Peregrine

Get-Answers 4.1 Installation Guide

For Windows 2000, AIX, and Solaris

PART NO: DGA-41-EN12

Peregrine SYSTEMS®

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Contents

About this Guide

The *Installation Guide* explains concepts and provides step-by-step instructions for installing Get-Answers.

By reading the *Get-Answers Installation Guide,* you will be able to:

- Install and configure the database server, search engine server, web server and application server necessary for Get-Answers.
- Establish a connection between your application server and web server.
- Create the Get-Answers tables and populate them with sample data.
- Index the sample documents.

Book Audience

The *Installation Guide* was written for Get-Answers administrators. To use this guide make sure you have knowledge of the following:

- Your organization's process for performing software installations and your responsibilities within that process
- Peregrine products that have been previously installed
- Your system architecture
- Your operating system user interface
- Configuring and maintaining local area networks (LANs)
- System administration tasks in your environment
- System administration tasks for associated back-end products

Related Documentation

As you use Get-Answers, you can refer to this related documentation:

- *Get-Answers Release Notes* which provides information about new features, corrected issues, and known issues and is located on the Get-Answers CD.
- *Get-Answers Administration Guide* which provides information about controlling access to document collections and customizing Get-Answers.
- *Get-Answers User Guide* which provides information about searching the Get-Answers document collection, working with documents, authoring new documents, and generating reports.
- *Notification Services Quick Start Guide* and online help which explains concepts, provides step-by-step instructions, and describes tasks that you can complete in Notification Services. It also provides information on configuring and administering Notification Services. Notification services works with other Peregrine applications to enable users to send and receive notifications.

Associated Applications

This guide explains how to integrate Get-Answers with applications such as ServiceCenter and how to use it with Get-Answers. For information on using, installing, and configuring ServiceCenter, see the ServiceCenter documentation.

Note: If you are integrating with other applications, they must be installed and configured before you install Get-Answers.

Typographical Conventions

This guide uses typeface conventions to indicate special terms and actions. These conventions and their meanings are:

Convention	Meaning
Sans serif	Information that you must type exactly as shown, code examples, output, and system messages appear in a sans serif font.
Bold	Button names, field names, menu names, and menu options appear in **bold**.
Italics	Variables and values that you must provide appear in *italics*. New terms also appear in *italics*.

Special Elements

This book uses special elements to help you locate information. These special elements and their uses are shown in the following table:

Element	Usage
Important:	Information that is required to complete a task
Note:	Information that is of general interest
Tip:	Information that can make a task easier or faster
Warning:	Information that is needed when there is a risk of losing data

Contents of the Product CDs

The Get-Answers product comes with two installation CDs: the Get-Answers CD and the Search Engine CD.

The Get-Answers CD contains the following items, which are required for Get-Answers operation:

- Get-Answers application.
- Get-Answers sample data.
- A ServiceCenter unload file, sc.unl.

The Search Engine CD includes the following, which are also required:

- Get-Answers Search Engine application
- Knowledge Management Library (KMLib)

Need further assistance?

For further information and assistance with this release, you can download documentation or schedule training.

Customer Support

For further information and assistance, contact Peregrine Systems' Customer Support at the Peregrine CenterPoint Web site.

To contact customer support:

1. In a browser, navigate to http://support.peregrine.com
2. Log in with your user name and password.
3. Follow the directions on the site to find your answer. The first place to search is the KnowledgeBase, which contains informational articles about all categories of Peregrine products.
4. If the KnowledgeBase does not contain an article that addresses your concerns, you can search for information by product; search discussion forums; and search for product downloads.

Documentation Web site

For a complete listing of current Get-Answers documentation, see the Documentation pages on the Peregrine Customer Support Web.

To view the document listing:

1. In a browser, navigate to http://support.peregrine.com.
2. Log in with your login user name and password.
3. Click either **Documentation** or **Release Notes** at the top of the page.
4. Click the Get-Answers link.
5. Click a product version link to display a list of documents that are available for that version of Get-Answers.
6. Documents may be available in multiple languages. Click the Download button to download the PDF file in the language you prefer.

You can view PDF files using Acrobat Reader, which is available on the Customer Support Web site and through Adobe at http://www.adobe.com.

Important: Release Notes for this product are continually updated after each release of the product. Ensure that you have the most current version of the Release Notes.

Education Services Web Site

Peregrine Systems offers classroom training anywhere in the world, as well as "at your desk" training via the Internet. For a complete listing of Peregrine's training courses, refer to the following web site:

http://www.peregrine.com/education

You can also call Peregrine Education Services at +1 858.794.5009.

CHAPTER 1

Get-Answers Installation Overview

Using this book, you can install Get-Answers 4.1 or upgrade to Get-Answers 4.1 from Get-Answers 4.0.1.

Important: Read all of the information in this chapter before you continue.

This chapter provides the following information:

- An overview of the architecture of the Get-Answers product. See the *Get-Answers installation overview*, next.
- Software and platform requirements for Get-Answers. See *Software and platform requirements* on page 19.
- Hardware requirements. *Hardware requirements* on page 22.
- The types of installation and the chapters you must read to complete each type. *Get-Answers installation overview* on page 22.
- A worksheet for you to record information as you proceed through installation. See *Get-Answers installation worksheet* on page 24.

What's new in Get-Answers 4.1

Major new features of this release include:

- Migration of legacy documents
- Customizable Document Views
- Three-tier architecture where documents are stored in the database instead of in a file structure
- Schema extensions
- Support for SQL Server 2000 and Solaris

Get-Answers architecture

Get-Answers is a web-based knowledge management application designed for corporations to capture, store, and retrieve information in a knowledge management database. It uses the Peregrine OAA Platform, a software platform that provides common functionality to the Peregrine products Get-Answers, Get-Services, and Get-Resources. The Peregrine OAA Platform is not sold by itself. You do not need Get-Services or Get-Resources to use Get-Answers.

Note: Throughout this book you will see references to OAA. Get-Answers installation includes installation of Peregrine OAA Platform.

Get-Answers uses three servers: a database server, a search engine server, and a Web server. You do not need a detailed understanding of the functions of each server to install Get-Answers, but a high-level understanding is necessary.

Although all three servers interact with each other in several ways, this table describes the basic functions of each server:

This server...	performs these functions...
Database server	Stores the documents, maintains an index of the documents, and provides information to the other servers about those documents.
OAA/Web server	Interacts with user's browsers. Accepts submissions from users for storage on the Database server. Stores retrieved documents in a temporary file. Stores submitted documents in the temporary file. Passes submitted documents to the Database server for storage.
Search Engine server	Queries the Database server to index documents and then retrieves that document from the Database server.

This image explains the relationships between servers as well.

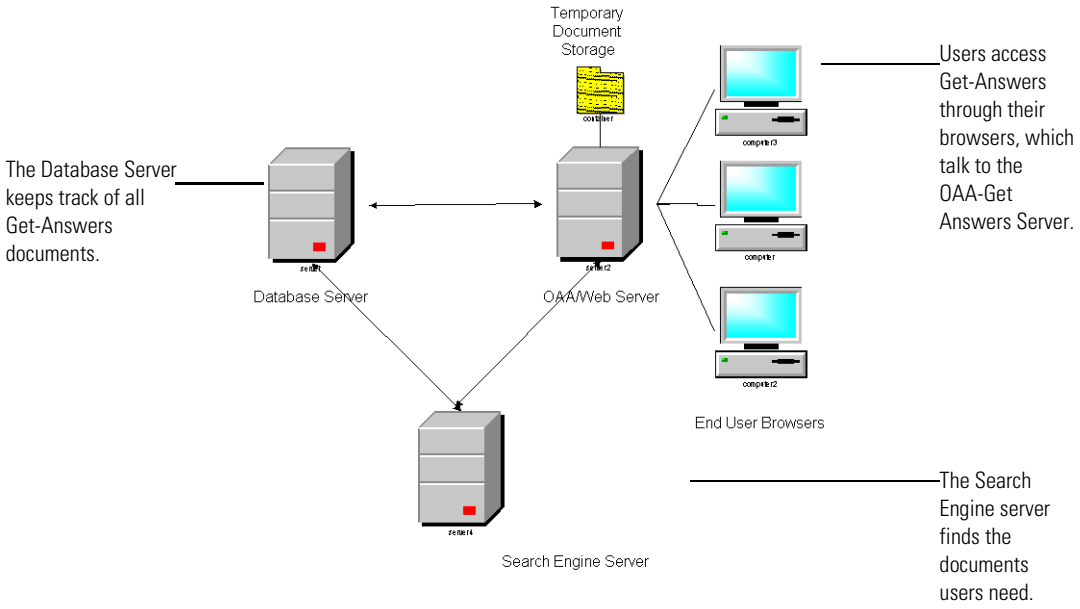


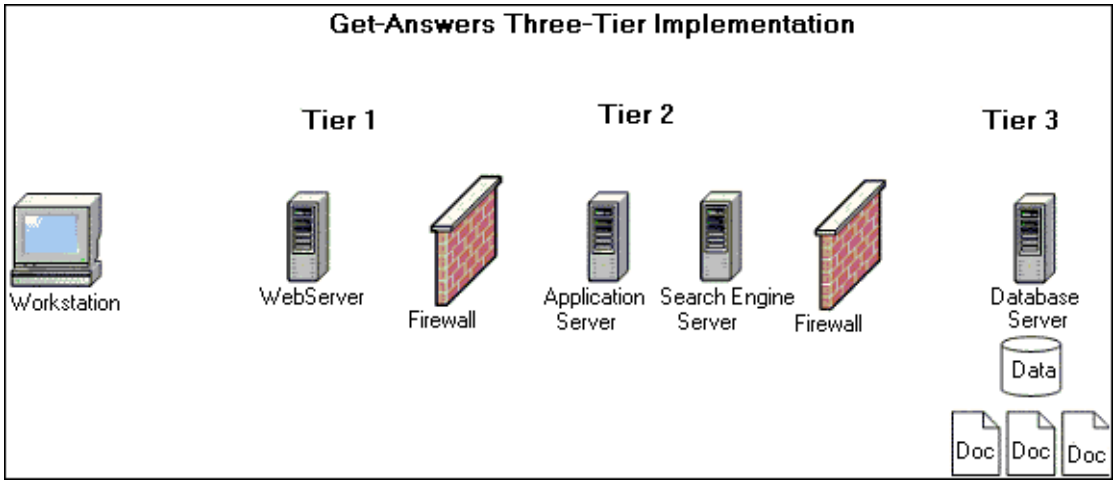
Figure 1-1: Server cross-talk: The Get-Answers servers interact with each other in several ways to manage the information users need.

You can run each server on a separate computer, or you can run all servers on one computer. Peregrine recommends that you use Get-Answers on three computers. The installation instructions describe how to use three servers to install Get-Answers.

Important: To install Get-Answers successfully, you must perform the steps in this guide in the order they appear.

Three-tier architecture

Get-Answers 4.1 supports a true 3-tier architecture. The 3-tier implementation does not incorporate the use of a File Server. The physical documents are stored on the Database Server in the third tier.



Files, which can be written in chunks, are uploaded and downloaded to the database. This process can be either synchronous or asynchronous.

Software and platform requirements

This section outlines the minimum requirements for proper installation and configuration of Get-Answers.

Server platforms

Supported server platforms are determined by the Peregrine OAA Platform.

Note: These are the servers that run the Web servers.

Supported Operating System	Version
Windows 2000 Server	SP2

Web servers (software) and engines

Supported web server/servlet engine combinations are determined by the OAA platform

Note: The Apache 2.0.43 web server and the Tomcat 4.1.24 application server are installed and configured by the Typical installation process.

Web Server	Application Server	Notes
Apache Server 2.0.43	Tomcat 4.1.24	These are installed automatically in the Typical installation process.
Microsoft IIS Server 5.0	Tomcat 4.1.24	Microsoft IIS Server 5.0 is used on Windows 2000 Server.
Microsoft IIS Server 5.0	JRun 3.1	Microsoft IIS Server 5.0 is used on Windows 2000 Server.
Microsoft IIS Server 5.0	WebLogic 6.1, SP3	See previous note on IIS and Windows servers.
Microsoft IIS Server 5.0	WebSphere Application Server 4.0.2, 5.0	See previous note on IIS and Windows servers. Get-Answers requires load balancing features of WebSphere Advanced which are not present in WebSphere.

Important: If you choose an application server other than Tomcat, refer to the installation instructions provided by the software vendor and then use this guide to configure the application server to work with Get-Answers.

Java RunTime environment

All Get-Answers installations require the Java RunTime environment, which is installed for you in the Typical installation process.

- JDK 1.3.1_05

  JDK is required for all installations and is included in the Get-Answers installation. WebLogic and WebSphere Advanced install their own JDK versions. If you are using WebLogic or WebSphere Advanced, pay careful attention to the notes in *Pre-installation considerations* on page 60.

Warning: Do not use J2SDK 1.4 or JDK 1.3.1_03 or earlier

- JRE 1.3.1

Database client and server platforms

Supported database platforms are determined by Connect.It! Archway requirements and by ServiceCenter RDBMS requirements.

Database	Client version	Operating system
Oracle	8i, 9i	Win 2000 sp 2 AIX 5.1, 5.2 Solaris 2.6, 7, 8, 9
DB2	7.2.3, 8.1	Win 2000 sp 2 AIX 5.1, 5.2 Solaris 2.6, 7, 8, 9
SQL Server	2000	Win 2000 sp 2 AIX 5.1, 5.2 Solaris 2.6, 7, 8, 9

Warning: The DB2 client version must match the server version.

Client platforms

The following operating system and browser combinations are suitable for client workstations using Get-Answers.

Supported Operating System	Browsers
Windows 2000 sp 2 Windows XP Windows 98 Solaris 2.6, 7, 8, 9	Netscape 6.2 and 7.0
Windows 2000 sp 2 Windows XP Windows 98 Solaris 2.6, 7, 8, 9	Internet Explorer 6.0

Integrated systems

Get-Answers can be integrated with ServiceCenter. It enables ServiceCenter users to capture and search on knowledge while in the process of solving customer problems.

Integrated System	Compatible versions
ServiceCenter	ServiceCenter 4.x, 5.0, or 5.1

Important: If you integrate Get-Answers with ServiceCenter, you need to install it separately. This back-end system is *not* included on the Get-Answers CD. The installation instructions for ServiceCenter can be found in the ServiceCenter documentation.

Hardware requirements

The following items are the minimum hardware requirements for Get-Answers:

Item	Minimum Requirement
Processor	Server: Pentium 1 GHz or faster Client workstation: Pentium 300 MHz or faster
RAM	512 MB minimum on web server 128 MB minimum on RetrievalWare server (Search Engine server)
Disk Space	100 MB minimum available on web server 300 MB minimum available on Search Engine server 615 MB minimum available on Oracle server

Get-Answers installation overview

You can run Get-Answers in either:

- a Windows environment using Oracle, DB2, or SQL Server 2000 as the database

or,

- an AIX or Solaris environment, using either Oracle or DB2 as the database.

In the Windows environment, there are several types of installation. For AIX, there is only one.

The following table shows what chapters in the book you must read to install Get-Answers 4.1 for your Get-Answers installation.

Installation and platform type	Web and application server type	Installation type	Required chapters
First-time installation on Windows	Default Apache web server or Microsoft IIS web server **and** the Tomcat application server	Typical	■ *Setting Up the Get-Answers Servers* on page 27 ■ *Typical Windows Installation* on page 49 ■ *Completing All Installations* on page 211
First-time installation on Windows	■ JRun, WebSphere, or WebLogic as the application server *or* ■ an existing Tomcat and Apache configuration	Custom	■ *Setting Up the Get-Answers Servers* on page 27 ■ *Custom Windows Installation* on page 59 ■ *Completing All Installations* on page 211
Upgrading to Get-Answers 4.1	Either Apache and Tomcat or JRun, WebSphere or WebLogic application servers	Upgrade	■ *Upgrading from Get-Answers 4.0.1 to Get-Answers 4.1* on page 129 ■ *Completing All Installations* on page 211
Installing Get-Answers 4.1 on AIX with DB2	any of the above	AIX/DB2	■ *Setting Up the Get-Answers Servers* on page 27 ■ *Installation on AIX or Solaris* on page 143
Installing Get-Answers 4.1 on Solaris			■

When you finish installing Get-Answers 4.1, no matter what type of installation you use, read these chapters for information that might apply to you.

- *Configuring Integrations* on page 259
- *Troubleshooting Installation and Operation* on page 267

Get-Answers installation worksheet

As you install Get-Answers, use this worksheet to record various pieces of information needed in later steps or for future reference.

Step	Configuration item	Value
1	Database Name (global name or service name) See setting up your Oracle, DB2, or SQL Server database.	
2	Database SID (instance name) See setting up Oracle, DB2, or SQL Server on the database.	
3	Database Tablespace Name See *Creating the tablespace and the rome user* on page 28.	
4	Database User ID See *Creating the Rome user* on page 29.	
5	Database User Password See *Creating the Rome user* on page 29.	
6	Database Server Net Service Name See *Making the ODBC connection to the Oracle database* on page 38.	
7	Database Server Hostname (machine name) See *Setting up the Database server* on page 27.	
8	Database Server port number See *Setting up the Database server* on page 27.	
9	Search Engine Search Server Installation Directory From *Installing the Search Engine on the Search Engine server* on page 41.	
10	Search Engine Server host name (machine name) From *Installing the Search Engine on the Search Engine server*.	

Step	Configuration item	Value
11	Search Engine Search/Index Port From *Installing the Search Engine on the Search Engine server*.	
12	Web Server Presentation Directory	

CHAPTER 2 Setting Up the Get-Answers Servers

This chapter provides instructions on setting up the File server, the Database server, and the Search Engine server. It includes instructions for setting either Oracle, DB2, or SQL Server 2000 as your database. You must complete the procedures in this chapter before you can install Get-Answers.

Important: Complete these tasks in the order they appear in this chapter.

Step 1 Setting up the Get-Answers database on your Database server. See *Setting up the Database server* on page 27.

Step 2 Setting up and installing the Search Engine server. See *Setting up and installing the Search Engine server* on page 37.

Setting up the Database server

This section includes instructions for setting up the Oracle, DB2, or SQL Server 2000 database.

- If you are using Oracle, see *Setting up Oracle on the Database server*, next.
- If you are using DB2, see *Setting up DB2 on the Database server* on page 31.
- If you are using SQL Server 2000, see *Setting up SQL Server 2000 on the Database server* on page 32.

Setting up Oracle on the Database server

Get-Answers 4.1 uses Oracle as the default database server. This section explains how to set up Oracle in preparation for installing Get-Answers.

Installing Oracle

Install the Oracle server, version 8.17 or 9i, from the Oracle CD.

Note: The only versions of Oracle 9i that the search engine supports are 9.2.0.1 or higher. Both the fat client and the server must be the same version.

In the following instructions, assume that you have installed the appropriate version of Oracle on the database server. If you are installing Oracle for the first time on the server, set both the database name and the database instance name to ORCL.

Note: Record this information about your Oracle installation: *Database Name (global name or service name)*, *Database SID (instance name)*, *Database Server Hostname (machine name)*, and *Database Server port number* in the *Get-Answers installation worksheet* on page 24.

Creating the tablespace and the rome user

The tablespace is the storage location for the Get-Answers database. Throughout this documentation, the **Rome** user has been desginated as the all-purpose user. You will use the **Rome** user to complete the installation.

Note: Rather than type the scripts in the following procedures yourself, you can find the scripts for this procedure in the Oracle files directory on the Get-Answers installation CD. The text for the **create tablespace** and **create user** commands are in that folder.

Creating the tablespace

Create the tablespace on the database server.

Note: The tablespace requires 615 MB of free space. Make sure your hard drive has this much free space.

To create the tablespace:

1 On the database server, go the **Start** menu, select **Programs>Oracle>OracleHome8i>Database Administration>SQLPlus Worksheet**.

Note: Do not use SQLPlus. Use SQLPlus Worksheet.

2 Log in as System, using **manager** as the password, or log in as the super user for your system.

Consult your database administrator if you need help here.

3 Type the following:

```
CREATE TABLESPACE ROME DATAFILE
'C:\ORACLE\Ora81\database\ROME.ora'
SIZE 600M
AUTOEXTEND ON NEXT 1M MAXSIZE UNLIMITED;
commit;
```

Note: You can use a name other than "rome" for your tablespace if you prefer.

If necessary, edit the string to reference the drive and directory where Oracle is installed. The path you enter, such as C:\ORACLE\ORADATA\ORCL, must exist on the system.

4 Click the lightning icon to run the script.

The script might take up to three minutes to run. When the following lines appear, the script is finished:

```
Tablespace created.
Commit complete.
```

5 Look in the lower pane for any errors messages. If the previous lines appeared and there are no errors, go to the next section, "Creating the Rome user."

Creating the Rome user

The **Rome** user is the database administrator ID that Get-Answers uses to connect to the database. The following script creates the Rome user with "connect" and "resource" rights. (You can tailor the script as necessary for your system. Consult your Database Administrator for assistance.)

"Connect" provides the following rights:

- create session
- create table
- create synonym
- create database link
- alter session
- create view
- create sequence
- create cluster

"Resource" provides these rights:

- create cluster
- create procedure
- create sequence
- create table
- create trigger

Note: When you create the **Rome** user, you can use any user name and password you want. Record the user name in *Database User ID* and the user password in *Database User Password* in the *Get-Answers installation worksheet* on page 24.

To create the rome user:

1. On the database server, from the Edit menu, click Clear All to delete the text in the window.
2. Type the following script, replacing tablespace rome on the second line with your tablespace name if yours is different, and replacing the other occurrences of rome and password with the user name and password that you want:

```
CREATE USER ROME IDENTIFIED BY password
  DEFAULT TABLESPACE ROME
  TEMPORARY TABLESPACE TEMP
  QUOTA UNLIMITED ON ROME
  QUOTA UNLIMITED ON TEMP
  PROFILE DEFAULT
  ACCOUNT UNLOCK;
GRANT CONNECT TO ROME WITH ADMIN OPTION;
GRANT RESOURCE TO ROME WITH ADMIN OPTION;
ALTER USER ROME DEFAULT ROLE CONNECT, RESOURCE;
GRANT UNLIMITED TABLESPACE TO ROME WITH ADMIN OPTION;
COMMIT;
```

3. Click the Lightning Bolt icon to executive the script.

Important: Do not continue to the next step until the script is finished running.

Setting up DB2 on the Database server

To run Get-Answers in Windows and connect to a DB2 database, set up the DB2 database using this section.

Important: Make sure that an expert DB2 Database Administrator sets up DB2. The following instructions require advanced knowledge of DB2 to complete successfully.

Important: For best results, make sure that your database contains a minimum tablespace size of 800 megabytes.

To set up DB2:

Tip: For future reference, put the commands in this procedure in a text file and call it from the DB2 command line using this command:
db2 –tvf name_of_file.sql

1. Create the database using this command: create database rome
2. Modify the database so that it contains a new BUFFERPOOL that serves the application 8k, 16k, or 32k, using these commands:
   - connect to rome
   - create bufferpool bp32k size –1 pagesize 32K
3. Start and stop DB2 using these commands:
   - db2stop
   - db2start

   Note: You may see an error if you stop the database while applications are running. If so, use the commands **force application all**, and **disconnect <database>**.
4. Create a new user and temp tablespace for each page size you have. Create a User and Temp tablespace for the default 4k page size and a User and Temp tablespace for the 32k page size. Use the following commands:
   a. connect to rome
   b. create regular tablespace user32k pagesize 32k managed by system using ('user32k') bufferpool bp32k
   c. create temporary tablespace usertemp32k pagesize 32k managed by system using ('usertemp32k') bufferpool bp32k

5 Optionally, once the new temp and user tablespaces have been created, remove the default tablespace to make sure DB2 uses the new one.

6 Increase the size of the default (4k) bufferpool using the following command:

```
alter bufferpool ibmdefaultbp size 25000
```

7 Disconnect from the database using the following command:

```
disconnect rome
```

Setting up SQL Server 2000 on the Database server

This section explains how to set up SQL Server 2000 in preparation for installing Get-Answers. Setting up SQL Server involves the following steps:

Step 1 *Preparing the SQL Server 2000 for Get-Answers*, next.

Step 2 *Creating a Security Login name* on page 34.

Step 3 *Setting security authentication* on page 37.

Important: The SQL Server database requires two sets of licenses:
SQL Server connections require four or more SQL Server licenses.
Sprinta2000 driver requires three or more Sprinta2000 licenses.

Preparing the SQL Server 2000 for Get-Answers

You must successfully install the SQL Server and record the information in the Get-Answers worksheet provided on page 24. When installing the SQL Server, the default port is 1433.

The Get-Answers installer generates a section in the **local.xml** file similar to the following:

```
<rome>

<romeDatabaseUrl>jdbc:inetdae7:qa-sql2k:1433?database=demo1syn0707</
romeDatabaseUrl>
        <romeDatabaseUser>rome</romeDatabaseUser>
        <romeDatabasePassword>password</romeDatabasePassword>
        <romeDatabaseType>MSSQLServer</romeDatabaseType>

<romeDatabaseDriver>com.inet.tds.TdsDriver</romeDatabaseDriver>
</rome>
```

In this example:

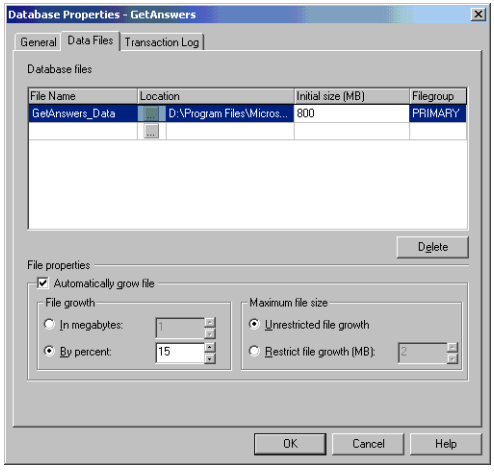
- The SQL Server host, <romeDatabaseUrl>, is qa-sql2k.
- The port is 1433.
- The SQL Server databaseName is demo1syn0707.
- The format is jdbc:inetdae7:host:port?database=databaseName.
- The final result from the installer is <romeDatabaseUrl>jdbc:inetdae7:qa-sql2k:1433?database=demo1syn0707</romeDatabaseUrl>

To prepare the SQL Server 2000:

1. Acquire and install SQL Server 2000.
2. Create the tablespace on the database server.
   a. Right-click the database.
   b. Select New Database.
      - A window opens requesting the properties of the new database; for example, getanswers.

Important: Make sure that the database name is alphanumeric and does not contain any dashes.

Note: The tablespace requires 800 MB of free space. Defragment your hard drive if necessary to insure that your hard drive has as much contiguous free space as possible.



- In the **Initial size (MB)** field, set the database size to 800 (at a minimum) and set the **By percent** to 15.

  If the database is less than 800 MB at creation time, intermittent **Update failure** messages will occur, and the database will need to be backed up, dropped, a new database of size 800MB created, and the old data restored into the newer larger database.
- Always consult your SQLServer database administrator on how to best configure the database.
- Click **OK**.

3 Record this information about your SQL Server installation in the *Get-Answers installation worksheet* on page 24.

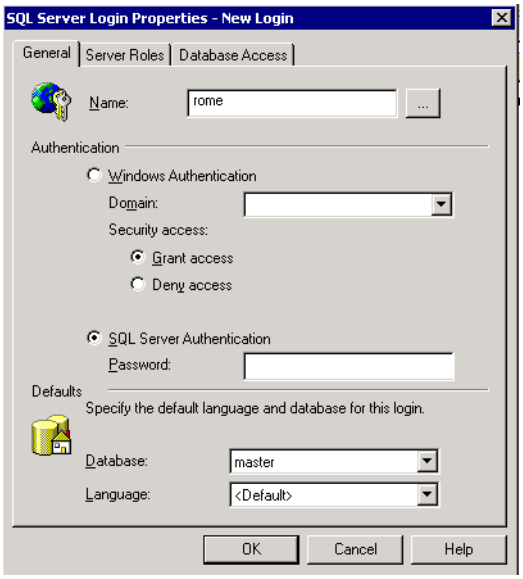
- *Database Name (global name or service name)*
- *Database SID (instance name)*
- *Database Server Hostname (machine name)*
- *Database Server port number*

Creating a Security Login name

Use the SQL Server Enterprise Manager to create a login name, assign roles, and grant permissions.

To create a Security Login name:

1 From the SQL Server Enterprise Manager, scroll to the Security folder and right-click **Logins** to open the SQL Server Login Properties - New Login dialog box.

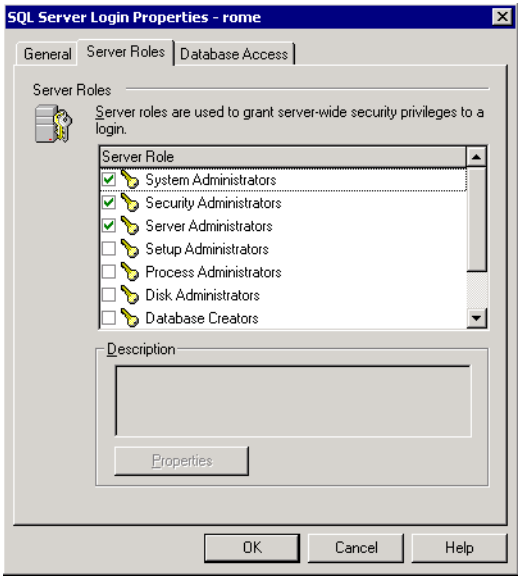


a Type the login name, for example **rome**.

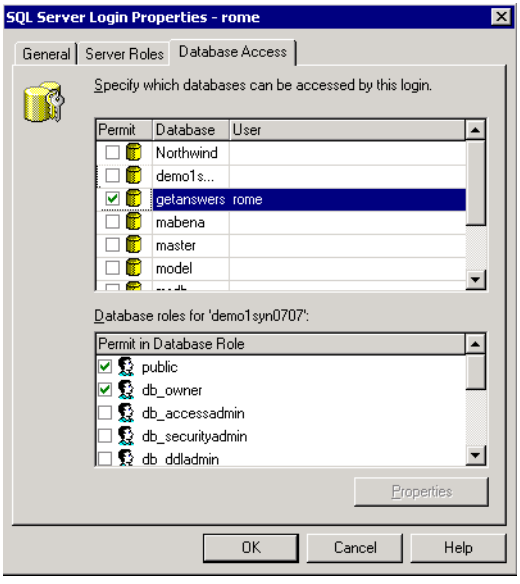
b Select the **SQL Server Authentication** option and type a password.

c Select a database from the drop-down list.

d Click the Server Roles tab to assign roles to this user.



2 Click the Database Access tab to set permissions for the database roles.



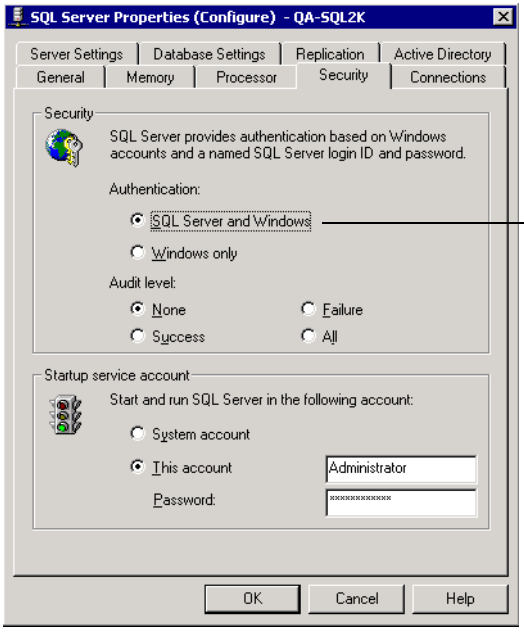
Setting security authentication

After you create the Security Login name, verify that your server has Security set to SQL Server and Windows authentication.

To set security authentication:

1 From the SLQ Server Enterprise Manager, scroll to your server and right-click.

2 Select **Properties** to open the SQL Server (Configure) dialog box.



Verify that you select the SQL Server and Windows option.

3 In Security, select **SQL Server and Windows**.

4 Click **OK**.

Setting up and installing the Search Engine server

In this section you set up your Search Engine server so you can install the Get-Answers Search Engine in the next section. Follow the procedures within this section as they appear here.

In a Windows environment

Step 1 Do one of the following:

- If Oracle is your database, use the procedures in the section, *Making the ODBC connection to the Oracle database* on page 38.
- If DB2 is your database, use the procedures in the section, *Setting up DB2* on page 38.
- If SQL Server 2000 is your database, use the procedures in the section, *Setting up SQL Server 2000* on page 40.

Step 2 Follow the procedure in the section, *Installing the Search Engine on the Search Engine server* on page 41 regardless of which database you use.

Step 3 Complete the process by following the steps in the section, *Checking the search engine installation*, regardless of which database you use.

Making the ODBC connection to the Oracle database

Your Get-Answers Search engine server needs an Oracle client to connect to the database. To install the client, see your Oracle documentation.

Once you have installed the Oracle client, you must make an ODBC connection to the Oacle database.

To make the ODBC connection to the Oracle database:

1. Click **Start** > **Settings** > **Control Panel**.
2. From **Administrative Tools**, click **Data Sources (ODBC)**.
3. Click the **System DSN** tab, then click **Add**.
4. Select **Oracle ODBC Driver**.
5. Enter a Data Source Name, Service Name, and UserID, then click **OK**.

Setting up DB2

Your Get-Answers Search engine server needs a DB2 client to connect to the database. To install the DB2 client, see your IBM documentation.

If you are using DB2 as your database, use this section to set up the DB client on your Search Engine server.

Once you have installed the DB2 client, make sure that the fixpack level of the DB2 client and DB2 server match exactly.

This section includes the procedures for determining your fixpack level and for making the ODBC connection to the DB2 database.

Determining your Fixpack level

Important: Perform this procedure on both the DB2 server and the DB2 client.

To determine your fixpack level:

Note: The following instructions are for DB2 7.2.x.

1. From the command prompt at the server, navigate to the SQLLIB/bin directory.
2. Type **db2level**.
3. Write down the information you see.
4. Repeat this procedure on the client and write down the information you see when you type **db2level**.
5. Compare both the server and the client settings.

   The fixpack is the same if the value of the right-most number of each matches in the informational tokens "DB2 v7.1.0.68".

   This is a match: "DB2 v7.2.0.68" on the server and "DB2 v7.1.0.68" on the client because the right-most number 68 is the same.

   This is not a match: "DB2 v7.1.0.68" on the server and "DB2 v7.1.0" on the client.

Making the ODBC connection to the DB2 database

To make the ODBC connection to the DB2 database:

1. Click **Start** > **Settings** > **Control Panel**.
2. From **Administrative Tools**, click **Data Sources** (ODBC).
3. Click the **System DSN** tab, then click **Add.**
4. Select **IBM DB2 ODBC Driver**.
5. Enter a data source name and click **Add**.
6. Select the **Search the network** option, and click **Next**.
7. Open the known systems, select your DB2 database from the list of local database or remote databases, and click **Next**.
8. Specify a local nickname and click **Next**.
9. Select any optimization option, and click **Finish**.

   A confirmation dialog box opens.

10 Close the box and go to the next section.

Setting up SQL Server 2000

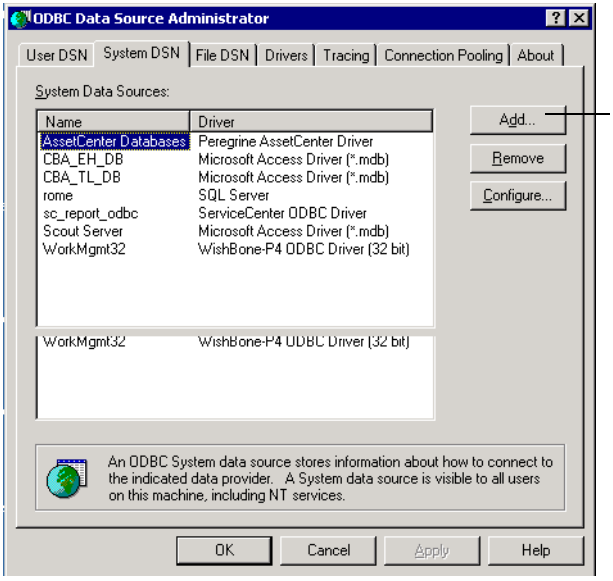
Your Get-Answers Search engine server needs to make an ODBC connection to the SQL Server database.

To make the ODBC connection to the SQL Server database:

1 Click **Start** > **Settings** > **Control Panel**.

2 From **Administrative Tools**, click **Data Sources** (ODBC).

3 Click the **System DSN** tab, then click **Add.**



4 Select **SQL Server**, then click **Finish** to open the Create a New Data Source wizard.

- **a** Specify the **Name**, **Description**, and **Server**, then click **Next**.
- **b** Select the option **With SQL Server authentication using a login ID and password entered by the user**, then click **Next**.
- **c** Change the default database to **getanswers**, then click **Next**.
- **d** Click **Finish**, then click **Test Data Source** to verify the connection.

Your connection is complete.

Installing the Search Engine on the Search Engine server

Install the Get-Answers search engine on the search engine server.

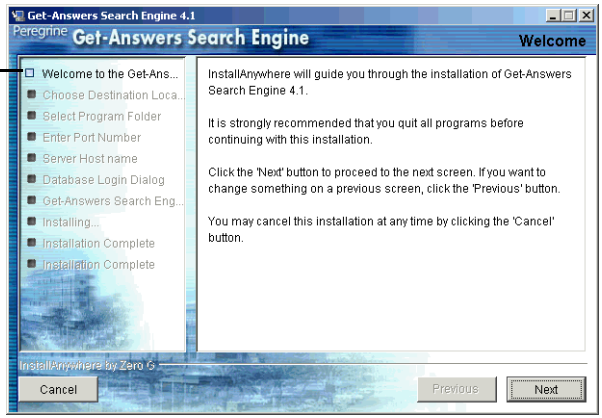
Important: DB2 users: When you are prompted for your database connection parameters during this installation, use your current DB2 connection parameter values.

To install the Get-Answers search engine:

1 Insert the Get-Answers Search Engine Installation CD into the CD drive.

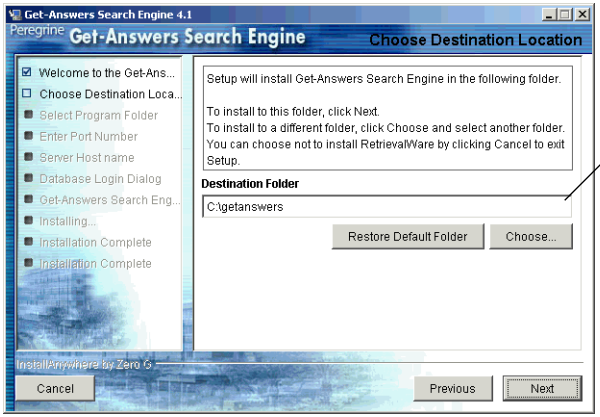
The installation process starts automatically.

This list shows you where you are in the installation process.



2 Click **Next**.

The Choose Destination Location dialog box that opens shows the default location for the files. Here you can accept the default location or choose another one, as the next steps describe.



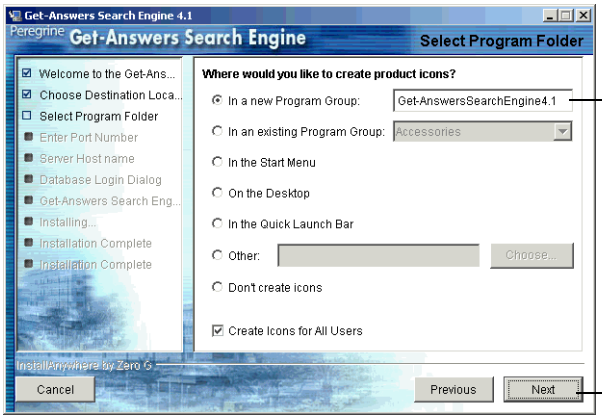
3 To select the destination folder, do one of the following:

- To accept the default location, click **Next**.
- To select a different location, click **Choose**, select the folder in the dialog box that opens, and then click **Next**.

Warning: Make sure there are no spaces in this path name.

Note: Record the installation folder name in *Search Engine Search Server Installation Directory* in the *Get-Answers installation worksheet*.

4 In the Select Program Folder screen, select a folder or other location for program icons, and click **Next**.

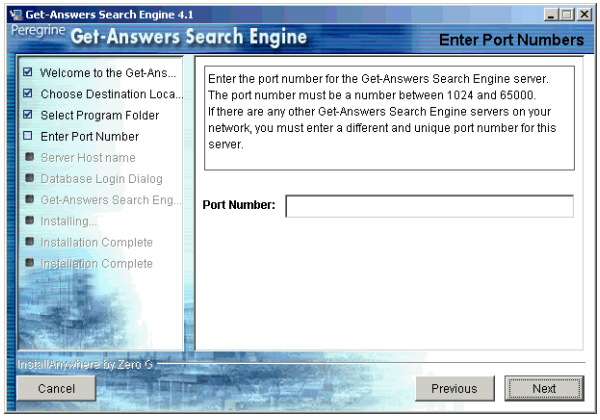


5 In Enter Port Numbers dialog box, type the port number for the search engine server and click **Next**.

Important: The following rules are crucial for successful installation.

- Do not choose port numbers that are already in use on this server.
- Make sure the port numbers for your search engine server are unique for your site and different from the port numbers for any other search engine server.

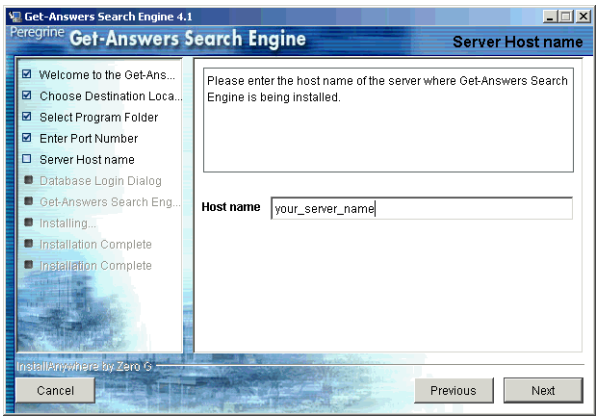
Note: Record this port number selection in *Search Engine Search/Index Port* in the *Get-Answers installation worksheet*.



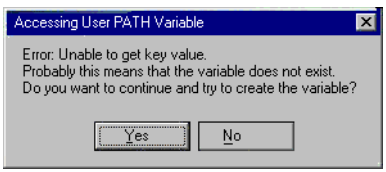
6 In the Server Host name dialog box, type the host name of the search engine server and click **Next**.

Note: Record the search engine server host name in *Search Engine Search Server Installation Directory* in the *Get-Answers installation worksheet*.

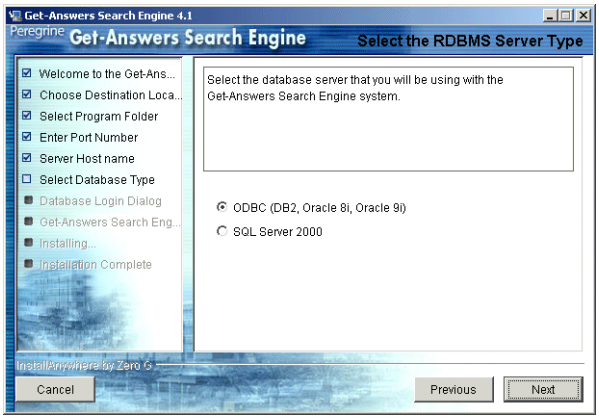
Important: Make sure that you type the host name and not the IP address.



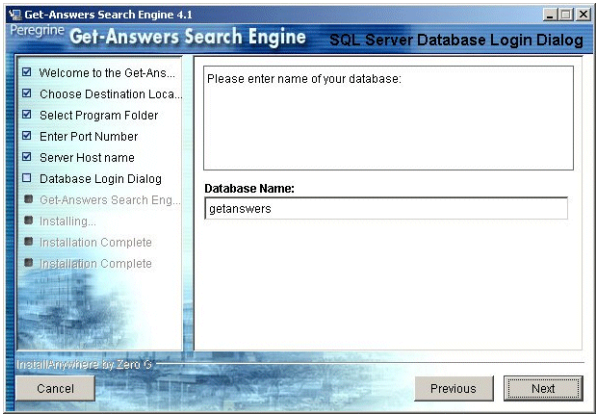
7 If the Accessing User Path Variable message appears, click Yes.



8 In the Select RDBMS Server Type dialog box that opens, choose your server type, and then click **Next**.



9 If you select SQL Server 2000, type the name of your SQL Server database in the Database Name field, then click **Next**.



Warning: The field only accepts alphanumeric characters. Do not use dashes or spaces.

If you select another database, proceed to the next step.

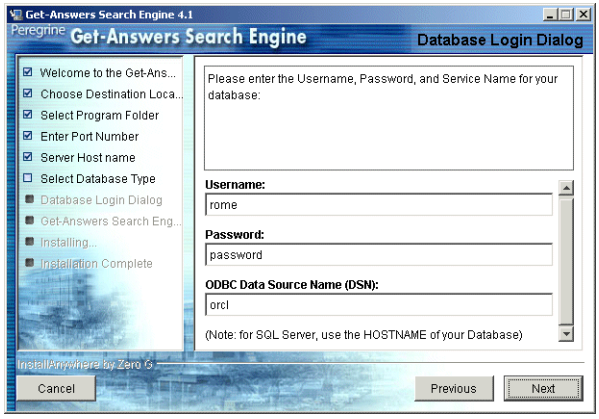
10 In the Database Login dialog box, type the values the Search Engine Search Server should use to log on to the Get-Answers database and click **Next**.

a In Username, type the value found in *Database User ID*.

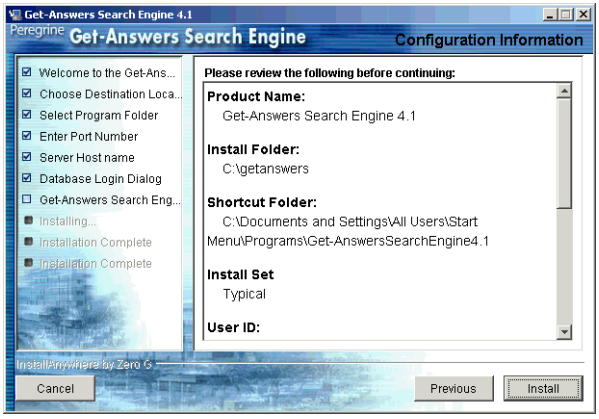
b In Password, type the value found in *Database User Password*.

c In ODBC Data Source Name (DSN), type the value found in *Database Server Net Service Name*.

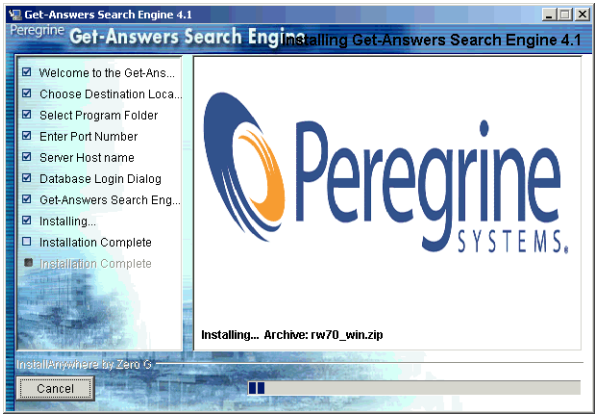
Note: For SQL, type the HOSTNAME of the server hosting SQL Server 2000.



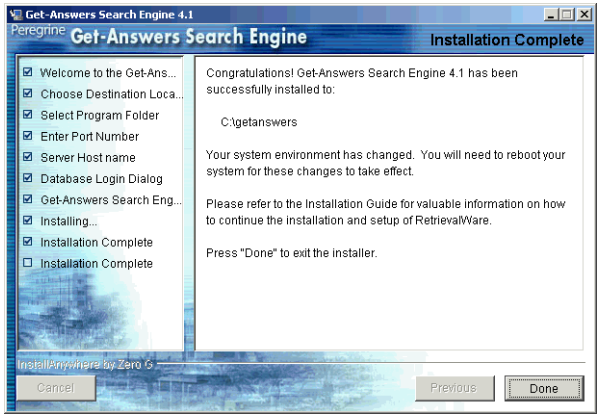
11 In the Configuration Information dialog box, confirm your search engine configuration settings and make sure you have adequate disk space, and click **Install**.



The installer copies the search engine files to your server. This may take several minutes.



12 When the installation is complete, click Done to exit the installer.



13 Restart your search engine server machine.

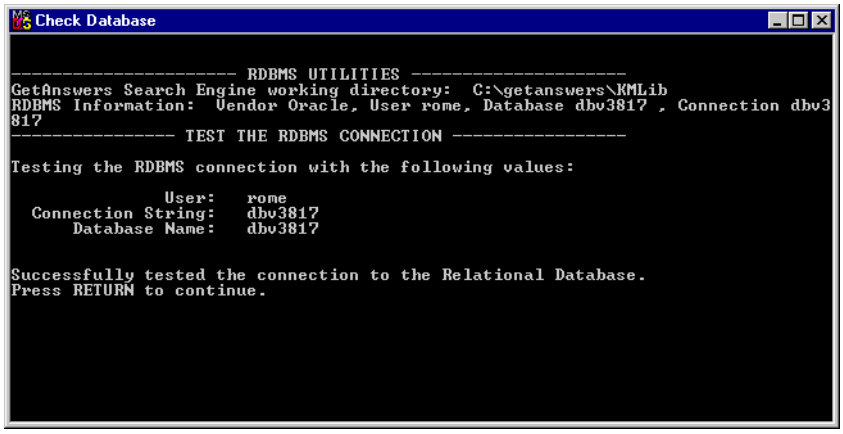
Unless the search engine server is already started as a service or running in a DOS window, start it by choosing **Start >Programs >Get-Answers Search Engine >Start Search Engine Search Server** and press **Enter** to exit the command prompt window.

Checking the search engine installation

Get-Answers provides a method of checking your search engine connection with the database. When the search engine installation completes successfully, this connection is established.

To check your search engine database connection:

1 Choose **Start** > **Programs** > **Get-AnswersSearchEngine** > **Check Database Connection**.



2 After you see the "Successfully tested the connection to the Relational Database" message, press **Enter**.

Note: If the test is not successful, check the name of the working directory displayed on the Get-Answers Search Engine working directory line. This should be the name of the directory where you installed the search engine followed by Peregrine\KMLib.

Example: c:\getanswers\Peregrine\KMLib

The name of the search engine installation directory should be recorded in *Search Engine Search Server Installation Directory* in the *Get-Answers installation worksheet*.

3 Press any key to exit.

CHAPTER 3 Typical Windows Installation

This chapter explains the installation and configuration of Get-Answers and the OAA platform on a Windows system using a Tomcat 4.1.24 application server.

Before you install the OAA platform on the web server, see the recommended configurations in *Server platforms* on page 19, and *Web servers (software) and engines* on page 20.

If you use one of the alternate application servers supported by the OAA platform (JRun, WebSphere, or WebLogic), see the chapter on custom installations in this book.

Installation Overview

During the installation, Get-Answers will install the following:

- Java 2 SDK Standard Edition v1.3.1_05, a Java run-time environment.
- Tomcat 4.1.24, an application server.
- OAA platform and the Get-Answers web application.

Note: Instructions for adding and configuring multiple Java virtual machines (JVMs) on Tomcat are included in the Load Balancing section of the Get-Answers 4.0 Administration Guide.

Pre-installation considerations

Before beginning your installation, review the following information:

- Do you have a Java run-time environment installed? If not, Java 2 SDK Standard Edition v1.3.1_05 is included on the Get-Answers installation CD and is required if you are using Tomcat as your application server.
- Do you have a supported Java application server installed? Tomcat 4.1.24 can be installed from the Peregrine OAA Platform installation CD.
- Do you have an Apache 2.0.40 web server installed?
- If you do not want to install OAA platform into the default folders, decide where you want the files to be installed.

