



# **Installation Guide**

Version 2 Release 1





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Version 2 Release 1

Note:	Before using this information and the product it supports, read the information in <i>Notices</i> on page 57.
Secon	d Edition (April 2001)
This e	dition applies to version 2, release 1 of WebSphere Partner Agreement Manager (product number 5724- and to all subsequent releases and modifications until otherwise indicated in new editions.
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# WELCOME TO THE INSTALLATION GUIDE

This document describes WebSphere® Partner Agreement Manager (PAM) 2.1 and explains how to install the PAM components, how to upgrade from PAM 1.1 to PAM 2.1, and how to install and configure DB2 for use with Partner Agreement Manager.

### To install Partner Agreement Manager:

- 1 Ensure that your system meets the prerequisites and requirements identified in *Before you begin* on page 3.
- **2** If you are installing PAM for the first time, see *If you are installing PAM for the first time* on page 43, for instructions about preparing the database.
- **3** Decide which components to install:
  - To install all components of PAM—the Process Server, the Adapter Server, the Process Manager, and the Adapter Manager—see *Installing the Process Manager* on page 19.
  - To install just the Process Manager, see *Installing the Process Manager* on page 19.
  - To install just the Adapter Manager, see *Installing the Adapter Manager* on page 25.
- **4** If you are upgrading from PAM 1.1 to PAM 2.1, see *Upgrading to PAM 2.1* on page 31.

# WHO SHOULD USE THIS INFORMATION

This information is for those who need to install and configure DB2, install Partner Agreement Manager, and upgrade Partner Agreement Manager.

# RELATED INFORMATION

For additional information see the following:

- The readme.txt file. This file may contain information that became available after this book was published. Before installation, the readme.txt file is located in the root directory of the product CD-ROM. After installation, the readme.txt file is located in the root directory of the Partner Agreement Manager installation.
- The index.html file. This file contains links to the Partner Agreement Manager readme.txt file and Installation Guide. Before installation, the index.html file is located in the root directory of the product CD-ROM. After installation, the index.html file is located in the root directory of the Partner Agreement Manager installation.
- The *Partner Agreement Manager Administrator's Guide*, form number BIAAAB00, which describes how to set up, configure, and administer Partner Agreement Manager after you install it.
- The *Partner Agreement Manager User's Guide*, form number BIAAAC00, which describes how to start a Partner Agreement Manager session, design public and private processes, define element definition sets, create business objects, and manage process distribution.
- The Partner Agreement Manager Adapter Developer's Guide, form number BIAAAD00, which describes how to develop and administer adapters using the Partner Agreement Manager Adapter Development Environment.
- The *Partner Agreement Manager Script Developer's Guide*, form number BIAAAE00, which describes how to write scripts used in Partner Agreement Manager private processes and elsewhere.
- The *Partner Agreement Manager API Guide*, form number BIAAAF00, which describes principles behind the Partner Agreement Manager External API. See also the Javadoc for the External API, which you can access from the *Partner Agreement Manager API Guide*.

- The Partner Agreement Manager Adapters for MQSeries User's Guide, form number BIAAAG00, which describes how to install, configure, and run the Partner Agreement Manager Adapters for MQSeries.
- The *Partner Agreement View User's Guide*, form number GC34-5965-00, which describes how to install, configure, and use Partner Agreement View.

# **SUMMARY OF CHANGES**

This edition includes these changes since the previous, first, edition:

- External APIs. Partner Agreement Manager 2.1 provides added flexibility to external applications through additional APIs. These APIs allow third-party applications to take advantage of the Partner Agreement Manager partner management and process engine through programmatic access. The API is distributed as a set of Java classes that the external application can import. Communication between the API classes and the Process Server is through RMI, but in the future can be swapped out for HTTP or SOAP. Specifically, APIs have been added to the following functional areas:
  - Session Service API
  - Admin Service API
  - Document Service API
  - Partner Service API
  - Adapter Service API
  - Process Service API

- LDAP Support. Partner Agreement Manager 2.1 provides centralized user authentication and administration through an LDAP directory. Partner Agreement Manager can retrieve user information—such as name, e-mail address, phone, and fax—stored in an LDAP directory. Updating this information is done in a single place, through the LDAP management tool. Users are authenticated through the same directory, giving them single-sign-on capabilities across enterprise applications.
- Double-byte character sets (DBCS) and National Language Support (NLS). Double-byte character sets are now supported in Partner Agreement Manager 2.1. Double-byte and multibyte data can be transferred and operated on in business objects and adapters. NLS lets Partner Agreement Manager display user interface text in other languages.
- *Improved XML Support.* The Partner Agreement Manager 2.1 engine fundamentally changes the way it interacts with business objects by replacing proprietary parsers with a third-party parser. This simplifies support of DTD 1.0 and the support of XML schemas when the standard is finalized.
  - The Business Object and Script API have been extended with new classes and methods. The new classes and methods let you work with business objects as W3C Documents.
- Adapter Asynchronous Callback. An additional Adapter API allows adapters to be more efficient with long-running adapter operations. The Asynchronous Callback method tells the Adapter Server that an operation will be long-running, that system resources should be freed while the adapter waits for a response from the end system, and that another method will be called when the response arrives. The Asynchronous Callback method frees the adapter developer from using the request-retry method that makes the Adapter Server responsible for polling the end system for the response.
- Script API Changes. The script API now provides access to the PartnerGroupContext and the Public and Private Process Contexts. Through these contexts, you can get information such as partner group binding, a reference to the process, inputs to the process (which contain a reference to the sender, the ID of the sending node, and the variable name), and unique node and loop IDs.

- Certificate Support. Partner Agreement Manager 2.1 is able to request and import certificates from certificate authorities like VeriSign. This lets organizations use their existing certificate, or request a new one if their partners do not accept self-signed certificates. Partner Agreement Manager 1.1 supported only self-signed certificates.
- Outbound Proxy Support. Partner Agreement Manager 2.1 channels that use HTTP communication can work with outbound proxies that use authentication. Outbound proxy authentication is used within *internal* networks to ensure that only people and applications that are authenticated may communicate with an *external* network. Authentication in the outbound proxy is done with a standard user name and password combination. You can turn on the outbound proxy feature after installation. Thereafter, all outbound HTTP communication will use the same user name and password combination for the proxy.

**NOTE:** Note that this feature is only used by channels using HTTP communication; it does not apply to channels that use the built-in Partner Agreement Manager proxy.

1

# INSTALLING PARTNER AGREEMENT MANAGER

Welcome to WebSphere® Partner Agreement Manager (PAM). This guide provides the information you need for installing Partner Agreement Manager 2.1 on a Windows NT system, using DB2 as the database.

Read this chapter for information about meeting product prerequisites, meeting system requirements, and installing Partner Agreement Manager and its supporting software.

This chapter includes these sections:

- *About installing PAM* on page 2.
- *Before you begin* on page 3.
- Installing Partner Agreement Manager on page 7.
- *Installation worksheet* on page 16.

## ABOUT INSTALLING PAM

- These are the steps for installing Partner Agreement Manager:
- **STEP 1** Ensure that you have met the product prerequisites. See *Before you begin* on page 3, and *If you are installing PAM for the first time* on page 43 for first-time installations. See *Upgrading to PAM 2.1* on page 31 if you are upgrading from PAM 1.1 to PAM 2.1.
- **STEP 2** Ensure that your system meets the hardware and software requirements for installing the Process Server. See *Hardware and software requirements* on page 4.
  - Partner Agreement Manager uses several independent software products and components, which you must install before you install the Process Server. If you are missing any of the required software, download and install it before proceeding. See *Server software requirements* on page 5.
- **STEP 3** Install the Windows NT SNMP service if you plan to use the Partner Agreement Manager SNMP Agent. See *Installing the Windows NT SNMP service* on page 6.
- **STEP 4** Install IBM HTTP Server 1.3.12.2. See *Installing the IBM HTTP Server and configuring SSL* on page 53.
- **STEP 5** Install your database software and apply any necessary FixPaks. See *Installing* and configuring *DB2* on page 41.
- **STEP 6** Set up a Partner Agreement Manager database. The Partner Agreement Manager database is populated when you install the Process Server. See *Installing and configuring DB2* on page 41 for information on setting up your Partner Agreement Manager database.
- **STEP 7** Install the Partner Agreement Manager from the PAM CD. See *Installing Partner Agreement Manager* on page 7.
- **STEP 8** After you install Partner Agreement Manager, the next step is to configure it. See the *Partner Agreement Manager Administrator's Guide*.
  - **Note:** If you plan to use the Partner Agreement Manager Adapters for MQSeries, you must install them separately. See the *Partner Agreement Manager Adapters for MQSeries User's Guide*.

