.

## [ZPMAILBX - The Batch Intraday File](#)

The ZPMAILBX file is a VSAM KSDS which your BATCH/TSO applications can use to pass requests into OfficePath. Member **ZPMAILBX** in the **JCL** library contains JCL to create and initialize the ZPMAILBX file.

If you are not installing the Batch interface then this file is not required and this step can be omitted.

**Note:** If you have formerly used RAPID then this file will have been created as part of the original RAPID installation. OfficePath can use the RAPID file without any changes.

## Chapter 9. Load the Control File

In order to place the control records used by the OfficePath modules onto the control file you must execute program PIPCTL. Member PIPCTL in the **JCL** library executes PIPCTL.

**Note:** Please check the PIPCTL1 member before running this job. This member contains information which may require customization for your installation. For example, if you are installing the Batch interface then this member will require amendments to enable the Batch input file.

For details on how the PIPCTL program works refer to "[OfficePath Control File](#)".

---



## Chapter 10. Update The CICS Tables and JCL

The following changes must be made to the CICS system in which OfficePath is to be installed.

- Destination Control Table (DCT)
- File Control Table (FCT)
- Program Control Table (PCT)
- Program Processing Table (PPT)
- Job Control Language

The tables listed below may also require changes:

- Journal Control Table (JCT)
- System-initialization Table (SIT)
- Post-initialization Table (PLTPI)

The procedures in force at your installation should be followed when making these changes.

If you are migrating from DISOSS, the DISOSS table entries may be removed unless you are using the OfficePath Library Retrieval Feature, in which case the FCT entries must be retained.

**Note:** You can customize the CICS dataset, transaction and program names if required (refer to ["Customizing CICS Table Entries"](#)).

**Note:** If you plan to use OfficePath with a Personal Services system which is installed in a different region then you will also have to make CICS table changes to each Personal Services CICS region. These changes are described in ["Support for multiple/remote Personal Services"](#).

---

## COBOL Language Support

Most of the programs used in OfficePath are written in COBOL. Consequently, the OfficePath CICS System will require access to the COBOL run-time libraries, these must be available in the STEPLIB or LINKLIB concatenation.

---

## CICS Table Updates

The **INSTALL** library contains members that are used to update CICS tables. A description of each member follows. If you are migrating from a previous release there will be a number of modifications required; the easiest, and safest, method of updating the previous entries is to

delete the existing OfficePath entries and then add the new entries as though you are installing OfficePath for the first time.

### [Destination Control Table \(DCT\)](#)

The DCT entry is for an internal reader which is used to submit jobs to the JES queues. This can be modified to point to your standard internal reader if preferred.

Member PIPDCT in the INSTALL library contains the DCT entries.

Remember that type = EXTRA entries must go after all the other DCT entries.

**Note:** The length of **ZJCLSUB** must not be altered: it is an internal reader whose use is reserved for OfficePath.

### [File Control Table \(FCT\)](#)

Member PIPFCT in the INSTALL library contains the FCT entries in the CICS FOR. Member PIPFCTR contains FCT entries for the AOR when this is different to the FOR.

### [Program Control Table \(PCT\)](#)

Member PIPPCT in the INSTALL library contains the PCT entries. Member PIPPCTR contains the PCT entries for the TOR when this is different to the AOR. The supplied entries place background transactions in transaction class (TCLASS) 2. This is to enable the resources used by OfficePath to be restricted by setting MAXTASKS for this class. This transaction class may be changed or removed. Note that in CICS V4 the CLASS parameter has been replaced by TRANCLASS.

**WARNING: The PIP7 transaction is used to receive SNADS requests. If you are installing OfficePath to replace DISOSS then do not install this transaction until you are ready for OfficePath to become active.**

### [Processing Program Table \(PPT\)](#)

Member PIPPPT in the INSTALL library contains the PPT entries.

**Note:** The **PIPS.LOAD** library contains replacements for the DSVAW100 module (supplied with DISOSS) and the DMDAW130 module (supplied with Personal Services). These modules are the 'API' modules and will require PPT entries. A PPT entry for DMDAW130 should have been created during the installation of Personal Services. The DSVAW100 module is only required if you are going to use OfficePath with DISOSS API applications.

The DMDAW130 and DSVAW100 modules are both assembler programs.

If you are running OfficePath in a different CICS region to the DISOSS API application (Personal Services or CA email) then member PIPPPTR contains the PPT entries for the DISOSS API application region.

### Post-initialization Table (PLTPI)

If you require the OfficePath System to be started automatically when the CICS system is loaded, then you must alter this table.

Member PIPSPI contains the addition PLI-PI entry.

### Journal Control Table (JCT)

OfficePath files are all defined as recoverable, in order to ensure data integrity. CICS will log any changes which are made to these files using Journal 1. Some of the files contain variable length records which may be up to 8K. This means that Journal 1 (DFHJ01A/B) must be defined with a block size sufficient to contain the 8K records together with header information required by CICS. A block size of 9K is satisfactory.

### System-initialization Table (SIT)

OfficePath relies on the recovery mechanisms offered by CICS. These mechanisms are only effective if the relevant CICS tables are not COLD started. In order for OfficePath to operate correctly you **MUST** ensure that:

1. you have specified START=AUTO (or (AUTO,ALL))
2. you have **not** specified FCT=(xx,COLD)
3. you have **not** specified DBP=NO

---

## Job Control Language (JCL)

The DD cards required in the CICS JCL are described in [Figure 5](#).

### Figure 5. CICS DD statements for OfficePath

<u>Name</u>	<u>DSName</u>	<u>Comments</u>
DFHRPL	PIPS.LOAD	the OfficePath load library
ZJCLSUB	SYSOUT=(*,INTRDR)	Internal Reader (OfficePath Internal Use)
ZPINTRDR	SYSOUT=(*,INTRDR)	Internal Reader (Sample Batch Application)
ZPINT133	SYSOUT=(*,INTRDR)	Internal Reader (Host Print Function)

PIPTRACE SYSOUT=(*)
---------------------

Trace output

If you are running a DISOSS API application in a region different to the OfficePath region you will also need to add the **PIPS.LOAD** library to the DFHRPL for that CICS region.

The OfficePath LOAD library entry must appear before the Personal Services load library in the DFHRPL. This is so that the DMDAW130 module in the OfficePath load library is used instead of the Personal Services one.

If you are replacing DISOSS with OfficePath then the DISOSS load library may be removed. If it is not removed then the OfficePath load library must be placed before the DISOSS load library in the DFHRPL.

**WARNING: Installing the OfficePath load library prevents access to DISOSS from Personal Services. If you are installing OfficePath to replace DISOSS then do not install the load library until you are ready for OfficePath to become active.**

---

## Chapter 11. Update Personal Services

If OfficePath is to communicate with a Personal Services system then the Personal Services system will require some customization. All the jobs described in this section can be found on the Personal Services **ADMDSAMP** library which was created when Personal Services was installed. If you are not planning to use OfficePath with Personal Services then you can proceed to the next section.

If you are planning to use multiple Personal Services systems connected to a single OfficePath then these changes should be made in all Personal Services systems. See "[Support for multiple/remote Personal Services](#)" for details of how to configure OfficePath in this situation.

---

### Preventing the Deadlock between DMDC and DMDD or DMDF

The deadlock is due to an inconsistent approach to updating the DMDMC30 dataset. These transactions are never invoked directly by a user, only in response to a request issued by a user.

If this problem occurs then you **must** ensure that transactions DMDC, DMDD and DMDF are single threaded<sup>3</sup> to prevent a deadlock. This should not impact on-line performance since these transactions are only invoked for background processing.

---

### Updating the Personal Services default module

OfficePath emulates the distribution functions of DISOSS. If Personal Services was previously communicating with DISOSS, then this table does not require any changes.

The DMDGSI30 module contains various parameters which are used to customize the operation of Personal Services. One of these parameters tells Personal Services whether or not DISOSS can be used. This module will need to be updated to specify **DISOSS=YES**. (References to the DISOSS transaction DSV1 can be ignored).

The JCL required to create this module is called **DMDDIAA**.

---

<sup>3</sup> This can be done by putting the transactions in the same transaction class (TCLASS or TRANCLASS) and setting the maximum tasks for the class to 1. Refer to CICS documentation for more information on transaction classes.

**Note:** You should be aware that this will cause all the DISOSS options to be displayed (that is all library functions). You can customize the Personal Services Branch and Leaf table to remove them as described below.

---

## Removing Library Options from Personal Services panels

OfficePath does not have a library, unlike DISOSS, and so does not support any requests which access the library (for example File and Search). If a user selects one of these options he will get an ERROR status in his status log, which will have a **C30307** exception code. Alternatively, you can remove these options from the OfficeVision Personal Services panels by altering the Branch and Leaf table (DMDDPBLT). All options which display panel TD00 (store document), TD03 (store note) TD20 (store external document) or FD10 (find documents) can be removed. For example, removing the entry *DMDDPBLM FC31,7* will remove the file option from the *Description of Document in File Cabinet* panel.

The source member used to create this table is **DMDDPBST** and it can be assembled using the **DMDDIHH**

**Note:** PS/CICS will still display the options, even though they have been removed from the Branch and Leaf table, however the user will get an *Invalid Request* message if he attempts to select the option.

---

## Altering the Personal Services messages

Some of the Personal Services messages refer to DISOSS. To avoid confusion you may wish to alter these messages so that they refer to OfficePath. This can be done by amending the **DMDDICC** member to include the statements given in [Figure 6](#). This job will create a load module called **DMDME730**. If you have not previously customized any Personal Services messages then you will need to add a PPT entry for this load module.

### Figure 6. Customizing Personal Services messages

```
DMDMSGDF MNUMBER=E096, SEV=S,  
          TEXT1=('OfficePath does not support this type of request')  
DMDMSGDF MNUMBER=E103, SEV=I,  
          TEXT1=('Sign-on to OfficePath successful')  
DMDMSGDF MNUMBER=E143, SEV=E,  
          TEXT1=('Request not processed. Sign-on is not complete')
```

**Note:** The messages must be included in the table in ascending message number (MNUMBER) order.

---

## Updates Required For Calendar

If you use the Calendar feature of OfficeVision/MVS then it may be necessary to make some additional changes to OfficePath and CICS. If in the PMIOPTNS macro you have specified **PMIDDIS=1** or **PMIDDIS=2** default is **PMIDDIS=0**) it will be necessary to do the following:

1. Ensure than you have a CICS PPT entry for the assembler program **DSVAW100**.
2. Create **DSVAW100** as an alias (or a copy) of the **PIPAW130** module.
3. Create a **USER** record in OfficePath for the Calendar user (address from **PMIDNOD** in the **PMIOPTNS** macro and user id from **PMIDSYS** in the same macro) with a destination of **CANCEL**.

**Note:** References to the **DISOSS** transaction **DSV1** in **PMIOPTNS** may be ignored.

---

## Chapter 12. Update Application Services

From release 1.6.0 of OfficePath it is possible to invoke the maintenance transaction via an ATD in IBM's OfficeVision/MVS. This chapter describes how such entries are defined.

---

### Create the Parameters Description (PDR)

Using the "Library Maintenance Function" in Application Services create three parameter descriptions. The parameters can be given any names as the program validates them by order.

1. **PIPFUNCT** with the following properties

```
Description lines: FUNCTION          /                /
Parameter class..:
Usage in PDP.....:
```

```
Protection level.:
```

```
Value is required:
Minimum length...:
Maximum length...:
Format of value...:
Mask for value...:
Value.....: ENQUIRE
Document keyword.:
Value to PVP.....:
Value to DCP.....:
```

2. **PIPTYPE** with the following properties

```
Description lines: TYPE          /                /
Parameter class..:
Usage in PDP.....:
```

```
Protection level.:
```

```
Value is required:
Minimum length...:
Maximum length...:
Format of value...:
Mask for value...:
Value.....: USER
Document keyword.:
Value to PVP.....:
Value to DCP.....:
```



### 3. **PIPKEY** with the following properties

Description lines: KEY / /  
Parameter class...:  
Usage in PDP.....:  
  
Protection level..:  
  
Value is required:  
Minimum length...:  
Maximum length...:  
Format of value...:  
Mask for value...:  
Value.....: PIPHOST-\*  
Document keyword..:  
Value to PVP.....:  
Value to DCP.....:

---

## **ATD PIPX for the Main Menu**

Create an ATD, PIPX, using WIB as a model and make the following changes:

1. Change the description to "OfficePath Main Menu".
  2. Press PF8 and change the Application program to **PIPX** (uppercase) and the Invocation to **1**
  3. Press PF10 and delete all of the parameters.
  4. Press PF3 to end.
- 

## **ATD PIPY for the Log File Browse**

Create an ATD, PIPY, using PIPX as a model and make the following changes:

1. Change the description to "OfficePath Log File Browse".
  2. Press PF10 and insert the two parameters PIPFUNCT and PIPTYPE (in that order).
  3. Select each one in turn (using SL) and change the value of PIPFUNCT to **ENQUIRE** and the value of PIPTYPE to **MESSAGE**.
  4. Press PF3 to end.
- 

## **ATD PIPZ for the Link Monitor**

Create an ATD, PIPZ, using PIPX as a model and make the following changes:

1. Change the description to "OfficePath Link Monitor".
  2. Press PF10 and insert the two parameters PIPFUNCT and PIPTYPE (in that order).
  3. Select each one in turn (using SL) and change the value of PIPFUNCT to **ENQUIRE** and the value of PIPTYPE to **LINKMON**.
  4. Press PF3 to end.
- 

## Creating other ATDs

Using techniques similar to those above it is possible to define other ATDs to access specific record types. The following should be noted:

1. The names of the ATDs are not important.
  2. A third parameter (PIPKEY) can be specified to pre-fill the key field
  3. The parameters must be entered in the sequence is PIPFUNCT, PIPTYPE, PIPKEY.
  4. Parameters at the end of the list can be omitted if they do not have a value.
  5. If a parameter is specified and has a value then this value cannot be changed on the OfficePath panels (Exceptions are the Log File Browse and Link Monitor functions which can have the function toggled between ENQUIRE and ALERT).
-

## Chapter 13. Migrate DISOSS HUP Entries

This chapter describes the additional steps required if you are replacing DISOSS with OfficePath.

---

### Overview

Externally OfficePath offers the same features as DISOSS with the exception of "Document Library Services" (FILE, SEARCH, RETRIEVE, DELETE). See "[Product Overview](#)" for a description of OfficePath.

There are a number of differences in the way DISOSS and OfficePath are administered.

**Note:** In the examples below entries in angled brackets (<>) are the default values for OV/MVS or IBMMAIL remote SNADS definition. You should use the values defined in the DISOSS entries at your installation.

### Setting the OfficePath node name.

The OfficePath node name needs to be set to the same as DISOSS, which can be found member DSVAIHDF from ADSVSAMP:

```
HOSTDEF
  HOSTNODE=<DSVHOST>
```

In OfficePath, change the Default Location on the **SYSTEM** record to <DSVHOST>: this entry is maintained "on-line" using the **PIPX**

### Replacing HUP and RUP entries

DISOSS uses a combination of HUP and RUP entries when routing mail. OfficePath uses a combination of **USER** and **DESTINATION** records which are held on the OfficePath control file: these entries are also maintained "on-line" using the **PIPX**

The entries required in OfficePath can most easily explained by looking at two examples:

1. A number of API users
2. A remote SNADS node

## USER and DESTINATION records for API users

For an API user the information required for the OfficePath records can be found on the HUP entries, for example:

```
USERTYPE=API,  
DDN=<DSVHOST>,  
SA=KD,  
TRANID=<DMDD>
```

```
USERTYPE=API,  
DDN=<DSVHOST>,  
SA=CML,  
TRANID=<DMDD>
```

```
USERTYPE=API,  
DDN=<DSVHOST>,  
SA=RSW,  
TRANID=<DMDD>
```

```
USERTYPE=API,  
DDN=<DSVHOST>,  
SA=RAO,  
TRANID=<DMDD>
```

. . . (etc.)

These records would be replaced in OfficePath by two records:

1. A destination record with a name such as PSCICS (see [Figure 40](#) for an example) with:

- HUD Dataset name..... <DMDHU30>
- Mail/Status transaction ..... <DMDD>

use <DMDHU30> for OV/MVS users or leave blank for other API users.

2. A **single** user record called "<DSVHOST>-\*" which should point to the destination record defined above, in this case PSCICS

In OfficePath there is no requirement to explicitly define each API user since they are validated using the API validation exit as described in ["API User id Validation Exit"](#).

## USER and DESTINATION records for a remote SNADS site

An example of the RUP entry for a remote SNADS site may have the following properties:

```
RGN=*,  
REN=<GBIBMH00>,  
SSL=*,  
TRANSID=DSVE,  
QUEUE=<IBMS>
```

and there would be a HUP entry with:

```
USERTYPE=REMOTE,  
DDN=<IBMMAIL>,  
SA=*,  
RGN=,  
REN=<GBIBMH00>
```

These records would be replaced by two records:

1. A destination record named <GBIBMH00> (see [Figure 41](#) for .an example) with:
    - System name (TCT) ..... <IBMS>
  2. A user record called "<IBMMAIL>-\*" which would have a destination of <GBIBMH00>.
-

## Chapter 14. Migrate DISOSS API applications

This section gives an overview of the changes which you may need to make if you have an existing application which has a DISOSS interface. If you have no DISOSS API applications or only intend to use OfficePath with Personal Services then you can ignore this section. Personal Services is discussed in ["Update Personal Services"](#).

OfficePath can be used with DISOSS API applications which conform with functions described in ["System Overview"](#). Unlike DISOSS, which requires all API users to be defined in the HUP, OfficePath does not require all users to be explicitly defined. OfficePath achieves this by supplying a user-exit program, PIPAPIV, which is used to validate a recipient. This program is described in detail in ["API User id Validation Exit"](#).

**Note:** OfficePath can be successfully installed and the installation verification procedure can be performed without defining the user-exit program. OfficePath assumes that all userids are valid if the exit program cannot be located.

The following steps are required to activate a DISOSS API application under OfficePath.

1. If DISOSS was previously installed in the CICS region containing OfficePath ensure that all PCT, PPT and FCT entries are removed.
2. Tailor and run JCL in member **LINKAPI** on the **PIPS.JCL** library.  
This will create ALIAS entries for the following modules:

**DSVAW000** The DISOSS "stub" which is LINK'd with all DISOSS applications.

**DSVAW100** The DISOSS "API" module.

3. DSVAW100 requires a PPT entry (LANGUAGE=ASSEMBLER).
4. Update your application to indicate that DISOSS is installed. This may involve any or all of the following:
  - o Specifying the DISOSS address  
This will be the default location name from the SYSTEM record.
  - o Changing user profiles to specify "Can use DISOSS"
  - o Specifying a DISOSS userid for each user  
Any name can be used. However, the PIPAPIV user-exit must be able to locate this name.
  - o Specifying a DISOSS password  
Any value can be specified. The value is ignored by OfficePath.
  - o Defining all remote addresses  
Some E-Mail applications <sup>4</sup> require that all remote addresses are defined in an

---

<sup>4</sup> For example, CA's eMAIL package requires that all remote addresses are defined before mail can be sent or received.

internal table or control file. The addresses should all be defined as DISOSS addresses.

---

## **Configuring CA eMAIL to use OfficePath**

In addition to the above list, the Computer Associates eMAIL package requires the following customization:

1. Ensure that CA APAR G010833 (eMail V4.0) is applied to prevent 1031 abend when signing on.
2. Assemble a dummy DSVTB000 module (shown in [Figure 7](#)).

The eMAIL package loads this module in order to validate the DISOSS version (the 34 in DSVSPA34). The DSVTB000 module requires a PPT entry (LANGUAGE=ASSEMBLER).