Procedures for Typical installation

The following installation procedures are for systems using Tomcat as the application server on a Windows system.

Important: If you are using an application server other than Tomcat, see *Chapter 4, Custom Windows Installation*. Do not use this installation procedure.

Typical installation objectives

Typical installation means that Get-Answers chooses default locations and directories for you. It installs the most commonly used components of the product. Most users choose typical installation.

This section explains how to install the OAA platform and Get-Answers on a Tomcat application server on a Windows system. If you are using another supported application server, see the installation instructions in *Chapter 4, Custom Windows Installation*. Perform these steps on the Web server.

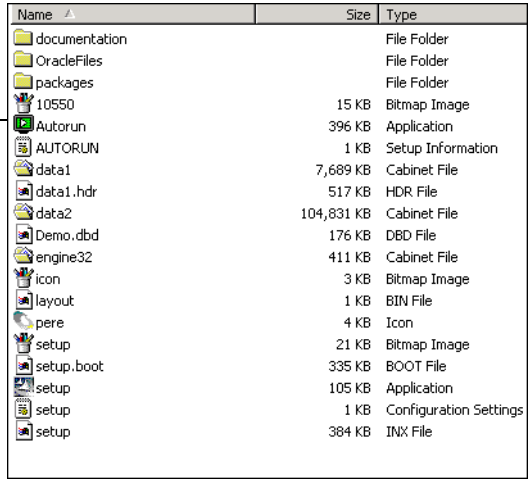
Installing Get-Answers using Typical installation

Use the following procedure to install Get-Answers with OAA.

To install OAA platform and Get-Answers in a Typical installation:

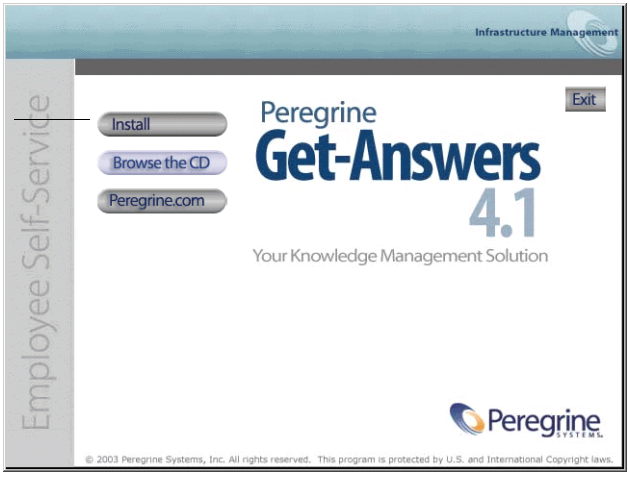
1 In the CD Browser, find and open the **Autorun.exe** file.

Click Autorun.exe here.



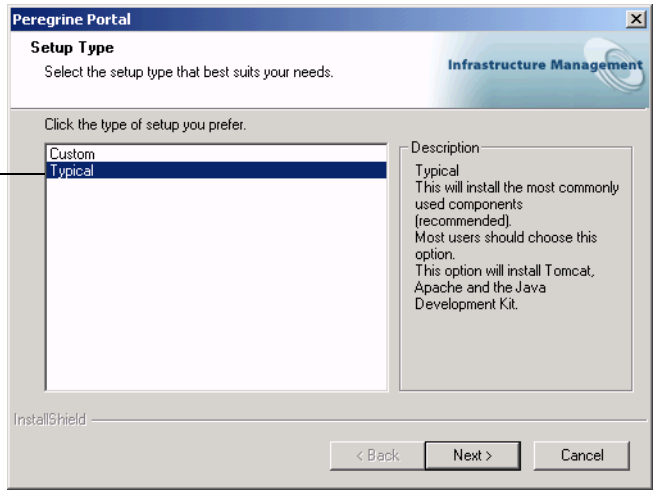
2 In the Get-Answers page that opens, click **Install**.

Click Install.



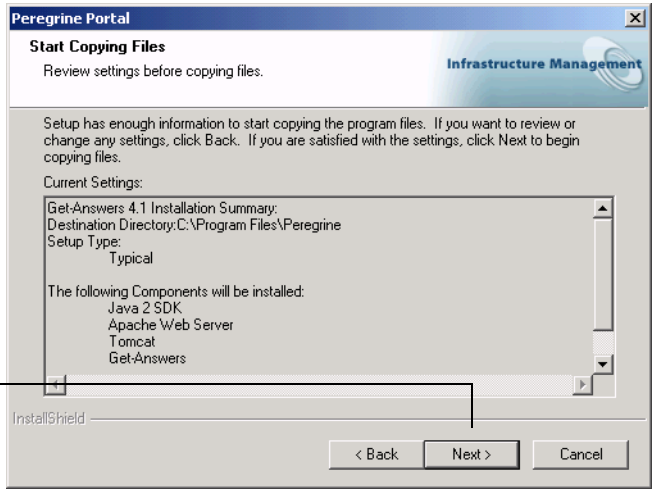
3 In the Setup Type dialog box that opens, select **Typical**, and then click **Next**.

Choose the Typical option.



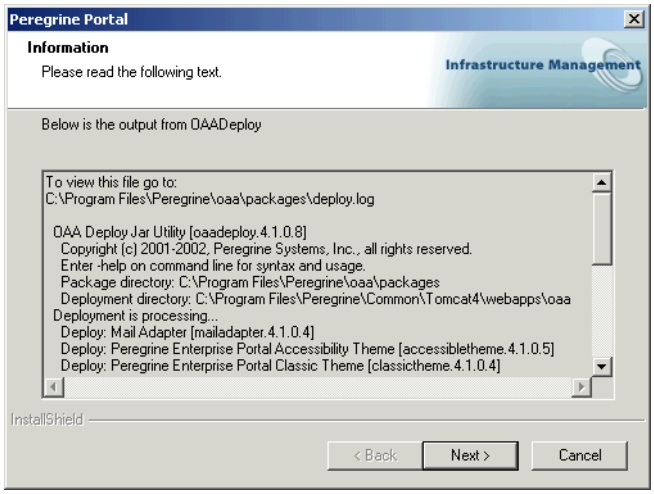
4 In the Start Copying Files dialog box that opens, click **Next**.

Click Next.

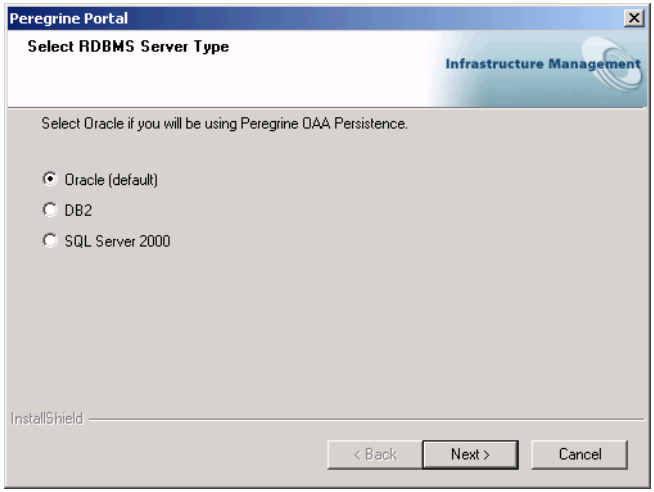


The window that opens shows that Get-Answers is copying the files to your system. It will take several minutes to perform the requested operations.

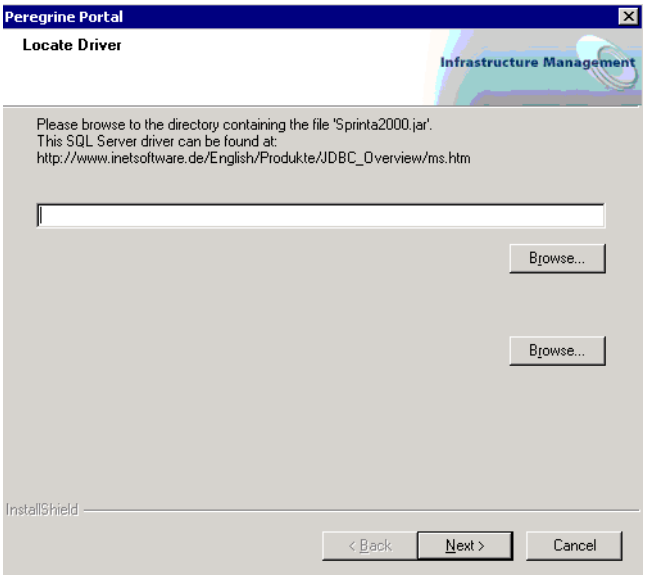
5 Read the information from OAAdeploy, then click **Next**.



6 In the Select RDBMS Server Type dialog box that opens, choose the database and then click **Next**.



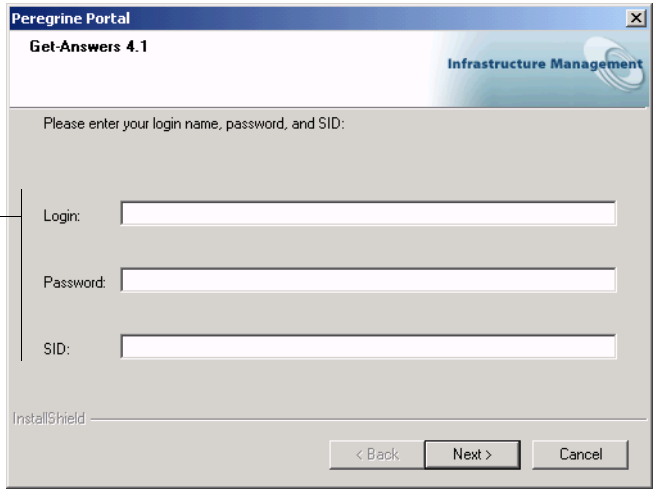
7 If you select SQL Server 2000 as the database, you need to browse to the directory containing the Sprinta2000.jar driver, then click **Next**.



8 In the next dialog box that opens, enter your database name, password, and SID, and then click **Next**.

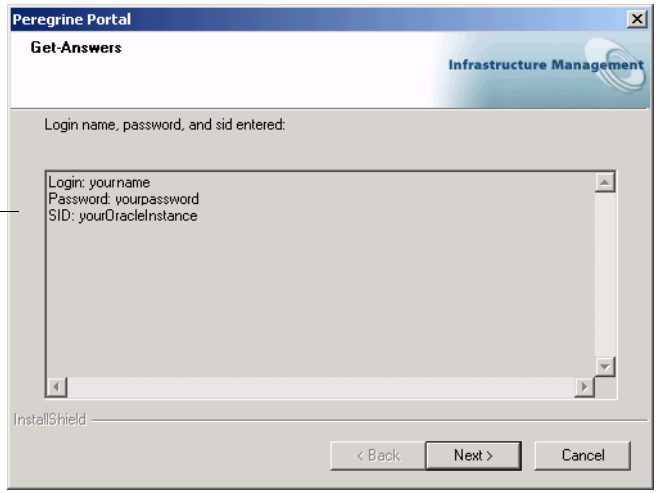
Note: You can find this information where you recorded it in the *Get-Answers installation worksheet* on page 24.

Enter your database name, password, and SID in these fields.

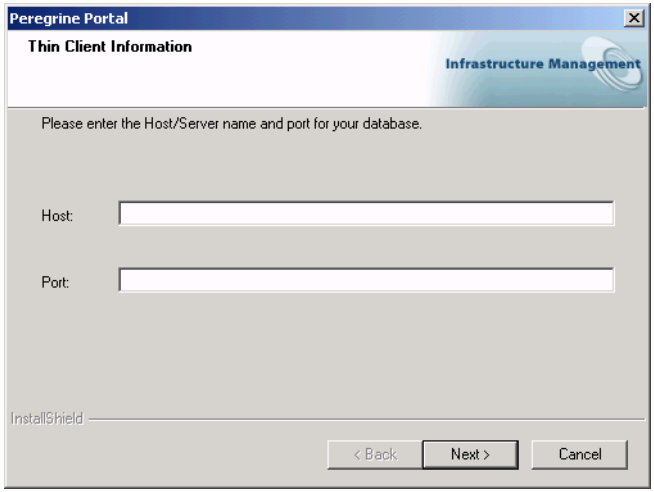


9 In the confirmation dialog box that opens, make sure the information you have entered is correct, and then click **Next**.

Make sure this information matches your database name, password, and SID.



10 In the next dialog box that opens, enter the host name and port number for your Oracle Thin client.



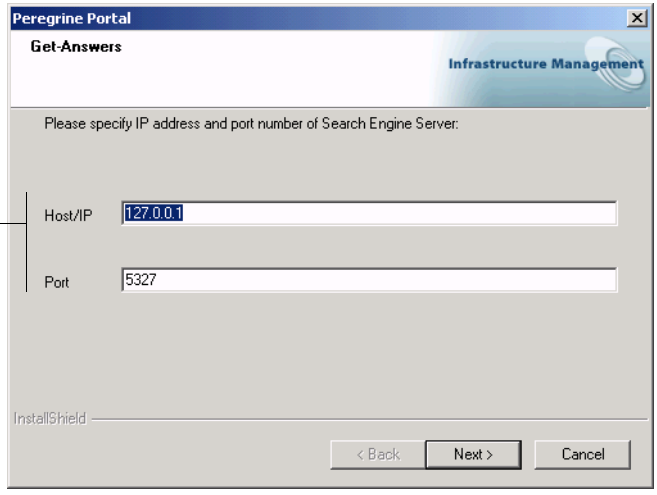
You see the following warning message if you enter an invalid name or port.

11 In the next dialog box that opens, enter the IP address and port number of the Search Engine server, and then click **Next**.

Note: You can find this information on the *Get-Answers installation worksheet* on page 24.

Important: Make sure that you do *not* accept the default port number. Enter the port number that is mapped to your Search Engine server.

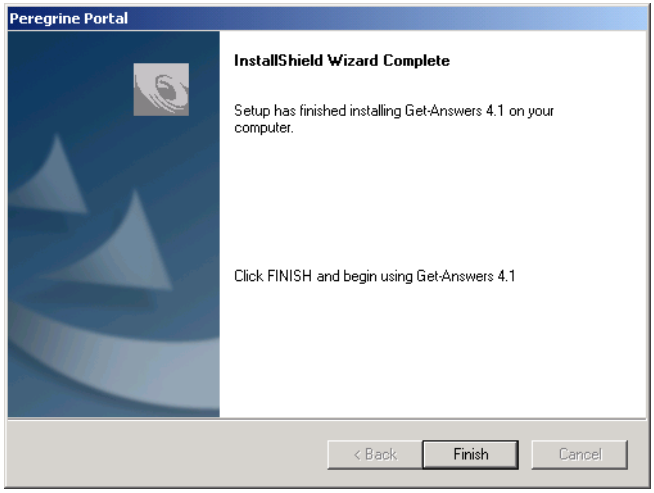
Enter the IP address and port number here.



A Setup Status dialog box opens as the installation is completed. At this point the installation is doing the following:

- Copying the documents
- Creating a Tomcat service called **PeregrineTomcat**
- Starting the Apache server.

12 Click **Finish.**



Completing the installation

Continue with *Chapter 7, Completing All Installations*.

CHAPTER 4 Custom Windows Installation

In addition to Tomcat, Get-Answers provides support for the following application servers:

- JRun 3.1.
- WebSphere Advanced 4.0.2
- WebSphere Advanced 5.0
- WebLogic 6.1

This chapter explains the installation and configuration of Get-Answers and the OAA platform on a Windows system on application servers other than Tomcat. (Refer to your specific application server documentation for instructions on installing the application server.)

Installation Overview

During the installation, you install the OAA platform and the Get-Answers web application with an application server. The typical installation option installs Tomcat 4.1.24 and connects to an Apache 2.0 web server. You can also install Tomcat 4.1.24 using the custom installation option.

Here is an overview of what you must do to install Get-Answers with an alternate application server.

Step 1 Read the Pre-installation considerations section beginning on page page 61.

Step 2 Perform the procedures described in the section, *Pre-installation required procedures* on page 61.

Step 3 Configure the application server according to the instructions provided in the section, *Configuring alternate application servers* on page 62.

Step 4 Install Get-Answers and OAA as described in the section, *Installing Get-Answers using Custom installation* on page 110.

Step 5 Update the Scriptpollers.ini file as described in the section, *Updating the scriptpollers.ini Files* on page 124.

Step 6 Perform the final steps necessary for your particular application server as described in the section, *Completing the application server installation* on page 121.

Pre-installation considerations

Before beginning your Get-Answers and OAA platform installation, you must have the following installed:

- A Java run-time environment. Java 2 SDK Standard Edition v1.3.1_05 is included on the Get-Answers installation CD; however it is for Tomcat servers only. WebLog4.1.10+ic and WebSphere Advanced install their own JDK versions.

Important: You must verify that you have a JAVA_HOME environment variable set up in your system environment before proceeding.

- A supported Java application server. See the recommended configurations in *Web Servers (software) and engines*.
- A supported web server. See the recommended configurations in *Web Servers (software) and engines*.

Important: If you are using Tomcat as your WebSphere see the installation instructions in *Chapter 3, Get-Answers Typical Installation*.

If you do not want to install OAA platform into the default folders, decide where you want the files to be installed.

Pre-installation required procedures

This section lists the procedures you must complete before installing Get-Answers and OAA platform.

- Install the application server

  See the documentation for your application server to install it. When you have finished, return to this section to configure the application server and install Get-Answers.

Upgrading from Get-Answers 4.0.1 to 4.1

To upgrade from Get-Answers 4.0.1 to Get-Answers 4.1, you simply need to run the 4.1 installer. See either the *Get-Answers Typical Installation* chapter or *Installing Get-Answers using Custom installation* for more information.

Note: Note that the **<appsrv>\WEB-INF\web.xml** file has been renamed to **<appsrv>\WEB-INF\web.xml.XXX.bak**, where *<appsrv>* is the path to your application server, and **XXX** represents a unique sequence of characters generated by File.createTempFile(). This will preserve any customizations that you might have (see *Preserving customized web.xml file settings*, next).

After upgrading Get-Answers from 4.0.1 to 4.1, a new file called **web.xml.xxx.bak** is created in the *<appsrv>*/WEB-INF directory. You must reconcile the contents of this file with the contents of the new **web.xml** file. Any portion of **web.xml.xxx.bak** file that does not exist in the new **web.xml** file needs to be added to the **web.xml** file.

Preserving customized web.xml file settings

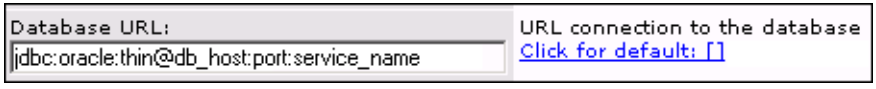
You can open the **web.xml.xxx.bak** file, copy its customized configuration settings into the new **web.xml** file, and save the new file to preserve your customizations.

Using Oracle thin client when upgrading to 4.1

When upgrading Get-Answers 4.0.1 to 4.1, the install wizard does not ask for database information since the database already exists from the previous version. Get-Answers 4.0.1 only supported the Oracle thick client. Get-Answers 4.1 also supports using the Oracle thin client. If you want to start using Oracle thin client instead of Oracle thick client, you can do so by changing the database configuration settings in the Administration module.

To configure settings to use Oracle thin client:

1 Go to the **Admin** > **Settings** > **rome** tab.



2 Set the **Database URL** field to jdbc:oracle:thin:@db_host:port:service_name where *db_host* is the name of your database server, *port* is the database listener port, and *service_name* is the network service name that uniquely identifies the database when connecting to the machine.

Configuring alternate application servers

You must install a Java-enabled application server to support your Peregrine Web applications. Peregrine OAA supports the following alternate application servers:

- *Existing Tomcat and Apache servers*
- *Tomcat 4.1.24 connecting to IIS 5.0*
- *WebSphere 4.0.2*
- *WebSphere 5.0*
- *WebLogic 6.1 SP3 or SP4*
- *JRun 3.1*

The Get-Answers typical installation option installs Tomcat 4.1.24 and connects it to an Apache 2.0 web server. You can also install Tomcat 4.1.24 using the custom installation option.

Important: If you want to use an application server other than Tomcat 4.1.24, then you must configure your application and Web servers *prior* to running the Get-Answers installer.

Existing Tomcat and Apache servers

If you use the typical installation option, the Get-Answers installer configures Tomcat to connect to a new instance of the Apache Web server. If you have existing instances of Tomcat or Apache Web Server installed, you can configure Get-Answers to use these existing instances by copying the necessary files from a typical installation.

To configure an existing Tomcat server to connect to an Apache server:

1. Stop existing instances of both Tomcat and Apache.
2. Copy the following files from the installation CD \SupportFiles… directory to the directories indicated below.

Copy this file	To the following location
■ mod_jk.conf	The \conf directory of your existing Tomcat installation. The default source file path is: C:\Program Files\Apache Group\Tomcat 4.1\conf
■ workers.properties	The \conf directory of your existing Tomcat installation. The default source file path is: C:\Program Files\Apache Group\Tomcat 4.1\conf
■ mod_jk.dll	The \modules directory of your existing Apache installation. The default source file path is: C:\Program Files\Apache Group\Apache2\modules

Note: The mod_jk.dll included with this release is compatible with Apache 2.0.43 and Tomcat 4.1.25. If you are using other versions, refer to the jakarta.apache.org/builds/jakarta-tomcat-connectors/jk/doc site to download the compatible version.

3. Using a text editor, open the files mod_jk.conf and workers.properties. These files are located in the \conf directory of your Tomcat installation.
   a. Find all instances where the path to Tomcat appears and edit these to reflect your current Tomcat 4.1 installation path.
   b. Find all instances where the path to JDK appears and edit these to reflect your current JDK installation path.

4 Using a text editor, open the **httpd.conf** file. This file is located in the **\conf** directory of your Apache installation.

   a Add the path to your existing Tomcat installation to the **include** statement in the Global Environment section:

```
### Section 1: Global Environment
...
include "<Tomcat_path>/conf/mod_jk.conf"
```

   For <*Tomcat_path*>, enter the absolute path to your Tomcat installation.

   b Add **login.jsp** to the list of files in the DirectoryIndex section:

```
# DirectoryIndex: Name of the file or files to use as a pre-written
# HTML directory index.  Separate multiple entries with spaces.
#
<IfModule mod_dir.c>
 DirectoryIndex index.html login.jsp
</IfModule>
```

   c Add the following line to the end of the file:

   Alias <Tomcat>\webapps\oaa

   where <*Tomcat*> is the path to your Tomcat installation.

5 Install Get-Answers using the **Custom** option.See *Installing Get-Answers using Custom installation.*

6 If your application uses Oracle, copy the **classes12.jar** file from: **<your Tomcat installation>\webapps\oaa\Web-Inf\lib** to the **\ext** folder under your JDK installation.

   The default path is: **C:\jdk1.3.1_06\jre\lib\ext**.

7 Restart Tomcat and Apache.

8 Browse to the Get-Answers login URL and verify that you can successfully connect.

Note: Depending on your Web server configuration, if you browse to **http://servername/oaa**, the Web server may display a list of all the OAA files instead of the login page.

If your server displays this behavior, follow these steps to configure your Web server to display the OAA login page instead of a directory listing.

To configure Apache to display login.jsp by default:

1 Open Apache's **conf/httpd.conf** file in a text editor.

2 Find the existing line that reads DirectoryIndex index.html.

3 Add login.jsp to the end:

DirectoryIndex index.html login.jsp

4 Save httpd.conf.

5 Restart the Apache Web server.

Tomcat 4.1.24 connecting to IIS 5.0

You can use the Get-Answers installer to install the Tomcat application server. If you use the typical installation option, the Get-Answers installer configures Tomcat for the Apache Web server. In order to configure the Tomcat for the IIS Web server, you must perform a custom installation and configure IIS using the following instructions.

Note: These instructions are for setting up Tomcat to use a single Java Virtual Machine (JVM). See the *Installation Guide* chapter on *Load Balancing* for installing multiple JVMs.

To configure Tomcat to connect to an IIS 5.0 Web server:

Step 1 Run the Get-Answers installer. See *Running the installer* on page 66.

Step 2 Configure the ISAPI Plug-in for IIS. See *Configuring the ISAPI Plugin for IIS* on page 66.

Step 3 Configure IIS to use isapi_redirector2.dll as an ISAPI Filter. See *Configuring the isapi_redirector2.dll as an ISAPI filter* on page 66.

Step 4 Create and configure a jakarta virtual directory in IIS. See *Configuring a jakarta virtual directory in IIS* on page 67.

Step 5 Create and configure an oaa virtual directory in IIS. See *Configuring an oaa virtual directory in IIS* on page 68.

Step 6 Edit the server.xml file to add performance settings and configure alternate communications ports (Optional). See *Editing the server.xml file for IIS* on page 70.

Step 7 Install Tomcat as a service using installservice.bat (Optional). This file can be found in the Tomcat\bin directory. See *Installing Tomcat as a service* on page 71.

Running the installer

Run the Get-Answers installer and select the Custom installation option. See *Installing Get-Answers using Custom installation* on page 110..

Configuring the ISAPI Plugin for IIS

The ISAPI plugin for IIS establishes a connection between Tomcat and the IIS Web server. Before configuring IIS to use this connector, you must update the registry file entry for the connector to ensure that it has the proper paths listed for the Tomcat application server.

The Get-Answers installer automatically places a copy of the ISAPI plug-in for IIS in the following folder:

c:\Program Files\Peregrine\Common\Tomcat4\bin

Use the following procedures to configure the plugin for your intranet environment.

To configure the ISAPI plugin for IIS:

1 Open the file jk2.reg in a text editor. The default file path is:

C:\Program Files\Peregrine\Common\Tomcat4\conf

2 Verify that the "serverRoot" and "workersFile" values list the proper installation path to Tomcat. By default, these values are:

```
"ServerRoot"="C:\\Program Files\\Peregrine\\Common\\Tomcat4"
"workersFile"="C:\\Program Files\\Peregrine\\Common\\Tomcat4\\conf\\
workers2.properties"
```

Tip: You do not need to make any changes if you installed this file to the default location.

3 Save and close the jk2.reg file.

4 Double-click on the jk2.reg file from Windows Explorer.

Windows adds the registry settings to the Windows registry.

Configuring the isapi_redirector2.dll as an ISAPI filter

To establish a connection between Tomcat and IIS, you will need to install isapi_redirector2.dll as an ISAPI filter.

To install isapi_redirect2.dll as an ISAPI filter:

1. From Windows Control Panel > Administrative Tools, open the Internet Services management console.
2. Right-click the **Default Web Site** node and then click **Properties**.
3. Click the **ISAPI Filters** tab.
4. Click **Add**.
5. Enter the following information:
   a. **Filter Name:** jakarta. The filter name must match the name you defined the jk2.reg registry file. By default, the filter name is jakarta.
   b. **Executable:** isapi_redirector2.dll. The default file path is:

   C:\Program Files\Peregrine\Common\Tomcat4\bin\isapi_redirector2.dll
6. Click **OK**.

   Note: You must stop and then start the IIS service for changes to take effect. You must also restart Peregrine Tomcat.
7. From the Internet Services management console, right-click the **Default Web Site** node, then select **Properties**>**Isapi Filters** again.

   The ISAPI filter in IIS displays a green status arrow to indicate that it is running.
8. Close the Internet Services management console.

Configuring a jakarta virtual directory in IIS

The ISAPI plugin for IIS requires a specific virtual directory in order to run. Use the following guidelines to create the virtual directory on the Default Web Site. For specific instructions about configuring IIS, refer to your Windows Help.

To configure a jakarta virtual directory in IIS:

1 Use the following guidelines to create the virtual directory on the Default Web Site.

Requirements for a jakarta virtual directory

Requirement	Setting
Create virtual directory	jakarta
Map to physical path	<Tomcat>\bin
Directory access rights	Read, Run scripts, Execute

2 For <Tomcat>, enter the path to your Tomcat installation. The default file path is:

3 C:\Program Files\Peregrine\Common\Tomcat4

Configuring an oaa virtual directory in IIS

To run Get-Answers from IIS, you need to create a virtual directory that maps to your Tomcat deployment folder. For specific instructions about configuring IIS, refer to your Windows Help.

To configure an oaa virtual directory in IIS:

▶ Use the following guidelines to create the virtual directory.

Requirements for an oaa virtual directory

Requirement	Setting
Create virtual directory	<oaa>
Map to physical path	<Tomcat>\webapps\<oaa>
Directory access rights	Read, Run scripts

For <*oaa*>, enter the name of the virtual directory you want to use for Get-Answers. The recommended virtual directory name is oaa. If you choose to use another virtual directory name, you must enter the new name in the following places:

- Rename the folder <Tomcat>\webapps\oaa to <Tomcat>\webapps\<new name>
- Rename the [uri] mappings in workers2.properties from oaa to the new virtual directory name.
- Rename all the oaa context entries in mod_jk2.conf from oaa to the new virtual directory name.
- Rename the <Context> path and docBase attributes in server.xml from oaa to the new virtual directory name.

Important: The virtual directory name you choose will become part of the URL users enter to connect to Get-Answers. For example: http://server_name/<new name>/login.jsp

For <*Tomcat*>, enter the path to your Tomcat installation. The default file path is:

C:\Program Files\Peregrine\Common\Tomcat4

Note: Depending on your Web server configuration, if you browse to http://servername/oaa, the Web server may display a list of all the OAA files instead of the login page.

If your server displays this behavior, follow these steps to configure your Web server to display the OAA login page instead of a directory listing.

To configure IIS:

1. Open the Internet Services Manager.
2. Expand the Default Web Site.
3. Right-click on the OAA virtual directory and click Properties.
4. Click the Documents tab.
5. Verify that **Enable Default Document** is checked.
6. Click the **Add** button.
   a. Type login.htm.
   b. Click **OK**.
7. Highlight login.htm and using the up and down arrows, move login.htm to the top of the file list.
8. Click **OK** to accept the changes to the OAA directory properties.

Editing the server.xml file for IIS

A default Tomcat installation is sufficient for most Get-Answers installations. However, if you are experiencing performance problems or communications port conflicts, you may need to edit the Tomcat server.xml file to correct these problems.

Performance settings

The Tomcat server.xml file allows you to determine how Tomcat processes Get-Answers files. If you are experiencing performance problems, you can change the <Context> setting for Get-Answers to disable page reloading.

Tip: Make a back up copy of the server.xml file before editing.

To edit the server.xml performance settings:

1 Open the file server.xml in any text editor. The default file path is:

C:\Program Files\Peregrine\Common\Tomcat4\conf

2 Create a <Context> element entry from Tomcat to the Get-Answers deployment directory to establish a point of reference for docBase.

Add the entry just above the "examples" Context entry.

Example:

```
<Context path="/oaa"
docBase="<Tomcat>/webapps/oaa"
crossContext="false"
debug="0"
reloadable="false" >
</Context>
```

Setting the reloadable attribute to false results in faster JSP page processing.

For the docBase attribute, set <*Tomcat*> to the absolute path of the first or master Tomcat instance.

Communications port settings

If your Get-Answers server already uses communications ports 8005 and 8009, you will have a port conflict if you install Tomcat with the default settings. To avoid a port conflict, you must edit the server.xml file to change the communications ports used by Tomcat.

Important: You do not need to perform these optional steps if Tomcat's default communication ports are available on your server.

Tip: Make a back up copy of the server.xml file before editing.

To edit the server.xml communications port settings:

1 Open the file server.xml in any text editor. The default file path is:

C:\Program Files\Peregrine\Common\Tomcat4\conf

2 Update the port number attribute of the <Server> element to a free communications port.

Note: By default, Tomcat uses port 8005 for shutdown requests.

Example:

```
<Server port="8005" shutdown="SHUTDOWN" debug="0">
```

3 Update the port attribute of the Coyote Connector <Connector> element to a free communications port.

Note: By default, Tomcat uses port 8009 for the Coyote connector.

Example:

```
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector" port="8009"
minProcessors="5" maxProcessors="75" enableLookups="true" redirectPort="8443"
acceptCount="10" debug="0" connectionTimeout="20000"
useURIValidationHack="false"
protocolHandlerClassName="org.apache.jk.server.JkCoyoteHandler" />
```

4 Save the server.xml file.

5 Restart Tomcat for your new settings to take effect.

Installing Tomcat as a service

After you have edited the Tomcat files, you can install Tomcat as Windows services using installservice.bat.

Note: The installer does not reset the JAVA_HOME environment variable when installing on systems where a previous instance of Tomcat is installed. Manually redefine the JAVA_HOME environment variable to point to the new Java Development Kit. The default path is: C:\Program Files\Peregrine\Common\jdk1.3.1_05

To install Tomcat as a service:

1 Open a DOS command prompt and change directories to your Tomcat bin directory.

2 Enter the following command to create each Tomcat instance:

```
installservice <service name> <tomcat_home> <jvm_dll_path>
```

Where *<service name>* is the name you wish to give the Tomcat service, *<tomcat_home>* is the Tomcat install directory of the instance for which you are creating the service, and *<jvm_dll_path>* is the Java SDK install directory.

The second and third parameters are optional if you have already set the CATALINA_HOME and JAVA_HOME environment variables.

Example:

```
installservice Tomcat8009 C:\Program Files\Peregrine\Common\Tomcat4
C:\Program Files\Peregrine\Common\jdk1.3.1_05
```

3 Repeat step 1 through step 2 for each Tomcat service you wish to create.

WebSphere 4.0.2

Use the following procedures to configure WebSphere 4.0.2 to run Get-Answers on Windows.

Note: The Get-Answers installer creates duplicate alias entries in the IBM HTTP Server when you install more than one Peregrine OAA Platform application on WebSphere.

Duplicate entries can also occur if you reinstall Get-Answers or install another Peregrine OAA Platform application on a system that formerly had Get-Answers installed on it.

Remove any duplicate alias entries from the IBM HTTP Server **httpd.conf** file.

To configure WebSphere 4.02:

Step 1 Install WebSphere 4.02. Your version of WebSphere 4.0.2 includes the IBM HTTP Server. See *Installing WebSphere 4.0.2* on page 73.

Step 2 Deploy the Portal WAR file to WebSphere to create the necessary folder structure for Get-Answers. See *Deploying the Portal WAR file to WebSphere* on page 73.

Step 3 Set the JVM classpaths to your database classes. See *Setting the JVM classpaths* on page 75.

Step 4 Set the JVM Java heap size for each WebSphere instance running Get-Answers. See *Setting the Java heap size* on page 76.

Step 5 Run the Get-Answers installer. See *Running the installer* on page 78.

Step 6 Regenerate and configure. See *Regenerating the plug-in configuration* on page 78.

If you plan on setting up a WebSphere Portal Server or a WebSphere Translation Server, see *Installing WebSphere Portal Server* on page 82 or *Configuring WebSphere Translation Server for Get-Answers* on page 92.

Installing WebSphere 4.0.2

Purchase and install IBM WebSphere 4.0.2. Your version of WebSphere 4.0.2 includes the IBM HTTP Server.

Verify that you install fix pack 2. To check this, go to the default_server_Stdout.log file under \Websphere\AppServer\logs.

Deploying the Portal WAR file to WebSphere

The Portal WAR file creates the folder structure necessary to deploy Get-Answers in your application server. After you have deployed this file to WebSphere you will be ready to run the Get-Answers installer.

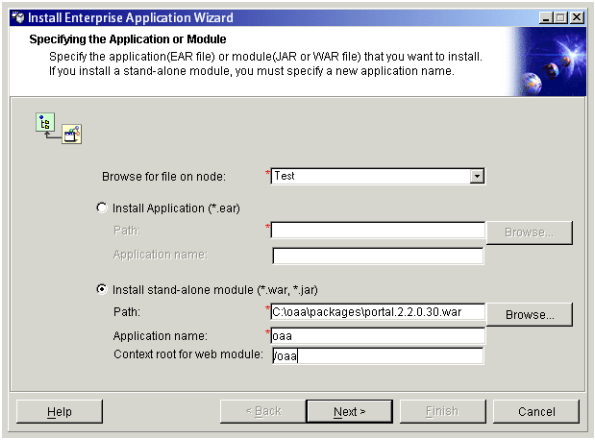
To deploy the Portal WAR file to WebSphere:

1. Verify that the WebSphere Admin Server has been started.
2. Open the WebSphere Advanced Administrator's Console (**Start** > **Programs** > **IBM WebSphere** > **Application Server** > **Administrator's Console**).
3. On the menu at the left side of the console, right-click on **Enterprise Applications** and select **Install Enterprise Application**.
4. On the screen displayed, do the following:
   a. Select **Install stand-alone module**.
   b. In the **Path** field, browse to the path to the portal<version #>.war file. The default file path is: <CD Rom Drive>:\portal<version #>.war.

      For <version #>, select the most recent version available (4.0.0.44 or greater).
   c. In the **Application Name** field, type oaa.
   d. In the **Context Root** field, type the name of Get-Answers virtual Web server directory you wish to use. Example: /oaa.

Important: You must create a Web server virtual directory matching the context root you enter here.

The following screen shows the completed form.

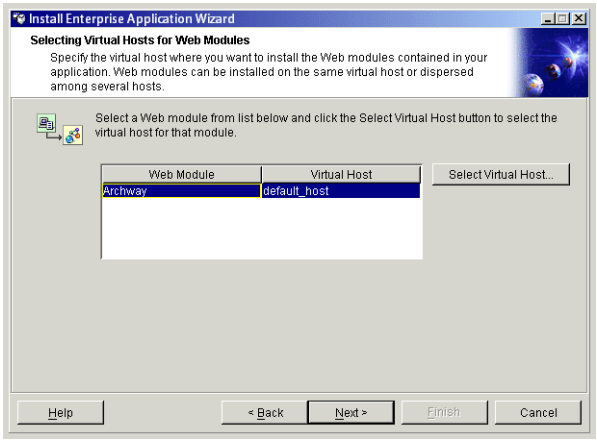


5 Click **Next**.

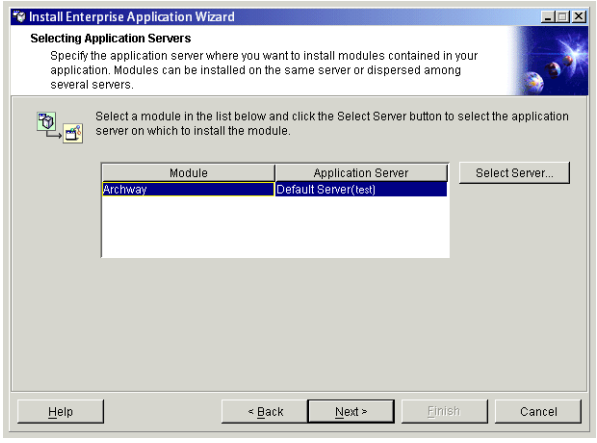
6 Click **Next** on the following dialog boxes. These screens will not be used.

- Mapping Users to Roles
- Mapping EJB Run As Roles to Users
- Binding Enterprise Beans to JNDI Names
- Mapping EJB References to Enterprise Beans
- Mapping Resource References to Resources
- Specifying the Default Datasource
- Specifying Data Sources for Individual CMP Beans

7 In the Selecting Virtual Hosts for Web Modules, select the WebSphere server instance you want to use, and then click **Next**.



8 In the Selecting Application Servers dialog box, select the WebSphere server instance you want to use, and then click **Next**.



9 On the dialog box displayed, click **Finish**.

Setting the JVM classpaths

Get-Answers requires that you set the JVM classpaths to your database classes.

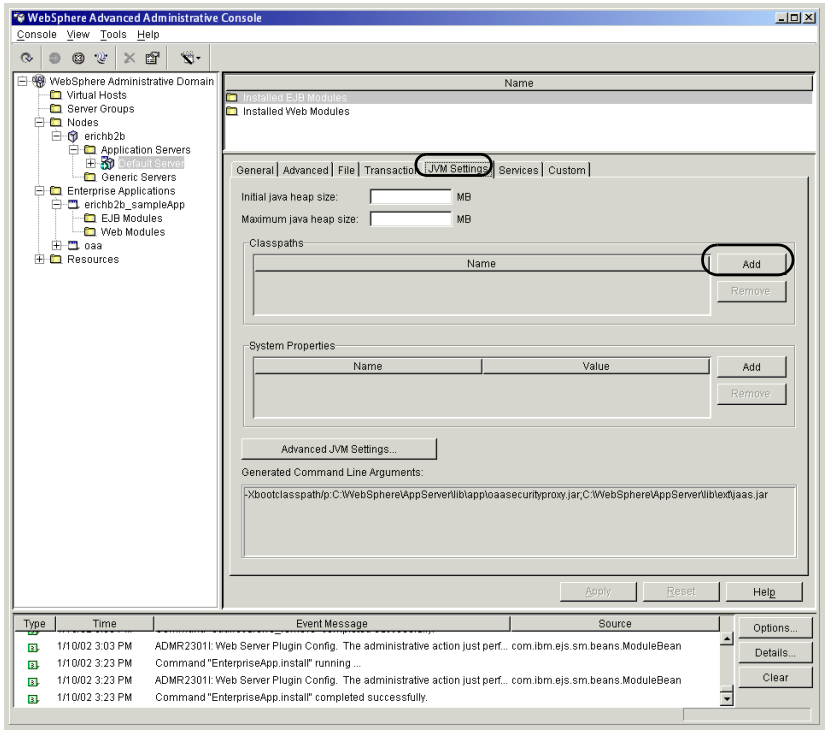
To set the JVM classpaths:

1 Verify that the WebSphere Admin Server has been started.

2 Open the WebSphere Advanced Administrator's Console (**Start** > **Programs** > **IBM WebSphere** > **Application Server** > **Administrator's Console**).

3 Click **Nodes** > <*System Name*> > **Application Servers** > <*Application server name*>.

The server settings page opens.



4 Click the JVM Settings tab.

5 Under Classpaths, click Add.

6 Add the path to your database classes.

If you are using Oracle, provide the path to the classes12.jar file:

C:\oracle\ora81\jdbc\lib\classes12.jar

Setting the Java heap size

You can configure how much memory is available for your application server instances. The following instructions assume you are only using one WebSphere instance. You will need to adjust the heap size accordingly if you are load balancing across several WebSphere instances.

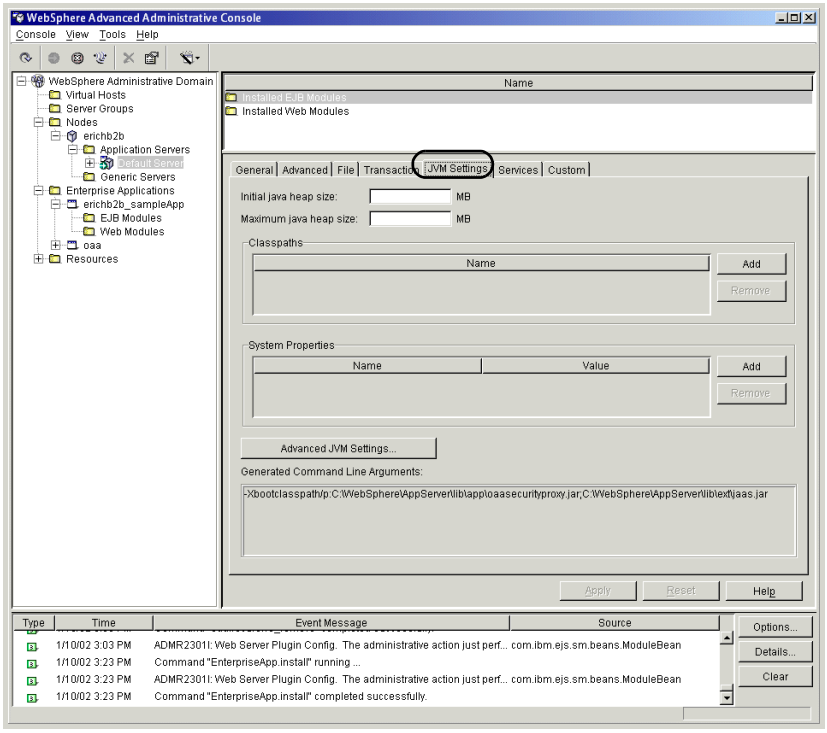
To set the Java heap size:

1 Verify that the WebSphere Admin Server has been started.

2 Open the WebSphere Advanced Administrator's Console (**Start** > **Programs** > **IBM WebSphere** > **Application Server** > **Administrator's Console**).

3 Click **Nodes** > <*System Name*> > **Application Servers** > <*Application server name*>.

The server settings page opens.



4 Click the JVM Settings tab.

5 Set the following JVM settings:

a **Initial java heap size**. Type 60.

b **Maximum java heap size**. Type the value you want for heap memory. This setting should be at least 225 MB, but not more than 512 MB.

Note: Make sure that the setting for maximum heap size is less than the free RAM available to the application server(s). Exceeding the amount of available RAM causes the JVM processes to swap to disk, reducing overall performance. A setting of 256 MB should be sufficient for most systems.

Running the installer

Run the Get-Answers installer and select the Custom installation option. See *Installing Get-Answers using Custom installation* on page 110.

Regenerating the plug-in configuration

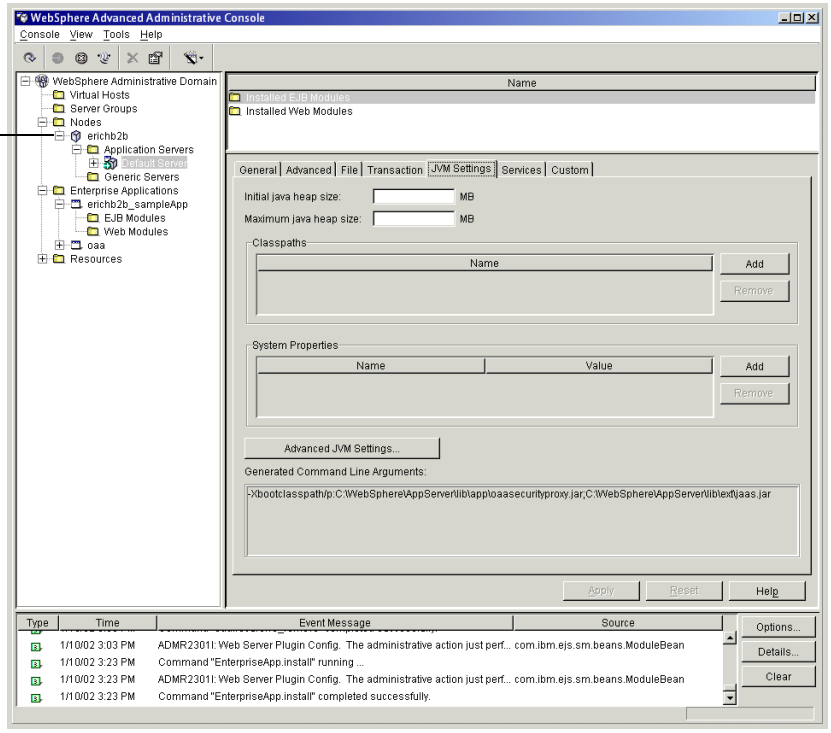
You must regenerate the plug-in configuration using the WebSphere Admin console after running the Get-Answers installer.

To regenerate the plug-in configuration:

1 Open the WebSphere Advanced Administrator's Console (**Start** > **Programs** > **IBM WebSphere** > **Application Server** > **Administrator's Console**).

2 Click **Nodes** > <*System Name*> > **Application Servers** > <*Application server name*>.

The server settings page opens.



3 Right-click on the <*System Name*>, then select **Regen Webserver Plugin**.

4 Copy the following lines from the <settings> section of **<appserver>\WEB-INF\default\archway.xml** to the <settings> section in your **<appserver>\WEB-INF\local.xml** file, where <*appserver*> is the location of your application server:

```
<SSLProvider>com.ibm.jsse.JSSEProvider</SSLProvider>
<HTTPSHandlerPkg>com.ibm.net.ssl.internal.www.protocol</HTTPSHandlerPkg>
<CryptoProvider>com.ibm.crypto.provider.IBMJCE</CryptoProvider>
```

5 Restart your application server.

WebSphere 5.0

Use the following procedures to configure WebSphere 5.0 to run Get-Answers on Windows. WebSphere Application Server 5.0 is referred to as WAS5.

Note: The Get-Answers installer creates duplicate alias entries in the IBM HTTP Server when you install more than one Peregrine OAA Platform application on WebSphere.

Duplicate entries can also occur if you reinstall Get-Answers or install another Peregrine OAA Platform application on a system that formerly had Get-Answers installed on it.

Remove any duplicate alias entries from the IBM HTTP Server httpd.conf file.

To run Get-Answers 4.x on WebSphere Application Server 5.0:

1 Set the WAS_HOME environment variable to your WAS5 home directory.

The default location is: C:\Program Files\WebSphere\AppServer.

2 With WAS5 running, log in to the Admin console and create a new Enterprise Application using portal.war from the packages directory on the Get-Answers 4.0.1 CD.

Note: The important option to specify is the context root, typically /oaa or /getit.

a Specify the context root.

b Keep all the other settings at their defaults.

c Save the server configuration.

3 For Get-Answers, you must configure the Oracle classes12.jar file or the DB2 db2java.zip file as a Shared Library.

a Still in the WAS5 Admin console, click **Environment** in the left column.

b Under Environment, click **Shared Library**.

c In the main frame, click **New**.

d Type a name for the library in the Name field, and the full path to classes12.jar or db2java.zip in the Classpath field.

e Click **Apply**.

f Under Applications, go back to the definition for the OAA Enterprise Application.

g Click **Libraries** under Additional Properties.

h Click **Add**.

i Select the library you defined and click **Apply**.

j Save the server configuration.

4 Run setup from the CD.

a Choose the Custom install.

b Clear the Tomcat, JDK, and Apache options.

5 When prompted for the deployment directory, browse to it under the WAS5 installed applications directory; typically, C:\Program Files\WebSphere\AppServer\installedApps\[hostname]\oaa.ear\portal.war.

6 When the installation is complete, delete pop3.jar from C:\Program Files\WebSphere\AppServer\java\jre\lib\ext.

It is no longer needed because WAS5 includes it in mail.jar.

7 Copy js.jar from …portal.war\WEB-INF\lib to C:\Program Files\WebSphere\AppServer\java\jre\lib\ext.

8 From the IBMHttpServer\conf\httpd.conf file:

a Add the following lines.

```
LoadModule ibm_app_server_http_module
“<AppServerPath>/bin/mod_ibm_app_server_http.dll”
WebSpherePluginConfig
"<AppServerPath>/config/cells/plugin-cfg.xml"
```

b Verify that the following line is in the file; if not, add it.

```
Alias /oaa/ "opt/WebSphere/AppServer/installedApps/[hostname]
/oaa.ear/portal.war/"
```

The installer fails to do this because earlier versions were named differently.

Note: This alias needs to match the context root specified in step 2. The portal.war deployment folder has the same name as the portal.war file you deployed in step 2.

9 Using a text editor:

a Add the following UriGroup mappings to the plugin-cfg.xml file located in WebSphere\AppServer\config\cells.

```
<UriGroup Name="default_host_server1_sys_Cluster_URIs">
:
:
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/answers/attachments/*"/
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/servlet/archway"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/servlet/rpcrouter"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/servlet/messagerouter"/
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/servlet/download/*"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/servlet/*"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/*.do"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/*.jsp"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/*.jsv"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/*.jsw"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/j_security_check"/>
</UriGroup>
```

b Save and close the file.

10 Restart WAS5.

11 Log in to the Admin console again.

a From Environment on the left side, click **Update Web Server Plugin**.

b Click **OK**.

12 Restart the IBM HTTP Server.

13 Log in to admin.jsp and continue configuring the system as usual.

Installing WebSphere Portal Server

You can configure Get-Answers to display in a WebSphere Portal Server in one of two configurations:

- All Get-Answers and WebSphere components running on a single system. See *Recommended WebSphere Portal Server configuration* on page 83.
- Get-Answers components running on one system and WebSphere components running on another. See *Alternate WebSphere Portal Server configuration* on page 84.