# BEFORE YOU BEGIN

Before you install Partner Agreement Manager on your Windows NT system, you must ensure that these prerequisites are met:

- Ensure that your partner ID (a number that uniquely identifies your company's PAM installation) meets these requirements:
  - You are required to use your company's Dun & Bradstreet D-U-N-S® Number for your partner ID. If you have more than one Partner Agreement Manager license that you plan to use within your organization, use your D-U-N-S Number with the 4-digit location qualifier to distinguish the different locations within your organization. Enter the 9 or 13 digits, without any punctuation, as your Partner ID. You can look up your D-U-N-S Number by visiting www.dnb.com. If your company does not have a D-U-N-S Number, you can request one from Dun & Bradstreet at www.dnb.com. Contact your IBM representative if you have questions about your partner ID.
- Install the Java Runtime Environment (JRE) version 1.2.2, build number cn122-20010308, on your system. Unzip the file ibm-jre-n122p-win32-x86.zip from the product CD, and copy it to a directory of your choice.
- Edit your system PATH variable to add the location of java.exe that you installed from the zip file:

```
%jre_root_dir%\bin:%PATH% where %jre_root_dir% is the directory where you unzipped the IBM JRE.
```

- Edit your system CLASSPATH variable to add the location of the rt.jar file:
   "jre\_root\_dir"\lib\rt.jar: "CLASSPATH"
   where "jre\_root\_dir" is the java.exe directory.
- Verify that the PATH and CLASSPATH variables are correct by opening a DOS window and run the command java -version. If the variables are correct, the command returns the JRE version number and build information.
- Add these Java packages to *%jre\_root\_dir*%\jre\lib\ext. You can download them from the JavaSoft website (www.javasoft.com/products):
  - Java Beans Activation Framework version 1.0.1—activation.jar.
  - Java Naming and Directory Interface (JNDI) version 1.2.1—jndi.jar.
     LDAP service provider version 1.2.2—ldap.jar and providerutil.jar.
  - Java Mail version 1.2—mail.jar and pop3.jar.

- Ensure that your system meets the requirements described in *Hardware and software requirements*, next. If you are missing any of the required software, download and install it before proceeding.
- If this is the first time you are installing Partner Agreement Manager, follow the instructions in *If you are installing PAM for the first time* on page 43 before beginning the installation.
- If you are upgrading Partner Agreement Manager from version 1.1 to version 2.1, see *Upgrading to PAM 2.1* on page 31 for instructions about performing the required pre-upgrade steps and for instructions on performing the upgrade.
- Use the Installation Worksheet on page 16 to record information that you need during the installation. The worksheet is a handy reference during installation, and it provides a record of information that is useful for network and system administrators after installation.

# HARDWARE AND SOFTWARE REQUIREMENTS

Before you install the Process Server, ensure that your system meets the hardware and software requirements described here. If you are missing any required software, download and install it before proceeding.

**Note:** The requirements described here are the minimum for installing and running Partner Agreement Manager. The optimal configuration for your Partner Agreement Manager installation depends on the number of processes you run, the frequency with which you run them, and several other factors. Your IBM representative can help you determine your optimal configuration.

#### SERVER HARDWARE REQUIREMENTS

- Pentium® II 300 MHz processor (or faster)
- 1 MB or higher L2 cache
- 128 MB RAM (or more)
- 4 GB hard drive (or larger)

The hard disk requirement for the Process Server and all supporting software is approximately 390 MB. Make additional provisions for a 1 GB (or more) database device and a 250 MB (or more) log device set up for use by your database.

**Note:** Plan to allocate additional disk space to archive audit information, because the amount of disk space you might need is highly variable. The size of business objects that pass between you and your Partner Agreement Manager partners also affects the amount of disk space required. If you expect to create business objects that contain complicated schematics or CAD drawings, for example, plan to allocate significantly more disk space.

#### SERVER SOFTWARE REQUIREMENTS

■ A standard version of Windows NT Server 4.0 with Service Pack 5 or 6a (not a Microsoft Developer Network release).

**Note: Security Advisory:** Configure the NT Server used to host Partner Agreement Manager to use the NTFS file system instead of the FAT (file allocation table) file system. Using FAT disables most of Windows NT's built-in security features.

- IBM HTTP Server 1.3.12.2. The IBM HTTP Server is required to use the Partner Agreement Manager private process action called Approvals. You can download the HTTP Server from the IBM web site at http://www-4.ibm.com/software/webservers/httpservers/download.html. See *Installing the IBM HTTP Server and configuring SSL* on page 53.
- A DB2 database for use with Partner Agreement Manager. See *Installing* and configuring DB2 on page 41.
- Microsoft Windows Scripting 5.1 (available from www.microsoft.com/msdownload/vbscript/scripting.asp).
- Network access to an SMTP server (for e-mail notifications), plus an e-mail account that Partner Agreement Manager can use for sending e-mail for notifications.
- A certificate for the Web server (available from any certificate authority, such as www.verisign.com, depending on the local security policy).
- The Windows NT SNMP service, if you plan to use an SNMP-based network management application to monitor Partner Agreement Manager resources—see *Installing the Windows NT SNMP service* on page 6.
- An LDAP version 2-compliant directory server, if you plan to use LDAP (Lightweight Directory Access Protocol). LDAP provides a standard method for accessing information from a central directory. See the *Partner Agreement Manager Administrator's Guide* for more information.

Note: You can find links to the download pages for required software on the support web site: http://ps.software.ibm/pbin-usa-ps/getobj.pl?/pdocs-usa/phonenos.html. If you have not already received a user name and password for accessing the support web site, send a request to your IBM representative.

#### CLIENT HARDWARE REQUIREMENTS

- Pentium 166 MHz processor (or faster)
- 40 MB RAM minimum (64 MB RAM or more is recommended)
- 30 MB free hard-disk space (or more)

#### CLIENT SOFTWARE REQUIREMENTS

 A standard version of Windows NT Workstation 4.0 with Service Pack 5 or 6a (not a Microsoft Developer Network release), or Microsoft Windows 98, or Microsoft Windows 95

## INSTALLING THE WINDOWS NT SNMP SERVICE

If you plan to enable support for diagnostic monitoring during Partner Agreement Manager installation, you must install the Windows NT SNMP Service before you start the PAM installer.

#### To install the Windows NT SNMP Service:

- 1 Open the Control Panel and double-click the Network icon.
- 2 Click the Services tab.

If SNMP Service is listed, SNMP is already installed.

- If SNMP is already installed, verify that the service is running. See *Verifying the SNMP service*, next.
- If SNMP Service is not listed on the Services tab, click Add.
- 3 Select SNMP Service and click OK.
- **4** Insert your Windows NT installation CD into the CD-ROM drive, enter the path to your CD-ROM drive, and click OK.
- **5** Open the SNMP Properties dialog box.
- **6** Click the Agent tab and enter Contact and Location information.
- 7 Click the Traps tab and, in the Trap Destination area, add the computers on your system running the SNMP network management applications that will monitor this computer.

- **8** Restart your computer and verify that the service is running. See *Verifying the SNMP service*, next.
- **9** Re-install your current Windows NT Service Pack.

#### VERIFYING THE SNMP SERVICE

After installing the Windows NT SNMP service, verify that it is running:

- 1 Open the Control Panel and double-click the Services icon.
- **2** Verify that SNMP and SNMP Trap Service are started.
- **3** Verify that the startup is set to automatic.

# Installing Partner Agreement Manager

Using the Partner Agreement Manager installer, you can install the Process Server and Adapter Server, as well as the client software (Process Manager and Adapter Manager), all at the same time. Or you can install just the two servers, just the Process Manager, or just the Adapter Manager.

For security reasons, it's a good idea to create a new NT user named "pam" with Local Administrator privileges, and then use that user account to install and run the Partner Agreement Manager servers.

**IMPORTANT:** Partner Agreement Manager will not run as a service if you change this user after creating it during installation. If you plan to run Partner Agreement Manager as a service, be sure that the NT user does not change after the installation.

Here are additional security recommendations for the Partner Agreement Manager host computer:

- Install the PAM servers on a separate computer—one that is not defined as a member of an NT domain.
- Limit the number of user accounts and disable guest accounts. The PAM servers should not be run as any other user.
- Turn off administrative shares.
- Disable RAS (Remote Access Service).
- Disconnect any modems.

The Partner Agreement Manager installer places Partner Agreement Manager shortcuts in a WebSphere folder in your Start menu. Use the shortcuts to start the components you install.

#### To install PAM:

- 1 Insert the PAM CD in your CD-ROM drive.
- 2 Click Start, choose Programs, and open a Command Prompt window.
- 3 Change directory (cd) to your CD-ROM drive. At the prompt, type setup.bat to start the installation.

The Welcome panel appears for the Partner Agreement Manager installation. The Partner Agreement Manager installer guides you through the installation, one panel at a time.

**IMPORTANT:** If you are installing Partner Agreement Manager on a dual-processor computer, you must set the affinity of the java.exe to one processor before continuing with the installation. To set the affinity to one processor. Open the Windows Task Manager and click the Processes tab. Find the java.exe process in the list and right-click the process name. Choose Set Affinity from the menu that appears. Deactivate all but one processor. Close the Task Manager and continue with the Partner Agreement Manager installation.

4 Click Next in the Welcome panel.

The License Agreement panel appears. You must agree to all the terms of the license to proceed with the installation.

- 5 Click the box labeled Accept All Terms of the License, and then click Next.
- **6** In the next panel, choose New PAM Installation, and then click Next.

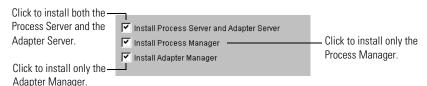


7 The installer checks prerequisites on your system.

Checking prerequisites for PAM Manager 2.1

Click Next to continue the installation.