3. Customize the eMAIL package to activate the DISOSS link.
  - o Specify DISOSS=YES in the EMAILGEN generation macros described in the CA eMAIL Installation Procedures manual.
  - o Set the HOSTID parameter in the DISOSS generation parameters to the same name as that specified on the OfficePath SYSTEM record.
  - o When link-editing the eMAIL modules to activate the DISOSS interface, specify the OfficePath load library instead of the DISOSS load library.
  - o Change the mail notify transaction to "MLDU", the wakeup transaction in the DISOSS configuration.
4. Create a CICS PPT entry for program PIPAW130 (assembler)
5. Ensure that the eMail MLDV DCT is defined

In order to send to external users from CA eMAIL, the node must be defined in CA eMAIL, using the NETWORK NODES command. The node should be defined with nodetype DISOSS, ALLOW SENDS TO UNKNOWN USERS and EXTERNAL USERID REQUIRED set to YES. All CA eMAIL users must be defined with an external id. if they are going to send mail through OfficePath.

The "MLDU" transaction must be specified on the OfficePath DEST record for the CA eMAIL users. This record should not contain a HUD entry.

### Figure 7. Sample DSVTB000 member

```
DSVTB000  CSECT
           DC    A (SPA)
           DC    CL8 'DSVSPAC '
           DS    CL156
SPA       DC    CL8 'DSVSPA34 '
           END
```

See ["Using OfficePath with CA eMAIL"](#) for details of how to use the OfficePath User id Validation exit to validate CA eMAIL users.

---



## Chapter 15. Migrating RAPID Applications

This chapter describes the steps to follow if you are installing OfficePath to replace DISOSS and have applications which previously used the RAPID product to interface to DISOSS. If you do not have any applications of this type, you may omit this chapter.

---

### Setting up RAPID program aliases

The interface programs of OfficePath are entirely compatible with those of RAPID except that they have different names. If you have applications which interface to RAPID then you may wish to change them to use the interface programs supplied with OfficePath. Alternatively, you may continue to use your application unchanged by assigning the appropriate aliases to the OfficePath programs as long as your application does not start the ZAPK transaction to process the mailsack. If your program starts the ZAPK transaction then it must be amended to start the PIP5 transaction instead.

The LINKRAP member on the OfficePath JCL library contains sample JCL to assign the program aliases. If you do not assign these aliases then you should change RAPID batch jobs to use interface programs PIPGS3B and PIPGT3B instead of RAPIDGS3 and RAPIDGT3, and CICS programs to use PIPGS3 and PIPGT3 instead of APIGS3 and APIGT3.

**Note:** If you use the program aliases and subsequently remove the RAPID table entries, care should be taken to not remove the PPT entries for APIGS3 or APIGT3.

---

### Migrating the RAPID control file

In order to migrate the control file you may wish to check the documentation for each RAPID application which should also describe the appropriate entries to be made on the OfficePath control file to use the application with OfficePath. Alternatively, each individual entry on the RAPID control file may be migrated as follows:

- For each RAPID interface record with outtray details an OfficePath destination record is required with type OUTTRAY and the same key as the RAPID record.
- For each RAPID interface record with internal reader details an OfficePath destination record is required with type INTRDR and the same key as the RAPID record.
- For each RAPID user record for a single user an OfficePath user record is required with key PIPHOST-KEY where PIPHOST is the node name and KEY is the RAPID key. This record should have destination equal to the RAPID user interface id.

- For each RAPID user record for a user set (TYPE=USERSET in DISOSS HUP an OfficePath user record is required with key KEY-\* here KEY is the RAPID key. This record should have destination equal to the RAPID user interface id.

The values to be used on the inserted OfficePath destination records are shown below:

**Figure 8. Converting RAPID interface record to OfficePath destination**

<b><u>DESTINATION field</u></b>	<b><u>Value</u></b>
Accept RF Text	Y if RAPID interface DCA LEVELS includes 11; N otherwise
Accept FF Text	Y if RAPID interface DCA LEVELS includes 2; N otherwise
Accept PC File	Y if RAPID interface DCA LEVELS includes 14; N otherwise
Accept Image	Y if RAPID interface DCA LEVELS includes 6; N otherwise
Accept Editable	Y if RAPID interface PRINT IMAGE is Y; N otherwise
Accept Msg	N if application cannot process messages; Y otherwise
Other document types	Any RAPID interface DCA levels not listed above
Accumulate recipients	Same as RAPID interface RDRF PROCESSING
Can process ASA controls	Same as RAPID interface ASA
Can process NOTE doctype	Same as RAPID interface AS NOTE
Uses interface pgm	Same as RAPID interface APIOUT FORMAT / FORMATTED
Returns Status Info	N
Outtray processed in batch	Same as RAPID interface BATCH
Line Length	Same as RAPID interface LINE WIDTH
Accept GCID	Same as RAPID interface GCIDS, MULTILINGUAL if RAPID is ALL
Output file name	Same as RAPID interface FILENAME
Mail transaction	Same as RAPID interface TRANSACTION

Transient Data Queue	ZRDR
Output record format	FBA if RAPID interface ASA CONTROLS is Y; else FB

## Chapter 16. Updating MVS

If you do not have the OfficePath batch feature then you can ignore this chapter.

---

### Reassembling modules using MVS control blocks.

The OfficePath Password Validation Exit uses MVS control blocks. The locations of these control blocks vary in different releases of MVS. This exit should thus be reassembled and linked when OfficePath is first installed, when migrating to a new release of OfficePath and when upgrading to a new release of MVS. Details of how to do this are given in "[Password Validation Exit](#)".

---

### Updating the MVS/JES Enqueue Table

The OfficePath batch feature operates using a shared file which is updated by both batch and CICS applications. The integrity of this file is protected by using an MVS ENQ when accessing the file. By default, MVS ENQ commands are not shared between CPU's. In a multi-processor environment it is possible (and often normal practice) for batch jobs to run on a different CPU to the CICS systems. **THIS WILL EVENTUALLY RESULT IN FILE CORRUPTION AND LOSS OF CICS SERVICE UNLESS THE FOLLOWING STEPS ARE TAKEN.**

If you have only a single CPU or have previously updated the enqueue table for an earlier release of OfficePath then you can proceed to the next chapter. If you have more than one processor it is strongly recommended that the enqueue table is updated as described here. In a multi-processor complex you cannot guarantee that jobs will **never** execute on another machine.

The ENQ issued by OfficePath may not be transmitted to the other machines in the complex unless an entry is defined in the Global Resource Serialization (GRS) tables (or equivalent). This ENQ is 'SYSTEMS' wide in the form QNAME = 'RAPID', RNAME = 'DSN of file being accessed', where QNAME is characters long and RNAME is 44. Both fields are space filled.

GRS should, by default, automatically ship the ENQ to the other machines in the complex because it is a 'SYSTEMS' wide enqueue, not a 'SYSTEM' wide enqueue.

Most enqueue products, other than GRS, tend to take the reverse approach, and only ship the ENQ if it is explicitly defined. If you are not using GRS you will need an entry equivalent to the Resource Name List (RNL) entry shown in [Figure 9](#).

**Figure 9. Example of RNL entry**

```
RNLDEF RNL (INCL) TYPE (GENERIC)
        QNAME (RAPID)
```

---

## Chapter 17. Update DisplayWrite/370

If you have not chosen to use DisplayWrite/370 for document conversion then you can ignore this chapter.

OfficePath can use IBM's DisplayWrite/370 product (if installed) to perform the following document conversions:

- RFT to EDITABLE (1403)
- RFT to FFT

To do this, it is necessary to update DisplayWrite/370 by adding the CLIST shown in [Figure 10](#).

The following fields are required in the LDE <sup>5</sup> entry:

<b>&lt;LBL: /DCAxxxxx&gt;</b>	Identifies the entry as an LDE. The <LBL:> is a control character which is created using the CONTROLS <sup>6</sup> command in DisplayWrite/370. The <b>label type</b> is 6 (Logical Device Entry) and the label name must be entered exactly as shown: the leading "/" is required and the DCA level must be entered as a five digit number.
<b>TYPE</b>	Identifies the output document type.
<b>DEST</b>	"FILE" specifies the document should be written to the file identified in the FILE statement.
<b>FILE</b>	"*" specifies that the output is returned to the DisplayWrite/370 API program.
<b>WIDE &amp; LONG</b>	Identify the maximum page size of the output.
<b>TRANS MLP</b>	This ensures that the converted document text will be in the multi-lingual code-page.
<b>MESSAGE OFF</b>	This suppresses the page of conversion error messages which is normally appended to the end of the converted document.
<b>160 T=XCP</b>	Use the extended code page translation when translating characters from font 160 ("Essay").

If you have purchased the OfficePath DisplayWrite/370 print feature you may also wish to define some printers. LDE entries must be defined before DisplayWrite/370 can be used for host or mailroom printing. Refer to ["Using DisplayWrite/370 for printing"](#) for details on how to do this.

---

<sup>5</sup> Logical Device Entries are described in more detail in the DisplayWrite/370 Printer Manual.

<sup>6</sup> The CONTROLS command is normally assigned to a PF key. The default label for the PF KEY is "Instr."

## Figure 10. DisplayWrite/370 LDE entries required for document conversion

```
/*          OfficePath CLIST          */
/*
/* This CLIST contains the LDE entries which are used by OfficePath
/* to convert documents from one format to another
/*
/*          (c) Icom Solutions Ltd 1996 */
<LBL: /DCA01403>
TYPE      1403
DEST      FILE
FILE      *
WIDE      IN
LONG      IN
TRANS     MLP
MESSAGE   OFF
CHARS     GT10
160       T=XCP
GOTO      1403P
END
/*
<LBL: /DCA00002>
TYPE      FFT
DEST      FILE
FILE      *
MESSAGE   OFF
END
```

The sequence of actions required to enter the above CLIST is:

1. Sign-on to CICS using a valid userid and password
2. Use the DDD0 transaction to sign-on to the DisplayWrite/370 administration functions (default userid DWADMUSR)
3. Create a CLIST called PIPCLIST (under userid MASTER)

**Note:** if the transaction prefix for OfficePath has been changed from PIP the CLIST name must be changed to have the same three-character prefix.

4. Type in the LDE entries listed above

## Chapter 18. Installation Verification

When the installation process has been completed, the correct operation of OfficePath should be verified by executing a test transaction. The following sequence of actions should be undertaken:

1. Load the CICS system in which OfficePath has been installed.
2. Log on to the CICS system in which OfficePath has been installed.
3. Start OfficePath by entering the OfficePath start-up transaction "PIPS".

**Note:** If you have installed the PLTPI entry, OfficePath should already be started.

4. Clear the screen.
5. Enter "PIPT" to invoke the test transaction.
6. Press program function key
7. Enter a user id and an address: if the address is left blank then it will taken from the default record on the SYSTEM record on the Control File. Normally the recipient will be a Personal Services user.
8. Press program function key 2 to send the document.
9. Press program function key 4 to leave the test transaction.
10. Check that the document arrives in the specified user's In-Basket.

If the document has not arrived in the In-Basket after one minute, refer to the *OfficePath Reference and Diagnosis* manual.

**Note:** The following message will appear on the CICS log:  
PIPS052W No DEST record for PIPTEST : Confirmation ignored. Request nnnnnnnn  
where nnnnnnnn is a number. This message appears because all requests sent by the PIPT transaction request confirmation of delivery. The PIPS052 message is for information only and will not affect the operation of OfficePath. **Do not create a DEST record for PIPTEST unless given explicit instructions to do so by support personnel.**

### Figure 11. Example panel from the PIPT transaction

```
PIPT                               O f f i c e P a t h                               Date: 25/05/95
Mailsack....: ZPMAILSK              Test Send Facility                               Time: 10:20:34
TYPE.....: D (Tsqr, Document, External, Message, or Note)
TSQ Name.....:                      or Hex...:
Document Name....:
Subject.....: INSTALLATION VERIFICATION DOC

Attached.....: THIS WAS SENT FROM A CICS SYSTEM AT RELEASE
Message.....: 3 3
              :
              :

Send To.....: KD                    Address...:
Send From...: IMIUSER              Address...:
```



Doc Lines or Loc:

THIS IS THE FIRST LINE OF THE DOCUMENT

THIS IS THE SECOND LINE OF THE DOCUMENT

THIS IS THE THIRD LINE OF THE DOCUMENT

THIS IS THE FOURTH LINE OF THE DOCUMENT

THIS IS THE FIFTH LINE OF THE DOCUMENT

THIS IS THE LAST LINE OF THE DOCUMENT

PF2=Send, 4=Exit, 5=TSQ, 6=Document, 7=Note, 8=Message, 9=External, 10=Outtray

PRESS PF2 TO SEND

## Chapter 19. Post-Implementation Monitoring

After the successful implementation of OfficePath there are a number of areas which should be monitored:

1. The **Log File Browse** function - **PIPY**.
    - This should be checked, at least daily, to ensure that no requests are becoming "stuck".
  2. The **Link Monitor** function - **PIPZ**.
    - This should be checked, at least daily, to ensure that there are no problems with links to remote systems.
  3. The size and performance of the OfficePath system data sets:
    - The data sets should be reorganized regularly; at least weekly and even daily if a large number of CI SPLITS appear by the end of each day.
    - The primary allocation should be large enough to prevent secondary extents being used.
-

---

## **PART THREE - CUSTOMIZATION**

---

## Chapter 20. Customizing CICS Table Entries

OfficePath can be customized to suit your installation requirements. The customizable elements of the system are described below, together with instructions for making the desired changes.

### Changing OfficePath Program Names

The 3 character prefix of the OfficePath programs, supplied with a default of "PIP", can be customized to any 3 character value suitable to your installation.

When a suitable 3 character prefix has been chosen, all **LOAD** library members currently prefixed with "PIP" must be re-named.

Once the **LOAD** library members have been re-named, you must change the CICS PCT and PPT entries to reflect the new program names.

**Note:** Do not re-name any **LOAD** library member whose name is not currently prefixed with "PIP".

The new prefix will need to be identified to OfficePath by altering member PIPPTABL on the **SAMPLIB** library. This should be changed so that the start-up program name is changed from "PIPS010" to "xxxS010" where "xxx" is the program prefix you have selected.

This table should then be assembled using a batch assembly and linked to the modules that use it by executing member LINKTAB on the **JCL** library.

### Changing OfficePath Transaction Names

The 3 character prefix of the OfficePath transactions, supplied with a default of "PIP", can be customized to any 3 character value suitable to your installation.

When a suitable 3 character prefix has been chosen, alter the CICS PCT entries to reflect the new transaction names.

The new prefix will need to be identified to OfficePath by altering member PIPPTABL on the **SAMPLIB** library. This should be changed so that the start-up transaction-id is changed from "PIPS" to "xxxS" where "xxx" is the transaction prefix you have selected.

This table should then be assembled using a batch assembly and linked to the modules that use it by executing member LINKTAB on the **JCL**

**Note:** If the transaction prefix is changed, you must change the DD names of the OfficePath files as described in the next section. The DisplayWrite/370 CLIST, ["Update DisplayWrite/370"](#), must also have the same three character prefix as the transactions.

## Changing OfficePath Dataset Names

The OfficePath internal datasets are:

- PIPCNTL
- PIPLOG
- PIPMAIL
- PIPSTAT
- PIPTXT

These have a 3 character prefix of "PIP" which can be changed to a value suitable to your installation.

When a value has been chosen, the CICS FCT and JCL must be altered to reflect the new DD names.<sup>7</sup>

**Note:** The 3 character DD name prefix must match the character transaction name prefix. If the DD name prefix is changed, it will be necessary to change the transaction prefixes as described above.

The names of the In tray datasets (ZPMAILSK and ZPMAILBX) can also be changed and this procedure is described in the *OfficePath Programming Interfaces* manual.

---

## Changing the Internal Reader Name

The name of internal reader ZSUB can be customized to any name suitable to your installation. This can be achieved by altering the DCT entry to reflect the new name, and then changing the **Batch JCL Internal Reader** name on the customization record. The procedure to change the customization record is described in "[System Defaults Record](#)".

---

## Changing the displayed date format

The format of the dates displayed by the on-line transactions is determined by the DATFORM value in the CICS SIT. The date may be in format DDMMYY, MMDDYY or YYMMDD.

**Note:** The dates input to and output by the application interface programs will always be in DD/MM/YY format and **must** be converted by the application from/to the format it processes.

---

<sup>7</sup> If you installed the OfficePath DisplayWrite/370 print feature and you change the name of the **PIPAFP**, then you must also update any DEST records which refer to it.

## Chapter 21. OfficePath Control File

The OfficePath control file, PIPCNTL, contains records which are vital to the correct operation of OfficePath. Some record types on PIPCNTL can be maintained using the on-line administration system described in ["Control File Maintenance"](#). Some record types can be maintained only in batch. A control file utility program, PIPCTL, is provided to simplify the process of changing the data on the control file. It is a batch program that takes records from an input dataset and interprets them to produce validated control file records. The input records are 80 byte card images. Output is placed directly on the control file, which must therefore be closed in the CICS system for the duration of the batch job. (OfficePath will not function while PIPCNTL is closed.) Sample JCL for running PIPCTL is provided in member PIPCTL on the **JCL**. This is shown in [Figure 12](#).

**Figure 12. JCL to run control file utility program**

```
//JOBNAMEX JOB (ACCOUNT), 'PROGNAME',
//          MSGCLASS=A, CLASS=0, NOTIFY=XXXXXXX
//*
//* THIS JOB SETS UP THE BASIC RECORDS ON THE CONTROL FILE
//*
//* IF YOU ARE INSTALLING THE
//*
//*   CICS APPLICATION INTERFACE           -   INCLUDE THE PIPCTL4 MEMBER
//*
//*   TSO/BATCH APPLICATION INTERFACE     -   INCLUDE THE PIPCTL5 MEMBER
//*
//*   SNADS INTERFACE                     -   INCLUDE THE PIPCTL6 MEMBER
//*
//* IF YOU HAVE DW/370 REMOVE THE PIPCTLOP AND INCLUDE PIPCTLDW
//*
//CONTROL  EXEC  PGM=PIPCTL
//STEPLIB  DD   DISP=SHR, DSN=PIPS.LOAD
//SYSOUT   DD   SYSOUT=*
//PIPCNTL  DD   DISP=SHR, DSN=PIPS.VSAM.PIPCNTL
//CARDFILE DD   DISP=SHR, DSN=PIPS.JCL(PIPCTL1)           SYSTEM DEFAULTS
//          DD   DISP=SHR, DSN=PIPS.JCL(PIPCTL2)           GCIDS
//          DD   DISP=SHR, DSN=PIPS.JCL(PIPCTL3)           PRINTERS
//*         DD   DISP=SHR, DSN=PIPS.JCL(PIPCTL4)           CICS-API
//*         DD   DISP=SHR, DSN=PIPS.JCL(PIPCTL5)           TSO/BATCH API
//*         DD   DISP=SHR, DSN=PIPS.JCL(PIPCTL6)           SNADS
//          DD   DISP=SHR, DSN=PIPS.JCL(PIPCTL7)           MESSAGES
//          DD   DISP=SHR, DSN=PIPS.JCL(PIPCTL8)           OPTIONS AND HELP
//*         DD   DISP=SHR, DSN=PIPS.JCL(PIPCTLDW)          IF YOU HAVE DW/370
//          DD   DISP=SHR, DSN=PIPS.JCL(PIPCTLOP)          IF YOU DON'T
//
```

The input to PIPCTL comprises a series of control file record descriptions, each of which may consist of several lines. Between record descriptions there may be one of the following mode change lines:

- /-ADD** Add records - do not overwrite existing records. This is the default mode.
- /-REPL** Replace existing records - add record if it does not exist.
- /-UPDT** Update records - change existing record.
- /-DEL** Delete records

The mode applies to all subsequent record descriptions until another mode change is encountered. Each record description consists of a header line followed by parameter lines. The header line contains the record type, which always starts with the slash character ("/") followed by additional key information to identify the record uniquely. Parameter lines consist of the parameter name, followed by the parameter value. Data may be positioned anywhere in the input lines, however only columns 1 to 72 are used. Blank lines and comment lines (those that start with an asterisk) may occur anywhere and are ignored. Parameter lines within a record description may occur in any order.