Important: In either configuration, you must first install WebSphere Portal Server. See your WebSphere Portal Server documentation for details.

Recommended WebSphere Portal Server configuration

Use the following steps to configure Get-Answers for the recommended WebSphere Portal Server configuration:

Step 1 Review the WebSphere Portal Server installation requirements. See *WebSphere Portal Server installation requirements* on page 86.

Step 2 Generate a Get-Answers WAR file containing the portal components WebSphere Portal Server can display. See *Generating a Get-Answers WAR file* on page 87.

Step 3 Login to the Get-Answers server and stop the WebSphere application server.

Step 4 Modify the local.xml to change the HTTP authentication method used from Basic to Alternate. See *Modifying the local.xml file* on page 88.

Step 5 Modify the web.xml to enable the AuthController servlet. See *Modifying the web.xml file* on page 88.

Step 6 Modify the ibm-web-ext.xmi file to set the fileServingEnabled parameter. See *Modifying the ibm-web-ext.xmi file* on page 89.

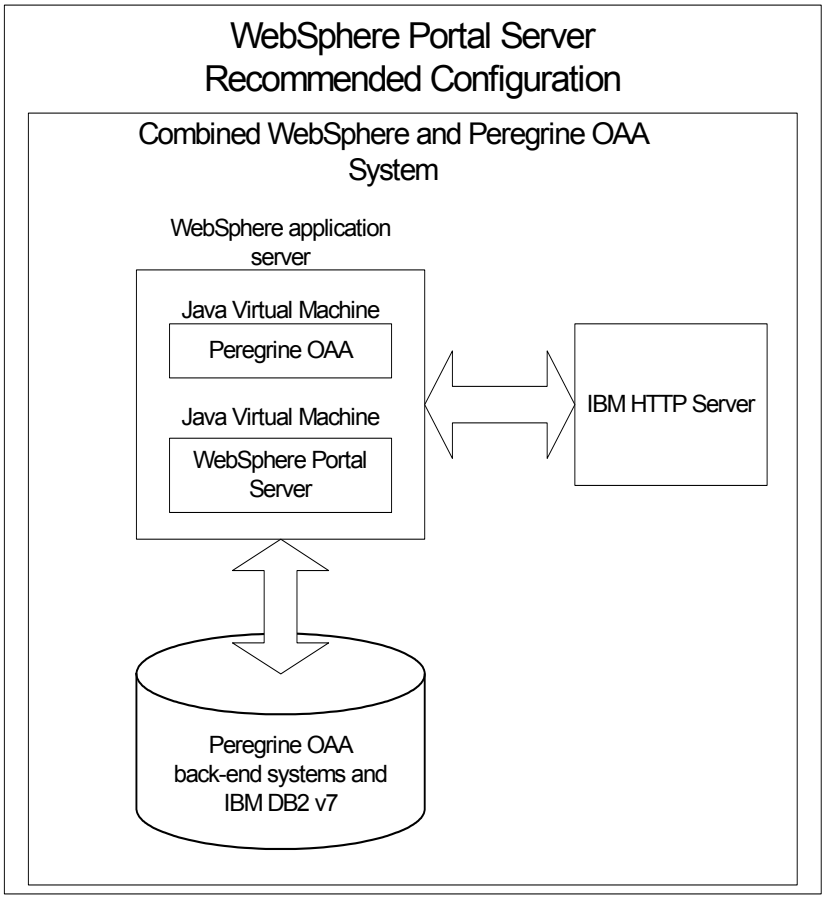
Step 7 Start the WebSphere application server. See *Starting the WebSphere application server* on page 89.

Step 8 Deploy the Get-Answers WAR file to WebSphere Portal Server. See *Deploying the Get-Answers WAR file to WebSphere Portal Server* on page 90.

Step 9 Create places and pages in WebSphere Portal Server to display Get-Answers portlets. See *Configuring WebSphere Portal Server places and pages* on page 90.

Step 10 Enable edit rights for Get-Answers portlets. See *Enabling edit rights for Get-Answers portlets* on page 91.

When complete, your installation will have the following configuration:



Alternate WebSphere Portal Server configuration

Use the following steps to configure Get-Answers for the alternate WebSphere Portal Server configuration:

Step 1 Review the WebSphere Portal Server installation requirements. See *WebSphere Portal Server installation requirements* on page 86.

Step 2 Generate a Get-Answers WAR file containing the portal components WebSphere Portal Server can display. See *Generating a Get-Answers WAR file* on page 87.

Step 3 Login to the Get-Answers server and stop the WebSphere application server. See *Stopping the WebSphere application server* on page 88.

Step 4 Modify local.xml to change the HTTP authentication method used from Basic to Alternate. See *Modifying the local.xml file* on page 88.

Step 5 Modify web.xml to enable the AuthController servlet. See *Modifying the web.xml file* on page 88.

Step 6 Modify the ibm-web-ext.xmi file to set the fileServingEnabled parameter. See *Modifying the ibm-web-ext.xmi file* on page 89.

Step 7 Modify setDomain.js to call the SetDomain function. See *Modifying the setDomain.js file* on page 89.

Step 8 Start the WebSphere application server. See *Starting the WebSphere application server* on page 89.

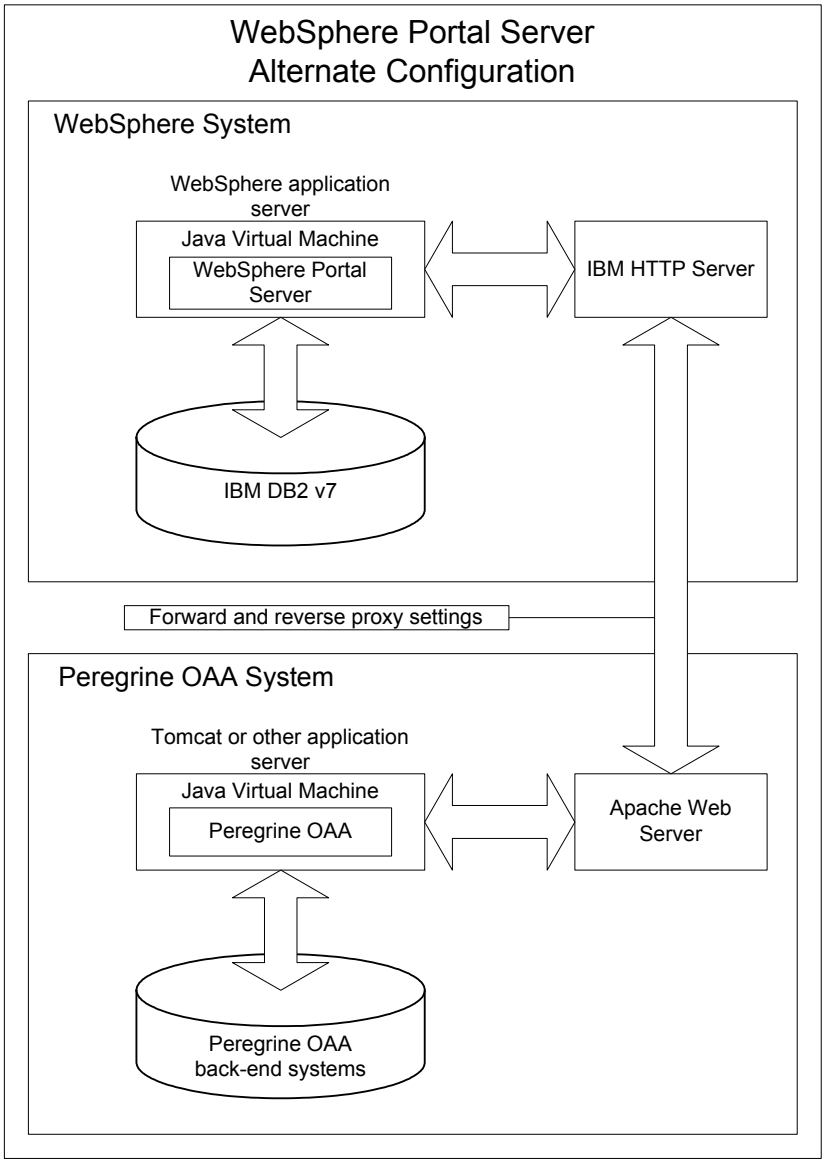
Step 9 Deploy the Get-Answers WAR file to WebSphere Portal Server. See *Deploying the Get-Answers WAR file to WebSphere Portal Server* on page 90.

Step 10 Create places and pages in WebSphere Portal Server to display Get-Answers portlets. See *Configuring WebSphere Portal Server places and pages* on page 90.

Step 11 Enable edit rights for Get-Answers portlets. See *Enabling edit rights for Get-Answers portlets* on page 91.

Step 12 Modify IBM HTTP Server's httpd.conf file to add forward and reverse proxy URLs. See *Modifying httpd.conf for IBM HTTP Server* on page 91.

When complete, your installation will have the following configuration:



WebSphere Portal Server installation requirements

The recommended configuration of the WebSphere Portal Server requires the following items to be installed on the same server:

- WebSphere application server 4.0.2

- IBM HTTP Server 1.3.19
- IBM DB2 v7 database server
- WebSphere Portal Server
- A custom installation of Get-Answers with WebSphere selected as the application server

The alternate configuration of the WebSphere Portal Server requires the following items be installed on a minimum of two servers:

- Server 1
  - WebSphere application server 4.0.2
  - IBM HTTP Server 1.3.19
  - IBM DB2 v7 database server
  - WebSphere Portal Server
- Server 2
  - Get-Answers compatible application server
  - Web server
  - Back-end database for Get-Answers
  - An installation of Get-Answers

Generating a Get-Answers WAR file

In order to display Get-Answers in WebSphere Portal Server, you must first export the Get-Answers portal components as a WAR file. You can then import this WAR file into WebSphere Portal Server, and choose the portal components you want to display as WebSphere Portal Server portlets.

To generate a Get-Answers WAR file:

1. Login to the Get-Answers administration page (admin.jsp).
2. Click **IBM WebSphere Portal Integration**.
3. Enter the following configuration information:
   a. **Source Path**. Enter the full path to the WebSphere.war in the Get-Answers package folder. By default, this folder is:

      <WebSphere>/oaa/packages

   b. **Destination Path**. Enter the full path and file name you want to use for the generated Get-Answers WAR file.

   c. **Base URL**. Enter the full URL to the Get-Answers deployment directory. By default, this URL is:

http://<server>:<port>/oaa/servlet/basicauth

4 Click **Generate WAR file**.

Get-Answers generates a new WAR file with the name and path specified in the Destination Path of step 3.

Stopping the WebSphere application server

Login to the Get-Answers server and stop the WebSphere application server before modifying the configuration.

Modifying the local.xml file

In order to login via WebSphere Portal Server, you configure Get-Answers to use an alternate HTTP authentication method.

To modify the local.xml file:

1 Using a text editor, open the local.xml file located at:

<application server>\oaa\WEB-INF\.

2 Add the following on a separate line anywhere between <settings> and <\settings>:

```
<httpauthclass>HttpAlternateAuthenticationManager</httpauthclass>
```

3 Save the file.

Modifying the web.xml file

You will need to enable the AuthController servlet to establish a proxy for HTTP basic authentication.

To modify the web.xml file:

1 Using a text editor, open the web.xml file located at:

<application server>\oaa\WEB-INF.

2 Add the following lines at the end of the last <servlet> definition:

```
<servlet>
  <servlet-name>AuthController</servlet-name>
  <display-name>AuthController</display-name>
  <description>A controller (decorator) servlet that can be used to
enable configurable auth protection of any resource.</description>

  <servlet-class>com.peregrine.oaa.archway.AuthControllerServlet
  </servlet-class>
  <load-on-startup>2</load-on-startup>
</servlet>

<servlet-mapping>
  <servlet-name>AuthController</servlet-name>
```

```
  <url-pattern>/servlet/basicauth/*</url-pattern>
</servlet-mapping>
<servlet-mapping>
  <servlet-name>AuthController</servlet-name>
  <url-pattern>/servlet/auth/*</url-pattern>
</servlet-mapping>
```

3 Save the file.

Modifying the ibm-web-ext.xmi file

You need to set the fileServingEnabled parameter to true to handle static content.

To modify the ibm-web-ext.xmi file:

1 Using a text editor, open the ibm-web-ext.xmi file. The default file path is:

```
c:\WebSphere\AppServer\installedApps\getit.ear\getit.war\WEB-INF
```

2 Find the fileServingEnabled parameter and set it to **true**.

```
fileServingEnabled="true"
```

3 Save the file.

Modifying the setDomain.js file

To use the alternate configuration of WebSphere Portal Server, you must enable the setDomain function.

Note: If you are setting up WebSphere Portal Server in the recommended configuration, you may skip these instructions.

To modify the setDomain.js file:

1 Login to the Get-Answers server.

2 Stop your application server.

3 Using a text editor, open the setDomain.js file located at:

<application server>\oaa\js.

4 Add the following line to the end of the file:

```
setDomain();
```

5 Save the file.

Starting the WebSphere application server

Start the WebSphere application server for changes to take effect.

Deploying the Get-Answers WAR file to WebSphere Portal Server

After you deploy the Get-Answers WAR file to WebSphere Portal Server, you can then configure the portlets you want to display, the display settings, and the access rights to each portlet.

See your WebSphere Portal Server documentation for detailed instructions.

To deploy the Get-Answers WAR file:

1. Login to the WebSphere Portal as wpsadmin or another user with administrative rights.
2. Select **Portal Administration** from the Places menu.
3. Click **Portlets** > **Install Portlets**.
4. Click **Browse** and navigate to the Destination path you entered when you created the Get-Answers WAR file.
5. Click Next to load the Get-Answers WAR file.

   WebSphere Postal Server displays a list of portlets to be installed.
6. Click Install.

   WebSphere Portal Server installs the portlets and displays the message "Portlets successfully installed."

Configuring WebSphere Portal Server places and pages

Note: Refer to your WebSphere Portal documentation for details on places and pages.

You can deploy Get-Answers portlets in any place or page that meet the following requirements.

Places

Your WebSphere Portal Server places must have the following characteristics:

- Supported markups must include HTML

Pages

Your WebSphere Portal Server pages must have the following characteristics:

- Supported markups must include HTML
- The page must be set to "allow all portlets that a user can access"
- All Get-Answers portlets that you display in a page must grant "all authenticated users" the minimum edit permission.

Enabling edit rights for Get-Answers portlets

WebSphere Portal Server users will need edit rights to the Get-Answers portlets in order to add and customize them to their portal page.

To enable edit rights for Get-Answers portlets:

1. Login to the WebSphere Portal as wpsadmin or another user with administrative rights.
2. Select **Portal Administration** from the Places menu.
3. Click **Security** > **Access Control List**.
4. Select the **Special groups** option and select **All authenticated users** from the select box.
5. From the Select the objects for the permissions select box, select **portlet applications**.
6. Select the Search on option, and then enter Peregrine in the Name contains field.
7. Click **Go**.

   WebSphere Portal Server displays a list of portlets with Peregrine in the name.
8. In the Edit column, click **Select All** at the bottom of the table.
9. Click **Save**.

   Users can now view and customize Get-Answers portlets from the WebSphere Portal Server interface.

Modifying httpd.conf for IBM HTTP Server

In order to use the alternate configuration of WebSphere Portal Server, you will need to modify the httpd.conf file used by the IBM HTTP Server to add the forward and reverse proxy URLs to your remote instance of Get-Answers.

Note: If you are setting up WebSphere Portal Server in the recommended configuration, you may skip these instructions.

To modify httpd.conf for IBM HTTP Server:

1. Login to the Get-Answers server.
2. Stop your IBM HTTP Server.
3. Using a text editor, open the httpd.conf file located at:

   C:\IBM HTTP Server\conf
4. Add the following lines to the end of the file:

```
ProxyPass /<oaa root>/ http://<server>:<port>/
<oaa root>/servlet/basicauth/
ProxyPassReverse /<oaa root>/ http://<server>:<port>/
<oaa root>/servlet/basicauth/
```

For <*oaa root*>, enter the name of the oaa virtual directory used by IBM HTTP Server. By default, this virtual directory is oaa.

For <*server*>:<*port*>, enter the server name and communications port number where Get-Answers is installed.

5 Save the file.

Configuring WebSphere Translation Server for Get-Answers

You can configure Get-Answers to use a WebSphere Translation Server to provide real-time translations of on-screen data.

Note: The OAA interface to the WebSphere Translation Server requires a mouse to use. The translation interface will be made 508 accessible in a future release.

To configure WebSphere Translation Server for Get-Answers:

Step 1 Copy the file wts.jar to the Get-Answers deployment folder. See *Copying wts.jar to the Get-Answers deployment folder* on page 92.

Step 2 Configure Get-Answers to use the WebSphere Translation Server. See *Configuring Get-Answers to use the WebSphere Translation Server* on page 92.

Copying wts.jar to the Get-Answers deployment folder

The following instructions describe where to find and copy the file wts.jar.

To copy wts.jar to the Get-Answers deployment folder:

1 Stop your application server.

2 Browse to the location of your WebSphere Translation Server installation.

3 Copy the file wts.jar from this folder.

4 Paste the file wts.jar into the Get-Answers deployment folder located at:

<Application server install>\WEB-INF\lib

5 Restart your application server.

Configuring Get-Answers to use the WebSphere Translation Server

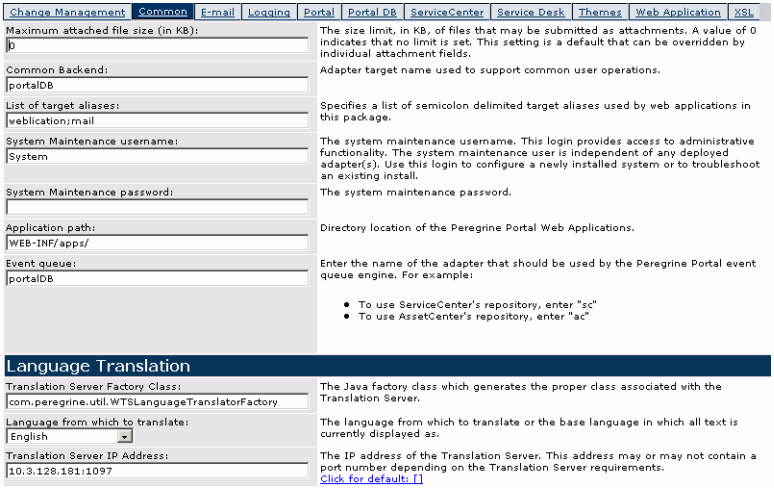
The following instructions describe how to configure Get-Answers to use the WebSphere Translation Server.

To configure Get-Answers to use the WebSphere Translation Server:

1 Login to the Get-Answers admin page (admin.jsp).

2 Click **Settings** > **Common** tab.

The Admin Settings page opens.



3 Enter the following configuration settings:

a **Translation Server Factory Class**: Enter the Java factory class for the Translation server. The default Java factory class is:

com.peregrine.util.WTSLanguageTranslatorFactory

b **Language from which to translate**: Enter the source language that you want translated. The default value is English.

c **Translation Server IP Address**: Enter the IP address and communications port to the Translation Server. For example: 10.3.128.181:1097.

4 Click **Save**.

The Control Panel opens.

5 Click **Reset Server**.

Translating on-screen data with a Translation Server

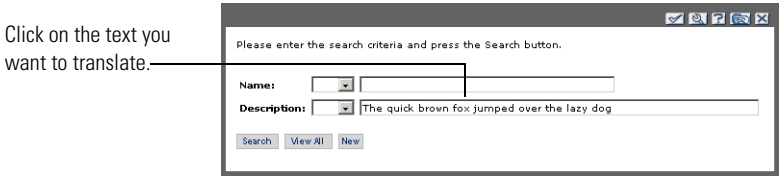
If you plan to store Get-Answers data in a mixture of languages, you can configure Get-Answers to send data to a Translation Server for real time translation. This interface will only translate data retrieved from the back-end database or manually typed into form inputs. If you need a translated user interface, you can purchase a Get-Answers language pack directly from Peregrine Systems.

To translate on-screen data with a Translation Server:

1 Enable the translation server from the **Administration** > **Settings** page as described in *Configuring Get-Answers to use the WebSphere Translation Server* on page 92.

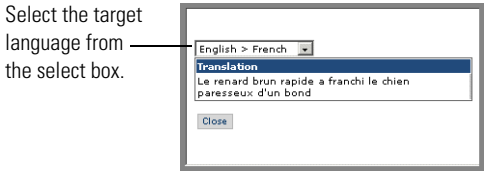
The translate button appears in the upper right tool bar.

2 Click on the source data or form input you want to translate.



3 Click the translate button.

The Translation window opens.



4 Select the target language to which you want to translate from the drop down select box.

The translation of your selection displays in the Translation box.

WebLogic 6.1 SP3 or SP4

The following procedures configure WebLogic to run Get-Answers on Windows.

To configure WebLogic 6.3 SP3 or SP4 with IIS:

Step 1 Stop both WebLogic and your Web server. *Stopping the servers* on page 95.

Step 2 Edit the **startWebLogic.cmd** file to set the system password, memory settings, and start mode. See *Editing startWebLogic.cmd* on page 96.

Step 3 Edit the **Server.Policy** file to set the debug to true. See *Editing Server.Policy* on page 97.

Step 4 Run the Get-Answers installer. See *Running the installer* on page 97.

Step 5 Move **.jar** files to the Java development kit **ext** folder. See *Moving .jar files to the Java development kit ext folder* on page 97.

Step 6 Configure IIS to use **iisforward.dll** as an ISAPI filter and create an extension. See *Configuring the issforward.dll as an ISAPI filter and an extension* on page 98.

Step 7 Configure IIS to use iisproxy.dll as an extension. See *Configuring the iisproxy.dll as an extension* on page 99.

Step 8 Create a virtual directory for Get-Answers in your Web server. See *Creating a virtual directory for Get-Answers* on page 100.

Step 9 Restart WebLogic and your Web server. See *Restarting the Servers* on page 100.

Stopping the servers

Before you begin configuring WebLogic, you must close your WebLogic server and Web server.

To begin configuring WebLogic:

1. Stop the WebLogic application server.
2. Stop the Web server.

Editing startWebLogic.cmd

To edit startWebLogic.cmd:

1 Open the file **startWebLogic.cmd** file in any text editor. The default file path is:

c:\bea\wlserver6.1\config\<mydomain>\

2 Scroll to the following section of the script:

```
echo ************************************************
echo * To start WebLogic Server, use the password      *
echo * assigned to the system user. The system         *
echo * username and password must also be used to       *
echo * access the WebLogic Server console from a web   *
echo * browser.                                        *
echo ************************************************
@rem Set WLS_PW equal to your system password for no password
prompt server startup.
set WLS_PW=password
```

3 In the last line, change the word "password" to your WebLogic system password.

4 Search for the -mx parameter setting in the file. Change this setting to at least 225 MB, but not more than 512 MB.

Note: Make sure that the setting for maximum heap size is less than the free RAM available to the application server(s). Exceeding the amount of available RAM causes the JVM processes to swap to disk, reducing overall performance. A setting of 256 MB should be sufficient for most systems.

5 Set the STARTMODE variable to STARTMODE=false.

The first time you start WebLogic after the installation, you will need to start it in development mode for it to find the Web applications that have been deployed.

6 Add the following line before the end of the "goto finish" entry:

```
"-Djava.security.auth.login.config==<Weblogic>\lib\server.policy"
weblogic.server
```

For <*Weblogic*>, enter the installation path for Weblogic. By default this is:

c:\bea\wlserver6.1

7 Save the file.

Editing Server.Policy

To edit Server.Policy:

1 Open the file Server.Policy file in any text editor. The default file path is:

c:\bea\wlserver6.1\lib\

2 Add the following lines to the end of the file:

```
ServerLoginModule
{
  weblogic.security.internal.ServerLoginModule required debug=true;
};
```

3 Save the file.

Running the installer

Run the Get-Answers installer using the Custom install option. See *Installing Get-Answers using Custom installation* on page 110.

Moving .jar files to the Java development kit ext folder

To move .jar files:

1 Verify that the following directory exists. If it does not exist, create it:
c:\bea\jdk131\jre\lib\ext

2 Go to the Peregrine OAA Platform lib folder (typically bea\wlserver6.1\config\<my domain>\applications\oaa\WEB-INF\lib), where *<my domain>* is the WebLogic domain of the system on which WebLogic is installed. Move the following file to the \bea\jdk131\jre\lib\ext folder:

log4j-1.2.6.jar

3 Verify that oaasecurityproxy.jar is in the \bea\jdk131\jre\lib\ext folder.

4 Go the Peregrine OAA Platform external folder (typically Peregrine\oaa\external) and copy the following files to the \bea\jdk131\jre\lib\ext folder:

jaas.jar
jai_codec.jar
jai_core.jar
jce1_2_1.jar
jcert.jar
jnet.jar
jsse.jar
local_policy.jar
mlibwrapper_jai.jar
sunjce_provider.jar
US_export_policy.jar

Configuring the issforward.dll as an ISAPI filter and an extension

To establish a connection between WebLogic and IIS, you will need to install the file iisforward.dll as an ISAPI filter.

To install issforward.dll as an ISAPI filter and an extension:

1 Open Internet Services management console.

2 Right-click the <*Machine name*> and then click **Properties**.

Note: This is not one of the web sites; it is the parent node in the tree for the web sites.

A dialog box opens.

3 Click **Edit** from the Master Properties pane.

4 Click the **ISAPI Filters** tab.

5 Click **Add**.

6 Enter the following information:

a **Filter Name:** iisforward.

b **Executable:** issforward.dll. The default file path is:

c:\bea\wlserver6.1\bin\issforward.dll

7 Click **OK**.

8 Click the **Home Directory** tab.

9 Click **Configuration**.

The Application Configuration page opens on the App Mappings tab.

10 Verify that there is a mapping for the .wlforward extension. If it does not exist, click **Add** to map the .wlforward extension.

11 Enter the following information:

a Executable: issforward.dll. The default file path is:

c:\bea\wlserver6.1\bin\issforward.dll

b Extension: .wlforward.

12 Close the Internet Services management console.

Configuring the iisproxy.dll as an extension

To establish a connection between WebLogic and IIS, you will need to install the file iisproxy.dll as an extension.

To install iisproxy.dll as an extension:

1 Open Internet Services management console.

2 Right-click the **Default Web Site** node and then click **Properties**.

3 Click the **Home Directory** tab.

a Select the **Read** check box to enable it.

b From the **Execute Permissions** drop-down list, select **Scripts and Executables**.

4 Click **Configuration**.

The Application Configuration page opens on the App Mappings tab.

5 Verify that there is a mapping for the .jsp extension and that it is mapped to c:\bea\wlserver6.1\bin\iisproxy.dll.

a If the .jsp extension mapping is not there, do the following:

b Click **Add**.

c Enter the following information:

- Executable: iisproxy.dll. The default file path is:

  c:\bea\wlserver6.1\bin\iisproxy.dll

- Extension: .jsp.

Note: Ensure that the iisproxy.dll is located in the same directory as the iisforward.dll.

6 Close the Internet Services management console.

Creating a virtual directory for Get-Answers

To run Get-Answers, you need to create a virtual directory in your Web server that maps to your WebLogic deployment folder. The typical installation creates a virtual directory called **oaa**, but you can specify a different virtual directory name.

To configure a virtual directory:

1 Use the following guidelines to create the virtual directory on the Default Web Site.

Requirement	Setting
Create virtual directory	<oaa>
Access Permissions	Read, Run scripts
Map to physical path	<Weblogic>\applications\oaa
Set Execute Permissions to	Scripts and Executables

   a For <*oaa*>, enter the name of the virtual directory you want to use for Get-Answers. Whatever name you enter here you will need to replicate in your application server configuration.

   b For <*WebLogic*>, enter the path to your WebLogic installation. The default file path is:

   c:\bea\wlserver6.1\config\<*mydomain*>\applications\oaa

2 Right-click the newly created virtual directory under Default Web Site.

   a Select **Properties**.

   b Verify that the permission is **Scripts and Executables**.

3 Click **Configuration** on the Home Directory tab.

   The Application Configuration page opens on the App Mappings tab.

4 Verify that there is a mapping for the .jsp extension and that it is mapped to c:\bea\wlserver6.1\bin\iisproxy.dll.

Restarting the Servers

You must restart the servers to activate the new WebLogic configurations.

To activate the WebLogic configurations:

1. Restart your Web server.
2. Restart the WebLogic server.
3. Start Get-Answers.

JRun 3.1

The following procedures configure JRun to run Get-Answers on Windows.

To configure JRun 3.1:

Step 1 Install a Java run-time environment. See *Installing a Java run-time environment* on page 101.

Step 2 Install JRun from the Macromedia Web site to the root of your hard drive (for example, **C**:\). See *Installing JRun* on page 102.

Step 3 Apply the latest JRun update. See *Applying the latest JRun update* on page 102.

Step 4 Deploy the Portal WAR file to JRun to create the necessary folder structure for Get-Answers. See *Deploying the Portal WAR file to JRun* on page 102.

Step 5 Run the Get-Answers installer. See *Running the installer* on page 105.

Step 6 Move **js.jar** to the Java development kit **ext** folder. See *Moving js.jar to the Java development kit* on page 105.

Step 7 Run the JRun Connector Wizard to establish a connection between JRun and your Web server. See *Running the JRun Connector Wizard* on page 105.

Step 8 Configure your JRun Java settings. See *Configuring Java settings* on page 106.

Step 9 Configure JRun for IIS and create a virtual directory for Get-Answers in your Web server. See *Configuring JRun for IIS* on page 108.

Step 10 Restart JRun and your Web server. See *Restarting the Servers* on page 110.

Installing a Java run-time environment

The Get-Answers installer includes the Java 2 SDK Standard Edition v1.3.1_05. However, you can also use JRE 1.3.1 if you already have it installed. See *Installing Get-Answers using Custom installation* on page 110.

Installing JRun

Before you install Get-Answers, you must install JRun to your root directory.

To install JRun:

1. Browse to the following URL:

   http://www.macromedia.com/software/jrun/

2. Click the link **JRun 3.1 Available for Purchase**.
3. Follow the installation instructions provided.

Applying the latest JRun update

Before you install Get-Answers, you must apply the latest Jrun 3.1 update.

To install the latest JRun update:

1. Browse to the following URL:

   http://www.macromedia.com/support/jrun/updates/3/updates_31.html

2. Click the link for the **JRun edition (Enterprise, Advanced, or Professional) and operating system of your server.**
3. Follow the installation instructions provided.

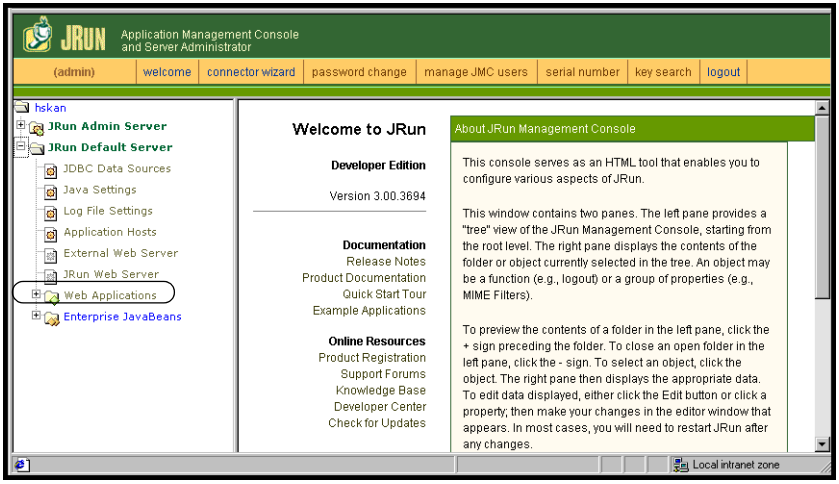
Deploying the Portal WAR file to JRun

The Portal WAR file creates the folder structure necessary to deploy Get-Answers in your application server. After you have deployed this file to JRun you will be ready to run the Get-Answers installer.

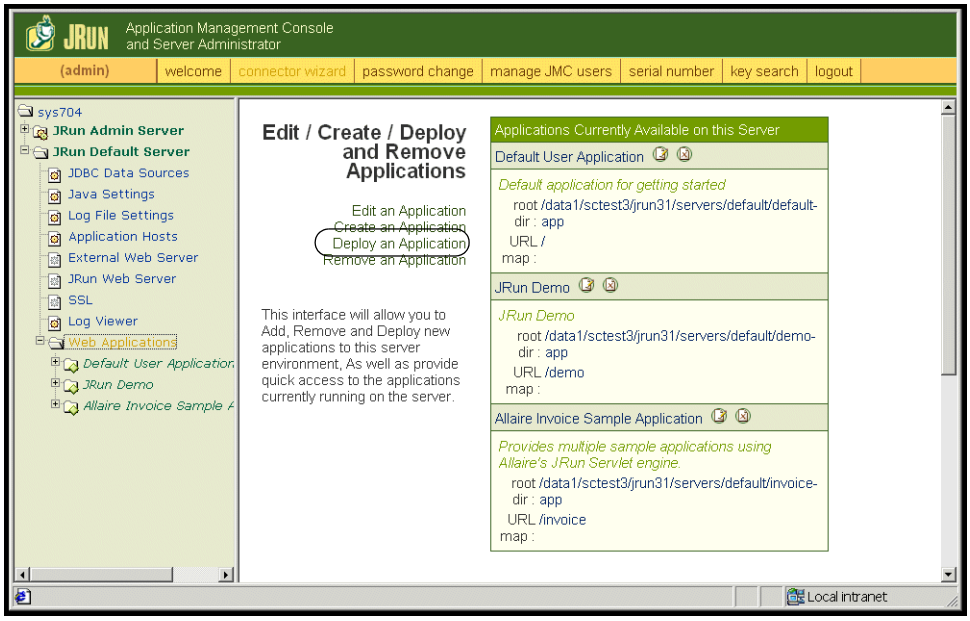
To deploy the Get-Answers Portal WAR file to JRun:

1 Open the JRun Management Console and log in.

2 Select JRun Default Server > Web Applications.



The Edit / Create / Deploy and Remove Applications page opens.



3 Click the **Deploy an Application** link.

4 In the page that opens, fill out the fields as follows:

- Servlet War File or Directory:

  Browse to **<CD Rom Drive>:\oaa\packages\portal<version #>.war**.

  For **<version>**, select the most current version.

  Select this file, and then click **Accept**.

- JRun Server Name:

  Select **JRun Default Server**.

- Application Name:

  Type **oaa**.

- Application URL:

  Type **/oaa**.

- Application Deploy Directory:

  JRun generates this directory. Make a note of this path. You will need this information later in the procedure. Example:

  c:\JRun\servers\default\oaa

5 Click **Deploy**.

A message that OAA has been successfully deployed appears.

Running the installer

Run the Get-Answers installer using the Custom install option. See *Installing Get-Answers using Custom installation* on page 110.

Moving js.jar to the Java development kit

JRun requires an updated version of js.jar in the Java development kit.

To move the js.jar to the Java development kit:

1 Stop any running JRun services.

2 Locate **js.jar**. The default file path is:

<JRun installation>\servers\default\oaa\WEB-INF\lib

3 Cut and paste the file to your Java Development Kit **ext** folder. For example:

C:\Program Files\Peregrine\Common\jdk1.3.1_05\jre\lib\ext

4 Restart JRun.

Running the JRun Connector Wizard

The JRun Connector Wizard establishes a connection between JRun and your Web server.

To run the JRun Connector Wizard:

1 Login to the JRun Management Console.

2 Click Connector Wizard.

3 Select the JRun Default Server as the JRun Server Name.

4 Select your Web server from the drop down list box.

5 If your Web server uses a different IP address than your JRun server, enter the IP address of your JRun server in JRun Server IP Address.

6 Confirm that the JRun Server Connector Port is not in conflict with another communications port used on this server.

7 Enter the path to the Scripts Directory. For IIS 5.0 this value is:

C:\Inetpub\Scripts

8 Click Done.

You will get a message that JRun is successfully connected to your Web server.

Configuring Java settings

After you have installed Get-Answers, you must configure the Java settings that JRun will use to run the Web application.

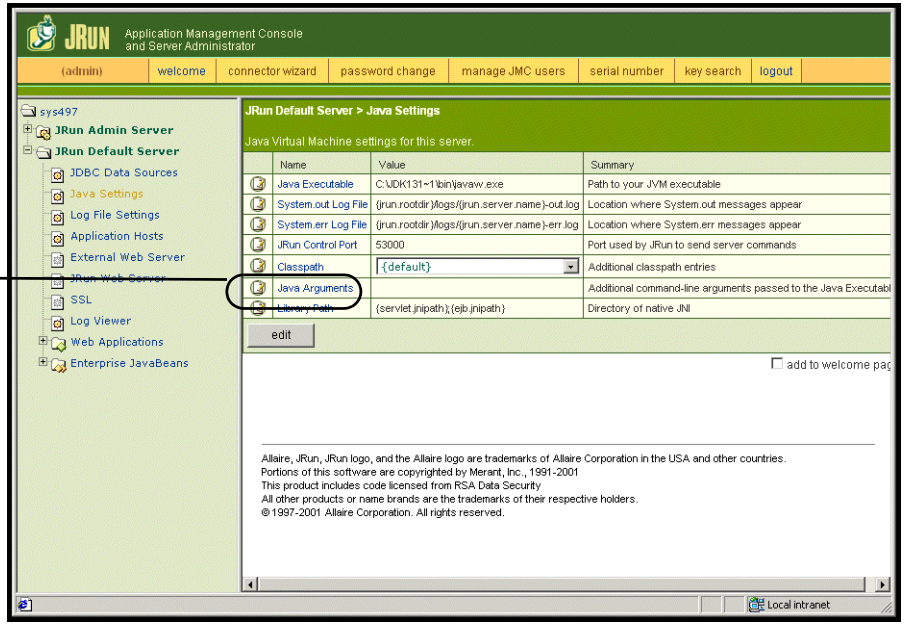
To configure Java settings:

1 Login to the JRun Management Console.

2 Click JRun Default Server > Java Settings.

The Java Settings page opens.

3 Click **Java Arguments**.



Click **Java Arguments**.

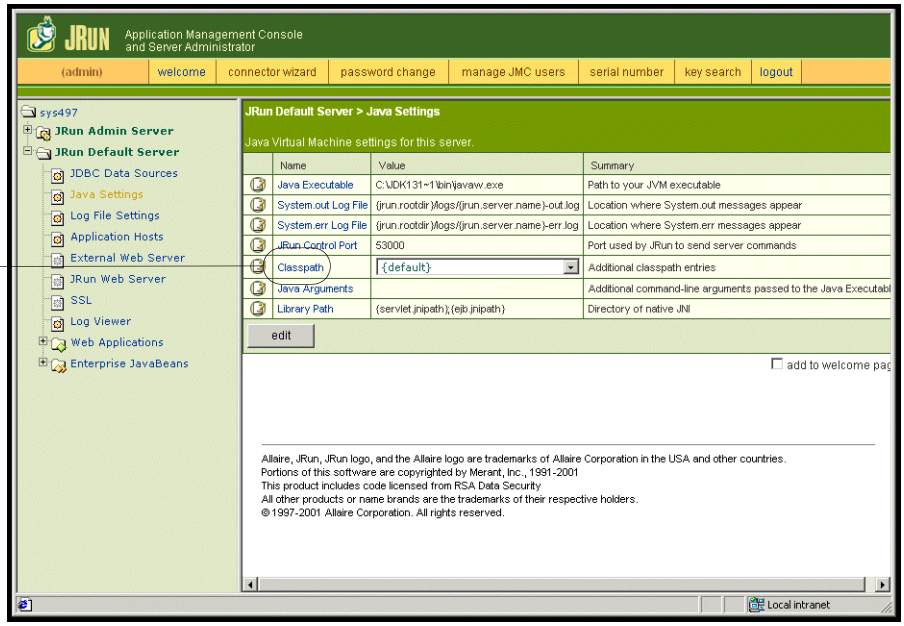
The Edit Window opens.

4 Enter an -Xmx value to define the maximum amount of heap memory allocated for your system. It is recommended that you set this value to at least 225 MB, but not more than 512 MB.

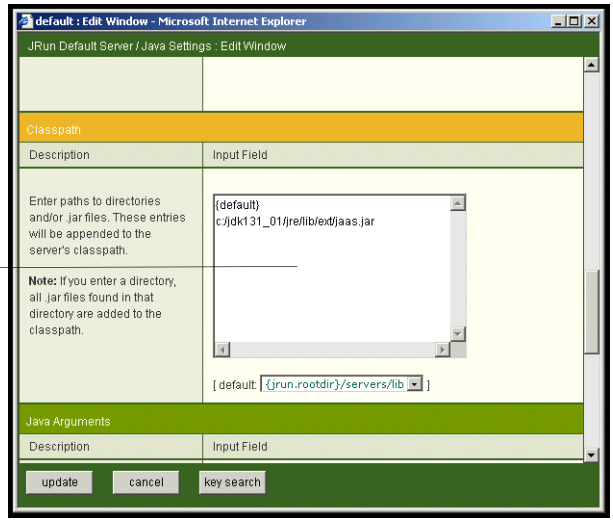
Note: Make sure that the setting for maximum heap size is less than the free RAM available to the application server(s). Exceeding the amount of available RAM causes the JVM processes to swap to disk, reducing overall performance. A setting of 256 MB should be sufficient for most systems. Applications using Persistence may require a higher setting.

5 On the Java Settings page, click **Classpath**.

Click **ClassPath**.



The Edit Window opens.



6 Enter the following classpaths:

- Java Development Kit ext folder. For example:

  C:\Program Files\Peregrine\Common\jdk1.3.1_05\jre\lib\ext

- Database classes. If using Oracle, enter the path to classes12.jar:

  C:\oracle\ora81\jdbc\lib\classes12.jar

7 On the Java Settings page, click **Java Executable**.

8 Verify that path to your Java Development kit matches the path listed in the Classpath setting. For example:

C:\Program Files\Peregrine\Common\jdk1.3.1_05\bin\javaw.exe

9 Click **update**.

10 Log out of the JRun Management Console.

Configuring JRun for IIS

To establish a connection between JRun and IIS, you must first verify the connection.

To configure JRun for IIS:

1 Open the IIS Management console.

2 Right-click the <*Machine name*> and then click **Properties**.

Note: This is not one of the web sites; it is the parent node in the tree for the web sites.

A dialog box with an **Edit** button opens.

3 Click **Edit>ISAPI Filters**.

4 Verify that the JRun entry is correct and that the value contains the full path to the scripts/jrun.dll.

Filter Name: JRun Connector Filter Executable: /jrun.dll

5 Verify the following:

- A SCRIPTS virtual directory is defined in IIS.
- It points to your Inetpub/Scripts directory.
- It has **Scripts and Executables** permission.

You then need to create a virtual directory in your Web server that maps to your JRun deployment folder. The typical installation creates a virtual directory called oaa, but you can specify a different virtual directory name.

To configure a virtual directory:

1 Use the following guidelines to create a virtual directory for oaa under Default Web Site.

Requirements for Get-Answers virtual directory

Requirement	Setting
Create virtual directory	<oaa>
Map to physical path	<JRun>\oaa
Set Execute Permissions to	Scripts and Executables

1 For <*oaa*>, enter the name of the virtual directory you want to use for Get-Answers. Whatever name you enter here you will need to replicate in your application server configuration.

2 For <*JRun*>, enter the path to your JRun installation. The recommended installation path is:

C:\JRun\servers\default\oaa

3 After creating the oaa virtual directory, right-click on it and select **Properties**.

4 Verify that the permission is **Scripts and Executables**.

Restarting the Servers

You must restart the servers for the new JRun configurations to take effect.

To activate the Jrun configurations:

1 Restart your Web server.

2 Restart the JRun Default server.

3 Start Get-Answers.

Installing Get-Answers using Custom installation

This section explains how to install the OAA platform and Get-Answers if you are using a JRUN, WebSphere, or WebLogic application server. If you are using Tomcat, which is packaged with Get-Answers, see the installation instructions in *Chapter 3, Get-Answers Typical Installation*.

Note: The OAA platform installation creates a folder called "oaa" at the root level of the drive you designate to hold the core `Zip` files. The installation then deploys the `Zip` files in an oaa folder in the directory of your application server.

Use the Custom installation options under one of the following conditions:

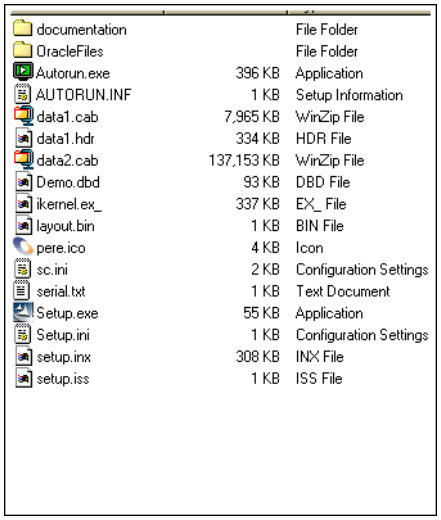
- You are using an application server other than Tomcat.
- You are using Tomcat as your application server but do not want to use the Get-Answers default options.
- You are using Tomcat and Apache for other applications and so do not need Get-Answers to configure them for you.

Warning: Custom installation is designed for advanced Get-Answers users only.

To install OAA Platform and Get-Answers in a Custom installation:

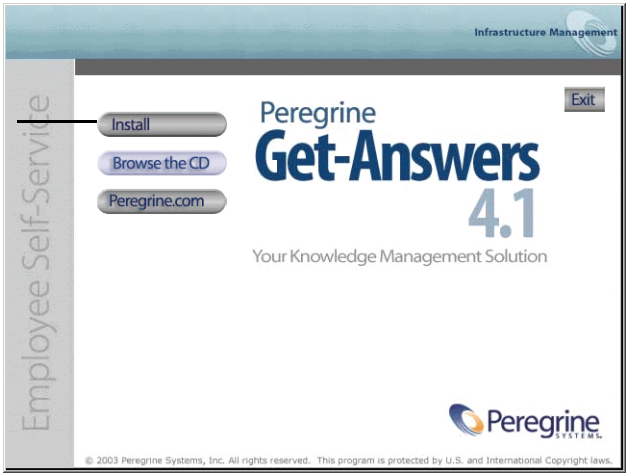
1 In the CD Browser, find and open the **Autorun.exe** file.

Click Autorun.exe here.

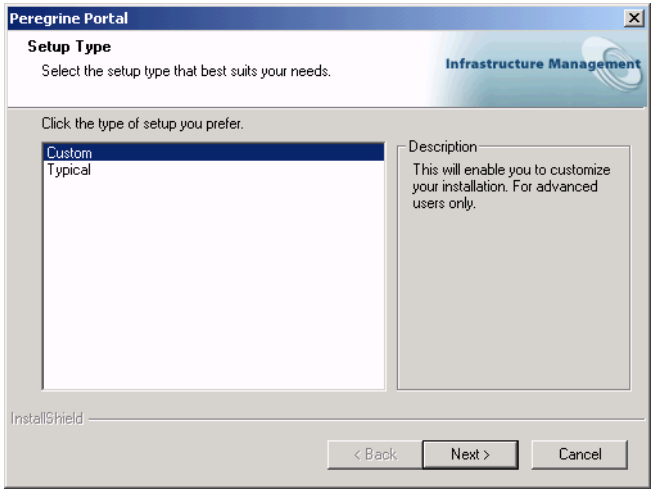


2 In the Get-Answers page that opens, click **Install**.

Click Install.

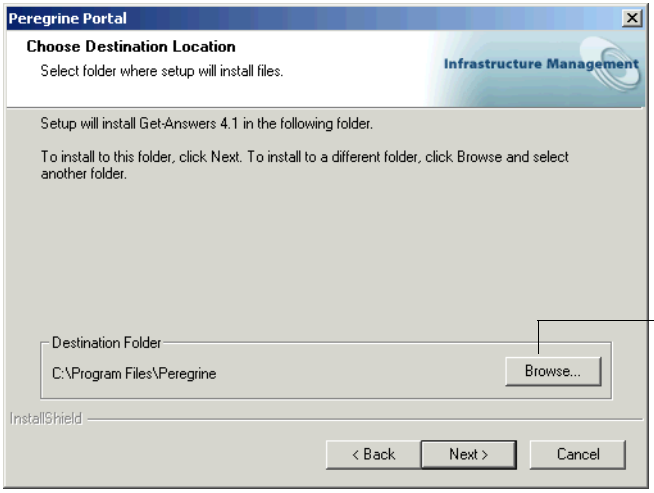


3 In the Setup Type dialog box that opens, click **Custom**, and then click **Next**.



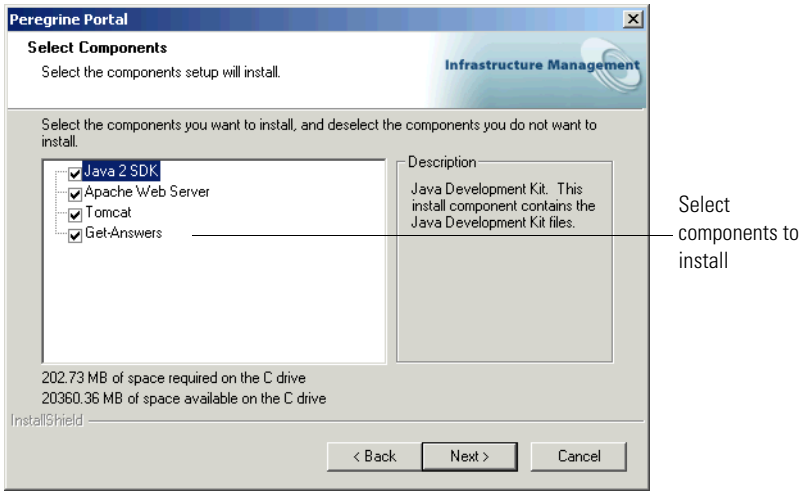
4 In the Choose Destination Location dialog box that opens, choose a location for your files, and then click **Next**.

The default location is C:\Program Files\Peregrine.



Click **Browse** to specify a different location

5 In the Select Components dialog box that opens, select the components you want to install, and click **Next**.



Important: Clear the check box next to components that you do *not* want to install.

For a development environment, select or clear the components that you will install manually or for which you have alternate software. For example, clear the Apache Web Server option to use an alternate Web server.

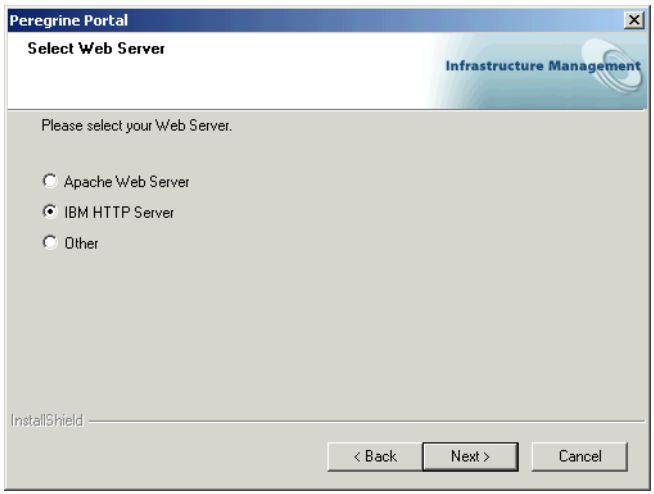
For a production environment, select the components you want to run from this machine.

- Get-Answers. Installs the program files necessary for Get-Answers. You must install the Get-Answers files on the same machine as the primary application server.
- Apache Web Server. Get-Answers requires a Web server in order to serve pages. Clear the check box in this option so that the installation procedure does not install the Apache Web server.
- Java Development Kit. Installs the Sun Microsystems Java Development Kit (Java 2 SDK). You must install this component on every machine running an application server.

