

Peregrine

Get-Answers 4.0.1

Installation Guide

For Windows 2000 or AIX and Oracle or DB2

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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 readme.txt file, which provides information about where to find installation information, where to find documentation on the Web, including the most up-to-date Release Notes, and how to contact Support for the product.
- *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 Remedy HelpDesk, but it does explain how to use those products with Get-Answers. For information on using those products, see that product's documentation.

Note: If you are integrating with either of these applications, the applications 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 .
<i>Italics</i>	Variables and values that you must provide appear in <i>italics</i> . New terms also appear in <i>italics</i> .

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`.
- An ARS definition file, `GA31IntegrationExample.def`.

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

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

Contacting Customer Support

For further information and assistance with this release, contact Peregrine Systems' Customer Support.

Peregrine CenterPoint Web site

Current details of local support offices are available through the following main contacts or through the Peregrine CenterPoint Web site at:

<http://support.peregrine.com>

You need your current login user name and password to access this Web page.

To contact Peregrine customer support

- 1 Log in to the Web site with your login user name and password.
- 2 Click **Go** beside the CenterPoint support area.
- 3 From **Contents** on the left, select **Whom Do I Call?** to display the **Peregrine Worldwide Contact Information**.

Documentation Web site

A complete listing of the available documentation is on Peregrine's CenterPoint Web site at:

<http://support.peregrine.com>

Important: Release Notes for this product are continually updated after the release of the product. Visit the Peregrine Customer Support Web site to ensure that you have the most current version of the Release Notes.

Documentation Availability

A complete listing of the current Get-Answers documentation is available on Peregrine's CenterPoint Web site. at:

<http://support.peregrine.com>

To access the information that you need:

- 1 Log in to the support site with your login and password.
- 2 Select **Get-It** from **My Products** at the top of the page.
- 3 From **Contents** on the left, select **Documentation** or **Release Notes**.
- 4 Follow the path for the Get-Answers version and category of documentation that you need.
- 5 Download PDF copies of the manuals which can be viewed using the Adobe Acrobat Reader (available from www.adobe.com) or order printed copies of the documentation through your Peregrine Systems sales representative.

1

CHAPTER

Get-Answers Installation Overview

Using this book, you can install Get-Answers 4.0.1 or upgrade to Get-Answers 4.0.1 from Get-Answers 3.0.

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 17.
- Hardware requirements. *Hardware Requirements* on page 21.
- The types of installation and the chapters you must read to complete each type. *Get-Answers Installation Overview* on page 21.
- A worksheet for you to record information as you proceed through installation. See *Get-Answers Installation Worksheet* on page 23.

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 four servers: a database server, a search engine server, a web server, and a file server. You don't need a detailed understanding of the functions of each server to install Get-Answers, but a high-level understanding is necessary.

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

This server...	performs these functions...
File Server	stores files for access through Get-Answers
Database Server	Maintains an index of the documents in the file server and provides information to the other servers about those documents
OAA/Web Server	<p>Interacts with user's browsers</p> <p>Accepts submissions from users for storage on the File Server.</p> <p>Stores retrieved documents in a temporary file.</p> <p>Stores submitted documents in the temporary file.</p> <p>Passes submitted documents to the File Server for storage.</p>
Search Engine Server	Queries the Database Server for location of a requested document and then retrieves that document from the File Server.

This image explains the relationships between servers as well.

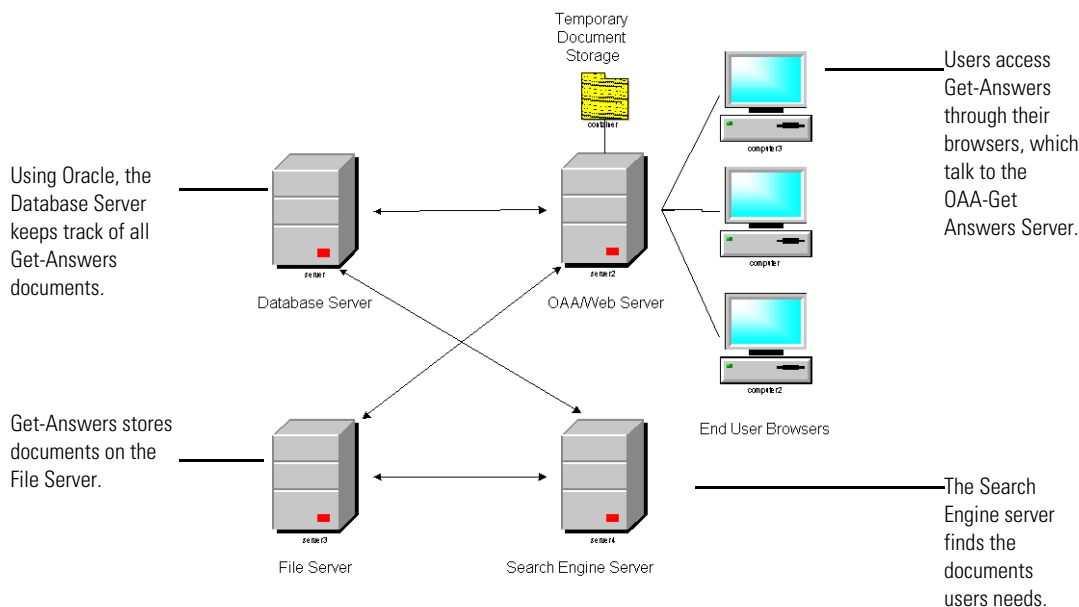


Figure 1-1: Server cross-talk: The Get-Answers servers interact with each other in several ways to manage the information users need.

You can run each server on a separate computer, or you can run all four servers on one computer. It is recommended, however, that you use Get-Answers on four computers. The installation instructions describe how to use four servers to install Get-Answers.

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

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® Open Application Architecture (OAA) platform.

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

Supported Operating System	Version
Windows 2000 Server	SP2

Web Servers 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 4.1.12 application server are installed and configured by the Typical installation process.

Web Server	Application Server	Notes
Apache Server 2.0.40	Tomcat 4.1.10	These are installed automatically in the Typical installation process.
Microsoft IIS Server 5.0	Tomcat 4.1.12	Windows NT servers run only the Internet Information Server (IIS). Microsoft IIS Server 5.0 is used on Windows 2000 Server.
Microsoft IIS Server 5.0	JRun 3.1	Windows NT servers run only the Internet Information Server (IIS). Microsoft IIS Server 5.0 is used on Windows 2000 Server.
Microsoft IIS Server 5.0	WebLogic 6.1, SP1	See previous note on IIS and Windows servers.
Microsoft IIS Server 5.0	WebSphere Advanced 4.0.2	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, please 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 56.

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	Server Version
Oracle	8.1.7	8.1.7

In addition, the database server must have:

- 615 MB free space for tablespace.
- Oracle 8.1.7 installed (see *Setting up Oracle on the Database server* on page 26 for suggested database name and database instance name).

Client Platforms

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

Supported Operating System	Browsers
Windows NT 4.0 with SP6	Internet Explorer 5.x, 6.x Netscape 6.2
Windows 2000	Internet Explorer 5.x, 6.x Netscape 6.2

Integrated Systems

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

Integrated System	Compatible versions
ServiceCenter	ServiceCenter 4.x, or ServiceCenter 5.0 or 5.1
Remedy Action Request System	Remedy Action Request system 4.x or 5.x

Important: If you integrate Get-Answers with ServiceCenter or Remedy ARS, you need to install these products separately. These back-end systems are *not* included on the Get-Answers CD. The installation instructions for these products can be found in their respective system manuals.

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 or an AIX environment. Either environment uses 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 4.0.1 for your Get-Answers installation.

Installation and platform types	Web and application server types	Installation type	Required chapters
First-time installation on Windows	Default Apache web server or Microsoft IIS web server and the Tomcat application server	Typical	<ul style="list-style-type: none"> ■ <i>Setting Up the Get-Answers Servers</i> on page 25 ■ <i>Get-Answers Typical Installation</i> on page 43 ■ <i>Completing All Installations</i> on page 211
First-time installation on Windows	<ul style="list-style-type: none"> ■ JRun, Websphere, or WebLogic as the application server <i>or</i> ■ an existing Tomcat and Apache configuration 	Custom	<ul style="list-style-type: none"> ■ <i>Setting Up the Get-Answers Servers</i> on page 25 ■ <i>Get-Answers Custom Installation</i> on page 55 ■ <i>Completing All Installations</i> on page 211
Upgrading to Get-Answers 4.0.1 Get-Answers 3.0.	Either Apache and Tomcat or JRun, WebSphere or WebLogic application servers	Upgrade	<ul style="list-style-type: none"> ■ <i>Upgrading to Get-Answers 4.0.1</i> on page 119 ■ <i>Completing All Installations</i> on page 211
Installing Get-Answers 4.0.1 on AIX with DB2	any of the above	AIX/DB2	<ul style="list-style-type: none"> ■ <i>Setting Up the Get-Answers Servers</i> on page 25 ■ <i>AIX Installation with DB2</i> on page 147

When you have finished installing Get-Answers 4.0.1, no matter what type of installation you use, read these chapters for information that might apply to you.

- *Configuring Integrations* on page 239
- *Troubleshooting Installation and Operation* on page 249

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	Directory and name of Get-Answers folder on the File Server	
2	Database Name (global name or service name) See <i>Setting up Oracle on the Database server</i> on page 26.	
3	Database SID (instance name) See <i>Setting up Oracle on the Database server</i> on page 26.	
4	Database Tablespace Name See <i>Creating the tablespace and the rome user</i> on page 26.	
5	Database User ID See <i>Creating the Rome user</i> on page 28.	
6	Database User Password See <i>Creating the Rome user</i> on page 28.	
7	Database Server Net Service Name See <i>Configuring an Oracle client</i> , step 12 on page 34	
8	Database Server Hostname (machine name) See <i>Setting up Oracle on the Database server</i> on page 26.	
9	Database Server port number See <i>Setting up Oracle on the Database server</i> on page 26.	
10	File Server Get-Answers Documents Directory See <i>Chapter 7, Completing All Installations</i> .	
11	Search Engine Search Server Installation Directory From <i>Installing the search engine</i> , step 5 on page 36	
12	Search Engine Server host name (machine name) From <i>Installing the search engine</i> , step 6 on page 37.	
13	Search Engine Search/Index Port From <i>Installing the search engine</i> , step 5 on page 36.	
14	Search Engine server file drive mapping.	

Step	Configuration item	Value
15	Web Server File drive mapping	
16	Web Server Presentation Directory	

2 Setting Up the Get-Answers Servers

CHAPTER

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 or DB2 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 File server. See *Setting up the File server*, next.
- Step 2** Setting up the Get-Answers database on your Database server. See *Setting up the Database server* on page 26.
- Step 3** Setting up and installing the Search Engine server. See *Setting up and installing the Search Engine server* on page 31.

Setting up the File server

The File server, as described in the first chapter of this guide, stores the Get-Answers documents. This section describes how to set up the File server.

Any standard server can operate as the File server.

To set up the file server:

- ▶ On the server you have chosen to be your File server, create a folder to hold the Get-Answers files. This your Get-Answers Documents directory.

Note: Write down the drive and directory of this folder on the File server in the Get-Answers Installation Worksheet on page 23.

Setting up the Database server

This section includes instructions for setting up either the Oracle or the DB2 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 29.

Setting up Oracle on the Database server

Get-Answers 4.0.1 uses Oracle as its 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, from the Oracle CD.

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 23.

Creating the tablespace and the rome user

The tablespace is the storage location for the Get-Answers database. The Rome user is 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**.
- 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 lightening 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 th user name in *Database User ID* and the user password in *Database User Password* in the *Get-Answers Installation Worksheet* on page 23.

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 “rome” with your tablespace name if yours is different:

```

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 execute 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:

- 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 pagesize32k managed by system using ('usertemp32k') bufferpool bp32k
 - 5 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
- 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`

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:

- Step 1** Follow the procedure in *Modifying the path environment variable*, next.
- Step 2** Do one of the following:
- If Oracle is your database, use the procedures in the section, *Setting up Oracle* on page 31.
 - If DB2 is your database, use the procedures in the section, *Setting up DB2* on page 33.
- Step 3** Follow the procedure in the section, *Installing the Search Engine on the Search Engine server* on page 34 regardless of which database you use.
- Step 4** Complete the process by following the steps in the section, *Checking the search engine installation* on page 41 regardless of which database you use.

Modifying the path environment variable

Make sure your path environment variable contains the following line. If it does not, add it now, making sure the resulting path environment variable is less than 256 characters:

- ▶ C:\getanswers\lib;C:\getanswers\inso;C:\getanswers\

Setting up Oracle

If you are using Oracle, use the following procedure to set up the Oracle client.

If you are using DB2 as your database, skip this section and go to the next one.

Important: If the search engine server is on a different computer than the Oracle server, install an Oracle 8.1.7 Administrator client on the search engine server (from the Oracle CD).

After you install the Oracle client, use the Net8 Configuration Assistant to create an entry in your tnsnames.ora file to point to the Oracle Server.

Note: If you have already configured the Oracle client, go to *Installing the Search Engine on the Search Engine server* on page 34.

Perform the following procedures on the search engine server.

To configure the Oracle client

- 1 Choose **Start > Programs > Oracle - OraHome8i > Network Administration > Net8 Configuration Assistant**.
- 2 Choose **Local Net Service Name** configuration. Then click **Next**.
- 3 Choose **Add**. Then click **Next**.
- 4 Choose **Oracle 8i database or service**. Then click **Next**.
- 5 Under **Service Name**, type the word **ORCL** (or whatever the Global Database Name of the Oracle server is). Then click **Next**.

Note: The database name should be recorded in *Database Name (global name or service name)* in the *Get-Answers Installation Worksheet* on page 23.

- 6 Select **TCP** as the network protocol. Then click **Next**.
- 7 In the **Host Name** box, type the Oracle server hostname. If the port number is *not* the standard port number, select **Use another port number** and type the port number in the accompanying box. Then click **Next**.

Note: Record the Oracle server host name and port number in *Database Server Hostname (machine name)* and *Database Server port number* in the *Get-Answers Installation Worksheet* on page 23.

- 8 Select **Yes**, perform a test. Then click **Next**.
A "Connecting... Test successful." message appears automatically. However, you are connecting using a default Oracle ID.
- 9 Click **Change Login**.
- 10 In the **Change Login** dialog box, type the username and password the search engine server should use to connect to the Get-Answers database. Then click **OK**.

Note: The user name and password should be recorded in *Database User ID* and *Database User Password* in the *Get-Answers Installation Worksheet* on page 23.

If the test is successful, the "Connecting... Test successful." message should appear again.

- 11 Click **Next**.
- 12 In the Net Service Name box, type a net service name. For example, ORCL_HOSTNAME, where HOSTNAME is your Oracle server hostname.
Note: Record the net service name in *Database Server Net Service Name* in the *Get-Answers Installation Worksheet* on page 23.
- 13 Select **No** to indicate you do not want to configure another net service name and click **Next**.
A "Net service name configuration complete" message appears.
- 14 Click **Next**.
- 15 Select **Local Net Service Name** configuration, and then click **Finish** to save the changes.

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:

- 1 Go to the command prompt at the server:
- 2 Navigate to the SQLLIB/bin directory
- 3 Type `db2level`.

- 4 Write down the information you see.
- 5 Repeat this procedure on the client and write down the information you see when you type **db2level**.
- 6 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**, click **Settings**, and then click **Control Panel**.
- 2 Click **Administrative Tools**.
- 3 Click **Data Sources (ODBC)**.
- 4 Click the **System DSN** tab.
- 5 Click the **Add** button
- 6 Select **IBM DB2 ODBC Driver**
- 7 Enter a data source name and click **Add**.
- 8 Select the **Search the network** option, and click **Next**.
- 9 Open the known systems, select your DB2 database from the list of local database or remote databases, and click **Next**.
- 10 Specify a local nickname and click **Next**.
- 11 Select any optimization option, and click **Finish**.
A confirmation dialog box opens.
- 12 Close the box and go to the next section.

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.

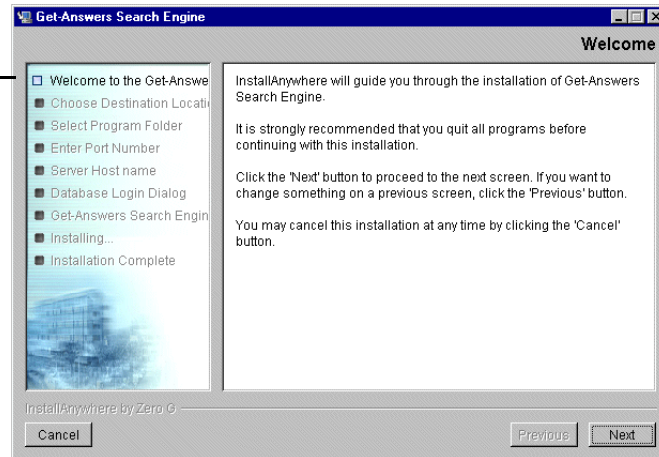
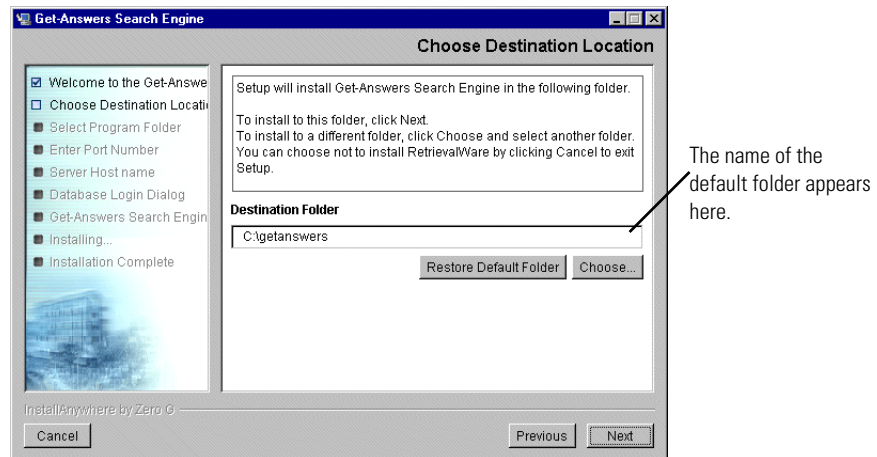


Figure 2-1: Get-Answers Search Engine Welcome screen

- 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.

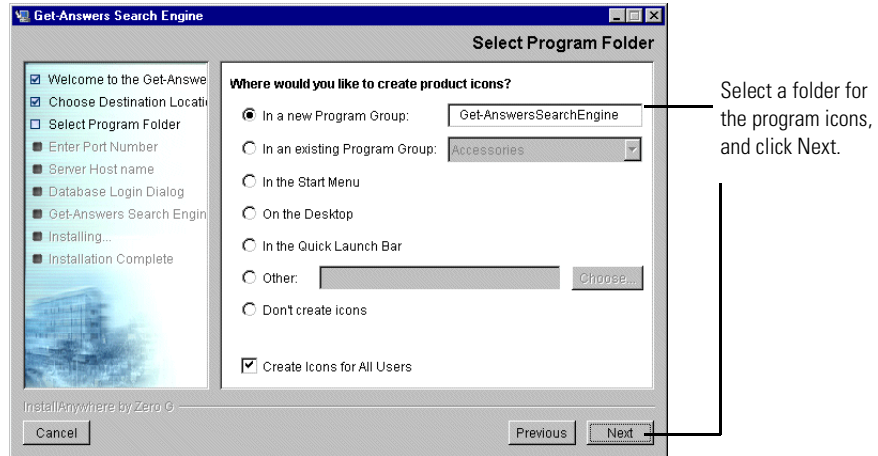


- 3 To select the destination folder, do one of the following:
 - To accept the default location, click **Next**.
 - To select a different location, click **Choose**, select the folder in the dialog box that opens, and then click **Next**.

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* on page 23.

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

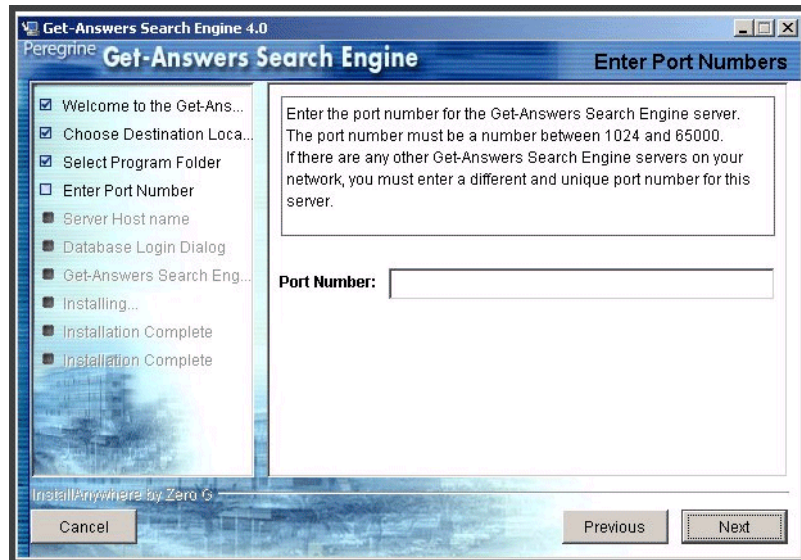


- 5 In Enter Port Numbers dialog box, type the port number for the search engine server and click Next.

Important: The following rules are crucial for successful installation.

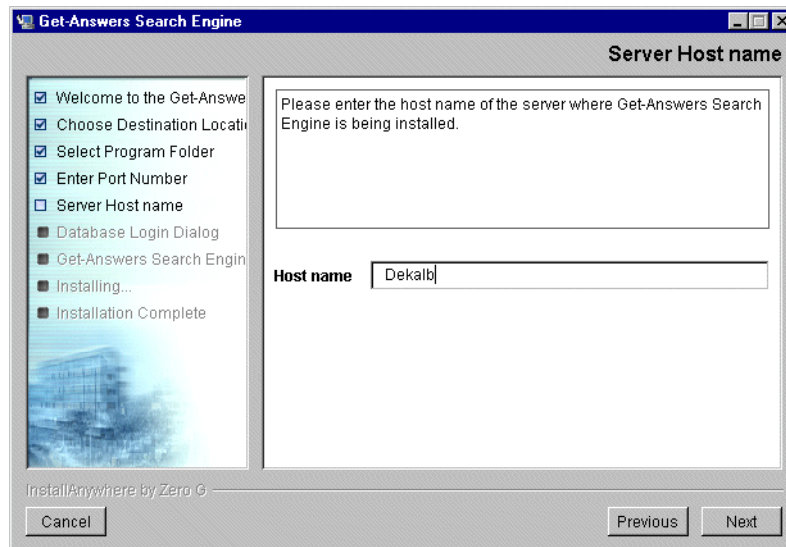
- Do not choose port numbers that are already in use on this server.
- Make sure the port numbers for your search engine server are unique for your site and different from the port numbers for any other search engine server.

Note: Record this port number selection in *Search Engine Search/Index Port* in the *Get-Answers Installation Worksheet* on page 23.

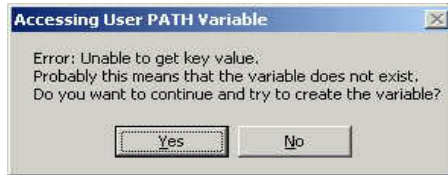


- 6 In the Server Host name dialog box, type the host name of the search engine server and click Next.

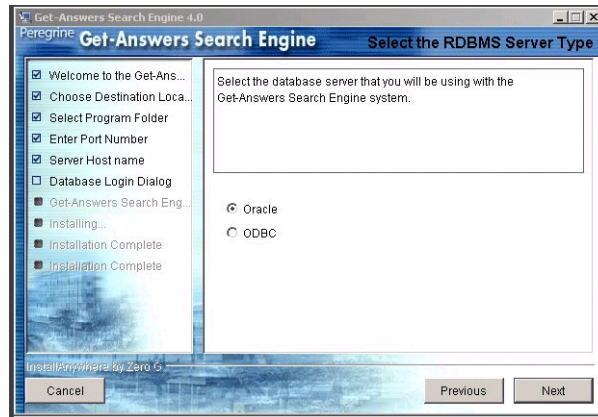
Note: Record the search engine server host name in *Search Engine Search Server Installation Directory* in the *Get-Answers Installation Worksheet* on page 23.



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

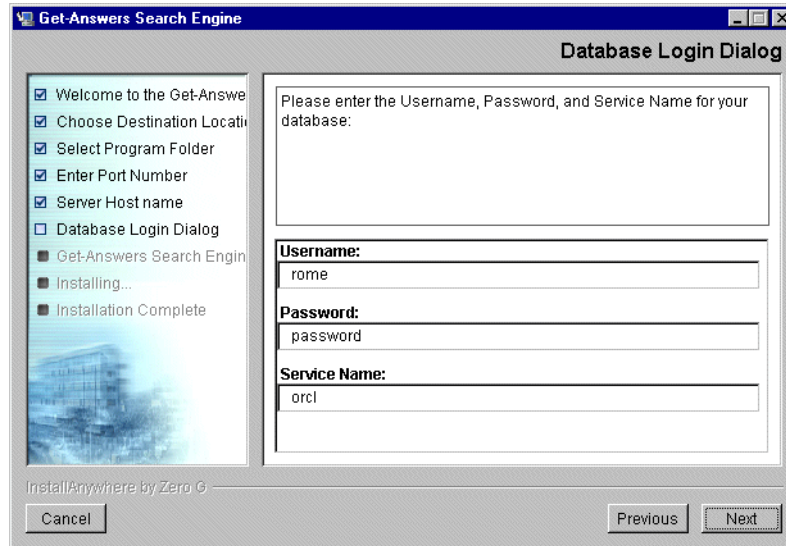


- 8 In the Select RDBMS Server Type dialog box that opens, choose your server type, and then click Next.

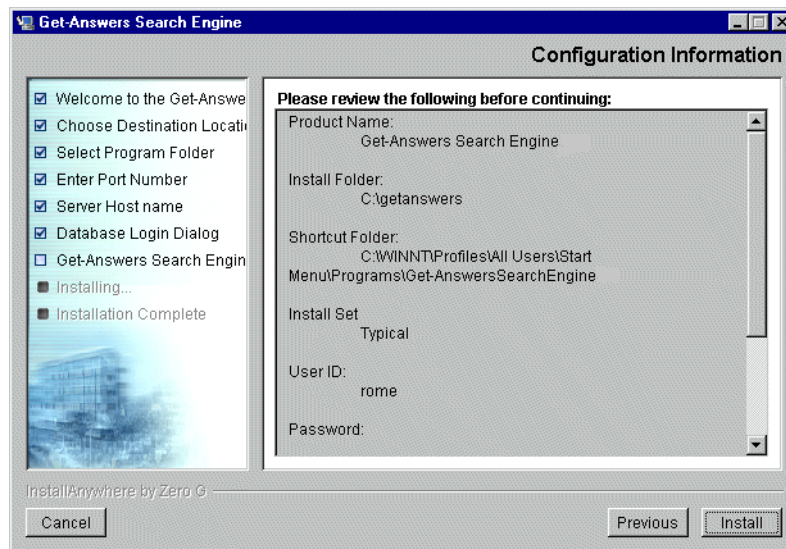


- 9 In the Database Login dialog box, type the values the Search Engine Search Server should use to log on to the Get-Answers database and click Next.
- a In Username, type the value found in *Database User ID* on page 23.
 - b In Password, type the value found in *Database User Password* on page 23.

- c In Service Name, type the value found in *Database Server Net Service Name* on page 23.



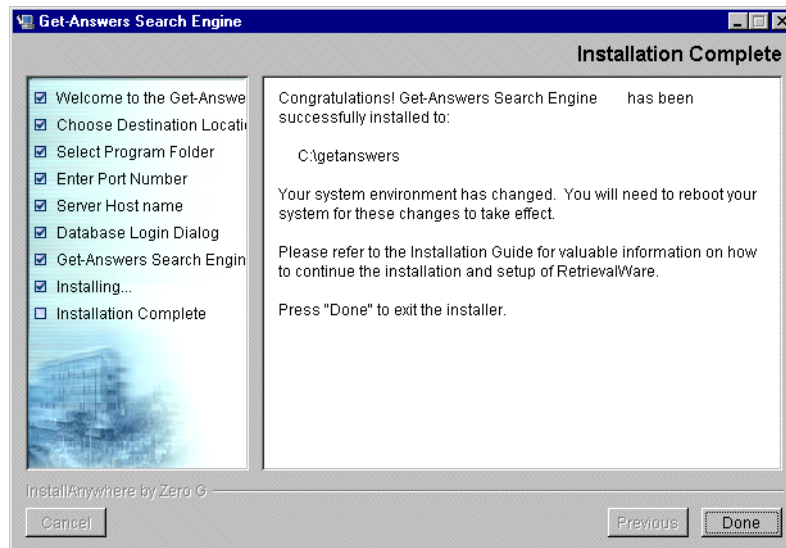
- 10 In the Configuration Information dialog box, confirm your search engine configuration settings and make sure you have adequate disk space, and click **Install**.



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



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



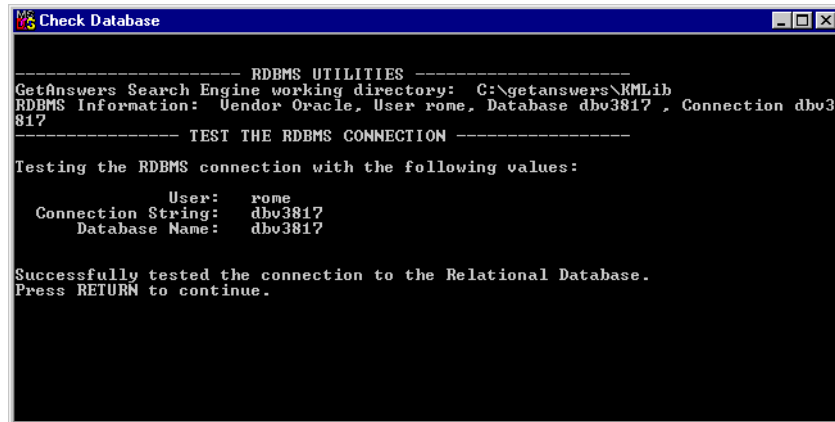
- 12 Restart your search engine server machine.

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-AnswersSearchEngine4.0>Check Database Connection**.