The control file utility program takes the key information and parameter values, validates them and formats the control file record.

**Note:** Routine administration of Formatter, GCID, Help, Message and Menu Option records must be carried out using PIPCTL. Routine administration of all other record types should be carried out using the online maintenance system described in ["Control File Maintenance"](#).

The PIPCTL1 member of the **PIPS.JCL** library contains the SYSTEM record, the default USER and DESTINATION records, and the default document conversion (formatter) programs.

If you have DisplayWrite/370 installed in the same CICS region as OfficePath and wish to use it to provide conversion from RFT to either FFT or print-image (also known as 1403 and EDITABLE) then you should edit the PIPCTL member and follow the instructions regarding DisplayWrite/370.

## Updating the Authorization Code

Member **AUTHCODE** on the **PIPS.JCL** contains JCL which can be used to update the authorization code on the OfficePath Control file.

### Figure 13. JCL to update Authorization code

```
//JOBNAMEX JOB (ACCOUNT),'PROGRAM',
//   MSGCLASS=A,CLASS=0,NOTIFY=XXXXXXXX
//*
/** THIS JOB CAN BE USED TO UPDATE THE AUTHORISATION CODE ON THE
/** PIPS CONTROL FILE. YOU WILL HAVE BEEN GIVEN AN AUTHORISATION
/** CODE WHEN YOU FIRST INSTALLED THE PRODUCT WHICH WAS APPLIED
/** AS PART OF THE INSTALLATION PROCEDURE.
```

```
//* YOU WILL ONLY NEED TO RUN THIS JOB TO UPDATE THE AUTHORISATION
//* CODE WHEN IT EXPIRES. NEW AUTHORISATION CODES CAN BE OBTAINED
//* BY RINGING THE NUMBER ON THE PRODUCT INSTALLATION MANUAL.
//*
//CONTROL EXEC PGM=PIPCTL
//STEPLIB DD DISP=SHR,DSN=PIPS.LOAD
//SYSOUT DD SYSOUT=*
//PIPCNTL DD DISP=SHR,DSN=PIPS.VSAM.PIPCNTL
//CARDFILE DD *
/-UPDT

/CUST
LICENCE AUTHCODE

//
```



## Chapter 22. Document Conversion

When distribution requests are made to OfficePath, it compares the document type which was sent with the document types that the recipient can receive. If the recipient is unable to receive the type of document that is being sent, OfficePath converts the document to a type that the recipient can receive, by executing a formatter program.

### Supplied Formatter programs

OfficePath is supplied with 3 programs which provide document conversion. These can be found on the **SAMPLIB** library and are:

1. PIPPIFFT - Print Image (Editable) to Final Form Text formatter
2. PIPPIRFT - Print Image (Editable) to Revisable Form Text formatter
3. PIPFFTPI - Final Form Text to Print Image (Editable) formatter

These programs provide a level of formatting which is intended to convert from one document type to another and provide a reasonable standard of conversion. For example, the Final Form Text to Print Image formatter (PIPFFTPI) does not respond to all possible control codes and as such may not meet customer requirements. In this event customers are requested to write their own formatters using the ones provided in the **SAMPLIB** library as a base.

For installations where DisplayWrite/370 is not available, two formatter programs are supplied to convert from Revisable Form Text (RFT):

1. PIPRFTPI - Revisable Form Text to Print Image (Editable) formatter
2. PIPRFTFF - Revisable Form Text to Final Form Text formatter

### Writing Your Own Formatter

If you wish to convert document types for which a formatter is not available in OfficePath, it will be necessary to write your own. The following notes are intended to provide some guidance:

1. OfficePath will LINK to your program, passing a COMMAREA. The structure of the COMMAREA is shown in member PIPFDCAC in the **SAMPLIB** library. This COMMAREA is the same as the one used by DisplayWrite/370 when it does document conversion.
2. Your program will READ its input data and WRITE its converted data by LINKing to a server program, PIPSRVE, passing a COMMAREA. The structure of the COMMAREA is shown in member PIPSRVEC in the **SAMPLIB** library.
3. The server program will truncate output lines greater than 133 long when translating to print image.

It may be useful to look at the existing OfficePath formatter programs in order to see how they communicate with the server program.

Once a new formatter program has been written it must have an entry placed for it on the PIPCTL file before it can be used by OfficePath. This must be done by executing the PIPCTL program using input of the form shown in [Figure 14](#). Refer to "[OfficePath Control File](#)" for further details regarding PIPCTL. OfficePath uses the FMT record to determine, for each type of sent document, which document conversions are possible and the name of the program which will perform that conversion.

**Figure 14. Example input to PIPCTL**

/FMT	1403
OUT1	2
FMTPG1	PIPIFFT
OUT2	11
FMTPG2	PIPIRFT

The record parameters are as follows:

- /FMT** Document type to be converted FROM (for example 1403 which is print image (Editable))
- OUT1** First type to be converted TO (for example 2 which is Final Form Text).
- FMTPG1** The name of the program which will convert the document to the type specified in OUT1 (for example PIPPIFFT).
- OUT2** Second type to be converted TO (for example 11 which is Revisable Form Text).
- FMTPG2** The name of the program which will convert the document to the type specified in OUT2 (for example PIPPIRFT).
- OUT3** Third type to be converted TO
- FMTPG3** The name of the program which will convert the document to the type specified in OUT3.

**Note:** A maximum of 3 formatter programs may be specified on one record.

The actual program which is invoked for a particular request will depend on the types of document the recipient can receive.

## Chapter 23. Adding GCID Translation Tables

OfficePath operates internally using the multi-lingual character set 00337-00256. When data is written to an OfficePath In-tray, the local terminal character set is used. OfficePath must therefore translate the data on the In-tray from the local character set to the multi-lingual character set. This ensures that OfficePath is always working in multi-lingual internally and can thus translate from multi-lingual to the local terminal character set when writing to an Out-tray (the local terminal character set for an Out-tray could be different from the local terminal character set for the In-tray).

OfficePath performs character set translation using translation tables stored on the PIPCNTL file. Each translation table is stored on one record on the control file. A translation table consists of the translated hex values for hex codes "40" to "FF". These tables are obtained from member PIPCTL2 on the JCL library and are written to the PIPCNTL file by program PIPCTL. [Figure 15](#) gives an example of the format in which data is stored on PIPCTL2.

**Figure 15. Format in which GCID tables are stored on PIPCTL2**

```
*****
* CONVERSION TABLE:   ENGLISH (UK)                               *
* FROM:   GCID 00313-00285   TO:   GCID 00337-00256             *
*****
/GCID   00285 00337-00256
ROW4-  40404243 44454647 48495B4B 4C4D4EBB
ROW5-  50515253 54555657 58594FB1 5C5D5EBA
ROW6-  60616263 64656667 68696A6B 6C6D6E6F
ROW7-  70717273 74757677 78797A7B 7C7D7E7F
ROW8-  80818283 84858687 88898A8B 8C8D8E8F
ROW9-  90919293 94959697 98999A9B 9C9D9E9F
ROWA-  A0BCA2A3 A4A5A6A7 A8A9AAAB ACADAEAF
ROWB-  B04AB2B3 B4B5B6B7 B8B95F5A A1BDBEBF
ROWC-  C0C1C2C3 C4C5C6C7 C8C960CB CCCDCECF
ROWD-  D0D1D2D3 D4D5D6D7 D8D9DADB DCDDDEDF
ROWE-  E040E2E3 E4E5E6E7 E8E9EAEB ECEDEEEF
ROWF-  F0F1F2F3 F4F5F6F7 F8F9FAFB FCFDFEFF
```

Each /GCID record carries one translation table. The key information that follows the record type consists of the source code page (decimal number, range 0 to 32767) separated by a space from the target GCID, which consists of the character set (decimal number, 0 to 32767), separated by a hyphen from the code-page (decimal number, 0 to 32767).

The record parameters are as follows:

**/GCID**      Source code page and target GCID (for example 00285 00337-256).

**ROW4- to ROWF-**      Translated characters for hex codes "40" to "4F", "50" to "5F" and so on until "F0" to "FF". The translated hex codes should be specified in display format (two characters to each hex code). Spaces may be left between hex codes to improve readability.

[Appendix A, "Document type and Character Set Code Numbers"](#) contains a list of the local GCID's for which translation tables are supplied with OfficePath. If you use a character set that is not included in this list, you should add the appropriate tables to PIPCTL2 (one to convert from local to multi-lingual and the other to convert from multi-lingual to local). You must then run program PIPCTL to add the new tables to the PIPCNTL file.

## Chapter 24. Modifying the on-line Help text

The help text for the OfficePath on-line control file maintenance suite is stored on the PIPCNTL file. This text can be changed to suit your requirements by altering member PIPCTL8 on the JCL library. An example of the data on this file is shown in [Figure 16](#).

**Figure 16. Example of help text on PIPCTL8**

```
/HELP    COPYLIST 000
TITLE    +General Help for COPYLIST maintenance
LN =
LN =This panel allows you to maintain copylists.  Copylists are used to
LN =give OfficePath Applications the equivalent of the Personal Services
LN =Shared Distribution List facility.  These copylists can only be
LN =accessed by Application programs, not by Personal Services.
LN =
LN =Each copylist is identified by a name of up to 8 characters which
LN =is used when a send request is made.  An application can send to a
LN =copylist by specifying the copylist name as the recipient and the
LN =address as 'COPYLIST'.  When the document is sent the copylist is
LN =expanded into a list of qualified (ie name and address) recipients.
LN =
LN =Copylist records are updated using the standard Control File
LN =Maintenance commands INSERT, AMEND, DELETE and ENQUIRE.
LN =
LN +<Continued on next page>
```

The help text is held as "/HELP" records on PIPCTL8. Each help record is one page of help text. The key of the help record (COPYLIST 000) contains the type of the panel for which it is to appear and the page number. Successive pages must have consecutive page numbers and the first page must be page zero. The record parameters are as follows:

- /HELP**        Panel type and page number (for example COPYLIST 000). The panel type must be 9 characters long, padded with trailing spaces if necessary, and the page number must be 3 digits.
- TITLE**        Title for help panel
- LN (1 to 16)** Lines of help text

Each line of text is preceded by a format control, which may be one of the following:

- = Display the text as input
- + Centre the text for display
- > Display the text right-justified

**Note:** The TITLE parameter is mandatory whilst LN must appear at least once and a maximum of 16 times per page of help text. Therefore, if an incomplete page of text is to be specified you need not specify LN times. Each line of help text can be up to 68 characters long.

## Chapter 25. Modifying CSMT message text

OfficePath error messages are stored on the PIPCNTL file. When an error occurs an appropriate message is read from this file and then written to CSMT. The text associated with these messages can be altered to suit your requirements. This is achieved by identifying the message number of the message to be changed, and then changing the message text of that message in member PIPCTL7 on the JCL. All messages are identified on this file by "/MSG" followed by the message number. Program PIPCTL should then be executed to place the message on the PIPCNTL file.

[Figure 17](#) shows an example of a message from PIPCTL7.

### Figure 17. Example of message on PIPCTL7

```
/MSG      200
TEXT      E @C during EXEC CICS @F @R @X \ Request @M.
```

Some of the messages have symbols embedded within them. These symbols are substituted by data before being written to CSMT. The symbols are replaced by the following items of information:

- @C** The CICS response (such as NOTFND or NOTOPEN)
- @D** Message dependent data (variable length)
- @X** Message dependent data (variable length) displayed as hexadecimal characters
- @F** The EIBFN (for example READ or START) corresponding to the CICS command in error.
- @R** the EIBRSRCE (usually a file name) corresponding to the CICS command in error.
- @T** The transaction where the error was detected.
- @M** The OfficePath message number, in HEX, of the request being processed.
- @Z** A return code issued by an invoked program.
- @S** The current date and time.

The "\" character is used to split a line when writing to the CICS log.

## Chapter 26. Modifying Menu Option Descriptions

Descriptions of the menu options on the main menu are stored on the control file. These descriptions can be customized by changing the "/OPT" records in member PIPCTL8 on the JCL library. [Figure 18](#) shows an example of a "/OPT" record in PIPCTL8.

**Figure 18. Example of Menu Option in PIPCTL8**

/OPT	COPYLIST
DESC	Copylist Maintenance
PROG	PIPXD10

The record parameters are as follows:

**/OPT** The type of record for which this is a description.

**DESC** The text that is to appear on the main menu describing this option.

**PROG** The name of the program that is to be invoked from the main menu in order to display the panel for this type of record. This program name should NOT be changed.



## Chapter 27. Modifying Alert times

When the Log File Browse and Link Monitor functions are bring used in "alert" mode (with a function of ALERT rather than ENQUIRE) the display information is highlighted in colours according to how serious the problem might be. The default values are available in member PIPCTL1 of the JCL library. [Figure 19](#) shows an example of an "/ALERT" record in PIPCTL1.

**Figure 19. Example of Alert Options in PIPCTL1**

```
/ALERT
PENDING 0
PENDING 60
PENDING 120
INPROG 0
INPROG 3600
INPROG 7200
MESSAGE 300
MESSAGE 1800
OLDEST 0
OLDEST 3600
OLDEST 7200
```

The record parameters are as follows:

- /ALERT** The type of record for which this is a description. The name of option should not be changed.
- PENDING** Three times, in seconds, after which items displayed by the Log File Browse Alert function will be displayed in green, yellow, and then red. The last updated time will be checked for items with a sender status of PENDING or a recipient status of DCACVT.
- INPROG** Three times, in seconds, after which items displayed by the Log File Browse Alert function will be displayed in green, yellow, and then red. The last updated time will be checked for items with a recipient status of INPROG or a sender status of COD NFY.
- MESSAGE** Two times, in seconds, after which the "last new message" details at the top of the Log File Browse panel will be displayed in yellow and red.
- OLDEST** Three times, in seconds, after which item displayed by the Link Monitor Alert function will be displayed in green, yellow, and then red. If a connection is closed then the item is immediately displayed in yellow.

You can update the times for any of these alerts, and then use PIPCTL to write the new values to the PIPCNTL file.

## Chapter 28. Document Printing

OfficePath can be used to perform "Host-Print" requests from Personal Services or to provide a "Mailroom" print function. The print requests are normally processed directly by OfficePath. The OfficePath DisplayWrite/370 print feature, which is available as an optional extra, allows you to use DisplayWrite/370 to control printers. Using DisplayWrite/370 will allow you to produce a higher quality output and also allow documents which contain image or graphic data to be printed. DisplayWrite/370 printing is described in the next chapter.

This chapter describes how to define the entries required in OfficePath in order to print documents. The first half describes the entries required to print using OfficePath and the second half describes how to define mailroom printing for users.

Member PIPCTL3 in the **JCL** library contains entries to setup the default records which are described in this section. These records should have been defined on the control file when OfficePath was installed. We recommend that you use the online transaction **PIPX** for all maintenance of records on the control file.

---

### Host-Print requests

When a document is printed from Personal Services the user can select to use either a local (CICS attached) or a host (defined in JES) printer. The local print function is handled by Personal Services and is described in the appropriate IBM manual. OfficePath converts the Host-Print function into a "send" request<sup>8</sup> which is then written to the internal reader using JCL from the OfficePath control file. The supplied JCL invokes a print formatter program which produces a simple header page, and selects the pages of the document which were requested by the user.

The control file entries required for host printing can be maintained using the on-line maintenance transaction (PIPX). The required entries are:

**USER** This record is used to validate the printer name.

The sample userid is HOSTPRT-RMT0. If a print request is made to "RMT0", this will submit a batch job to print the document. You can add records for extra printers using this as a model.

**DEST** This record specifies the type of documents which the printer can receive and the name of the internal reader which is used to submit the print job. This internal reader must have a record length of

The sample dest record is PRINTERS.

---

<sup>8</sup> The recipient is generated by using the **Printer Name** from Personal Services as the userid and **Host-Print Location** value from the SYSTEM record as the address.

**JCL** The JCL which is submitted by OfficePath to perform the print request. The sample JCL record is PRINTERS, which causes the same JCL to be submitted for all print requests. You can set up JCL for specific printers, if they have different characteristics, by inserting the appropriate JCL records. For example, a JCL record HOSTPRT-RMT0 would only be submitted when a print request specified RMT0 as the printer name.

## Print JCL

The sample JCL which OfficePath uses for printing is shown in [Figure 20](#). This JCL can be customized as required by your installation.

### Figure 20. JCL used for Host-Print requests

```

PIPX                O f f i c e P a t h  V e r s i o n  1.6.0                Date: 31/10/95
Function.... ENQUIRE      Control File Maintenance                Time: 12:22:03
Type..... JCL              Key.... PRINTERS
----- JCL Maintenance -----
***** TOP OF DATA *****
//&MESSAGE(3,15,8) JOB (ACCOUNT), 'PROGRAMMER', CLASS=0, MSGCLASS=A
//*
//*      JCL TO HOST-PRINT ON A JES ATTACHED PRINTER
//*
//FORMAT      EXEC PGM=PIPHPT
//STEPLIB DD    DISP=SHR, DSN=PIPS.LOAD
//SYSABEND DD  SYSOUT=*
//SYSOUT DD    SYSOUT=*
//IDOCTEXT DD  *
&DOCUMENT_CONTENTS
//ODOCTEXT DD  SYSOUT=*, DEST=&RECIPIENT(,,8),
//              DCB=(RECFM=FBA, LRECL=133, BLKSIZE=1330)
//
***** BOTTOM OF DATA *****

----- LAST MODIFIED BY                AT TERM WU78PDA4 AT 12:22:49 ON 01/12/93 -----
PIPCFM12 Enquiry only, input Function/Type or PF key
PF 1=HELP  4=EXIT  7=BACKWARD  8=FORWARD  10=PREV REC  11=NEXT REC  12=QUIT

```

This JCL uses substitution from the MESSAGE area which is pre-filled by OfficePath with details of the print request. The layout of this area is described in ["Print Formatter program"](#).

&MESSAGE(3,15,8) substitutes the user-supplied JOBNAME field in the JCL.

## Mailroom print requests

Certain users may be defined to OfficePath as "Mailroom" users. This means that whenever any mail is sent to that recipient it is printed immediately rather than being placed in an in-basket.

The control file entries which are required for Mailroom printing are similar to those required for host printing.<sup>9</sup> The required entries are:

- USER** Identifies the userid to be used as a Mailroom printer. The userid may be identified explicitly (for example PIPHOST-JESUSER) or generically (MAILROOM-\*).
- DEST** This record specifies the type of documents which the Mailroom userid can receive<sup>10</sup> and the name of the internal reader which is used to submit the print job.
- JCL** The JCL which is submitted by OfficePath to perform the print.

### Print JCL

The sample JCL which OfficePath uses for Mailroom printing is shown in [Figure 21](#). This JCL can be customized as required by your installation.