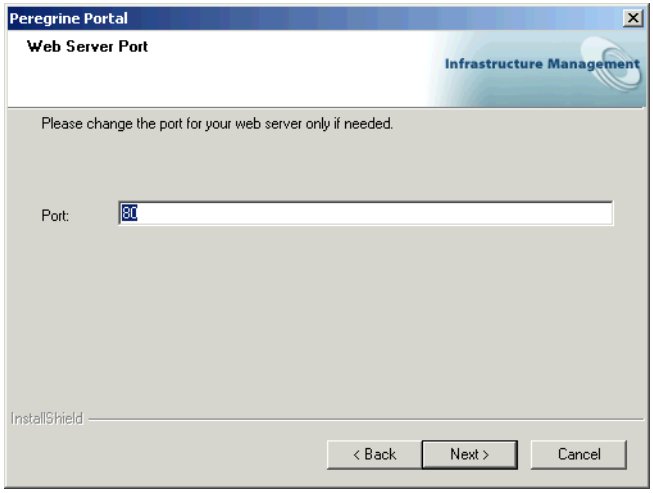
- Tomcat. Installs the Tomcat application server. Get-Answers requires at least one application server to process Java applications. You may also install multiple instances of your application server for load balancing. You must install this component on the same machine as the Get-Answers files.

6 Do one of the following:

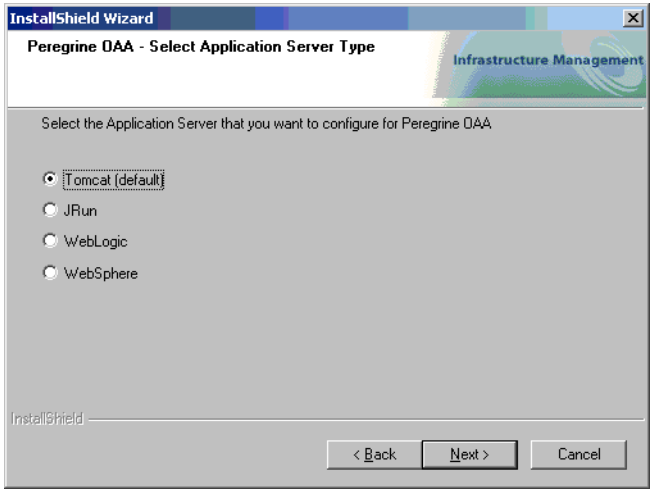
- If you clear the Apache Web Server component, the Select Web Server screen opens. Make your selection, then click **Next**.



- If you use Apache Web server, in the Web Server Port screen, you can accept the default port number 80 or enter an alternate port number. Click **Next**.



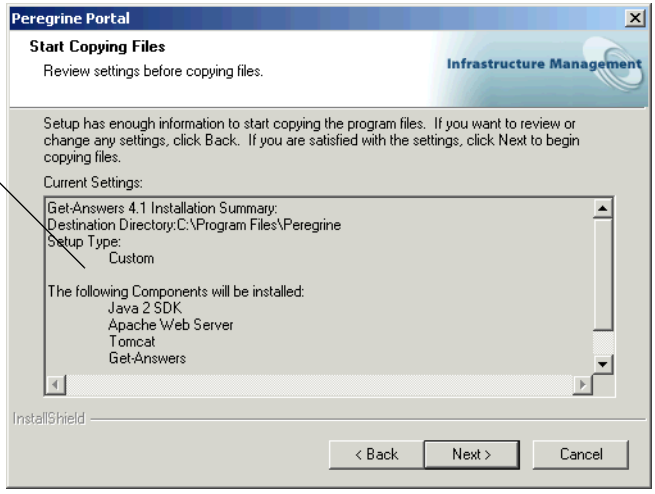
7 If you do not choose to install Tomcat as the application server, select the application server you want Get-Answers to configure from the Select Application Servers Type dialog box, and click **Next**.



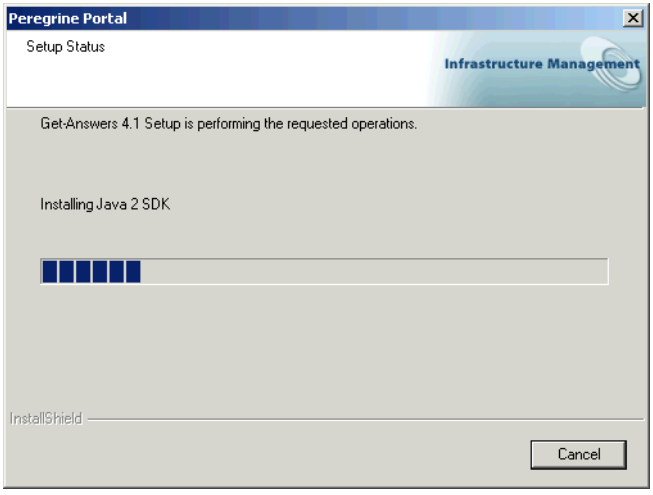
Note: If you are using Tomcat, you do not see this window. Proceed to the next step.

8 In the Start Copying Files screen, verify the Custom installation components. To review or change settings, click **Back**. To continue with the installation, click **Next**.

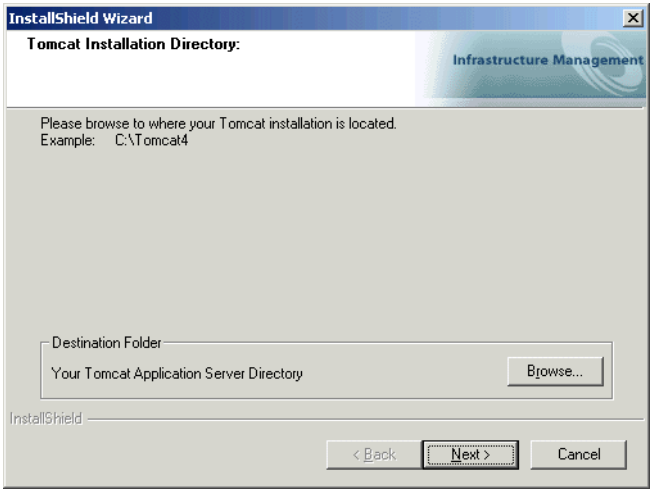
The information that appears here varies depending on what you are installing.



The Setup Status screen is displayed while the installation program performs the requested operations.



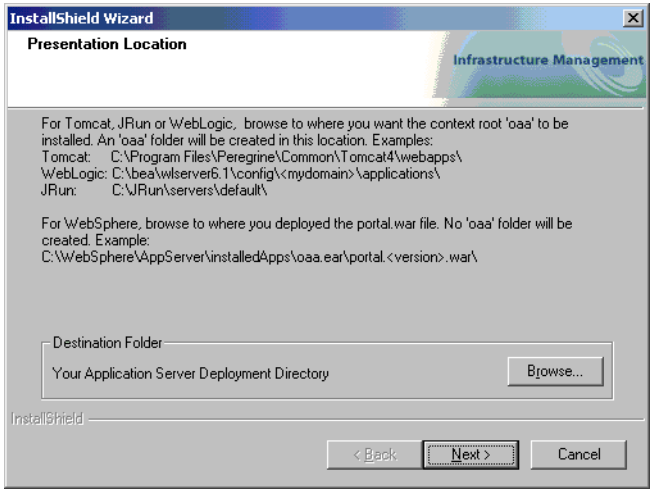
If you are using Tomcat, the Tomcat Installation Directory window appears.



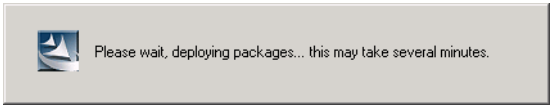
9 Choose your installation directory, and click **Next**.

Note: If you are not using Tomcat, you will not see this window. Proceed to the next step.

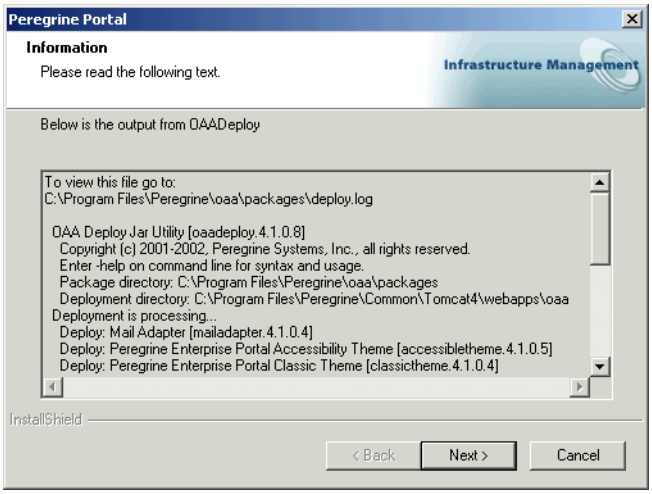
10 In the Presentation Location dialog box that opens, choose a location, and then click **Next**.



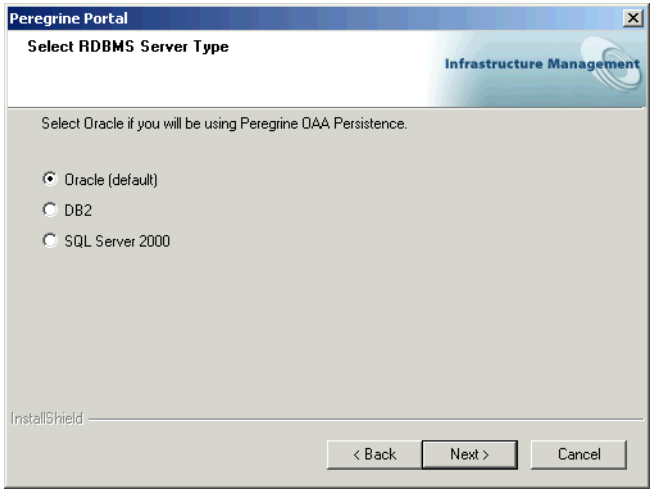
A message indicates that the Get-Answers packages are being deployed to your server. This phase can take several minutes.



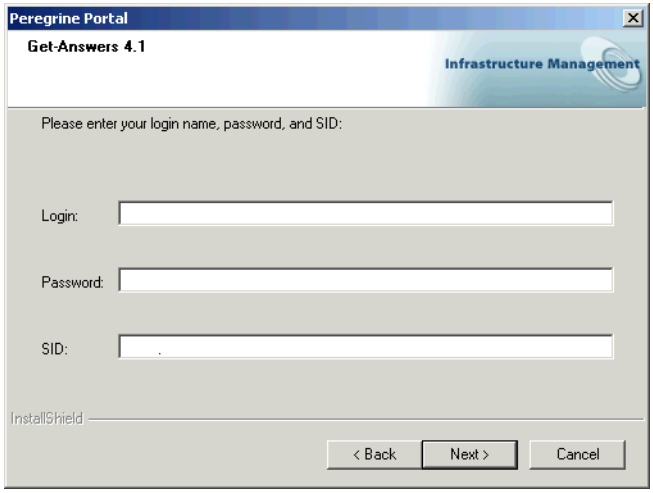
11 Read the information from OAADeploy, then click **Next**.



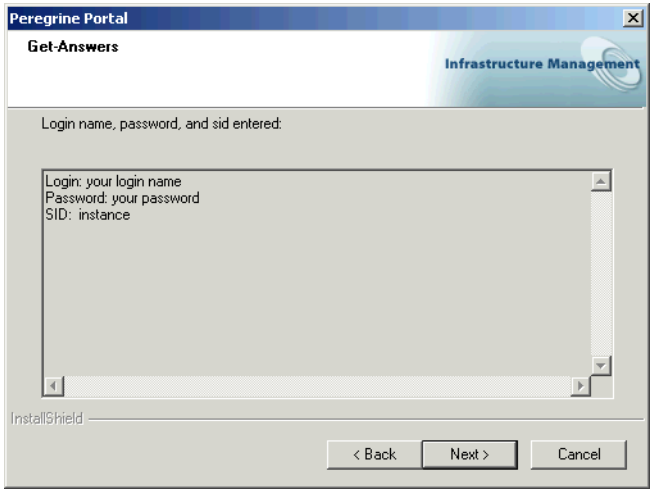
12 In the Select RDBMS Server Type dialog box that opens, choose a database server and click **Next**.



13 In the next dialog box that opens, enter your user name, password and database identification, and click **Next**.

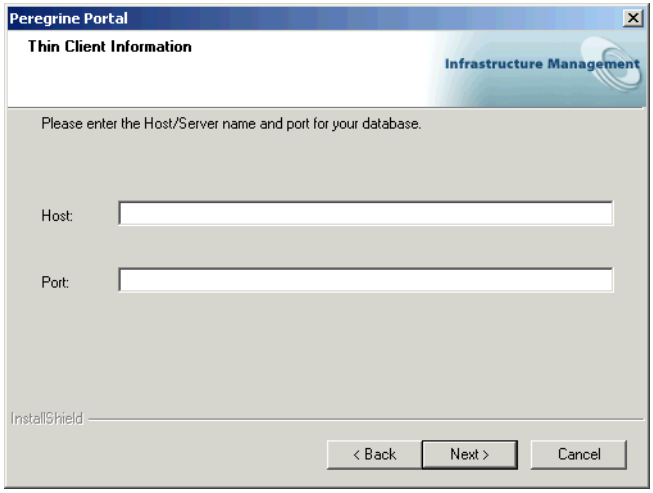


14 In the next dialog box that opens, verify the information you just entered, and click **Next**.



Status messages indicate the validation and location of the Host system name.

15 If you are using Oracle thin client, enter the Host and Port information.

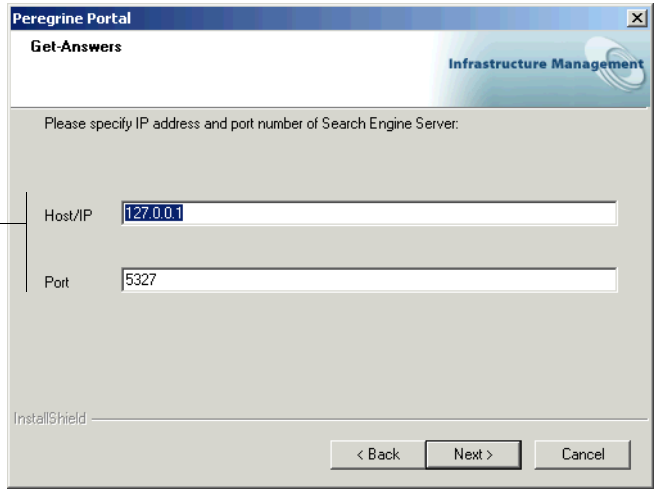


16 In the next dialog box that opens, enter the IP address and port number of the Search Engine server, and then click **Next**.

Note: You can find this information on the *Get-Answers installation worksheet*.

Important: Make sure that you do *not* accept the default port number. Enter the port number that is mapped to your Search Engine server.

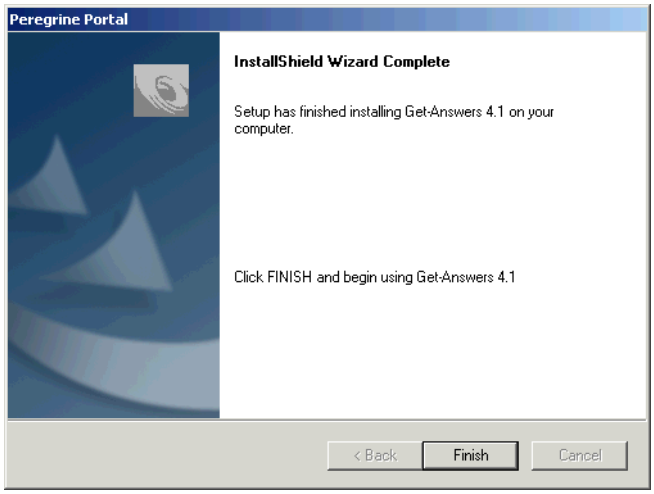
Enter the IP address and port number here.



A Setup Status dialog box opens as the installation is completed. At this point the installation is copying the documents.

The Warning message, **You will need to restart your application server before the changes take effect**, appears.

17 Click **OK**.



The Install Shield Wizard complete dialog box opens.

18 Click **Finish**.

Note: You should let the application server run until all the database tables are initialized. This could take several minutes, depending on the size of the database.

Completing the application server installation

Now that you have installed and configured the application server and installed Get-Answers, complete the application server process by following the instructions specific to your application server in this section.

JRun

Once you have installed and configured JRun and then installed Get-Answers and OAA, complete these steps to finish the installation.

To finish installing JRun and Get-Answers with OAA:

1. Start the JRun default server.
2. Make sure that your Web server has an OAA virtual directory pointing to the application directory.
3. After the server is started, open a Web browser and type the following in the Address field:

   http://<server name>:7001/oaa/admin.jsp

   If you are using IIS as your Web server, omit the port number.
4. Press ENTER.

   If everything is configured properly, the Administrator login page will be displayed. In the Admin module Control Panel, verify that the adapters are connected.

Websphere

Once you have installed and configured Websphere and then installed Get-Answers and OAA, complete these steps to finish the installation.

To finish Websphere configuration:

1. If you are using WebSphere with IIS as your Web server, create an /oaa virtual directory in IIS to point to websphere/appserver/installedapps/oaa.ear/portal.2.2.0.xx.war.
2. Open the WebSphere Advanced Administrative Console that you minimized earlier. In the menu on the left, right-click on the server name and select Start.

To test the configuration:

1. After the server is started, open a Web browser and type the following in the Address field:

   http://<server name>:9080/oaa/admin.jsp

   where 9080 is the port number for WebSphere 4.0.1's built-in Web server. If you are using a different version of WebSphere, enter the correct port number for that version. If you are using IIS as your Web server, omit the port number.
2. Press ENTER.
3. After the server is started, open a Web browser and type the following in the Address field:

http://<server name>:7001/oaa/admin.jsp

If you are using IIS as your Web server, omit the port number.

4 Press ENTER.

If everything is configured properly, the Administrator login page will open. In the Admin module Control Panel, verify that the adapters are connected.

To finalize the configuration:

1 Using the correct path for your portal.war file, open the httpd.conf file in Notepad.

Note: You can find this file under the conf directory of the IBM HTTP or Apache web server.

2 Add this line to the bottom of the file. Do not wrap the lines.

```
Alias /eopro
"C:\WebSphere\AppServer\installedApps\[hostname]\oaa.ear\portal.war\eopro"
```

Use the absolute path for your portal.war file.

The Websphere configuration is now complete and you can log in to the Peregrine Portal.

WebLogic

To test the configuration:

1 Start the WebLogic server.

2 Make sure that your Web server has an OAA virtual directory pointing to the application directory.

3 After the server is started, open a Web browser and type the following in the Address field:

http://<server name>:7001/oaa/admin.jsp

If you are using IIS as your Web server, omit the port number.

4 Press ENTER.

If everything is configured properly, the Administrator login page will be displayed. In the Admin module Control Panel, verify that the adapters are connected.

Note: To connect to your database, you may need to modify the connection parameters using the Admin module Settings page. For instructions for using the Admin module, refer to your Web application guide.

The WebLogic configuration is now complete and you can log in to the Peregrine Portal.

Updating the scriptpollers.ini Files

If you will be using script pollers, you will need to update the script poller INI files with the name of the Java virtual machine (JVM) for the application server you are using.

The scriptpollers.ini files are configured to use the default Java virtual machine (JVM). If you are using an alternate application server, you will need to tell Archway where to run the script pollers. Script poller files are located at <application server>\WEB-INF\apps in the common, notifications, and oaaworkflow folders.

In the scriptpollers.ini file, add the ArchwayJVMName parameter, as shown in bold type in the example below, substituting jvm_name with the appropriate name for the application server you are using:

- WebSphere: oaa_bin
- WebLogic: oaa_wlserver60 (This will be different if WebLogic is not installed in the default installation directory.)
- Tomcat: oaa_bin

```
<poller>
   <name>KeepAliveSC</name>
   <interval>600</interval>
   <parms>
      <ArchwayJVMName>jvm_name</ArchwayJVMName>
   </parms>
</poller>
```

Completing the installation

Continue with *Chapter 7, Completing All Installations*.

Uninstalling Get-Answers

Follow these procedures to uninstall Get-Answers from your Windows system.

Warning: These procedures remove all the components that you selected to install. If you chose the Typical installation option, uninstall removes Get-Answers, Peregrine Tomcat, Apache, and JDK. If you chose the Custom installation option, then only those components that you selected to install are removed.

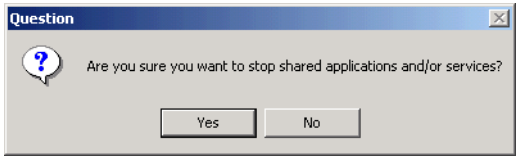
To uninstall Get-Answers:

1. Access the Windows Add/Remove Programs utility.
2. Select **Peregrine Portal 4.1** and click **Change/Remove**.

A status message indicates that the setup program is preparing the InstallShield wizard to guide you through the process.

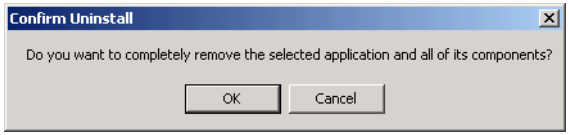
3 The Close Programs screen opens if any Get-Answers services or applications are running. Click **Next** to continue.

4 The verification message box opens. Click **Yes** to continue.



Status messages indicate the termination of the services for Apache and Tomcat.

5 The Confirm Uninstall dialog box opens. Click **OK** to remove Get-Answers.



Important: Back up any data you want to save before continuing.

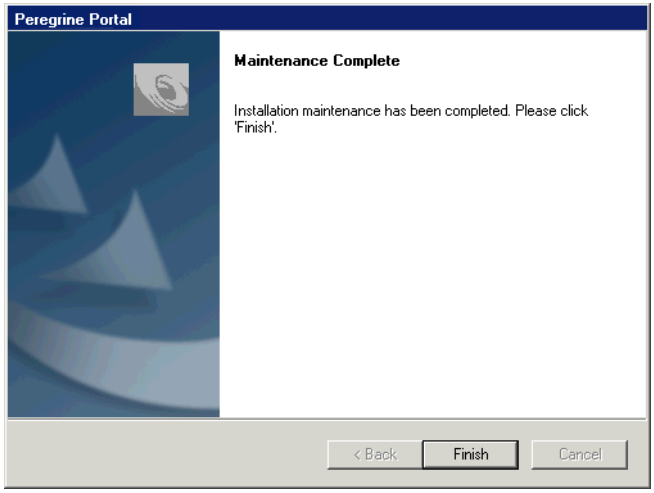
6 The Shared Files screen opens if there are any shared files to be removed during setup.

If WebSphere is installed on this computer, setup will prompt you to confirm the removal of six JAR files. Click **No** or **No to All** to retain these JAR files.

Warning: Do not remove the shared JAR files as the WebSphere Advanced Administrative Console requires these files to function.

If there are no shared files to remove, then a status message indicates that the uninstall program is removing files from your computer.

7 The Maintenance Complete screen opens. Click **Finish** to complete the uninstall of Get-Answers.



Testing your installation

Use the following steps to confirm that you have properly installed Get-Answers on Windows.

To test your Get-Answers installation:

1 Verify that your application and Web servers are started.

2 Open a Web browser and type the following in the Address field:

http://<server name>:<port>/oaa/admin.jsp

For <*server name*>, enter the server name where the Get-Answers Web server resides.

For <*port*>, enter one of the following communications port numbers:

Application Server used	Port Number
WebSphere	9080
WebLogic	7001
JRun	80, can be omitted from URL
Tomcat	80, can be omitted from URL

If everything is configured properly, the Administrator login page opens.

If the Get-Answers administration login page does not open, see *Troubleshooting* for more information.

CHAPTER 5 Upgrading from Get-Answers 4.0.1 to Get-Answers 4.1

This chapter describes how to upgrade your system from Get-Answers 4.0.1 to Get-Answers 4.1 for systems with the following parameters:

- Operating system: Windows 2000
- Database: Oracle or DB2
- Application server: Tomcat or Websphere

When you upgrade from Get-Answers 4.0.1 to 4.1, you preserve your database information and documents, upgrade the database itself, and replace your old Get-Answers product with the new version. This chapter describes how to complete all of these phases.

Note: If you are upgrading with a DB2 database, you must run two DB2 scripts prior to running the 4.1 upgrade to increase the size of the file blobs / binary large objects in your database.

The database for 4.0.1 allocated a maximum blob size of 256 KB for file attachments, but now because in 4.1 the Get-Answers documents are stored in the database, up to one gigabyte blob can be saved. The DB2 scripts and instructions on how to execute the scripts are on the CD/electronic version under the OracleFiles directory. The script names are `DB2upgrade_4.0_to_4.1_modifyBlobTablesFirst.sql` and `DB2upgrade_4.0_to_4.1_dropBlobTablesSecond.sql`.

You can only upgrade to Get-Answers 4.1 from Get-Answers 4.0.1. Contact Customer Support if you are upgrading from a version prior to Get-Answers 4.0.1.

The 3-tier architecture of Get-Answers 4.1 does not use a file server. The documents are now stored on the database server. Make sure that your hard drive has enough space to support the database.

Important: Perform your upgrade on a test server environment before moving to a production environment.

Here is an overview of the upgrade process. Perform the procedures in the order they appear here.

Step 1 Back up your database. See *Backing up your database* on page 131.

Step 2 Copy your document directory structure. *Copying your document directory structure* on page 131.

Step 3 Record your Get-Answers 4.0.1 system parameters. See *Recording Get-Answers 4.0.1 parameter information* on page 131.

Step 4 Restore your database server. See *Restoring the Database server* on page 132.

Step 5 Remove the old Search Engine server and install the new Search Engine. See *Removing and replacing the Search Engine server* on page 133.

Step 6 If you use WebSphere as your application server, deploy the portal.war file for this server. (If you are use Tomcat as your application server, skip this step.) See *Deploying the portal.war file for Websphere* on page 134.

Important: If you are upgrading from JRun or WebLogic, you must run a migration utility separately after your upgrade is complete. Contact Customer Support for directions on how to do this.

Step 7 Install Get-Answers 4.1. See *Installing Get-Answers 4.1* on page 134.

Step 8 Update the web.xml file settings. *Updating the web.xml file* on page 139.

Step 9 Change the Oracle configuration to thin client. See *Using Oracle thin client when upgrading to 4.1* on page 140.

Step 10 Update the view for custom doc types. See *Updating views for custom doc types* on page 141.

Step 11 Complete the installation. *Chapter 7, Completing All Installations*, on page 211.

Backing up your database

The installation process reconfigures your database. When your application server runs, it executes table scripts to update your database so that it runs with Get-Answers 4.1. Protect your Get-Answers data by backing up your database.

If you want to upgrade your database manually, see your System Administrator or the documentation from your database provider.

Copying your document directory structure

Make a copy of the directory where you have stored document ownership team documents. (This is your document repository.) This directory structure contains the Get-Answers Team directory.

Warning: The upgrade application run by the installer will delete the documents in your directory structure, so it is imperative that you back up this directory.

Recording Get-Answers 4.0.1 parameter information

During the installation, you must refer to the parameters for 4.0.1. You can find the parameters in the Get-Answers 4.0.1 **Administration** tab or in the <*appserver*>/WEB-INF/local.xml file, where <*appserver*> is the location of your application server. The following instructions describe how to find the parameters using the **Administration** tab.

To find the parameters for Get-Answers 4.0.1:

1. Log in to Get-Answers 4.0.1 as an administrator.
2. Go the **Administration** tab.

3 Print copies of the information on the **Common** tab, **oaakm** tab, and **rome** tab.

The **oaakm** tab and **rome** tab have the Get-Answers 4.0.1 settings that you will replicate on a test or production server.

The **oaakm** tab has the file server drive mappings that you used on Get-Answers 4.0.1, described here:

- KmWebServerAttachPath—the path to your file server from the point of view of the web server
- KmRWareServerAttachPath—the path to your file server from the point of view of the search engine server

The **rome** tab has the database parameters that you used on Get-Answers 4.0.1, described here:

- Database URL : URL connection to the database
- Database User Name: User name to log into the database
- Database User Password: Password for the Database User Name

During the installation that follows, you will be prompted for database settings. You will create new ones on your test server to replicate the old settings on your Get-Answers 4.0.1 installation at first. When you upgrade your production server, you use the same database settings.

Restoring the Database server

The upgrade migrates a Get-Answers 4.0.1 Oracle or DB2 database to a Get-Answers 4.1 Oracle or DB2 database. This section explains how to set up the Database server by restoring the backup copy of your database before you upgrade to Get-Answers.

To restore the backup copy:

▶ Into a new tablespace on the same server, or into the same tablespace name on a different database server, import the database.

This is the database that you backed up in *Backing up your database* on page 131. Consult with your database administrator (DBA) on how best to accomplish this on your system.

Important: Make sure to configure an Oracle or DB2 client on the web server and on the search engine server. See *Chapter 2, Setting Up the Get-Answers Servers* for instructions on configuring an Oracle or DB2 client.

Record the following information about your database installation in the *Get-Answers installation worksheet* on page 24:

- Database Name (global name or service name)
- Database SID (instance name)
- Database Server Hostname (machine name)
- Database Server port number

Removing and replacing the Search Engine server

Get-Answers 4.1 provides a new Search Engine server, so you must remove the old Search Engine server and install the new one before you can continue with the installation.

Before you begin, have the login name, password and service name for your database in hand. Determine the port number that your search engine uses. The port number is the fourth line from bottom in the **<*appserver*>\WEB-INF\config\rwserver.cfg** file, where <*appserver*> is the location of your application server. The line begins with **RWSERVER=**.

To remove the old Search Engine server and install the new one:

1. From the Start menu, click **Programs** > **Get-Answers Search Engine 4.0.1** > **Services Console**.
   a. Stop the RetrievalWare Executive service.
   b. Delete the RetrievalWare Executive service.
   c. Close the Services Console.
2. From the Start menu, click **Programs** > **Get-Answers Search Engine 4.0.1** > **Uninstall** > **Uninstall Peregrine Systems**.
3. In the Get-Answers Search Engine dialog box that opens, click **Uninstall**.

When the files are removed, the **Done** button becomes active.

4 Click **Done**.

5 Delete the directory where the search engine was installed; by default, the c:\getanswers directory.

Deploying the portal.war file for Websphere

If you are deploying Get-Answers on a test server, follow the instructions in *Chapter 4, Custom Windows Installation*. If you are using the WebSphere application server, complete this procedure for continuing with the installation.

Note: If you are not using WebSphere, skip this procedure.

If you are using the production server, make a ghost copy of the server and then uninstall the OAA web application using the WebSphere console. From there, follow the instructions under WebSphere 4.0.2 or 5.0 in this guide.

Installing Get-Answers 4.1

Use the Custom installation option when upgrading to Get-Answers 4.1.

To install OAA Platform and Get-Answers in a Custom installation:

1 Stop your Search Engine server.

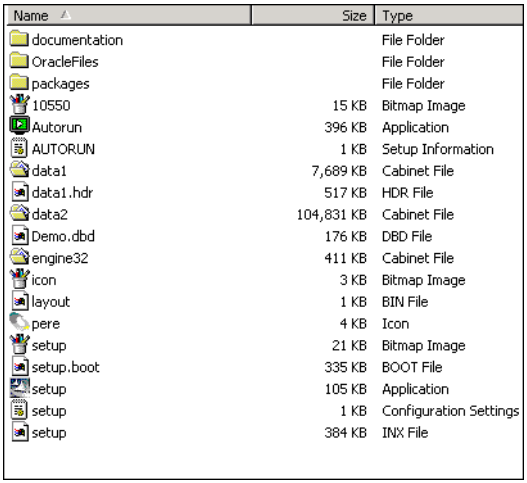
2 Stop your Web server and application server.

3 Rename the archway.log file.

4 Clear out the application server cache.

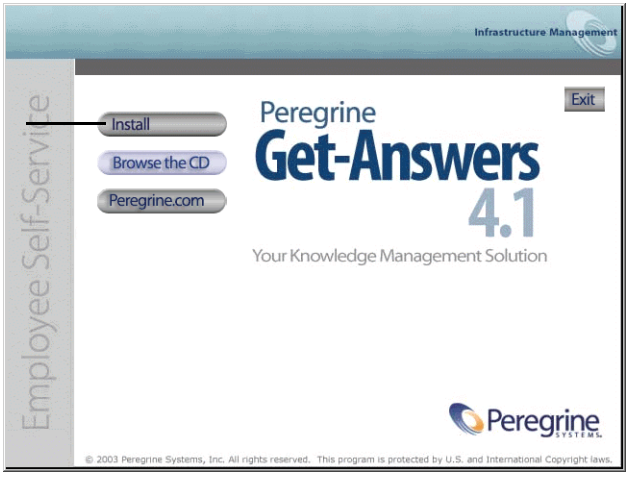
5 In the CD Browser, find and open the **Autorun.exe** file.

Click Autorun.exe here.

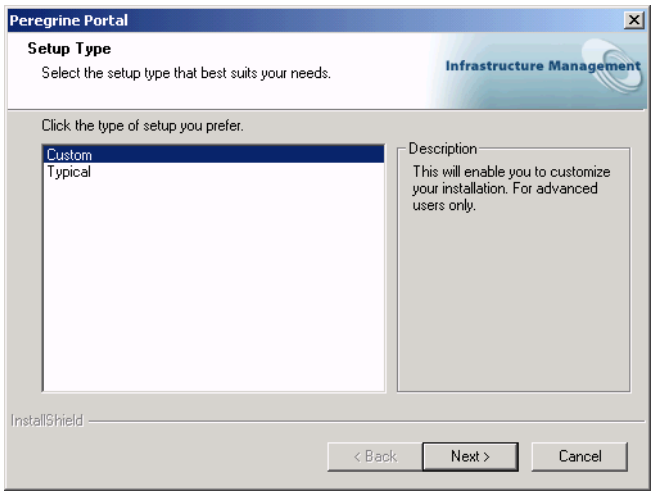


6 In the Get-Answers page that opens, click **Install**.

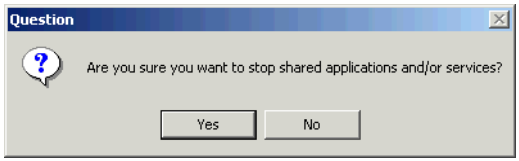
Click Install.



7 In the Setup Type dialog box that opens, click **Custom**, and then click **Next**.

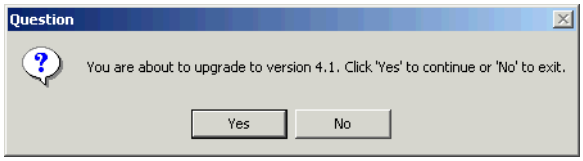


If you did not stop your services, the installation detects that services are running and asks if you want to stop them.



8 Click **Yes**.

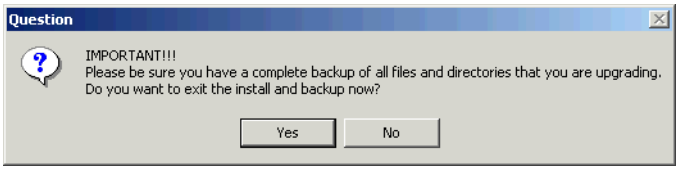
A dialog box prompts you about upgrading to Get-Answers 4.1.



9 Click **Yes**.

An important reminder message requests that you make backup copies of all files and directories that you are upgrading.

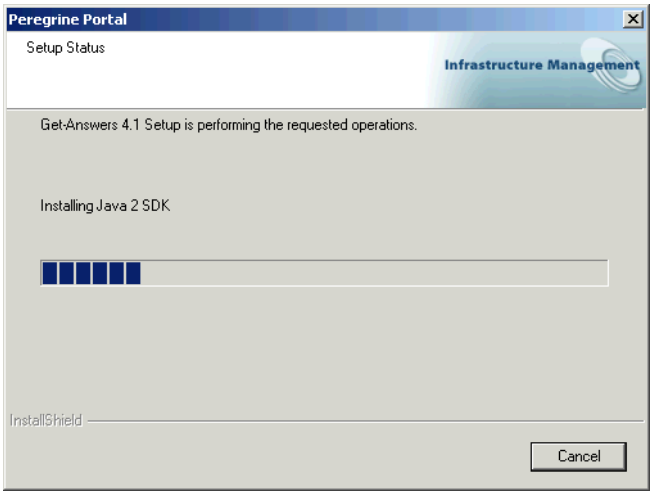
Note: Back up your database as well.



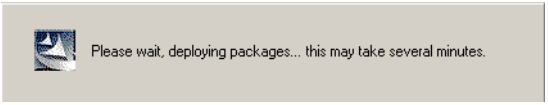
a If you have not copied your files, click **Yes** to exit the installation and backup the necessary files.

b Click **No** to continue with the installation.

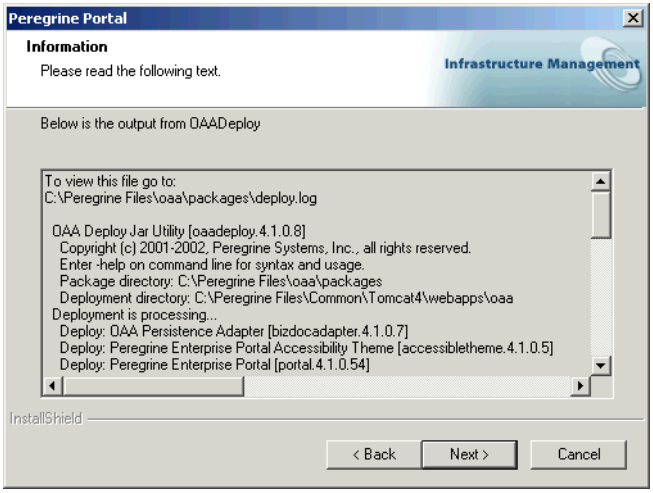
The Setup Status screen is displayed while the installation program performs the requested operations.



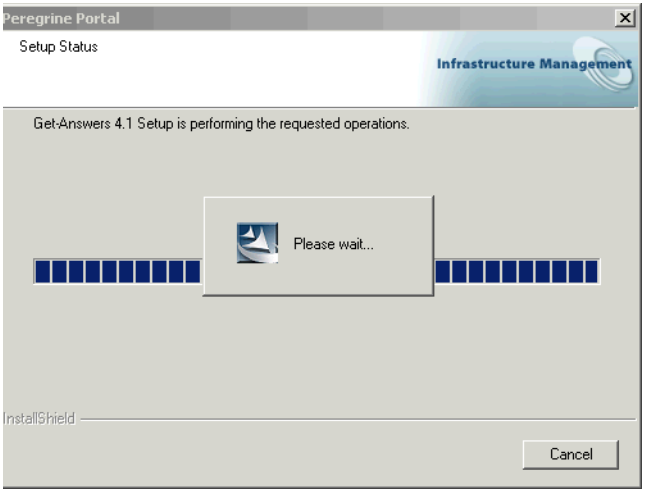
A message indicates that the Get-Answers packages are being deployed to your server. This phase can take several minutes.



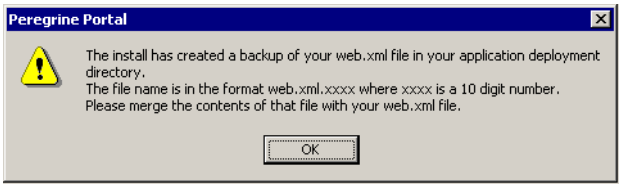
10 Examine the OAA deploy output to ensure there are no errors, then click **Next**.



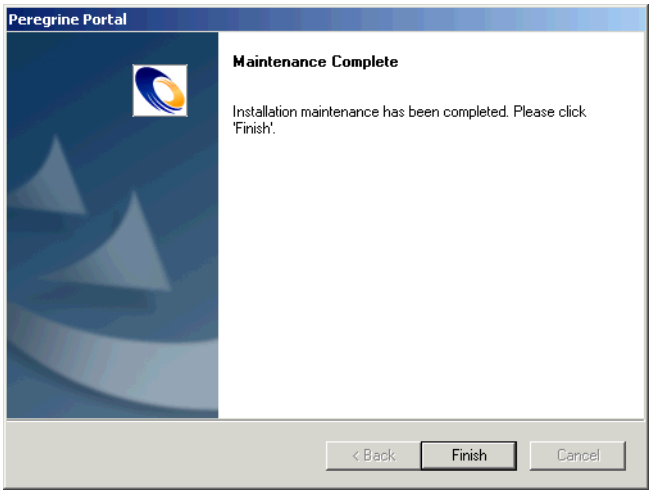
The Setup Status dialog box that opens shows that Get-Answers is copying files to your system.



A message indicates that the Installer created a backup of your **web.xml** file. See *Updating the web.xml file* for more information.



11 In the Maintenance Complete dialog box that opens, click **Finish**.



Updating the web.xml file

During the upgrade process, the **<*appsrv*>/WEB-INF/web.xml** file has been renamed to **<*appsrv*>/WEB-INF/web.xml.XXX.bak**, where <*appsrv*> is the path to your application server, and **XXX** represents a unique sequence of characters generated by File.createTempFile(). This will preserve any customizations that you might have (see *Preserving customized web.xml file settings*, next).

After upgrading Get-Answers from 4.0.1 to 4.1, a new file called **web.xml.xxx.bak** is created in the <*appsrv*>/WEB-INF directory. You must reconcile the contents of this file with the contents of the new **web.xml** file. Any portion of **web.xml.xxx.bak** file that does not exist in the new **web.xml** file needs to be added to the **web.xml** file.

Preserving customized web.xml file settings

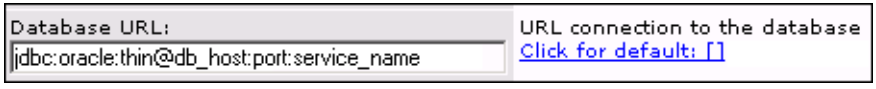
You can open the web.xml.xxx.bak file, copy its customized configuration settings into the new web.xml file, and save the new file to preserve your customizations.

Using Oracle thin client when upgrading to 4.1

When upgrading Get-Answers 4.0.x to 4.1, the install wizard does not ask for database information since the database already exists from the previous version. Get-Answers 4.0.x only supported the Oracle thick client. Get-Answers 4.1 also supports using the Oracle thin client. If you want to start using Oracle thin client instead of Oracle thick client, you can do so by changing the database configuration settings in the Administration module.

To configure settings to use Oracle thin client:

1 Go to the **Admin** > **Settings** > **rome** tab.



2 Set the **Database URL** field to jdbc:oracle:thin:@db_host:port:service_name where *db_host* is the name of your database server, *port* is the database listener port, and *service_name* is the network service name that uniquely identifies the database when connecting to the machine.

Checking your Administrator password

The http://<ServerHostName>/oaa/admin.jsp administrator login name changed from Admin to System in Get-Answers 4.1. If you changed your Admin password in Get-Answers 4.0.1 from a blank value to a non-blank value, use the following procedure to modify the Get-Answers Administration module to reflect that change. First you must check the value of your System password and then change it if necessary.

To check the value of your System password:

1 Open SQL.

2 At the SQLPlus Worksheet prompt, enter this SQL command:

select passwd from tblperson where loginname='System';

3 Press **Enter**.

If the value returned is a not a blank password, go to the next procedure. If not, you can skip the next procedure.

To substitute your password:

1 At a Web browser, enter http://<ServerHostName>/oaa/admin.jsp, where <*ServerHostName*> is the name of your server.

2 Log in with the user name **System** and no password.

3 Click the Get-Answers tab.

4 Set the Administrator password to **pw23**.

5 Click **Save**.

6 Click the **Settings** link on the left side of the page.

7 Click the **rome** tab.

8 Set the Admin password to **pw23**.

9 Set the Anonymous password to **pw23**.

10 Click **Save**.

11 Click **Reset** to restart your application server.

Because you can make the user name **System** password for http://<ServerHostName>/oaa/admin.jsp different from the from the database setting, you can change the **System** password only.

To change only the System password:

1 At a Web browser, enter http://<ServerHostName>/oaa/admin.jsp, where <*ServerHostName*> is the name of your server.

2 Log in using the user name **System** with no password.

3 Click the **Common** tab.

4 Set the **System** password to a new value.

5 Click **Save**.

Updating views for custom doc types

If you have custom doc types, you must add the views after the upgrade. See the *Get-Answers Administration Guide* for details.

Completing the installation

Go to *Chapter 7, Completing All Installations*, to finish upgrading Get-Answers.

CHAPTER 6

Installation on AIX or Solaris

This chapter covers the following topics:

Choosing an installation environment

You can install Get-Answers in one of two installation environments:

- Development environment
- Production environment

The Get-Answers development environment is intended for you to evaluate product features and customize your installation prior to deployment in a production environment. In a development environment, you install all software required for Get-Answers on one computer system.

You have two choices of development environment:

- Typical installation
  - Apache 2.0 Web server
  - Get-Answers deployed on Tomcat 4.1.24 application server
- Custom installation
  - Choice of Web server
  - Choice of application server where you deploy Get-Answers

The Get-Answers production environment is intended to maximize server performance and scalability, and to deploy any customizations you have made. In a production environment, you install the various components of Get-Answers on different servers to maximize performance.

You have two choices of production environment:

- Typical installation
  - Apache 2.0 Web server
  - Get-Answers deployed on multiple instances of Tomcat 4.1.24 application server
- Custom installation
  - Choice of Web server
  - Choice of application server where you deploy Get-Answers

Development Environment

The following procedures describe how to install Get-Answers in a development environment.

To install Get-Answers in a typical development environment:

Step 1 Acquire all necessary hardware and software.

Step 2 Install the back-end database required for Get-Answers.

Step 3 Run the Get-Answers installer and select the Typical installation option. See *Typical Installation Option* on page 184.

Step 4 Configure the back-end databases and create Get-Answers users. See the *ServiceCenter Administration* chapter of this guide.

To install Get-Answers in a custom development environment:

Step 1 Acquire all necessary hardware and software.

Step 2 Install the back-end database required for Get-Answers.

Step 3 Install alternate application and Web servers.

Step 4 Configure the alternate application server for Get-Answers. See *Configuring alternate application servers* on page 147.

Step 5 Run the Get-Answers installer and select the Custom installation option. See *Custom Installation Option* on page 196.

Step 6 Configure the back-end databases and create Get-Answers users. See the *ServiceCenter Administration* chapter of this guide.

Production Environment

The following procedures describe how to install Get-Answers in a production environment.

To install Get-Answers in a typical production environment:

Step 1 Acquire all necessary hardware and software.

Step 2 Install the back-end database required for Get-Answers on a separate server.

Step 3 Run the Get-Answers installer and select the Typical installation option. See *Typical Installation Option* on page 184.

Step 4 Configure multiple instances of Tomcat for load balancing on the Apache Web server. See the *Load Balancing* chapter of this guide.

Step 5 Configure the back-end databases and create Get-Answers users. See the *ServiceCenter Administration* chapter of this guide.

To install Get-Answers in a custom production environment:

Step 1 Acquire all necessary hardware and software.

Step 2 Install the back-end database required for Get-Answers.

Step 3 Install the alternate application server and Web server on separate servers.

Step 4 Configure the alternate application server for Get-Answers. See *Configuring alternate application servers* on page 147.

Step 5 Run the Get-Answers installer and select the Custom installation option. See *Custom Installation Option* on page 196.

Step 6 Configure the Web servers and application servers for load balancing. See the *Load Balancing* chapter of this guide.

Step 7 Configure the back-end databases and create Get-Answers users. See the *ServiceCenter Administration* chapter of this guide.

Configuring alternate application servers

You must install a Java-enabled application server to support your Peregrine Web applications. Peregrine OAA supports the following alternate application servers:

- *Existing Tomcat and Apache servers*
- *WebSphere Application Server 4.0.2*
- *WebSphere Application Server 5.0*
- *WebLogic 6.1 SP3 or SP4*
- *JRun 3.1*

The Get-Answers typical installation option installs Tomcat 4.1.24 and connects it to an Apache 2.0 web server. You can also install Tomcat 4.1.24 using the custom installation option.

Important: If you want to use an application server other than Tomcat 4.1.24, then you must configure your application and Web servers *prior* to running the Get-Answers installer.

See the following sections for instructions configuring alternate application servers for Get-Answers.

Existing Tomcat and Apache servers

If you use the typical installation option, the Get-Answers installer configures Tomcat to connect to a new instance of the Apache Web server. If you have existing instances of Tomcat or Apache Web Server installed, you can configure Get-Answers to use these existing instances by copying the necessary files from a typical installation.

To configure an existing Tomcat server to connect to an Apache server:

1 Copy the following files from the installation CD \SupportFiles… directory to the directories indicated below.

Copy this file	To the following location
■ mod_jk.conf	The /conf directory of your existing Tomcat installation. The default source file path is: /usr/local/peregrine/common/Tomcat 4/conf
■ workers.properties	The /conf directory of your existing Tomcat installation. The default source file path is: /usr/local/peregrine/common/Tomcat 4/conf
■ mod_jk.dll	The /modules directory of your existing Apache installation. The default source file path is: /usr/local/peregrine/common/apache2/modules

Note: The mod_jk.dll included with this release is compatible with Apache 2.0.43 and Tomcat 4.1.25. If you are using other versions, refer to the jakarta.apache.org/builds/jakarta-tomcat-connectors/jk/doc site to download the compatible version.

2 Using a text editor, open the files mod_jk.conf and workers.properties. These files are located in the /conf directory of your Tomcat installation.

   a Find all instances where the path to Tomcat appears and edit these to reflect your current Tomcat 4.1 installation path.

   b Find all instances where the path to JDK appears and edit these to reflect your current JDK installation path.

3 Using a text editor, open the httpd.conf file. This file is located in the /conf directory of your Apache installation.

   a Add the path to your existing Tomcat installation to the include statement in the Global Environment section:

```
### Section 1: Global Environment
...
include "<Tomcat_path>/conf/mod_jk.conf"
```

For <*Tomcat_path*>, enter the absolute path to your Tomcat installation.

b Add login.jsp to the list of files in the DirectoryIndex section:

```
# DirectoryIndex: Name of the file or files to use as a pre-written
# HTML directory index.  Separate multiple entries with spaces.
#
<IfModule mod_dir.c>
 DirectoryIndex index.html login.jsp
</IfModule>
```

c Add the following line to the end of the file:

Alias <Tomcat>/webapps/oaa

where <*Tomcat*> is the path to your Tomcat installation.

4 Install Get-Answers using the **Custom** option.See *Installing Get-Answers using Custom Installation.*

5 If your application uses Oracle, copy the classes12.jar file from: /<your Tomcat installation>/webapps/oaa/Web-Inf/lib to the /ext folder under your JDK installation.

The default path is: /oracle/ora81/jdbc/lib/classes12.jar.

6 Restart Tomcat and Apache.

7 Browse to the Get-Answers login URL and verify that you can successfully connect.

Note: Depending on your Web server configuration, if you browse to http://servername/oaa, the Web server may display a list of all the OAA files instead of the login page.

If your server displays this behavior, follow these steps to configure your Web server to display the OAA login page instead of a directory listing.

To configure Apache to display login.jsp by default:

1 Open Apache's conf/httpd.conf file in a text editor.

2 Find the existing line that reads DirectoryIndex index.html.

3 Add login.jsp to the end:

DirectoryIndex index.html login.jsp

4 Save httpd.conf.

5 Restart the Apache Web server.

WebSphere Application Server 4.0.2

Use the following procedures to configure WebSphere to run Get-Answers on AIX and Solaris.

Note: The Get-Answers installer creates duplicate alias entries in the IBM HTTP Server when you install more than one Peregrine OAA Platform application on WebSphere.

Duplicate entries can also occur if you reinstall Get-Answers or install another Peregrine OAA Platform application on a system that formerly had Get-Answers installed on it.

Remove any duplicate alias entries from the IBM HTTP Server **httpd.conf** file.

To configure WebSphere Application Server 4.02:

Step 1 Install WebSphere 4.02. Your version of WebSphere 4.0.2 includes the IBM HTTP Server. *Installing WebSphere 4.02* on page 150.