8 Choose the Partner Agreement Manager components you want to install.



The system selects all components by default: the Process/Adapter Servers, the Process Manager, and the Adapter Manager. You can accept the default, or you can select any combination of components. These instructions guide you through installing all Partner Agreement Manager components. If you are installing only the PAM client software, see *Installing the Process Manager* on page 19. If you are installing only the Adapter Manager, see *Installing the Adapter Manager* on page 25.

**IMPORTANT:** If you attempt multiple installations on a single computer, *only* the level of the latest installation will be valid and will overwrite any previous installation. For example, if you install the Process Server/ Adapter Server and then install the Process Manager, the server version will be overwritten and the system will function as a Process Manager client only. If you perform multiple installations on a single computer you must create a new database for each installation, then run the installer again to choose a separate destination folder for the second installation.

When deciding which components to install, consider these points:

- The server installation installs the Partner Agreement Manager functionality including process and adapter creation, execution, auditing, and partner management without user access.
  - To install both servers only, or to perform a full installation of both servers and both clients, continue to step 9, next.
- The Process Manager installation provides user access and control of various features of the Process Server.
  - To install only the Process Manager, see *Installing the Process Manager* on page 19.
- The Adapter Manager installation provides the user with access to the Adapter Server to design and run adapters for other business application software with which Partner Agreement Manager must communicate.

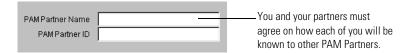
To install only the Adapter Manager, see *Installing the Adapter Manager* on page 25.

**9** Select the components you want to install and click Next.

The installer guides you step by step through the information necessary to install Partner Agreement Manager.



License key The license key gives you the right to install the Process Server. It appears on the CD label.



Partner Name The name by which your company is known to its Partner

Agreement Manager partners. You and your partners can agree on any set of unique names. Partner names can be up to 40 characters long, and can include all characters except for the pound sign (#), semi-colon (;), equal sign (=), and

double quote (").

Partner ID A number that uniquely identifies your company's PAM

installation. See *Before you begin* on page 3 for information about partner ID requirements. If you have questions about

your partner ID, contact your IBM representative.

The name of the computer — where the Process Server is to be installed.	PAM Server Host Host Name   shakespeare	
	Process Server Ports  Adapter Server Port   4003    Process Manager Port   1099	These ports listen for the Adapter Server and the Process Manager.
These ports listen for the — Process Server and Adapter Manager.	Adapter Server Ports Process Server Port 4004 Adapter Manager Port 1100	

**Note:** When you install all Partner Agreement Manager components (all server and client software), all Port fields are editable. Ensure that the ports specified by the default values are available, and change them if they are not.

Host Name

The name of the computer where the Process Server is to be installed.

The server installation recognizes the local computer name where it is being installed and displays it. This is the valid host name for the server version of Partner Agreement Manager. This field is not editable.

**NOTE:** If you are installing the Process Manager on a computer separate from the Process Server host, this field is editable. In this case, you must change the host name to the name of the computer where the Process Server and the Adapter Server are installed.

Process Server Ports The Process Server ports that listen for the Adapter Server and the Process Manager. The system displays default values.

> **NOTE:** When you install the Process Manager (without the Server) the Process Manager Port field is editable. This number must match the Process Manager port number used during the installation of the Process Server and the Adapter Server.

Adapter Server **Ports** 

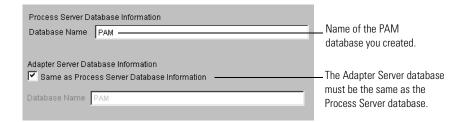
The Adapter Server ports that listen for the Process Server and the Adapter Manager. The system displays default values.

**Note:** When you install the Adapter Manager (without the servers), the Process Manager Port and Adapter Manager Port fields are editable. These numbers must match the Partner Agreement Manager and Adapter Manager port numbers used during the installation of the Process Server and the Adapter Server.

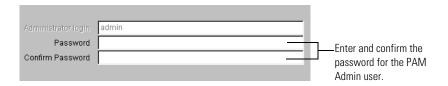
The installer shows the type of database to be used by PAM:



#### The installer shows the database name:



The Adapter Server database must be the same as the Process Server database. You cannot modify this information—the installer automatically checks the Same as Process Server Database Information, and disables the second Database Name field.

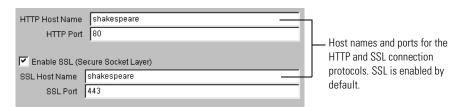


#### Admin Login and Password

The Admin login you assigned to the PAM administrator. It is not editable. Enter the initial password for the PAM Admin user. You can change this password after logging in to Partner Agreement Manager.



To use a remote web server or a web server that is not listed in the installer, you must manually configure it to integrate with PAM.



HTTP Host Name and Port

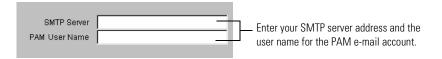
The host names and TCP/IP port number for the HTTP connection protocols. These appear by

default but can be modified.

SSL Host Name and Port.

The installer selects the check box "Enable SSL (Secure Socket Layer)" by default. If you have SSL security certificates installed on your web server, leave this box checked.

The host name and port number for SSL appear by default but can be modified.

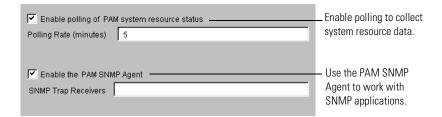


SMTP Server SMTP Server is the host name of your e-mail server.

Enter your SMTP server address.

PAM User Name PAM User Name is the user for the Partner

> Agreement Manager e-mail account. This is the user to whom all undeliverable mail from Partner Agreement Manager returns. The default is "pam."



Enable polling of PAM system resource status

Enable polling if you want Partner Agreement Manager to collect system resource information and post it in the Process Manager Auditor System

Messages folder.

Polling Rate (minutes)

If you enabled polling, specify the rate at which Partner Agreement Manager will poll the system, or

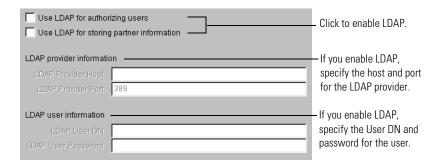
accept the default of 5 minutes.

Enable the PAM SNMP Agent

Enable the SNMP Agent if you use SNMP-based network management applications that need access to Partner Agreement Manager.

SNMP Trap Receivers Enter the name of computers on your network that use SNMP-based network applications that will listen for Partner Agreement Manager system messages, if any. Optional.

**NOTE:** If you specify more than one computer, you must separate the names with spaces.



Use LDAP for authorizing users

Click to enable LDAP to authenticate users and retrieve user information.

If you enable this LDAP option, you must specify LDAP provider information (host and port) and LDAP user information (user DN and password).

Use LDAP for storing partner information

Click to enable LDAP to store and receive partner information.

If you enable this LDAP option, you must specify LDAP provider information (host and port) and LDAP user information (user DN and password).

LDAP provider information

- LDAP Provider Host
- LDAP Provider Port

LDAP user information

- LDAP User DN (Distinguished Name)
- LDAP User Password



Start Process Server and Adapter Server as Services

Click to start the Process Server and Adapter Server as services when you start your computer.

If you start the Process Server and Adapter Server as services, the user you specify in this window must have the proper permissions to log on as a service.

	Destination Folder	
Select the folder	C:WebSphere\PAM	Browse
where you want		
Partner Agreement Manager installed.	Click Install to begin the installation.	

Destination Folder

The folder where you want Partner Agreement Manager installed.

After selecting a destination folder, click Install to begin copying files for the installation.

If the folder you choose for the installation does not exist, you are prompted to enable the installer to create it. Click Yes.

**Note:** If you installed Partner Agreement Manager as a service, then both the Process Server and the Adapter Server start automatically when you complete the installation. You can confirm that they are running by opening your computer's Services Control Panel.

After you install Partner Agreement Manager, the next step is to configure it. See the Partner Agreement Manager Administrator's Guide for more information.

**Note:** If you plan to use the Partner Agreement Manager adapters for MQSeries, you must install them separately. See the Partner Agreement Manager Adapters for MQSeries User's Guide for more information.

# **INSTALLATION WORKSHEET**

Use this worksheet to record information about your system, and refer to it as you perform the installation. In addition to being an installation reference, your completed installation worksheet is a useful record for network and system administrators after installation. It is also useful information for your IBM representative, should you need to call for help in resolving a problem after Partner Agreement Manager is running.

Ра	rtner Agreement Manager Information
	Partner Agreement Manager Product Name:
	Version Number:
	License Number:
Ηд	rdware and Operating System
	Single or Multi Processor?
	Installed Memory (RAM):
	Installed Hard Disk Space (GB):
	Available Hard Disk Space:
	Server Operating System:
	Server OS Service Pack:
DA	TABASE AND WEB INFORMATION
	WebSphere Version:
	Database Software:
	Database Version:
	Database Service Pack:
	Firewall Type:
	Partner Agreement Manager Proxy (if used):
Ра	rtner Information
	Partner Name:
	Partner ID:

Hc	ost, Port, Server Names and Numbers
	Process Server Host Name:
	Process Server Port Numbers:
	Adapter Server Port Numbers:
	Database Host Name:
	Database Port Number:
	Database User Name:
	Database User Password:
	HTTP Host Name:
	HTTP Port Number:
	SSL Host Name:
	SSL Port Number:
	NT User Name:
	NT Password:
	SMTP Server PAM User Name:
РА	M Directory, Database, Administrator Information
	Path Name to Partner Agreement Manager Directory:
	PAM Database Name (user-created):
	PAM Administrator User Name:
	PAM Administrator Database:
4	<b>TE:</b> If you use MQSeries adapters in your system, see the <i>Partner Agreement Manager Administrator's Guide</i> for information about transport protocol.