```
----- RDBMS UTILITIES -----
GetAnswers Search Engine working directory: C:\getanswers\KMLib
RDBMS Information: Vendor Oracle, User rome, Database dbv3817 , Connection dbv3817
----- TEST THE RDBMS CONNECTION -----
Testing the RDBMS connection with the following values:

      User:      rome
Connection String: dbv3817
      Database Name: dbv3817

Successfully tested the connection to the Relational Database.
Press RETURN to continue.
```

- 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 KMLib.

Example: C:\getanswers\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* on page 23.

- 3 Press any key to exit.

3

CHAPTER

Get-Answers Typical Installation

This chapter explains the installation and configuration of Get-Answers and the OAA platform on a Windows system using a Tomcat 4.1.10 application server.

Before you install the OAA platform on the web server, see the recommended configurations in *Server Platforms* on page 18, and *Web Servers and Engines* on page 18.

If you use one of the alternate application servers supported by the OAA platform (JRun, WebSphere, or WebLogic), see *Chapter 4, Get-Answers Custom Installation*.

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 4.1.10, 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 4.1.10+ can be installed from the Peregrine OAA Platform installation CD.
- Do you have an Apache 1.3.x 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.

Pre-installation required procedures

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

Step 1 Create the network drive mappings.

- On the Web server, create a network drive mapping to the file server.

Note: Record the directory name in *Web Server File drive mapping* in the *Get-Answers Installation Worksheet* on page 23.

- On the Web server, create a network drive mapping to the search engine server.
- Create a network drive mapping to the web server file shared directory if it is located on a machine other than the web server. If the directory is located on the web server, but you do not want it located under the root directory, you must create the necessary directory structure before beginning the installation.

Step 2 Make sure the Oracle client is installed and configured on the web server.

- If the web server is on a different computer than the Oracle server, install an Oracle 8.1.7 Administrator client on the web server (Oracle CD).
- If you have not already done so, use the Net8 Configuration Assistant to create an entry in your tnsnames.ora file to point to the Oracle Server. See the instructions in *Configuring an Oracle client* on page 33.

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, Get-Answers Custom 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, Get-Answers Custom Installation*. Perform these steps on the Web server.

Note: When you install Tomcat or any application server as a service, make sure the Log On Account for the service has the rights to access the file server directories on a remote file server. (You can find the Log On Account in the Log On tab in the Properties for the service. The Typical installation sets this Log On as the Local System account. It is best to create a user who has read and write access rights to the file server directories. Go to Control Panel and then Services, select the application service, and set this user's account as the permanent Log On for the service.

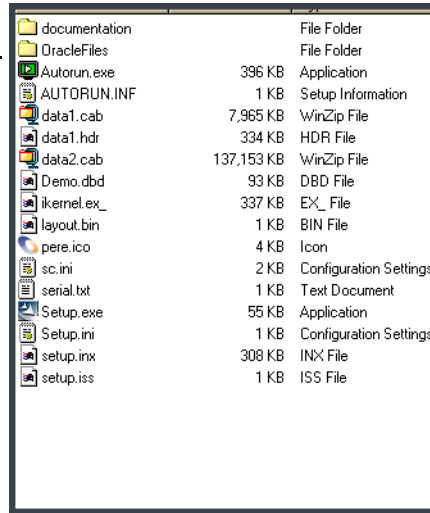
Installing Get-Answers using Typical installation

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

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

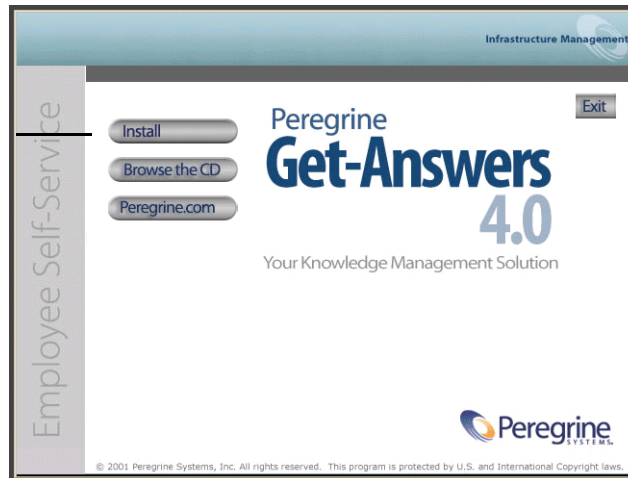
- 1 In the CD Browser, find and open the **Autorun.exe** file.

Click Autorun.exe
here.

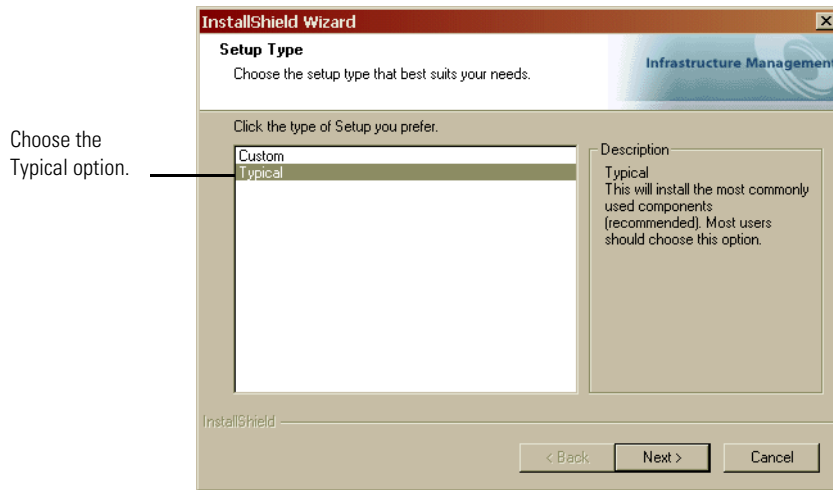


- 2 In the Get-Answers page that opens, click **Install**.

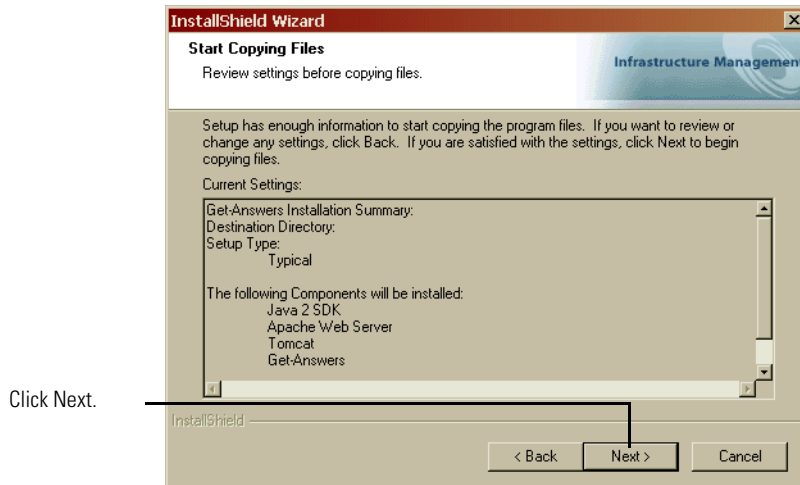
Click Install.



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



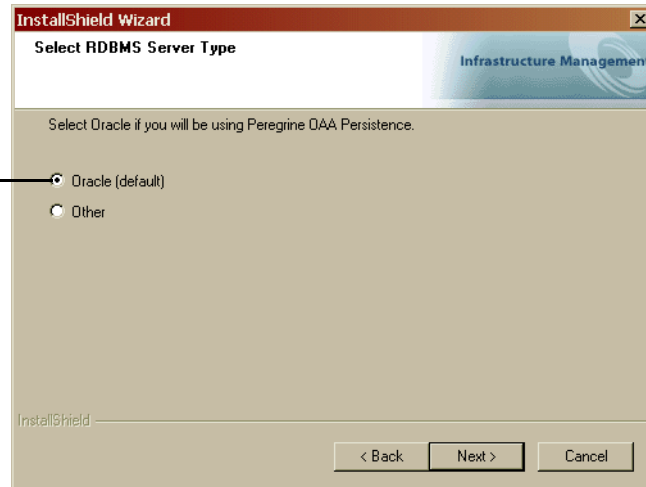
- 4 In the Start Copying Files dialog box that opens, click **Next**.



The window that opens shows that Get-Answers is copying the files to your system.

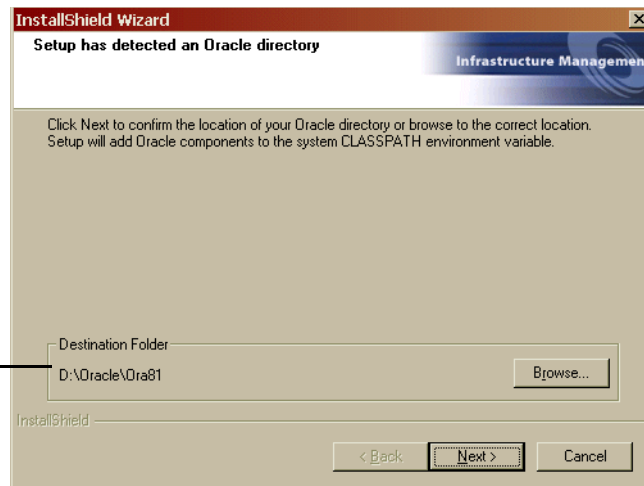
- 5 In the Select RDBMS Server Type dialog box that opens, make sure that Oracle is selected, and then click Next.

Make sure that Oracle is selected.



- 6 In the Oracle directory dialog box that opens, either navigate to a new directory for Oracle or select the directory that appears, and then click Next.

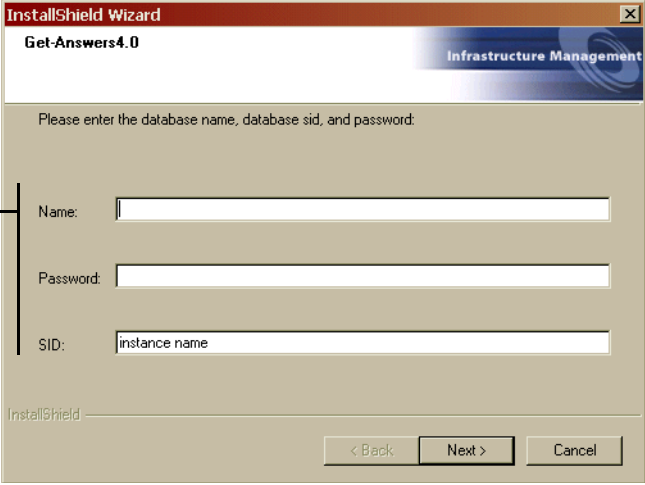
Make sure this information matches your Oracle directory.



- 7 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 in the *Get-Answers Installation Worksheet* on page 23.

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



InstallShield Wizard
Get-Answers4.0
Infrastructure Management

Please enter the database name, database sid, and password:

Name:

Password:

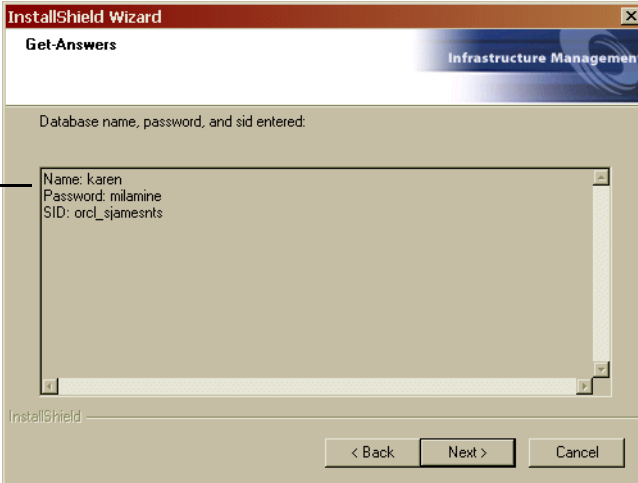
SID:

InstallShield

< Back Next > Cancel

- 8 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.



InstallShield Wizard
Get-Answers
Infrastructure Management

Database name, password, and sid entered:

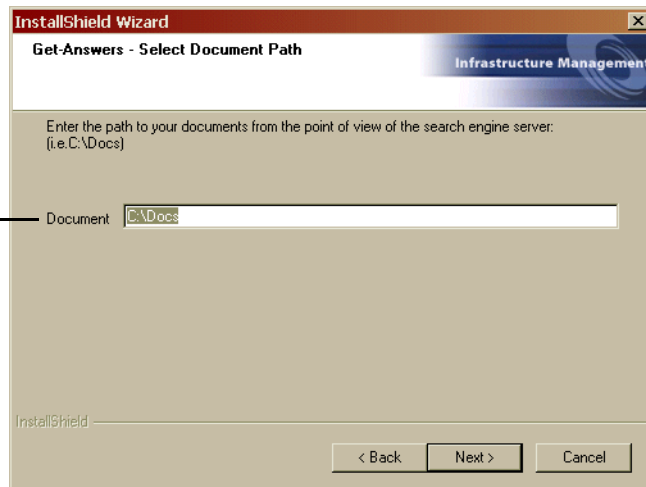
Name: karen
Password: milamine
SID: orcl_sjamesnts

InstallShield

< Back Next > Cancel

The Select Document Path dialog box opens.

This is the path to your documents folder from the perspective of the Search Engine server.

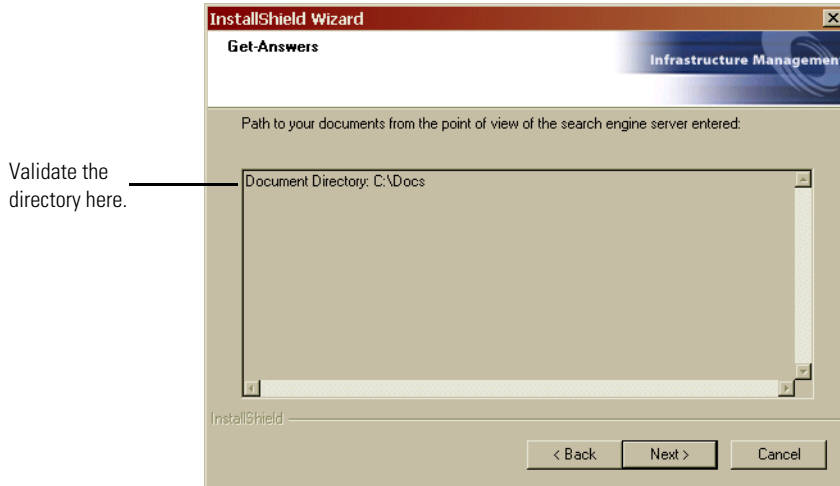


The Documents directory is the file server directory that serves as a repository for documents that Get-Answers manages. This is the directory you created on the File server in *Chapter 2, Setting Up the Get-Answers Servers*.

Note: Record the document directory name in the *Get-Answers Installation Worksheet* on page 23.

- 9 Enter the name of the Documents directory from the point of view of the search engine server, and then click Next.

- 10 In the confirmation dialog box that opens, check that you entered the correct directory, and then click **Next**.

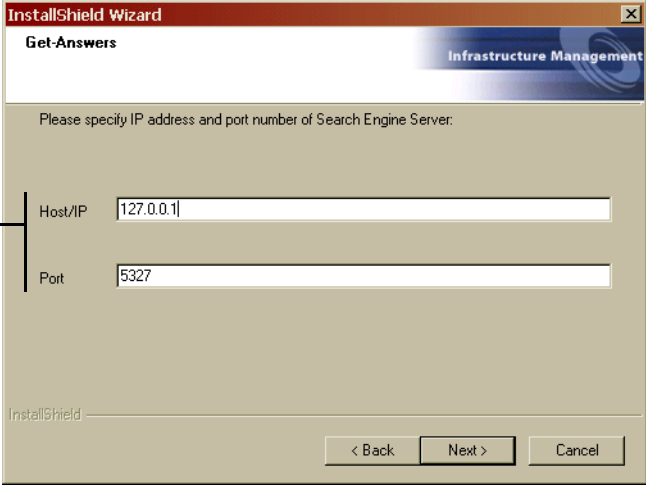


- 11 In the next dialog box that opens, enter the IP address and port number of the Search Engine server, and then click **Next**.

Note: You can find this information on the *Get-Answers Installation Worksheet* on page 23.

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.



InstallShield Wizard
Get-Answers
Infrastructure Management

Please specify IP address and port number of Search Engine Server:

Host/IP: 127.0.0.1

Port: 5327

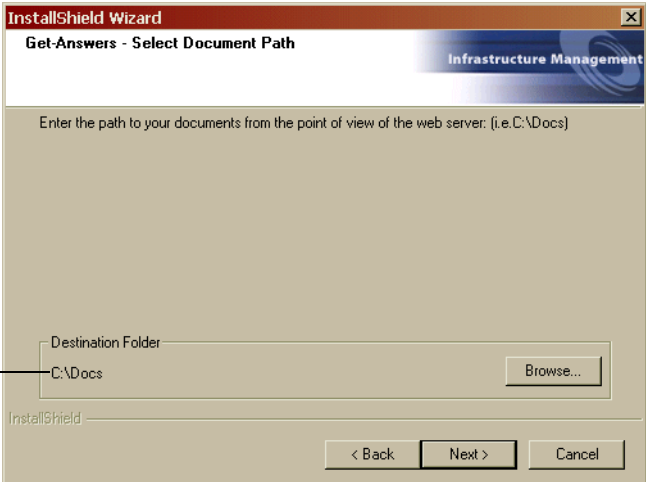
InstallShield

< Back Next > Cancel

- 12 In the next dialog box that opens, enter the path to the documents directory from the point of view of the Web server, and then click **Next**.

Note: You must create a drive letter mapping for the directory if it is located on a machine other than the Web server.

Enter the path to the documents directory from the point of view of the Web server.



InstallShield Wizard
Get-Answers - Select Document Path
Infrastructure Management

Enter the path to your documents from the point of view of the web server. (i.e. C:\Docs)

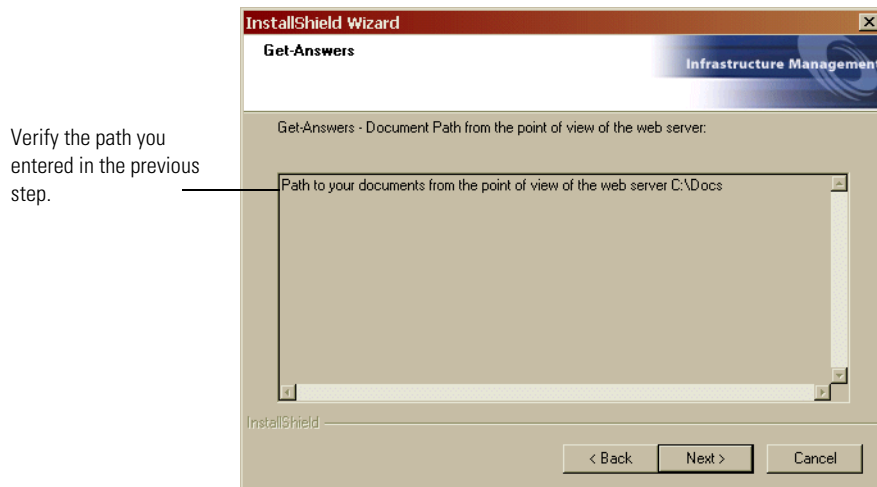
Destination Folder: C:\Docs

Browse...

InstallShield

< Back Next > Cancel

- 13 In the confirmation dialog box that opens, make sure the path is correct, and then click **Next**.



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.

- 14 Click **Finish**.

Completing the installation

Continue with *Chapter 7, Completing All Installations*.

4

CHAPTER

Get-Answers Custom Installation

This chapter explains the installation and configuration of Get-Answers and the OAA platform on a Windows system on application servers other than Tomcat.

In addition to Tomcat, OAA platform 4.0 provides support for the following application servers:

- JRun 3.1.
- WebSphere Advanced 4.0.2
- WebLogic 6.1

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 other than Tomcat.

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 57.

Step 2 Perform the procedures described in the section, *Pre-installation required procedures* on page 57.

- Step 3** Configure the application server according to the instructions provided in the section, *Configuring the Application Servers* on page 57.
- Step 4** Install Get-Answers and OAA as described in the section, *Installing Get-Answers using Custom installation* on page 103.
- Step 5** Update the Scriptpollers.ini file as described in the section, *Updating the scriptpollers.ini Files* on page 117.
- Step 6** Perform the final steps necessary for your particular application server as described in the section, *Completing the application server installation* on page 114.

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.

Important: You must configure your Web server before you install Get-Answers.

- A supported Java application server. See the recommended configurations in *Web Servers and Engines* on page 18.
- A supported webserver. See the recommended configurations in *Web Servers and Engines* on page 18.

Important: If you are using Tomcat as your webserver 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.

Step 1 Create the network drive mappings.

- On the Web server, create a network drive mapping to the file server.

Note: Record the directory name in *Web Server File drive mapping* in the *Get-Answers Installation Worksheet* on page 23.

- On the Web server, create a network drive mapping to the search engine server.
- Create a network drive mapping to the web server file shared directory if it is located on a machine other than the web server. If the directory is located on the web server, but you do not want it located under the root directory, you must create the necessary directory structure before beginning the installation.

Step 2 Make sure the Oracle client is installed and configured on the web server.

- If the web server is on a different computer than the Oracle server, install an Oracle 8.1.7 Administrator client on the web server (Oracle CD).
- If you have not already done so, use the Net8 Configuration Assistant to create an entry in your `tnsnames.ora` file to point to the Oracle Server. See the instructions in *Configuring an Oracle client* on page 33.

Step 3 Installing 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.

Configuring the Application Servers

If you have chosen not to use Tomcat as your application server, you can use another product that Get-Answers supports as your application server.

The Get-Answers installation requires a connection between your web server and an application server. So when you configure the application server, you are connecting it to the Web server you have chosen.

Install the application server using the documentation for that web server. For example, if Websphere Advanced 4.0.2 is your application server, see the Websphere documentation to install it, and then return to the section here to connect it to your Web server.

This chapter includes instructions for configuring the alternate application servers supported with Get-Answers.

The following alternate application servers are supported:

- WebSphere 4.1
- WebLogic 6.1 SP1
- JRun 3.1

The procedures in this chapter will only *configure* Get-Answers on the application servers. Refer to the documentation for the individual servers for installation instructions.

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 4.1.12 connecting to IIS 5.0*
- *WebSphere 4.0.2*
- *WebLogic 6.1 SP3 or SP4*
- *JRun 3.1*

The Get-Answers typical installation option installs Tomcat 4.1.12 and connects it to an Apache 2.0 web server. You can also install Tomcat 4.1.12 using the custom installation option.

Important: If you want to use an application server other than Tomcat 4.1.12, 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 for the Apache Web server. You can configure your existing Tomcat and Apache servers to connect, even those that are NOT installed by the installer.

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

- 1 Copy the following files to the directories indicated below.

Note: You can get these files from a machine that has Tomcat and Apache installed through the installer using the Typical installation.

Copy this file **from another machine that has a typical installation**

- **mod_jk.conf** to your machine in the \conf directory of your Tomcat installation. The default file path is:
C:\Program Files\Apache Group\Tomcat 4.1\conf
- **workers.properties** to your machine in the \conf directory of your Tomcat installation. The default file path is:
C:\Program Files\Apache Group\Tomcat 4.1\conf
- **mod_jk.dll** to your machine in the \modules directory of your Apache installation. The default file path is:
C:\Program Files\Apache Group\Apache2\modules

- 2 Using a text editor, open files mod_jk.conf and workers.properties located in the \conf directory under your Tomcat installation.

The default file path is:

C:\Program Files\Apache Group\Tomcat 4.1\conf

- 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 http.conf file located in C:\Program Files\Apache Group\Apache2\conf.

- a Add the following lines to the bottom of this file:

```
### Tomcat4.1 Connector ###
include "<your Tomcat installation>/conf/mod_jk.conf"

# PRGNREDIRECT #
RewriteEngine on
```

```
RewriteRule ^/$ http://%{SERVER_NAME}:%{SERVER_PORT}/oaa/login.jsp
[R=permanent]
RewriteRule ^/oaa/$ http://%{SERVER_NAME}:%{SERVER_PORT}/oaa/login.jsp
[R=permanent]
```

- b** Go to the **modules** section in this file and verify that the following line is in the file and is NOT commented:

```
LoadModule rewrite_module modules/mod_rewrite.so
```

- 4** Using a text editor, open the `server.xml` file in the `\conf` folder under your Tomcat installation.

The default file path is: `C:\Program Files\Apache Group\Tomcat 4.1\conf`.

- a** Add the following lines under the Services section:

```
<Connector className="org.apache.jsp.tomcat4.Ajp13Connector"
port="8009" minProcessors="5" maxProcessors="75"
acceptCount="10" debug="0"/>
```

- b** Save the file.

- 5** Make sure that you stop both Tomcat and Apache.
- 6** Use the installer to install Get-Answers using the **Custom** option. See *Installing Get-Answers using Custom installation* on page 103.
- 7** If your application uses Oracle, copy the `classes12.zip` 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`.

- 8** Start Tomcat.
- 9** Start Apache.
- 10** Start your Get-Answers application.

Tomcat 4.1.12 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 62.
- Step 2** Configure the ISAPI Plugin for IIS. See *Configuring the ISAPI Plugin for IIS* on page 63.
- 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 63.
- Step 4** Create and configure a `jakarta` virtual directory in IIS. See *Configuring a jakarta virtual directory in IIS* on page 64.
- Step 5** Create and configure an `oaa` virtual directory in IIS. See *Configuring an oaa virtual directory in IIS* on page 65.
- 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 66.
- 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 67.
- Step 8** Pre-compile JSP files for your production environment. See *Precompiling JSP files for a Tomcat production environment* on page 68.

Running the installer

Run the Get-Answers installer and select the Custom installation option. See *Installing Get-Answers using Custom installation* on page 103..

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 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”
```
- 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:
`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:

- 1 Use the following guidelines to create the virtual directory.

Requirements for an oaa virtual directory

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

- 2 For <ooa>, 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\ooa 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

- 3 For <Tomcat>, enter the path to your Tomcat installation. The default file path is:
 C:\Program Files\Peregrine\Common\Tomcat4

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"
useURIVValidationHack="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`.

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.

Precompiling JSP files for a Tomcat production environment

If you plan to use Tomcat 4.1.12 in a production environment or on a system with multiple processors, you will need to pre-compile the JSP files deployed for Get-Answers. This extra configuration step is the result of a known issue with Tomcat. See the following URL for more details about this issue:

http://nagoya.apache.org/bugzilla/show_bug.cgi?id=14077

To pre-compile JSP files for Tomcat 4.1.12:

- 1 Stop the Tomcat application server.
- 2 Clear Tomcat cache. The default path is:
C:\Program Files\Peregrine\Common\Tomcat4\work\Standalone\localhost\oaa
- 3 Open a command prompt.
- 4 Enter one of the following commands based upon your operating system:

Operating system	Command required
Windows	set JASPER_HOME=<Tomcat directory>

For <Tomcat directory> enter the absolute path to your Tomcat installation.

- 5 Change directories to the Tomcat bin folder.

Operating system	Command required
Windows	cd %jasper_home%\bin

- 6 Run the precompile batch file.

Operating system	Command required
Windows	precompile <Web app name> <Tomcat instance name>

For <Web app name> enter the name of the Get-Answers deployment folder. You may omit this name if you are using the default folder named `oaa`.

For <Tomcat instance name> enter the name of the Tomcat instance you have installed. You may omit this name if you are using the default instance named `Standalone`.

The batch file displays the progress of the conversion. When it is complete, the command prompt returns.

Start the Tomcat application server.

WebSphere 4.0.2

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

To configure WebSphere 4.02:

- Step 1** Install WebSphere 4.02. Your version of WebSphere 4.0.2 includes the IBM HTTP Server.
- 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 70.
- Step 3** Set the JVM classpaths to your database classes. See *Setting the JVM classpaths* on page 72.
- Step 4** Set the JVM Java heap size for each WebSphere instance running Get-Answers. See *Setting the Java heap size* on page 73.
- Step 5** Run the Get-Answers installer. See *Running the installer* on page 75..

If you plan on setting up a WebSphere Portal Server or a WebSphere Translation Server, see *Installing WebSphere Portal Server* on page 76 or *Configuring WebSphere Translation Server for Get-Answers* on page 85.

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:

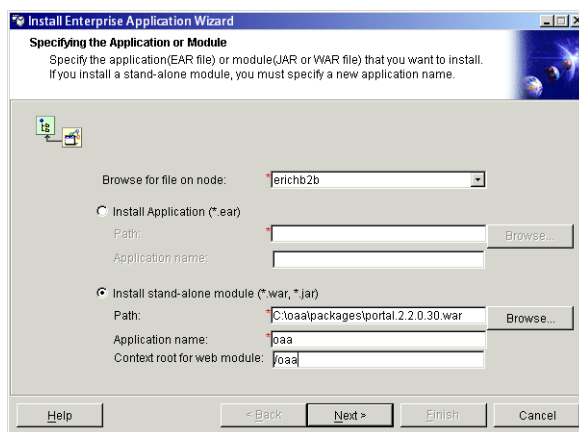
- 1 Verify that the WebSphere Admin Server has been started.
- 2 Open the WebSphere Advanced Administrator's Console (**Start > Programs > IBM WebSphere > Application Server > Administrator's Console**).
- 3 On the menu at the left side of the console, right-click on **Enterprise Applications** and select **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.

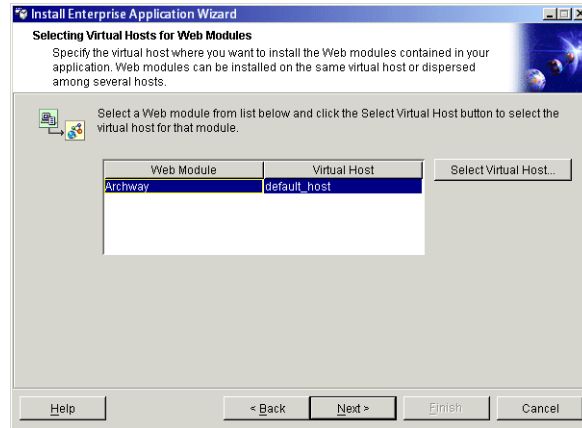
Important: You must create a Web server virtual directory matching the context root you enter here.

The following screen shows the completed form.

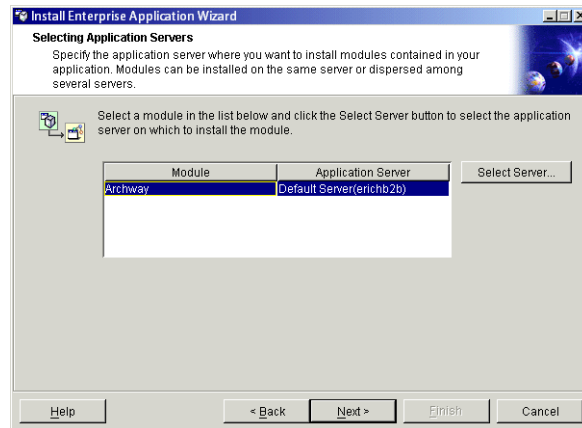


- 5 Click **Next**.
- 6 Click **Next** on the following dialog boxes. These screens will not be used.
 - Mapping Users to Roles
 - Mapping EJB Run As Roles to Users
 - Binding Enterprise Beans to JNDI Names
 - Mapping EJB References to Enterprise Beans
 - Mapping Resource References to Resources
 - Specifying the Default Datasource
 - Specifying Data Sources for Individual CMP Beans

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



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



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

Setting the JVM classpaths

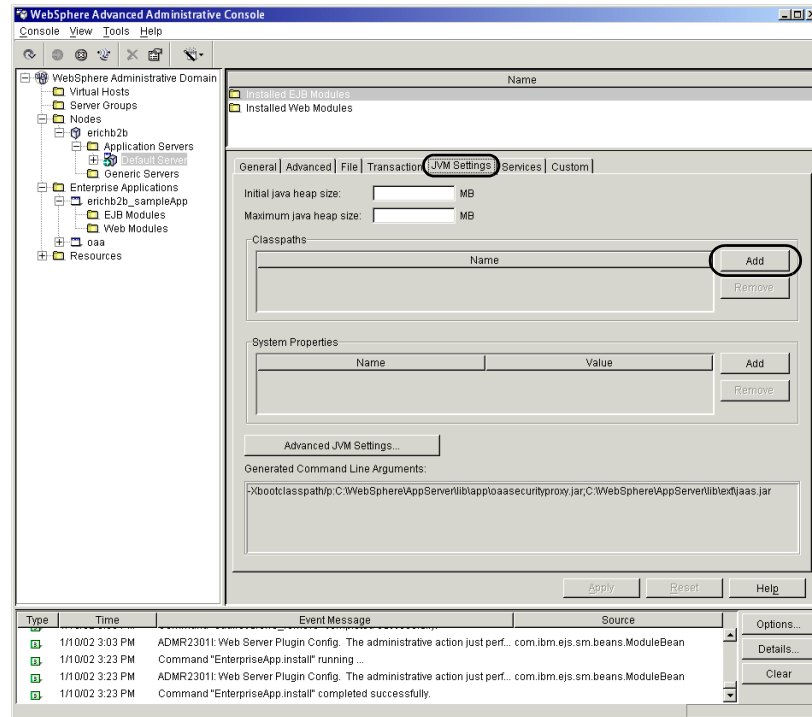
Get-Answers requires that you set the JVM classpaths to your database classes.