Step 2 Deploy the Portal WAR file to WebSphere to create the necessary folder structure for Get-Answers. See *Deploying the Portal WAR file to WebSphere* on page 151.

Step 3 Set the JVM classpaths to your database classes. See *Setting the JVM classpaths* on page 153.

Step 4 Set the JVM Java heap size for each WebSphere instance running Get-Answers. See *Setting the Java heap size* on page 155.

Step 5 Run the Get-Answers installer. See *Running the Get-Answers installer* on page 156.

Step 6 Regenerate and configure. See *Regenerating the plug-in configuration* on page 156.

If you plan on setting up a WebSphere Portal Server or a WebSphere Translation Server, see *Installing WebSphere Portal Server* on page 160 or *Configuring WebSphere Translation Server for Get-Answers* on page 170.

Installing WebSphere 4.02

Purchase and install IBM WebSphere 4.0.2. Your version of WebSphere 4.0.2 includes the IBM HTTP Server.

Verify that you install fix pack 2. To check this, go to the default_server_Stdout.log file under /Websphere/AppServer/logs.

Deploying the Portal WAR file to WebSphere

The Portal WAR file creates the folder structure necessary to deploy Get-Answers in your application server. After you have deployed this file to WebSphere you will be ready to run the Get-Answers installer.

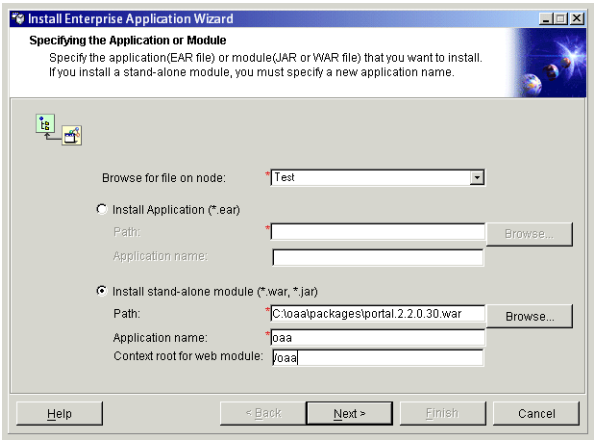
To deploy the Portal WAR file to WebSphere:

1. Verify that the WebSphere Admin Server has been started.
2. Open the WebSphere Advanced Administrator's Console (/WebSphere/AppServer/bin/adminclient.sh).
3. On the menu at the left side of the console, right-click on **Enterprise Applications** and select **Install Enterprise Application**.
4. On the screen displayed, do the following:
   a. Select **Install stand-alone module**.
   b. In the **Path** field, browse to the path to the portal<version #>.war file. The default is <CD Rom Drive>/portal<version #>.war.

      For <version #>, Select the most recent version available (4.0.0.44 or greater).
   c. In the **Application Name** field, type oaa.
   d. In the **Context Root** field, type the name of Get-Answers virtual Web server directory you wish to use. Example: /oaa.

Important: You must create a Web server virtual directory matching the context root you enter here.

The following screen shows the completed form.

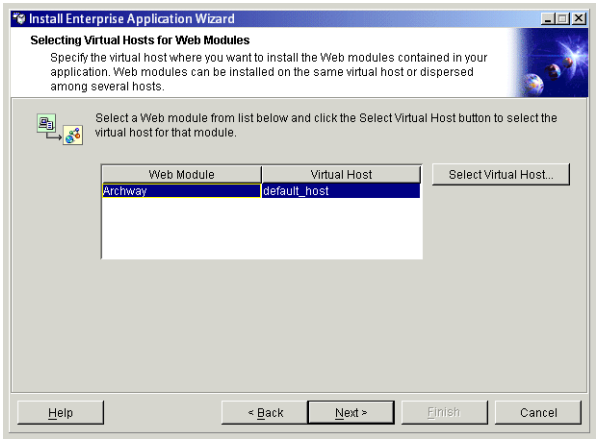


5 Click **Next**.

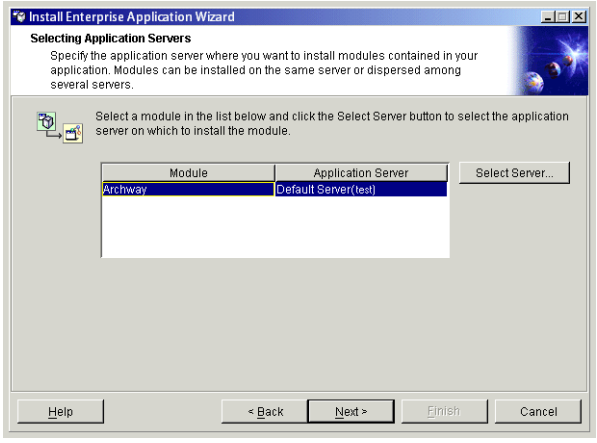
6 Click **Next** on the following dialog boxes. These screens will not be used.

- Mapping Users to Roles
- Mapping EJB Run As Roles to Users
- Binding Enterprise Beans to JNDI Names
- Mapping EJB References to Enterprise Beans
- Mapping Resource References to Resources
- Specifying the Default Datasource
- Specifying Data Sources for Individual CMP Beans

7 In the Selecting Virtual Hosts for Web Modules, select the WebSphere server instance you want to use, and then click **Next**.



8 In the Selecting Application Servers dialog box, select the WebSphere server instance you want to use, and then click **Next**.



9 On the dialog box displayed, click **Finish**.

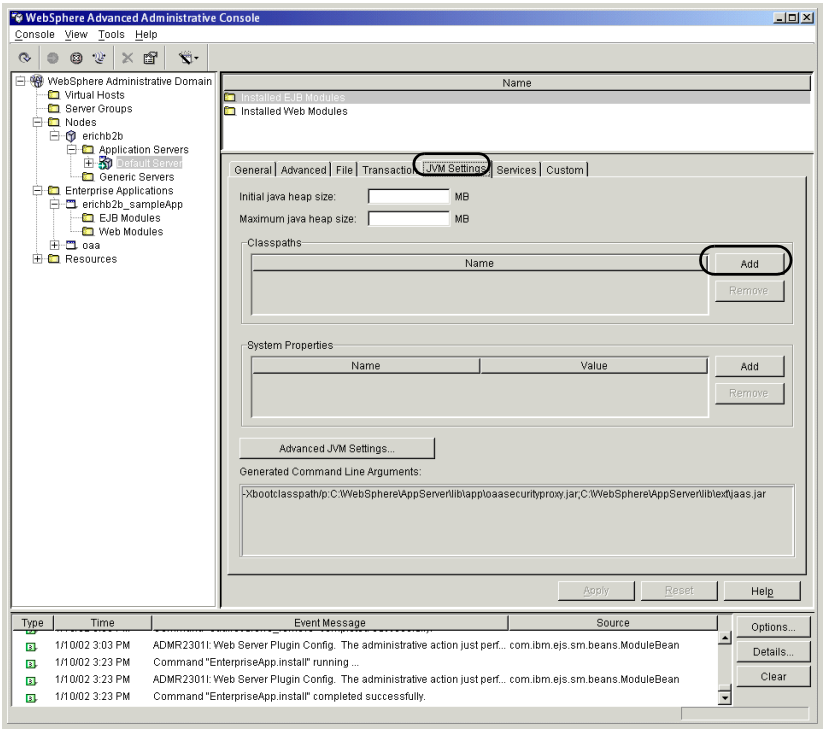
Setting the JVM classpaths

Get-Answers requires that you set the JVM classpaths to your database classes.

To set the JVM classpaths:

1. Verify that the WebSphere Admin Server has been started.
2. Open the WebSphere Advanced Administrator's Console (/WebSphere/AppServer/bin/adminclient.sh).
3. Click **Nodes** > *<System Name>* > **Application Servers** > *<Application server name>*.

   The server settings page opens.



4. Click the JVM Settings tab.
5. Under Classpaths, click Add.
6. Add the path to your database classes.

   If you are using Oracle, provide the path to the classes12.jar file:

   /oracle/ora81/jdbc/lib/classes12.jar

Setting the Java heap size

You can configure how much memory is available for your application server instances. The following instructions assume you are only using one WebSphere instance. You will need to adjust the heap size accordingly if you are load balancing across several WebSphere instances.

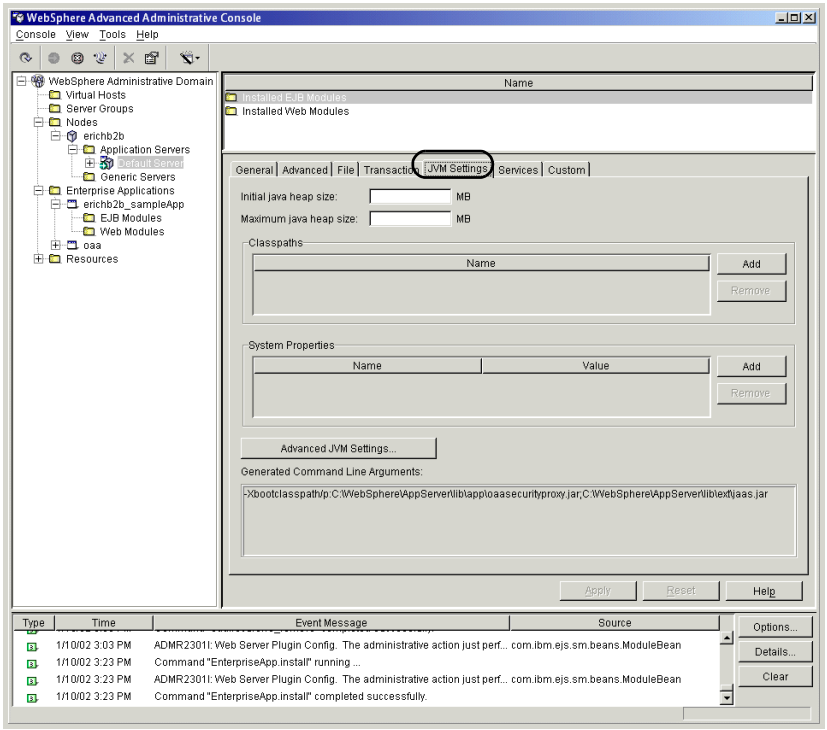
To set the Java heap size:

1 Verify that the WebSphere Admin Server has been started.

2 Open the WebSphere Advanced Administrator's Console (**Start** > **Programs** > **IBM WebSphere** > **Application Server** > **Administrator's Console**).

3 Click **Nodes** > *<System Name>* > **Application Servers** > *<Application server name>*.

The server settings page opens.



4 Click the JVM Settings tab.

5 Set the following JVM settings:

a **Initial java heap size**. Type `60`.

b **Maximum java heap size**. Type the value you want for heap memory. This setting should be at least 225 MB, but not more than 512 MB.

Note: Make sure that the setting for maximum heap size is less than the free RAM available to the application server(s). Exceeding the amount of available RAM causes the JVM processes to swap to disk, reducing overallperformance. A setting of 256 MB should be sufficient for most systems.

Running the Get-Answers installer

Run the Get-Answers installer and select the Custom installation option. See *Custom Installation Option* on page 196.

If you plan on setting up a WebSphere Portal Server or a WebSphere Translation Server, see *Installing WebSphere Portal Server* on page 160 or *Configuring WebSphere Translation Server for Get-Answers* on page 170.

Regenerating the plug-in configuration

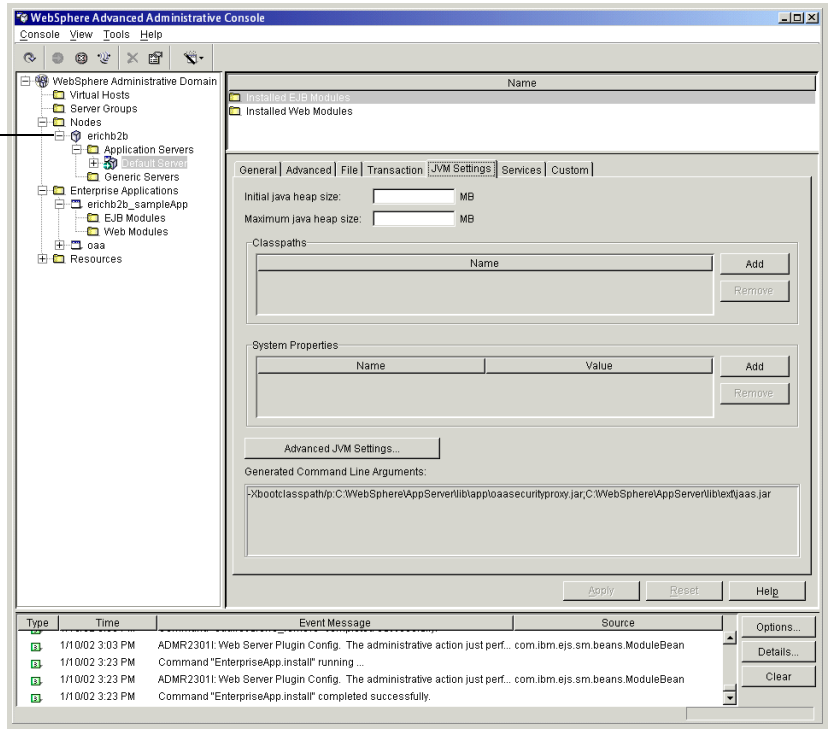
You must regenerate the plug-in configuration using the WebSphere Admin console after running the Get-Answers installer.

To regenerate the plug-in configuration:

1 Open the WebSphere Advanced Administrator's Console (**Start** > **Programs** > **IBM WebSphere** > **Application Server** > **Administrator's Console**).

2 Click **Nodes** > <*System Name*> > **Application Servers** > <*Application server name*>.

The server settings page opens.



3 Right-click on the <*System Name*>, then select **Regen Webserver Plugin**.

4 Copy the following lines from the <settings> section of **<appserver>/WEB-INF/default\archway.xml** to the <settings> section in your **<appserver>/WEB-INF/local.xml** file, where <*appserver*> is the location of your application server:

```
<SSLProvider>com.ibm.jsse.JSSEProvider</SSLProvider>
<HTTPSHandlerPkg>com.ibm.net.ssl.internal.www.protocol</HTTPSHandlerPkg>
<CryptoProvider>com.ibm.crypto.provider.IBMJCE</CryptoProvider>
```

5 Restart your application server.

WebSphere Application Server 5.0

Use the following procedures to configure WebSphere 5.0 to run Get-Answers on UNIX. WebSphere Application Server 5.0 is referred to as WAS5.

Note: The Get-Answers installer creates duplicate alias entries in the IBM HTTP Server when you install more than one Peregrine OAA Platform application on WebSphere.

Duplicate entries can also occur if you reinstall Get-Answers or install another Peregrine OAA Platform application on a system that formerly had Get-Answers installed on it.

Remove any duplicate alias entries from the IBM HTTP Server httpd.conf file.

To run Get-Answers 4.x on WebSphere Application Server 5.0:

1 Set the WAS_HOME environment variable to your WAS5 home directory.

The default location is: opt/WebSphere/AppServer.

2 With WAS5 running, log in to the Admin console and create a new Enterprise Application using portal.war from the packages directory on the Get-Answers 4.1 CD.

Note: The important option to specify is the context root, typically /oaa or /getit.

a Specify the context root.

b Keep all the other settings at their defaults.

c Save the server configuration.

3 For Get-Answers, you must configure the Oracle classes12.jar file or the DB2 db2java.zip file as a Shared Library.

a Still in the WAS5 Admin console, click **Environment** in the left column.

b Under Environment, click **Shared Library**.

c In the main frame, click **New**.

d Type a name for the library in the Name field, and the full path to classes12.jar or db2java.zip in the Classpath field.

e Click **Apply**.

f Under Applications, go back to the definition for the OAA Enterprise Application.

g Click **Libraries** under Additional Properties.

h Click **Add**.

i Select the library you defined and click **Apply**.

j Save the server configuration.

4 Run setup from the CD.

a Choose the **Custom** install.

b Clear the Tomcat, JDK, and Apache options.

5 When prompted for the deployment directory, browse to it under the WAS5 installed applications directory; typically, opt/WebSphere/AppServer/installedApps/[hostname]/oaa.ear/portal.war.

6 When the installation is complete, delete pop3.jar from opt/WebSphere/AppServer/java/jre/lib/ext.

It is no longer needed because WAS5 includes it in mail.jar.

7 Copy js.jar from …portal.war/WEB-INF/lib to opt/WebSphere/AppServer/java/jre/lib/ext.

8 From the IBMHttpServer\conf\httpd.conf file:

a Add the following lines.

```
LoadModule ibm_app_server_http_module
“<AppServerPath>/bin/mod_ibm_app_server_http.dll”
WebSpherePluginConfig
"<AppServerPath>/config/cells/plugin-cfg.xml"
```

b Verify that the following line is in the file; if not, add it.

```
Alias /oaa/ "opt/WebSphere/AppServer/installedApps/[hostname]
/oaa.ear/portal.war/"
```

The installer fails to do this because earlier versions were named differently.

Note: This alias needs to match the context root specified in step 2. The portal.war deployment folder has the same name as the portal.war file you deployed in step 2.

9 Using a text editor:

a Add the following UriGroup mappings to the plugin-cfg.xml file located in WebSphere\AppServer\config\cells.

```
<UriGroup Name="default_host_server1_sys_Cluster_URIs">
:
:
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/answers/attachments/*"/
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/servlet/archway"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/servlet/rpcrouter"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/servlet/messagerouter"/
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/servlet/download/*"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/servlet/*"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/*.do"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/*.jsp"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/*.jsv"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/*.jsw"/>
 <Uri AffinityCookie="JSESSIONID" Name="/oaa/j_security_check"/>
</UriGroup>
```

b Save and close the file.

10 Restart WAS5.

11 Log in to the Admin console again.

a From Environment on the left side, click **Update Web Server Plugin**.

b Click **OK**.

12 Restart the IBM HTTP Server.

13 Log in to admin.jsp and continue configuring the system as usual.

Installing WebSphere Portal Server

You can configure Get-Answers to display in a WebSphere Portal Server in one of two configurations:

- All Get-Answers and WebSphere components running on a single system. See *Recommended WebSphere Portal Server configuration* on page 161.
- Get-Answers components running on one system and WebSphere components running on another. See *Alternate WebSphere Portal Server configuration* on page 162.

Important: In either configuration, you must first install WebSphere Portal Server. See your WebSphere Portal Server documentation for details.

Note: The OAA interface to the WebSphere Translation Server requires a mouse to use. The translation interface will be made 508 accessible in a future release.

Recommended WebSphere Portal Server configuration

Use the following steps to configure Get-Answers for the recommended WebSphere Portal Server configuration:

Step 1 Review the WebSphere Portal Server installation requirements. See *WebSphere Portal Server installation requirements* on page 164.

Step 2 Generate a Get-Answers WAR file containing the portal components WebSphere Portal Server can display. See *Generating a Get-Answers WAR file* on page 165.

Step 3 Login to the Get-Answers server and stop the WebSphere application server. See *Stopping the WebSphere application server* on page 166.

Step 4 Modify the local.xml to change the HTTP authentication method used from Basic to Alternate. See *Modifying the local.xml file* on page 166.

Step 5 Modify the web.xml to enable the AuthController servlet. See *Modifying the web.xml file* on page 166.

Step 6 Modify the ibm-web-ext.xmi file to set the fileServingEnabled parameter. See *Modifying the ibm-web-ext.xmi file* on page 167.

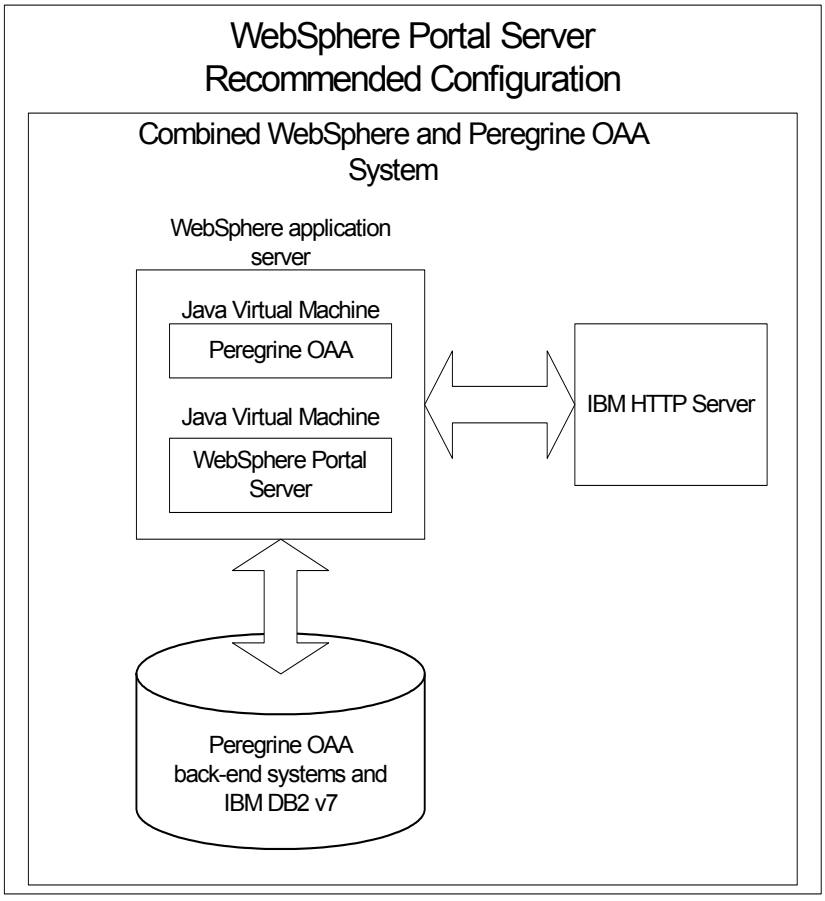
Step 7 Start the WebSphere application server. See *Starting the WebSphere application server* on page 168.

Step 8 Deploy the Get-Answers WAR file to WebSphere Portal Server. See *Deploying the Get-Answers WAR file to WebSphere Portal Server* on page 168.

Step 9 Create places and pages in WebSphere Portal Server to display Get-Answers portlets. See *Configuring WebSphere Portal Server places and pages* on page 168.

Step 10 Enable edit rights for Get-Answers portlets. See *Enabling edit rights for Get-Answers portlets* on page 169.

When complete, your installation will have the following configuration:



Alternate WebSphere Portal Server configuration

Use the following steps to configure Get-Answers for the alternate WebSphere Portal Server configuration:

Step 1 Review the WebSphere Portal Server installation requirements. See *WebSphere Portal Server installation requirements* on page 164.

Step 2 Generate a Get-Answers WAR file containing the portal components WebSphere Portal Server can display. See *Generating a Get-Answers WAR file* on page 165.

Step 3 Login to the Get-Answers server and stop the WebSphere application server. See *Stopping the WebSphere application server* on page 166.

Step 4 Modify local.xml to change the HTTP authentication method used from Basic to Alternate. See *Modifying the local.xml file* on page 166.

Step 5 Modify web.xml to enable the AuthController servlet. See *Modifying the web.xml file* on page 166.

Step 6 Modify the ibm-web-ext.xmi file to set the fileServingEnabled parameter. See *Modifying the ibm-web-ext.xmi file* on page 167.

Step 7 Modify setDomain.js to call the SetDomain function. See *Modifying the setDomain.js file* on page 167.

Step 8 Start the WebSphere application server. See *Starting the WebSphere application server* on page 168.

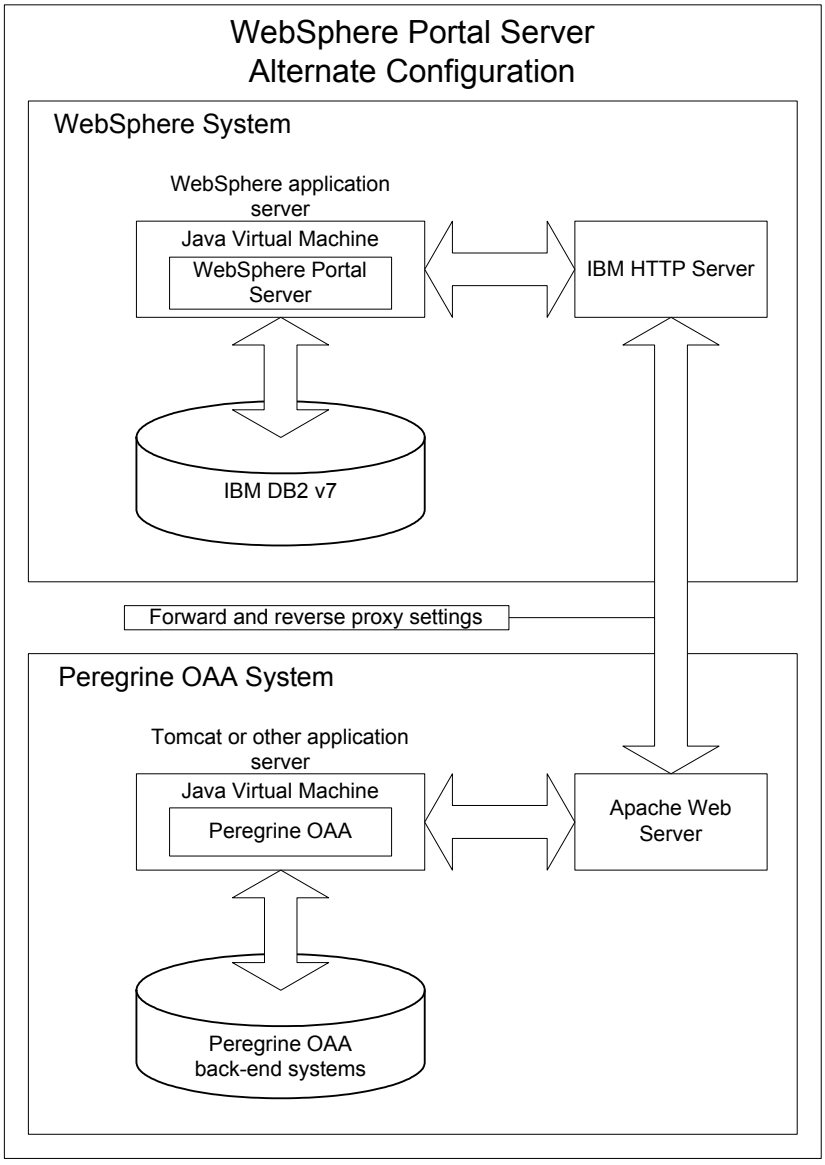
Step 9 Deploy the Get-Answers WAR file to WebSphere Portal Server. See *Deploying the Get-Answers WAR file to WebSphere Portal Server* on page 168.

Step 10 Create places and pages in WebSphere Portal Server to display Get-Answers portlets. See *Configuring WebSphere Portal Server places and pages* on page 168.

Step 11 Enable edit rights for Get-Answers portlets. See *Enabling edit rights for Get-Answers portlets* on page 169.

Step 12 Modify IBM HTTP Server's httpd.conf file to add forward and reverse proxy URLs. See *Modifying httpd.conf for IBM HTTP Server* on page 170.

When complete, your installation will have the following configuration:



WebSphere Portal Server installation requirements

The recommended configuration of the WebSphere Portal Server requires the following items to be installed on the same server:

- WebSphere application server 4.0.2

- IBM HTTP Server 1.3.19
- IBM DB2 v7 database server
- WebSphere Portal Server
- A custom installation of Get-Answers with WebSphere selected as the application server

The alternate configuration of the WebSphere Portal Server requires the following items be installed on a minimum of two servers:

- Server 1
  - WebSphere application server 4.0.2
  - IBM HTTP Server 1.3.19
  - IBM DB2 v7 database server
  - WebSphere Portal Server
- Server 2
  - Get-Answers compatible application server
  - Web server
  - Back-end database for Get-Answers
  - An installation of Get-Answers

Generating a Get-Answers WAR file

In order to display Get-Answers in WebSphere Portal Server, you must first export the Get-Answers portal components as a WAR file. You can then import this WAR file into WebSphere Portal Server, and choose the portal components you want to display as WebSphere Portal Server portlets.

To generate a Get-Answers WAR file:

1. Login to the Get-Answers administration page (admin.jsp).
2. Click **IBM WebSphere Portal Integration**.
3. Enter the following configuration information:
   a. **Source Path.** Enter the full path to the WebSphere.war in the Get-Answers package folder. By default this folder is:

      <WebSphere>/oaa/packages

   b. **Destination Path.** Enter the full path and file name you want to use for the generated Get-Answers WAR file.

   c. **Base URL.** Enter the full URL to the Get-Answers deployment directory. By default this URL is:

http://<server>:<port>/oaa/servlet/basicauth

4 Click **Generate WAR file**.

Get-Answers generates a new WAR file with the name and path specified in the Destination Path of step 3.

Stopping the WebSphere application server

To continue configuring, you must log in to the Get-Answers server and stop the WebSphere application server.

To stop the WebSphere application server:

1 Login to the Get-Answers server.

2 Stop your WebSphere application server.

Modifying the local.xml file

In order to login via WebSphere Portal Server, you configure Get-Answers to use an alternate HTTP authentication method.

To modify the local.xml file:

1 Using a text editor, open the local.xml file located at:

<application server>/oaa/WEB-INF/.

2 Add the following on a separate line anywhere between <settings> and <\settings>:

```
<httpauthclass>HttpAlternateAuthenticationManager</httpauthclass>
```

3 Save the file.

Modifying the web.xml file

You will need to enable the AuthController servlet to establish a proxy for HTTP basic authentication.

To modify the web.xml file:

1 Using a text editor, open the web.xml file located at:

<application server>\oaa\WEB-INF.

2 Search for the line containing:

```
<!-- Uncomment to add support for http basic authentication proxy
```

3 Move the ending comment tag --> from the end of the servlet definition to the comment at the beginning of the servlet definition.

The new servlet definition should appear as follows:

```
<!-- Uncomment to add support for http basic authentication proxy-->
  <servlet>
    <servlet-name>AuthController</servlet-name>
    <display-name>AuthController</display-name>
    <description>A controller (decorator) servlet that can be used to
enable configurable auth protection of any resource.</description>

<servlet-class>com.peregrine.oaa.archway.AuthControllerServlet</servl
et-class>
    <load-on-startup>2</load-on-startup>
  </servlet>

  <servlet-mapping>
    <servlet-name>AuthController</servlet-name>
    <url-pattern>/servlet/basicauth/*</url-pattern>
  </servlet-mapping>
  <servlet-mapping>
    <servlet-name>AuthController</servlet-name>
    <url-pattern>/servlet/auth/*</url-pattern>
  </servlet-mapping>
```

4 Save the file.

Modifying the ibm-web-ext.xmi file

You need to set the **fileServingEnabled** parameter to true to handle static content.

To modify the ibm-web-ext.xmi file:

1 Using a text editor, open the **ibm-web-ext.xmi** file. The default file path is:

```
c:\WebSphere\AppServer\installedApps\getit.ear\getit.war\WEB-INF
```

2 Find the **fileServingEnabled** parameter and set it to **true**.

```
fileServingEnabled="true"
```

3 Save the file.

Modifying the setDomain.js file

To use the alternate configuration of WebSphere Portal Server, you must enable the setDomain function.

Note: If you are setting up WebSphere Portal Server in the recommended configuration, you may skip these instructions.

To modify the setDomain.js file:

1. Login to the Get-Answers server.
2. Stop your application server.
3. Using a text editor, open the setDomain.js file located at:

   <*application server*>//oaa/js.
4. Add the following line to the end of the file:

   ```
   setDomain();
   ```
5. Save the file.

Starting the WebSphere application server

To continue configuring, you must restart the WebSphere application server.

Deploying the Get-Answers WAR file to WebSphere Portal Server

After you deploy the Get-Answers WAR file to WebSphere Portal Server, you can then configure the portlets you want to display, the display settings, and the access rights to each portlet.

See your WebSphere Portal Server documentation for detailed instructions.

To deploy the Get-Answers WAR file:

1. Login to the WebSphere Portal as wpsadmin or another user with administrative rights.
2. Select **Portal Administration** from the Places menu.
3. Click **Portlets** > **Install Portlets**.
4. Click **Browse** and navigate to the Destination path you entered when you created the Get-Answers WAR file.
5. Click Next to load the Get-Answers WAR file.

   WebSphere Postal Server displays a list of portlets to be installed.
6. Click Install.

   WebSphere Portal Server installs the portlets and displays the message "Portlets successfully installed."

Configuring WebSphere Portal Server places and pages

Note: Refer to your WebSphere Portal documentation for details on the following.

You can deploy Get-Answers portlets in any place or page that meet the following requirements.

Places Your WebSphere Portal Server places must have the following characteristics:

- Supported markups must include HTML

Pages Your WebSphere Portal Server pages must have the following characteristics:

- Supported markups must include HTML
- The page must be set to "allow all portlets that a user can access"
- All Get-Answers portlets that you display in a page must grant "all authenticated users" the minimum edit permission.

Enabling edit rights for Get-Answers portlets

WebSphere Portal Server users will need edit rights to the Get-Answers portlets in order to add and customize them to their portal page.

To enable edit rights for Get-Answers portlets:

1. Login to the WebSphere Portal as `wpsadmin` or another user with administrative rights.
2. Select **Portal Administration** from the Places menu.
3. Click **Security** > **Access Control List**.
4. Select the **Special groups** option and select **All authenticated users** from the select box.
5. From the Select the objects for the permissions select box, select **portlet applications**.
6. Select the Search on option, and then enter `Peregrine` in the Name contains field.
7. Click **Go**.

   WebSphere Portal Server displays a list of portlets with Peregrine in the name.
8. In the Edit column, click **Select All** at the bottom of the table.
9. Click **Save**.

   Users can now view and customize Get-Answers portlets from the WebSphere Portal Server interface.

Modifying httpd.conf for IBM HTTP Server

In order to use the alternate configuration of WebSphere Portal Server, you will need to modify the **httpd.conf** file used by the IBM HTTP Server to add the forward and reverse proxy URLs to your remote instance of Get-Answers.

Note: If you are setting up WebSphere Portal Server in the recommended configuration, you may skip these instructions.

To modify httpd.conf for IBM HTTP Server:

1. Login to the Get-Answers server.
2. Stop your IBM HTTP Server.
3. Using a text editor, open the **httpd.conf** file located at:

   <root>/usr/HTTPServer/conf
4. Add the following lines to the end of the file:

```
ProxyPass /<oaa root>/ http://<server>:<port>/
<oaa root>/servlet/basicauth/
ProxyPassReverse /<oaa root>/ http://<server>:<port>/
<oaa root>/servlet/basicauth/
```

   For *<oaa root>*, enter the name of the oaa virtual directory used by IBM HTTP Server. By default, this virtual directory is **oaa**.

   For *<server>*:*<port>*, enter the server name and communications port number where Get-Answers is installed.
5. Save the file.

Configuring WebSphere Translation Server for Get-Answers

You can configure Get-Answers to use a WebSphere Translation Server to provide real-time translations of on-screen data.

To configure WebSphere Translation Server for Get-Answers:

Step 1 Copy the file **wts.jar** to the Get-Answers deployment folder. See *Copying wts.jar to the Get-Answers deployment folder* on page 170.

Step 2 Configure Get-Answers to use the WebSphere Translation Server. See *Configuring WebSphere Translation Server for Get-Answers* on page 170.

Copying wts.jar to the Get-Answers deployment folder

The following instructions describe where to find and copy the file **wts.jar**.

To copy wts.jar to the Get-Answers deployment folder:

1 Stop your application server.

2 Browse to the location of your WebSphere Translation Server installation.

3 Copy the file **wts.jar** from this folder.

4 Paste the file **wts.jar** into the Get-Answers deployment folder located at:

<Application server install>/WEB-INF/lib

5 Restart your application server.

Configuring Get-Answers to use the WebSphere Translation Server

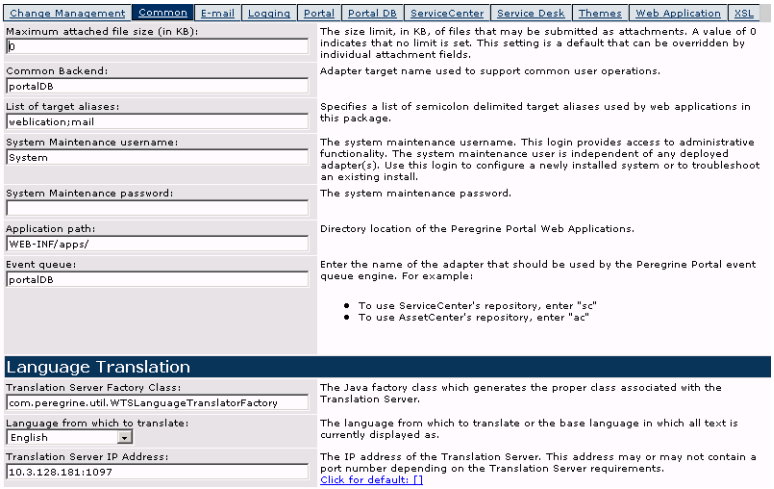
The following instructions describe how to configure Get-Answers to use the WebSphere Translation Server.

To configure Get-Answers to use the WebSphere Translation Server:

1 Login to the Get-Answers admin page (**admin.jsp**).

2 Click **Settings** > **Common** tab.

The Admin Settings page opens.



3 Enter the following configuration settings:

a **Translation Server Factory Class:** Enter the Java factory class for the Translation server. The default Java factory class is:

com.peregrine.util.WTSLanguageTranslatorFactory

b **Language from which to translate**: Enter the source language that you want translated. The default value is English.

c **Translation Server IP Address**: Enter the IP address and communications port to the Translation Server. For example: 10.3.128.181:1097.

4 Click **Save**.

The Control Panel opens.

5 Click **Reset Server**.

Translating on-screen data with a Translation Server

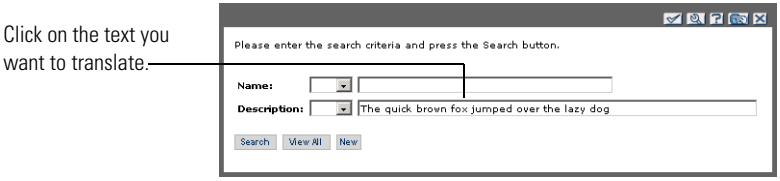
If you plan to store Get-Answers data in a mixture of languages, you can configure Get-Answers to send data to a Translation Server for real time translation. This interface will only translate data retrieved from the back-end database or manually typed into form inputs. If you need a translated user interface, you can purchase a Get-Answers language pack directly from Peregrine Systems.

To translate on-screen data with a Translation Server:

1 Enable the translation server from the **Administration** > **Settings** page as described in *Configuring WebSphere Translation Server for Get-Answers* on page 170.

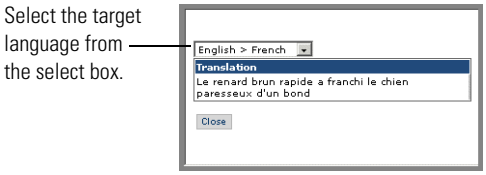
The translate button appears in the upper right tool bar.

2 Click on the source data or form input you want to translate.



3 Click the translate button.

The Translation window opens.



4 Select the target language to which you want to translate from the drop down select box.

The translation of your selection displays in the Translation box.

WebLogic 6.1 SP3 or SP4

The following procedures configure WebLogic to run Get-Answers on UNIX.

To configure WebLogic 6.1 SP3 or SP4:

Step 1 Stop both WebLogic and your Web server. See *Stopping WebLogic* on page 173.

Step 2 Edit the **startWebLogic.cmd** file to set the system password, memory settings, and start mode. See *Editing startWebLogic.cmd* on page 173.

Step 3 Run the Get-Answers installer. See *Custom Installation Option* on page 196

Step 4 Create a virtual directory for Get-Answers in your Web server. See *Creating a virtual directory for Get-Answers* on page 174.

Step 5 Restart WebLogic and your Web server. See *Restarting the servers* on page 175.

Stopping WebLogic

Before you begin to configure WebLogic, you must stop both Weblogic and your Web server.

Editing startWebLogic.cmd

To edit startWebLogic.cmd:

1 Open the file **startWebLogic.cmd** file in any text editor. By default the file is located at:

/bea/wlserver6.1/config/<*mydomain*>/

2 Scroll to the following section of the script:

```
echo ************************************************
echo * To start WebLogic Server, use the password      *
echo * assigned to the system user. The system         *
echo * username and password must also be used to      *
echo * access the WebLogic Server console from a web   *
echo * browser.                                        *
echo ************************************************
@rem Set WLS_PW equal to your system password for no password prompt
server startup.
set WLS_PW=password
```

3 In the last line, change the word "password" to your WebLogic system password.

4 Search for the -mx parameter setting in the file. Change this setting to at least 225 MB, but not more than 512 MB.

Note: Make sure that the setting for maximum heap size is less than the free RAM available to the application server(s). Exceeding the amount of available RAM causes the JVM processes to swap to disk, reducing overall performance. A setting of 256 MB should be sufficient for most systems.

5 Set the STARTMODE variable to STARTMODE=false.

The first time you start WebLogic after the installation, you will need to start it in development mode for it to find the Web applications that have been deployed.

6 Save the file.

Running the Get-Answers installer

Run the Get-Answers installer and select the Custom installation option. See *Custom Installation Option* on page 196.

Creating a virtual directory for Get-Answers

To run Get-Answers, you need to create a virtual directory in your Web server that maps to your WebLogic deployment folder. The typical installation creates a virtual directory called **oaa**, but you may specify a different virtual directory name.

Requirements for Get-Answers virtual directory

Requirement	Setting
Create virtual directory	<oaa>
Map to physical path	<WebLogic>/applications/oaa
Directory access rights	Read, Run scripts, Execute

For <*oaa*>, enter the name of the virtual directory you want to use for Get-Answers. Whatever name you enter here you will need to replicate in your application server configuration.

For <*WebLogic*>, enter the path to your WebLogic installation. The default file path is:

/bea/wlserver6.1/config/<*mydomain*>

Restarting the servers

Restart WebLogic and your Web server for your new settings to take effect.

JRun 3.1

The following procedures configure JRun to run Get-Answers on UNIX.

To configure JRun 3.1:

Step 1 Install a Java run-time environment. See *Installing a Java run-time environment* on page 176.

Step 2 Install JRun from the Macromedia Web site to the root of your hard drive. See *Installing JRun* on page 176.

Step 3 Apply the latest JRun update. See *Applying the latest JRun update* on page 177.

Step 4 Deploy the Portal WAR file to JRun to create the necessary folder structure for Get-Answers. See *Deploying the Portal WAR file to JRun* on page 177.

Step 5 Run the Get-Answers installer. *Running the installer* on page 180.

Step 6 Move **js.jar** to the Java development kit ext folder. See *Moving js.jar to the Java development kit* on page 180.

Step 7 Run the JRun Connector Wizard to establish a connection between JRun and your Web server. See *Running the JRun Connector Wizard* on page 180.

Step 8 Configure your JRun Java settings. See *Configuring Java settings* on page 180.

Step 9 Define any library path environmental variables to your back-end databases. See *Defining library path environment variables* on page 183.

Step 10 Create a virtual directory for Get-Answers in your Web server. See *Creating a virtual directory for Get-Answers* on page 184.

Step 11 Restart JRun and your Web server. See *Restarting JRun* on page 184.

Installing a Java run-time environment

The Get-Answers installer includes the Java 2 SDK Standard Edition v1.3.1_05. However, you can also use JRE 1.3.1 if you already have it installed. See *Custom Installation Components* on page 196.

Installing JRun

Before you install Get-Answers, you must install JRun to your root directory.

To install JRun:

1 Browse to the following URL:

http://www.macromedia.com/software/jrun/

2 Click the link **JRun 3.1 Available for Purchase**.

3 Follow the installation instructions provided.

Applying the latest JRun update

Before you install Get-Answers, you must apply the latest Jrun 3.1 update.

To install the latest JRun update:

1 Browse to the following URL:

http://www.macromedia.com/support/jrun/updates/3/updates_31.html

2 Click the link for the **JRun edition (Enterprise, Advanced, or Professional) and operating system of your server.**

3 Follow the installation instructions provided.

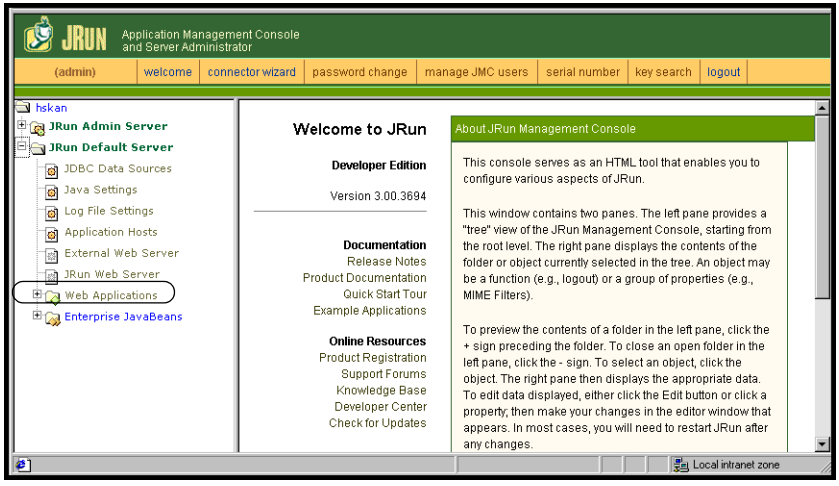
Deploying the Portal WAR file to JRun

The Portal WAR file creates the folder structure necessary to deploy Get-Answers in your application server. After you have deployed this file to WebLogic you will be ready to run the Get-Answers installer.

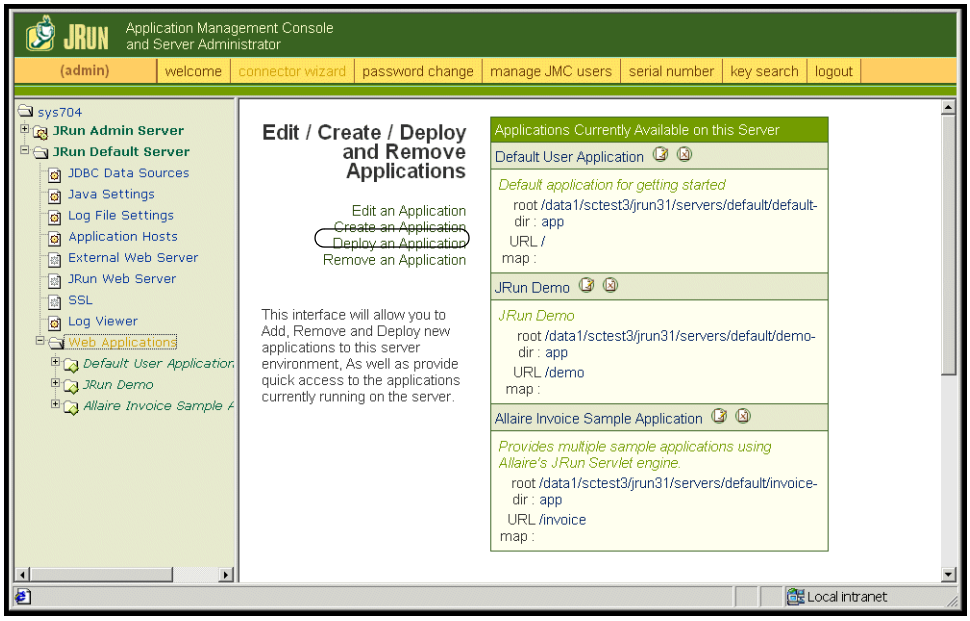
To deploy the Get-Answers Portal WAR file to JRun:

1 Open the JRun Management Console and log in.

2 Select JRun Default Server > Web Applications.



The Edit / Create / Deploy and Remove Applications page opens.



3 Click the **Deploy an Application** link.

4 In the page that opens, fill out the fields as follows:

- Servlet War File or Directory:

  Browse to **<CD Rom Drive>/portal<version #>.war**.

  For **<version>**, select the most current version.

  Select this file, and then click **Accept**.

- JRun Server Name:

  Select **JRun Default Server**.

- Application Name:

  Type **oaa**.

- Application URL:

  Type **/oaa**.

- Application Deploy Directory:

  JRun generates this directory. Make a note of this path. You will need this information later in the procedure.

5 Click **deploy**.

A message that OAA has been successfully deployed appears.

Running the installer

Run the Get-Answers installer using the Custom install option. See *Custom Installation Option* on page 196.

Moving js.jar to the Java development kit

JRun requires an updated version of js.jar in the Java development kit.

To move the js.jar to the Java development kit:

1. Stop JRun.
2. Locate js.jar. By default this file is installed at:

   <JRun>/servers/default/oaa/WEB-INF/lib
3. Cut and paste the file to the following path:

   /usr/local/peregrine/common/jdk1.3/jre/lib/ext
4. Restart JRun.

Running the JRun Connector Wizard

The JRun Connector Wizard establishes a connection between JRun and your Web server.

To run the JRun Connector Wizard:

1. Login to the JRun Management Console.
2. Click Connector Wizard.
3. Select the JRun Default Server as the JRun Server Name.
4. Select your Web server from the drop down list box.
5. If your Web server uses a different IP address than your JRun server, enter the IP address of your JRun server in JRun Server IP Address.
6. Confirm that the JRun Server Connector Port is not in conflict with another communications port used on this server.
7. Enter the path to the Scripts Directory.
8. Click Done.

Configuring Java settings

After you have installed Get-Answers, you must configure the Java settings that JRun will use to run the Web application.

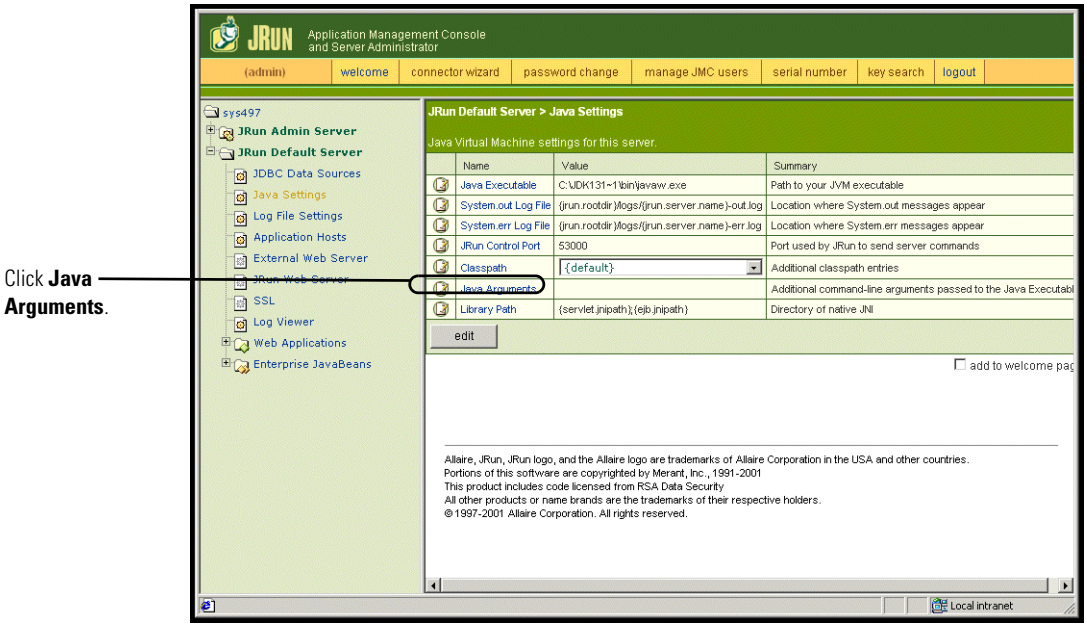
To configure Java settings:

1 Login to the JRun Management Console.

2 Click JRun Default Server > Java Settings.

The Java Settings page opens.