CHAPTER

2

# Installing the Process Manager

Read this chapter for information about installing the Process Manager on the Windows NT platform.

This chapter includes these sections:

- *Before you begin* on page 20.
- Installing the Process Manager on page 20.

# BEFORE YOU BEGIN

Before you install the Process Manager, ensure that your system meets the hardware and software requirements described here.

**IMPORTANT:** If you are upgrading to Partner Agreement Manager 2.1 from an earlier version, your system must meet the requirements listed here for Partner Agreement Manager 2.1. See *Upgrading to PAM 2.1* on page 31 before you begin upgrading your installation.

#### HARDWARE REQUIREMENTS

- Pentium 166 MHz processor or better
- 48 MB RAM (64 MB RAM or more recommended)
- 100 MB of free hard disk space or more (recommended)

#### SOFTWARE REQUIREMENTS

- Windows NT 4.0 (or later) with Service Pack 5 or 6a
- Windows 98 or Windows 95

#### INSTALLATION INFORMATION

Contact your Partner Agreement Manager administrator for this information:

- Your company's Partner Agreement Manager partner name
- Your company's Partner Agreement Manager partner ID
- The Process Server host name
- The Process Server port number

# INSTALLING THE PROCESS MANAGER

Installation files for the Process Manager are on the Partner Agreement Manager CD. Ensure that the Process Server has been installed and that your system meets the hardware and software requirements for installing the Process Manager.

**Note:** The PAM installer places a Process Manager shortcut in your Start menu. You can use this shortcut to start the Process Manager.

#### To install the Process Manager:

- 1 Insert the Windows NT PAM CD in your CD-ROM drive.
- 2 Click Start, choose Programs, and open a Command Prompt window.
- 3 Change directory (cd) to your CD-ROM drive, and at the prompt type setup.bat.

The Welcome panel appears for the Partner Agreement Manager installation. The PAM installer guides you through the installation, one panel at a time.

**Note:** Although this section explains all required fields, it does not show all panels that appear during the installation.

4 Click Next.

The License Agreement panel appears. You must agree to all the terms of the license to proceed with the installation.

- **5** Click the box labeled Accept All Terms of the License, then click Next.
- **6** In the next panel, choose New PAM Installation, and then click Next.



7 The installer checks prerequisites on your system.



8 In the next panel, choose Install Process Manager.



By default, the system selects all components—the Process Server and Adapter Servers, the Process Manager, and the Adapter Manager. Deselect the Install Process Server and Adapter Server and Install Adapter Manager options. (For instructions on installing the Process Server, see *Installing* Partner Agreement Manager on page 1.)

**Note:** To install the Adapter Manager along with the Process Manager, leave Install Adapter Manager selected. Additional editable fields appear for you to fill in. See *Installing the Adapter Manager* on page 25 for Adapter Manager instructions.

**IMPORTANT:** If you attempt multiple installations on a single computer, *only* the level of the latest installation will be valid, and will overwrite any previous installation. For example, if you install the Process Manager on a computer that already has the PAM Servers installed, the server version will be overwritten and the system will function as a Partner Agreement Manager client only.

**9** This section describes all the fields you encounter, in sequence, as you install the Process Manager software. Enter the identification information supplied by your PAM administrator.



License key

The license key gives you the right to install the Adapter Manager. It appears on the CD label.



Partner Name The name by which your company is known to its

> Partner Agreement Manager partners. Your system administrator can confirm the unique

name used by the company.

Partner ID A number that uniquely identifies your company

to all of its Partner Agreement Manager partners. Contact your system administrator for this

number.

	PAM Server Host		
	Host Name   shakespeare		Enter the name of the computer where your
	Process Server Ports		Process Server is to be
	Adapter Server Port	4003	installed.
Only the Process Server——————————————————————————————————	- Process Manager Port	1099	
	Adapter Server Ports		
	Process Server Port	4004	
	Adapter Manager Port	1100	

**Note:** When you install the Process Manager, the required Process Manager Port field is editable. Ensure that the port number is the same as the number used during the Process Server/Adapter Server installation.

Host Name The name of the Process Server.

> **Note:** When you install the Process Manager on a computer separate from the Process Server host, this field is editable. The system recognizes the local computer name, and it appears by default. You must modify the host name to point to the computer where the Process and Adapter Servers are installed.

Process Server Ports The numbers for the Process Server ports that listen for the Adapter Server and the Process Manager. The system displays default values.

> **NOTE:** When you install the Process Manager (without the Server) the Process Manager Port field is editable. (The Adapter Server Port is not.) This number must match the Process Manager Port number used during the installation of the Process and Adapter servers.

Destination Folder

The folder where you want the Process Manager installed.

CHAPTER

3

# INSTALLING THE ADAPTER MANAGER

Read this chapter for information about installing the Adapter Manager to run as a stand-alone application.

This chapter includes these sections:

- Before you begin on page 26.
- *Installing the Adapter Manager* on page 26.

# BEFORE YOU BEGIN

Before you install the Adapter Manager, ensure that your system meets the hardware and software requirements described here.

#### HARDWARE REQUIREMENTS

- Pentium 166 MHz processor or better
- 48 MB RAM (64 MB RAM or more recommended)
- 100 MB of free hard disk space for Partner Agreement Manager

#### SOFTWARE REQUIREMENTS

- Windows NT 4.0 (or later) with Service Pack 5 or 6a
- Windows 98 or Windows 95

#### INSTALLATION INFORMATION

Contact your PAM administrator for this information:

- Your company's Partner Agreement Manager partner name
- Your company's Partner Agreement Manager partner ID
- The Process Server server host name
- The Adapter Server client port number (this is the server port on the Adapter Server that listens for the Adapter Manager)

# INSTALLING THE ADAPTER MANAGER

Installation files for the Adapter Manager are on the PAM CD. Ensure that your system meets the hardware and software requirements for installing the Adapter Manager.

**Note:** The Partner Agreement Manager installer places an Adapter Manager shortcut on your Start menu. You can use this shortcut to start the Adapter Manager.

## To install the Adapter Manager:

- 1 Insert the Windows NT PAM CD in your CD-ROM drive.
- 2 Click Start, choose Programs, and open a Command Prompt window.
- **3** Change directory (cd) to your CD-ROM drive, and at the prompt type setup.bat.

The Welcome panel appears for the Partner Agreement Manager installation. The Partner Agreement Manager installer guides you through the installation, one panel at a time.

**NOTE:** Although this guide explains all required fields, it does not show all panels that appear during the installation.

- 4 Click Next.
  - The License Agreement panel appears. You must agree to all the terms of the license to proceed with the installation.
- **5** Click Accept All Terms of the License, and then click Next to proceed.
- **6** In the next panel, choose Install Adapter Manager.



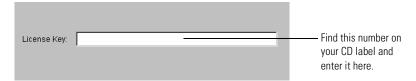
The system selects all components by default: the Process Server and the Adapter Server, the Process Manager, and the Adapter Manager. Deselect the Install Process and Adapter Servers and the Install Process Manager options. (For instructions on installing the Process Server, see *Installing Partner Agreement Manager* on page 1.)

**Note:** To install the Process Manager with the Adapter Manager, leave Install Process Manager selected. Additional editable fields appear for you to fill in. See *Installing the Process Manager* on page 19 for the Process Manager installation instructions.

**IMPORTANT:** If you attempt multiple installations on a single computer, *only* the level of the latest installation will be valid and will overwrite any previous installation. For example, if you install the Adapter Manager on a computer that already has the PAM Servers installed, the server version will be overwritten and system will function as an Adapter Manager client only.

7 This section describes the fields, in sequence, that are necessary to install the Adapter Manager software. Enter the identification information supplied by your Partner Agreement Manager administrator.

**8** The installer guides you step by step through the information necessary to install the Adapter Server.



License key

The license key gives you the right to install the Adapter Manager. It appears on the CD label.

PAM Partner Name	 The system administrator for PAM
PAM Partner ID	provides the Partner Name and

Partner Name The name by which your company is known to its

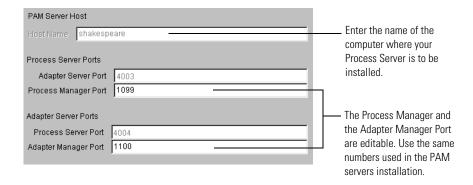
Partner Agreement Manager partners. Your system administrator can confirm the unique

name used by your company.

Partner ID A number that uniquely identifies your

company's PAM installation. Contact your system

administrator for this number.



**Note:** When installing the Adapter Manager, the required Port fields are editable. Ensure that the Port numbers are the same as the numbers used during the Process and Adapter Servers installation.

Host Name The name of the Process Server.

**NOTE:** When you install an Adapter Manager on a computer *separate* from the Process Server host, this field is editable. (When you install a server, this field is *not* editable.) The system recognizes the local computer name and it appears by default. You must modify the host name to point

to where PAM Servers are installed.