To set the JVM classpaths:

- 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.zip file:

`C:\oracle\ora81\jdbc\lib\classes12.zip`

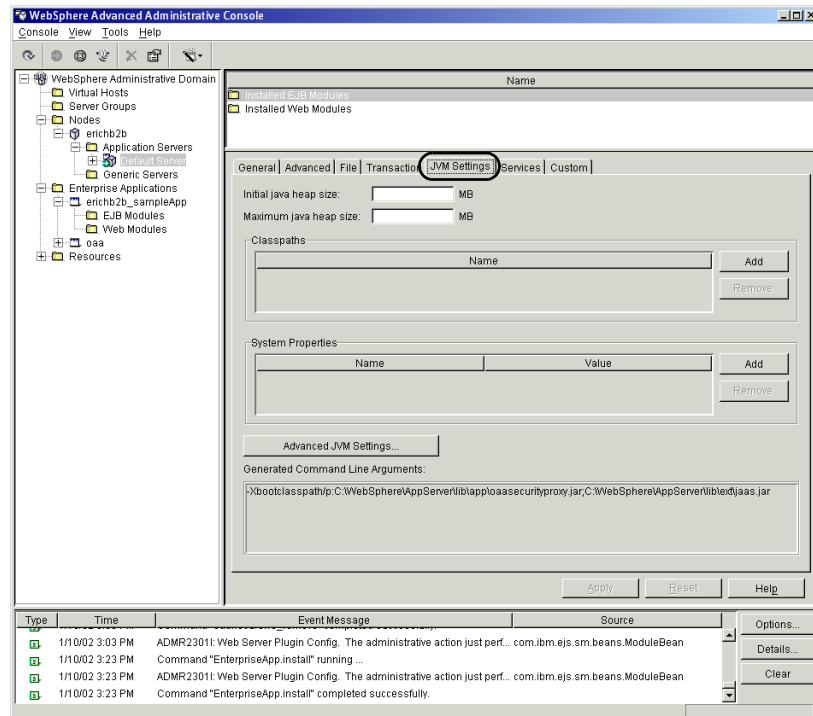
Setting the Java heap size

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 103..

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 76.
- Get-Answers components running on one system and WebSphere components running on another. See *Alternate WebSphere Portal Server configuration* on page 78.

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

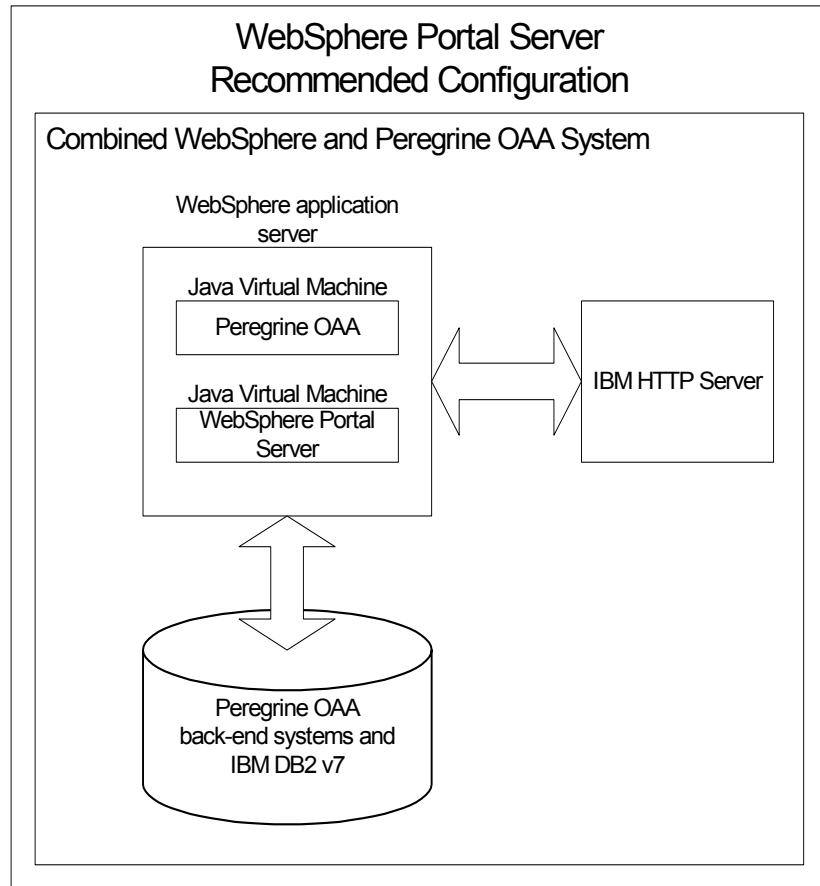
Recommended WebSphere Portal Server configuration

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 79.
- 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 80.
- Step 3** Login to the Get-Answers server and stop the WebSphere application server.
- Step 4** Modify the `archway.xml` to change the HTTP authentication method used from Basic to Alternate. See *Modifying the archway.xml file* on page 81.
- Step 5** Modify the `web.xml` to enable the AuthController servlet. See *Modifying the web.xml file* on page 81.
- Step 6** Modify the `ibm-web-ext.xmi` file to set the `fileServingEnabled` parameter. See *Modifying the ibm-web-ext.xmi file* on page 82.
- Step 7** Start the WebSphere application server. See *Starting the WebSphere application server* on page 83.
- 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 83.

- 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 83.
- Step 10** Enable edit rights for Get-Answers portlets. See *Enabling edit rights for Get-Answers portlets* on page 84.

When complete, your installation will have the following configuration:

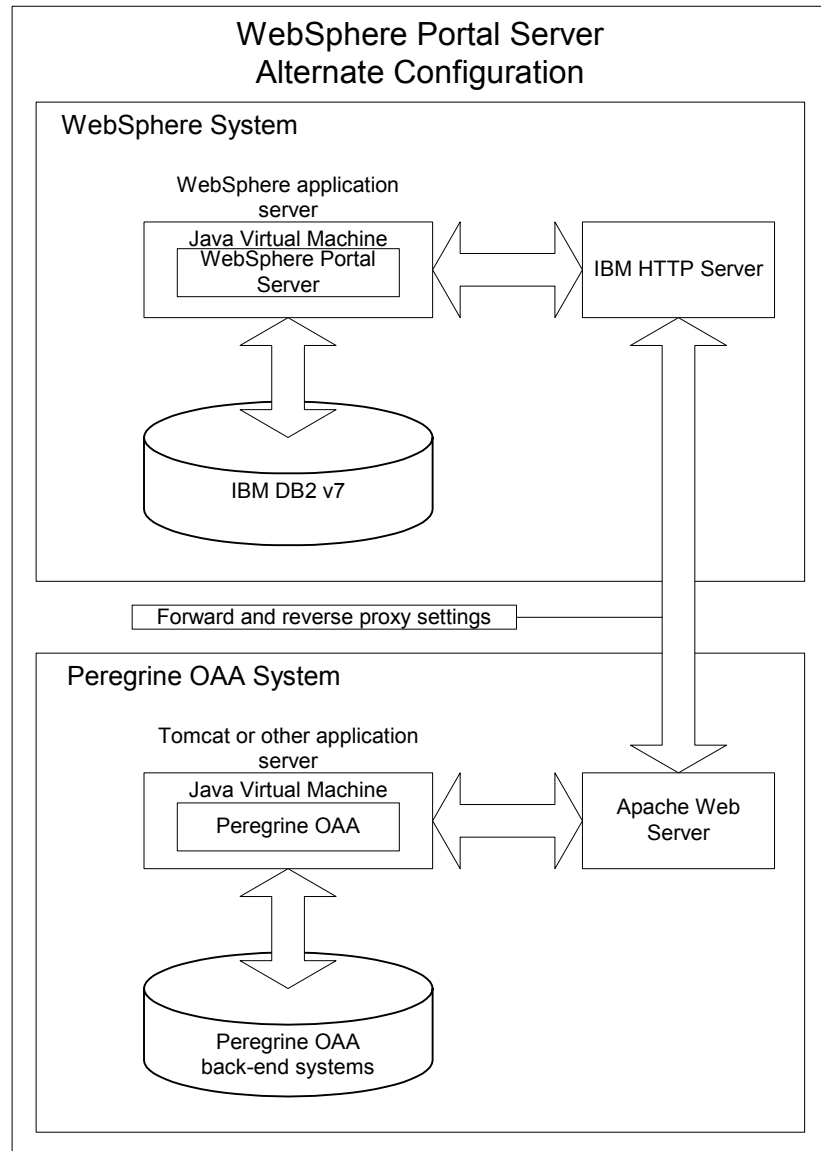


Alternate WebSphere Portal Server configuration

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 79.
- 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 80.
- Step 3** Login to the Get-Answers server and stop the WebSphere application server. See *Stopping the WebSphere application server* on page 81.
- Step 4** Modify `archway.xml` to change the HTTP authentication method used from Basic to Alternate. See *Modifying the archway.xml file* on page 81.
- Step 5** Modify `web.xml` to enable the AuthController servlet. See *Modifying the web.xml file* on page 81.
- Step 6** Modify the `ibm-web-ext.xmi` file file to set the `fileServingEnabled` parameter. See *Modifying the ibm-web-ext.xmi file* on page 82.
- Step 7** Modify `setDomain.js` to call the `SetDomain` function. See *Modifying the setDomain.js file* on page 82.
- Step 8** Start the WebSphere application server. See *Starting the WebSphere application server* on page 83.
- 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 83.
- 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 83.
- Step 11** Enable edit rights for Get-Answers portlets. See *Enabling edit rights for Get-Answers portlets* on page 84.
- 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 84.

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 archway.xml file

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

To modify the archway.xml file:

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

`<application server>\webapps\oaa\WEB-INF\default.`

- 2 Edit the line containing:

```
<httpauthclass ...>HttpBasicAuthenticationManager</httpauthclass>
```

- 3 Change the value `HttpBasicAuthenticationManager` to

`HttpAlternateAuthenticationManager`.

- 4 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>\webapps\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.

- 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>\webapps\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 Portal 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.

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 85.
- Step 2** Configure Get-Answers to use the WebSphere Translation Server. See *Configuring Get-Answers to use the WebSphere Translation Server* on page 86.

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.

Common	
Portal Common Portal DB Themes Web Application Logging XSL	
Notification Services NotificationDB roma E-mail	
Common Backend: portalDB	Adapter target name used to support common user operations.
List of target aliases: weblocation;mail	Specifies a list of semicolon delimited target aliases used by web applications in this package.
Admin name: Admin	The admin login name. This login provides access to administrative functionality without authenticating against back-end adapters.
Admin password: 	The admin login password.
Language Translation	
Translation Server Factory Class: com.peregrine.util.WTSLanguageTranslatorFactory	The Java factory class which generates the proper class associated with the Translation Server.
Language from which to translate: English	The language from which to translate or the base language in which all text is currently displayed as.
Translation Server IP Address: 10.3.128.181:1097	The IP address of the Translation Server. This address may or may not contain a port number depending on the Translation Server requirements. Click for default.
Application path: WEB-INF/apps/	Directory location of the Peregrine Portal Web Applications.
Event queue: portalDB	Enter the name of the adapter that should be used by the Peregrine Portal event queue engine. For example: <ul style="list-style-type: none"> • To use ServiceCenter's repository, enter "sc" • To use AssetCenter's repository, enter "ac"

- 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.
 - d **Application path:** Enter the relative path to the application serverapplications directory. The default value is:
`WEB-INF/apps/`
 - e **Event queue:** Enter the adapter name to you want to use for the event queue engine. The default value is: PortalDB
- 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 86.

The translate button appears in the upper right tool bar.



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

Click on the text you want to translate.

A screenshot of a web application window titled 'Please enter the search criteria and press the Search button.' The window contains a 'Name:' field with a dropdown arrow and an empty text input. Below it is a 'Description:' field with a dropdown arrow and a text input containing the sentence 'The quick brown fox jumped over the lazy dog'. At the bottom of the window are three buttons: 'Search', 'View All', and 'New'.

- Click the translate button.

The Translation window opens.

Select the target language from the select box.

A screenshot of a 'Translation' dialog box. At the top, there is a dropdown menu showing 'English > French'. Below the menu, the translated text is displayed: 'Le renard brun rapide a franchi le chien paresseux d'un bond'. At the bottom of the dialog box is a 'Close' button.

- 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. See *Stopping the servers* on page 89.
- Step 2** Edit the `startWebLogic.cmd` file to set the system password, memory settings, and start mode. See *Editing startWebLogic.cmd* on page 89.
- Step 3** Edit the `Server.Policy` file to set the debug to true. See *Editing Server.Policy* on page 90.
- Step 4** Run the Get-Answers installer. See *Running the installer* on page 90.
- 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 90.

- Step 6** Configure IIS to use `iisforward.dll` as an ISAPI filter and create an extension. See *Configuring the `iisforward.dll` as an ISAPI filter and an extension* on page 91.
- Step 7** Configure IIS to use `iisproxy.dll` as an extension. See *Configuring the `iisproxy.dll` as an extension* on page 92.
- Step 8** Create a virtual directory for Get-Answers in your Web server. See *Creating a virtual directory for Get-Answers* on page 93.
- Step 9** Restart WebLogic and your Web server. See *Restarting the Servers* on page 94.

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 103.

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`
`jcrt.jar`
`jnet.jar`
`jsse.jar`
`local_policy.jar`
`mllibwrapper_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 95.
- Step 2** Install JRun from the Macromedia Web site to the root of your hard drive (for example, C:\). See *Installing JRun* on page 95.
- Step 3** Apply the latest JRun update. See *Applying the latest JRun update* on page 96.
- 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 96.
- Step 5** Run the Get-Answers installer. See *Running the installer* on page 98.
- Step 6** Move js.jar to the Java development kit ext folder. See *Moving js.jar to the Java development kit* on page 98.
- 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 98.
- Step 8** Configure your JRun Java settings. See *Configuring Java settings* on page 99.
- 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 102.
- Step 10** Restart JRun and your Web server. See *Restarting the Servers* on page 103.

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.

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

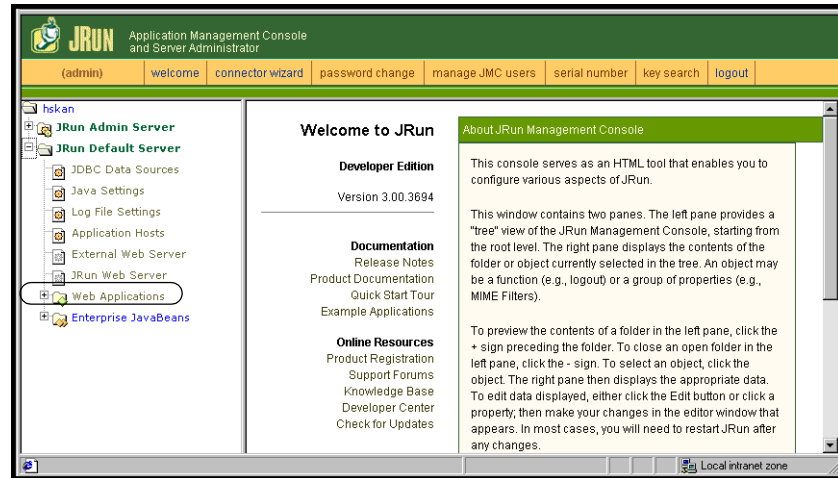
The Portal WAR file creates the folder structure necessary to deploy Get-Answers in your application server. After you have deployed this file to JRun you will be ready to run the Get-Answers installer.

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

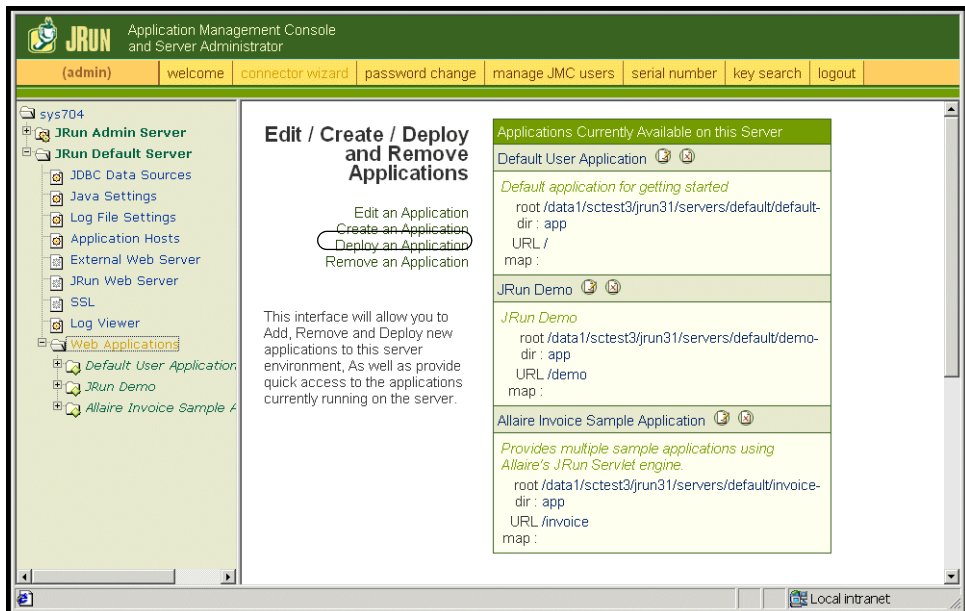
- 1 Open the JRun Management Console and log in.



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 103.

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

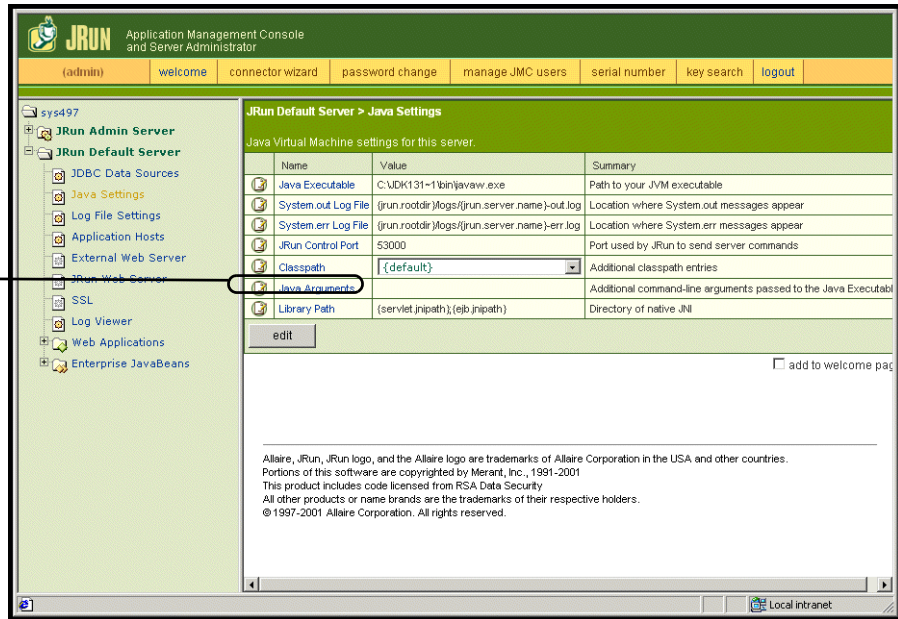
After you have installed Get-Answers, you must configure the Java settings that JRun will use to run the Web application.

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**.



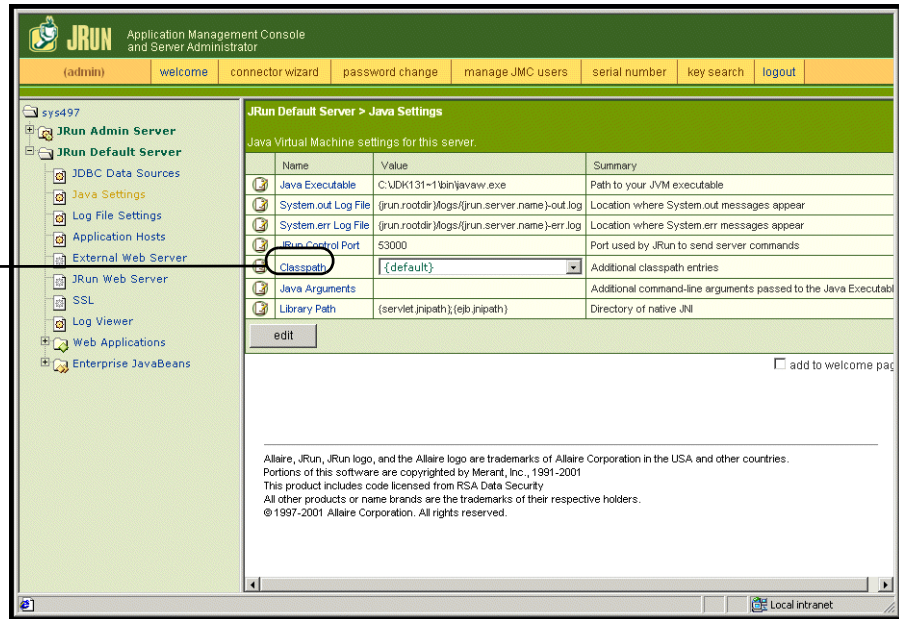
The Edit Window opens.