**Figure 21. JCL used for Mailroom Print requests**

```
PIPX                O f f i c e P a t h   V e r s i o n 1.6.0           Date: 31/10/95
Function.... ENQUIRE      Control File Maintenance           Time: 12:22:03
Type..... JCL             Key.... JESPRINT
----- JCL Maintenance -----
***** TOP OF DATA *****
//JESPRINT JOB (ACCOUNT), 'PROGRAMMER', CLASS=0, MSGCLASS=A
//*
//*           JCL TO PRINT A DOCUMENT ON ANY JES DEFINED PRINTER
//*
//FORMAT     EXEC PGM=PIPHPT
//STEPLIB DD  DISP=SHR, DSN=PIPS.LOAD
//SYSABEND DD  SYSOUT=*
//SYSOUT DD  SYSOUT=*
//IDOCTEXT DD  *
&DOCUMENT CONTENTS
//ODOCTEXT DD  SYSOUT=*, DEST=RMT0,
//           DCB=(RECFM=FBA, LRECL=133, BLKSIZE=1330)
//
***** BOTTOM OF DATA *****

----- LAST MODIFIED BY           AT TERM WU78PDA4 AT 12:22:49 ON 01/12/93 -----
```

<sup>9</sup> Since OfficePath treats a print request like a "send" request.

<sup>10</sup> The types of document which can be received will depend on whether or not DisplayWrite/370 is being used. If a document is not in the correct format, OfficePath will attempt to convert it.

```

PIPFCM12 Enquiry only, input Function/Type or PF key
PF 1=HELP  4=EXIT  7=BACKWARD  8=FORWARD  10=PREV REC  11=NEXT REC  12=QUIT

```

## Destination records required for printing

The DEST records control the destination and format of documents. The following example is for using OfficePath for printing.

**Figure 22. DEST record required for printing**

```

PIPX                O f f i c e P a t h  V e r s i o n  1.6.0                Date: 31/10/95
Function.... ENQUIRE        Control File Maintenance                Time: 11:41:30
Type..... DEST                Key.... PRINTERS
----- Destination Maintenance -----
          Destination type: INTRDR
DOCUMENT TYPES                                APPLICATION ATTRIBUTES
Accept RF Text..... N                Accumulate recipients..... N
Accept FF Text..... N                Can process ASA controls.... Y
Accept PC File..... N                Can process NOTE doctype.... N
Accept Image..... N                Requires document header.... Y
Accept Editable..... Y                Returns status information... N
Accept Msg/External.. Y
Other document types.                Line-length.....
          .....
CHARACTER SET                                CICS PARAMETERS
Accept GCID..... LOCAL
                                          Transient data queue name.... ZRDR
                                          Output record format..... FBA
Comments.....
----- LAST MODIFIED BY                AT TERM WU78PDA4 AT 10:18:05 ON 01/12/93 -----
PIPFCM12 Enquiry only, input Function/Type or PF key
PF 1=HELP  4=EXIT  10=PREV REC  11=NEXT REC  12=QUIT

```

The significant fields are:

- Destination Type** INTRDR tells OfficePath to submit a batch job. The internal-reader name is taken from the **Transient data queue name** field.
- Document types** The destination should be defined to receive only EDITABLE documents. OfficePath will convert any documents to EDITABLE format, if necessary. If the DEST record is being used for Mailroom usersids, then you should also set the MSG/EXTERNAL flag to allow messages to be printed.
- Character Set** LOCAL ensures that all characters are converted to the GCID specified on the SYSTEM record.
- Line Length** This must match the length specified on the DCT entry for the internal-reader.

The OfficePath DisplayWrite/370 print feature requires different settings which are described in ["Destination records required for DisplayWrite/370 printing"](#).

---

## Print Formatter program

OfficePath is supplied with a simple formatter program which is used to service print requests. The program is called **PIPHPRT** and it can be found on the **SAMPLIB** library.

This program can be amended as required.

For a Host-Print request the program takes some parameters from the MESSAGE area. This field is pre-filled by OfficePath with details of the print request. The format of this message area is shown in [Figure 23](#). Any information which was in the attached-message part of the original document cannot therefore be printed. This is in accord with the Host-Print facility of DISOSS, which also does not print the attached-message.

For a Mailroom print request the message area is not modified by OfficePath. This means that it will contain any message which the sender attached when he sent the item to the Mailroom recipient.

### Figure 23. Message area used for Host-Print requests

```
Columns...-----1-----2-----3-----4-----5-----6
MESSAGE  PRINTER NAME: RMT0      FORMDEF: FORM      COPIES: 00001
          FROM PAGE: 00001     TO PAGE: 09999    MARGIN: 00010
          JOB NAME: HSTPRINT
          RACF USERID: RACFID  PASSWORD: RACFPWD
```

---

## Chapter 29. Using DisplayWrite/370 for printing

If you have installed the OfficePath DisplayWrite/370 print feature, you can modify the OfficePath Host-Print and Mailroom printing functions so that DisplayWrite/370 is used to print documents. This will allow you to print compound documents or documents which contain a variety of fonts. These documents can be printed on any printer which is supported by DisplayWrite/370

In order to do this you will need to make changes to the Host-Print and Mailroom printing DEST records on the PIPCNTL file. These changes can be made using the PIPX transaction. Sample entries have been provided for a host printer called "LASER" (User record HOSTPRT-LASER) and a Mailroom userid called DWUSER (at location PIPHOST) whose mail is to be printed on printer "DWPRINT".

In order to print documents you must create the necessary LDE entries using the DisplayWrite/370 administrator transaction. The LDE entries **must** be defined in the PIPCLIST in order to be accessible by the OfficePath DisplayWrite/370 print feature.

You will require the following LDE entries:

- One for each Host-Print "printer name" <sup>11</sup>  
Whenever a user makes a Host-Print request, the OfficePath DisplayWrite/370 print feature will invoke DisplayWrite/370 using the specified "printer name" as the LDE entry.  
The supplied Host-Print entry LASER will require an LDE of /LASER.
- One for each Mailroom print DEST record  
When a request is sent to a Mailroom userid, the OfficePath DisplayWrite/370 print feature will invoke DisplayWrite/370 using the Mailroom user's DEST record name as the LDE entry. Thus, Mailroom userids can be grouped to different printers by using different DEST records.  
The supplied Mailroom userid DWUSER will require an LDE of /DWPRINT.

### Figure 24. DisplayWrite/370 LDE entry for an AFP printer

```
/* */
/* This is an example of an LDE which can be used to print a document */
/* on a 3820 LASER printer. The document may include images. */
/* */
/* (c) Icom Solutions Ltd 1996 */
<LBL: /LASER>
TYPE 3820
HLQ DWPRINT
```

---

<sup>11</sup> The types of document which can be received will depend on whether or not DisplayWrite/370 is being used. If a document is not in the correct format, OfficePath will attempt to convert it.

```

FILE      LASER
OPTIONS   COMPONENT
DEST      FILEX
PROC      DDDPRINT
GOTO
END

```

[Figure 24](#) shows an example of an LDE which can be used to print on a 3820 laser printer. These fields are the minimum required to print the document. The fields are:

**<LBL:** Identifies the entry as an LDE. The <LBL:> is a control character which is created using the CONTROLS<sup>12</sup> command in DisplayWrite/370. The **label type** is 6 (Logical Device Entry) and the device name, which is entered in the label name field, must be preceded by the "/" character.

**TYPE** Identifies the printer as a 3820 laser printer. It is also used in the dataset name generation.

**HLQ** Top level qualifier.

**FILE** Second level qualifier.

The entries listed above are used to generate a temporary dataset name. In our example, the dataset name will be:

```
DWPRINT.LASER.LIST3820
```

You must ensure that your RACF (or equivalent) security system will allow CICS full access ("ALTER") to this dataset.

**OPTIONS** "COMPONENT" will also print any images which may be contained in the document.<sup>13</sup>

**DEST** "FILEX" will cause DisplayWrite/370 to invoke GDDM to print any images in the document.

**PROC** The name of the DisplayWrite/370 procedure on the system (JCL) proclib which will be invoked.

**GOTO** Use DisplayWrite/370 defaults for all other values.  
**3820**

Further information about using the DisplayWrite/370 administrator transactions and LDE entries can be found in the DisplayWrite/370 manuals.

## [Print JCL for DisplayWrite/370](#)

<sup>12</sup> The CONTROLS command is normally assigned to a PF key. The default label for the PF KEY is **Instr.**.

<sup>13</sup> You will require the DisplayWrite/370 Image and Graphics feature and GDDM in order for this to work. See the DisplayWrite/370 manual for more information.



In order to print, the DisplayWrite/370 JCL exit (DDDJCEX) must be installed to generate appropriate job cards. Full details of the DDDJCEX exit can be found in the DisplayWrite/370 manuals.

## Destination records required for DisplayWrite/370 printing

**Figure 25. DEST record required for DisplayWrite/370 printing**

```

PIPX                O f f i c e P a t h  V e r s i o n  1.6.0           Date: 31/10/95
Function.... ENQUIRE          Control File Maintenance           Time: 11:42:24
Type..... DEST                Key.... DWPRINT
----- Destination Maintenance -----
      Destination type: OUTTRAY
DOCUMENT TYPES                APPLICATION ATTRIBUTES
Accept RF Text..... Y        Accumulate recipients..... N
Accept FF Text..... Y        Can process ASA controls.... N
Accept PC File..... N        Can process NOTE doctype.... N
Accept Image..... N          Uses interface program..... Y
Accept Editable..... N       Returns status information... N
Accept Msg/External.. Y      Outtray processed in batch... N
Other document types.        Line-length.....
.....

CHARACTER SET                  CICS PARAMETERS
Accept GCID..... MULTI-LINGUAL  Output file name..... PIPAFP
                                Mail transaction..... PIPP
                                and terminal (optional).....

Comments.....
----- LAST MODIFIED BY          AT TERM WL78ZMA4 AT 11:42:21 ON 12/01/94 -----
PIPCFM12 Enquiry only, input Function/Type or PF key
PF 1=HELP  4=EXIT  10=PREV REC  11=NEXT REC  12=QUIT

```

The main fields which are required are:

**Destination Type** OUTTRAY causes documents to be routed to the OfficePath DisplayWrite/370 print holding file whose name is given in **Output file name**.

**Document types** The destination should be defined to only receive RF TEXT and FF TEXT documents. DisplayWrite/370 cannot process any other document types. If the DEST record is being used for Mailroom userids, then you should also set the MSG/EXTERNAL flag to allow messages to be printed.

**Character Set** MULTI-LINGUAL is the character set used internally by DisplayWrite/370. It will convert any text, if required, before it is printed.

**Mail transaction** This is the OfficePath DisplayWrite/370 print feature transaction.

## Control file record for DisplayWrite/370 printing

The /AFP record is used to customize the OfficePath DisplayWrite/370 print feature.

**Figure 26. Control file record for OfficePath DisplayWrite/370 print feature**

```
/AFP
DWAPI   DDDCDWR2
LINES
SEPLINE =*****
SEPLINE =*           DW/370 PRINT FROM OFFICEPATH           @U           *
SEPLINE =*
SEPLINE =* PRINT REQUESTED BY: @S                               ON @T           *
SEPLINE =*
SEPLINE =* DOC NAME: @D                                         *
SEPLINE =*
SEPLINE =* ADDRESS: @R                                         *
SEPLINE =*
SEPLINE =* ATTACHED MESSAGE                                     *
SEPLINE =* @M                                                   *
SEPLINE =* @N                                                   *
SEPLINE =* @O                                                   *
SEPLINE =* @P                                                   *
SEPLINE =*****
NODOC   *** NO DOCUMENT IS ASSOCIATED WITH THIS REQUEST ***
```

The record parameters are as follows:

**/AFP** Type of record

**LINES** Number of SEPLINE parameters following (maximum 20).

**SEPLINE** Line(s) of text which will form a DisplayWrite/370 Separator page. The following variables may be used to substitute values into the separator page:

**@D** Document name

**@S** Document subject

**@M** First line<sup>14</sup> of the message area (@N, @O and @P are used for the other three lines).

For a document printed as a result of a Host-Print request, the message area will be filled by OfficePath as described in "[Print Formatter program](#)".

**@R** The Userid and Address to whom the mail was sent.

**@T** The date the document was sent. The date format is taken from the SIT DATFORM parameter.

---

<sup>14</sup> 64 characters = 1 line. This is the way the message is displayed in Personal Services.

**@U** The date the document was printed. The date format is taken from the SIT DATFORM parameter.

**NODOC** The text which will be display when the item sent was not a document, that is, it was either a message or an external reference.

---

## Chapter 30. Support for multiple/remote Personal Services

**Support for multiple/remote Personal Services is a separate chargeable feature of OfficePath. Please do not install or use this feature unless it is included in your license. Please contact TBS Software if you require further information on this feature.**

OfficePath can support multiple Personal Services systems in a variety of different configurations. [Figure 27](#) shows an example of a complex setup consisting of five Personal Services systems distributed over three CICS regions. The Personal Services systems are all supported by a single version of OfficePath which is running in the CIC2 region. The following points should be noted:

1. Each Personal Services system connected to OfficePath **must** be given a unique transaction family prefix even if it is in a different CICS region from another family. However, Personal Services systems which are installed in different CICS regions may use the default names for all the files.
2. The transaction families can be given different node names or they can all share the same node name.
3. Multiple transaction families which share Personal Services files <sup>15</sup> are supported.

**Figure 27. Example of a multiple Personal Services configuration**

<b>CIC1</b>	<b>CIC2</b>	<b>CIC3</b>
<b>PS1 family</b> Address - LOCN01 HUD - DMDHU30 DPD - DMDDP30	<b>OfficePath</b>  <b>PS2 family</b> Address - LOCN02 HUD - DMDHU30 DPD - DMDDP30	<b>PS3 family</b> Address - LOCN03 HUD - DMDHU30 DPD - DMDDP30
<b>PS4 family</b> Address - LOCN01 HUD - PS4HU30 DPD - PS4DP30	<b>PS5 family</b> Address - LOCN02 HUD - DMDHU30 DPD - DMDDP30	

Note that, in this configuration, each transaction family has its own HUD and DPD except for families PS2 and PS5 which share their HUD and DPD. Note also that, in this configuration, transaction families in the same region share address.

---

<sup>15</sup> The configuration where multiple Personal Services transaction families share the files is typically used in installations which require support for multiple languages.

The following sections describe the OfficePath control file and CICS table changes which are required in order to implement this sample configuration.

---

## Personal Services installed in remote region

In our example configuration PS1, PS3, and PS4 are Personal Services systems which are in a different region to OfficePath. OfficePath must be able to access the Personal Services transactions in order to respond to requests and deliver mail. It also requires access to the HUD dataset in order to validate userids when new mail arrives. Using PS3 as an example, the following CICS table changes are required:

**CIC2 FCT** The PS3 HUD dataset must be defined so that the OfficePath transactions can access it. This is done as shown in the example:

```
DFHFCT  TYPE=REMOTE,NAME=PS3HU30,SYSDNT=psci,RMTNAME=DMDHU30,  
        LRECL=522,KEYLEN=9
```

**CIC2 PCT** The following Personal Services transactions **MUST** be defined as **TYPE=REMOTE** and have **LOCALQ=YES**.

- PS3C - processes response to LIST command
- PS3D - the 'Mail Notify' transaction
- PS3F - processes response to OBTAIN command

**CIC3 FCT** Member **PIPSFCTR** contains the FCT entries which are required for OfficePath.

**CIC3 PCT** Member **PIPSPCTR** contains the PCT entries which are required for OfficePath.

**CIC3 PPT** Member **PIPSPPTR** contains the PPT entries which are required for OfficePath.

**CIC3 DFHRPL** The CICS DFHRPL must be update to include the **PIPS.LOAD** library. This library **must** be higher in the concatenation than the Personal Services load library.

You will also have to create a **DEST** record which is used to identify Personal Services users. The **DEST** record is used to determine the types of document which can be processed by the Personal Services system(s). On this record you should specify the name of the HUD dataset as PS3HU30 and the name of the mail transaction as PS3D.

If you are installing OfficePath with only a single Personal Services system, whether local or remote, then no further steps are required. However, if you have multiple Personal Services systems then you will need to read the following section.

---

## Multiple Personal Services transaction families

If you have multiple Personal Services systems which are communicating with a single OfficePath system you will require a **PSFAMILY** record on the PIPCNTL file. OfficePath uses this record to determine to which Personal Services family a user belongs. [Figure 28](#) shows an example of the **PSFAMILY** record which would be required to define, to OfficePath, the Personal Services families which share address LOCN01. In this example PS1D and PS4D are the transaction-names of the mail-transaction for families PS1 and PS4 respectively.

This example assumes that you have created FCT and PCT entries for the remote Personal Services system as described in the previous section.

**Figure 28. Example PSFAMILY record for address LOCN01**

```

PIPF                O f f i c e P a t h   V e r s i o n  1.5.0           Date: 12/01/94
Function.... ENQUIRE           Control File Maintenance           Time: 11:41:06
Type..... PSFAMILY   Key.... LOCN01
----- Maintain PS family/location information -----

                PS Mail Transaction           HUD dataset
                PS1D                         PS1HU30
                PS4D                         PS4HU30

Comments.....
----- LAST MODIFIED BY           AT TERM WL78ZMA4 AT 11:40:59 ON 12/01/94 -----
PIPCFM12 Enquiry only, input Function/Type or PF key
PF 1=HELP  4=EXIT  10=PREV REC  11=NEXT REC  12=QUIT

```

The **PSFAMILY** record contains a list of all the Personal Services systems which have the same address. In our example we would have to create similar **PSFAMILY** records for **LOCN02** and **LOCN03**.

When OfficePath receives a new mail item it checks the **USER** and **DEST** records to determine the recipient type. If the **DEST** record identifies the recipient as a PS user<sup>16</sup>, then OfficePath will check for a **PSFAMILY** record. If this record is found then OfficePath will scan each of the HUD datasets looking for the user. When the user is found the appropriate Personal Services mail-transaction will be started.

If no **PSFAMILY** record for the recipient's address can be found then OfficePath assumes that there is only a single Personal Services system. It will then use the HUD dataset name specified on the **DEST** record to validate the recipient. If the recipient is valid then the Personal Services transaction, from the **DEST** record, is started.

<sup>16</sup> Destination type is API and the HUD dataset name is non-blank.

LOCN02 requires special attention. This is an example of two Personal Services systems sharing the same HUD and DPD/DRD datasets. This configuration may have been chosen for a number of reasons:

- National Language Support - the two Personal Services transaction families may be using different languages.
- Restricted Functions - one of the Personal Services transaction families may have had certain options removed.
- Performance - by dividing the CICS processing between two different sets of transactions.

Since PS2 and PS5 share the same datasets any Personal Services recipient is effectively defined to both transaction families. In this case the **PSFAMILY** record for LOCN02 is only required if the recipient address (LOCN02) is different from the OfficePath default location (from the **SYSTEM** record). If the recipient address and the default location are different then you must create a **PSFAMILY** record. The record must specify both (or all if you have more than two) transaction families on it even though the HUD dataset will be the same for all families.

If the PS2 and PS5 transaction families have a recipient address which is the same as the default location then only the **DEST** record is required. The **DEST** record should specify the name of the HUD, and the Personal Services mail-transaction, of any one of the transaction families. This transaction family will be used to receive all external mail.

---

---

## **PART FOUR - REPLACEABLE EXITS**

---



## Chapter 31. Password Validation Exit

There is a password validation program, PIPUSRCK, available on the **SAMPLIB** library. This is only relevant for the OfficePath/Batch feature, and you can ignore this section if you do not have it.

PIPUSRCK is invoked by the batch interface program whenever a batch request is made. The program is passed the userid and password, which it is to validate. The program can be customized to either:

- set a non-zero return code, in which case the request is rejected by the batch interface program with return code "8xx" (where xx is the return code issued by PIPUSRCK)
- return a modified userid, in which case the request uses the returned userid.

The sample program, which is supplied, does not reject any requests. The program gets the RACF userid (from the MVS accounting information) and sets the address to "TSO". If you do not require the user name to be modified in this way then you must amend PIPUSRCK.