3 Click **Java Arguments**.

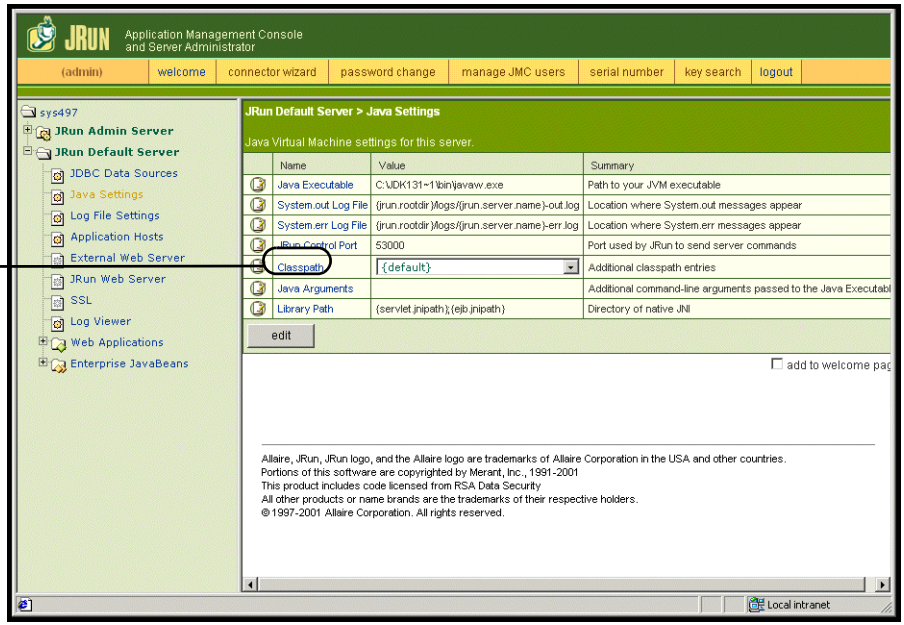


The Edit Window opens.

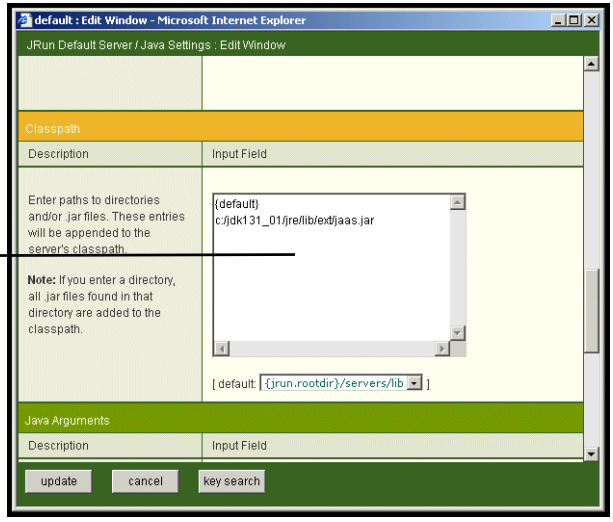
4 Enter an -Xmx value to define the maximum amount of heap memory allocated for your system. It is recommended that you set this value to at least 225 MB, but not more than 512 MB.

Note: Make sure that the setting for maximum heap size is less than the free RAM available to the application server(s). Exceeding the amount of available RAM causes the JVM processes to swap to disk, reducing overall performance. A setting of 256 MB should be sufficient for most systems. Applications using Persistence may require a higher setting.

5 On the Java Settings page, click **Classpath**.



The Edit Window opens.



6 Enter the following classpaths:

- Java Development Kit ext folder. For example:

/usr/peregrine/Common/jdk1.3.1_05/jre/lib/ext

- Database classes. If using Oracle, enter the path to classes12.jar:

  /oracle/ora81/jdbc/lib/classes12.jar

7 On the Java Settings page, click **Java Executable**.

8 Verify that path to your Java Development kit matches the path listed in the Classpath setting. For example:

/usr/peregrine/Common/jdk1.3.1_05/bin/javaw.exe

9 Click **update**.

Defining library path environment variables

On UNIX-based systems, you must define the library paths to your back-end databases.

1 Open the JRun Management Console and log in.

2 On the menu at the left, select **JRun Default Server** > **Java Settings**.

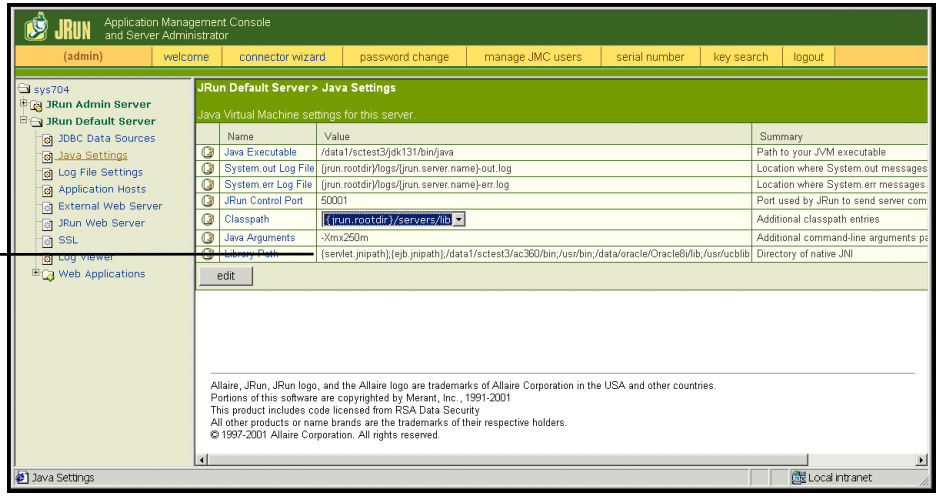
3 Click **Library Path**.

4 Add the following library paths if needed:

- If you are running Get-Answers on Solaris, add:
  - /usr/bin
  - /usr/ucblib

5 Click **update**.

JRun displays the updated library paths.



The updated path appears here.

6 Logout of the Management Console.

Creating a virtual directory for Get-Answers

To run Get-Answers, you need to create a virtual directory in your Web server that maps to your JRun deployment folder. The typical installation creates a virtual directory called **oaa**, but you may specify a different virtual directory name.

Requirements for Get-Answers virtual directory

Requirement	Setting
Create virtual directory	<oaa>
Map to physical path	<JRun>/oaa
Directory access rights	Read, Run scripts, Execute

For *<oaa>*, enter the name of the virtual directory you want to use for Get-Answers. Whatever name you enter here you will need to replicate in your application server configuration.

For *<JRun>*, enter the path to your JRun installation. The recommended installation path is:

/JRun/servers/default

Restarting JRun

Restart JRun and your Web server for your new settings to take effect.

Typical Installation Option

A typical installation of Get-Answers installs the most commonly used components of the product and saves application files and data in default destination directories. Most users choose Typical installation.

Typical Installation Components

Following is a brief description of the components that are automatically installed with a Typical installation of Get-Answers:

Applications and File Locations

Get-Answers Component	Default Installation Directory
Apache Web Server	/usr/local/peregrine/common/apache2
Tomcat Application Server	/usr/local/peregrine/common/tomcat4
Java Development Kit	/usr/local/peregrine/common/jdk1.3.1
OAA Platform and Get-Answers	/usr/local/peregrine/oaa

Communications Ports

Get-Answers uses the following communications ports in a typical installation. After installation, you can configure Get-Answers to use one or more of the alternate communications ports if your local network already uses these communications ports.

Default Port	Component used by	Alternate Port
80	Apache Web Server	8081
8005	Tomcat application server administration	8015
8009	Tomcat application server worker file	8019
8011	Tomcat application server worker file for load balancing (optional)	8021
8013	Tomcat application server worker file for load balancing (optional)	8023
8015	Tomcat application server worker file for load balancing (optional)	8025

Note: To change settings for these components or to use or install different components, use the Custom installation option for Get-Answers.

Typical Installation Procedures

This section explains how to install Get-Answers with a Tomcat application server and an Apache web server on an AIX or Solaris operating system.

Note: If you cancel the installation before completing all the steps, you must run Uninstall to remove all the files.

To perform a typical installation of Get-Answers on AIX or Solaris:

1 Log into your server with an account that has root privileges.

Important: Verify that your temp directory has a minimum of 300 MB of available space. On Solaris, for example, the system-wide temp directory is /tmp.

2 Insert the Get-Answers installation CD into your computer's CD ROM drive. Your computer should automatically launch the installation program.

Exit the automatic launch and mount your CD ROM drive. For example:

```
mount /cdrom
```

Change directories to your CD ROM. For example:

```
cd /cdrom
```

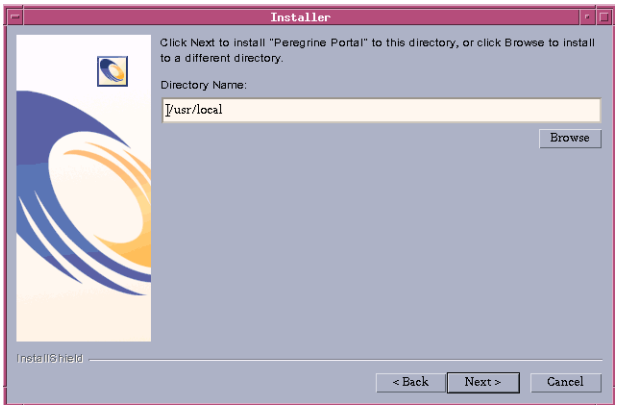
Enter the installer script specific for your operating system:

Operating system	Shell script to run
AIX 5.1	`./setupaix`
Solaris 2.6, 7, 8, 9	`./setupsolaris`

The installer welcome page opens.

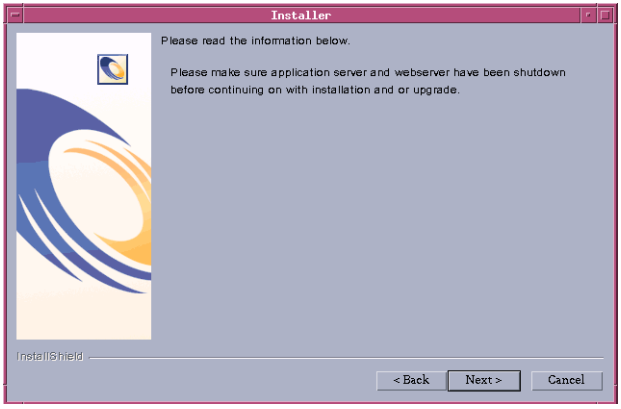
3 Click **Next** to continue to the next page of the wizard.

The installation location page opens.



4 Click **Browse** to change the default installation location of **/usr/local**.

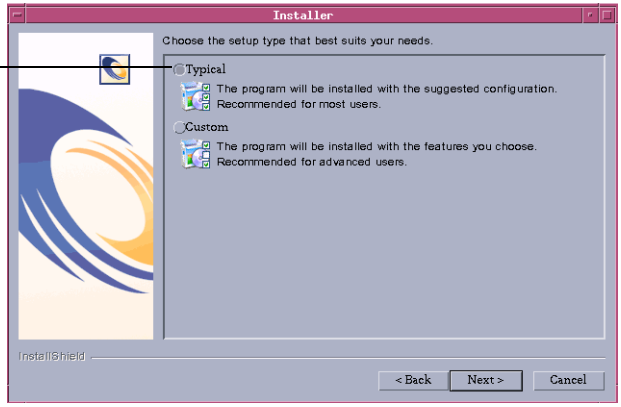
5 Click **Next** to open the next page of the wizard that instructs you to stop your application server and Web server.



6 Click **Next** to continue to the next page of the wizard.

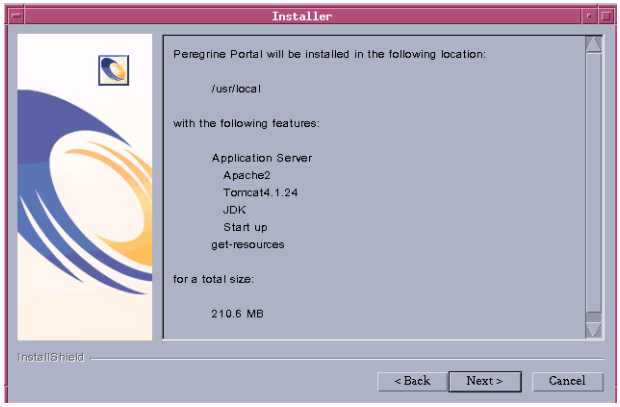
The setup type page opens.

Click **Typical**.



7 Select **Typical**.

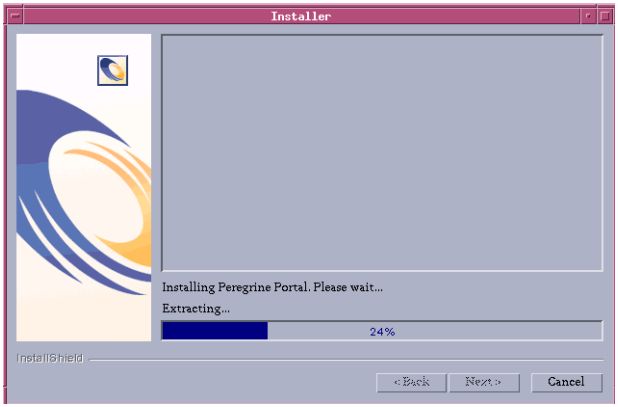
8 Click **Next** to open the list of components that will be installed.



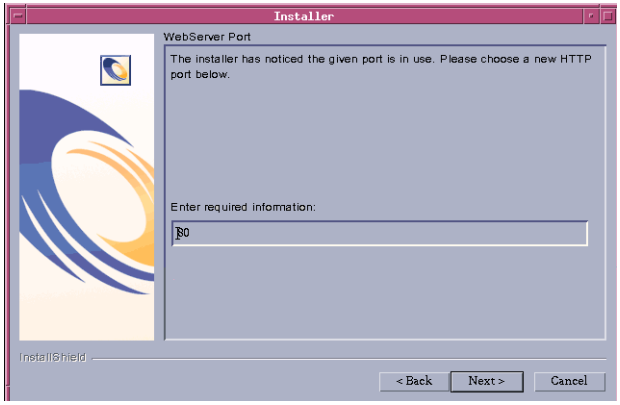
Note: The list depends on the application that you install.

9 Click **Next** to continue installing Get-Answers components.

The installation progress page opens.

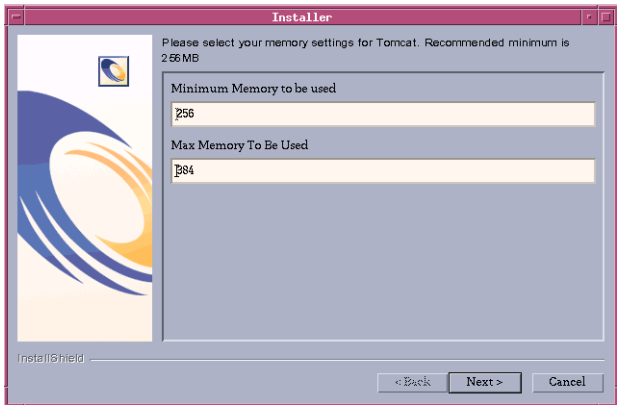


The installer verifies the availability of port 80 for the Apache Web server. If the installer finds a port conflict on port 80, the WebServer Port page opens.

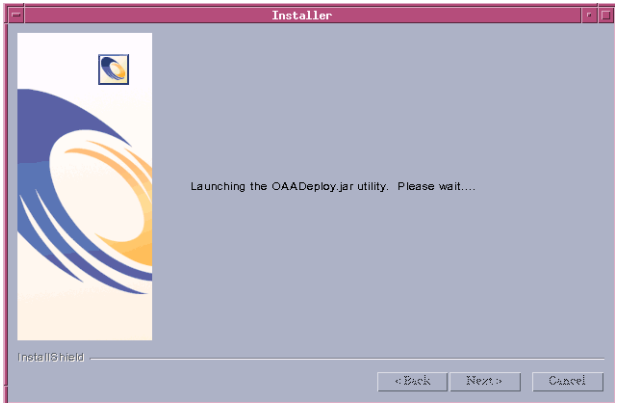


10 If required, enter the new Web server communications port, then click **Next**.

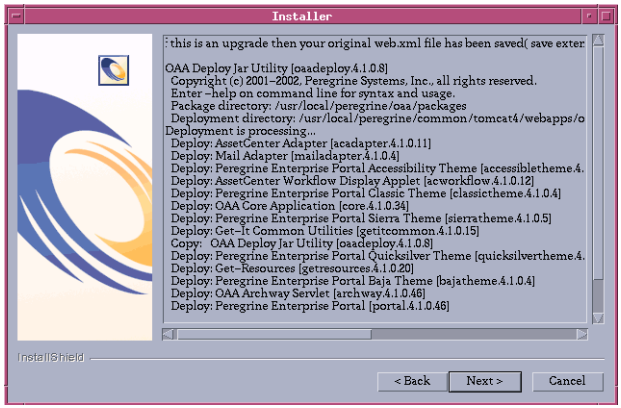
11 Change the Tomcat memory settings as needed, and click **Next**.



12 Click **Next** to open the deployment utility page that starts deploying Get-Answers components.



13 Click **Next** to view the list of all deployed packages.

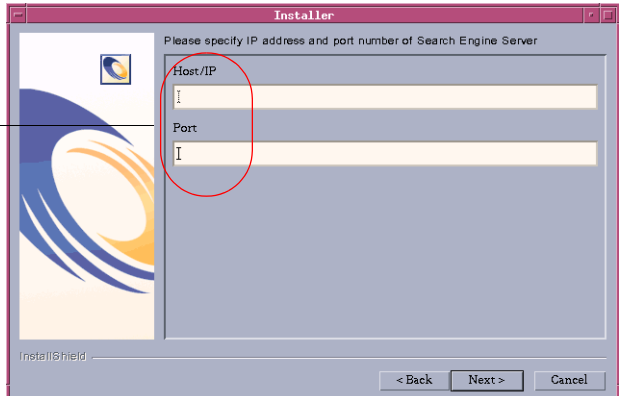


Note: The list of deployed packages depends on the application that you install. Click **Next** to continue.

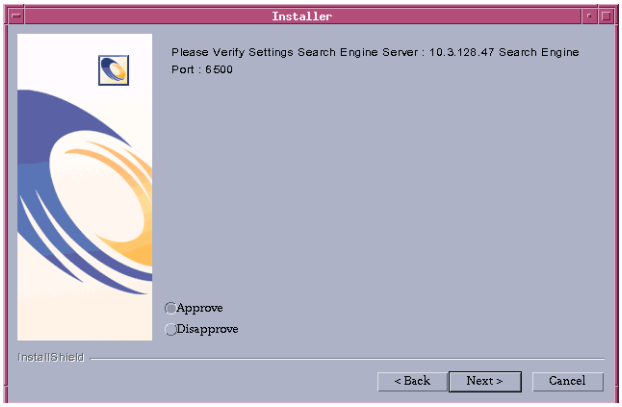
14 Enter the IP address and port number of the Search Engine server, then click **Next**.

Note: You can find this information where you recorded it on the *Get-Answers installation worksheet* in chapter 1.

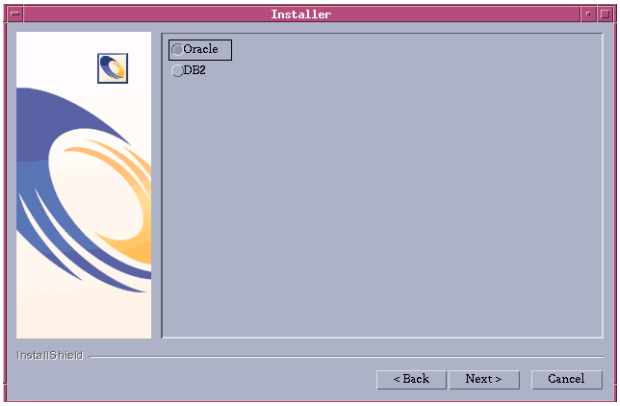
Enter the IP address and port number here.



15 Verify the Search Engine information, then click **Next**.

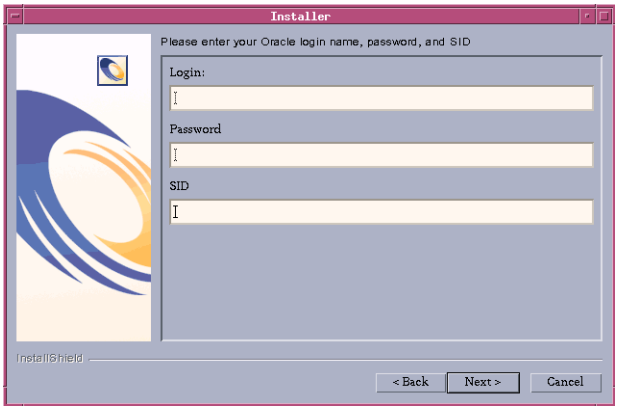


16 Select your database and then click **Next**.



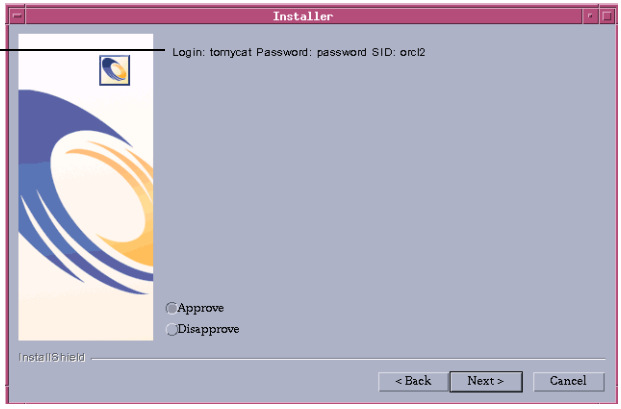
a Enter your login, password, and SID, and then click **Next**.

Note: You can find this information where you recorded it on the *Get-Answers installation worksheet* in chapter 1.

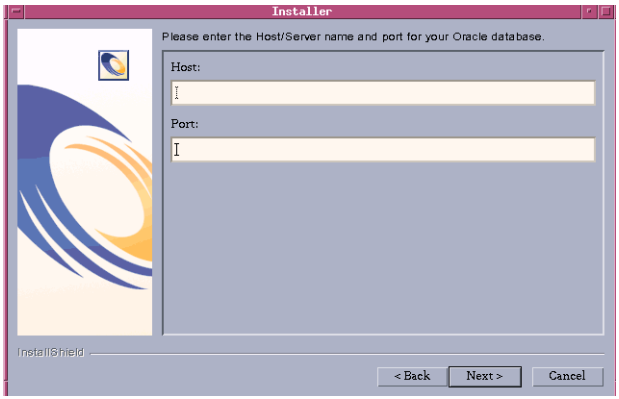


b Make sure the information is correct, and then click **Next**.

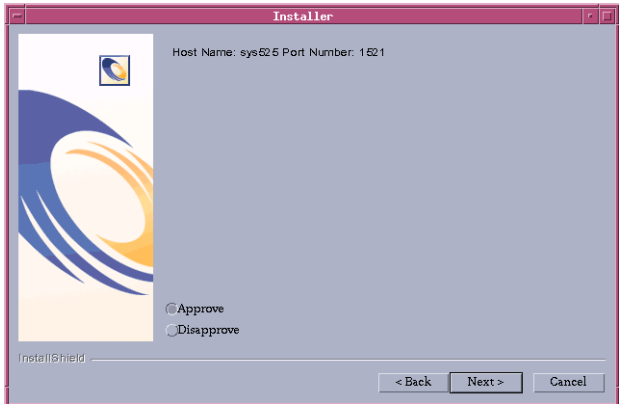
Make sure this information matches your database name, password, and SID.



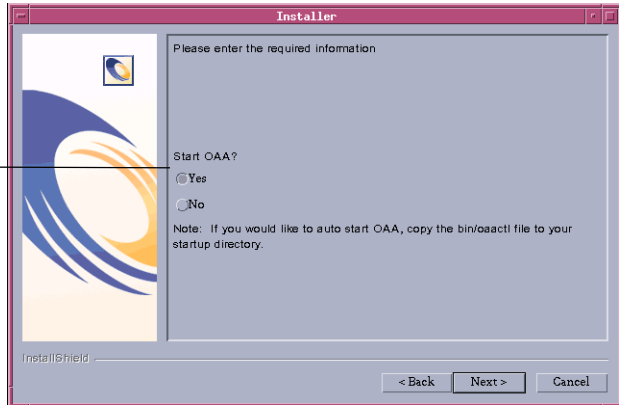
c Type the database server information, then click **Next**.



d Verify the database server information, then click **Next**.



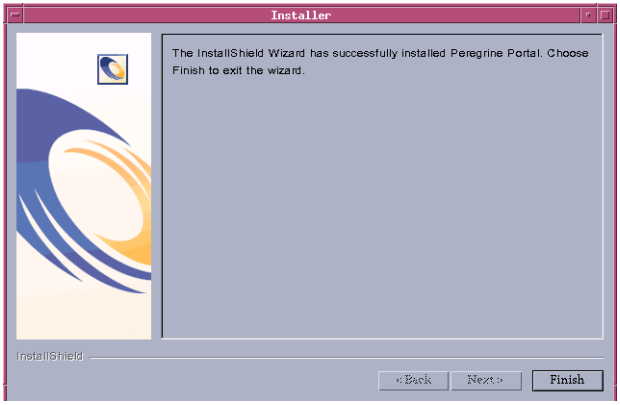
The start OAA page opens.



Select **Yes** to start Get-Answers immediately.

17 Click **Yes** to start Get-Answers immediately or select **No** to manually start Get-Answers after installation is complete.

If you want Get-Answers to start every time the server is started, then copy the file **oaactl** into your startup directory. The default file location is: /usr/local/peregrine/bin/.



18 Click **Finish** to complete the Get-Answers installation.

If you have not already done so, you need to configure your system to connect to the back-end database you are using. This is done on the Settings page of the Admin module. To complete the installation, see the chapter, *Completing All Installations*.

Custom Installation Option

The following section describes how to perform a custom installation of Get-Answers on a UNIX operating system server, including overview steps for a Development and Production environment.

Custom Installation Components

Following is a brief description of the components that are available for a custom installation of Get-Answers:

Application options

Get-Answers Component	Options
Web Server	■ Apache 2.0.43 ■ IBM HTTP Server 1.3.19 ■ Microsoft IIS 5.0 for Win 2000
Application Server	■ Tomcat 4.1.24 ■ WebSphere 4.02, 5.0 ■ WebLogic 6.1 SP3 ■ JRun 3.1
Java Development Kit	Java 2 SDK

Communications Ports

The communications ports used by a custom installation of Get-Answers depend upon the application components that you select. Refer to your Web and application server documentation to determine what communications port they require. After installation, you can configure Get-Answers to use alternate communications ports if your local network already uses particular communications ports.

Get-Answers on servers running Oracle 9.2.0.1

If you are running Get-Answers on a server using Oracle 9.2.0.1 you may experience a port conflict over communications ports 8009 and 8080. Consult your Web and application server documentation to see if they use either of these two ports.

If you are using Tomcat as your application server, then by default, there will be a port conflict over port 8009. It is recommended that you change Tomcat to use a different communications port on servers running Oracle 9.2.0.1.

Custom Installation Procedures

Note: If you cancel the installation before completing all the steps, you must run Uninstall to remove all the files.

To perform a custom installation of Get-Answers on UNIX:

1 Log into your server with an account that has root privileges.

Important: Verify that your temp directory has a minimum of 300 MB of available space. On Solaris, for example, the system-wide temp directory is /tmp.

2 Insert the Get-Answers installation CD into your computer's CD ROM drive. Your computer should automatically launch the installation program.

If the installation program does not automatically start, mount your CD ROM drive. For example:

```
mount /cdrom
```

Change directories to your CD ROM. For example:

```
cd /cdrom
```

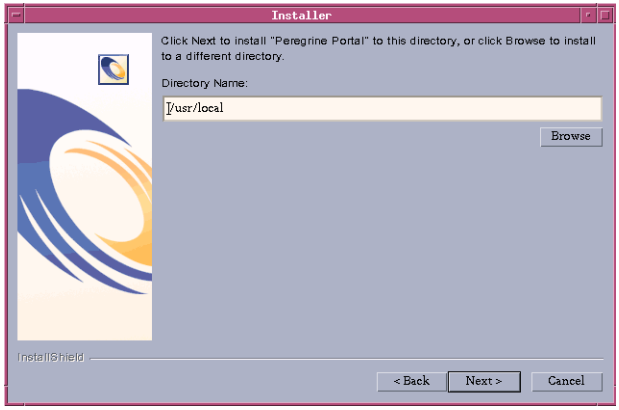
Enter the installer script specific for your operating system:

Operating system	Shell script to run
AIX 5.1	`./setupaix`
Solaris 2.7	`./setupsolaris`
Solaris 2.8	`./setupsolaris`

The installer welcome page opens.

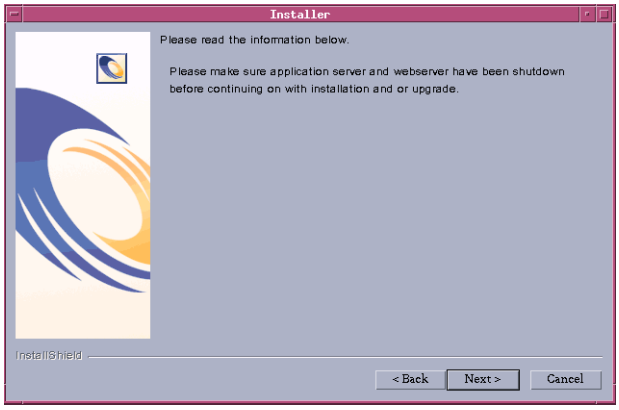
3 Click **Next** to continue to the next page of the wizard.

The installation location page opens.

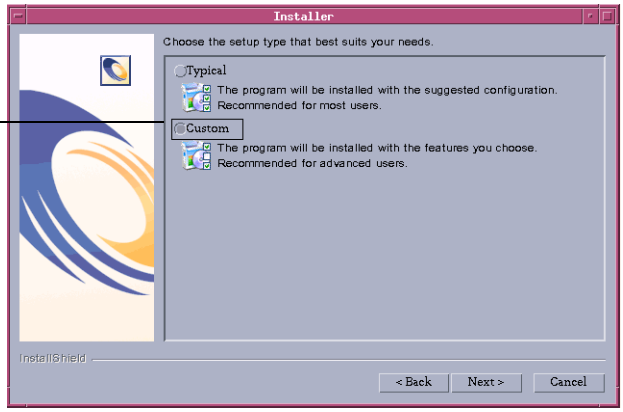


4 Click **Browse** to change the default installation location of /usr/local.

5 Click **Next** to read the information about closing the servers before continuing with the installation.



6 Click **Next** to open the setup type page.

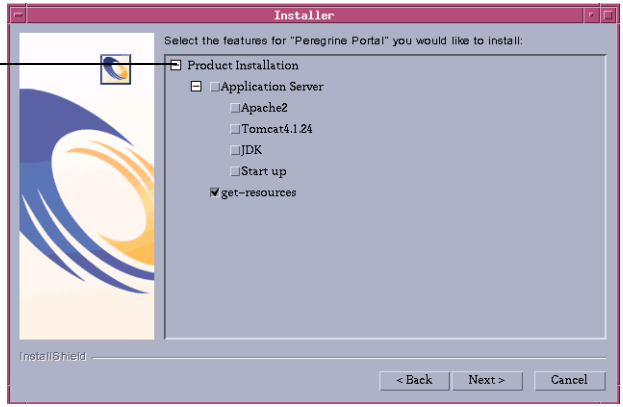


Click **Custom**.

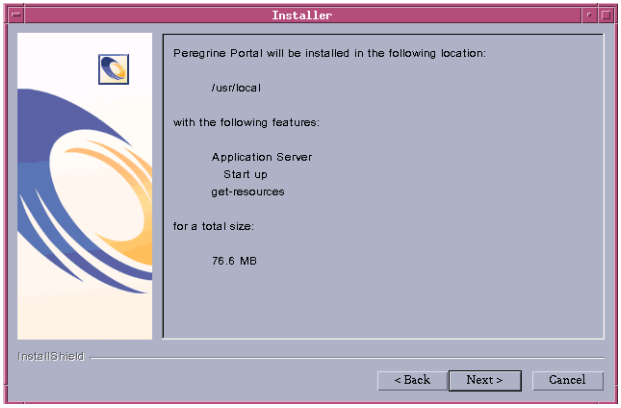
7 Select **Custom**.

8 Click **Next** to select the Peregrine Portal features that you want to install.

Select the desired components from the list provided.



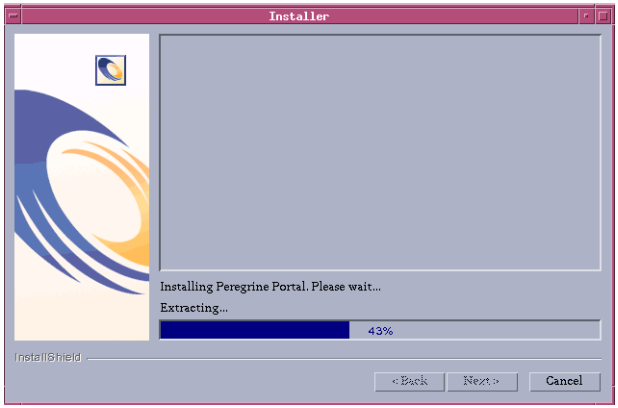
The review components page opens.



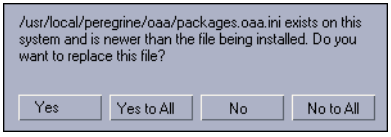
Note: The list of features on this page depends on what you actually install.

9 Click **Next** to start installing Get-Answers components.

The installation progress page opens.

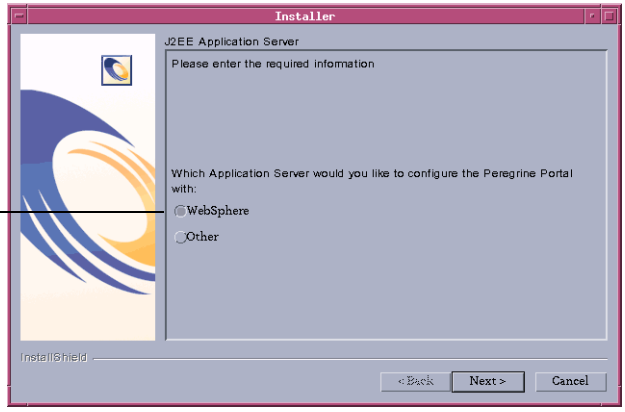


Note: If you are installing multiple applications, you see the following message. Click **Yes to All**.



10 Click **Next** to select the Application Server you want to configure.

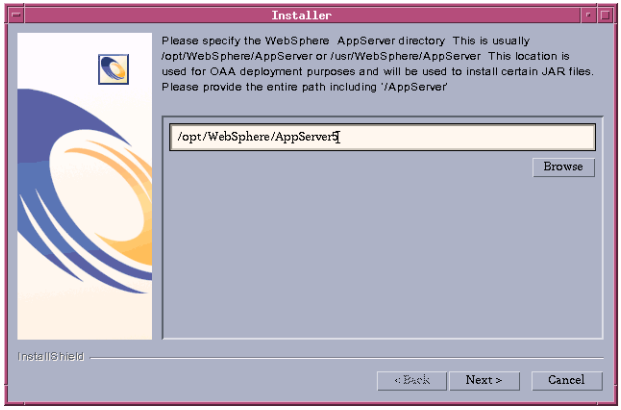
Select your application server from the list provided.



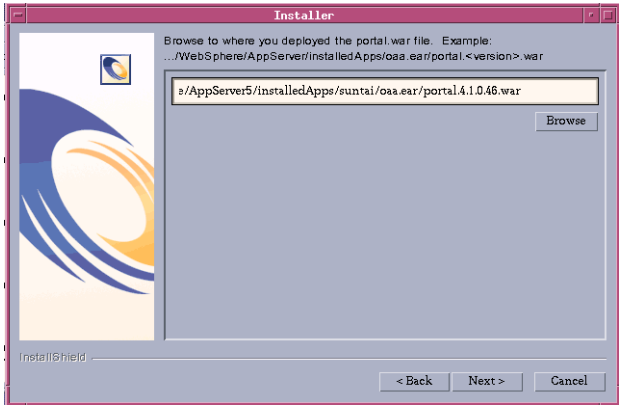
11 Click **WebSphere** to configure a WebSphere application, or click **Other** to configure another application server. Click **Next** to continue to the next page of the wizard.

If you have selected to configure a WebSphere application server, you will see the screens in step a through step g.

The WebSphere AppServer installation location page opens.



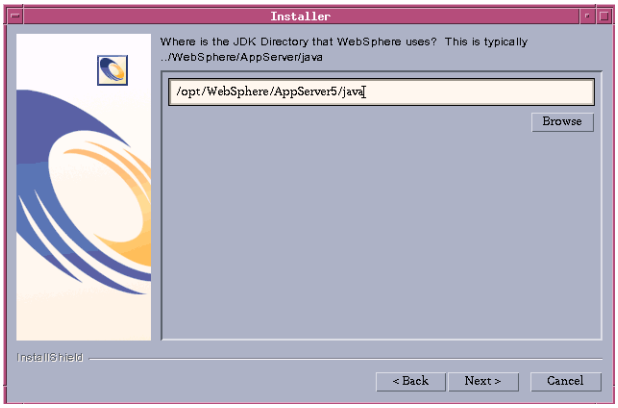
a Click **Browse** to locate the directory where you installed the WebSphere AppServer. Click **Next** to continue.



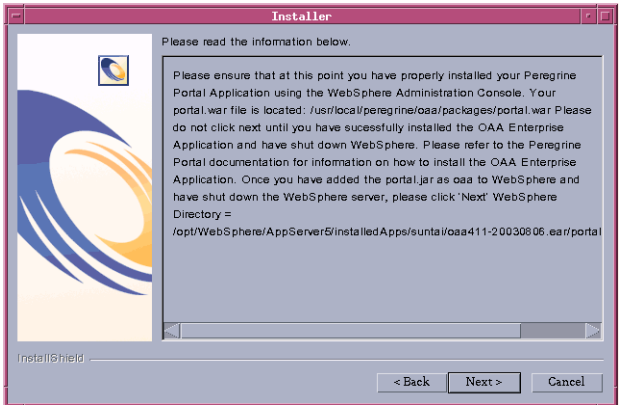
b Click **Browse** to locate the directory where you deployed the portal.war file. Click **Next** to continue.

WebSphere automatically created this directory when you deployed the Get-Answers portal.war as an enterprise application. See *WebSphere Application Server 4.0.2* on page 150 or *WebSphere Application Server 5.0* on page 157 for more information on deploying a WAR file.

The WebSphere JDK installation location page opens.

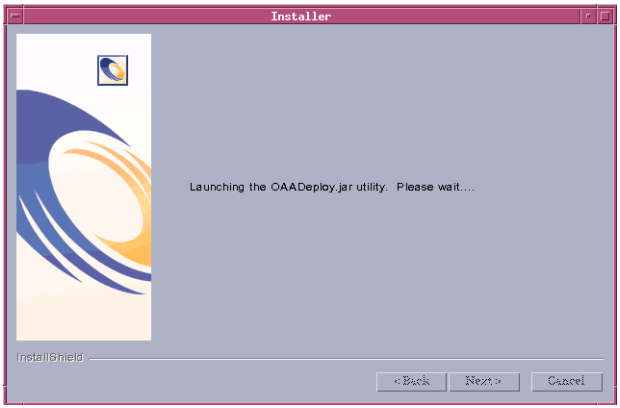


c Click **Browse** to locate the directory where you installed the Java development kit used by WebSphere. Click **Next** to read the information on the screen.

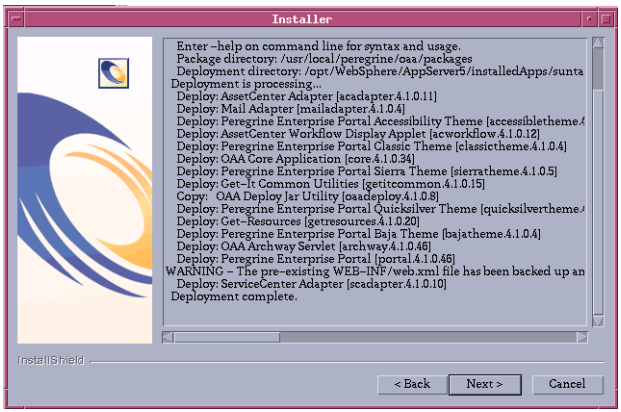


d Click **Next** to continue.

The Get-Answers deployment utility page opens.

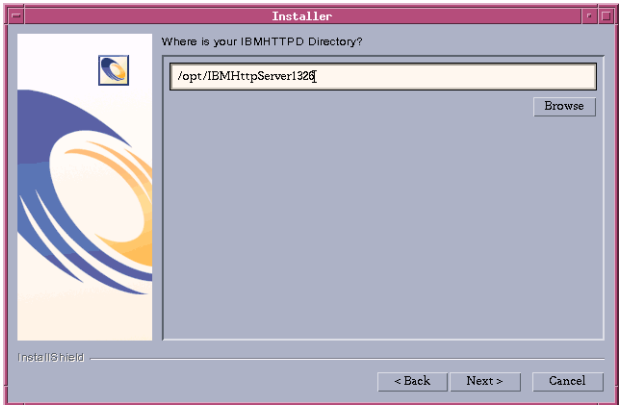


e Click **Next** to view the list of all deployed packages.



Note: The list of deployed packages depends on what you actually install. Click **Next** to continue.

f Click next to open the IBM HTTP Server location page.

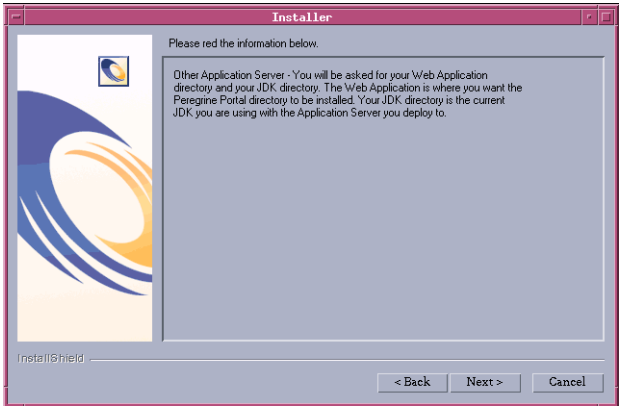


g Click Browse to locate where you installed the IBM HTTP Server. Click **Next** to continue.

The Get-Answers installer will automatically configure a Web server virtual directory called **oaa**. If you want to define a different Web server virtual directory, see *WebSphere Application Server 4.0.2* on page 150 for a list requirements.

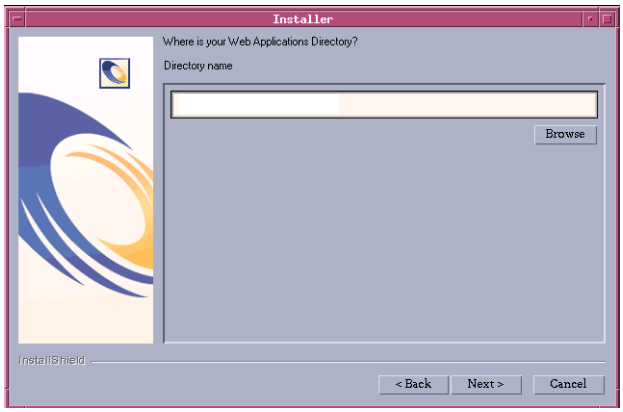
If you have selected to configure another application server, you will see the screens in step h through step j.

The other application server information page opens.



h Click **Next** to configure your application server.

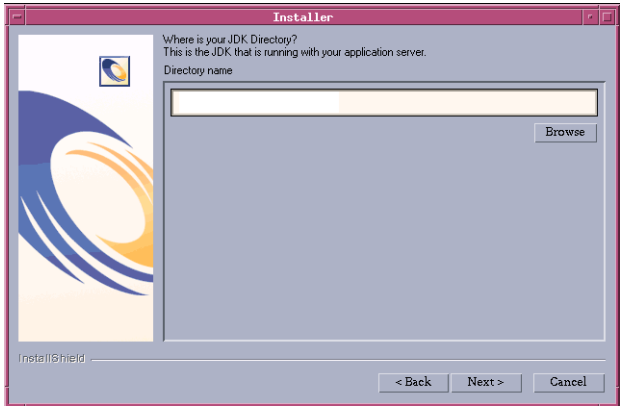
The Web applications directory page opens.



i Click **Browse** to locate the directory where you deployed the portal.war file. Click Next to continue.

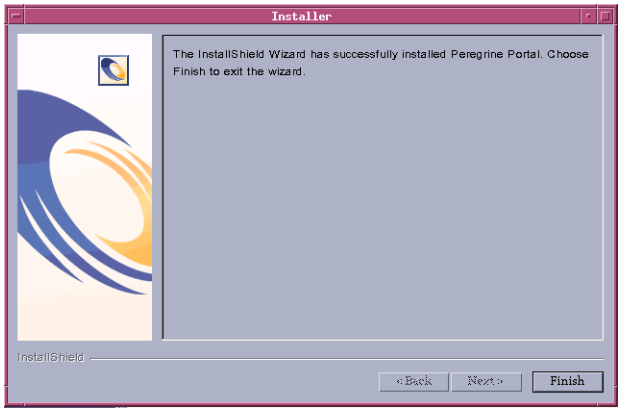
For more information on deploying a WAR to application servers, see *Configuring alternate application servers* on page 147.

The application server JDK installation location page opens.



j Click **Browse** to locate the directory where you installed the Java development kit used by your application server. Click **Next** to continue.

12 Click Finish to close the installer.



13 Enter the library path environment variables required by your operating system and application server.

Operating system	Environment variable	Add these path values
AIX	LIBPATH	■ /<App server>/WEB-INF/lib/AIX ■ /<App server>/WEB-INF/lib/AIX/ServiceCenter4
Solaris 2.7 Solaris 2.8	LD_LIBRARY_PATH	■ /<App server>/WEB-INF/lib/SunOS ■ /<App server>/WEB-INF/lib/SunOS/ServiceCenter4 ■ /usr/ucblib

For <*App server*>, enter the path to your application server's context root including where you installed the **oaa** application. Use the following table to determine your application server's context root.

Application server	Context root
WebSphere	/WebSphere/AppServer/installedApps/<application>.ear/portal.4.0.0.<x>/oaa
WebLogic	/bea/wlserver6.1/config/<mydomain>/applications/oaa
JRun	/JRun/servers/default/oaa

For <*application*>, enter the folder created for Get-Answers.

For <*x*>, enter the version number of your portal WAR file.

For <*my domain*>, enter the WebLogic domain you created.

Configuring the WebSphere startupServer.sh on AIX

If you are running on an AIX server, you must configure your WebSphere environment by editing the startupServer.sh script.

To configure the WebSphere environment on AIX:

1. Open startupServer.sh in any text editor.
2. Add an entry for LIBPATH and set it to the path values for AIX.

   Example:

   ```
   #!/bin/sh
   LIBPATH=/usr/lib:/WebSphere/AppServer/installedApps/oaa.ear/portal.4.
   0.0.55.war/WEB-INF/lib/AIX:/WebSphere/AppServer/installedApps/answer.
   ear/portal.4.0.0.55.war/WEB-INF/lib/AIX/ServiceCenter4
   export LIBPATH
   ```

3. Save the file.

Modifying the httpd.conf file

- Add the following line to the httpd.conf file under the conf directory of the IBM HTTP or Apache web server. Use the correct path for your portal.war file.

  Alias /eopro "C:/WebSphere/AppServer/installedApps/oaa.ear/portal.war/eopro"

  The installation is complete. For information on using Get-Answers, see the *Get-Answers User's Guide* and the *Get-Answers Administration Guide*.

Uninstall—AIX or Solaris

Use the following instructions to uninstall Get-Answers.

Warning: These procedures remove all the components that you selected to install. If you chose the Typical installation option, uninstall removes Get-Answers, Peregrine Tomcat, Apache, and JDK. If you chose the Custom installation option, then only those components that you selected to install are removed.

To uninstall Get-Answers from AIX, Linux, or Solaris:

1. Open a command prompt.
2. Change directories to:

   <root>/usr/peregrine/_uninst
3. Enter the following command to uninstall Get-Answers:

   ```
   ./uninstall.bin
   ```

   Note: You must stop the servers before proceeding. Type the command: ./ooactl stop.
4. Follow the on-screen instructions to complete the uninstall.

Testing your installation

Use the following steps to confirm that you have properly installed Get-Answers on AIX, Linux, or Solaris.

To test your Get-Answers installation:

1. Verify that your application and Web servers are started.
2. Open a Web browser and type the following in the Address field:

   http://<server name>:<port>/oaa/admin.jsp

   For <*server name*>, enter the server name where the Get-Answers Web server resides.

For <*port*>, enter one of the following communications port numbers:

Application Server used	Port Number
WebSphere	9080
WebLogic	7001
JRun	80, can be omitted from URL
Tomcat	80, can be omitted from URL

If everything is configured properly, the Administrator login page opens.

If the Get-Answers administration login page does not open, see *Troubleshooting* for more information.

CHAPTER 7 Completing All Installations

Once you have installed Get-Answers using Typical, Custom, Upgrade, or AIX or Solaris, installation, complete the following tasks to finish the installation process:

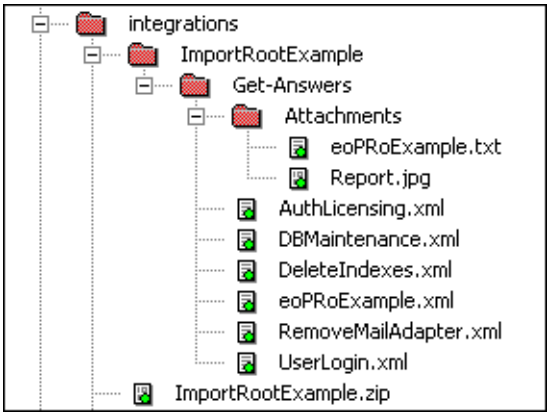
- Populate the Get-Answers sample documents using the Import Documents feature. See page 212.
- Set up the Search Engine server as an NT service. See page 214.
- Configure the search engine **rwserver.cfg** file. See page 216.
- Set up the Web crawler. See page 217.
- Explore the features of the Search Engine service. See page 218.
- Access the Peregrine OAA Portal to verify the OAA parameters and that the KMGAAdapter is connecting the Web server to the Search Engine server. See page 220.
- Change the Session timeout value. See page 229.
- Restart the Web server. See page 229.

Complete the procedures in this chapter in the order they appear to finish installation of Get-Answers.

Populating sample documents

In version 4.1, the Get-Answers category is not automatically populated with the *User*, *Administration*, and *Installation Guides*. Instead, six example .XML files with two attachments can be imported using the new Import Documents feature.

The ImportRootExample directory structure to be imported is located in the integrations folder under the Presentation directory. There is an ImportRootExample.zip file that can be unzipped to restore the directory structure after an import. You can also backup the ImportRootExample directory before performing the import because the Import Documents feature removes any successfully imports documents from the directory structure.



The Admin user or any user with Get-Answers Administrator permissions can access the Import Documents feature. See Chapter 11 in the *Get-Answers Administration Guide* for a complete explanation of the Import Documents feature.

Note: Get-Answers Administrator permissions are set in Set Security Capabilities under the People tab.

To populate the Get-Answers sample documents using the Import Documents feature:

1. Log in as Admin.
2. Click **Get-Answers**.

3 From the left menu, click **Import Documents**.

4 Enter the path to the ImportRootExample directory structure, located in the integrations folder under the Presentation directory.

On a typical installation, this is at:

```
C:\Program Files\Peregrine\Common\Tomcat4\webapps\oaa\integrations
\ImportRootExample
```

5 Under Document Ownership Team for New Categories, choose **Peregrine Get-Answers**.

6 Leave the External Document Options as Require XML Metadata Files.

7 Set the expiration date to 24 months to ensure that the sample documents do not appear in a report of outdated documents for some time.

8 Scroll down to the bottom of the page.

The following text appears above the Import Button.