- 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.

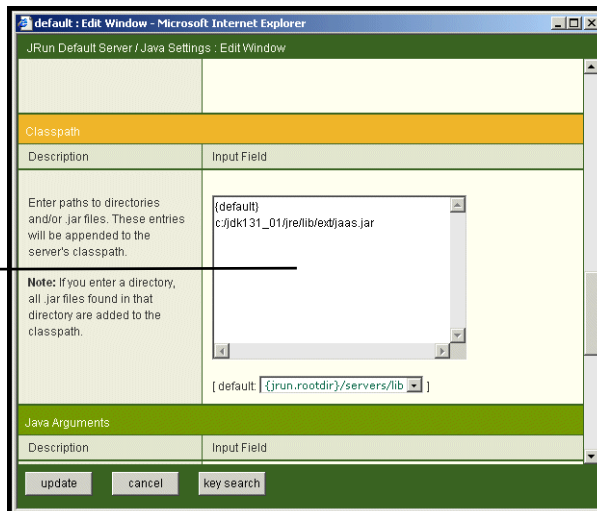
5 On the Java Settings page, click **ClassPath**.

Click
ClassPath.



The Edit Window opens.

Type the path to
the JAR files here.



6 Enter the following classpaths:

- Java Development Kit ext folder. For example:

- Database classes. If using Oracle, enter the path to classes12.zip:
C:\oracle\ora81\jdbc\lib\classes12.zip
- 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

- 2 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.
- 3 For <JRun>, enter the path to your JRun installation. The recommended installation path is:
C:\JRun\servers\default\oaa
- 4 After creating the oaa virtual directory, right-click on it and select **Properties**.
- 5 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:

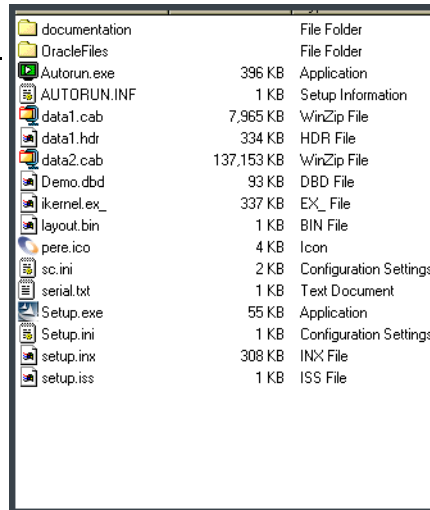
- You are using an application server other than Tomcat.
- You are using Tomcat as your application server but do not want to use the Get-Answers default options.
- You are using Tomcat and Apache for other applications and so do not need Get-Answers to configure them for you.

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

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

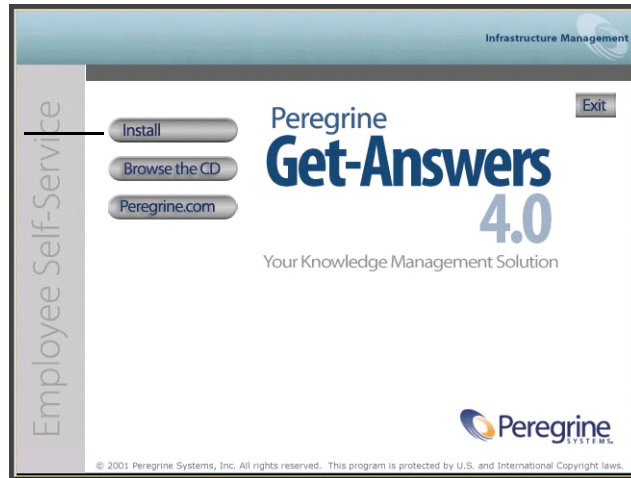
- 1 In the CD Browser, find and open the Autorun.exe file.

Click Autorun.exe here.



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

Click Install.



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

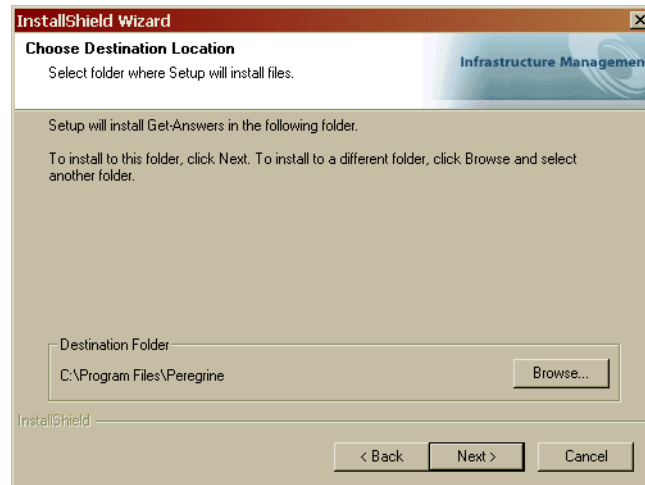


A dialog box asks if you are upgrading to Get-Answers 4.0.

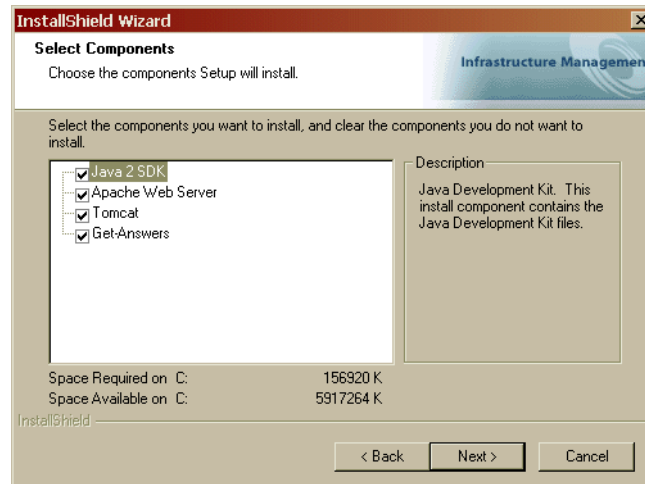
- Click **No**.

Important: If you are upgrading to Get-Answers 4.0, see the chapter, *Upgrading to Get-Answers 4.0.1* on page 119. Do not use this procedure.

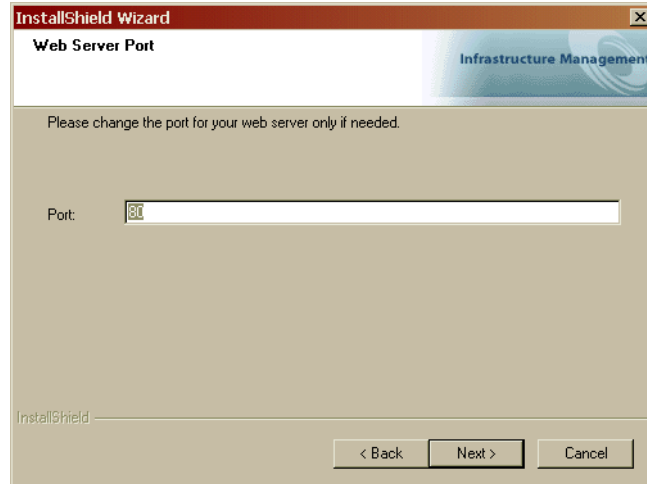
- In the Choose Destination Location dialog box that opens, choose a location for your files, and then click **Next**.



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



- 7 In the Web Server Port dialog box that opens, enter the port number and click Next.



- 8 In the Select Application Server Type dialog box that opens, select the application servers you want Get-Answers to configure, and click Next.
- 9 In the Start Copying Files dialog box that opens, click Next.

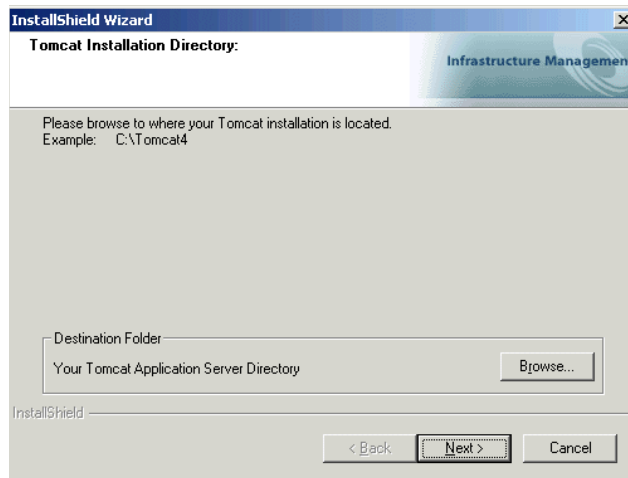
The information that appears here varies depending on what you're installing.



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

A message appears that Get-Answers is unpacking packages. This process could take several minutes.

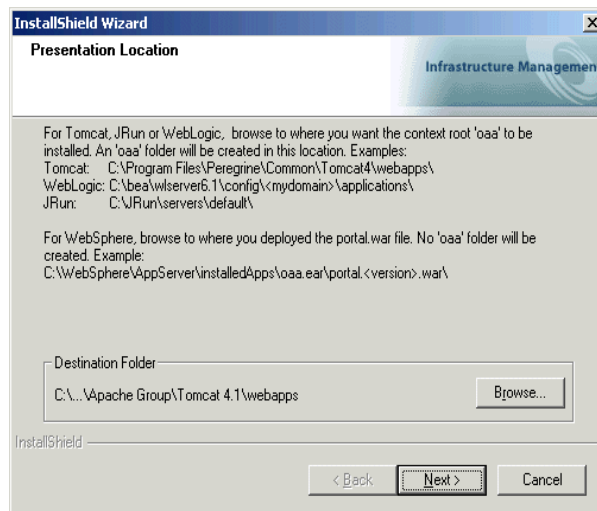
If you are using Tomcat, the Tomcat Installation Directory window appears.



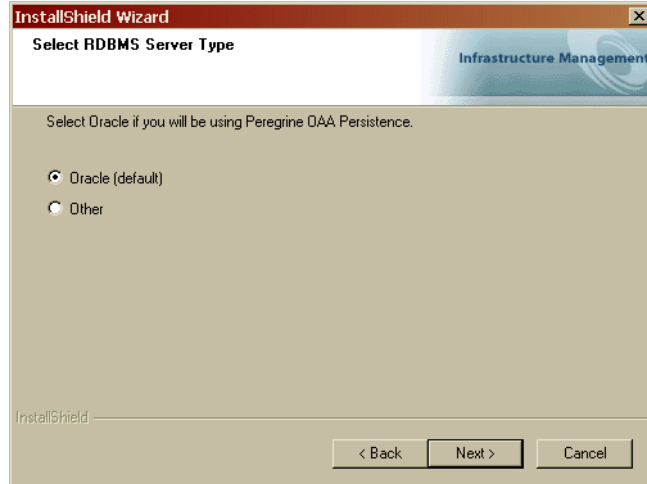
- 10 Choose your installation directory, and click Next.

Note: If you are not using Tomcat, you will not see this window. Go to step 11.

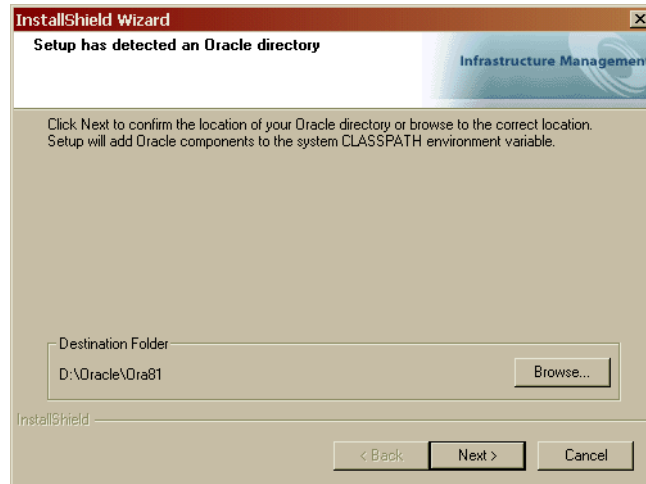
- 11 In the Presentation Location dialog box that opens, choose a location, and then click Next.



- 12 In the Select RDBS Server Type dialog box that opens, click Yes, and then click Next.



- 13 In the next dialog box dialog box that opens, confirm the path to your Oracle directory, and click Next.



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



InstallShield Wizard
Get-Answers4.0 Infrastructure Management

Please enter the database name, database sid, and password:

Name:

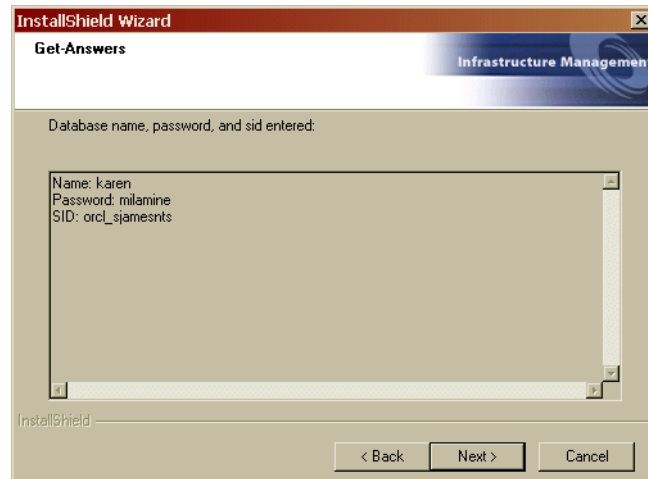
Password:

SID:

InstallShield

< Back Next > Cancel

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



InstallShield Wizard
Get-Answers Infrastructure Management

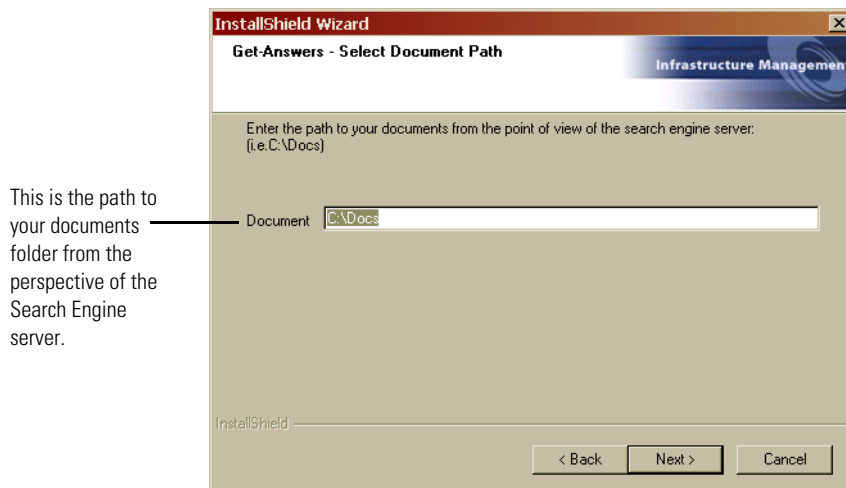
Database name, password, and sid entered:

Name: karen
Password: milamine
SID: orcl_sjamesnts

InstallShield

< Back Next > Cancel

The Select Document Path dialog box opens.

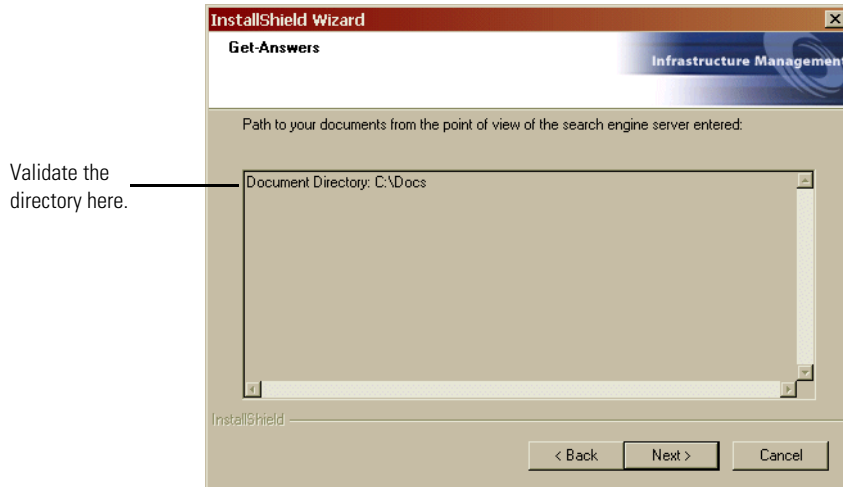


The Documents directory is the file server directory that serves as a repository for documents that Get-Answers manages. This is the directory you created on the File server in *Chapter 2, Setting Up the Get-Answers Servers*.

Note: Record the document directory name in the *Get-Answers Installation Worksheet* on page 23.

- 16 Enter the name of the Documents directory from the point of view of the search engine server, and then click Next.

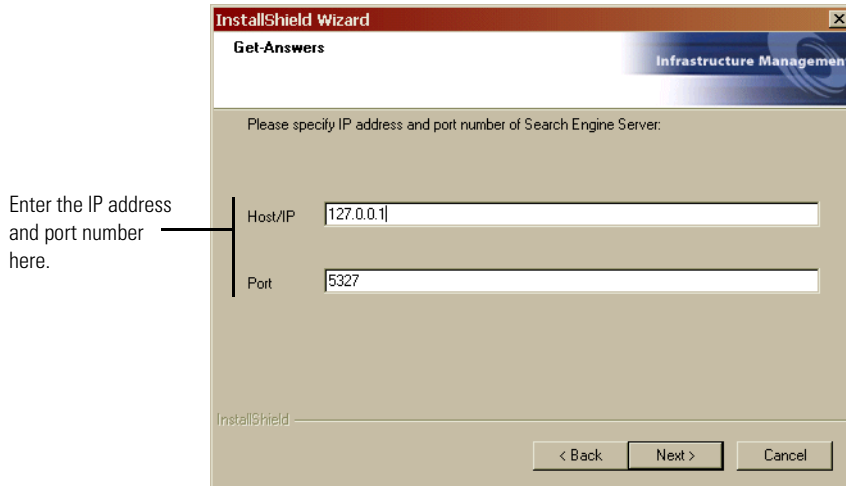
- 17 In the confirmation dialog box that opens, check that you entered the correct directory, and then click **Next**.



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

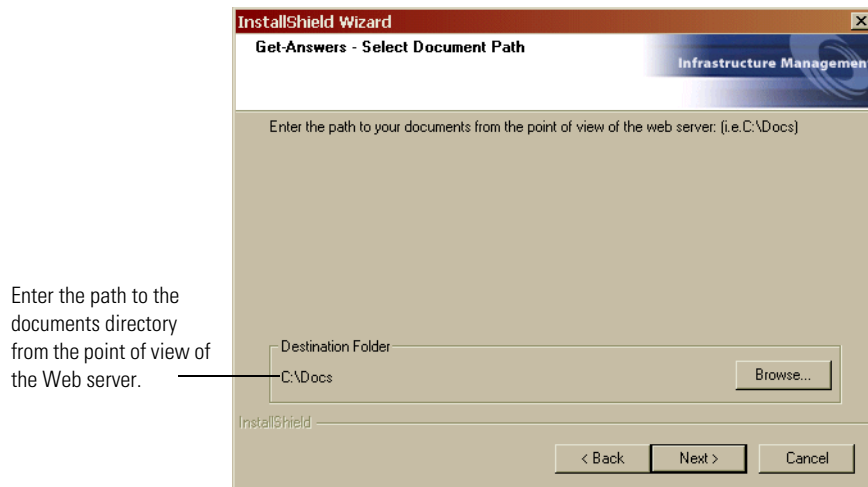
Note: You can find this information on the *Get-Answers Installation Worksheet* on page 23.

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



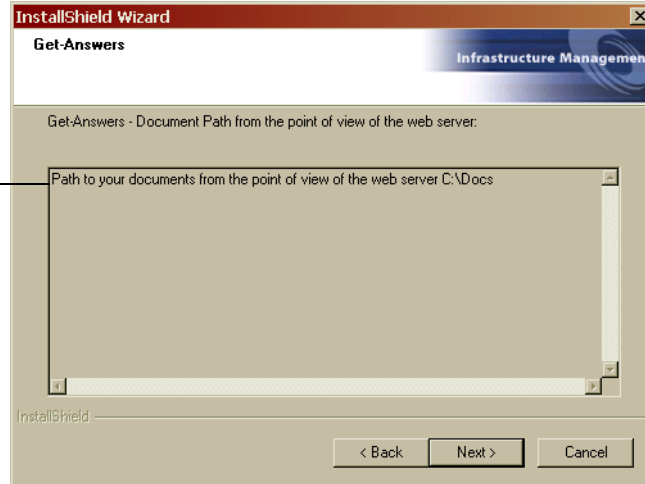
- 19 In the next dialog box that opens, enter the path to the documents directory from the point of view of the Web server, and then click **Next**.

Note: You must create a drive letter mapping for the directory if it is located on a machine other than the Web server.



- 20 In the confirmation dialog box that opens, make sure the path is correct, and then click **Next**.

Verify the path you entered in the previous step.



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.

- 21 Click **OK**.
- 22 In the Install Shield Wizard complete dialog box that opens, click **Finish**.