Adapter Server Ports The numbers for the Adapter Server ports that listen for the Process Server and the Adapter Manager. The

system displays default values.

Ensure that both the Process Manager port and the Adapter Manager port are correct and change them if they are not. If they are incorrect, the Adapter

Manager fails when you try to log in.

installed.

4

# Upgrading to PAM 2.1

Read this chapter for information about using the Partner Agreement Manager installer to upgrade from Partner Agreement Manager 1.1 to Partner Agreement Manager 2.1 for Windows NT.

**IMPORTANT:** Before you begin the upgrade, ensure that you have followed the steps in *Preparing the system to be upgraded* on page 33. You must follow these steps to prepare your PAM installation and your DB2 database for the upgrade.

This chapter includes these sections:

- *About upgrading PAM* on page 32.
- *Before you begin* on page 33.
- *Upgrading Partner Agreement Manager* on page 36.

# **ABOUT UPGRADING PAM**

When you upgrade, the installer automatically locates your current Partner Agreement Manager installation, identifies the components that are currently installed, and displays relevant information. Then, using the information you supply about your DB2 database, the installer upgrades your Partner Agreement Manager profile, your public and private processes, your business objects, and your audit logs that have not been archived.

PAM 1.1 required a C++ compiler. If you are upgrading from PAM 1.1 to 2.1, continue to use that compiler to build stored procedures. New PAM 2.1 customers will use the new stored procedure import that is provided by DB2 FixPak3.

Note: The installer replaces the entire WebSphere\PAM\Alliance directory (with the exception of the Plug Ins directory if there is one). Adapter files are typically in the Partners directory, and the installer does not delete files from the Partners directory. If you have put adapter-related files in the WebSphere\PAM\Alliance directory, however, they will be deleted—be sure to copy them before you begin the upgrade.

These are the steps for upgrading from Partner Agreement Manager 1.1 to Partner Agreement Manager 2.1:

**STEP 1** Prepare the Partner Agreement Manager system to be upgraded.

This includes performing an orderly shutdown of the Process Server and the Adapter Server, moving files out of the WebSphere\PAM\Alliance directory if necessary, and creating a backup of the entire Partner Agreement Manager system. See *Preparing the system to be upgraded* on page 33.

- **STEP 2** If you haven't already done so, upgrade the DB2 server to FixPak 3, or install a new DB2 server and upgrade it to FixPak 3.
- **STEP 3** Upgrade the Partner Agreement Manager system using the PAM CD. See *Upgrading Partner Agreement Manager* on page 36.
- **STEP 4** Recompile all your custom adapters. The adapters supplied by PAM are upgraded automatically. See the *Partner Agreement Manager Adapter Developer's Guide* for information about compiling adapters.
- **STEP 5** Distribute your Partner Agreement Manager profile to all partners. See the *Partner Agreement Manager User's Guide* for more information.

# BEFORE YOU BEGIN

Before you begin the upgrade from PAM 1.1 to PAM 2.1 for Windows NT, you must follow the steps described here to prepare your PAM installation and your DB2 database.

#### PREPARING THE SYSTEM TO BE UPGRADED

If you are currently using Partner Agreement Manager 1.1 and you want to continue using your PAM data, you *must* follow these instructions. If you do *not* want to preserve your existing PAM data, follow the instructions in *If you* are installing PAM for the first time on page 43.

Before you upgrade your Partner Agreement Manager installation, you must stop the Process Server. Because this means that all running processes must be stopped, it is a good idea to coordinate with your partners and schedule all upgrades for a time when no processes are running.

#### To prepare the system to be upgraded:

- 1 Ensure that your system meets the hardware and software requirements described in *Before you begin* on page 3.
  - If you are missing any of the required software, you must download and install it before proceeding.
- 2 Contact your administrator for your company's PAM partner name and partner ID.
- **3** Allow all Partner Agreement Manager processes to complete, or stop them. To stop a running PAM process, open the Auditor's In Progress Processes folder, right-click the process instance to stop, and choose Abort from the menu that appears.
  - **TIP:** To reduce the time necessary for the upgrade to complete and to be able to access them after the upgrade, archive any audit logs that you don't expect to use.
- **4** Stop the Adapter Server, if it is running. In the Adapter Server window, choose Exit from the Server menu. If you are running PAM as a service, stop the service in the Control Panel.
- 5 Stop the Process Server—in the Process Server window, choose Exit from the Server menu. If you are running PAM as a service, stop the service in the Control Panel.

- **6** Move any files that have been added to the WebSphere\PAM\Alliance directory to another location.
  - These are typically files that adapter developers might have added to the file system, and are usually files that the adapters refer to, not the adapters themselves. You can restore them to the WebSphere\PAM\Alliance directory after the upgrade.
- **7** Back up the entire Process Server system, so that you can restore your original Partner Agreement Manager 1.1 setup if the upgrade encounters problems.
  - **TIP:** You might want to create an image of the hard drive for restoring it in case of problems with the upgrade.
- **8** Apply DB2 FixPak 3 to the installation of DB2 that you use for PAM 1.1 (or to another installation if you divide your DB2 usage between two computers).
- **9** Enable the JDBC2 driver:
  - **A.** Stop all DB2 services on the DB2 server.
  - B. Open a DB2 command window.
  - c. Run this command on your DB2 installation: %SQLLIB%\java12\usejdbc2
  - **D.** Restart the DB2 services.
- 10 Close all other applications.

#### 11 Update the database:

■ To use the *same* DB2 server for PAM 2.1 as you used for PAM 1.1, run the upgradedb command from the db2 schema folder on the product CD: upgradedb < new db name > < db login > < db password > <db2 local directory><db2 server directory> <db2 instance name> <old db name><temp working directory>

If you are running **newdb** on the computer where the DB2 server is installed, < db2\_local\_directory> and < db2\_server\_directory> are the same—the directory where DB2 is installed on the DB2 server computer.

If you are running **newdb** on a computer other than the one where the DB2 server is installed, *<db2 local directory>* specifies the directory where the DB2 run-time client is installed, and *<db2\_server\_directory>* specifies the directory where the DB2 server is installed.

The upgradedb command creates tablespaces in the %SQLLIB% directory.

- To use a *different* DB2 server for PAM 2.1 than you used for PAM 1.1:
  - **A.** Run updgrdexp on the PAM 1.1 DB2 server (DB2 FixPak1).
  - **B.** Run upd@rdimp on the PAM 2.1 DB2 server (DB2FixPak3).
  - c. See the readme file in the db2 schema folder for directions on which files to transfer from the 1.1 DB2 server to the 2.1 DB2 server.
- 12 Run the Partner Agreement Manager installer and choose Upgrade Existing PAM Installation. See *Upgrading Partner Agreement Manager*, next.

**Note:** During the upgrade, the PAM installer lists most of these tasks and requires you to check them off before continuing the upgrade.

# Upgrading Partner Agreement Manager

When you upgrade, the installer upgrades all core PAM components at the same time—the Process Server and Adapter Server, the Process Manager, and the Adapter Manager.

You can upgrade the clients installed on other computers after you upgrade the Process Server and the Adapter Server. If you upgrade the Process Server and the Adapter Server computer, the Process Manager and the Adapter Manager installed on that computer are automatically upgraded at the same time.

**IMPORTANT:** You must upgrade the Process Server and the Adapter Server before you upgrade the Process Manager or the Adapter Manager. Version 2.1 servers must be available for use by version 2.1 clients.

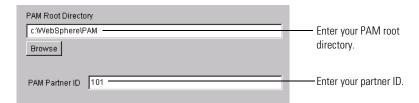
#### To upgrade a Partner Agreement Manager installation:

- 1 Insert the CD in your CD-ROM drive.
- **2** Click Start, choose Programs, and open a Command Prompt window.
- 3 Change directory (cd) to your CD-ROM drive. At the prompt, type setup.bat.
  The Welcome panel appears for the Partner Agreement Manager upgrade.
  The PAM installer guides you through the upgrade, one panel at a time.

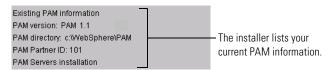
**NOTE:** Although this guide explains all required fields, it does not show all panels that appear during the installation.

- 4 Click Next.
  - The License Agreement panel appears. You must agree to all the terms of the license to proceed with the upgrade.
- 5 Click Accept All Terms of the License, then click Next.
  The next panel offers two installation options: Upgrade Existing PAM Installation or New PAM Installation.
- 6 Select Upgrade Existing PAM Installation and click Next.

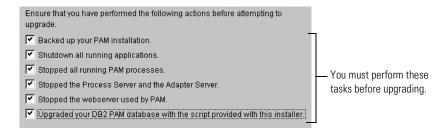
The next panel shows your PAM root directory and partner ID. Ensure that the information is correct and click Next.



**7** The installer checks your PAM installation and lists the current information.

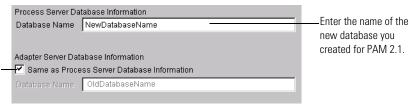


**8** The installer lists the tasks you must complete before you continue with the upgrade. Ensure that each pre-upgrade task has been completed, and check each box in the list.



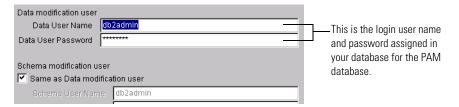
9 Click Next.