If PIPUSRCK is altered, assemble it using a standard batch assembly and relink to the batch interface program using member LINKEXIT on the **JCL**

---

## Chapter 32. Document Size Validation Exit

This exit is used by the OfficePath/Batch feature. You can ignore this section if you do not have that feature.

OfficePath is designed to reject documents exceeding the maximum document size specified on the System Defaults record on the OfficePath control file. When documents are received from batch, then OfficePath is only able to access this control file record if the PIPCNTL is allocated. To prevent large documents being sent from batch when PIPCNTL is not allocated a document size validation exit (PIPDOCSZ) is provided.

PIPDOCSZ is called whenever a batch request is made. It returns the maximum permitted document size (in K) together with a flag (Y/N) to indicate whether the control file can be read to decrease this value.

**Note:** Prior to Version 1.6 of OfficePath the PIPCNTL file was not used by the batch interface. JCL created for earlier releases of OfficePath will thus not allocate PIPCNTL.

The default Document Size Validation Exit, which returns a value of 1000K and a flag value of 'Y', is supplied on the **SAMPLIB** library. This may be modified to change the default maximum document size or the flag value. Changing the flag to 'N' will avoid warning messages being produced when PIPCNTL is not allocated.

If PIPDOCSZ is altered, assemble it using a standard batch assembly and relink to the batch interface program using member LINKEXIT on the **JCL**

---

## Chapter 33. API User id Validation Exit

OfficePath can be used with DISOSS API applications which conform with functions described in "[System Overview](#)". Unlike DISOSS, which requires all API users to be defined in the HUP, OfficePath does not require all users to be explicitly defined. It achieves this by invoking a user-exit program, PIPAPIV, which is used to validate a recipient. The exact operation of this exit program will depend on the API application which is interfacing with OfficePath.

**Note:** Although Personal Services is an API application the user-exit program is **NOT** required for the validation of Personal Services recipients. OfficePath contains code which validates the user id of Personal Services recipients, by reading the HUD data set.

TBS Software's RAPID product and CA eMAIL are two examples of applications which use the DISOSS API. **PIPS.SAMPLIB** contains sample user-exit programs which could be used by those applications for the validation of recipients:

**PIPAPIV1** Validate user against RAPID control file

**PIPAPIV2** Validate user defined in CA eMAIL

PIPAPIV is invoked before attempting to notify the application that new mail has arrived. The program is passed the user id which it is to validate. The program should determine if the user id is valid (by, for example, reading its control file or database) and then indicate to OfficePath whether or not the user id is valid by setting a return code.

---

### Creating the user-exit program

The user-exit program must be called PIPAPIV<sup>17</sup>. If you wish to use one of the sample programs supplied with OfficePath then you should copy the source member as PIPAPIV. The program can then be customized and compiled using either the COBOL or COBOL II compilers. The OfficePath installation process created a PPT entry for this program which specifies that the program is COBOL. If you write the exit in PL/1 or 370 assembler then you will need to change the PPT entry.

The validation program is invoked (via a CICS LINK command) with the commarea described in "[API user id Validation Control Block](#)".

---

<sup>17</sup> The first three characters must match the program prefix used by the other OfficePath programs.

## Using OfficePath with RAPID

The PIPAPIV1 member of the **PIPS.SAMPLIB** library contains example code to validate RAPID users by reading RAPID's ZPCONTL data set. This is intended only as an example of how a file can be accessed in the validation routine. In practice it is unlikely that you would connect an application to OfficePath via RAPID. It is more likely that you would connect the application directly to OfficePath.

---

## Using OfficePath with CA eMAIL

The PIPAPIV2 member of the **PIPS.SAMPLIB** library contains example code which may be used to validate users against CA eMAIL. This program requires access to some CA eMAIL libraries to compile and link-edit. You should refer to the chapter entitled "File System Interface" in the CA eMAIL Exits and Interfaces Programming Guide for details on how to compile the module. You will also need to change the definition of transaction PIP1 to include TWASIZE=64.

If you do not use this exit, then OfficePath will not be able to detect invalid CA eMAIL recipients. Any mail sent to an invalid CA eMAIL user will remain in 'IN PROGRESS' state within OfficePath. You can prevent this happening by inserting a USER record for each CA eMAIL user within OfficePath with a generic USER record (PIPHOST-\* if the node name is PIPHOST) to direct all other users to the INVALID destination.

---

## Chapter 34. User Validation Exit

All mail processed by OfficePath is routed through the PIP2 transaction. Each recipient is validated against the OfficePath control file for both valid user and valid destination records. In addition a user exit program - **PIPEXIT1**- is invoked. Within this program an installation could perform additional validation of the originator and recipients. The exit can also be used to obtain the document text and to add additional recipients.

**Note:** If the program is not defined or is disabled then no additional processing will take place.

The exit program will be invoked in the following sequence for each request:

1. The profile (TYPE=**PS**) will be passed (see ["Profile Control Block"](#))
  - Here you can change the user id and node of the originator.
  - At this point the document text can be requested by changing the DCA level of the requested document text from its zero value. If the value is changed then the exit will be repeatedly invoked until all the document text is passed. (see ["Document Text Control Block"](#)).
2. Recipient details (TYPE=**RS**) are passed for each recipient (see ["Recipient Control Block"](#))
  - At this point the destination can be changed to either **ERROR**, **INVALID**, or **CANCEL** in order to reject the request or can be changed to another destination to change the route of the mail.
  - Here you can change the user id and node of the recipient.

**Note:** the recipient and destination cannot be changed if the destination is **ERROR**, **INVALID**, or **CANCEL**.

  - Here you can force the document conversion to a specified DCA Level (overriding the document types on the destination record).
3. Additional recipients (TYPE=**AR**) are requested. (see ["End of Recipients Control Block"](#))
  - To add new recipients change the location and user id field to the required values.

**Note:** the exit will not be re-invoked to further validate these recipients.

- Alternatively the document text can be requested by changing the DCA level of the requested document text from its zero value. If the value is changed then the exit will be repeatedly invoked (TYPE=**DT**) until all the document text is passed (see ["Document Text Control Block"](#)).

**Note:** Additional recipients will be requested until the program does not change the new user and location (address).

## Sample Code

The **PIPS.SAMPLIB** contains a sample **COBOL- PIPEXIT1**- which shows how this exit may be used.

---

## Applications

There are a number of potential uses for PIPEXIT1:

1. Preventing certain types of documents being sent or received, for example stopping PC files from being sent to certain users.
  2. Restricting those users who can send documents externally.
  3. Restricting the size of documents for certain users.
  4. Automatically print documents sent to/from certain users
-

## Chapter 35. Audit Exit

After a distribution is complete, processing is routed through the PIP2 transaction to delete the status information and the document text. A user exit program - **PIPEXIT2**- is invoked for each complete request. A installation could perform addition auditing and notification within this program. The exit can also be used to obtain the document text.

**Note:** If the program is not defined or is disabled then no additional processing will take place.

The exit program will be invoked in the following sequence for each request:

1. The profile (TYPE=**PC**) will be passed (see "[Profile Control Block](#)").
  - o At this point the document text can be requested by changing the DCA level of the requested text from its zero value. If the value is changed then the exit will be repeatedly invoked to pass the document text (see "[Document Text Control Block](#)").
2. Recipient details (TYPE=**RC**) are passed for each recipient (see "[Recipient Control Block](#)").
  - o No details can be changed here.
3. A final control block (TYPE=**ER**) to indicate that all recipients have been processed (see "[End of Recipients Control Block](#)").
  - o At this point the document text can be requested by changing the DCA level of the requested document text from its zero value. If the value is changed then the exit will be repeatedly invoked (TYPE=**DT**) until all the document text is passed (see "[Document Text Control Block](#)").

Each of these invocations are described in the remainder of this section.

---

### Sample Code

The **PIPS.SAMPLIB** contains a sample **COBOL- PIPEXIT2**- which shows how this exit may be used.

---

### Applications

There are a number of potential uses for PIPEXIT2:

1. To provide auditing and accounting information.
2. To provide enhanced status reporting.
3. To return the text of failing requests.

## Chapter 36. JCL Modification Exit

If a distribution, status, or print request (excluding DisplayWrite/370 print requests which is explained in ["Using DisplayWrite/370 for printing"](#)) requires JCL to be written to the internal reader it is routed via transaction PIP4. A user exit program - **PIPEXIT3**- is invoked for each piece of JCL submitted. An installation could use this to modify the job card or to provide auditing of JCL requests.

**Note:** If the program is not defined or is disabled then no additional processing will take place.

The exit program will be invoked in the following sequence for each request:

1. The Profile will be passed (see ["Profile Control Block"](#)).
  - no details can be changed here
  - the type of request ("host print" or "distribution") can be determined
  - for a distribution you can also determine whether the exit is being invoked to send mail or return status
2. The JCL lines will be passed (see ["JCL Cards Control Block"](#)).
  - the first 10 lines of the JCL are passed to the exit program, after any variable substitutions have been made by OfficePath but before the document text has been included
  - here the program can modify the JCL lines as required

---

### Sample Code

The **PIPS.SAMPLIB** contains a sample **COBOL- PIPEXIT3**- which shows how this exit may be used.

---



## Chapter 37. Exit Control Blocks

This chapter describes the control blocks used by the exit programs PIPAPIV, PIPEXIT1, PIPEXIT2, and PIPEXIT3.

The tables contain five columns:

**OFFSET** the position of the field within the control block

**TYPE** one of:

**G** a group level with sub-fields

**C** Character format

**D** packed decimal format

**F** Fullword, binary format

**H** Halfword, binary format

**LEN** the physical length of the field

**DESCRIPTION** a description of the field

**USE** how the field is used:

**I** input only

**O** output only

**I/O** input and output

---

### API user id Validation Control Block

The exit program (PIPAPIV) will be invoked once for each API user.

OFFSET	TYPE	LEN	DESCRIPTION	USE
0	C	1	The program can return the following single character values: <b>space</b> The user id is valid. OfficePath will pass a <b>Wake up distribution</b> request to the transaction indicating that new mail/status information has arrived. <b>S</b> The user id is valid, but the application transaction expects an <b>Unsolicited Status</b>	I/O

			<b>I</b> The user id is invalid. OfficePath will delete the request and return a recipient status of <b>invalid</b> to the sender.	
1	C	8	the user's location	I
9	C	8	the user id	I
17	C	8	the name of the OfficePath destination	I
25	C	4	the name mail/status which OfficePath will invoke to indicate that new mail has arrived for a user.	I
29	B	4	the OfficePath message number	I
33	C	31	RESERVED	

A sample Cobol copybook exists in the **PIPS.SAMPLIB** library: **PIPAPIVC**.

## Profile Control Block

Each exit program is first invoked passing the request profile. Most of the fields within the profile cannot be modified; those which can be modified will have either "O" or "I/O" in the **USE** column. The fields marked "I/O" can only be modified if the profile is for a send request.

OFFSET	TYPE	LEN	DESCRIPTION	USE
0	C	2	set to one of the following: <b>PS</b> to indicate a Profile for a send request <b>PC</b> to indicate a Profile auditing <b>PJ</b> to indicate a Profile JCL	I
2	C	1	RESERVED	
3	C	16	a user area containing binary zeroes, this can be altered by the LINKed program and its contents will be preserved for subsequent invocations of the exit program for the same request	O
19	C	1	the type of request either " <b>R</b> " for a distribute or " <b>E</b> " for a print request	I
20	C	8	the destination of the originator	I
28	C	8	the location (address) of the originator	I/O
36	C	8	the user id of the originator	I/O
44	C	32	RESERVED	
76	B	4	the size of the document text (not including the profile)	I
80	C	1	whether the request has confirmation of delivery ( <b>YN</b> )	I

81	C	1	whether the invocation of the exit is for a distribution – <b>M</b> or for status processing - <b>S</b> .	I
82	C	44	the document name	I
126	C	60	the subject of the request	I
186	B	4	the message number (from the OfficePath log file) of the request	I
190	B	2	the DCA LEVEL of the document +2            FFT +14          PC FILE +15          MESSAGE +11          RFT +12 or +1403 EDITABLE -1            FILEXFER	I
192	C	4	the GCID of the document	I
196	C	1	the profile type: <b>D</b> Document <b>M</b> Message <b>P</b> Profile <b>N</b> Note	I
197	C	6	the date of the distribution (YYMMDD)	I
203	C	6	the time of the distribution (HHMM00)	I
209	C	20	the Distribution Document Name in the following format: <b>8 bytes</b> originating node address <b>8 bytes</b> requestor id <b>4 bytes</b> sequence number	I
229	C	8	the location name of the local OfficePath system.	I
237	B	2	the DCA level required for the document text, leave this as binary zeros if you do not require the text,  <b>Note:</b> this is an input only field for the JCL exit (PIPEXIT3).	
239	C	256	the attached message, not available for PIPEXIT3.	I

A sample Cobol copybook exists in the **PIPS.SAMPLIB** library: **PIPEXITP**.

## Recipient Control Block

PIPEXIT1 and PIPEXIT2 will be invoked once for each recipient passing this control block. Fields marked as I/O can only be modified if the profile type is **RS**.

OFFSET	TYPE	LEN	DESCRIPTION	USE
0	C	2	set to one of the following: <b>RS</b> to indicate the recipient at the start of the send processing. <b>RC</b> to indicate the recipient at the end of processing.	I
2	C	1	RESERVED	
3	C	16	the user area: any changes made to this will be preserved for subsequent invocations of the exit for the same request.	I/O
19	C	8	the location (address) of the recipient	I/O
27	C	8	the user id of the recipient	I/O
35	C	8	the original location (address) of the recipient (before any changes were made)  <b>Note:</b> this is only available is the profile type is <b>RC</b> .	I
43	C	8	the original user id of the recipient (before any changes were made)  <b>Note:</b> this is only available is the profile type is <b>RC</b> .	I/O
51	B	2	The overriding output DCA level. If this value is changed from its value of zero then it will be used as the only available output DCA level.	
53	C	30	RESERVED	
83	C	8	the status/destination of the recipient, for PIPEXIT2 this will be one of the following: <b>INVALID</b> the recipient was invalid <b>ERROR</b> the distribution to the recipient caused an error <b>CANCEL</b> the recipient was cancelled <b>ARRIVED</b> the mail has been confirmed as delivered <b>UNKNOWN</b> no recipient status was reported  for PIPEXIT2 the value cannot be changed for PIPEXIT1 it will contain the name of the destination to be used (or one of the "special" destinations - INVALID, CANCEL, or ERROR); this can be changed if the destination is not "special".	I/O
91	C	4	RESERVED	

95	C	6	the date (YYMMDD) when the distribution to the recipient completed	I
101	C	6	the time (HHMMSS) when the distribution to the recipient completed	I
107	C	8	the NODE issuing the error	I/O
115	C	3	the NAK code	I/O
118	C	78	optional text which may contain additional information explain a status of <b>ERROR</b>	I/O

A sample Cobol copybook exists in the **PIPS.SAMPLIB** library: **PIPEXITR**.

---

## [End of Recipients Control Block](#)

This control block is passed to mark the end of the recipient details being passed to PIPEXIT1 and PIPEXIT2. If the invoked exit is PIPEXIT1 the program can change the user id and location field to specify a new recipient. The program can change the DCA level to request that the document text is passed to the exit program.

OFFSET	TYPE	LEN	DESCRIPTION	USE
0	C	2	if the invocation is for "pre-distribution" processing then the field will be set to set to "AR" otherwise it will be set to "ER".	I
2	C	1	RESERVED	
3	C	16	the user area: any changes made to this will be preserved for subsequent invocations of the exit for the same request.	I/O
19	C	8	the location (address) of an additional recipient	O
27	C	8	the user id of an additional recipient	O
35	B	2	the DCA level required for the document text, leave this as binary zeroes if you do not require the text.	O

A sample Cobol copybook exists in the **PIPS.SAMPLIB** library: **PIPEXITA**.

---

## Document Text Control Block

If the exit program requested document text then it will be repeatedly invoked to pass all the text.

OFFSET	TYPE	LEN	DESCRIPTION	USE
0	C	2	set to "DT" to indicate document text.	I
2	C	1	RESERVED	
3	C	16	the user area: any changes made to this will be preserved for subsequent invocations of the exit for the same request.	I/O
19	C	256	containing either a single line of a print image (1403) document (including a print control character) or a block of 256 characters from another type of document.	I

A sample Cobol copybook exists in the **PIPS.SAMPLIB** library: **PIPEXITD**.

---

## JCL Cards Control Block

The JCL exit program (PIPEXIT3) will be invoked passing up to the first ten lines of the JCL to be submitted: which can then be changed.

OFFSET	TYPE	LEN	DESCRIPTION	USE
0	C	2	set to "JX" to indicate JCL cards	I
2	C	1	RESERVED	
3	C	16	the user area	I
19	B	2	the number of lines passed to the exit (0-10)	I
19	C	720	up to ten lines (of 72 characters) to JCL.	I/O

A sample Cobol copybook exists in the **PIPS.SAMPLIB** library: **PIPEXITJ**.

---

## **PART FIVE - ADMINISTRATION**

---

## Chapter 38. Control File Maintenance

### Invoking the Online Maintenance System

The online control file maintenance suite can be invoked by logging on to the CICS system in which OfficePath is installed, and entering "PIPX" on the screen. The main menu will then be displayed as shown in [Figure 29](#).

**Figure 29. Main Menu of Online Maintenance System**

```
PIPX                O f f i c e P a t h  V e r s i o n  1.6.0          Date: 05/05/95
Function.... _____ Control File Maintenance          Time: 10:30:57
Type..... _____ Key.... _____
-----
                                M A I N   M E N U
-----
Type          Description
COPYLIST     Copylist Maintenance
DEST         Destination Maintenance
INTRAY       Input File Maintenance
JCL          JCL Maintenance
LINKMON      SNADS Link Monitor
MESSAGE      Message File Browse
PSFAMILY     Maintain PS family/location information
SYSTEM       System Default Values Maintenance
USER         User Maintenance
            BOTTOM OF DATA
-----
PF 1=HELP  4=EXIT  7=BACKWARD  8=FORWARD  12=QUIT
```

Most of the panels in the maintenance system are similar in the way they respond to commands from the user.

In general, the PF keys on the panels perform the following functions:

- PF1** displays relevant help information for the panel
- PF4** exits the control file maintenance suite
- PF7** scrolls backwards through a record which cannot fit onto one panel
- PF8** scrolls forwards through a record which cannot fit onto one panel



**PF10** scrolls backwards through the control file for a record of the same type as the one currently on the panel

**PF11** scrolls forwards through the control file for a record of the same type as the one currently on the panel

**PF12** returns to the main menu

A number of different panels are provided to allow maintenance of control file records and to monitor the operation of OfficePath.

At any time, a panel is in one of five possible modes as indicated by the "FUNCTION" field on the panel:

**AMEND** the user is allowed to change the details of the record currently displayed on the panel. This is done by altering the details and pressing enter, to update the control file.

**DELETE** the user is allowed to delete a record from the control file. This is done by displaying the record on the panel and pressing enter to confirm the deletion.

**ENQUIRE** the user is allowed to view the details of a record without changing them.

**INSERT** the user is allowed to insert a new record. The user enters the details of the record and presses enter, to update the control file.

**LIST** the user will be presented with a list of records corresponding to the entered TYPE.

The current mode can be altered by overtyping the "FUNCTION" field with the value of the new mode.

There are several classes of record which can be processed, from the on-line maintenance suite, by changing the value in the "TYPE" field.

The following sections describe the functions of the different record classes and how they can be defined and maintained.

---

## [The List Function](#)

To aid the administrator with maintenance tasks the **LIST** function can be used to display a list of records of the same type. Details will be displayed for each record and the administrator will be able to select from the list by entering the first letter of the function required. The list below shows the records types for which the **list** function can be used and the details, in addition to the record name, which will be displayed.