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/oaadmin.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 /oaadmin virtual directory in IIS to point to `websphere/appserver/installedapps/oaadmin.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/oaadmin.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/oaadmin.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 Open the `web.xml` file in Notepad.
- 2 Add the `<servlet>` lines to the section that containing the `<servlet>` lines:

```
<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>
```

- 3 Add these `<servlet-mapping>` lines to the section containing the `<servlet-mapping>` lines:

```
<servlet-mapping id="ServletMapping_eopro">
  <servlet-name>OEMLicenseServlet</servlet-name>
  <url-pattern>/servlet/oemlicense.OEMLicenseServlet</url-pattern>
</servlet-mapping>
```

- 4 Save the file.
- 5 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.

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

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

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/oaadmin/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>\webapps\oaadmin\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: `oaadmin_bin`
- WebLogic: `oaadmin_wlserver60` (This will be different if WebLogic is not installed in the default installation directory.)
- Tomcat: `oaadmin_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*.

5 Upgrading to Get-Answers 4.0.1

CHAPTER

This chapter describes how to upgrade your system from Get-Answers 3.0 to Get-Answers 4.0.1 for systems with the following parameters:

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

When you upgrade from Get-Answers 3.0 to 4.0.1, 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.

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 Oracle database. See *Backing up your Oracle database* on page 120.
- Step 2** Copy your document directory structure. *Copying your document directory structure* on page 121.
- Step 3** Record your Get-Answers 3.0 system parameters. See *Recording Get-Answers 3.0 parameter information* on page 121.

- Step 4** Create a folder on your file server. See *Setting up the File Server* on page 122.
- Step 5** Set up your database server. See *Setting up the Database server* on page 122.
- Step 6** Remove the old Search Engine server and install the new Search Engine. See *Removing and replacing the Search Engine server* on page 123.
- Step 7** Create the network drive mappings. See *Creating the network drive mappings* on page 131.
- Step 8** If you are using Websphere as your application server, deploy the portal.war file for this server. (If you are using Tomcat as your application server, skip this step.) See *Deploying the portal.war file for Websphere* on page 132.

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 9** Install Get-Answers 4.0.1. See *Installing Get-Answers 4.0.1* on page 133.
- Step 10** Completing the installation. *Chapter 7, Completing All Installations*, on page 211.

Backing up your Oracle 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 4.0.1. Protect your Get-Answers data by backing up your Oracle database.

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

Copying your document directory structure

The installation process reconfigures your directory structure of the document repository and the KmDocument table in the database that references the files in the directory structure. After you install Get-Answers 4.0.1, your directory structure will show three subdirectories under each document ownership team directory: Published, ToBeSubmitted, and WorkingCopy.

Make a copy of the directory where you have stored document ownership team documents. (This is your document repository.) This directory structure has a necessary file named empty.txt and contains the Get-Answers Team directory.

Recording Get-Answers 3.0 parameter information

During the installation, refer to the parameters for 3.0.

To find the parameters for Get-Answers 3.0:

- 1 Log in to Get-Answers 3.0 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 3.0 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 3.0, 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

During the installation that follows, you will be prompted for network drive mappings. You will create new ones on your test server to replicate the old settings on your Get-Answers 3.0 installation at first. When you upgrade your production server, you use the same File server settings.

The **rome** tab has the database parameters that you used on Get-Answers 3.0, 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 3.0 installation at first. When you upgrade your production server, you use the same database settings.

Warning: Your drive mapping in Get-Answers 4.0.1 must match the drive mappings from Get-Answers 3.0.

Setting up the File Server

The File server stores the Get-Answers documents. This section describes how to set up the File server. Any standard server can operate as the File server.

Important: Do not place this folder in the Peregrine/Common or Peregrine/oa install directory, as these directories are removed when you remove the old version of the product.

To set up the file server:

- 1 On the server you have chosen to be your File server, create a folder to hold the Get-Answers files, and copy the document directory structure into the folder.

This is the document directory structure that you backed up in the section *Copying your document directory structure* on page 121. This will be your Get-Answers Documents directory in the new installation.

Note: Write the drive and directory of this folder on the File server on the *Get-Answers Installation Overview* on page 21.

Setting up the Database server

The upgrade migrates a Get-Answers 3.0 Oracle database to a Get-Answers 4.0 Oracle database. This section explains how to set up the Database server by restoring the backup copy of your Oracle 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 Oracle server, import the database.

This is the database that you backed up in *Backing up your Oracle database* on page 120. Consult with your database administrator on how best to accomplish this on your system. An import command such as the one below may be useful.

```
imp system/manager@orcl fromuser=rome touser=rome40
file=export.dmp
```

Important: Make sure to configure an Oracle client on the web server and on the search engine server. See chapter 2 for instructions on configuring an Oracle client.

Note: Record the following information about your Oracle installation:

- Database Name (global name or service name)
- Database SID (instance name)
- Database Server Hostname (machine name)
- Database Server port number in the Get-Answers Installation Worksheet on page 25

Removing and replacing the Search Engine server

Get-Answers 4.0.1 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.

Removing the Get-Answers 3.0 Search Engine server

Before you begin, have the login name, password and Oracle SID for your database in hand.

To remove the old Search Engine server:

- 1 Open the Start menu, click **Settings**, click **Control Panel**, and click **Add/Remove programs**.
- 2 In the Add/Remove Programs dialog box that opens, click **Get-Answers Search Engine 3.0**, and click the **Change/Remove** button.

- 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**.

Installing the Get-Answers 4.0.1 Search Engine server

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

Note: These steps are duplicated in *Chapter 2, Setting Up the Get-Answers Servers* for users performing other types of installations.

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.

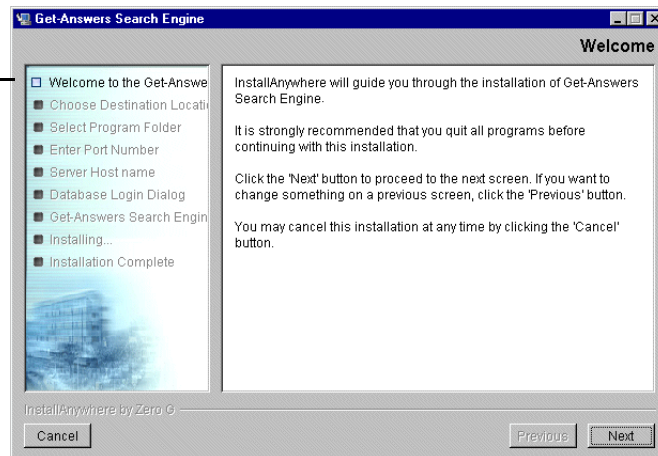
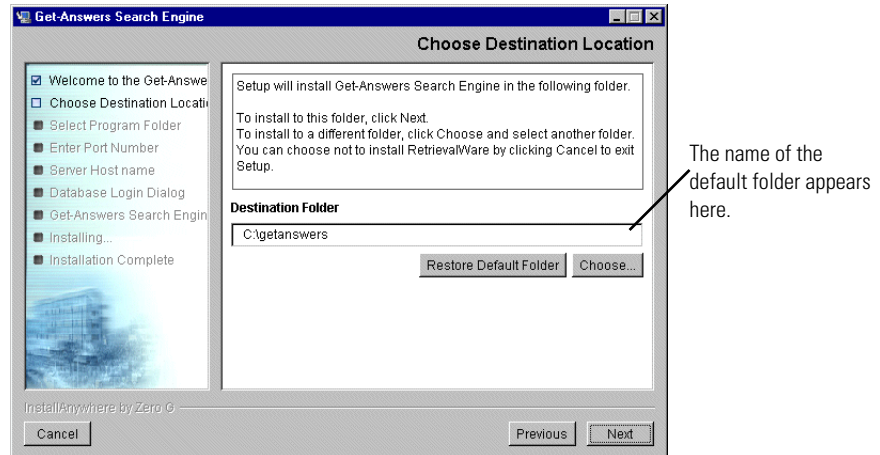


Figure 5-1: Get-Answers Search Engine Welcome screen

- 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.

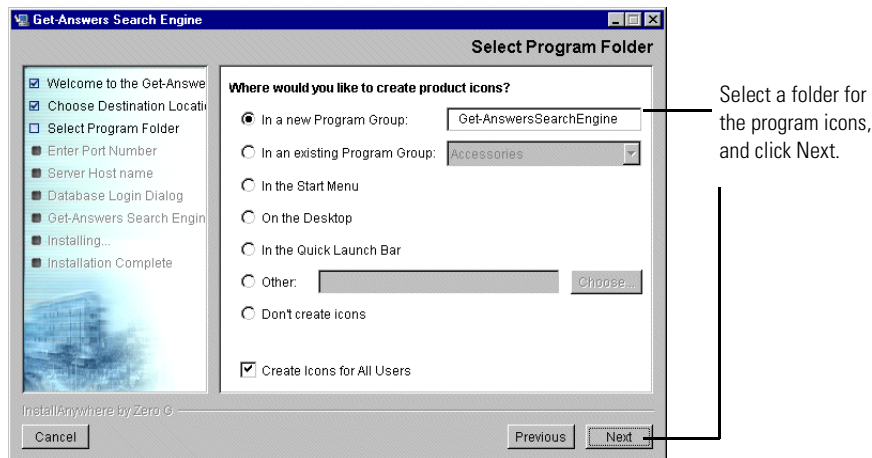


- 3 To select the destination folder, do one of the following:
 - To accept the default location, click **Next**.
 - To select a different location, click **Choose**, select the folder in the dialog box that opens, and then click **Next**.

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* on page 23.

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

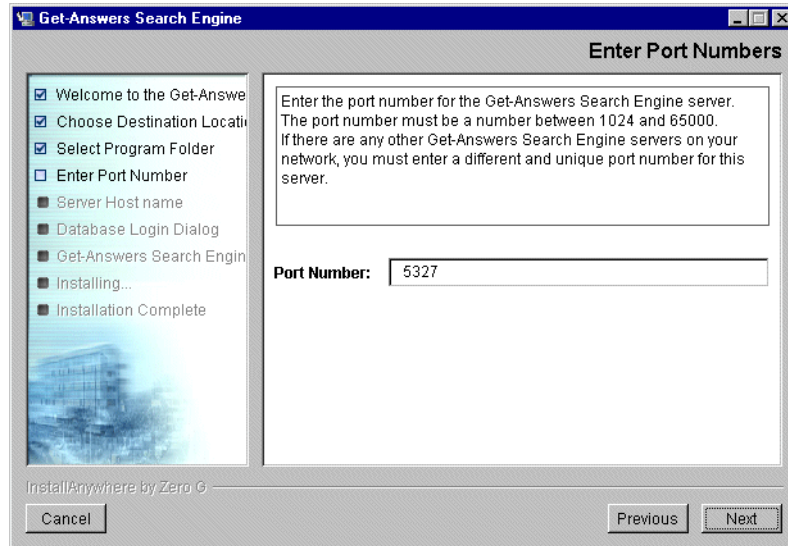


- 5 In Enter Port Numbers dialog box, type the port number for the search engine server and click Next.

Important: The following rules are crucial for successful installation.

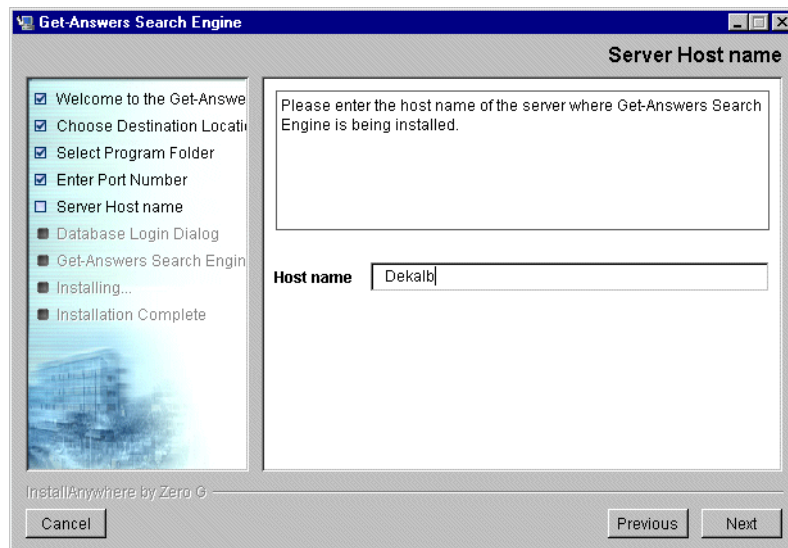
- Do not choose port numbers that are already in use on this server.
- Do not use the default port number of 5327 if there are any other installations of the Get-Answers Search Engine on your network or intranet.
- Make sure the port numbers for your search engine server are unique for your site and 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* on page 23.

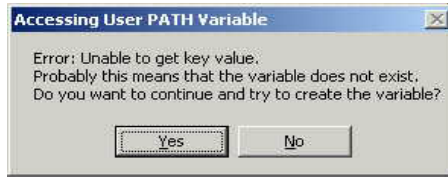


- 6 In the Server Host name dialog box, type the host name of the search engine server and click Next.

Note: Record the search engine server host name in *Search Engine Search Server Installation Directory* in the *Get-Answers Installation Worksheet* on page 23.

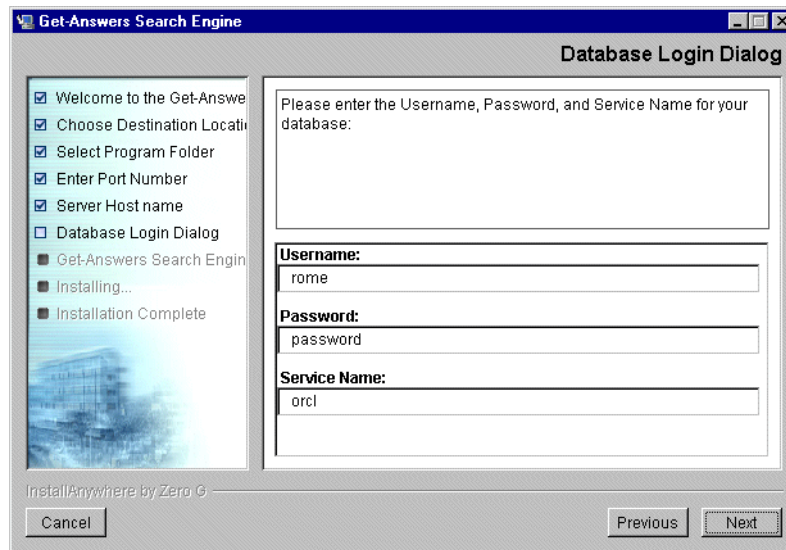


- 7 If the Accessing User Path Variable message appears, click Yes.

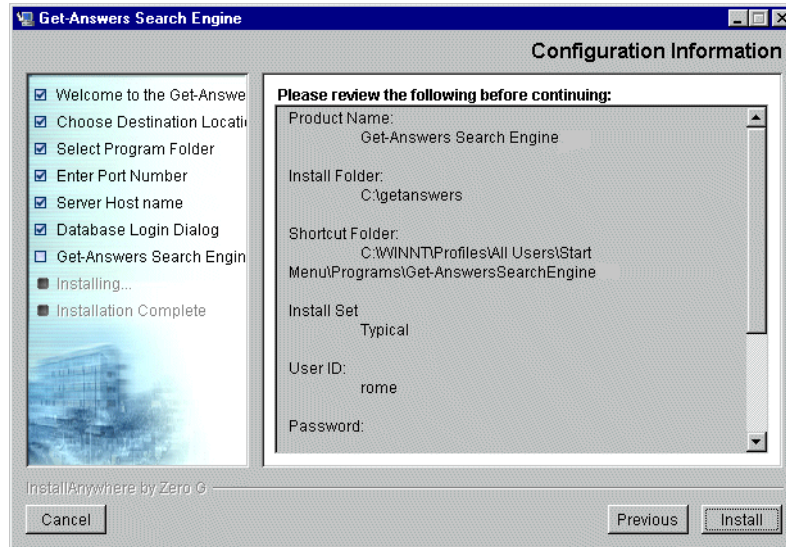


- 8 In the Database Login dialog box, type the values the Search Engine Search Server should use to log on to the Get-Answers database and click Next.

These are the settings you recorded in the procedure *Setting up the Database server* on page 122.



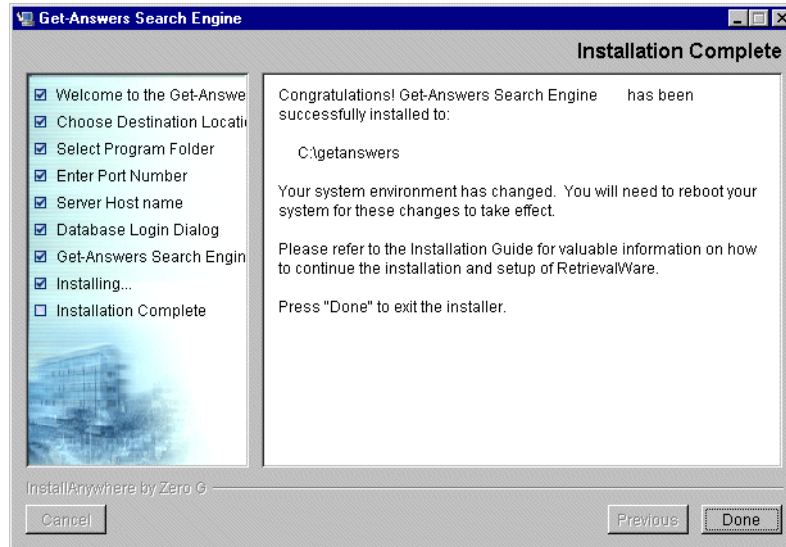
- 9 In the Configuration Information dialog box, confirm your search engine configuration settings and make sure you have adequate disk space, and click **Install**.



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



- 10 When the installation is complete, click **Done** to exit the installer.



- 11 Restart your search engine server machine.

Checking the search engine installation

Get-Answers provides a method of checking your search engine's 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-AnswersSearchEngine4.0>Check Database Connection.

```

----- RDBMS UTILITIES -----
GetAnswers Search Engine working directory: C:\getanswers\KMLib
RDBMS Information: Vendor Oracle, User rome, Database dbv3817, Connection dbv3817
----- TEST THE RDBMS CONNECTION -----
Testing the RDBMS connection with the following values:
      User:      rome
      Connection String: dbv3817
      Database Name:  dbv3817

Successfully tested the connection to the Relational Database.
Press RETURN to continue.

```

- 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 KMLib.

Example: C:\getanswers\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* on page 23.

- 3 Press any key to exit.

Creating the network drive mappings

You must create drive mappings on your Web server and your search engine server.

To create the drive mappings on your Web server:

- ▶ On the Web server, create a network drive mapping to the file server. Create this network drive mapping from the web server to the file server’s shared directory that houses the document repository if the file server is located on a machine other than the web server.

Note: In your Get-Answers 3.0 installation, this was your **KmWebServerAttachPath** under the oaakm tab in the Administration settings. On your test servers, this mapping varies. On your production server, you can duplicate your original 3.0 configuration if needed.

Note: Record the directory name in “Web Server File drive mapping” in the *Get-Answers Installation Worksheet* on page 23.

To create the drive mappings on your search engine server:

- ▶ On the search engine server, create a network drive mapping to the File server. Create this network drive mapping from the search engine server to the file server shared directory if the file server is located on a machine other than the search engine server.

In your Get-Answers 3.0 installation, this was the **KmRWareServerAttachPath** item under the oaakm tab in the Administration settings. On your test servers, this mapping varies. On your production server, you can duplicate your original 3.0 configuration if needed.

Note: Record the directory name in *Search Engine Server File drive mapping* in the *Get-Answers Installation Overview* on page 21.

Deploying the portal.war file for Websphere

If you are deploying Get-Answers on a test server, follow the instructions in *Websphere* on page 115. 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.

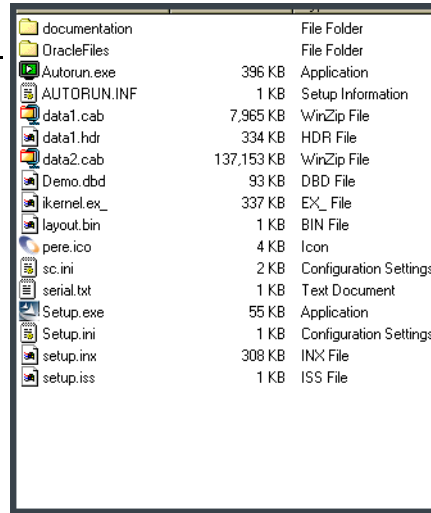
If you are using the production server, make a ghost copy of the server and then uninstall the OAA web application using the Websphere console. From there, follow the instructions under Websphere 4.0.2 or later in this guide.

Installing Get-Answers 4.0.1

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

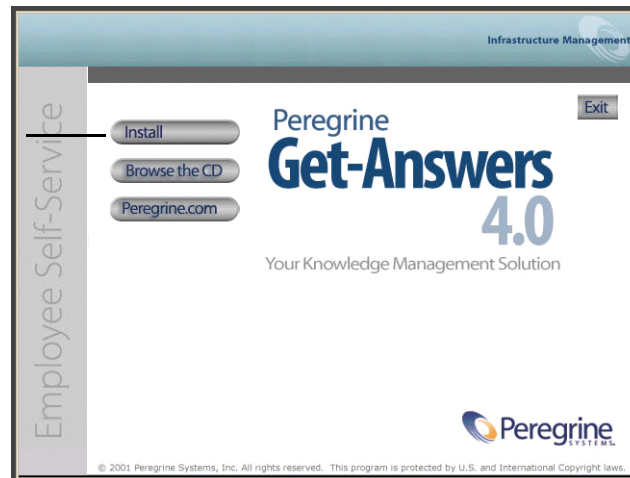
- 1 In the CD Browser, find and open the Autorun.exe file.