The next panel shows the name of the PAM 1.1 database and prompts you to replace it with the name of the new database you created when you created the PAM schema.

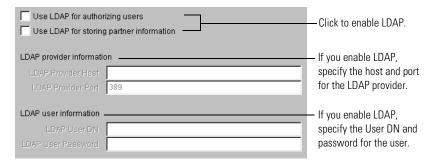


The installer upgrades the -Adapter Server database name with the same name as the Process Server database name. **NOTE:** The check mark in the Same as Process Server Database Information box ensures that the new database name is used for the Adapter Server database as well as for the Process Server database.

10 Click Next to verify the data modification and schema logins and passwords.



11 Click Next to view the LDAP option panel.



Use LDAP for Click to enable LDAP to authenticate users and authorizing users retrieve user information. If you enable this LDAP option, you must specify LDAP provider information (host and port) and LDAP user information (user DN and password). Use LDAP for Click to enable LDAP to store and receive partner storing partner information. information If you enable this LDAP option, you must specify LDAP provider information (host and port) and LDAP user information (user DN and password). LDAP provider LDAP Provider Host information ■ LDAP Provider Port LDAP user ■ LDAP User DN (Distinguished Name) information ■ LDAP User Password

#### 12 Click Next.

If you are not already running Partner Agreement Manager as an NT service, the Services panel appears.



Start Process Server and Adapter Server as Services

Click to start the Process Server and the Adapter Server as services when you start your computer. If you start the Process Server and the Adapter Server as services, the user you specify in this window must have the proper permissions to log on as a service.

#### 13 Click Next.

The destination folder panel appears.



Destination Folder The folder where Partner Agreement Manager is installed.

**NOTE:** The Destination Folder field is not editable.

14 Click Next to begin the upgrade.



# **INSTALLING AND** CONFIGURING DB2

Read this appendix for information about installing and configuring DB2 for your PAM Process Server on Windows NT. The information provided here does not replace the need for your DB2 administrator to customize and maintain your DB2 installation for your system and needs.

This appendix includes these sections:

- *Before you install DB2* on page 42.
- *Installing DB2* on page 44.
- *Configuration tips* on page 51.

# BEFORE YOU INSTALL DB2

To use DB2 as the database with Partner Agreement Manager, your system must meet the hardware and software requirements described here. It must also meet the requirements for Partner Agreement Manager described in *Installing Partner Agreement Manager* on page 1.

# SERVER HARDWARE REQUIREMENTS

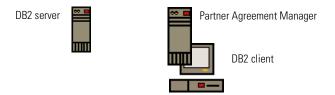
- 128 MB memory (or more).
- The hard disk requirement for the Process Server and all supporting software is approximately 390 MB. Make additional provisions for a 1 GB (or more) database device and a 250 MB (or more) log device set up for use by your database.

# SERVER SOFTWARE REQUIREMENTS

- A standard version of Windows NT Server 4.0 with Service Pack 5 or 6a (not a Microsoft Developer Network release).
- IBM DB2 run-time client.
- IBM DB2 Enterprise Edition version 7.1, with FixPak 3. You can find DB2 FixPaks at IBM's Web site:

  www-4.ibm.com/software/data/db2/db2tech/indexsvc.html.
- JDBC 2 driver, which is installed with the DB2 run-time client.

**Note:** The DB2 client is automatically installed when you install the DB2 server. If you run Partner Agreement Manager on a computer other than the one where the DB2 server is installed (as IBM recommends), you must install the DB2 client on that computer:



See *Installing and configuring the DB2 client* on page 46.

### IF YOU ARE INSTALLING PAM FOR THE FIRST TIME

Follow these instructions before you install PAM for the first time. If you are upgrading PAM, see *Upgrading to PAM 2.1* on page 31.

**Note:** IBM recommends that you install the DB2 server and Partner Agreement Manager on different computers.

#### To install Partner Agreement Manager for the first time:

- 1 Install DB2. See *Installing DB2* on page 44.
- 2 Download DB2 FixPak 3 from the IBM web site.
- 3 Apply the FixPak on the computer that is running the DB2 server.

**Note:** IBM recommends that you install the DB2 server and PAM on different computers. If you plan to install PAM on a different computer than the one running the DB2 server, you must install the FixPak on both computers.

- **4** Enable the JDBC2 driver:
  - **A.** Stop all DB2 services on the DB2 server.
  - **B.** Open a DB2 command window.
  - **c.** Run this command: %SQLLIB%\java12\usejdbc2
  - **D.** Restart the DB2 services.
- 5 Log in as the user who is running DB2.
- **6** Run the **newdb** command from the **db2 schema** folder on the product CD: newdb <db\_name> <db2\_login> <db2\_password> <db2\_local\_directory><db2\_server\_directory> <db2\_instance\_name>
  - If you are running **newdb** on the computer where the DB2 server is installed, <db2 local directory> and <db2 server directory> are the same—the directory where DB2 is installed on the DB2 server computer.
  - If you are running **newdb** on a computer other than the one where the DB2 server is installed, <db2\_local\_directory> specifies the directory where the DB2 run-time client is installed, and *<db2\_server\_directory>* specifies the directory where the DB2 server is installed.

The newdb command creates tablespaces in the %SQLLIB% directory.

7 Continue with the installation. See *Installing Partner Agreement Manager* on page 7.

**8** After you install Partner Agreement Manager, the next step is to configure it. See the *Partner Agreement Manager Administrator's Guide*.

**Note:** If you plan to use the Partner Agreement Manager Adapters for MQSeries, you must install them separately. See the *Partner Agreement Manager Adapters for MQSeries User's Guide*.

# Installing DB2

The recommended configuration of Partner Agreement Manager and DB2 uses two computers, one to run Partner Agreement Manager and one to run the DB2 server. If you prefer, you can install Partner Agreement Manager and DB2 on the same computer. These directions apply to either configuration.

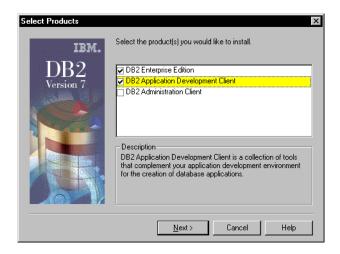
#### INSTALLING THE COMPONENTS IN ORDER

These are the steps for installing the DB2 server, in the recommended order:

- 1 Create the user that will run DB2 and log in as that user—a good choice is db2admin. This user must have administrative privileges.
- 2 Install DB2.
- **3** Configure DB2.
- 4 Install the Process Server.

If you install Partner Agreement Manager on a computer other than the one where the DB2 server is installed, you must install the DB2 client on that computer. See *Installing and configuring the DB2 client* on page 46. You must install the Process Server after you install and configure DB2, because it requires the DB2 JDBC driver that is installed with DB2.

Follow IBM's instructions to install DB2. When the Select Products panel appears, choose both the DB2 Enterprise Edition and the DB2 Application Development Client:



When the DB2 installer prompts you to choose the directory where DB2 will be installed, make a note of the directory you choose. When you configure DB2 you need to change to this directory.

**Note:** If you did not create a user before beginning the installation, the DB2 installer automatically creates a user named db2admin.

## CONFIGURING DB2

After you install DB2, you must configure it.

- 1 Copy the WebSphere Partner Agreement Manager db2 schema folder from your PAM CD to your DB2 server computer.
- 2 On your DB2 server computer, change directory (cd) to db2\_schema.

The db2\_schema directory contains these files:

- bitwfa.dll
- tocharf.dll

Copy the bitwfa.dll and tocharf.dll files from the db2\_schema directory to the **%SQLLIB%\function** directory.

## CREATING THE PAM SCHEMA

- 1 Open a new DB2 command window and change directory (cd) to db2 schema.
- **2** Log in as the user who is running DB2.
- 3 Run the newdb.bat file from the DB2 command window:

```
newdb <db_name> <db2_login> <db2_password> <db2_local_directory> <db2_instance_name>
```

**Note:** Use the < db2\_local\_directory> parameter if you are running the newdb command on the DB2 client computer. Use the < db2\_server\_directory> parameter if you are running newdb on the DB2 server computer.

This creates a new database for Partner Agreement Manager, creates Partner Agreement Manager tables, extends the number of log files, registers UDFs (user defined functions), and creates the stored procedures. The newdb command puts the DB2 stored procedures in the directory \function\routine\sqlproc.

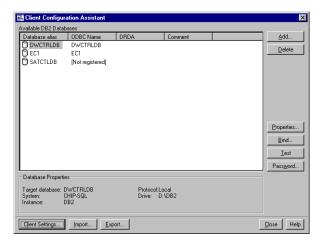
#### Installing and configuring the DB2 client

IBM recommends that you run Partner Agreement Manager on a computer other than the one on which the DB2 server is installed. If you follow this recommendation, you must install the DB2 client on the computer where Partner Agreement Manager is installed, and configure it so that it can locate the DB2 server.