### **DESTINATION**

type of the destination (SNADS, API, INTRDR, or OUTTRAY),  
the "CICS" parameters,  
the documents types which can be received,  
whether the destination returns status.

**USER**

the name of the destination,  
the redirection details.

**INTRAY**

whether it is processed in batch.

**COPYLIST**

the first three members.

**JCL**

the first line of the JCL.

An example of the LIST function for DESTINATION records is shown in [Figure 30](#).

**Figure 30. List of Destination records**

```

PIPX                O f f i c e P a t h  Version 1.6.0          Date: 30/06/95
Function.... LIST           Maintenance List                    Time: 12:06:26
Type..... DEST           Key....
----- Destination Maintenance -----
| | | | |-----Document Types-----|Returns| |
S | Dest | Type | Target | RFT FFT PC Image Edit Msg Notes |Status?|H|
***** TOP OF DATA *****
  BATCHDSN INTRDR  ZR13          N  N  N  N  Y  Y  N  N
  BULLETIN OUTTRAY RBBI-RBBOTRAY N  N  Y  N  Y  Y  Y  N
  CA-EMAIL  API     MLDD          Y  Y  Y  Y  Y  Y  Y  N
  CMLPCG    SNADS  GCML          Y  Y  Y  Y  N  Y  Y  Y
  DBCICS    SNADS  DBCI          Y  Y  Y  Y  N  Y  Y  Y
  DEVELOPM SNADS  ZMDA          Y  Y  Y  Y  N  Y  Y  Y
  DRSYDEST SNADS  LOC1          Y  Y  Y  Y  N  Y  Y  Y
  DWMROOM   OUTTRAY PIPP-PIPAFP   Y  Y  N  N  N  Y  N  N
  DWPRINT   OUTTRAY PIPP-PIPAFP   Y  Y  N  N  N  Y  N  N
  DXCICS    SNADS  DBCI          Y  N  N  Y  N  Y  Y  Y
  FAX       OUTTRAY FAXO-FAXOUTP Y  N  N  N  Y  Y  Y  N
  FPRINTER  INTRDR  ZR13          N  N  N  N  Y  Y  N  N
  GBIBMH00  SNADS  IBMS          Y  Y  Y  Y  N  Y  Y  Y
  GBIMIC00  SNADS  DCIC          Y  Y  Y  Y  N  Y  Y  Y
-----
PIPFCM07 Select a record or press a PF key
PF 1=HELP  4=EXIT  5=TOP  6=BOTTOM  7=BACKWARD  8=FORWARD  12=QUIT

```

**Copylist Records**

Documents passed to OfficePath by batch or CICS applications can be distributed to one or more users and/or Copylists. A Copylist is a collection of up to 254 userids defined on the OfficePath control file.

Copylists are used by OfficePath/Batch and OfficePath/CICS. If you are not using these features, then you can ignore these records.

Details regarding creating applications to send to Copylists can be found in the *OfficePath Programming Interfaces* manual.

---

## Destination Records

Destination records are used, in conjunction with User records, by OfficePath to indicate:

- what document types a recipient can receive
- where the data is to be routed
- what transaction, if any, is to be started
- the recipient REN for a SNADS recipient

OfficePath supports four types of Destination records:

<b>SNADS</b>	A remote OfficePath system
<b>API</b>	A DISOSS API application, for example, Personal Services
<b>OUTTRAY</b>	CICS/Batch Application output
<b>INTRDR</b>	Batch/TSO Application output

To view a Destination record defined on the control file enter:

- "ENQUIRE" in the function field (or just "E" in the first character of this field).
- "DEST" in the type field (or just "D" in the first character of this field).
- The name of the destination in the key field (this should not be greater than 8 characters long).

When this has been done, the Destination record panel will be shown. The information that must be defined for each type of destination is different.

This manual explains how to define destination records for Personal Services (or any DISOSS API application) and SNADS. Information on how to define the other types of destination records can be found in the *OfficePath Programming Interfaces* manual.

---

## **Intray Records**

Batch and CICS applications can send requests into OfficePath. These requests are sent via input files (In-trays) which must be defined to the OfficePath system.

In-trays are a component of OfficePath/Batch and OfficePath/CICS. If you are not using these features then you can ignore these records.

Details regarding In-trays can be found in the *OfficePath Programming Interfaces* manual.

---

## **JCL Records**

JCL records contain pre-defined JCL which OfficePath submits to an internal reader in order to execute batch applications. This is a function of OfficePath/Batch. If you are not using this feature, then you can ignore these records.

Details regarding OfficePath/Batch and JCL records can be found in the *OfficePath Programming Interfaces* manual.

---

## **Linkmon Records**

These records are discussed in "[Link Monitor](#)".

---

## **Message Records**

These records are discussed in "[Message File Browse](#)".

---

## **PSFAMILY records**

These records are only required in an installation which has multiple Personal Services families, which do not share datasets, connected to a single OfficePath system. These records are described in "[Support for multiple/remote Personal Services](#)".

---

## System Defaults Record

The control file contains a system defaults record which is used by the OfficePath background programs. To view the record enter:

- "ENQUIRE" in the function field (or just "E" in the first character of this field).
- "SYSTEM" in the type field (or just "S" in the first character of this field).

**Note:** It is not necessary to specify a key, since there is only one system record on the control file.

The panel shown in [Figure 31](#) will be displayed.

**Figure 31. System Record Panel**

```
PIPX                O f f i c e P a t h   V e r s i o n 1.6.0           Date: 31/08/95
Function.... AMEND           Control File Maintenance           Time: 14:12:49
Type..... SYSTEM           Key....
----- System Default Values Maintenance -----
      LOCAL DEFAULTS
Default location..... DZCICS           Host-Print location..... HOSTPRT
Default Document Name..... *NONAME
Local GCID..... 00313-00285
      INPUT  (NO MAX DOC SIZE)           OUTPUT
Input file scan interval.... 00:15:00   Batch JCL submit interval. 00:03:00
Maximum Document size..... 99999999   Output re-try interval.... 00:05:00
Enqueue re-try interval.... 00:00:00   Batch JCL internal reader. ZSUB
      CLEANDOWN (NO AUTO-CLEANDOWN)
Time to run cleardown..... 00:00:00
Days before 'M' purged..... 00           Log all requests..... Y
Days before 'X' deleted..... 00           Keep Status records ..... Y
      TRACE FACILITIES
Trace Requests ..... N           SNADS
Trace SNADS DIUs ..... N           SNADS HOP Count value.....
Trace API DIUs ..... N
Comments..... be careful
----- LAST MODIFIED BY CICSUSER AT TERM WL78OPA3 AT 14:12:49 ON 31/08/95 -----
PIPCFM18 Record amended, select Function/Type or PF key
PF 1=HELP  4=EXIT  12=QUIT
```

This record can only be enquired upon or amended.

The significance of the fields displayed on the panel is as follows:

**Default Location** This name is used as the originating REN when requests are sent to another SNADS node. It is also used as the default address for requests which do not specify an address (for example, Personal Services and requests from an in-tray). A USER record (and an associated DEST record) must exist for this location.

<b>Default Document Name</b>	Personal Services requires that all mail has a document name. Since the document name is not a mandatory field in DIA, it may be omitted in some requests. If the document name is missing, then OfficePath will substitute this value when the request is sent to Personal Services.
<b>Local GCID</b>	This is the character set in which the local terminals are operating. Data obtained from In-trays is assumed, by default, to be in this GCID. The value must be one of the values given in <a href="#">Appendix A, "Document type and Character Set Code Numbers"</a> , unless you have defined additional GCID tables for your installation as described in <a href="#">"Adding GCID Translation Tables"</a> .
<b>Input file scan interval</b>	This is the interval at which OfficePath checks its In-trays. This interval is the same for both CICS and batch In-trays. The performance of OfficePath can be tuned by adjusting this interval. Note that some applications start PIP5 automatically after writing to an in-tray. These applications are not affected by the scan interval.
<b>Maximum Document size</b>	This is the maximum size of a document that OfficePath will attempt to distribute: documents larger than this will be rejected. Specify a value of 99999999 to indicate no maximum size.
<b>Enqueue re-try interval</b>	If OfficePath tries to enqueue on a batch file and is unsuccessful, then it will wait a while before attempting to ENQ again. The time for which it waits is defined in this field.  <b>Note:</b> If a time interval of 0 is specified, then OfficePath will issue an unconditional ENQ. OfficePath will then be suspended until the ENQ is satisfied.
<b>Time to run cleandown</b>	The startup program, which also performs maintenance on the files, is normally started in the PLTPI processing. However, if your CICS system is run 24 hours a day then you need to make sure that the startup processing is run daily. The value specified here determines the time at which the startup program should schedule itself to run. If you do not wish the program to run automatically then you can specify a time of "00:00:00".
<b>Days before 'M' purged</b>	This is the number of days for which log entries relating to unconfirmed requests ("M" records which have a recipient status of COMPLETE) will remain on the log file. After this period, they are cancelled by the start-up transaction as part of the start of day processing. This will only affect requests which are waiting for confirmation of delivery. Mail which has not yet been delivered is never cancelled by OfficePath. <sup>18</sup>
<b>Days before 'X' deleted</b>	This is the number of days for which log entries relating to processed requests ("X" records) will remain on the log file. They are deleted after this period by

---

<sup>18</sup> The confirmation may not be returned for a number of reasons. The most common reason is that your node is not defined in the recipients mail system. In this case, a confirmation will never be returned and the "M" record would remain indefinitely.

the start-up transaction as part of the start of day processing.

<b>Trace Requests</b>	Whether trace information should be written to the CICS transient data queue PIPT. You should only turn this on when requested to do so by the support team.
<b>Trace SNADS DIUs</b>	Whether the temporary storage queues used to store both send and received SNADS DIUs should be kept (not deleted). You should only turn this on when requested to do so by the support team.
<b>Trace API DIUs</b>	Whether the temporary storage queues used to store the API DIUs should be kept (not deleted). You should only turn this on when requested to do so by the support team
<b>Host-Print Location</b>	The value specified here is used as the recipient address for a host-print request. All print requests are converted, by OfficePath, into "send" requests.
<b>Batch JCL submit interval</b>	When OfficePath has finished writing data to a batch Out-tray, it can optionally submit JCL to an internal reader to execute a batch application and process the data on the Out-tray. The interval specified in this field is the time delay between writing to the Out-tray and submitting JCL to the internal reader. The purpose of providing this delay facility is to reduce the number of jobs executing if a batch file is heavily used.
<b>Output re-try interval</b>	This interval is the time for which OfficePath will wait after either detecting that a Remote Personal Services system is unavailable (before re-validating a Personal Services user id) or detecting an error during SNADS send processing before retrying.
<b>Batch JCL internal reader</b>	This is the id of the internal reader to which OfficePath submits JCL after it has written data to a batch Out-tray.
<b>Log all requests</b>	By default OfficePath will not log LIST and SIGNON and SIGNOFF requests. Setting this flag to Y will cause those requests to also be logged.
<b>Keep Status records</b>	By default OfficePath will not keep status records after requests are completed. Setting this flag to Y will cause status records for completed requests to be kept so that recipient details for the request may be viewed.
<b>SNADS HOP Count value</b>	This is a count of the number of different SNADS nodes through which a request will be sent to before its address is regarded as invalid. As the request passes through each SNADS node, the count is decremented by

When the control file utility program is executed for the first time it will place a SYSTEM record on the control file containing default values. These values can subsequently be amended using the online maintenance system.

## User Records

User and Destination records are central to the operation of OfficePath.

To view a User record enter:

- "ENQUIRE" in the function field (or just "E" in the first character of this field).
- "USER" in the type field (or just "U" in the first character of this field).
- The key of the User record in the key field.

When this has been done, the User record panel shown in [Figure 32](#) will be displayed.

### Figure 32. User Record Panel

```
PIPX                O f f i c e P a t h  Version 1.6.0          Date: 15/09/95
Function.... ENQUIRE      Control File Maintenance      Time: 09:00:26
Type..... USER          Key.... DZCICS-*
----- User Maintenance -----

                Destination of above user..... PSCICS

If you want to redirect mail then enter a user id in one of the fields below
When this user sends mail change the sender's id to.....
When mail is addressed to this user redirect the mail to

                Start date of redirection.....

                NOTE: a user is entered in the format NODE-USER

Comments.....
----- LAST MODIFIED BY CICSUSER AT TERM WL780PB2 AT 17:54:12 ON 01/06/95 -----
PIPCFM12 Enquiry only, input Function/Type or PF key
PF 1=HELP  4=EXIT  10=PREV REC  11=NEXT REC  12=QUIT
```

The significance of the fields displayed on the panel is as follows:

- Destination**      The name of the Destination record which describes how requests sent to the user are processed. The Destination record must exist.
- New user id**      A user id can be specified in one of the two fields either to change the sender id or to change the recipient (to redirect the mail). See ["The Redirector Feature"](#) for a description of this feature.
- Start date of**      From when the redirection is valid; allowing entries to be predefined.



## redirection

[Figure 33](#) shows an example of a user with redirection defined.

### Figure 33. User Record Panel (with redirection)

```
PIPX                O f f i c e P a t h  Version 1.6.0          Date: 15/09/95
Function.... ENQUIRE      Control File Maintenance      Time: 08:38:20
Type..... USER          Key.... DZCICS-KD
----- User Maintenance -----

                Destination of above user..... PSCICS

If you want to redirect mail then enter a user id in one of the fields below
When this user sends mail change the sender's id to.....

When mail is addressed to this user redirect the mail to NOTES-KEITH

                Start date of redirection..... 15/09/95

                NOTE: a user is entered in the format NODE-USER

Comments.....
----- LAST MODIFIED BY CICSUSER AT TERM WL78OPA3 AT 08:58:00 ON 15/09/95 -----
PIPCFM12 Enquiry only, input Function/Type or PF key
PF 1=HELP  4=EXIT 10=PREV REC 11=NEXT REC 12=QUIT
```

## Chapter 39. Message File Browse

PIPLOG acts as a combined log and audit file of all OfficePath activity. Each record on PIPLOG represents either a request generated by a user, into or out of OfficePath, or an internally generated action taken by OfficePath.

### Log File Browse Panel

The contents of the message file can be viewed by invoking the message file browse facility by:

- Entering transaction "PIPY" in the CICS system in which OfficePath has been installed (using PIPY/A to initialize the function to ALERT)
- Entering type "MESSAGE" in the online control file maintenance suite.
- Entering the PIPY fastpath in OV/MVS

The panel shown in [Figure 34](#) will be displayed.

The identification shown in the top left corner of the panel is the transaction name, and is "PIPX" if the panel was invoked from the control file maintenance suite or from OV/MVS or "PIPY" otherwise.

There are two types of record on PIPLOG, "M" and "X" records (the first character of the message number). Each "M" record represents an incompletely processed request, whilst each "X" record represents a completed request.

#### Figure 34. Message File browse Summary panel

```
PIPX                O f f i c e P a t h  Version 1.6.0          Date: 05/05/95
Function.... ENQUIRE          Log File Browse          Time: 10:34:30
Type..... MESSAGE      Key....          Cycle: MMSS
----- LAST NEW REQUEST: 05/05/95 AT 10:34:25 -----
  Start date _____ Select.. _____
S  Log-no      Created      Lst updt  Command      Requestor      Sender  Recip
***** TOP OF DATA *****
- M0000290F 04/05/95 15:30 15:30:05 SEND      DZCICS      DKM      ACCEPTD  COMPLTE
- M00002941 05/05/95 09:58 10:38:47 INPUT          ZPMAILBX  PENDING
- M00002942 05/05/95 09:58 10:38:43 INPUT          ZPMAILSK  PENDING
- M00002943 05/05/95 10:03 10:03:08 SEND      DZCICS      IMIUSER  ACCEPTD  INPROG
- X00002944 05/05/95 10:34 10:34:14 SIGNON    DZCICS      KD       COMPLTE
- X00002945 05/05/95 10:34 10:34:14 LIST      DZCICS      KD       COMPLTE
- X00002946 05/05/95 10:34 10:34:25 SEND      DZCICS      KD       COMPLTE
- X00002947 05/05/95 10:34 10:34:25 LIST      DZCICS      KD       COMPLTE
***** BOTTOM OF DATA *****
```

```

----- LAST RESTARTED: 05/05/95 AT 09:58:54 -----
PIPCFM93 Please enter Function/Type or press PF key
PF 1=HELP 2=RESTART 4=EXIT 5=TOP 6=BOTTOM 7=BACKWARD 8=FORWARD 12=QUIT

```

The keyable fields on the panel are:

- Function** This can be toggled between "ENQUIRE" and "ALERT". If the Function is "ALERT" only "M" records will be displayed and these will be shown in different colours depending on their status and the time since the log record was last updated, otherwise all records will be displayed.
- Cycle** If a time period (MMSS) is entered here the panel will be automatically updated at this interval. Automatic updating is terminated by pressing the enter key. This field is only available if the panel was entered as transaction PIPY, not as part of the maintenance suite or as an OV/MVS fastpath.
- S** Additional details about a request are selected by entering a value in this field. If "S" or "X" is entered, the Message Details Panel is displayed. If "I" is entered, the Message Details panel is displayed with the function set to "INSERT". If "R" is entered then the recipient details panel is displayed. See the OfficePath Reference and Diagnosis manual for details of how to purge requests using this field.
- Start Date** This field is in two parts allowing a date and time to be entered. Only requests created on or after the date/time specified are displayed. If a date is entered without a time, then a time of "00:00" is assumed. The year portion of the date is two digits, the century being deduced and allowing dates to be entered between 1985 and
- Select..** This field is in three parts allowing a command type, requestor node and requestor user id to be specified as selection criteria. Only requests matching all the specified criteria are displayed. Criteria left blank are ignored.

The fields displayed in [Figure 34](#):

- Log-no** This field is used internally by OfficePath and is the message number it has assigned to the request.
- Created** This field contains the date and time that OfficePath first received the request.
- Lst updt** This field will contain either the date or time that OfficePath last did any processing for the request. If the request was last processed on the same date that it was created then the time will be shown, otherwise it will show the date the processing occurred.

**Note:** "M" records which relate to In-trays (that is where the COMMAND field is "INPUT") are an exception to this. In their case, the value indicated is the next time which OfficePath will scan the input file. Therefore this time should always be in the future.

**Command** This field indicates the command that has been issued to OfficePath. The possible values for this field are:

- **JCL** - this command is issued internally by OfficePath when it submits JCL to process a batch Out-tray.
- **INPUT** - this command is issued internally by OfficePath and is related to the processing of In-trays.
- **LIST** - this command is issued by Personal Services in order to obtain mail or status information from OfficePath for the requestor.
- **OBTAIN** - this command is issued by Personal Services to obtain mail from OfficePath for the requestor.
- **SEND** - this command is issued to OfficePath by a requestor wishing to distribute a document.
- **SIGNON** - this command is issued by Personal Services to OfficePath when the requestor signs on to Personal Services.

**Requestor** This field indicates the address and userid of the person making the request to OfficePath.

**Sender** This field indicates the current status of the request as viewed by the requestor. Possible values are:

- PENDING** Request logged. In the case of Personal Services, an acknowledgement is being generated.
- ACCEPTED** Distribution in progress. In the case of Personal Services, the initial acknowledgement has been sent.
- COD NFY** Recipient status has been updated. Status is being returned to the requestor.
- COMPLTE** Distribution completed. All status information has been returned.
- CANCEL** Request cancelled. The request has been cancelled.
- INCMPLT** An incomplete request was received from an application. No trailer record was found.
- NO PROF** An incomplete request was received from an application. No profile record was found.
- NO RECIP** An incomplete request was received from an application. No recipients were specified.
- NO TEXT** An incomplete request was received from an application. No document text was found.