Click Autorun.exe
here.

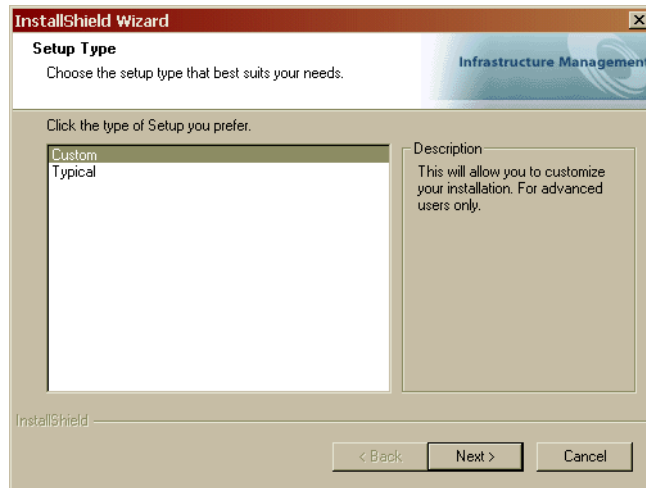


- 2 In the Get-Answers page that opens, click Install.

Click Install.



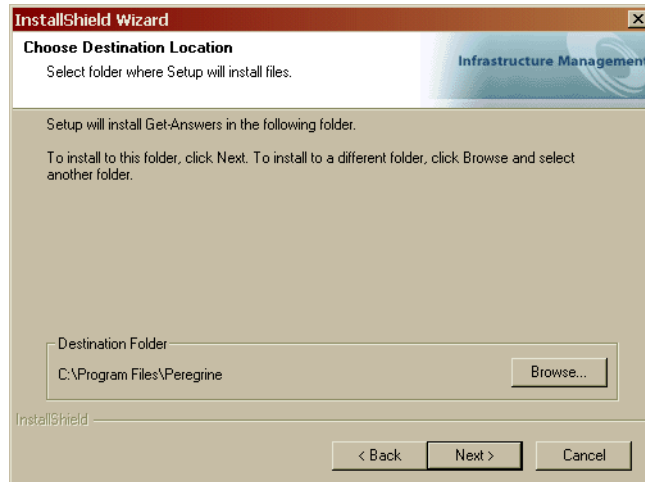
-
-
- 3 In the Setup Type dialog box that opens, click **Custom**, and then click **Next**.



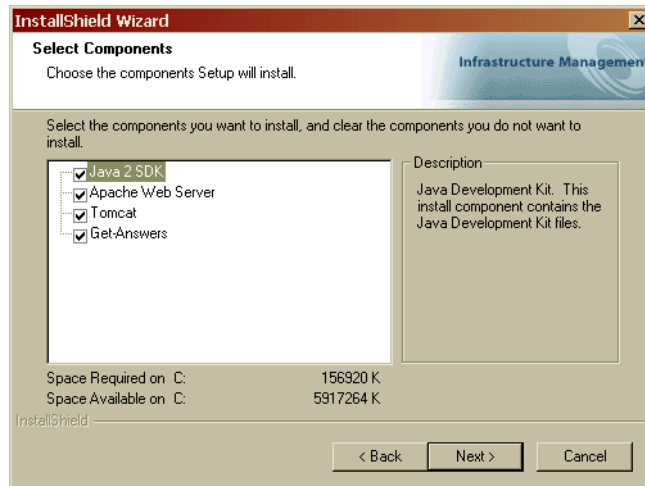
A dialog box asks if you are upgrading from Get-Answers 3.0.

-
-
-
- 4 Click **Yes**.
- 5 In the Choose Destination Location dialog box that opens, choose a location for your files choose a directory for your installation that has *no* blank characters in the directory path, and then click **Next**.

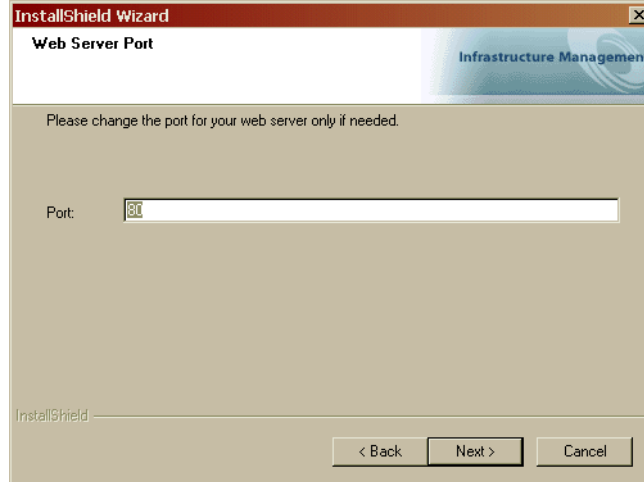
Important: For the upgrade, do not choose a Get-Answers install directory that has a blank character in the directory path. If you install Get-Services or Get-Resources first before you install Get-Answers, do not choose the default directory path of C:\Program Files\Peregrine because of the blank character in the default path. Choose a directory path with NO blank characters.



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



- 7 In the Web Server Port dialog box that opens, enter the port number and click Next.

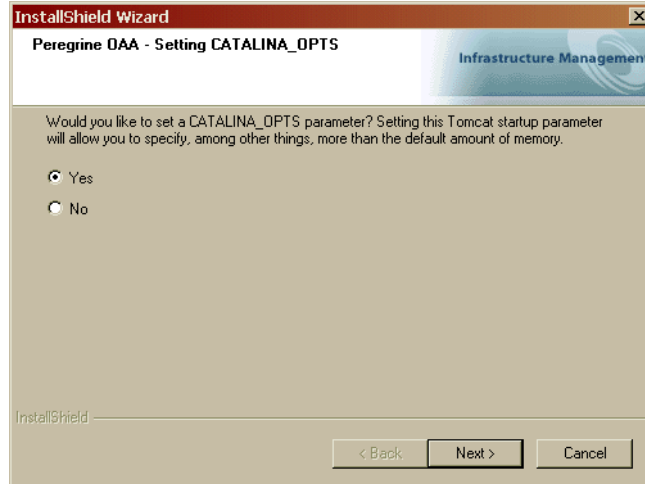


- 8 In the Start Copying Files dialog box that opens, click Next.



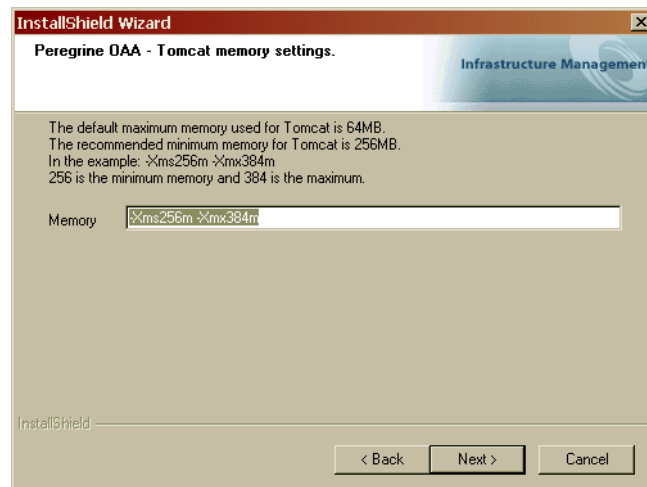
The Setup Status dialog box that opens shows that Get-Answers is copying files to your system.

- 9 In the Setting Catalina Ops Parameter dialog box that opens, make sure Yes is selected, and then click Next.



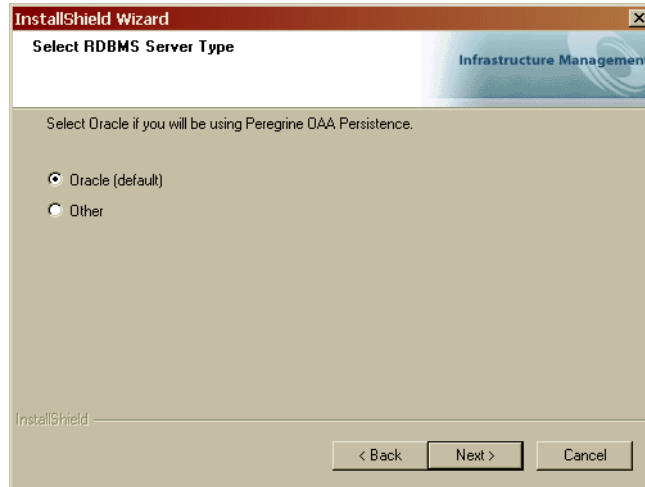
- 10 In the next dialog box that opens, verify your memory settings, and click Next.

Note: To determine the memory available on your system, open the Windows Task Manager, click the Performance tab, and look in the section called Physical Memory. The Available field shows the free memory.

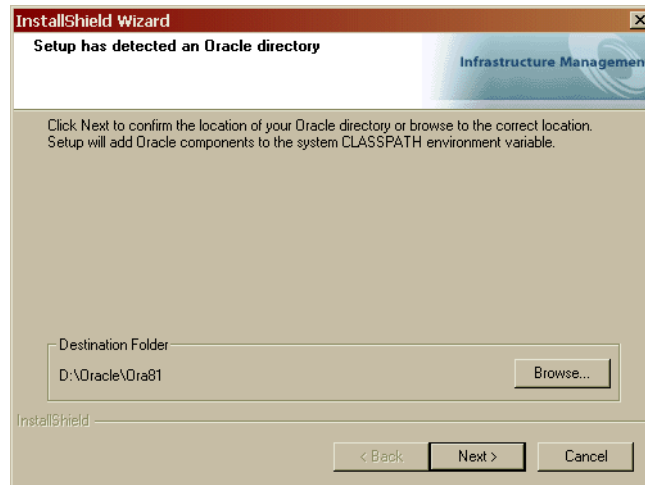


A message appears that Get-Answers is unpacking packages. This process could take several minutes.

- 11 In the Select RDBMS Server Type dialog box that opens, click **Oracle**, and then click **Next**.




- 12 In the next dialog box that opens, confirm the path to your Oracle directory, and click **Next**.



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

These are the settings that you recorded in the procedure *Setting up the Database server* on page 122.



InstallShield Wizard
Get-Answers4.0 Infrastructure Management

Please enter the database name, database sid, and password:

Name:

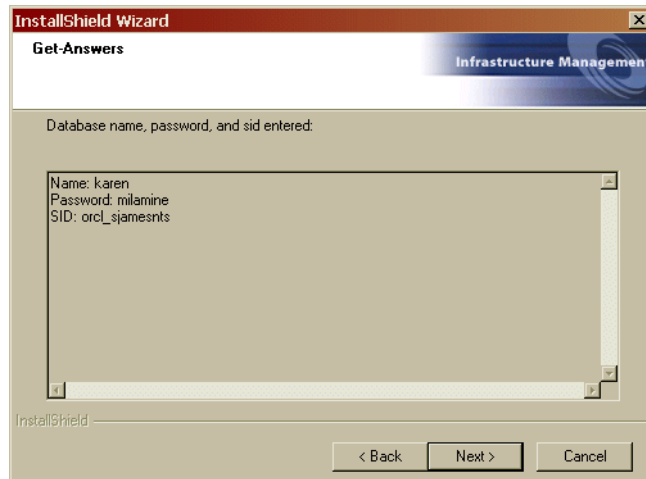
Password:

SID:

InstallShield

< Back Next > Cancel

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



InstallShield Wizard
Get-Answers Infrastructure Management

Database name, password, and sid entered:

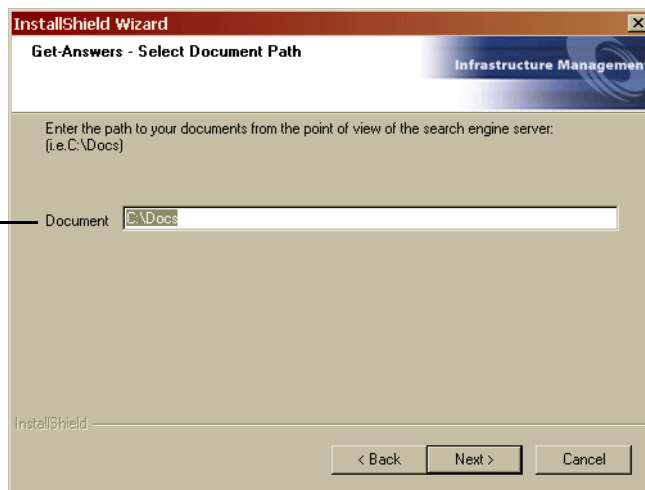
Name: karen
Password: milamine
SID: orcl_sjamesnts

InstallShield

< Back Next > Cancel

The Select Document Path dialog box opens.

This is the path to your documents folder from the perspective of the Search Engine server.

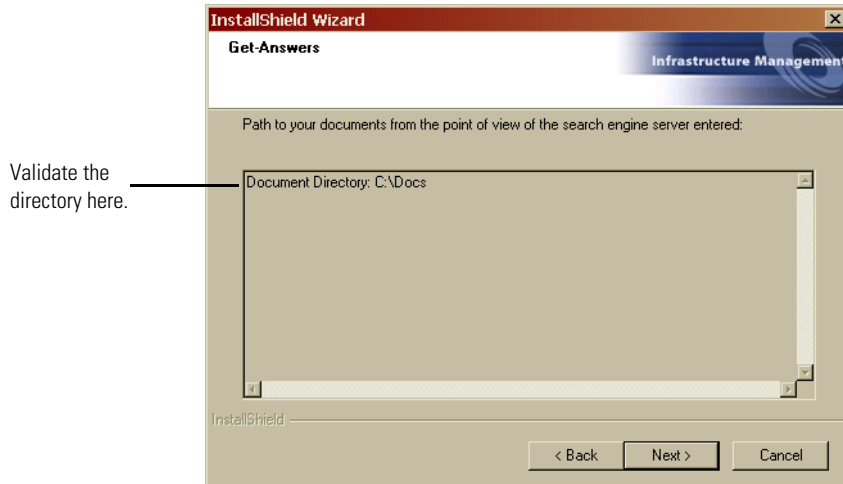


The Documents directory is the file server directory that serves as a repository for documents that Get-Answers manages. This is the directory you created on the File server in *Setting up the File server* on page 25..

Note: This is the search engine server directory mapping you created in the section *Creating the network drive mappings* on page 131.

- 15 Enter the name of the Documents directory from the point of view of the search engine server, and then click **Next**.

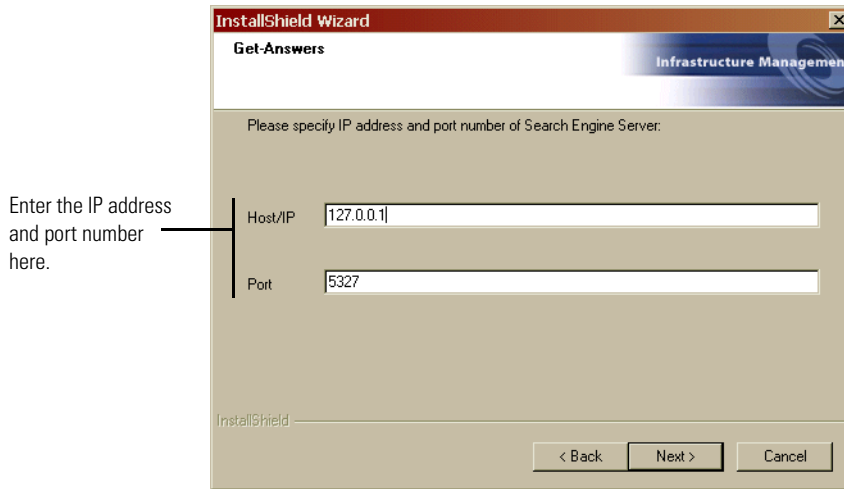
- 16 In the confirmation dialog box that opens, check that you entered the correct directory, and then click **Next**.



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

Note: These are items 12 and 13 on the *Get-Answers Installation Worksheet* on page 23.

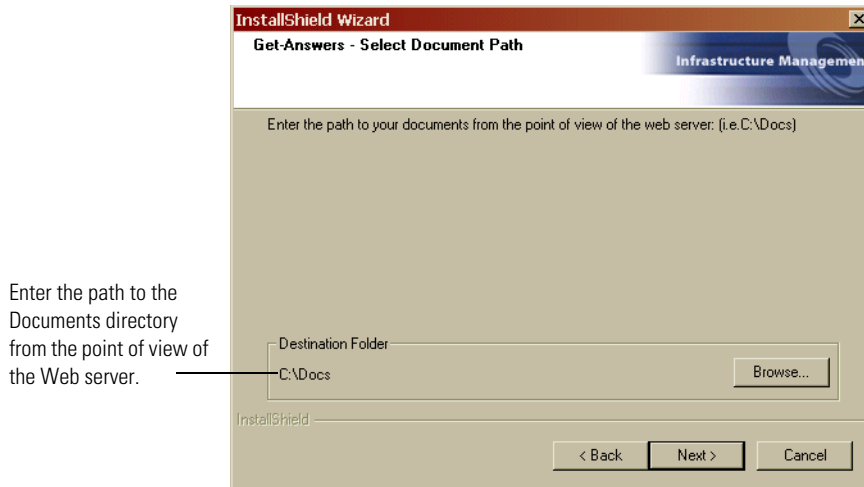
Important: Make sure that you do *not* accept the default port number. Enter the port number that you selected during the installation of the Search Engine server.



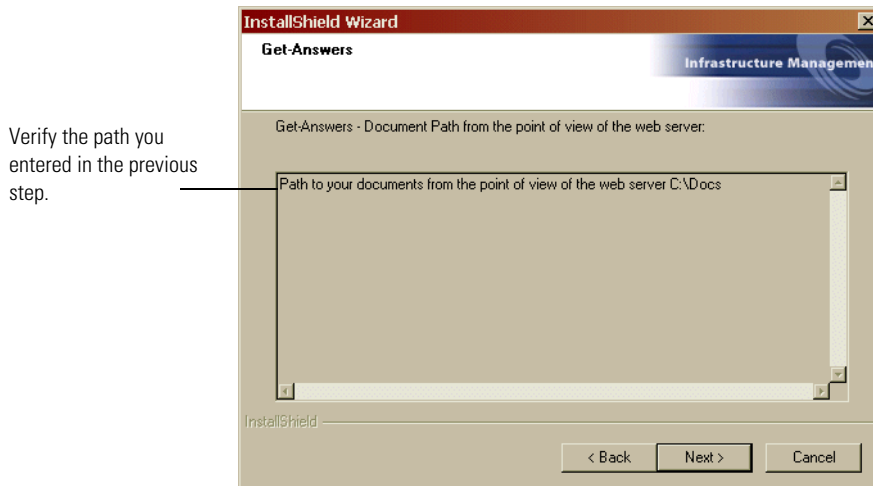
- 18 In the next dialog box that opens, enter the path to the Documents directory from the point of view of the Web server, and then click **Next**.

The Documents directory is the repository for your Get-Answers documents. You created this directory in the procedure *Setting up the File Server* on page 122. (You created the Web server directory mapping in the procedure *Creating the network drive mappings* on page 131.

Note: You must create a drive letter mapping for the directory if it is located on a machine other than the Web server.



- 19 In the confirmation dialog box that opens, make sure the path is correct, and then click Next.



The Migration Utility runs. The Migration Utility restructures your document directory.

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
- 20 In the Install Shield Wizard complete dialog box that opens, click **Finish**.

Checking your Admin password

If you changed your Admin password in Get-Answers 3.0 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 Admin password and then change it if necessary.

To check the value of your Admin password:

- 1 Open SQL.
- 2 At the SQLPlus Worksheet prompt, enter this SQL command:
select passwd from tblperson where loginname='Admin';
- 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 Admin 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 Admin password for `http://<ServerHostName>/oaa/admin.jsp` can be different from the from the database setting, you can change the Admin password only.

To change only the Admin 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 Admin with no password.
- 3 Click the **Common** tab.
- 4 Set the Admin password to a new value.
- 5 Click **Save**.

Completing the installation

Go to *Chapter 7, Completing All Installations* on page 119 to finish upgrading Get-Answers.

6 AIX Installation with DB2

CHAPTER

This chapter covers the following topics:

- *Choosing an installation environment* on page 148
- *Configuring alternate application servers* on page 151
- *Setting up the File server* on page 184
- *Typical Installation Option* on page 186
- *Custom Installation Option* on page 193
- *Completing Get-Answers installation* on page 203

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 4.1.12 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 4.1.12 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 186.
- 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 151.
- Step 5** Run the Get-Answers installer and select the Custom installation option. See *Custom Installation Option* on page 193.
- 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** Set up the File server.
- Step 4** Run the Get-Answers installer and select the Typical installation option. See *Typical Installation Option* on page 186.
- Step 5** Configure multiple instances of Tomcat for load balancing on the Apache Web server. See the *Load Balancing* chapter of this guide.
- Step 6** 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 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 151.
- Step 5** Set up the File server.
- Step 6** Run the Get-Answers installer and select the Custom installation option. See *Custom Installation Option* on page 193.
- Step 7** Configure the Web servers and application servers for load balancing. See the *Load Balancing* chapter of this guide.
- Step 8** Configure the back-end databases and create Get-Answers users. See the *ServiceCenter Administration* chapter of this guide.
- Step 9** Complete the Get-Answers installation. See page page 203.