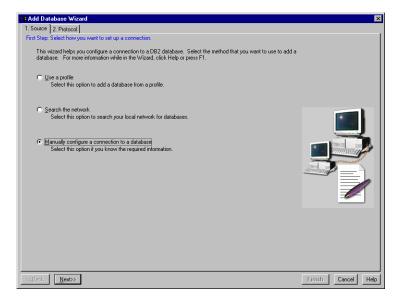
To install and configure the DB2 client on a computer other than the one on which the DB2 server is installed:

- 1 Insert the IBM Runtime Client for DB2v7.1 CD into your CD-ROM drive.
- **2** Follow the installation procedure. This sets up a folder on the Start menu called IBM DB2. It includes a shortcut called Client Configuration Assistant.
- 3 Apply DB2 FixPak 3.
- **4** Enable the JDBC2 driver using the command %SQLLIB%\java12\usejdbc2.

**5** Use the shortcut to start the Client Configuration Assistant. The Client Configuration Assistant appears.



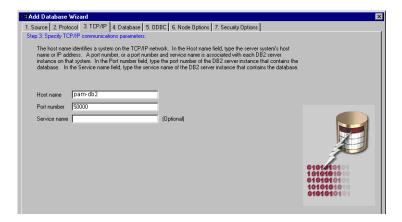
6 Click Add. The Add Database Wizard appears.



**7** Choose Manually Configure a Connection to a Database and click Next. The Protocol panel appears.



**8** Choose TCP/IP and click Next. The TCP/IP panel appears.



**9** Specify the TCP/IP parameters:

Host name The name of the computer running the DB2

server.

Port number The DB2 server port to which the client connects.

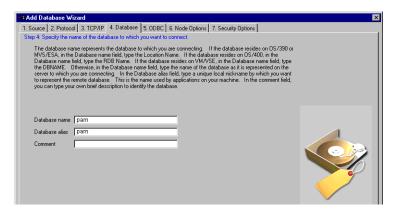
The default is 50000 if you used the default when you installed the DB2 server. If you entered a different port number during DB2 installation,

enter that number here.

Service name Not used; leave blank.

#### 10 Click Next.

The Database panel appears.



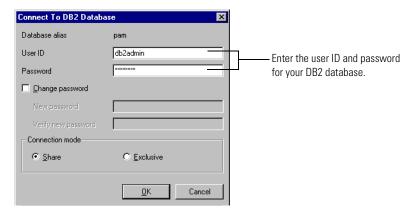
- 11 Specify the name of the database to which you are connecting—this is the name you specified when you ran newdb on the computer running the DB2 server (see *Creating the PAM schema* on page 46). The database alias defaults to match the database name.
- 12 Click Finish.

The ODBC, Node Options, and Security Options panels use the default settings, which are accepted when you click Finish.



13 Click Test Connection to test the connection to the DB2 server from the DB2 client.

The Connect To DB2 Database dialog box appears.



**14** Enter the user ID and password for your DB2 database and login, then click OK.

The client tests the connection to the server and notifies you of its success:



If the connection fails, an IBM error message directs you to the source of the problem.

15 Click Close in the Confirmation dialog box to close the Client Configuration Assistant.

### INSTALLING THE PROCESS SERVER

Install Partner Agreement Manager according to the instructions in *Installing Partner Agreement Manager* on page 1.

Note: You must install the Process Server after you install and configure DB2. The Process Server requires the DB2 JDBC driver to communicate with DB2. The IBM Runtime Client includes the DB2 JDBC driver (db2java.zip), and puts it in the directory where the DB2 client is installed, in a folder named java. The Runtime Client also adds this location to the system CLASSPATH.

# **CONFIGURATION TIPS**

Consider these points as you refine your DB2 configuration:

- You can choose to create a directory for your log files on another device.
   To change the logfile directory that is created for Partner Agreement
   Manager DB2 log files, edit the batch file updatelog.bat and run it.
- To change your log file size, edit the updatelog.bat batch file. The size specified is 4K pages. The default is 250 pages, with 9 primary log files and 6 secondary log files—about 15MB. When you finish editing the batch file, run the file to apply your changes to your database.
- The WebSphere Partner Agreement Manager install directory contains a tools directory that includes miscellaneous database manipulation tools you might find useful.
- If you plan to use multiple languages in your business objects, set your database codepage for multiple languages during database configuration—you cannot change a database's codepage after it is created. Refer to your database documentation for information about using codepages.
- To improve performance, use one database per DB2 instance.
- To improve performance, change the values of these parameters from the default value to the recommended value:

Parameter	Default Value	Recommended Value
APPLHEAPSZ	128	512
BUFFPAGE	250	250000
CHNGPGS_THRESH	60	30

Parameter	Default Value	Recommended Value
DFT_PREFETCH_SZ	16	80
LOCKLIST	50	512
LOGBUFSZ	8	512
LOGFILSIZ	250	25000
LOGSECOND	2	10
MAXAPPLS	40	100
NUM_IOCLEANERS	1	8
NUM_IOSERVERS	3	1
SOFTMAX	100	300
SORTHEAP	256	1024

APPENDIX

B

# INSTALLING THE IBM HTTP SERVER AND CONFIGURING SSL

Read this appendix for information about installing the IBM HTTP Server and configuring SSL (Secure Sockets Layer). The IBM HTTP Server enables the Partner Agreement Manager private process approval action. The SSL protocol provides for privacy and reliability of communications over the Internet.

This appendix includes these sections:

- *Installing the IBM HTTP Server* on page 54.
- *Configuring SSL* on page 55.

# INSTALLING THE IBM HTTP SERVER

#### To install the IBM HTTP Server:

- 1 Download version 1.3.12.2 of the software from http://www-4.ibm.com/software/webservers/httpservers/download.html.
- 2 Create a user on the Windows NT server. Name the user ibmhttp, assign it the password ibmhttp, and assign administrative privileges, including the permission to log on as a service. The installation requires this user name and password.
- **3** Run the installer, which installs and starts both the HTTP Server and the Administration Server.
- 4 Open a browser and enter the URL http://yourcomputername, to verify that the server is running and to begin configuring SSL.
- 5 Click Configure Server and enter the user name and password that you created in step 2 (ibmhttp).
- **6** Open another browser and enter the URL http://yourcomputername, to see the configuration instructions:
  - **A.** Click View Documentation.
  - B. Click How To.
  - c. Click Get Started.
  - **D.** Click With Secure Connections.
  - **E.** Follow the instructions to configure the HTTP Server and enable SSL.
- 7 Use the Key Management Utility to create a new key database for storing certificates. Enter and confirm the password for the key database, and click Stash Password to a File. The password for the key database must match the password you use to run the HTTP Server (ibmhttp).
- **8** Use the Key Management utility to create a self-signed certificate. Creating a self-signed certificate enables you to configure SSL quickly; after configuring SSL, request a certificate from a certificate authority.

**IMPORTANT:** The Create New Self-Signed Certificate dialog box contains a Common Name field, for the name of the computer where you installed the IBM HTTP Server. You must enter the *fully qualified* name of that computer in the Common Name field.

# **CONFIGURING SSL**

You enabled SSL when you followed step 6 on page 54, and now you need to configure it.

#### To configure SSL:

- 1 Use the HTTP administration server to configure SSL—for instructions, follow the IBM documentation you opened in step 6 on page 54.
  The administration server adds information to the httpd.conf file as you configure SSL. The httpd.conf file is in the conf folder, in the directory where
  - you installed the HTTP Server.

    TIP: Open the httpd.conf file and review the additions as they occur, to ensure that the configuration information is correct. When you click Submit at
- 2 Use the URL https://computer\_name to open the main IBM server page and verify that the server is running and that the SSL configuration is correct.

the end of the configuration, the changes are permanent.

**Note:** The first time you use a browser to communicate with the server you might see a security alert regarding your certificate, because the browser has not yet confirmed receipt of the certificate. Resolve the alert by trusting the alert in your browser. For example, in Internet Explorer, choose View Certificate, then Install Certificate, and then place the certificate in the Trusted Root Certification Authorities store.

#### APPENDIX

C

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# GLOSSARY

action—a task performed as part of a private process. A private process action is the equivalent of a step in a public process. See the following terms in this glossary for more information about the action types you can include in a private process:

- approval action
- extension action
- mapping action
- notification action
- output object action
- script action
- subprocess action
- termination action
- timer action

See also *private process*.

adapter—the software bridge between Partner Agreement Manager processes and specific end-system and business-application interfaces. Adapters manage interactions between business applications and the Adapter Server. They allow private processes to interact with external business applications while a process is running, and they allow PAM to start public processes based on events that occur in external business applications. See also adapter implementation, adapter instance, adapter type.

- adapter implementation—the implementation declaration for an adapter type. It specifies the name and location of the Java source file that defines the application logic used to communicate with a specific end system through that end system's interface. The application logic is specified in the form of properties. See also *adapter*, *adapter instance*, *adapter type*.
- adapter instance—an instance of an adapter implementation. The adapter instance is used in a private process extension action and provides the specific values to be used for the properties declared in the adapter implementation. See also *adapter*, *adapter implementation*, *adapter type*, *extension action*.
- adapter type—a definition that is stored in XML format and specifies the adapter's properties as well as the operations and events it supports. A single adapter type can have multiple implementations, and each implementation can have multiple instances. See also *adapter*, *adapter implementation*, *adapter instance*.
- approval action—a private process action that you use to ask for a response from a user before letting the process continue to run. You can use an approval action, for example, to ask for an OK when a purchase order exceeds a predetermined amount. See also *private process*.
- **business object**—a message transmitted as part of a public process. Business objects take the form of purchase orders, acknowledgments, requests for clarification, and so on. See also *business object type*.
- business object type—a definition that determines the types of information a message can contain. It has three properties: the top-level element in its element definition set, its key field, and whether instances of it return audit information for non-repudiation purposes. The name of the business object type is the name of the element you select as its top-level element. See also business object, element definition set, non-repudiation.
- business object variable—one of the two types of variables used in Partner Agreement Manager to store information within a process. Business object variables create an instance of a business object type. They can be used to store, for example, the outputs from extension actions, the inputs for map actions, or the inputs and outputs for subprocesses. See also business object, business object type, extension action, variant variable.