Warning: Documents that are successfully imported will be permanently deleted. Make sure you have backup copies of these files prior to running the Import.

9 Click Import.

The Import Results page indicates that 6 documents and 2 attachments were successfully imported.

10 Click **x** in the upper right corner to log off.

11 Log on as **oowner** with password = password.

12 Click **Get-Answers**.

13 From the left menu, click **Browse Categories**.

14 Click the Get-Answers category.

The 6 documents appear in the lower frame.

15 Click the link for Rich-text sample document.

This example has links to the text file of this document and to an image file. It also demonstrates the formatting of numbered lists, bulleted lists, fonts, and special characters.

Setting up the search engine server as an NT service

On Windows NT systems, you can run the search engine server as an NT service.

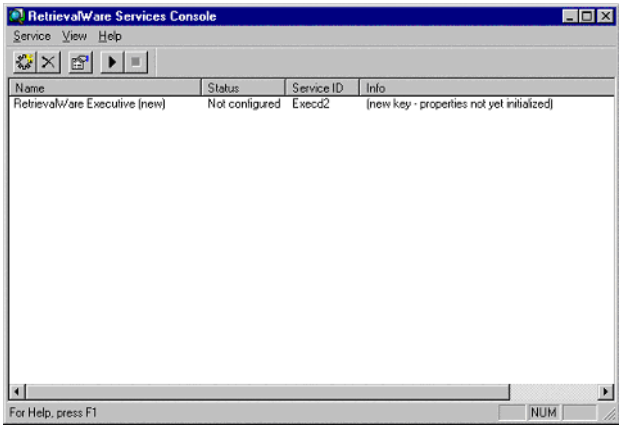
To run the search engine server as an NT service:

Note: If you do not make the Search Engine server a service, you must always make sure the Search Engine is running before you start Tomcat.

1 From the Start menu, choose **Programs** >**Get-Answers Search Engine** > **Services Console**.

2 In the RetrievalWare Services Console window, select the **Service menu** and click **New Service**.

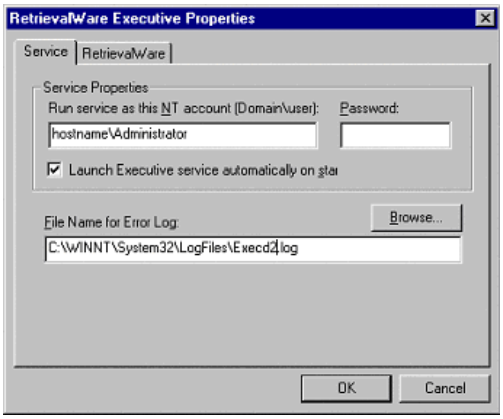
3 In the RetrievalWare Services Console that opens, choose RetrievalWare Executive and click **OK**.



The new service appears on the list on the main console as "Not configured."

4 Select the new service, open the Service menu and choose **Properties.**

The RetrievalWareExecutive Properties dialog box appears.



5 On the Service tab, make the following entries and selection:

- In the "Run service as this NT account" text box, type a valid domain\username combination for an administrator account. The account must have the rights to log on as a service. It must be a valid login name and password for the search server.

  Example: administrator\password

- Select the Launch Executive Service Automatically on Startup check box.

6 On the RetrievalWare tab, make the following selection and entry:

- In the Port address box, type the correct port number.

  You entered this information where you entered it on the *Get-Answers installation worksheet* on page 24.

- If the default port number is not the number you see when you start your search engine manually in step 1. For example, if your manually-started Get-Answers Search Engine Executive window displays the message: 'Execd v7.0 started on port 6003', then change the port number to 6003.

- Click the **Browse** button. Locate the **exec.cfg file** under the \config folder.

  Example: **C:\getanswers**\Peregrine\config\exec.cfg

You do not need to make an entry or selection in the Remote Name Server Address section.

Note: You can confirm the correct port number by going to Start > Programs > GetAnswersSearchEngine > Start Search Engine Server.

7 Click **OK**.

8 In the Service Console window, the Executive service status is now "Stopped." To start the service, select the Executive from the list of services, and click Service menu and choose Start Service.

A message appears that the service is being started, and then the status on the window changes to "Running."

Note: If the service will not start, exit the Search Engine Services Console. Open the NT or Windows 2000 Services, double-click the RetrievalWare Executive service to open it, change the permissions under the Log On tab, and then start the service.

9 Close the **RetrievalWare Services Console** window.

Configuring the rwserver.cfg file

During installation, Get-Answers created a file called rwserver.cfg in your <*web server presentation directory*>/oaa/WEB-INF/config directory. This is the file you configure here.

To configure the rwserver.cfg file:

1 Open Notepad or another text editor and use it to open the rwserver.cfg file.

2 In the file, look for the line starting with RWSERVER.

3 Set this property to:
RWSERVER=cqns@SEARCH_ENGINE_IP_ADDRESS:<*PORT*>
where *port* is the port number of your Get-Answers Search engine server.

Note: See line 3 of Get-Answers Installation Worksheet in the first chapter of this guide for the search engine port number. Use localhost if the web server and search engine server are the same machine.

4 Save the file.

Setting up the Web crawler

The following section describes the steps necessary to complete the setup for the Web crawling feature in Get-Answers. You must have the Get-Answers Search Engine installed before you can configure it. The terms Web crawling and spider are used interchangeably.

Note: $USER_INSTALL_DIR$ is the location where the Get-Answers search engine\directory is installed. The default directory is C:\getanswers.

To setup the Web crawler:

1 Initialize the Spider Database by running the DBSETUP.BAT file found in <$USER_INSTALL_DIR$>\spider\bin to initialize your spider database.

A command prompt/log opens with the setup processes taking place.

2 Insert the URLs to crawl.

In the start.lst file found in $USER_INSTALL_DIR$\spider\KMSpider\config, add the URLs (one per line) to crawl/index for documents. For example:

http://www.peregrine.com

Note: See the *Get-Answers Administration Guide, Setting up Get-Answers* for a detailed description about configuring the Web crawler.

Using the Search Engine Search server

This section contains a quick review of the functions available in the Search Engine Search server.

Starting the search engine server

You must start the search and indexing server before you start the application server.

Note: If you did not make the Search Engine server a service (see page 214), you must always make sure the Search Engine is running before you start Tomcat.

To start the search engine search server:

- On the search engine server, choose **Start >Programs >Get-Answers Search Engine >Start Search Engine Search Server**.

Starting the search engine using the system utilities menu

Complete these steps to start the Search Engine server if you want to update the index to the knowledge management library.

To start the search engine using the system utilities menu:

1. Go to **Start>Programs>Get-Answers Search Engine>Systems Utilities Menu**.
2. Choose **4> Search And Indexing Servers**.
3. Choose **2> Start servers in background**.

   The window that opens shows that the Search Engine has started running.
4. Press any key to continue.
5. Choose **1> Return to previous menu**.
6. Choose **6> Indexing and Index Utilities**.
7. Choose **4> Index RDBMS Records**.
8. Choose **Index all RDBMS Records in your library**.
9. Enter **KMLib**.

   This is the knowledge management library you want to index.
10. Enter **1 - Yes** to update the index.

11 Choose 1 three times to **exit this program.**

Note: If errors occur during the indexing process, you can find the error messages in the Log file at <*search engine install path*>\Peregrine\KMLib\indexes\KMLib\KMLib_index.err.

Stopping the search engine server

After a database connection error, you must stop and restart the search engine server.

To stop the search engine server:

▶ On the search engine server, choose **Start** >**Programs** >**Get-Answers Search Engine** >**Stop Search Engine Search Server**.

Indexing Updated Documents

This menu command immediately updates the Get-Answers indexes for newly added, modified, or deleted documents without the usual 5 minute delay.

1 Make sure the search engine search server is running.

A command prompt window appears and displays the message: "Execd v7.0 started on port nnnn."

2 On the search engine server, choose **Start** >**Programs** >**Get-Answers Search Engine** >**Index Updated Documents**.

3 At the command prompt, type KMLib for the library name.

4 Type **1** and press **Enter** to start indexing.

5 After indexing is complete, press any key to continue.

Reindexing All Documents

This menu command reindexes every document in the library. It enhances performance. This can be done outside of regular office hours.

1 Make sure the search engine search server is running.

A command prompt window appears and displays the message: Execd v7.0 started on port nnnn.

2 On the search engine server, choose **Start** > **Programs** > **Get-Answers Search Engine** > **Reindex Updated Documents**.

3 At the command prompt, type KMLib for the library name.

4 Type **1** and press **Enter** to start indexing.

5 After reindexing is complete, press any key to continue.

Accessing the Peregrine Portal Admin module

The Peregrine Portal administrator login page accesses the Peregrine Portal Admin module. You use the Admin module to define the settings for your Peregrine system.

A default administrator, System, gives you access to the Admin module without being connected to a back-end system. After you configure your user name on the Common tab, you can also access the Admin module from the Navigation menu.

Important: When you change parameters using the Admin module, a local.xml file is created in the \<application server>\WEB-INF directory to store these parameters. If you reinstall Get-Answers, make a copy of this file and store it outside your Get-Answers installation. Failure to do this will result in your parameter values being lost during the new installation.

To access the Peregrine Portal administrator login page:

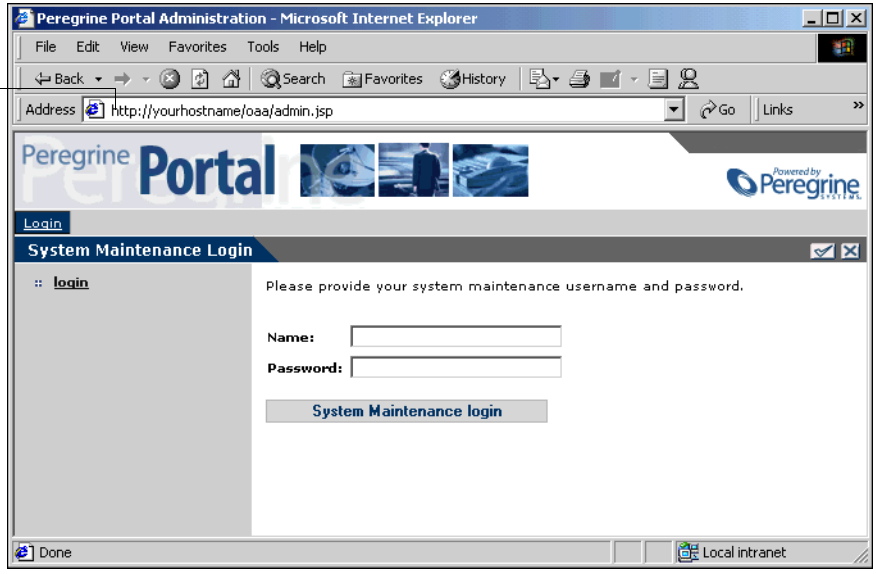
1 Verify that your application server (for example, Tomcat) is running.

2 In your Web browser Address field, type:

<*hostname*>/oaa/admin.jsp

3 Press Enter to open the Portal administrator login page.

Type your hostname to connect to your local server.



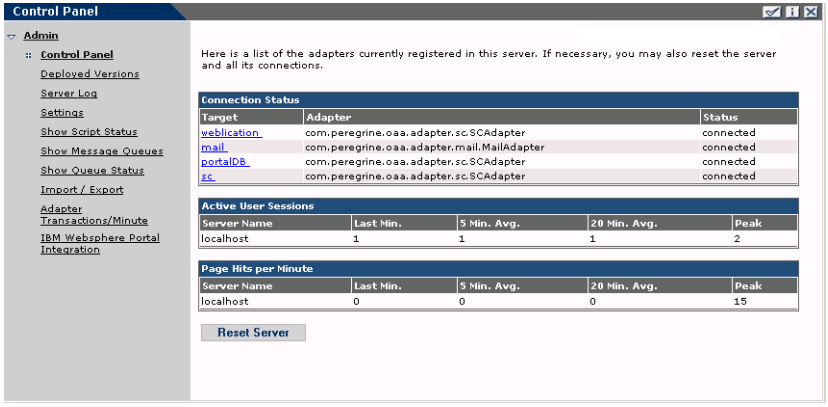
System is the default administrator name.

4 In the Name field, type **System**.

No password is required on initial login. Refer to the *Get-Answers Administration Guide* for detailed instructions on how to change the Administrator login name and password.

5 Click **System Maintenance login** to open the **Control Panel** page.

Use the Admin module to define settings to Get-Answers.



Activity menu

The left pane Activity menu provides access to a number of different administrative utilities for Get-Answers. You need to access some of these during this installation process. The utilities and their functions are described in detail in the *Get-Answers Administration Guide*.

Using the Control Panel

Use the Control Panel page to check the status of the connections to the databases you are accessing with Get-Answers and your Web applications. You can also reset the connection between the Archway servlet and the adapters to the back-end systems.

Note: When you first access the Control Panel page, the status for all targets is *disconnected*. This will change when you define the targets later on in this section.

All changes involving the Control Panel require the following steps:

Step 1 Log in to the Admin page with the username **System**.

Step 2 Go to the Settings page.

Step 3 Make your changes.

Step 4 Reset the server.

Using the Settings page

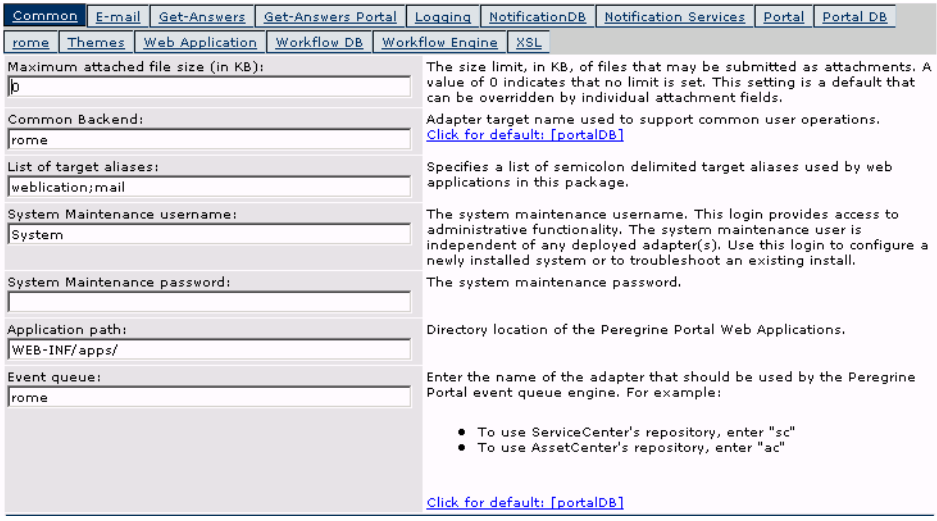
From the Admin module Activity menu, click **Settings** to open the current parameter settings. The Settings page is divided into tabs. The tabs that you see depend on the Web applications that you installed and the adapters that you use. The Common tab is available for all installations.

To open the Settings page:

1 From the Admin module, click **Settings**.

The Settings page opens, providing access to the various tabs used to configure settings for Get-Answers.

By default, the Common settings page opens.



2 Click the appropriate tab to change setting parameters.

When you change the parameter default value for any setting and save it, the corresponding description column adds a link with the default value listed in brackets so that you can return to the default at any time.

To revert to the default setting:

1 Navigate to the appropriate setting parameter.

2 From the description column next to the changed parameter, select the **Click for default** link.

3 To return to the default setting, select the **Click for default** [**Limited**] link and click **Save**.

The parameter returns to the default state.

Resetting the server

After making any configuration changes in the Peregrine Portal Administration module, the system returns to the Admin Control Panel and the following informational message appears at the top of the page.

The settings have been saved. To ensure all changes take effect, you must reset the Peregrine Portal server.

The following instructions explain how to reset the server and apply your configuration changes to Get-Answers.

To reset the connection between the Archway servlet and back-end system:

1 From Control Panel, click **Reset Server.**

When the operation is complete, the following message indicates that the connections are reset.

The Archway servlet and its Adapter connections have been reset successfully.

2 Verify your changes in the Connection Status table.

Changes include the addition, removal, or connectivity of the target adapters.

Configuring adapter connections

This section describes how to configure and verify the following settings:

- KMGAAdapter
- Portal DB adapter
- Web Application database adapter

Connection settings

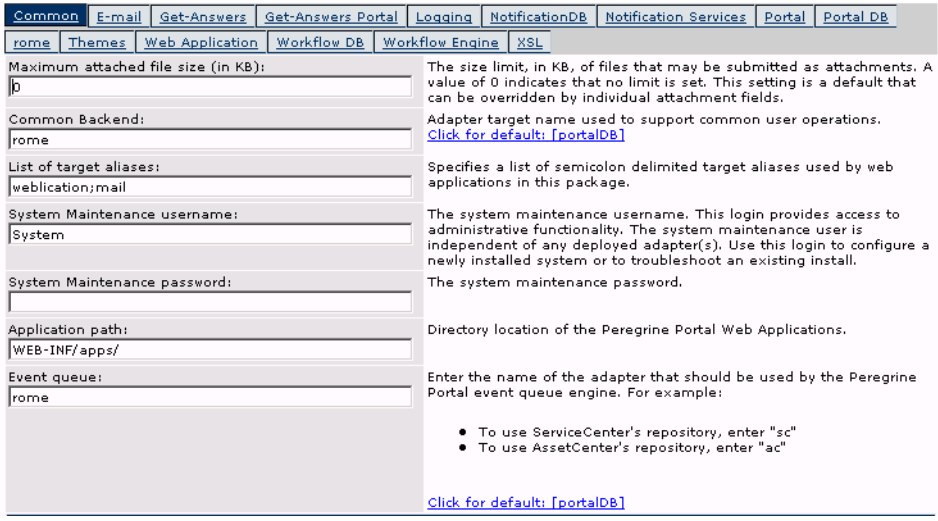
This section describes how to configure and verify settings.

To define common settings for Get-Answers:

1 From the Peregrine Portal Admin module, click **Settings**.

This displays the Settings page which provides access to the various tabs that configure settings for Get-Answers.

The Common settings page opens by default.

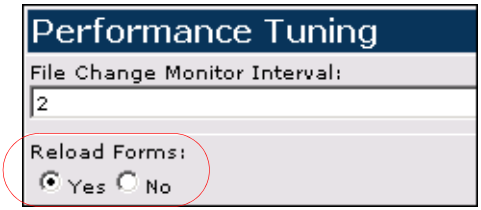


2 Update the fields as required.

The Common tab includes settings for the following:

- Language Translation
- Personalization
- Attachments
- Server-Side Scripts
- Encoding, Locales, and Sessions
- Performance Tuning

Tip: You can reload forms without having to reset your Peregrine OAA server. Set the **Reload Forms** option to **Yes** under Performance Tuning. This works best in a production environment.



Set the Reload Forms option to yes to automatically reload the forms if their sources have been modified after the server has started.

3 Click **Save** to return to the Admin Control Panel page.

4 Click **Reset Server** at the bottom of the page to apply your changes to the system.

Checking the status of the KMGAAdapter

The KMGAAdapter connects the web server to the search engine search server.

Perform the following steps on the web server.

Important: This procedure cannot be performed until the documents are indexed. See *Indexing the sample documents*.

1 From the Peregrine Portal Admin module, click Settings.

2 Verify the line on the next screen containing a reference to oaakm and com.peregrine.oaa.adapterKMGAAdapter reads **connected**.

Connection Status

Target	Adapter	Status
notificationDB	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
portalDB	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
mail	com.peregrine.oaa.adapter.mail.MailAdapter	connected
rome	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
oaaworkflowDB	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
oaakm	com.peregrine.oaa.adapter.km.KMGAAdapter	connected
weblication	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected

3 Import the Notification Services templates and default work hours. Take these steps:

a Click the **Notification Services Administration** link, which appears on the Home page when you log in. This requires the oaa.notificationservices.admin capability.

b Click the **Default Work Hours** link on the left side of the page.

c If the default work hours are set to the current time, select the Data Import link and follow the instructions.

4 Log out.

Setting the PortalDB adapter

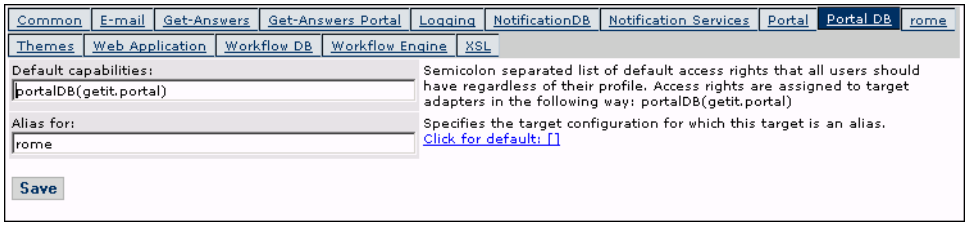
Get-Answers enables personalization of portal application screens without the need to manually change and compile code. To enable this feature, Get-Answers requires a database adapter connection to store settings and customizations to the portal interface in the back-end database. Until a database adapter is defined for the portal page, users will not be able to see or make personalization changes to the Peregrine portal home page.

To configure Get-Answers to save personalization settings:

1 From the Peregrine Portal Admin module, click **Settings**.

2 At the top of the Settings page, click the **Portal DB** tab.

This displays the Portal Database settings page.



3 In the **Alias for** field, type **rome**, then click **Save** to return to the Admin Control Panel page.

Note: The default alias is rome.

4 Click **Reset Server** at the bottom of the page to apply your changes to the system.

5 When the operation completes, verify that the adapter used for the **portalDB** target is com.peregrine.oaa.adapter.bizdoc.BizDocAdapter and displays *connected* in the Connection Status table.

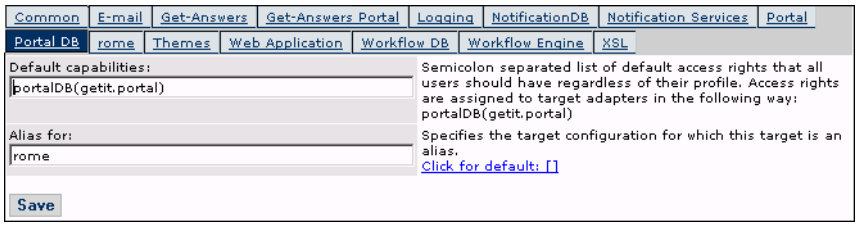
Setting Web Application database adapter

Get-Answers requires a database adapter connection to store settings and customizations to the Web application's interface screens. Until a database adapter is defined for the Web application, users cannot make personalization changes to the Web application.

To configure Get-Answers to save personalization to the Web application:

1 From the Peregrine Portal Admin module, click **Settings**.

2 At the top of the Settings page, click the **Web Application** tab to open the **Web Application** settings page.



3 In the **Alias for** field type **rome**, then click **Save** to return to the Admin Control Panel page.

Note: The default alias is rome.

4 Click **Reset Server** at the bottom of the page to apply your changes to the system.

5 When the operation completes, verify that the adapter used for the **weblication** target is com.peregrine.oaa.adapter.bizdoc.BizDocAdapter and displays *connected* in the Connection Status table.

The installation is complete. For information on using Get-Answers, see the *Get-Answers User Guide* and the *Get-Answers Administration Guide*.

Changing the Session timeout value

If you are implementing the Get-Answers and ServiceCenter integration, you must change the value of the timeout session. A high value is necessary because the background DDE Applet window that is used for the Get-Answers and ServiceCenter integration will time out after the number of seconds in the Session timeout value has elapsed, and this timeout will require a reconnection through ServiceCenter and a re-login in the main Get-Answers window.

To change the Session timeout value:

1 From the Get-Answers Admin home page, click **Settings**.

Note: See *Accessing the Peregrine Portal Admin module* on page 220 for more detailed information on using the Admin page.

2 From the **Common** tab, scroll to the **Session timeout** field under the Encoding, Locales, and Sessions section.

3 Set the Session timeout value in seconds; for example, a 10-hour workday is 36000 seconds.

4 Scroll to the bottom of the page and click **Save**.

The Control Panel page reopens.

5 Click **Reset Server**.

When the server has been reset, a confirmation message appears at the top of the page.

Restarting the servers

Perform the following on the Web and application servers.

- Restart the Apache and Tomcat servers.

CHAPTER 8

Load-Balancing Application Servers

This chapter covers the following topics:

Load balancing application servers

A server running a Web application such as Peregrine's Get-Services or Get-Resources consumes approximately 256 MB of memory per application server instance. You should not set the maximum heap size of the JVM in excess of the free RAM available to the application server(s). Exceeding the amount of available RAM causes the JVM processes to swap to disk, reducing overall performance.

Unlike other Adapters, the AssetCenter and ServiceCenter Adapters each create a single connection to the respective back end. Therefore, the memory consumed on the AssetCenter database server is the same as that consumed by a single client connection. The memory consumed on the ServiceCenter server is also the same as that of a single ServiceCenter client process.

Note that memory usage does not increase significantly per session, because the architecture is based on the sharing of a set of resources and database connections among all sessions handled by the same application server instance. The small amount of memory consumed for session-specific information is released as the users log off or as their sessions expire. Note that server sessions do not expire unless the browser is closed or the user navigates to a different domain.

Because ServiceCenter and AssetCenter adapters maintain a single connection to the back end, adding extra application server instances brings the added benefit of concurrent access to the back-end data store.

The need for extra application server instances and therefore JVMs is directly related to three variables:

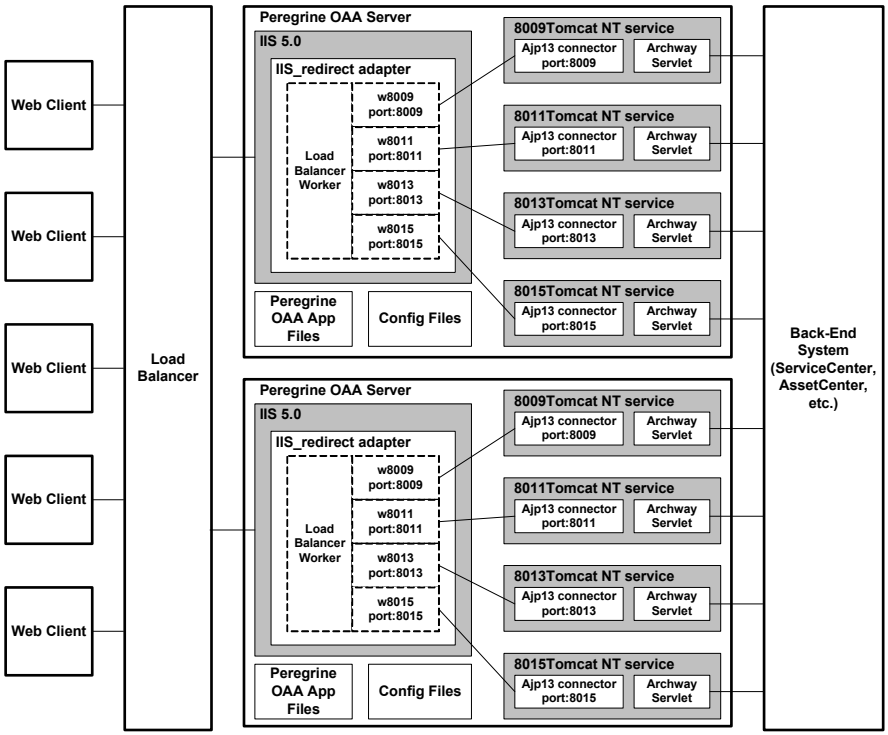
- The number of concurrent users.
- The processing power of the machine hosting the Get-Answers Web server.
- The number of processors on the machine.

Each deployment may make different demands of the software and hardware, but, in any case, optimal back-end throughput for ServiceCenter and AssetCenter is achieved with the maximum number of application server instances that the server can handle without degraded performance due to lack of CPU headroom, file system swapping, and context switching.

Cache synchronization with Symmetric MultiProcessing (SMP) servers can, in most cases, be ignored as a performance tuning factor except in the case of the extremely large-scale systems.

To serve as a control guideline, low-end processors, such as a Pentium 450, should be capable of producing acceptable load handling for around 100 concurrent sessions on a single application server process. A dual Pentium 1000 with 2 gigabytes of RAM (a common data center configuration) should be capable of handling 400+ concurrent sessions using multiple application server instances. When using adapters capable of pooling, for example, the JDBCAdapter or BizDocAdapter, performance beyond the 400-concurrent-user benchmark can be achieved.

The following diagram illustrates the architecture of multiple JVMs:



Note: A white paper on Peregrine OAA architecture and optimization is available on the Customer Support Web site at http://support.peregrine.com.

Creating multiple instances of Tomcat for Apache

You can create multiple instance of Tomcat to load balance requests to Get-Answers. You can configure each instance of Tomcat as a service. Although this is not required, it improves performance, makes the instances easier to manage, and provides extra functionality, including restarting the service if it fails or if the machine on which the instances are installed needs to be restarted.

Note: The following procedures assume that you have already installed Get-Answers. Refer to either the Windows or UNIX installation chapter for more information on installing Get-Answers.

For systems using IIS, see *Creating multiple instances of Tomcat for IIS* on page 245.

To create multiple Tomcat instance for Apache:

Step 1 Log in to the Get-Answers admininstration page and disable the script pollers setting. See *Disabling script pollers on the primary Tomcat instance* on page 235.

Step 2 Create copies of the Tomcat directory, then delete the \webapps\oaa directory from the newly copied instances of Tomcat. See *Copying the Tomcat directory* on page 235.

Step 3 Edit the workers.properties file of the first or primary Tomcat instance to set the values for each additional Tomcat instance. See *Editing the workers.properties file* on page 236.

Step 4 Edit the mod_jk.conf file of the first or primary Tomcat instance to establish a connection between Tomcat and Apache. See *Editing the mod_jk.conf file* on page 238.

Step 5 Edit the httpd.conf file to define the Tomcat workers available for Apache. See *Editing the httpd.conf file* on page 239.

Step 6 Edit the server.xml files for each Tomcat instance. See *Editing the server.xml files for Apache* on page 239.

Step 7 Edit the jk2.properties files for each Tomcat instance. See *Editing the jk2.properties files for Apache* on page 241.

Step 8 Install multiple instances of Tomcat as a service using installservice.bat. This file can be found in the Tomcat\bin directory. See *Installing Tomcat instances as services for Apache* on page 242.

Step 9 Log in to the Get-Answers admininstration page for the primary Tomcat instance and enable the script pollers setting. See *Enabling script pollers on the primary Tomcat instance* on page 243.

Step 10 Testing the configuration. See *Testing load balancing on Apache* on page 243.

Disabling script pollers on the primary Tomcat instance

You only need one Tomcat instance running script pollers. Before you copy your primary Tomcat instance, you should login to the Get-Answers administration page and turn off script polling. This will disable script polling on all of the Tomcat instances you create by copying the primary Tomcat instance.

To disable script pollers on the primary Tomcat instance:

1. Log in to the Get-Answers administration page. The default URL is:

   http://<*server_name*>/oaa/admin.jsp
2. Click Settings.

   Get-Answers displays the common settings page.
3. Scroll down to the Server-Side Scripts section, and select No for the Enable scipt pollers option.
4. Scroll down to the bottom of the form and click Save.

   Get-Answers displays the Control Panel page.
5. Click Reset Server to commit your changes.
6. Log out of the Get-Answers administration page.
7. Stop the Peregrine Tomcat service to temporarily disable Get-Answers.

Copying the Tomcat directory

You must create a separate folder for each instance of Tomcat you want to use for load balancing.

To copy the Tomcat directory:

1 Open Windows Explorer and copy the Tomcat install folder. The default file path is:

C:\Program Files\Peregrine\Common\Tomcat4

2 Paste a copy into the same root path. The default file path is:

C:\Program Files\Peregrine\Common

3 Rename the new folder to a unique name.

Tip: Include the port number to be used by the Tomcat instance in the folder name. For example, if you are going to use 4 instances of Tomcat listening on ports 8009, 8011, 8013, and 8015, then you can create 3 copies of the Tomcat folder called \Tomcat4_8011, \Tomcat4_8013, and \Tomcat4_8015. The primary instance uses port 8009.

Warning: If you are using more than four Tomcat instances, change the port numbers to avoid conflicts.

4 Delete the \webapps\oaa subdirectory from the newly copied instance of Tomcat.

The additional instances will use the same document root as the first or primary Tomcat instance.

5 Repeat step 1 through step 4 for each instance of Tomcat you want to use.

Editing the workers.properties file

For each server on which Tomcat instances are installed, there is only one workers.properties file. Tomcat installs the workers.properties file in the conf directory of your primary Tomcat instance. This file will be shared by all other Tomcat instances on that particular server.

The workers.properties file specifies the worker threads that the Web server connector will create in order to communicate with the Tomcat instances. Each Tomcat instance must communicate on a different port. The host should be set to the name of the server running the Tomcat instances or localhost if they are running on the same server as Apache.

Cache size is the maximum number of user sessions that Apache should direct to the Tomcat instance at one time.

Lbfactor is a number greater than or equal to 1 that Apache uses to load balance the workers. If all the workers are running on servers that have equal performance strengths, the lbfactor numbers should be equal. Workers with a lower lbfactor will be assigned fewer user sessions by the load balancer worker in Apache.

To edit the workers.properties file:

1 Open the workers.properties file in any text editor.

This file is located in the conf directory of your Tomcat installation.

2 Edit the following lines as shown. The paths for workers.tomcat_home and workers.java.home are the locations of your Tomcat installation and Java SDK installations.

Example:

```
workers.tomcat_home="c:\Program Files\Peregrine\common\Tomcat4"
workers.java.home="c:\Program Files\Peregrine\common\jdk1.3.1_05"
ps=\
worker.list=loadbalancer, ajp13, w8011, w8013, w8015
```

Find the worker.loadbalancer.type=lb code and make changes to the line that follows as shown below.

```
worker.loadbalancer.type=lb
worker.loadbalancer.balanced_workers=ajp13, w8011, w8013, w8015
```

Note: You can define the worker names any way you want as long as you continue the same naming convention throughout the procedure.

3 Add the following lines for each Tomcat instance you have installed, incrementing the port number for the values shown in step 2:

```
worker.w8011.port=8011
worker.w8011.host=localhost
worker.w8011.type=ajp13
worker.w8011.cachesize=40
worker.w8011.lbfactor=10
```

Note: All Tomcat instances share this workers.properties file; therefore, all additional lines must be in the file for the primary Tomcat instance.

4 Update the last two lines in the Default ajp13 Worker Definition section.

The first three lines are already in the file.

```
worker.ajp13.port=8009
worker.ajp13.host=localhost
worker.ajp13.type=ajp13
.
.
.
worker.ajp13.lbfactor=10
worker.ajp13.cachesize=40
```

Find the `worker.ajp13.lbfactor=10` code and make changes as shown below

Change lbfactor from =1 to =10
Change cachesize from =10 to =40

5 Save the file.

Editing the mod_jk.conf file

The mod_jk.conf file defines where the Worker files are available in Apache. This file is shared by all Tomcat instances on the server. It is important that you do this procedure after you have successfully deployed the necessary Get-Answers files, otherwise the Get-Answers mount points, file locations, and directories will not be included in the mod_jk.conf file, and you will have to manually add them.

To edit the mod_jk.conf file:

1 Make a copy of the mod_jk.conf file and rename the copy to mod_jk.conf-local.

The mod_jk.conf file is located in the Tomcat conf directory.

Note: This is done only on the primary Tomcat instance.

2 Open the mod_jk.conf-local file in any text editor.

3 Change JKWorkersFile to point to the worker.properties file of the primary Tomcat instance.

Example:

```
JkWorkersFile "C:\Program Files\Peregrine\Common\Tomcat4
\conf\worker.properties"
```

4 Change all JkMounts to use *loadbalancer* instead of *default worker ajp13*.

Usage: JkMount<file(s) or directory> <worker name>

Example:

```
JkMount/oaa/servlet/* loadbalancer
JkMount/oaa/*.jsp loadbalancer
```

5 Save the file.

Editing the httpd.conf file

The httpd.conf file must include mod_jk.conf-local.

To edit the httpd.conf file:

1 Open the httpd.conf file in any text editor.

The default location is:
C:\Program Files\Peregrine\Common\Apache2\conf.

2 Update the following line to include -local:

```
include "<Tomcat>/conf/mod_jk.conf-local"
```

For <*Tomcat*>, enter the path to your Tomcat installation. The default file path is: C:\Program Files\Peregrine\Common\Tomcat4

3 Save the file.

Editing the server.xml files for Apache

You will need to modify the server.xml file for each Tomcat instance. The server.xml file contains the information Tomcat needs to connect to the Web server as well as to find the Peregrine OAA Platform Web application files.

Tip: Make a back up copy of the server.xml file before editing.

To edit the server.xml files:

1 Each Tomcat instance has a server.xml file located in the conf directory. Open this file in any text editor.

2 Verify that the port number attribute of the <Server> element is a unique value that does not conflict with other port numbers used by Tomcat. It is recommended that the port numbers 8005-8008 be used for the shutdown port when configuring four Tomcat instances.

Example:

```
<Server port="8005" shutdown="SHUTDOWN" debug="0">
```

Note: This is not the worker communications port number. The worker port number is defined in step 4 on page 240.

Warning: If you are using more than four Tomcat instances, change the port numbers to avoid conflicts.

3 Comment out a <Connector> tag with the className="org.apache.coyote.tomcat4.CoyoteConnector" using port 8080.

Tomcat uses this port to communicate with a browser for direct HTTP requests. Since Apache will be serving the static data, Tomcat does not need to listen on this connector. It will also prevent a user from directly accessing Tomcat instances.

Example:

```
<!-- Define a non-SSL Coyote HTTP/1.1 Connector on port 8080 -->
<!--
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector"
port="8080" minProcessors="5" maxProcessors="75"
enableLookups="true" redirectPort="8443" acceptCount="10" debug="0"
connectionTimeout="20000" useURIValidationHack="false" />
-->
```

4 Update the port number used by the Coyote Connector to a unique, non-conflicting value. If you are configuring four Tomcat instances, the values 8009 (as the primary port), 8011, 8013, and 8015 are recommended.

Example:

```
<!-- Define a Coyote/JK2 AJP 1.3 Connector on port 8009 -->
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector"
port="8009" minProcessors="5" maxProcessors="75"
enableLookups="true" redirectPort="8443" acceptCount="10" debug="0"
connectionTimeout="20000" useURIValidationHack="false"
protocolHandlerClassName="org.apache.jk.server.JkCoyoteHandler" />
```

5 Update the <Engine> element with the server name and communications port used by each Tomcat instance.

Example:

```
<!-- Define the top level container in our container hierarchy -->
<Engine jvmRoute="localhost:8009" name="Standalone"
defaultHost="localhost" debug="0">
```

The port number should follow the convention used elsewhere in the configuration (8009, 8011, and so on). These entries must be the same as the Tomcat ID entries you added to the **workers.properties** file in the primary Tomcat instance.

6 Update the **appBase** attribute of the <Host> element with the absolute path to the **webapps** directory of the primary Tomcat instance.

Example:

```
<!-- Define the default virtual host -->
<Host name="localhost" debug="0"
appBase="C:\Program Files\Peregrine\Common\Tomcat4\webapps"
unpackWARs="true" autoDeploy="true">
```

7 Create a <Context> element entry in the first or primary Tomcat instance and copy it to the other Tomcat instances, changing the OAA context so that it is not reloadable.

This prevents Tomcat from reloading the servlet without restarting the service. It improves performance and helps keep the JSP code that the Tomcat instances are serving in sync during an update.

Add the entry just above the "examples" Context entry.

Example:

```
<Context path="/oaa"
docBase="<First Tomcat install>/webapps/oaa"
crossContext="false"
debug="0"
reloadable="false" >
</Context>
```

For the **docBase** attribute, set *<First Tomcat install>* to the absolute path of the first or primary Tomcat instance.

8 Save the file.

9 Repeat step 2 through step 7 for each **server.xml** file in each Tomcat instance you made.

Editing the jk2.properties files for Apache

You will need to modify the **jk2.properties** file for each Tomcat instance. This file sets the jk2 communication port.

To edit the jk2.properties files:

1. Open the jk2.properties file for a Tomcat instance in a text editor.

   This file is located in the Tomcat conf directory.

2. Insert a line for the channelSocket port. The port number must match the port number defined in workers.properties file for this Tomcat instance.

   Example:

   ```
   channelSocket.port=8009
   ```

3. Save the file.
4. Repeat step 1 through step 3 for each Tomcat instance.

Installing Tomcat instances as services for Apache

After you have edited the Tomcat files, you can install each instance of Tomcat as Windows services using installservice.bat.

To install Tomcat instances as services on Apache:

1. Open a DOS command prompt and change directories to your Tomcat bin directory.
2. Enter the following command to create each Tomcat instance:

   ```
   installservice <service name> <tomcat_home> <jvm_dll_path>
   ```

   Where <*service name*> is the name you assign to the Tomcat service, <*tomcat_home*> is the Tomcat install directory of the instance for which you are creating the service, and <*jvm_dll_path*> is the Java SDK install directory.

   Note: The <service name> cannot have a space in it.

   The second and third parameters are optional if you have already set the CATALINA_HOME and JAVA_HOME environment variables.

   Warning: The command to create Tomcat instances cannot accept spaces in the file path.

   Example:

   ```
   installservice Tomcat8009 C:\Progra~1\Peregrine\Common\Tomcat4_8009
   C:\Progra~!\Peregrine\Common\jdk1.3.1_05\jre\bin\server\jvm.dll
   ```

   Note: Use the Windows naming convention to avoid problems of spaces in the file path name. For example, replace Program Files with Progra~1.

3 Repeat step 1 through step 2 for each Tomcat service you wish to create.

Tip: You can easily remove a service. From the DOS command prompt, change directories to your Tomcat bin directory, then enter the following command: Tomcat -uninstall <service name>. The command is case-sensitive.

4 Start each Tomcat service that you install.

Enabling script pollers on the primary Tomcat instance

You only need one Tomcat instance running script pollers. Before you test your load balancing configuration, you should login to the Get-Answers administration page of the primary Tomcat instance and turn on script polling.

To enable script pollers on the primary Tomcat instance:

1 Log in to the Get-Answers administration page of the Tomcat instance. The default URL is:

http://<*server_name*>:<*port_number*>/oaa/admin.jsp

For <*port_number*>, enter the port number you have defined for your primary Tomcat instance. This is typically port 8009.

2 Click Settings.

Get-Answers displays the common settings page.

3 Scroll down to the Server-Side Scripts section, and select Yes for the Enable script pollers option.

4 Scroll down to the bottom of the form and click Save.

Get-Answers displays the Control Panel page.

5 Click Reset Server to commit your changes.

6 Log out of the Get-Answers administration page.

Testing load balancing on Apache

After you have created additional Tomcat instances, you can test if load balancing is occurring using the following steps.

To test load balancing:

1 Start all Tomcat instance services.

If you installed Tomcat as a service you can open the Windows Control Panel and start each instance from the Services dialog box.

2 Open a browser and log in to Get-Answers.

3 Perform an action in Get-Answers. For example, perform a search.

4 Logout of Get-Answers.

5 Close your browser to clear the connection cache.

6 Repeat step 1 through step 5 one time for each Tomcat instance installed. For example, if you have 4 Tomcat instances, then you will need to login and logout a total of 4 times.

   The load balancing mechanism uses a Round-Robin algorithm. If load balancing is working successfully, each login attempt should use a different Tomcat instance.

7 Download the archway.log file.

   You can download the archway.log file from the **Administration** > **Server Log** page.

8 Open the archway.log file in a text editor.

9 Verify that connection details list a different Tomcat instance for each connection.

   If each connection uses a different Tomcat instance, then the system is load balancing properly.

   If each connection uses the same Tomcat instance, the system is not load balancing and needs troubleshooting.

Creating multiple instances of Tomcat for IIS

Multiple instances of Tomcat are installed as services. Although this is not required, it improves performance, makes the instances easier to manage, and provides extra functionality, including restarting the service if it fails or if the machine on which the instances are installed needs to be restarted.

To create multiple Tomcat instance for IIS:

Step 1 Log in to the Get-Answers admininstration page and disable the script pollers setting. See *Disabling script pollers on the primary Tomcat instance* on page 246.

Step 2 Create copies of the Tomcat directory, then delete the \webapps\oaa directory from the newly copied instances of Tomcat. See *Copying the Tomcat directory* on page 246.

Step 3 Move classes12.jar files to the JDK directory. See *Moving classes12.jar* on page 247.

Step 4 Configure the ISAPI Plugin for IIS. See *Configuring the ISAPI Plugin for IIS* on page 247.

Step 5 Create and configure a jakarta virtual directory in IIS. See *Creating and configuring a jakarta virtual directory in IIS* on page 248.

Step 6 Configure IIS to use isapi_redirector2.dll as an ISAPI Filter. See *Configuring the isapi_redirector2.dll as an ISAPI filter* on page 248.

Step 7 Create and configure an oaa virtual directory in IIS. See *Creating and configuring an oaa virtual directory in IIS* on page 250.

Step 8 Edit the workers2.properties file of the first or master Tomcat instance to set the values for each additional Tomcat instance. See *Editing the workers2.properties file for IIS* on page 251.

Step 9 Edit the server.xml files for each Tomcat instance. See *Editing the server.xml files for IIS* on page 252.

Step 10 Edit the jk2.properties files for each Tomcat instance. See *Editing the jk2.properties files for IIS* on page 254.

Step 11 Install multiple instances of Tomcat as a service using installservice.bat. This file is in the Tomcat\bin directory. See *Installing Tomcat instances as services for IIS* on page 254.

Step 12 Log in to the Get-Answers admininstration page for the primary Tomcat instance and enable the script pollers setting. See *Enabling script pollers on the primary Tomcat instance* on page 255.

Step 13 Testing the configuration. See *Testing load balancing on IIS* on page 256.

Disabling script pollers on the primary Tomcat instance

You only need one Tomcat instance runningscript pollers. Before you copy your primary Tomcat instance, you should login to the Get-Answers administration page and turn off script polling. This will disable script polling on all of the Tomcat instances you create by copying the primary Tomcat instance.

To disable script pollers on the primary Tomcat instance:

1. Log in to the Get-Answers administration page. The default URL is:

   http://<*server_name*>/oaa/admin.jsp
2. Click Settings.

   Get-Answers displays the common settings page.
3. Scroll down to the Server-Side Scripts section, and select No for the Enable scipt pollers option.
4. Scroll down to the bottom of the form and click Save.

   Get-Answers displays the Control Panel page.
5. Click Reset Server to commit your changes.
6. Log out of the Get-Answers administration page.
7. Stop the Peregrine Tomcat service to temporarily disable Get-Answers.

Copying the Tomcat directory

You must create a separate folder for each instance of Tomcat you want to use for load balancing.

To copy the Tomcat directory:

1. Open Windows Explorer and copy the Tomcat install folder. The default file path is: C:\Program Files\Peregrine\Common\Tomcat4
2. Paste a copy into the same root path. The default file path is: C:\Program Files\Peregrine\Common
3. Rename the new folder to a unique name.

   Tip: Include the port number to be used by the Tomcat instance in the folder name. For example, if you are going to use 4 instances of Tomcat listening on ports 8009, 8011, 8013, and 8015, then you could create 4 copies of the Tomcat folder called \Tomcat4_8009, \Tomcat4_8011, \Tomcat4_8013, and \Tomcat4_8015.

   Warning: If you are using more than four Tomcat instances, change the port numbers to avoid conflicts.

4. Delete the \webapps\oaa subdirectory from the newly copied instance of Tomcat.

   The additional instances will use the same document root as the first or primary Tomcat instance.
5. Repeat step 1 through step 4 for each instance of Tomcat you want to use.

Moving classes12.jar

If your application uses Oracle, you must move the classes12.jar files to the \ext folder under your JDK installation.

To move classes12.jar:

- Move classes12.jar from <your Tomcat installation>\webapps\oaa\Web-Inf\lib to the \ext folder under your JDK installation.

  The default path is: C:\Program Files\Peregrine\Common\jdk1.3.1_05\jre\lib\ext

Configuring the ISAPI Plugin for IIS

The Get-Answers installer automatically places a copy of the ISAPI plugin for IIS in the following folder: c:\Program Files\Peregrine\Common\Tomcat4\bin

Use the following procedures to configure the plugin for your intranet environment.

To configure the ISAPI plugin for IIS:

1. Open the file jk2.reg in a text editor. The default file path is: C:\Program Files\Peregrine\Common\Tomcat4\conf
2. Verify that the "serverRoot" and "workersFile" values list the proper installation path to Tomcat. By default, these values are:

```
"ServerRoot"="C:\\Program Files\\Peregrine\\Common\\Tomcat4"
"workersFile"="C:\\Program Files\\Peregrine\\Common\\Tomcat4\\conf
\\workers2.properties"
```

3. Save and close the jk2.reg file.
4. Double-click on the jk2.reg file from Windows Explorer.

   Windows adds the registry settings to the Windows registry.

Creating and configuring a jakarta virtual directory in IIS

The ISAPI plugin for IIS requires a specific IIS virtual directory in order to run. Use the following guidelines to create the IIS virtual directory. For specific instructions about IIS, refer to Windows Help.

Requirements for jakarta virtual directory

Requirement	Setting
Create virtual directory	jakarta
Map to physical path	<Tomcat>\bin
Directory access rights	Read, Run scripts, Execute

For *<Tomcat>*, enter the path to your Tomcat installation. The default file path is: C:\Program Files\Peregrine\Common\Tomcat4\bin. This path must contain the isapi_redirector2.dll file.

Configuring the isapi_redirector2.dll as an ISAPI filter

To establish a connection between Tomcat and IIS, you will need to install the file isapi_redirector2.dll as an ISAPI filter.

To install isapi_redirect2.dll as an ISAPI filter:

1. From Windows Control Panel > Administrative Tools, open the Internet Services management console.
2. Right-click the **Default Web Site** node and then click **Properties**.
3. Click the **ISAPI Filters** tab.
4. Click **Add**.
5. Enter the following information:
   a. **Filter Name:** jakarta. The filter name must match the name you defined the jk2.reg registry file. By default, the filter name is jakarta.
   b. **Executable:** isapi_redirector2.dll. The default file path is: C:\Program Files\Peregrine\Common\Tomcat4\bin\isapi_redirector2.dll
6. Click **OK**.
7. From the Internet Services management console, right-click the **Default Web Site** node, then select **Properties**>**Isapi Filters** again.

   The ISAPI filter in IIS displays a green status arrow to indicate that it is running.
8. Close the Internet Services management console.

   Note: You must stop and then start the IIS service for changes to take effect. You must also restart Tomcat.

Creating and configuring an oaa virtual directory in IIS

To run Get-Answers from IIS, you need to create a virtual directory that maps to your Tomcat deployment folder.

Requirements for oaa virtual directory

Requirement	Setting
Create virtual directory	<oaa>
Map to physical path	<Tomcat>\webapps\oaa
Directory access rights	Read, Run scripts

For <*oaa*>, enter the name of the virtual directory you want to use for Get-Answers. The recommended virtual directory name is oaa. If you choose to use another virtual directory name, you must enter the new name in the following places:

- Rename the folder <Tomcat>\webapps\oaa to <Tomcat>\webapps\<new name>
- Rename the [uri] mappings in workers2.properties from oaa to the new virtual directory name.
- Rename all the oaa context entries in mod_jk2.conf from oaa to the new virtual directory name.
- Rename the <Context> path and docBase attributes in server.xml from oaa to the new virtual directory name.

Important: The virtual directory name you choose will become part of the URL users enter to connect to Get-Answers. For example: http://server_name/<new name>/login.jsp

For <*Tomcat*>, enter the path to your Tomcat installation. The default file path is: C:\Program Files\Peregrine\Common\Tomcat4

Editing the workers2.properties file for IIS

For each server on which Tomcat instances are installed, there is only one workers2.properties file. Tomcat installs the workers.properties file in the conf directory of your primary Tomcat instance. This file is shared by all other Tomcat instances on that particular server.

The workers2.properties file specifies the worker threads that the Web server connector creates in order to communicate with the Tomcat instances. Each Tomcat instance must communicate on a different port. The host should be set to the name of the server running the Tomcat instances or localhost if they are running on the same server.