**Recip** This field indicates how far processing has progressed through the OfficePath system. Possible values are:

**DCACVT** Document conversion and routing are being performed.

**INPROG** All transactions necessary to process mail have been started.

**COMPLT** All mail has been delivered to its destination.

**Note:** For SNADS recipients this only indicates that the mail has been sent to the next SNADS node, and not that the recipient has received it.

When the function is ENQUIRE, this panel also shows the date/time OfficePath was last started. When the function is ALERT and the screen is refreshed, the number of messages received by OfficePath since the panel was last displayed is shown.

---

## Message Details Panel

This panel gives more information about the request as shown in [Figure 35](#).

### Figure 35. Message File browse Detail panel

```
PIPX                O f f i c e P a t h  V e r s i o n  1.6.0                Date: 05/05/95
Function.... ENQUIRE                Message Details                Time: 10:35:06
Type..... MESSAGE                Key.... M0000290F
-----
Date created...: 04/05/95  15:30:04                Last updated on...: 04/05/95  15:30:05
Command.....: SEND                Requestor.....: DZCICS  DKM
Sender status...: ACCEPTED                Changed to.....: DZCICS  DKM2
Document type...: MESSAGE  - test from dzcics                Recipient status...: COMPLETE
Document Size...: 00000000                Current HOP Count..
1st recipient...: WITTN400PMR
No. recipients...: 0001                Delivered.....:
No. processed...: 0001                Rejected.....:
Reply required...: Y                Reply destination...: PSCICS
Input file.....:                Reply file.....: DMDHU30
Correlation.....: C4D2D44040404040CB05040F1E04C3E2
Reply NAK/DATA...: 000000                Next transid.....: PIP1
C4E9C3C9C3E24040C4D2D44040404040F0F5F1F107CB05040F  DZCICS  DKM  0511.....
-----
PF 1=HELP  4=EXIT  10=RECIPIENTS  12=QUIT
```

The additional fields displayed on this panel are:

**Changed to** This field is only displayed if the sender has been changed by user exit or

control file settings.

<b>Document type</b>	This field indicates the type of the document.
<b>Description</b>	This field indicates the name of the document. If the request is a message, this field will display the first line of the message.
<b>Document Size</b>	The size of the document text.
<b>Current HOP Count</b>	The current value of the SNADS HOP count.
<b>1st recipient</b>	This field indicates the address and userid of the first recipient.
<b>No. of recipients</b>	This field indicates the number of recipients to whom this document is to be distributed.
<b>No. processed</b>	This field indicates the number of recipients to whom this document has been distributed.
<b>Delivered</b>	This field indicates the number of confirmation of deliveries received by the requestor.
<b>Rejected</b>	This field indicates the number of rejected (INVALID, ERROR, or CANCEL) deliveries received by the requestor.
<b>Reply required</b>	This field indicates whether a confirmation of delivery is required.
<b>Reply destination</b>	This field indicates the destination to which the confirmation of delivery will be sent.
<b>Input file</b>	This field indicates the name of the In-tray from which the request has been obtained. This will be blank if the request did not originate from a batch or CICS application.
<b>Reply file</b>	Normally, this field indicates the file to which the confirmation of delivery will be written. In the case of requests originating from Personal Services it contains the name of the HUD dataset. This field will be blank if confirmation of delivery (Reply required) was not requested.
<b>Correlation</b>	This field indicates the correlation data supplied by the requestor. This data is in hex format.
<b>Reply NAK/DATA</b>	This field indicates the return code passed to the requestor if OfficePath rejects a request.
<b>Next transid</b>	This field is used internally by OfficePath for recovery purposes.

When the command is INPUT, the function on this panel may be changed to INSERT in order to force OfficePath to read the corresponding intray immediately.

The function may be changed to "R" or PF10 may be used in order to display the recipient details.

## Recipient Details Panel

This panel gives information about each recipient in the request as shown in [Figure 36](#).

**Note:** Recipient details for completed requests are only available if the System Defaults record is configured to keep status records.

**Figure 36. Message File Recipient Details panel**

```
PIPX                O f f i c e P a t h  Version 1.6.0          Date: 05/05/95
Function.... ENQUIRE                Status Details          Time: 10:35:54
Type..... MESSAGE      Key.... M0000290F
----- Message File Browse -----
CMD|  ACTUAL USER  | ORIGINAL USER  | STATUS |  NODE  | DATE | TIME | REP |
***** TOP OF DATA *****
WITTN400 PMR      (unchanged)  SENT                                N
***** BOTTOM OF DATA *****

-----
PF 1=HELP  4=EXIT  5=TOP  6=BOTTOM  7=BACKWARD  8=FORWARD  9=STATUS  12=QUIT
```

The fields displayed on this panel are:

- Actual User**      This field indicates the recipient of the document.
- Original User**    This field indicates the recipient originally specified, if this has been changed due to rerouting being specified on a User record or by a user exit program changing the recipient.
- Status**            This field indicates the status of the recipient: PENDING, HELD, SENT, ARRIVED, CANCELLED, INVALID or ERROR.

- PENDING**      The mail item is being distributed
- HELD**            The mail item has been held in the PIPZ transaction

**Note:** If the queue is held then the item shows as PENDING

<b>SENT</b>	The mail item has left the OfficePath system
<b>ARRIVED</b>	The recipient's node has reported the mail item delivered
<b>CANCELLED</b>	The recipient has rejected the mail item
<b>INVALID</b>	The specified recipient does not exist
<b>ERROR</b>	The recipient's node (or an intermediate node) has rejected the request

<b>Node</b>	The node from which the status was returned.
<b>Date</b>	The date on which the status was returned.
<b>Time</b>	The time at which the status was returned.
<b>Rep</b>	Whether the status has been returned to the originator: Y(Yes), N(No) or P(Pending).

On this panel the administrator can update the recipient status at any time up until it has been reported back to the originator (Rep = Y), by entering the new status in the command field. The valid values are:

**ARR** arrived (delivered)

**CAN** cancelled

**INV** invalid

**ERR** error

The status will be updated and the status reported to the sender. If the item is in the PENDING or HELD status, the mail item will be removed from the queue.

In addition the command N or X may be used to display any NAK data returned by the recipient in character or hex format.

PF9 may be used to toggle the status field between the full SNADS status code and the text description.



## Chapter 40. Link Monitor

---

### List of Destinations

It is possible to view all destinations defined as type SNADS on the control file by:

- Entering transaction "PIPZ" in the CICS system in which OfficePath has been installed (using PIPZ/A to initialize the function to ALERT)
- Entering type "LINKMON" in the online control file maintenance suite.
- Entering the PIPZ fastpath in OV/MVS

When this has been done the panel shown in [Figure 37](#) is displayed.

The identification shown in the top left corner of the panel is the transaction name, and is "PIPX" if the panel was invoked from the control file maintenance suite or from OV/MVS or "PIPZ" otherwise.

**Figure 37. Link Monitor browse panel**

```

PIPX                O f f i c e P a t h  Version 1.6.1                Date: 11/05/95
Function.... ENQUIRE                Remote Link Monitor                Time: 08:50:06
Type..... LINKMON                Key....                Cycle: MMSS
----- SNADS Link Monitor -----
|          | |----- System -----| Active |Request|----- Oldest request ---|
Cmd|  Dest  |HL|Netname      Status  |svc  usr| count |  Date  Time  Log-no|
***** TOP OF DATA *****
CMLPCG      WL78ZMDB  INS  ACQ  *          001
DBCICS      WADBCICS  INS  ACQ  *          002 005
DCICS       WADCICS   INS  REL  *          000 000
DEVELOPM    WL78ZMDA  INS  ACQ  *          001
DRSYDEST    LOC1 connection not available
GBIBMH00    D7FZPEMS  INS  ACQ  *          002 002
GBIMIC00    WADCICS   INS  REL  *          000 000 00003 11/05/95 16:25 M00002B0F
GWITHKCS    WL78ZMDC  INS  REL  *          000
GWITHRAO    WL78ZMDE  INS  ACQ  *          001
INBOUND     WL78ZMDF  INS  REL  *          000
MAILX       IBMM connection not available
MSMPO2      MSG0 connection not available
MSMPO3      MSG0 connection not available
OUTBOUND    WL78ZMAD  INS  REL  *          000
-----
PIPFCM91 Enter action in CMD field, or press Enter to refresh screen
PF 1=HELP  4=EXIT  7=BACKWARD  8=FORWARD  12=QUIT

```

For each record the NETNAME is given, together with the status value for the connection. These status values are identical to those obtained using CEMT.

The keyable fields on the panel are:

- Function** This can be toggled between "ENQUIRE" and "ALERT". If the Function is "ALERT" only destinations with outstanding requests are shown, with different colours being used depending on how long the requests have been outstanding.
- Cycle** If a time period (MMSS) is entered here the panel will be automatically updated at this interval. Automatic updating is terminated by pressing the enter key. This field is only available if the panel was entered as transaction PIPZ, not as part of the maintenance suite or as an OV/MVS fastpath.
- Cmd** Various commands can be entered to control the connections. These commands are shown with their CEMT equivalents, if appropriate:

- ACQ** Acquire a connection  
CEMT SET CONN(XXXX) ACQ
- REL** Release a connection  
CEMT SET CONN(XXXX) REL
- INS** Put a connection in service

CEMT SET CONN(XXXX) INS

**OUT** Put a connection out of service  
CEMT SET CONN(XXXX) OUT

**PUR** Purge the connection  
CEMT SET CONN(XXXX) PUR

**FOR** Force the connection  
CEMT SET CONN(XXXX) FOR

**OPE** Open the connection  
CEMT SET CONN(XXXX) MODE(yyyyyyyy) AVAILABLE(max-value)

**CLO** Close the connection to any traffic  
CEMT SET CONN(XXXX) MODE(yyyyyyyy) AVAILABLE(0)

**RET** Attempt to resend any outstanding requests  
No CEMT equivalent

**X or M** Display a list of mail requests queued for the destination. This will display the Mail List Panel, described later.  
No CEMT equivalent

**Dest** This field indicates the name of the Destination record on the control file.

**HL** This field is usually blank, indicating that the destination has not been held. If the destination has been held, the value may be HA (HOLDALL), HM (HOLDM) or HS (HOLDS).

**Netname** This field indicates the netname of the connection used by the SNADS link.

**Status** This field contains three values indicating the current status of the link.

The first value is INS (in service) or OUT (out of service)

The second value is ACQ (acquired) or REL (released)

The third value is PEN (pending) or \* (not pending)

**Active svc** This field indicates the number of SNASVCMG sessions which are active. This count is only displayed for "FEATURE=PARALLEL" sessions.

**Active usr** This field indicates the number of sessions which have been acquired to send/receive data. This number will be 0 if the connection is closed. It may be 0 or greater if the connection is open.

**Request count** This field indicates the number of mail items waiting to be sent. A mail item may have more than one recipient.

**Date** This field indicates the date of the oldest mail item which is waiting to be sent.

**Time** This field indicates the time of the oldest mail item which is waiting to be sent.

**Log-no** This field indicates the log number of the oldest mail item which is waiting to be

sent.

---

## Mail List

If a "X" or "M" is entered on the previous panel a list of queued mail requests will be displayed, see [Figure 38](#).

### Figure 38. Mail List panel

```
PIPX                O f f i c e P a t h  Version 1.6.1          Date: 11/05/95
Function.... ENQUIRE                Mail List                Time: 16:27:09
Type..... LINKMON      Key.... GBIMIC00
----- SNADS Link Monitor -----
C | Log No. |Retry|   Originator   | Created Date |Doc Size| First Recipient |
***** TOP OF DATA *****
M00002B0F      0 DZCICS   KD      11/05/95 16:25      0 GBIMIC00 CML
M00002B10      0 DZCICS   KD      11/05/95 16:25     377 GBIMIC00 KD
M00002B11      0 DZCICS   KD      11/05/95 16:26     637 GBIMIC00 SUPPORT
***** BOTTOM OF DATA *****

-----
PIPCFM03 Valid commands are H - hold, A - release, M - message, R - recipients
PF 1=HELP  4=EXIT  5=TOP  6=BOTTOM  7=BACKWARD  8=FORWARD 12=QUIT
```

From the panel the administrator has the following commands available:

- H** To hold the mail; if the SNADS send program detects this it will requeue the request.
- A** To release held mail.
- M** To display the message details panel. See ["Message Details Panel"](#).
- R** To display the status details panel. See ["Recipient Details Panel"](#).

## Chapter 41. User Administration

User records indicate the destination to which data is to be delivered. When a distribution request is made to OfficePath:

1. OfficePath identifies the fully qualified userid of each recipient. This is 1 to 8 characters for the userid and 1 to 8 characters for the address.
2. The control file is read for a User record associated with each recipient. The search order which is used is:
  - a. a read is attempted on a key of *Address-Userid*
  - b. a read is attempted on a key of *Address-\**
  - c. a read is attempted on a key of *\*-\**<sup>19</sup>
3. The User record that is thus obtained indicates the destination to which mail is to be sent for this recipient.
4. The control file is then read again for a Destination record which matches the destination name specified on the User record.
5. The Destination record provides information regarding the type of destination, the types of documents that the destination can receive, where OfficePath is to route the data and what transaction it is to invoke.

Before User records can be defined on the control file it is necessary to define the Destination record to which they belong.<sup>20</sup> The relationship between User and Destination records can be one-to-one or many-to-one. [Figure 39](#) shows an example of a typical network where the regional offices of a company are connected to a Head office node in **LONDON**. In this example you must define entries to allow the new **WITTON** Personal Services to communicate with the other nodes in the network.

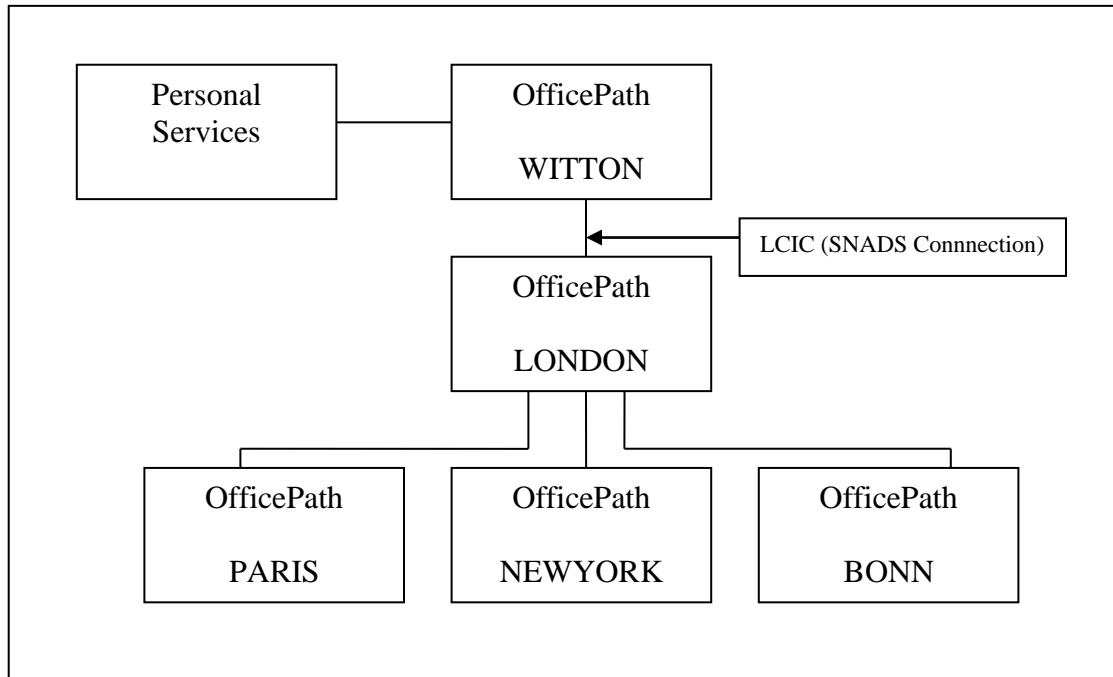
---

<sup>19</sup> This record is used as a default and **MUST** always be present on the control file. The destination can be set to "INVALID" to indicate that the recipient is not valid.

<sup>20</sup> There are 3 special destinations which do not require Destination records on the control file. These are:

INVALID	Reject recipient with a status of "invalid recipient".
CANCEL	Reject recipient with a status of "Cancelled".
ERROR	Reject recipient with a status of "Error".

**Figure 39. Example Network**



User and Destination records could be added to **WITTON**:

1. Each node is defined as a destination on the control file. A User record exists for each node and points to the corresponding Destination record.

Every time a new node is to be defined, a Destination record must be added to the control file and a User record defined which points to this destination.

From the example below it can be seen that the details contained in the Destination records are identical apart from their names. This method requires the most maintenance but provides a one-to-one relationship between the node names and their associated destinations.

**DEST RECORDS**

<u>Destination</u>	<u>Type</u>	
LONDON	SNADS	System=LCIC
PARIS	SNADS	System=LCIC
NEWYORK	SNADS	System=LCIC
BONN	SNADS	System=LCIC
WITTON	PS	
.		
.		

## USER records

<u>User</u>	<u>Destination</u>
LONDON-*	LONDON
PARIS-*	PARIS
NEWYORK-*	NEWYORK
BONN-*	BONN
WITTON-*	WITTON
*_*	INVALID

2. Routing all unknown recipients to the **LONDON** This provides the simplest maintenance on the **WITTON** node since all mail which is not addressed to the local (**WITTON**) node will be routed to the **LONDON**

## DEST RECORDS

<u>Destination</u>	<u>Type</u>	
LONDON	SNADS	System=LCIC
WITTON	PS	

## USER records

<u>User</u>	<u>Destination</u>
WITTON-*	WITTON
*_*	LONDON

In this way it is not necessary to define any User records pointing to the remote nodes and distributions can be made to new nodes, which may be connected to the **LONDON** node later, without requiring any further entries on the control file at WITTON. This method is the easiest one to set up and requires the least maintenance. You should note, however, that mail addressed to invalid recipients will be routed to node **LONDON** before being rejected and will thus incur additional processing.

This method is suitable for use on all the nodes in the example with the exception of the **LONDON** The LONDON node must have all valid nodes explicitly defined to prevent a distribution sent to an invalid node causing a loop in the system. For example, if the LONDON node had a \*\_\* entry pointing to the WITTON node. A document sent from WITTON to **NOTKNOWN** would be forwarded to LONDON. LONDON would then forward the document to WITTON which would result in the document shuffling between LONDON and WITTON until the SNADS HOP COUNT is reduced to zero.

**Note:** Refer to the *OfficePath Programming Interfaces* manual for a consideration of how to set up User and Destination records for CICS and batch applications.

---



## Chapter 42. Defining a DISOSS API application

A DISOSS API application (for example, Personal Services) is identified to OfficePath by a combination of a user and a Destination record. The Destination record is described below and must be created before the User record. Adding the User record is described in "[User Administration](#)".

**Note:** DISOSS does not allow API applications to specify a node-name. Therefore all users defined by that application must have the same address. Since the API application will have been designed to interface to DISOSS you should assume that the application has been designed with this restriction. Therefore, you should not have OfficePath User records with different node names pointing at a single DISOSS API Destination record. For example, you must not address a DISOSS API system using the \*-\* User record. Note that, in the case of Personal Services, each Personal Services transaction family is, in effect, a different API application.

To define a DISOSS API application Destination record enter:

- "INSERT" in the function field (or just "I" in the first character of this field).
- "DEST" in the type field (or just "D" in the first character of this field).
- The name of the destination in the key field (this should not be greater than 8 characters). This name is used internally within OfficePath and can be set to any value you like. However, it is recommended that it is set to something meaningful, for example the node name.