**CA**—see *certificate authority*.

- certificate—a security document that binds a public encryption key to an entity (an individual or organization) known as the principal. The security document (a digital certificate) is signed by another entity known as the issuer. A digital certificate for which both the principal and issuer are the same entity is known as a self-signed certificate. A certificate for which the principal and issuer are different entities is issued by a certificate authority (CA) like VeriSign and is known as a CA-issued (or third-party-signed) certificate. Partner Agreement Manager supports both self-signed and CA-issued certificates. PAM also supports the binding of certificates to be used for signature authentication, message encryption, and SSL authentication for channels other than Partner Agreement Manager. See also *certificate authority*, SSL.
- certificate authority—a trusted third-party organization or company that issues digital certificates used to create digital signatures and public-private key pairs. The role of the certificate authority, or CA, is to authenticate the entities (individuals or organizations) involved in electronic transactions. CAs are a critical component in data security and electronic commerce because they guarantee that the two parties exchanging information are really who they claim to be. See also *certificate*.
- channel—a communications mechanism that encapsulates all the processing information needed to send messages to a partner's system, as well as to translate data received from a partner into Partner Agreement Manager messages. PAM provides channels for RosettaNet, EDI, cXML, and other systems and protocols. See also *message*.

#### digital certificate—see certificate.

- DTD—Document Type Definition. A type of file associated with SGML and XML documents that defines how the formatting tags should be interpreted by the application presenting the document. In Partner Agreement Manager, a DTD file contains the complete description of a business object type's element definition set. See also *business object*, *business object type*, *element definition set*.
- **element definition set**—a collection of data fields (or elements) or groups of data fields that defines the structure and meaning of a business object type. See also *business object, business object type*.

#### encryption certificate—see certificate.

event—a piece of information that comes into Partner Agreement Manager as a message from another source (an enterprise system or business application, for example) and triggers a public process. See also *message*.

- event push—a method that uses the HTTP POST mechanism to push events into Partner Agreement Manager as a way to trigger processes. A port on the Process Server is set to listen for events in the form of HTTP POST messages. When a message is detected, PAM uses the information in the message to generate an event. See also *event*.
- **extended enterprise**—a business model under which companies that work together as partners function as efficiently as a single organization through the implementation of automated communication technologies.
- **extension action**—a private process action that communicates via an adapter with an external application that is registered with Partner Agreement Manager. You can use an extension action, for example, to launch a spreadsheet application, perform calculations, and update the enterprise system, or to get information from an enterprise system or listen for an event in the enterprise system. See also *adapter*, *private process*.
- LDAP—Lightweight Directory Access Protocol. LDAP provides a standard method for accessing information from a central directory. After user authentication is set up in the LDAP directory, applications that use the LDAP protocol can retrieve the information from that directory. An authenticated user can log in to any application that supports the LDAP protocol with the same user name and password.

#### linked certificate—see certificate.

- map—a Java Script or VBScript that inserts data into fields in an output business object type generated by a private process. The map specifies which fields in the output business object type receive data, and it identifies the information source.
- map method—a reusable logical block of code that inserts data into a particular type of element or element sequence in a business object type. Within a map method, you can write the expressions that map individual input and output fields in the sequence. Or you can create a submap and drag input fields to output fields and have Partner Agreement Manager create the appropriate mapping expressions. See also *map*, *submap*.
- mapping action—a private process action that you use to call a map. The map specifies the fields in a business object type that will receive data extracted from another source. You use a mapping action when you want to extract data from one business object type and insert it in a different business object type. For example, you use a mapping action to transform a purchase order generated by your inventory system into a sales order in a format that your partner expects. See also *map*, *private process*.

- message—a structured communication used to pass information and control to another partner in a public process. The action in the process passes to the partner who receives the message. The content of a message is determined by its business object type. A message can be transmitted via synchronous or asynchronous methods, as determined by its communication service type. See *business object type*.
- non-repudiation—a business object security feature that authenticates instances of a business object type and maintains an audit record to verify that they were received by the intended recipient. For business object instances that you receive, Partner Agreement Manager authenticates each instance and maintains an audit record to verify that the instance actually originated with the stated originator. If you disable auditing for a business object type, non-repudiation support is disabled for all messages that contain instances of that business object type.
- **notification action**—a private process action that you use to send an e-mail, fax, or pager message to addressees that you specify. You use a notification action to inform someone inside or outside your organization that an event has occurred. For example, you can use a notification action to alert the order entry department when a purchase order arrives from a customer. See also *private process*.
- output object action—a private process action that you use to bind a business object to the expected output object and path in a public process. You use an output object action at the point in a private process when you are ready to send a business object to the associated public process. This is typically the last action in the private process. See also *private process*.
- partner group—a group of partners that perform the same role in a process at different times. Instead of duplicating a public process and substituting a different partner name, you can set up a partner group for the public process and then designate a specific partner as the participant when you start an instance of the process. For example, you might design a generic purchasing process that works equally well with any of your suppliers and then designate the appropriate partner when you start the process.
- partner profile—information that identifies an organization, specifies a contact person in that organization, lists the communication services the organization supports, and defines the organization's security profile. When partners agree to participate in a public process, they must exchange profile information as a way to ensure authenticity before they can proceed.

- PIP—Partner Interface Process. RosettaNet PIPs are specialized system-to-system XML-based dialogs that define business processes between supply-chain partners and provide models and documents for the implementation of e-commerce standards. Each PIP includes a technical specification based on the RosettaNet Implementation Framework (RNIF), a message guideline document with a PIP-specific version of the business dictionary, and an XML message guideline document. See also *RosettaNet*.
- post method—the last block of code that is executed when a mapping action runs. Its only parameter is the output business object. You use the post method when you need to perform post-processing on the output business object. For example, you might use the post method to set the value of a summary field based on the number of line items in the output business object, or to examine a range of dates in a repeated group, extract the most recent date, and post that date in a header field. See also *mapping action*, *pre method*.
- pre method—the first block of code that is executed when a mapping action runs. The pre method's parameters are the map inputs. You use the pre method to access a map's inputs and set global variables based on their content. See also *mapping action*, *post method*.
- private process—a task or set of tasks that business partners participating in a public process perform at points where they need to take action internally. Partners participating in a public process must implement a private process for each public process step that they own. A private process begins with input from the public process and ends with output that feeds back into the public process. The input can be the receipt of a business object from a partner, or it can be a triggering event from an internal system. The output is the business object that transfers control back to the public process. See also *action*, *process*, *public process*.

#### private process action—see action.

- **process**—the flow of actions and the exchange of business information between partners in an extended enterprise. A process operates on two levels, public and private. See *extended enterprise*, *private process*, *public process*.
- public process—the step-by-step flow of messages, events, and actions between two or more business partners. Public processes are set up by agreement between partners, and each step in a public process has a private process associated with it. A public process is developed by one partner, and all the partners who participate in it must review and approve it before it can be implemented. The partner who designs a public process is its owner. See also *private process*, *process*.
- **RosettaNet**—a consortium of major information technology, electronic components, and semiconductor manufacturing companies that is working to create and implement industry-wide, open e-business process standards. See also *PIP*.

script action—a private process action that consists of a script written in VBScript or JavaScript and is designed to manipulate information or set up conditional actions based on input. You use a script to establish decision-making criteria for branches or loops, to set variables, or to calculate values that are used elsewhere in the private process. See also private process.

security certificate—see certificate.

self-signed certificate—see certificate.

signature certificate—see certificate.

- SSL—Secure Sockets Layer. The SSL protocol is a security protocol that provides for communications privacy and reliability over the Internet. The protocol allows client/server applications to communicate in a way that is designed to prevent eavesdropping, tampering, or message forgery.
- **submap**—a secondary level map that is called by a map method to insert data into an output element other than the top-level element. See *map*, *map method*.
- subprocess action—a private process action you use to call an existing public process. You can call any public process in which your organization owns the first partner action. For example, you can use a subprocess to get a quote approved by a third-party supplier before responding to a customer. See also *private process*.
- termination action—a private process action that you use to stop a process at a predetermined point for a reason that you specify. You can use a termination action to deal with errors in data that might prevent a process from completing successfully. For example, you might want to stop a process in cases where an enterprise system passes incomplete or corrupted information to it. See also *private process*.

**third-party-signed certificate**—another name for a CA-issued certificate. See *certificate*.

- timer action—a private process action that you use to insert a pause. You can use a timer action to specify the period of time you want to elapse before the next action in the process starts. See also *private process*.
- variant variable—single field variables. Variant variables store text strings—the type of information contained in a single field element. You can use variant variables to store the input for actions, to set flags (such as the time-out flag for an approval action), to move information within scripts, or to store the results of an approval action. See also *business object variable*.

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