To edit the worker2.properties file:

1. Open the workers2.properties file, located in the conf directory of your primary Tomcat installation, in any text editor.
2. Create a channel.socket entry for each Tomcat instance (also known as a worker).

   Example:

   ```
   [channel.socket:<server>:<port>]
   info=Description of Tomcat instance
   debug=0
   tomcatId=<server>:<port>
   lb_factor=1
   disabled=0
   ```

   For <*server*>, enter the server name where the Tomcat instance is located.

   For <*port*>, enter the communications port on which the Tomcat instance is listening.

   The lb_factor is a number greater than or equal to 1 that IIS uses to load balance the workers. If all the workers are running on servers that have equal performance strengths, you should set the lb_factor numbers to equal values (typically 1). If you want to assign fewer user sessions to a given Worker, then assign it a lower lb_factor number relative to the other Workers.
3. Verify that the uri settings lists the proper IIS virtual directory. By default, the virtual directory is oaa.

   If you defined a different virtual directory other than oaa to run Get-Answers, you will need to change the uri values here.

Example:

```
uri:/oaa/servlet/*]
info=Prefix mapping

[uri:/oaa/*.jsp]
info=Extension mapping
```

4 Save the file.

Editing the server.xml files for IIS

You will need a separate server.xml file for each Tomcat instance that will be running concurrently. This file contains the information Tomcat needs to connect to the Web server as well as to find the Peregrine OAA Platform Web application files.

Tip: Make a back up copy of the server.xml file before editing.

To edit the server.xml files:

1 Each Tomcat instance has a server.xml file located in the conf directory. Open it in any text editor.

2 Update the port number attribute of the <Server> element to a unique value that will not conflict with other port numbers used by Tomcat.

Peregrine Systems recommends that you use the port numbers 8005-8008 when configuring four Tomcat instances.

Warning: If you are using more than four Tomcat instances, change the port numbers to avoid conflicts.

Example:

```
<Server port="8005" shutdown="SHUTDOWN" debug="0">
```

3 Update the port number attribute of the Coyote Connector <Connector> element to a unique value that will not conflict with other port numbers used by Tomcat.

Peregrine Systems recommends that you use port numbers 8009, 8011, 8013, and 8015 when configuring the Coyote Connector.

Example:

```
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector"
port="8009" minProcessors="5" maxProcessors="75" enableLookups="true"
redirectPort="8443" acceptCount="10" debug="0"
connectionTimeout="20000" useURIValidationHack="false"
protocolHandlerClassName="org.apache.jk.server.JkCoyoteHandler" />
```

4 Create a <Context> element entry from the first or primary Tomcat instance and copy it to the other Tomcat instances.

Add the entry just above the "examples" Context entry.

Example:

```
<Context path="/oaa"
docBase="<First Tomcat install>/webapps/oaa"
crossContext="false"
debug="0"
reloadable="false" >
</Context>
```

For the docBase attribute, set *<First Tomcat install>* to the absolute path of the first or primary Tomcat instance.

5 Update the jvmRoute attribute of the <Engine> element with the server name and communications port used by each Tomcat instance.

Example:

```
<Engine jvmRoute="localhost:8009" name="Standalone"
defaultHost="localhost" debug="0">
```

6 Update the <Host> element with the **webapps** directory used by the first or primary Tomcat instance.

List the server information in the appBase attribute.

Example:

```
<Host name="localhost" debug="0"
appBase="<First Tomcat install>/webapps" unpackWARs="true"
autoDeploy="true">
```

For the appBase attribute, set *<First Tomcat install>* to the absolute path of the first or master Tomcat instance.

7 Comment out port 8080 in the non-SSL Coyote HTTP... statement.

Example:

```
<!-- Define a non-SSL Coyote HTTP/1.1 Connector on port 8080 -->
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector"
port="8080" minProcessors="5" maxProcessors="75"
acceptCount="10" debug="0" connectionTimeout="20000"
useURIValidationHack="false" />
-->
```

8 Save the file server.xml.

9 Repeat step 2 through step 8 for each copy of the server.xml file you made.

Editing the jk2.properties files for IIS

You will need to modify the jk2.properties file for each Tomcat instance. This file sets the jk2 communication port.

To edit the jk2.properties files:

1 Open the jk2.properties file for a Tomcat instance in a text editor.

This file is located in the Tomcat conf directory.

2 Insert a line for the channelSocket port. The port number must match the port number defined in workers2.properties file for this Tomcat instance.

Example:

```
channelSocket.port=8009
```

3 Save the file.

4 Repeat step 1 through step 3 for each Tomcat instance.

Installing Tomcat instances as services for IIS

After you have edited the Tomcat files, you can install each instance of Tomcat as Windows services using installservice.bat.

To install Tomcat instances as services on IIS:

1 Open a DOS command prompt and change directories to the bin directory of your Tomcat instance.

2 Enter the following command to create each Tomcat instance:

```
installservice <service name> <tomcat_home> <jvm_dll_path>
```

Where <*service name*> is the name you assign to the Tomcat service, <*tomcat_home*> is the Tomcat install directory of the instance for which you are creating the service, and <*jvm_dll_path*> is the Java SDK install directory.

Note: The <service name> cannot have a space in it.

The second and third parameters are optional if you have already set the CATALINA_HOME and JAVA_HOME environment variables.

Warning: The command to create Tomcat instances cannot accept spaces in the file path.

Example:

```
installservice Tomcat8009 C:\Progra~1\Peregrine\Common\Tomcat4
C:\Progra~1\Peregrine\Common\jdk1.3.1_05\jre\bin\server\jvm.dll
```

Note: Use the Windows naming convention to avoid problems of spaces in the file path name. For example, replace Program Files with Progra~1.

3 Repeat step 1 through step 2 for each Tomcat service you wish to create.

Tip: You can easily remove a service. From the DOS command prompt, change directories to the bin directory of your Tomcat instance, then enter the following command: Tomcat -Uninstall <service name>.

4 Start each Tomcat instance that you install.

Enabling script pollers on the primary Tomcat instance

You only need one Tomcat instance running script pollers. Before you test your load balancing configuration, you should login to the Get-Answers administration page of the primary Tomcat instance and turn on script polling.

To enable script pollers on the primary Tomcat instance:

1 Log in to the Get-Answers administration page of the Tomcat instance. The default URL is:

http://<*server_name*>:<*port_number*>/oaa/admin.jsp

For <*port_number*>, enter the port number you have defined for your primary Tomcat instance. This is typically port 8009.

2 Click Settings.

Get-Answers displays the common settings page.

3 Scroll down to the Server-Side Scripts section, and select Yes for the Enable scipt pollers option.

4 Scroll down to the bottom of the form and click Save.

Get-Answers displays the Control Panel page.

5 Click Reset Server to commit your changes.

6 Log out of the Get-Answers administration page.

Testing load balancing on IIS

After you have created additional Tomcat instances, you can test if load balancing is occurring using the following steps.

To test load balancing:

1 Start all Tomcat instance services.

If you installed Tomcat as a service, you can open the Windows Control Panel and start each instance from the Services dialog box.

2 Open a browser and log in to Get-Answers.

3 Perform an action in Get-Answers. For example, perform a search.

4 Logout of Get-Answers.

5 Close your browser to clear the connection cache.

6 Repeat step 1 through step 5 one time for each Tomcat instance installed. For example, if you have 4 Tomcat instances, then you will need to login and logout a total of 4 times.

The load balancing mechanism uses a Round-Robin algorithm. If load balancing is working successfully, each login attempt should use a different Tomcat instance.

7 Download the archway.log file.

You can download the archway.log file from the **Administration** > **Server Log** page.

8 Open the archway.log file in a text editor.

9 Verify that connection details list a different Tomcat instance for each connection.

If each connection uses a different Tomcat instance, then the system is load balancing properly.

If each connection uses the same Tomcat instance, the system is not load balancing and needs troubleshooting.

9 Configuring Integrations

CHAPTER

This chapter is intended for administrators who want to integrate Get-Answers with ServiceCenter or Remedy Help Desk. It also includes configuration information for the email adapter used by Notification Services.

Configuring the ServiceCenter Integration

This section is intended for administrators who want to integrate Get-Answers with ServiceCenter. The process to integrate ServiceCenter with Get-Answers includes the following:

Step 1 Remove old Get-Answers files from ServiceCenter if you have integrated previous versions of Get-Answers with ServiceCenter. Go to *Removing old Knowlix files from ServiceCenter* on page 259 to learn how.

Step 2 Load the Get-Answers file into ServiceCenter. See page 260.

Step 3 Creating the getans.server field in ServiceCenter. See page 261.

Step 4 Configuring the ServiceCenter files. See page 262.

Removing old Knowlix files from ServiceCenter

Get-Answers used to incorporate Knowlix with its features. If you have an older version of Get-Answers that used Knowlix and you integrated that version with ServiceCenter, you must remove those files now.

If you have never integrated ServiceCenter with Knowlix, you can skip this section.

To remove the old Knowlix files:

1. In ServiceCenter, click the Toolkit tab.
2. Click the **Database Manager** button.
3. In the dialog box that opens, leave the top field blank, and enter **displayoption** in the File field, or choose it from the list.
4. Click the **Search** button.

   The Display Application Option Definition window opens.
5. In the Default Label field, type ***Knowlix***, and press **Enter**.

   Note: This field is case-sensitive. Type *Knowlix* exactly as it appears here.

   A list of all Knowlix files opens.
6. Select each file and click **Delete**. Repeat this step for each Knowlix file.
7. Click the Back button to return to the Database Manager.

Now you can import the new Get-Answers file using the next procedure.

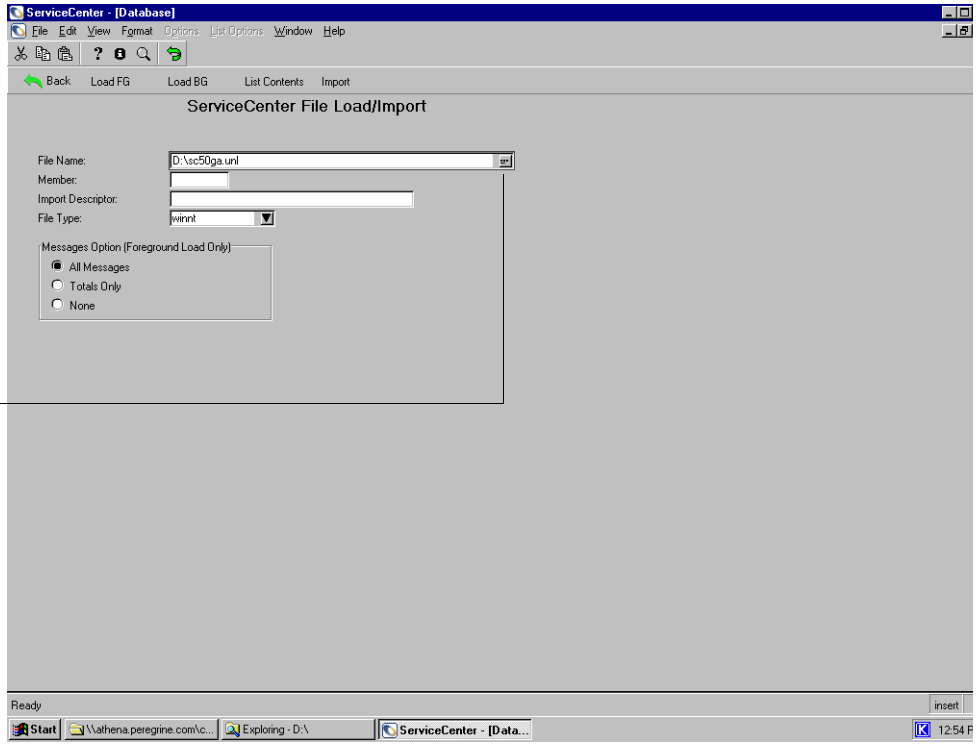
Loading the Get-Answers file into ServiceCenter

The file you incorporate into ServiceCenter is called SC05GA.unl. It is included with your Get-Answers installation. In this procedure, you must copy the SC05GA.unl file from your Get-Answers web server directory on to the ServiceCenter Server hard drive before you can load it into ServiceCenter.

To load the Get-Answers file into ServiceCenter:

1. Copy the SC50GA.unl file from oaa\WEB-INF\etc\Version5 folder on your Get-Answers server to the ServiceCenter Server machine.
2. In ServiceCenter, open the ServiceCenter System Administrator menu and select **Toolkit**.
3. Click **Database Manager**.
4. Open the Options menu and choose **Import/Load**.

5 In the ServiceCenter File Load/Import dialog box that opens, click the button in the File Name field to navigate to the SC50GA.unl file, as shown here.



Click the Browse button to find the SC50GA.unl file.

6 Click **Load FG** to start the process.

The process runs for several minutes. The message * **too many messages** might appear. This is normal. It is not an error message.

Go to the next section to continue.

Creating the getans.server field in ServiceCenter

Once you have imported the SC50GA.unl file into ServiceCenter, you must add the getans.server field to the Database Dictionary before you can configure the file.

To add the getans.server field:

1 In ServiceCenter, click **Database Dictionary**.

2 In the window dialog box that opens, type **info** in the File Name field.

3 In the DBDict window that opens, click **Descriptor Field**.

4 Click **New**.

5 In the dialog box that opens, enter getans.server and choose **character** as the type, and then click the Plus sign button.

6 In the next window that opens, scroll down the bottom of the list to make sure your field was added.

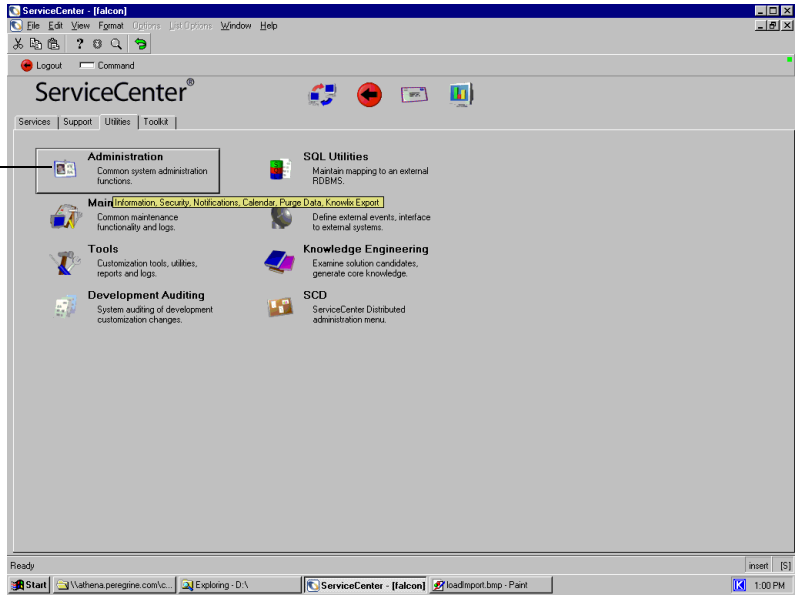
7 Click **OK**.

Configuring the ServiceCenter file

As the final phase in integrating Get-Answers with ServiceCenter, you must configure the file you just added.

To configure the SC50GA.unl file:

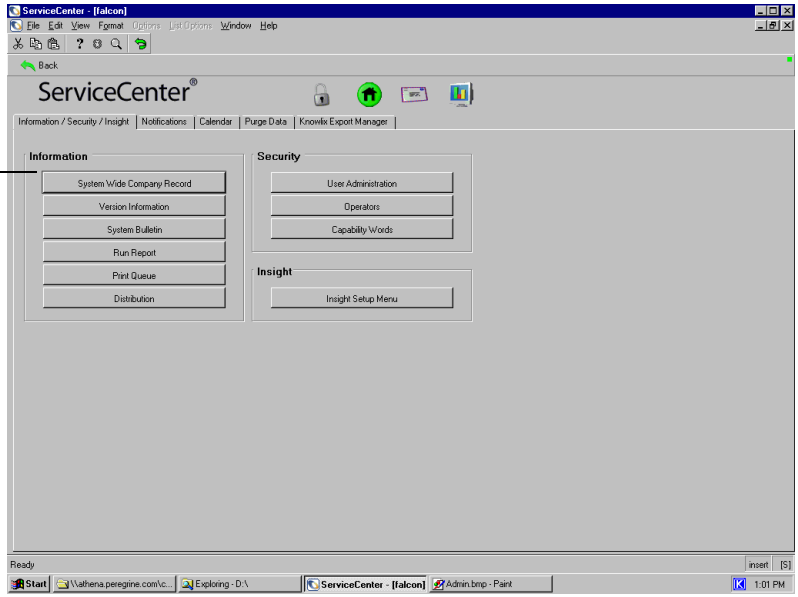
1 In ServiceCenter, go the Utilities tab and click **Administration**, as shown here.



Click the Administration button.

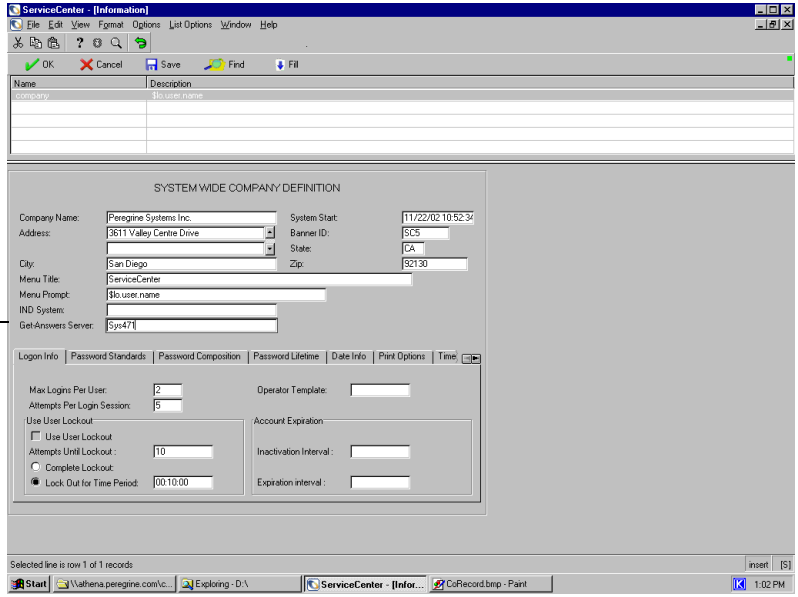
2 In the next window that opens, click **Systemwide Company Record**.

Click Systemwide Company Record.



3 In the next window that opens, type the name of your Get-Answers server in the Get-Answers server field.

Enter the name of your Get-Answers server here.



4 Click **OK** at the top of the window to finish the procedure.

Running the Java coroutine on SC clients

Each ServiceCenter user who wants to use the Get-Answers integration must run a java coroutine file on their ServiceCenter client. Find the following file in the path indicated here and send it to each ServiceCenter client machine:

```
C:\ProgramFiles\Peregrine\Common\Tomcat4\webapps\oaa\integrations\
jcinst.exe
```

If you did not deploy Get-Answers in the default directory, look for the file in your Get-Answers directory on the Web server.

Configuring the E-mail adapter

The following parameter controls the default setting used by the E-mail Adapter. If you intend to use Notification Services to alert users to changes in status of Get-Answers documents, then you need to configure the following settings.

To configure the E-mail adapter settings for Get-Answers:

1 In the Peregrine Portal Admin module, click the E-mail tab of the Settings screen.

Note: For information on accessing the Admin Module, see *Accessing the Peregrine Portal Admin Module* in *Chapter 7, Completing All Installations* of this guide.

2 Configure these settings..

E-mail Settings box	Default setting	Description
Inbound mail host	mailhost	The full name or IP address of the machine hosting the inbound mail server. If this field is empty, then the status of the mail adapter will indicate the status of the outbound mail server connection.
Inbound mail protocol	imap	The protocol used by the inbound mail server, which is either imap or pop3.
Inbound mail user ID		The user ID used to access the inbound mail server.
Inbound mail password		The user password used to access the inbound mail server.
Mail sender address		
Legal domains	peregrine.com; apsydev.com; getmarketaccess.com	Enter a semicolon-separated list of mail domains that the Peregrine Portal may correspond with. Only users with an email address in these domains are allowed to complete online self-registration.
Anonymous user	falcon	The Anonymous user name used when an unknown user attempts to communicate with the mail adapter.
Anonymous password		The Anonymous user password for the mail adapter.
Outbound mail host	mailhost	The full name or IP address of the machine hosting the outbound mail server.
Outbound mail user ID		The user ID used to access the outbound mail server.

E-mail Settings box	Default setting	Description
Outbound mail password		The user password used to access the outbound mail server.
Adapter	com.peregrine.oaa.adapter.mail.MailAdapter	Full class path for the adapter associated with this target.

3 After you update the settings, scroll to the bottom of the form, and then click **Save**.

APPENDIX A Troubleshooting Installation and Operation

This chapter explains the problems that may occur during or after installing Get-Answers and their solutions. The format of each problem includes symptom, cause, and solution.

- The *symptom* is the error message that appears or other sign you see when an error occurs.
- The *cause* is the underlying problem that produced the symptom.
- The *solution* is the procedure you can use to fix the problem.

Troubleshooting errors

This table describes the errors (symptoms) you might see, the probable causes, and the solutions. Where the solutions require a procedure, the table refers you to the *Procedures for troubleshooting problems* on page 275.

Symptom	Cause	Solution
You receive a General Protection Fault error when using Netscape 6.2 or 6.2.1 browsers	The Authoring applet causes these versions of Netscape to fail.	Use Internet Explorer browsers when authoring documents.
Imbedding images in the document text does not work properly if the name of the image file contains spaces.	Get-Answers does not support image files if the name of the image contains spaces.	Rename the file before attaching it to the document. Make sure the name does not include spaces.

Symptom	Cause	Solution
You access Get-Answers by using localhost in the URL—for example, http://localhost/oaa.login.jsp—and you encounter licensing problems when you try to Author documents.	The localhost URL does not support licensing.	When logging into the application server for the first time, use the server name (for example, http://<servername>/oaa/login.jsp).
When logged into Get-Answers and using the browser's Forward, Back and Refresh buttons, you see unexpected behavior.	Some Get-Answers pages do not work properly with a browser's navigation and Refresh buttons.	Do not use the browser navigation or Refresh buttons on the pages that do not behave as expected.
After you refresh the login page (login.jsp), the language option drop-down list and the **Login** and **Register** buttons do not appear. This is true for both Internet Explorer and Netscape browsers.	Unknown	Click **Refresh** again to bring the list and buttons back.
Resizing the browser in Netscape 4.x causes the browser to behave unexpectedly.	Unknown	Avoid sizing the browser after starting Get-Answers.
In the Control Panel form under the Administration tab, the following error appears: ERROR: jdbcCalls: ***SQLException caught***	An adapter could not connect because the adapter is not configured properly. The system reports a "ORA-12154:TNS:could not resolve service name" error, which results in a SQLException.	Check the adapters and configure the adapters if necessary. See *Checking and configuring adapters* on page 276.
You see the following error repeated in the Archway Log file: ERROR [noticenterpoller] GetitAnonymous(0) - MAILsendEmail(): Unexpected error - The mail adapter failed to connect. - com.peregrine.util.ResourceCreationFailureException	The Mail adapter is not configured.	Remove the Mail adapter as a target. See *Procedures for troubleshooting problems* on page 275.
You notice that you cannot upload a file in Contribute Documents pages,	The Maximum Attached File Size parameter is too small.	Change the Maximum attached file size parameter. See *Setting Maximum attached file size parameters* on page 278.

Symptom	Cause	Solution
You see this error: An error occurred while ending the current transaction; ArchwayJVMName=getit_3.2.4.\bin	The application server has lost its connection to the database.	Correct any connectivity issues with the database and restart the application server.
You see the following error in the archway.log file: Runtime error Cannot build new class java.io.FileWriter, error: FESI.Exceptions.EcmaScriptException: Runtime error Error creating class java.io.FileWriter: java.io.FileNotFoundException	The connection was lost between the Web server or the File server, or the Search Engine server and the File server.	Remap the drives between the servers. Restart the application server.
Your system cannot sustain more than 10 Websphere connections to DB2 at one time.	Undetermined	See the IBM Knowledge Base article #1009742 on IBM Web site. http://www-3.ibm.com/cgi-bin/db2www/data/db2/udb/winos2unix/support/document.d2w/report?&fn=1009742
The system appears to be frozen. You see the following error in the archway.log file: ORA-03114: not connected to ORACLE	The database connection was lost.	See the section *Reestablishing the database connection and restarting the Search Engine* on page 278.
You notice the following error: Error Number : -6, Severity: FATAL, Source: rdb_index v6.9 CQDH Server Returned Error Clearing the indexes in preparation to rdbindex -	The database connection to the search engine is unstable or the Search Engine indexes are incomplete or corrupted.	See the section *Correcting the "RPC Failed" error* on page 275.
You see the following error: ORA-01658: unable to create INITIAL extent for segment in tablespace ROME	In the database, the Rome tablespace must be extended.	See the section, *Extending the Rome tablespace* on page 279.
You are on a Solaris system and you see the following error: Schema not found	Your application is using a schema or server-side JavaScript whose file name contains both upper- and lower-case letters.	If you add a schema or a server-side JavaScript, make the file name all lowercase.

Symptom	Cause	Solution
You see that Boolean search results show a relevance of 0% on the Advanced Search page.	Boolean search results are not ranked.	Ignore these zero-ranked search results items.
You see the following error: FATAL, Source: rdb_index v6.9 Connect system call failed: "cqdh@10.11.12.231"	You have attempted to index your documents without starting the Search Engine.	Start the Search Engine server and then index the documents. See the section, *Starting the Search Engine and indexing sample documents* on page 280.
The Search Results page shows this message: We're sorry, but we are unable to perform your query - please contact your system administrator.	The Search Engine is not running.	See the section, *Avoiding the "unable to perform query" error* on page 277.
Users are either missing workflow messages or receiving duplicates of them.	There is a configuration problem with the web application.	Make sure that all of the properties set on the various tabs off of admin.jsp are correct. In particular, make sure the **Enable script pollers** property on the Common tab is set to Yes.
On the Manage Documents page, Multiple workflow messages occur if you click the **Transfer** or **Proceed** button multiple times. An Editorial workflow is initiated for every click on the **Proceed** button. A Triage Workflow is initiated for every click on the **Transfer** button.	You have clicked the Transfer or Proceed button more than once for one item.	If you do click one of these buttons multiple times, you can revert the second Editorial Workflow message and accompanying working copy document after the first valid workflow is finished. You Delete any extra Triage Workflow items.
The Get-Answers workflow templates were not imported properly as part of the Get-Answers installation.	undetermined	The system will import the templates if no template is named **Editorial Workflow** or **Triage Workflow**. 1 Log in as the Admin. 2 From the Workflow tab Template Design menu item, rename any template named **Editorial Workflow** or **Triage Workflow**.

Symptom	Cause	Solution
This error appears in the archway.log file once every minute: ERROR [noticenterpoller] GetitAnonymous(0) - MAILsendEmail(): Unexpected error - The mail adapter failed to connect. - com.peregrine.util.ResourceCreationFailureException	The noticenterpoller is running.	Stop the noticenterpoller. See the section *Stopping the Noticenter poller* on page 280.
The Search form shows this message when the user attempts to search: We're sorry, the oaakm server is unavailable. Please contact your administrator or try again later. This message appears in the archway.log file: KMGAdapter::connect - ERROR: unexpected exception when trying to login to RWcom.convera.hl. RWLoginFailedException: Failed to login to RetrievalWare server. API not initialized. Re-instantiate RWLoginSession.	The KMAdapter cannot connect to the search engine.	Set the environment path correctly. See *Setting the environment path to the Search Engine* on page 280.
The session times out while in the process of entering feedback and the feedback is not saved.	The default session timeout setting is for 600 seconds.	Change the default setting. See *Changing the default session timeout* on page 282.
With an ODBC connection to a DB2 back-end, as soon as a user logs in, the screen displays: Unexpected error in OAAForm.generate(). With an ODBC connection to a DB2 backend, workflow task messages do not appear after submitting a new document. Under Template Design, the workflow templates will not display. In addition, the archway.log file contains this error: ERROR [Thread] – Message.newMessage XML parsing error at line –1 column –1 org.xml.sax.SAXParseException: Premature end of file	The setting LONGDATACOMPAT must be set to zero (0) in the $DB2PATH/db2cli.ini file.	On the Windows server(s) with the ODBC connection, perform the following steps: 1 Open the file $DB2PATH/db2cli.ini in a text editor. 2 Ensure that the value LONGDATACOMPAT is equal to LONGDATACOMPAT=0 in the $DB2PATH/db2cli.ini file. 3 Ensure that LONGDATACOMPAT=0 does NOT have a semicolon preceding it; for example, ;LONGDATACOMPT=0. The semicolon would eliminate it (comment it out) from the code.

Symptom	Cause	Solution

After a WebSphere installation, the Admin form at http://hostname/oaa/login.jsp does not render.	Duplicate alias entries can occur from the IBM HTTP Server httpd.conf file during a WebSphere installation.	Remove duplicate Alias /oaa lines from the httpd.conf file under the conf directory of the IBM HTTP or Apache web server. You want only one of the following:
		`Alias /oaa "C:\WebSphere \AppServer\installedApps \oaa.ear\portal.war"`
		`Alias /oaa "C:/WebSphere /AppServer/installedApps /oaa.ear/portal.war"`

On a WebSphere installation, the Authoring applet displays a licensing error.	During install, a SEVERE warning message is displayed: `Please add OEMLicenseServlet mapping definition to web.xml after the installation completes.`	Add lines to the web.xml and httpd.conf files. See *Licensing error during WebSphere installation* on page 282.
On a WebSphere installation, the documents do not display.	During the install, a SEVERE warning message is displayed: Please add GAAttachmentDown-load mapping definition to web.xml after the installation completes.	Add lines to the web.xml file. See *Documents do not display message* on page 283.

Symptom	Cause	Solution
Initialization data is missing from the database. The symptoms of this are: ■ the sample authoring views (How-To, Reference, Error Message/Cause, External, Problem/Solution) do not display correctly ■ the sample authoring views are not listed in Contribute New Document ■ default images do not display in the sample authoring views ■ the workflow templates are missing ■ the out-of-box users cannot log on ■ the search engine shows a KMCOLLECTIONREFERENCE error	This is caused at the time of a new installation by the application server being stopped before it has completed the installation and database initialization.	Use these two steps to change several presentation directory files, and restart the application server to re-initialize the database. 1 Unzip ga_default_imgs.zip in the images folder under the presentation directory into the same /images director. 2 Remove this text <intalled>true</installed> from these files: <presentation directory> \WEB-INF\apps\getanswers\rKmDocViewRoles.dat If your database is Oracle, remove <installed>true</installed> from <presentation directory> \WEB-INF\etc\Oracle\GATablePopulateOracle.sql If your database is DB2, remove <installed>true</installed> from <presentation directory> \WEB-INF\etc\DB2\GATablePopulateDB2.sql If your database is MS SQLServer, remove <installed>true</installed> from <presentation directory> \WEB-INF\etc\MSSQLServer\GATablePopulateMSSQLServer.sql If this does not solve the problem, drop and recreate the user in your database.

Symptom	Cause	Solution
On SQLServer, intermittent **Update failure** messages appear when the a document is published in a workflow, or a newly transferred document is lost and fails to appear in the Workflow My Messages list, or a new document view does not display correctly.	There was a configuration sizing error when your SQLServer database was created.	See the instructions for *Preparing the SQL Server 2000 for Get-Answers* on page 32. Consult your SQLServer database administrator to determine how to backup your database, drop it, create a new database of size 800 MB, and restore the data into the larger new database.
After 30 minutes into a Get-Answers and ServiceCenter session, the Get-Answers login page appears, causing the next ServiceCenter call to Get-Answers to hang. The connection from ServiceCenter to Get-Answers has been lost and the system is waiting for the DDE timeout to occur. The user must then: 1 Close the DDE Applet window behind the Get-Answers window. 2 Reconnect to Get-Answers using **Options->Open Get-Answers**. 3 Log in to Get-Answers.	The value in the Session timeout field in the Get-Answers Admin settings is not sufficient.	See *Changing the Session timeout value* on page 229 to set the Session timeout value on the Common tab in Administration settings to the number of seconds in a normal ServiceCenter user's workday.

Procedures for troubleshooting problems

Some errors have solutions that do not involve procedures. Others require a a series of steps to fix. This section describes the procedures for solving some of the errors described in the section *Troubleshooting errors* on page 267. See the table in that section to find out if the solution for an error you have seen is included in the table or described here instead.

Removing the mail adapter

To remove the Mail adapter:

1. Open http://<servername>/oaa/admin.jsp.
2. Log in as an administrator so that you have Administrator rights.
3. Click the **Settings** link.
4. Click the **Common** tab.
5. In the **List of target aliases** field, remove the word **mail**.
6. Scroll to the bottom of the page and click the **Save** button.
7. Click the **Notification Services** tab.
8. In the **Targets** field, remove the **mail**.
9. Scroll to the bottom of the page and click **Save**.

   The Control Panel page opens.
10. Click **Reset Server**.

Correcting the "RPC Failed" error

To correct this "RPC Failed" error

1. From the Start menu, choose **Programs** >**Get-Answers Search Engine**> **Stop Search Engine Server**.

   The following messages appear:

   ```
   exec at IPAddress:port
   exec - shutdown
   Shutting down the Search Engine Server
   Press any key to continue . . .
   ```
2. Press any key to continue.
3. From the Start menu, choose **Programs**> **Get-Answers Search Engine**> **System Utilities Menu**.

4 Choose option 6 - Indexing and index utilities.

5 Choose option 10 - Delete and create empty indexes for a library.

6 At the "Indexes should be deleted for which library? Enter Library Name []>" command prompt, type KMLib.

7 At the "Are you sure? (1 = YES, 2 = NO)" command prompt, type 1.

These messages appear:

```
Opening Library: KMLib
Thank you!
```

8 Press any key to continue.

9 Choose option 1 - Return to previous menu.

10 Choose option 1 - Exit this program.

11 From the Start menu, choose **Programs> Get-Answers Search Engine> Start Search Engine Server.**

These messages appear:

```
Starting up the Search Engine Server
Press any key to continue . . .
```

12 From the Start menu, choose **Programs> Get-Answers Search Engine> Reindex all Documents.**

13 At the "Enter the name of the library to be indexed. Enter Library Name []>" command prompt, type KMLib.

14 At the "Are you sure you wish to index the entire RDBMS now? (warning: this will delete any existing indexes in KMLib). (1 = YES, 2 = NO)" command prompt, type 1.

This message appears:

```
All records have been submitted to the document handler.
```

15 Press any key to continue.

Checking and configuring adapters

Use the following procedure to resolve

1 Go to the **Administration** tab and click **Control Panel**.

2 The page that opens shows a list of adapters and their connection status.

3 If the Mail adapter is disconnected and you do not use the mail adapter for notifications or the Business Objects database for reporting, ignore these messages.

4 If a adapter other than the Mail adapter is disconnected, click the **Reset Server** button.

5 If the status is still Disconnected, see the *Get-Answers Administrator's Guide* to configure the adapter again.

Reindexing the sample documents

To reindex the documents:

1 Go to **Start** > **Programs** > **Get-Answers Search Engine** > **System Utilities Menu**.

2 Choose option 6 - Indexing and Index Utilities.

3 Choose option 4 - Index RDBMS Records.

4 Choose option 3 - Index all RDBMS Records in your library.

5 Enter KMLib. This is the knowledge management library you want to index.

6 Enter 1 - Yes to update the index.

7 Choose option 1 - Return to previous menu.

8 Choose option 1 - Return to previous menu.

9 Choose option 1 - Exit this program.

Avoiding the "unable to perform query" error

To avoid this error:

1 Make sure the Get-Answers Search Engine's Search Engine Server is running before you start your application server; for example, Tomcat.

Tip: Start the search engine by choosing **Start** > **Get-Answers Search Engine** > **Start Search Engine Server**.

2 Then start the application server.

Note: It must be done in this order. If you're already running the application server, stop it, start the search engine server, then start the application server.

To verify that you've started everything correctly:

1 In your browser, go to

http://SERVERNAME/oaa/admin.jsp

where SERVERNAME is the name of your server.

Warning: Do not use "localhost" as the server name. There is a known defect for problems caused when you reference the server by calling it localhost the first time after you start the application server.

2 In the login screen, use:

login: System

no password

Note: This should bring up the OAA control panel. You should see a line in the list of adapters that says "oaakm." The status of oaakm should be "connected".

After that, you should be able to access our sample data. We have one sample document ownership team (called "Get-Answers Team"). That team owns one domain ("Get-Answers") and the Get-Answers documentation has been published into that domain.

There are three pre-defined users.

Login	Password	Function
oowner	password	owner of the team
eeditor	password	an editor on the team
rreviewer	password	a reviewer on the team

Setting Maximum attached file size parameters

Go to the Common tab in the Admin Settings. The maximum attached file size parameter is used to limit the size of files that may be submitted as attachments. A value of 0 indicates that no limit is set. This setting is a default that you can override by individual attachment fields. If for example, a value of 2048 was set, this would limit to 2mg, the size of a file that could be submitted in Get-Answers via the Contribute Documents menu option.

Reestablishing the database connection and restarting the Search Engine

To re-establish the database connection:

- Reboot the tomcat server.

If necessary, based on the presence of a database error in the Get-Answers Search Engine console screen, stop and then restart the Get-Answers Search Engine.

To restart the Get-Answers Search Engine:

1. Go to **Start** > **Programs** > **Get-Answers Search Engine** > **System Utilities Menu**.
2. Choose option 4 - Search and Indexing Servers.
3. Choose option 5 - Stop servers. The Get-Answers Search Engine Executive window will close.
4. Press any key to continue.
5. Choose option 2 - Start servers in background. The Get-Answers Search Engine Executive will start running in a separate window.
6. Press any key to continue.
7. Choose option 1 - Return to previous menu.
8. Choose option 1 - Exit this program.

Extending the Rome tablespace

This procedure can resolve the cause of the following error:

ORA-01658: unable to create INITIAL extent for segment in tablespace ROME

To extend the Rome tablespace:

1. From the Start menu, select **Programs** > **Oracle - OracleHome8i** > **Database Administration** > **SQLPlus Worksheet**.
2. Log in,

   User: system

   Password: manager

   Or you can login as the super user for your database. Consult your Database Administrator for assistance.
3. Delete the connect line in the upper pane.
4. Run this script:

   ALTER TABLESPACE ROME AUTOEXTEND ON NEXT 1M MAXSIZE UNLIMITED;

   Commit;

Starting the Search Engine and indexing sample documents

1 From the Start menu, choose **GetAnswers Search Engine> Start Search Engine Server**.

2 Index your documents by taking these steps:

   a Click the Start menu, and choose **Get-Answers**.

   b Click **Search Engine**, and then choose **Index Updated Documents**.

Stopping the Noticenter poller

To stop the noticenterpoller:

1 Click Administration and choose the Show Script Status.

2 Click the noticenterpoller link to suspend it.

Note: You must perform this step every time you start or restart the web or application server.

3 Rename or remove the scriptpollers.ini file located in the \WEB-INF\apps\notification directory.

You can rename the file to **scriptpollers.iniSave** or something similar.

You need to do this step only once. The only way to restart the noticenterpoller is to place the scriptpollers.ini in the \WEB-INF\apps\notification directory again.

4 Remove the default notification capabilities from the Administration -> Settings -> NotificationDB tab so that users will not see the basic notification UI.

For example, change:
notificationDB(oaa.ns.send;oaa.ns.view;oaa.ns.gui;oaa.ns.preferences) *to* **notificationDB** without the parenthesis.

5 Notify the workflow template/process designer that the notification options on the Workflow Activity details screens will not trigger email notifications without proper configuration of the email adapter and operation of the noticenterpoller.

Setting the environment path to the Search Engine

If a user receives the message: The oaakm server is unavailable, it might occur because the KMAdapter cannot connect to the Search Engine because the environment path is not set correctly. These instructions provide solutions for Windows and AIX installations.

To configure the PATH environment variable on Windows:

1 Make sure that these fields appear in the PATH environment variable and that the PATH environment variable is less than the maximum size (256 characters).

```
<SearchEngineInstallDirectory>\lib;<SearchEngineInstallDirectory>
\inso;<SearchEngineInstallDirectory>\bin;<Get-AnswersContextRoot>
\WEB-INF\lib;
```

The default value for *<SearchEngineInstallDirectory>* is c:\getanswers.

The default value for *<Get-AnswersContextRoot>* on a Typical installation is C:\Program Files\Peregrine\Common\Tomcat4\webapps\oaa.

Note: You can create a drive mapping to a shorter path using the **subst** command; the **subst** command can then be run on startup from a batch file.

2 Stop the search engine, application server, and Web server.

3 Restart the search engine server before starting the application server and Web server.

On AIX

If you are running on an AIX server, you must configure your WebSphere environment by editing the startupServer.sh script.

To configure the Websphere environment on AIX:

1 Open startupServer.sh in any text editor.

2 Add an entry for LIBPATH and set it to the path values for AIX.

For example:

```
#!/bin/sh
LIBPATH=/usr/lib:/WebSphere/AppServer/installedApps/answer.ear
/portal.4.0.0.55.war/WEB-INF/lib/AIX:/WebSphere/AppServer
/installedApps/answ er.ear/portal.4.0.0.55.war/WEB-INF/lib/AIX
/ServiceCenter4 export LIBPATH
```

3 Save the file.

Changing the default session timeout

To avoid timing out while a popup window is open, modify the default session timeout in the Admin settings to be a higher time interval than 10 minutes (600 seconds). The Common tab has a section heading called Encoding, Locales, and Sessions. Session timeout is directly below the section heading.

To modify the default session time:

1. From Admin>Settings>Common tab, scroll to the **Encoding, Locales, and Sessions** heading.
2. In the **Session timeout** parameter, type the number of seconds that you want for the session to remain active; for example, 6000.
3. Click **Save**, then click **Reset Server**.

Licensing error during WebSphere installation

To correct the licensing error message, add the mapping definition to the web.xml file and update the httpd.conf file.

To correct the licensing error message:

1. Using a text editor, open the web.xml file located at <*application server*>\oaa\WEB-INF and update the following sections.

   Note: Be sure the lines are not within a section containing <!-- comment --> lines.

   a. Add these lines to the <servlet> section:

```
<servlet id="Servlet_eopro">
   <servlet-name>OEMLicenseServlet</servlet-name>
   <display-name>Edit-On Pro License Servlet</display-name>
   <servlet-class>oemlicense.OEMLicenseServlet</servlet-class>
</servlet>
```

   b. Add these lines to the <servlet-mapping> section:

```
<servlet-mapping id="ServletMapping_eopro">
   <servlet-name>OEMLicenseServlet</servlet-name>

<url-pattern>/servlet/oemlicense.OEMLicenseServlet</url-pattern>
</servlet-mapping>
```

c Save and close the file.

2 Using a text editor, open **httpd.conf** under the **conf** directory of the IBM HTTP or Apache web server.

Note: Use the absolute path for your **portal.war** file.

a Add the following line to the end of the file.

```
Alias /eopro "C:\WebSphere\AppServer\installedApps\oaa.ear\portal.war\eopro"
```

b Save and close the file.

Documents do not display message

To correct the documents not displaying error message, add the mapping definition to the **web.xml** file.

To correct the documents not displaying error message:

1 Using a text editor, open the **web.xml** file located at *<application server>*\oaa\WEB-INF and update the following sections.

Note: Be sure the lines are not within a section containing <!-- comment --> lines.

2 Add the following lines after the installation completes.

a Add these lines to the <servlet> section:

```
<servlet id="Servlet_GAAttach">
    <servlet-name>GAAttachmentDownload</servlet-name>
    <display-name>GAAttachmentDownload</display-name>
    <description>A compression capable servlet used for
downloading file attachments associated with DBMS
records.</description>

<servlet-class>com.peregrine.getanswers.GADocumentDownloadServle
t</servlet-class>
    <init-param>
      <param-name>scope</param-name>
      <param-value>attachmentsOnly</param-value>
    </init-param>
  </servlet>
```

b Add these lines to the <servlet-mapping> section:

```
<servlet-mapping>
   <servlet-name>GAAttachmentDownload</servlet-name>
   <url-pattern>/answers/attachments/*</url-pattern>
 </servlet-mapping>
```

c Save and close the file.

Glossary

This glossary contains general terms used when describing Get-Answers, OAA platform, and Workflow.

Activity A task or set of tasks that forms one logical step within the process definition. An activity can be a *manual activity* or an *automated activity*.

Activity instance A single instance of an activity within a process instance. A process instance can include multiple activity instances.

An activity that has been started is an activity instance.

Adapter Provides a connection between the back-end database and the Web application, allowing data to pass back and forth from the database to the Web browser.

AND-Join A point within the workflow where two or more parallel activities are joined and the next logical activity is executed (see *Parallel routing*).

AND-Split A point within the workflow where a sequential route splits so that two or more parallel activities are formed for independent, simultaneous processing (see *Parallel routing*). An AND-Join is used to join the parallel activities when their processing is complete.

Application server Processes data from a Web application database and delivers it to the Web server.

Archway A Java servlet that listens to HTTP requests from clients and foreign servers, routes the requests to an appropriate server, and returns data or displayable documents. The requests supported by Archway can vary, but they fundamentally consist of queries, data updates, and system events. Archway processes HTTP requests and formats them into messages understood by the Get-Answers processing layer. The resulting messages are ultimately dispatched to a data store adapter which produces an XML formatted result set.

Authoring Authoring is the ability to create new documents and edit the content using an RTF editor.

Audit data An historical record of the progress of process instances and activity instances.

Get-Answers collects the following information for process instances and activity instances:

Process Instance	Activity Instance
Date Started	Date Assigned
Date Ended	Date Due
	Date Ended

Automated activity An activity that is performed by a computer, without user intervention.

Business process A set of linked activities that complete a business objective. A business process is defined in a process definition that can include both automated and manual activities.

Capabilities Capabilities are the tasks that Members, Submitters, Readers, Reviewers, Editors, and Owners can perform. There are seven capabilities including read, create, update, revert, retire, publish, and transfer.

Deadline A time-based scheduling constraint where the work item for an activity must be completed by a specified time.

Domains Domains contain published documents. Each domain is managed by one Ownership Team.

ECMAScript Server-side scripting language. Used to write scripts for Get-Answers.

Editor Editor is one of the four Document Ownership Team permissions. An editor has read, create, and update capabilities for any document owned by the Ownership Team. An Editor also has special responsibilities in the editorial workflow.

Editorial workflow The Get-Answers Editorial Workflow is used to edit and review an unpublished (working copy) document and its metadata.

Escalation A procedure that is invoked when a specific constraint or condition is not met. An escalation can be automated or manual and generally involves a higher level of authority (see *Organization- al Role*).

Event An occurrence that causes the workflow management software to take one or more actions. An event notifies the workflow engine of an internal or external action.

HTML Hypertext Markup Language. A language used to compose Web pages, which can be read and displayed by a Web browser.

HTTP Hypertext Transfer Protocol. The communications protocol used to connect to Web servers. Sends HTML pages to the Web browser to be read and displayed. HTTPS can be used to provide extra data level security.

Iteration A repetitive execution of one or more activities until a specified condition is met.

JAAS Java Authentication and Authorization Service: JAAS is used by Get-Answers to authenticate users. The set of services against which a user must be authenticated can be configured, and each service can be defined as REQUIRED, OPTIONAL, REQUISITE, or SUFFICIENT through login modules.

Java Run-Time Environment A JRE is required to run Java programs. It consists of the Java Virtual Machine, the Java platform core classes, and supporting files.

JSP Java Server Page. Allows separation of page content from the design and display of a page. HTML tags with embedded Java source code are executed by the Web or application server. JSP technology is an extension of Java servlet technology.

Manual activity An activity that requires user resources for performance of the required tasks associated with the activity.

Member Member is one of the two Domain permissions. A member has read access to any document published in the domain.

Metadata Metadata consists of information stored about each document, such as file name, title, file size, document type, version number, creation date, and editorial status.

OAA Platform The software platform that the Peregrine Get-It products use. These products are Get-Answers, Get-Resources, and Get-Services. This platform provides features and functionality common to the Get-It employee self-service products. The OAA Platform is a software product included with any or all of the Get-It products and is not sold without them.

OR-Join A point within the workflow where two or more alternative activity branches are joined into a single activity.

OR-Split A point within the workflow where a sequential route splits based on a decision upon which branch to take. An OR-Split is conditional and the branch to the next activity is determined by the value returned.

Organizational Role A group of workflow participants having a specific set of attributes, qualifications, and skills. The participants within the group can perform work items that require a participant who has that set of attributes.

Owner Owner is one of the four Document Ownership Team permissions. An owner has read, create, update, revert, retire, publish, and transfer capabilities for any document owned by the Ownership Team. An Owner also has special responsibilities in the editorial and triage workflows.

Ownership teams Ownership Teams manage documents. There are four permissions associated with an Ownership Team. They include Reader, Editor, Owner, and Reviewer.

Parallel routing

A segment of a process instance where two or more activity instances execute in parallel. Parallel routing normally is created with an AND-Split and concludes with an AND-Join.

Peregrine Portal

The first screen displayed when starting a Peregrine Web application. Provides a login screen and access to the modules that make up the application.

Process

A set of process activities designed within the process definition according to the requirements of a business process.

Process definition

A process definition represents a business process and consists of activities where the process tasks are defined.

A process definition includes information about the activities and workflow users. Both manual activities and automated activities can be included in the process definition.

Process instance

A single instance of a process as defined by the process definition.

A process that has been started is a process instance.

Process role

A mechanism that associates workflow participants with workflow activities. The role defines how the user participates in a specific process or activity.

Process state

A representation of the status of a process instance. The Get-Answers workflow uses the following process states:

Running—the process instance is running and one or more activities have started.

Completed—the process instance has successfully completed all activities.

Error—the process instance has encountered an error and stopped.

Reader

Reader is one of the four Document Ownership Team permissions. A reader has read access to any document owned by the team. Readers play no role in the editorial or triage workflows.

Reviewer

Reviewer is one of the four Document Ownership Team permissions. A reviewer can read any document owned by the Ownership Team. A Reviewer also has special responsibilities in the editorial workflow.

Roles Roles consist of a group of users. Permissions are given to roles and/or individual users.

Sequential routing A segment of a process instance where several activity instances are executed in sequence.

Servlet A platform-independent Java application component that is used by the system as needed to perform server-side processing (for example, to access a database).

Submitter Submitter is one of the two Domain permissions. A submitter has read access to any document published in the Domain, and can contribute new documents to the Domain.

Triage workflow The Get-Answers Triage Workflow is used to examine newly submitted documents that have never been published before, in order to determine if the document should be further reviewed in an Editorial Workflow, published immediately, transferred to a different Document Team, or deleted.

Web application An application that opens in a Web browser.

Web server Reads data directly from a Web application or from the application server and converts it to a form that can be displayed by a Web browser.

Work item The work to be processed by a workflow user, as defined in the associated activity. Work items for a user or group of users are accessed through the worklist.

Workflow The automation of a business process where tasks are passed from one user to another, as defined by the process definition.

Get-Answers workflow consists of the lifecycle stages of each document. Up to three copies of a document can exist at any time. They include the published copy, the working copy, and the copy currently under revision.

Workflow engine A software service or "engine" that provides the run time execution environment for a process instance.

The workflow engine interprets the process definition, creates process instances and manages their execution, and navigates activities and creates work items for their processing.

Workflow participant A user that performs the work items assigned through the worklist. Each work item is represented by a workflow activity.

Working copy A working copy is a version of the published document in an editorial status.

Worklist A list of work items associated with a specific user or group of users.

XML Extensible Markup Language: A documentation meta-language that allows you to author self-describing data documents, which can then be formatted with a style sheet for display in a Web browser or exchanged with foreign systems. Unlike HTML, you create your own XML tags and define their meaning to suit the application.

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