When this has been done, the Destination record panel will be displayed with destination type set to "OUTTRAY" and all other fields set to "?" (not all of these fields are valid for a "API" destination). Type "API" in the destination type and press enter. The panel will be displayed as shown in [Figure 40](#).

**[Figure 40. API Destination Record panel](#)**

```
PIPX                O f f i c e P a t h   V e r s i o n  1.6.0           Date: 05/05/95
Function.... ENQUIRE      Control File Maintenance      Time: 10:37:02
Type..... DEST           Key.... PSCICS
----- Destination Maintenance -----
      Destination type: API
DOCUMENT TYPES                APPLICATION ATTRIBUTES
Accept RF Text..... Y        Accumulate recipients.....: N
Accept FF Text..... N        Can process ASA controls....: Y
Accept PC File..... Y        Can process NOTE doctype....: Y
Accept Image..... Y
Accept Editable..... Y        Returns status information...: N
Accept Msg/External.. Y
Other document types.        Line-length.....:
      .....
CHARACTER SET                CICS PARAMETERS
```

```

Accept GCID..... MULTI-LINGUAL          HUD Dataset name..... DMDHU30
                                          Mail/Status transaction..... DMDD

Comments.....
----- LAST MODIFIED BY CICSUSER AT TERM WL78PSD4 AT 16:36:11 ON 31/01/95 -----
PIPCFM12 Enquiry only, input Function/Type or PF key
PF 1=HELP  4=EXIT  10=PREV REC  11=NEXT REC  12=QUIT

```

The settings in some of the fields are fixed for API type destinations. These values are pre-filled and cannot be modified.

- RFT**            This value should be set to "Y" or "N" depending on whether or not you wish to receive RFT documents.
- FFT**            This value should be set to "Y" or "N" depending on whether or not you wish to receive FFT documents. If this is set to "Y" then all print image (Editable) documents, will arrive as FFT. Notes will still arrive as Editable.
- PC**             This value should be set to "Y" or "N" depending on whether or not you wish to receive PC files.
- IMAGE**         This value should be set to "Y" or "N" depending on whether or not you wish to receive IMAGE documents.
- EDITABLE**     This value should be set to "Y" or "N" depending on whether or not you wish to receive EDITABLE (print-image) documents <sup>21</sup>.
- Other doc types**    If your application uses any special DCA levels you should specify these here <sup>21</sup>.
- MESSAGES**     This value should be set to "Y" or "N" depending on whether or not you wish to receive MESSAGES or External References (FCAB REF).
- GCID**            OfficePath can present distributed text to an application in a GCID that the application is expecting. OfficePath will convert the contents of the profile and print-image text to the character set and code page specified by the GCID value <sup>21</sup>. Valid values for this are:

- "LOCAL" - Use the value from the SYSTEM record

This value should have been set to the GCID for your country during the installation process.

- "MULTI-LINGUAL" - The multi-lingual GCID defined by IBM

This is the GCID used internally by Personal Services and DISOSS.

---

<sup>21</sup> This value is overridden for **Personal Services** type destinations (where the HUD name is non-blank).

- One of the values in [Appendix A, "Document type and Character Set Code Numbers"](#).

**HUD Dataset name** This field contains the name of the Personal Services HUD dataset which is used to validate the recipients. If the application being defined is not Personal Services, then this field should be left blank.

If the field is left blank then OfficePath will invoke the PIPAPIV program to validate the userid. This program is described in ["API User id Validation Exit"](#).

**Mail/Status transaction** This field should contain the name of the transaction which is started whenever mail arrives for a user. This may for example be "DMDD" for OV/MVS users or "MLDD" for CA eMAIL users. However, if you have customized transaction names in your mail application you will need to enter the customized name.

**Note:** The document types that OfficePath distributes to Personal Services are based upon the values set on the Destination record. **The values that users set in their Personal Services defaults are ignored.**

If some Personal Services users wish to receive document types other than those specified on the Destination record, it is possible to set up additional Destination records which point to the same Personal Services system but which are able to receive different document types, i.e. it is possible to have more than one Destination record pointing to the same Personal Services system.

For example, you may have defined a Personal Services system, called **PIPHOST**, which allows users to receive RFT documents using the following records:

**DEST records**

<u>DESTINATION</u>	<u>TYPE</u>	<u>HUD</u>	<u>MAIL trans</u>
PIPHOST	API	DMDHU30	DMDD (receive RFT documents)
.			
.			

**USER records**

<u>User</u>	<u>Destination</u>
PIPHOST-*	PIPHOST
.	
.	

If several users on this Personal Services system do not wish to receive RFT documents, a new Destination record (PSNORFT) can be set up to receive only EDITABLE documents. These

users, who not wish to receive RFT documents, would need to be explicitly defined to point to the new Destination record: <sup>22</sup>

### **DEST records**

<b><u>DESTINATION</u></b>	<b><u>TYPE</u></b>	<b><u>HUD</u></b>	<b><u>MAIL trans</u></b>
PIPHOST	API	DMDHU30	DMDD (receive RFT documents)
PIPNOTRFT	API	DMDHU30	DMDD (receive EDITABLE only)
.			
.			

### **USER records**

<b><u>User</u></b>	<b><u>Destination</u></b>
PIPHOST-*	PIPHOST
PIPHOST-USER1	PIPNOTRFT
PIPHOST-USER2	PIPNOTRFT
.	
.	

---

<sup>22</sup> The user's Personal Services defaults would also have to be updated not to receive RFT; otherwise Personal Services would use its internal distribution mechanism and send RFT documents without translation.

---

## Chapter 43. Defining a SNADS Node

**Support for SNADS is a separate chargeable feature of OfficePath. Please do not install or use this feature unless it is included in your license. Please contact TBS Software for further information on this feature.**

The SNADS node is identified to OfficePath by a combination of a user and a Destination record. The Destination record is described below and must be created before the User record. Adding the User record is described in "[User Administration](#)".

To define a SNADS Destination record enter:

- "INSERT" in the function field (or just "I" in the first character of this field).
- "DEST" in the type field (or just "D" in the first character of this field).
- The name of the destination in the key field (this should not be greater than 8 characters). This name is used as the recipient REN when the document sent to another SNADS node. A sample SNADS network is given in "[User Administration](#)".

When this has been done, the Destination record panel will be displayed with destination type set to "OUTTRAY" and all other fields set to "?" (not all of these fields are valid for a "SNADS" destination). Type "SNADS" in the destination type and press enter. The panel will be displayed as shown in [Figure 41](#).

**Figure 41. SNADS Destination Record panel**

```
PIPX                O f f i c e P a t h  V e r s i o n  1.6.0                Date: 17/05/95
Function.... ENQUIRE          Control File Maintenance          Time: 15:17:22
Type..... DEST                Key.... GBIBM00
----- Destination Maintenance -----
      Destination type: SNADS
DOCUMENT TYPES                                APPLICATION ATTRIBUTES
Accept RF Text..... Y                    Accumulate recipients.....: Y
Accept FF Text..... Y
Accept PC File..... Y
Accept Image..... Y
Accept Editable.....: N                    Returns status information...: Y
Accept Msg/External.. Y
Other document types.
      .....

CHARACTER SET                                CICS PARAMETERS
Accept GCID.....: MULTI-LINGUAL
                                           System name (TCT)..... IBMS

Comments.....
----- LAST MODIFIED BY CICSUSER AT TERM WL78OPB2 AT 14:48:06 ON 17/01/95 -----
```

PIPCFM12 Enquiry only, input Function/Type or PF key PF 1=HELP 4=EXIT 10=PREV REC 11=NEXT REC 12=QUIT
----------------------------------------------------------------------------------------------------------

The settings in some of the fields are fixed for SNADS type destinations. These values are pre-filled and cannot be modified. For example, the value for "GCID" is set to multi-lingual because SNADS networks work in multi-lingual internally and "EDITABLE" is set to "N" because SNADS does not allow the distribution of editable documents. Only the values you can modify are described below.

<b>RFT</b>	This value should be set to "Y" or "N" depending on whether or not you wish to receive RFT documents.
<b>FFT</b>	This value should be set to "Y" or "N" depending on whether or not you wish to receive FFT documents.
<b>PC</b>	This value should be set to "Y" or "N" depending on whether or not you wish to receive PC files.
<b>IMAGE</b>	This value should be set to "Y" or "N" depending on whether or not you wish to receive IMAGE documents.
<b>MESSAGES</b>	This value should be set to "Y" or "N" depending on whether or not you wish to receive MESSAGES or references to external documents (FCAB REF).
<b>OTHER</b>	This field can contain the document type numbers of up to four other document types that you wish to distribute across the SNADS network.
<b>SYSTEM NAME (TCT)</b>	This is the name specified in the CICS TCT TYPE=SYSTEM entry that identifies the remote OfficePath CICS system.

To complete the definition of a SNADS node, entries will also be needed in the CICS Terminal Control Table (TCT) and some of the VTAM tables. For a sample definition refer to [Appendix C, "Sample definitions"](#).

---

## [Connecting to IBM Mail Exchange](#)

OfficePath has successfully completed the IBM Mail Exchange qualification process and as such can normally be connected to the IBM Mail Exchange service without undergoing further tests.

IBM will require the following information from you:

<b>RGN</b>	This value <b>must</b> be left blank. OfficePath does not support a RGN.
<b>REN</b>	This is name that you have specified in the default location field on the SYSTEM record.

**CICS APPLID** The LU name of the CICS system which contains OfficePath.

**APPLICATION** You should tell IBM that this is an OfficePath system. However, OfficePath is defined, at IBM, in exactly the same way as DISOSS.

You will require the following information from IBM:

**MAX SESSIONS** The maximum number of sessions which the LU6.2 connection will support.

**NO. WINNERS** The number of contention winners which your CICS system should have.

**CICS APPLID** The LU name of the IBM Mail Exchange system.

The values which you get from IBM should be used to create a TCT TYPE=SYSTEM entry in the OfficePath CICS region. You can then create a DEST record which points to this TCT entry as described in ["Defining a SNADS Node"](#).

---

---

## Appendix

---



## Appendix A. Document type and Character Set Code Numbers

This section lists the code numbers which can be used to represent document types and character sets within OfficePath.

---

### A1. Character Set (GCID) codes

The following is a list of the GCID values which may be used within OfficePath. A translation table is supplied for each of these GCIDs, your installation may have defined other GCID tables which you could also use:

- 00337-00256** Multi-lingual (used internally by Personal Services and DISOSS)
  - 00265-00273** Austrian / German
  - 00684-00037** Canadian Bilingual
  - 00281-00277** Danish / Norwegian
  - 00313-00285** U.K English
  - 00101-00037** U.S English
  - 00285-00278** Finnish / Swedish
  - 00289-00279** French
  - 00293-00280** Italian
  - 00305-00283** Spanish (OLD)
  - 00309-00284** Spanish speaking
- 

### A2. Document type (DCA) codes

The following is a list of the DCA values which may be used by an application sending/receiving requests from OfficePath using the interface programs. These values correspond to the IBM defined DCA LEVELS:

- 00002** Final-Form Text (FF Text)
- 00006** Image document
- 00011** Revisable-Form Text (RF Text)
- 00014** Personal Computer data (PC File)

**00015** External document (or message)

**01403** Print-image (EDITABLE)

---

## Appendix B. Dataset Sizing

The JCL supplied to create the VSAM files used by OfficePath is suitable for testing purposes and in some installations may be adequate for initial production use. However, for optimum performance, the files sizes will need to be adjusted to match your own installation's needs.

The following information is provided for guidance only. It is important to monitor performance and make further adjustments as appropriate. Most of the OfficePath datasets are very volatile, with records constantly being added and deleted. The datasets should be reorganized regularly, at least weekly and even daily if a large number of CI SPLITS appear by the end of each day. If it is not possible to reorganize files regularly, then allocations should be increased.

It is recommended that all files are allocated in cylinders to allow the optimum CI size to be used.

For further information about the contents of each file, see the OfficePath Reference and Diagnosis manual.

The sizes of files are dependent on the following figures:

- N** Average number of requests passing through OfficePath per day
- K** Number of days OfficePath log records are retained
- R** Average number of recipients per request
- T** Average time before confirmations returned (hrs)
- D** Average document size (Bytes)
- P** Average number of users signing on per day

---

### B1. PIPLOG

If OfficePath is not configured to log all requests (on the System Defaults Record), then the approximate size of this file is:

$(566 \times N \times K)$  bytes

If OfficePath is configured to log all requests (on the System Defaults Record), then the approximate size of this file, assuming one LIST per request is:

$(566 \times K \times (2 \times N + P))$  bytes

---

## **B2. PIPMAIL**

The approximate size of this file is:  
(900 x N x R x T/24) bytes

---

## **B3. PIPSTAT**

If OfficePath is not configured to keep status records (on the System Defaults Record), then the approximate size of this file is:  
(200 x N x R x T/24) bytes

If OfficePath is configured to keep status records (on the System Defaults Record), then the approximate size of this file is:  
(200 x N x R x K) bytes

---

## **B4. PIPTEXT**

The approximate size of this file is:  
((3260+D+24) x N x 2 x T/24) bytes

(3260 and 24 are the sizes of profile and trailer records)

(The factor of 2 allows for document format conversion)

---

## Appendix C. Sample definitions

This chapter provides some sample definitions made as part of an OfficePath installation. OfficePath has been installed in CICS2 region and a link to CICS1 region is provided using a standard LU 6.2 type connection.

The samples shown are for the CICS TCT and for some of the VTAM entries.

**Note:** Although the examples are from a working installation, there can be no guarantee that the same definitions will be appropriate to your own installation. It is strongly recommended that you review these definitions with your VTAM Systems Programmer.

[Figure 42](#) shows the TCT entry made in the CICS1 region.

### Figure 42. Sample CICS ISC APPLICATION LU6.2 TCT entry

```
DFHTCT TYPE=SYSTEM, SYSIDNT=LCIC, NETNAME=CICS1,
        FEATURE=PARALLEL, TRMTYPE=LUTYPE62, ACCMETH=VTAM,
        RUSIZE=256, BUFFER=256, CONNECT=AUTO
DFHTCT TYPE=MODESET, MAXSESS=(10, 5), SYSIDNT=LCIC,
        MODENAM=SNA5520, CONNECT=AUTO
```

[Figure 43](#) shows the VTAM definitions for both CICS regions. Suitable values for parameters such as VPACING and EAS will depend very much on your own installation's configuration.

### Figure 43. Sample VTAM definitions for CICS regions

```
CICS1    APPL  AUTH=(ACQ, VPACE), VPACING=6, MODETAB=WMTMODE,
          DLOGMOD=SNA5520, EAS=15, PARSESS=YES, SONSCIP=YES
CICS2    APPL  AUTH=(ACQ, VPACE), VPACING=6, MODETAB=WMTMODE,
          DLOGMOD=SNA5520, EAS=15, PARSESS=YES, SONSCIP=YES
```

[Figure 44](#) shows a sample logmode entry used for the connection between the two CICS regions. SNA5520 is a supplied VTAM logmode, but the parameters may have been customized in your own installation.

Also shown is an entry for logmode SNASVCMG. This is the general entry required for devices capable of acting as LU 6.2 devices and **must** be present for OfficePath to function correctly.

**Figure 44. Sample Logmode table entry**

```
SNA5520  MODEENT LOGMODE=SNA5520,TYPE=0,
          TSPROF=X'07',FMPROF=X'13',
          PRIPROT=X'B0',SECPROT=X'B0',
          PSNDPAC=X'07',SRCVPAC=X'06',SSNDPAC=X'07',
          COMPROT=X'50B1',RUSIZES=X'8585',
          PSERVIC=X'0602000000000000000002C00'

SNASVCMG MODEENT LOGMODE=SNASVCMG,FMPROF=X'13',TSPROF=X'07',
          PRIPROT=X'B0',SECPROT=X'B0',COMPROT=X'D0B1',
          RUSIZES=X'8585',ENCR=B'0000',
          PSERVIC=X'0602000000000000000000300'
```

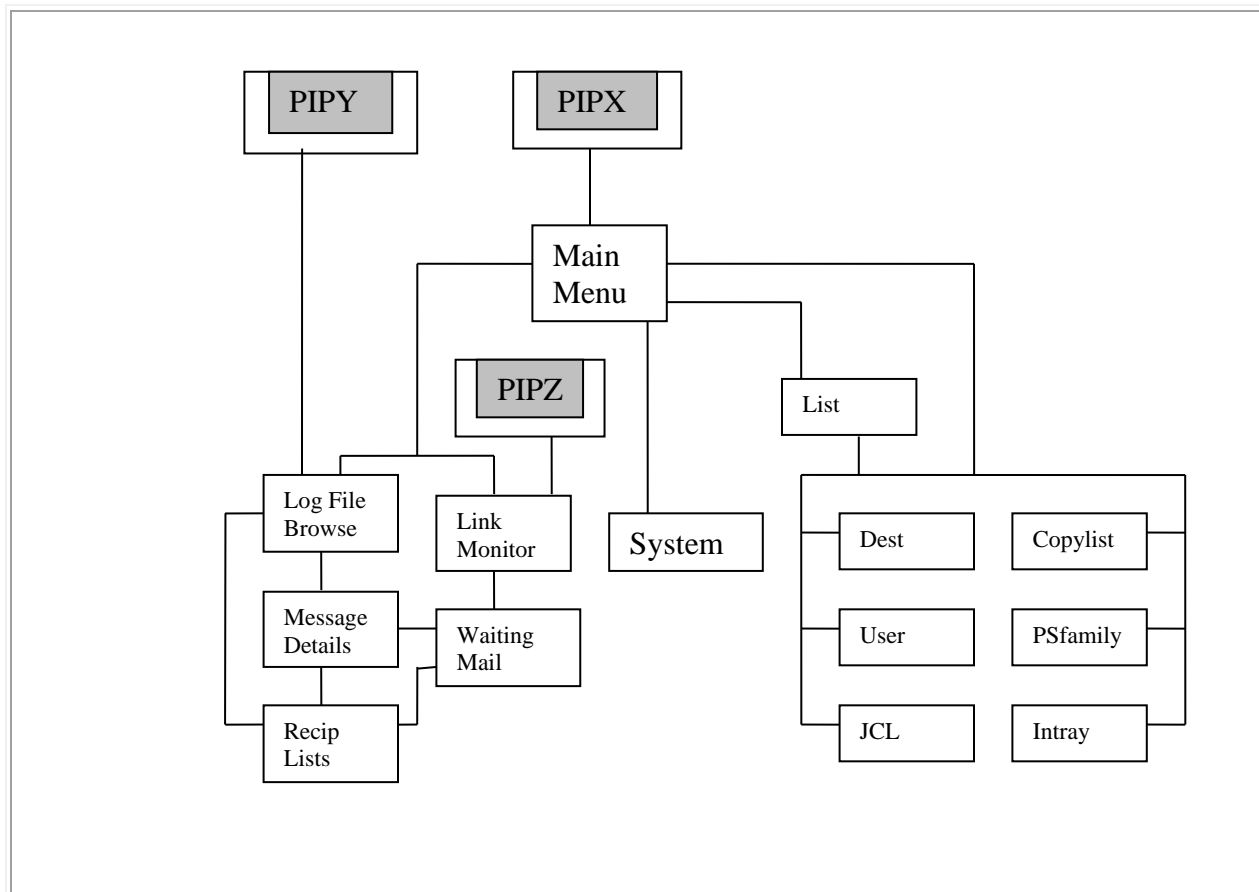
Additional information can be found in the following manuals:

- CICS Intercommunication Facilities Guide
- VTAM Installation Resource Definition
- VTAM Customization

## Appendix D. Administration panel flow

The flow between the OfficePath online administration panels is shown below:

**Figure 45. Administration panel flow**



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- Alert ([111](#))
- Application Services
  - Updates required ([51](#))
- Auditing
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