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:

- *Tomcat 4.1.12*
- *WebSphere 4.0.2*
- *WebLogic 6.1 SP3 or SP4*
- *JRun 3.1*

The Get-Answers typical installation option installs Tomcat 4.1.12 and connects it to an Apache 2.0 web server. You can also install Tomcat 4.1.12 using the custom installation option.

Important: If you want to use an application server other than Tomcat 4.1.12, 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.

Tomcat 4.1.12

If you use select both the Apache Web server and the Tomcat application server for your installation of Get-Answers, then the Get-Answers installer will automatically configure a connection between Apache and Tomcat. In addition, if you select a typical installation, then the installer will automatically pre-compile the Get-Answers JSP files. If you are running a custom installation, you can manually pre-compile the Get-Answers JSP files when you are ready to deploy into a production environment.

Precompiling JSP files for a Tomcat production environment

If you plan to use Tomcat 4.1.12 in a production environment or on a system with multiple processors, you will need to pre-compile the JSP files deployed for Get-Answers. This extra configuration step is the result of a known issue with Tomcat. See the following URL for more details about this issue:

http://nagoya.apache.org/bugzilla/show_bug.cgi?id=14077

To pre-compile JSP files for Tomcat 4.1.12:

- 1 Stop the Tomcat application server.
- 2 Open a command prompt.
- 3 Change directories to `usr/local/peregrine/samples`.
- 4 Copy the following files to the locations specified:

Copy this file	to this location
<code>excludes.txt</code>	<code><Tomcat>/webapps</code>
<code>builds.xml</code>	<code><Tomcat>/webapps</code>
<code>precompile.sh</code>	<code><Tomcat>/bin</code>

For `<Tomcat>`, enter the path to your Tomcat installation. For example:
`/usr/local/peregrine/common/Tomcat4`

- 5 Enter one of the following commands based on your operating system:

Operating system	Command required
UNIX ksh	<code>export JASPER_HOME=<Tomcat directory></code>
UNIX csh	<code>setenv JASPER_HOME <Tomcat directory></code>

For `<Tomcat directory>` enter the absolute path to your Tomcat installation.

- 6 Change directories to the Tomcat bin folder.

Operating system	Command required
AIX	<code>cd \$JASPER_HOME/bin/samples/</code>

- 7 Run the precompile batch file.

Operating system	Command required
AIX	<code>./precompile.sh <Web app name> <Tomcat instance name></code>

For `<Web app name>` enter the name of the Get-Answers deployment folder. You can omit this name if you are using the default folder named `oaa`.

For *<Tomcat instance name>* enter the name of the Tomcat instance you have installed. You may omit this name if you are using the default instance named **Standalone**.

The batch file displays the progress of the conversion. When it is complete, the command prompt returns.

- 8 Start the Tomcat application server.

WebSphere 4.0.2

Use the following procedures to configure WebSphere to run Get-Answers on AIX, Linux, and Solaris.

To configure WebSphere 4.0.2:

- Step 1** Install WebSphere 4.0.2. Your version of WebSphere 4.0.2 includes the IBM HTTP Server. See *Installing WebSphere 4.0.2* on page 154.
- 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 154.
- Step 3** Set the JVM classpaths to your database classes. See *Setting the JVM classpaths* on page 156.
- Step 4** Set the JVM Java heap size for each WebSphere instance running Get-Answers. See *Setting the Java heap size* on page 158.
- Step 5** Create the virtual directory you want to use for Get-Answers in your Web server. See *Configuring a virtual directory for IBM HTTP Server* on page 1.
- Step 6** Run the Get-Answers installer.

If you plan on setting up a WebSphere Portal Server or a WebSphere Translation Server, see *Installing WebSphere Portal Server* on page 159 or *Configuring WebSphere Translation Server for Get-Answers* on page 169.

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.

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.

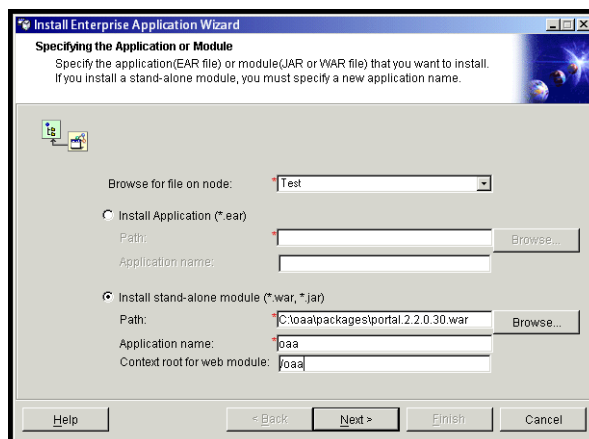
To deploy the Portal WAR file to WebSphere:

- 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`.

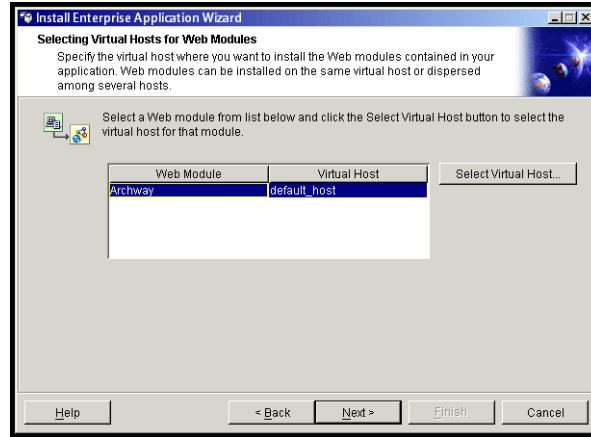
Important: You must create a Web server virtual directory matching the context root you enter here.

The following screen shows the completed form.

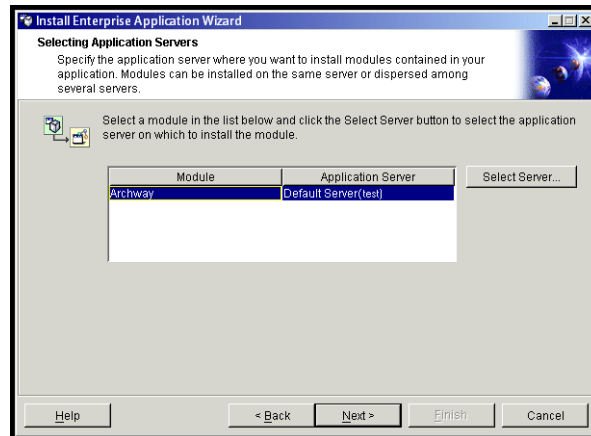


- 5 Click **Next**.
- 6 Click **Next** on the following dialog boxes. These screens will not be used.
 - Mapping Users to Roles
 - Mapping EJB Run As Roles to Users
 - Binding Enterprise Beans to JNDI Names
 - Mapping EJB References to Enterprise Beans
 - Mapping Resource References to Resources

- 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**.

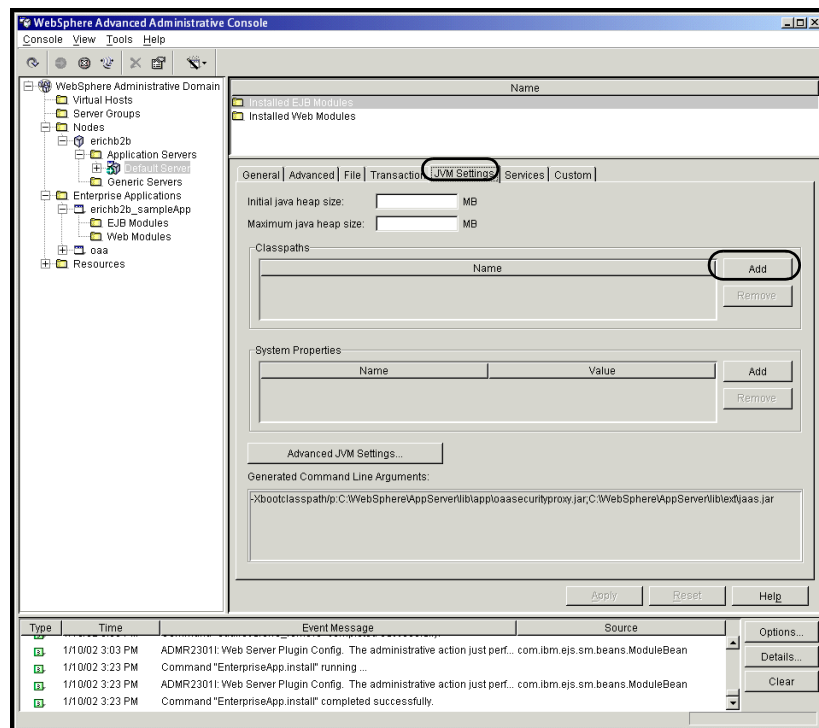
Setting the JVM classpaths

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.zip file:

`/oracle/ora81/jdbc/lib/classes12.zip`

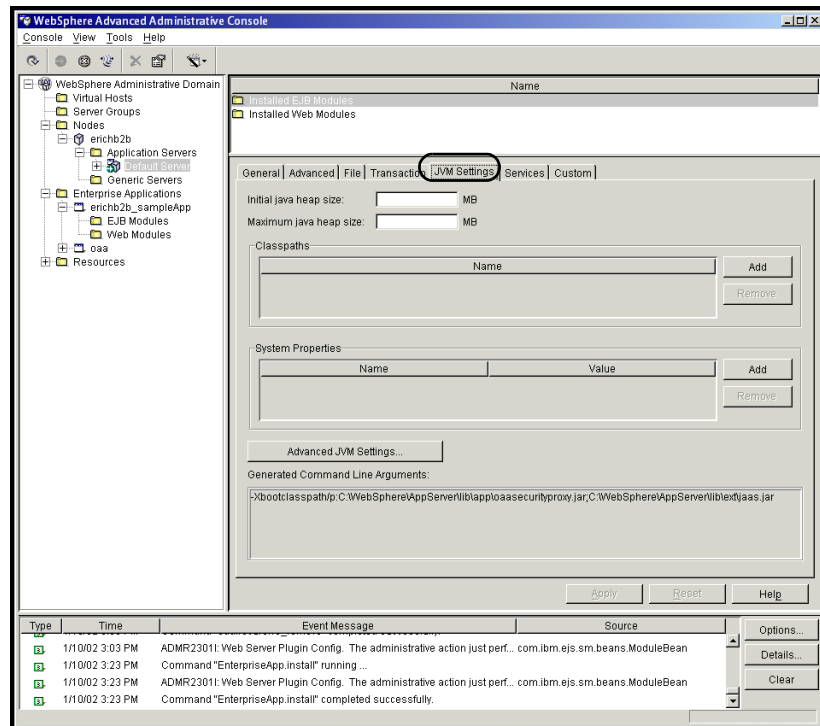
Setting the Java heap size

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 Get-Answers installer

Run the Get-Answers installer and select the Custom installation option. See *Custom Installation Option* on page 193.

If you plan on setting up a WebSphere Portal Server or a WebSphere Translation Server, see *Installing WebSphere Portal Server* on page 159 or *Configuring WebSphere Translation Server for Get-Answers* on page 169.

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 159.
- 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.

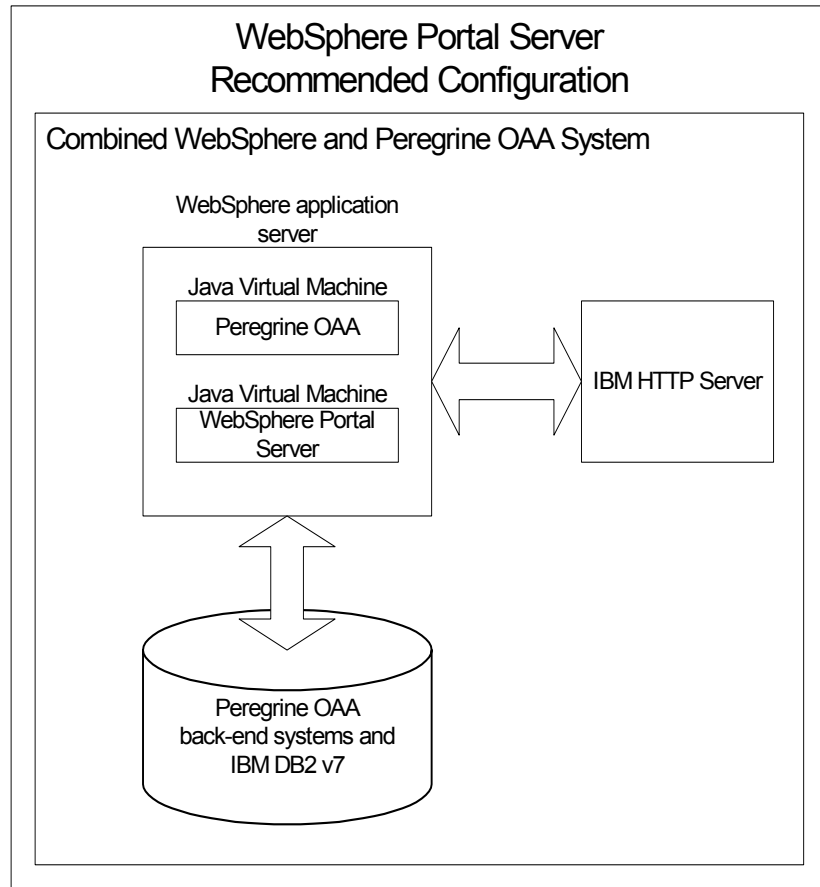
Recommended WebSphere Portal Server configuration

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 163.
- 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 164.

- Step 3** Login to the Get-Answers server and stop the WebSphere application server. See *Stopping the WebSphere application server* on page 165.
- Step 4** Modify the `archway.xml` to change the HTTP authentication method used from Basic to Alternate. See *Modifying the archway.xml file* on page 165.
- Step 5** Modify the `web.xml` to enable the AuthController servlet. See *Modifying the web.xml file* on page 165.
- Step 6** Modify the `ibm-web-ext.xmi` file to set the `fileServingEnabled` parameter. See *Modifying the ibm-web-ext.xmi file* on page 166.
- Step 7** Start the WebSphere application server. See *Starting the WebSphere application server* on page 167.
- 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 167.
- 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 168.

When complete, your installation will have the following configuration:

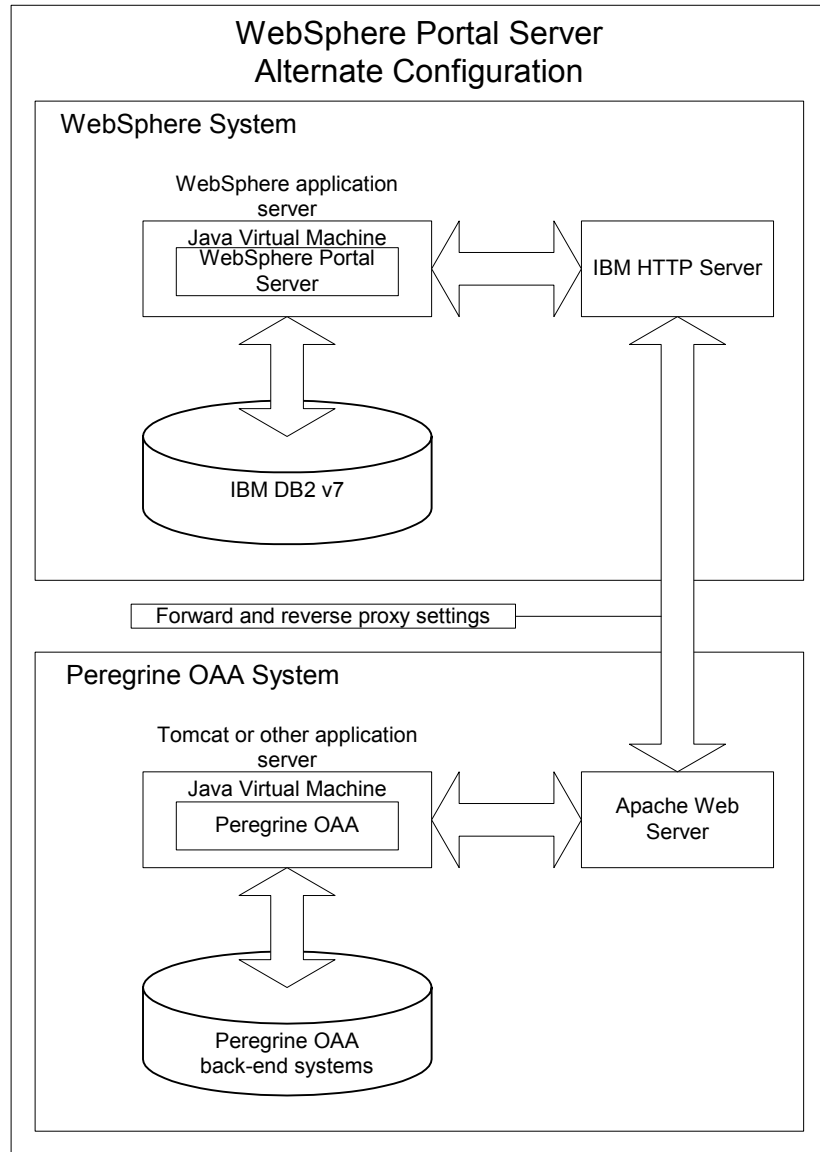


Alternate WebSphere Portal Server configuration

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 163.
- 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 164.
- Step 3** Login to the Get-Answers server and stop the WebSphere application server. See *Stopping the WebSphere application server* on page 165.
- Step 4** Modify `archway.xml` to change the HTTP authentication method used from Basic to Alternate. See *Modifying the archway.xml file* on page 165.
- Step 5** Modify `web.xml` to enable the AuthController servlet. See *Modifying the web.xml file* on page 165.
- Step 6** Modify the `ibm-web-ext.xmi` file to set the `fileServingEnabled` parameter. See *Modifying the ibm-web-ext.xmi file* on page 166.
- Step 7** Modify `setDomain.js` to call the `SetDomain` function. See *Modifying the setDomain.js file* on page 166.
- Step 8** Start the WebSphere application server. See *Starting the WebSphere application server* on page 167.
- 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 167.
- 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 168.
- 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 169.

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 archway.xml file

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

To modify the archway.xml file:

- 1 Using a text editor, open the archway.xml file located at:
`<application server>/webapps/oaa/WEB-INF/default.`
- 2 Edit the line containing:
`<httpauthclass ...>HttpBasicAuthenticationManager</httpauthclass>`
- 3 Change the value `HttpBasicAuthenticationManager` to `HttpAlternateAuthenticationManager`.
- 4 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>\webapps\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>/webapps/oaaj/s.`
- 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 Portal 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 169.

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.

Common	
Common Backend:	Adapter target name used to support common user operations.
portalDB	
List of target aliases:	Specifies a list of semicolon delimited target aliases used by web applications in this package.
weblication;mail	
Admin name:	The admin login name. This login provides access to administrative functionality without authenticating against backend adapters.
Admin	
Admin password:	The admin login password.
Language Translation	
Translation Server Factory Class:	The Java factory class which generates the proper class associated with the Translation Server.
com.peregrine.util.WTSLanguageTranslatorFactory	
Language from which to translate:	The language from which to translate or the base language in which all text is currently displayed as.
English	
Translation Server IP Address:	The IP address of the Translation Server. This address may or may not contain a port number depending on the Translation Server requirements. Click for default: 1
10.3.128.181:1097	
Application path:	Directory location of the Peregrine Portal Web Applications.
WEB-INF/apps/	
Event queue:	Enter the name of the adapter that should be used by the Peregrine Portal event queue engine. For example:
portalDB	
	<ul style="list-style-type: none"> To use ServiceCenter's repository, enter "sc" To use AssetCenter's repository, enter "ac"

- 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.
 - d **Application path:** Enter the relative path to the application server applications directory. The default value is:
WEB-INF/apps/
 - e **Event queue:** Enter the adapter name to you want to use for the event queue engine. The default value is: PortalDB
- 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.

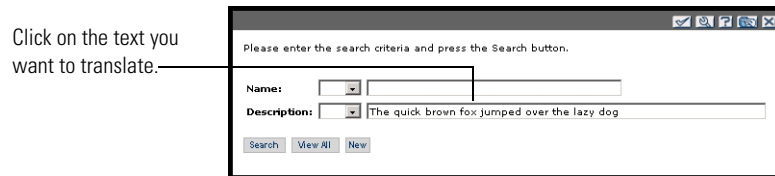
To translate on-screen data with a Translation Server:

- 1 Enable the translation server from the **Administration > Settings** page as described in *Configuring WebSphere Translation Server for Get-Answers* on page 169.

The translate button appears in the upper right tool bar.

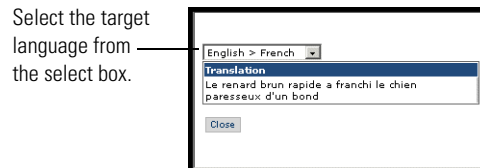


- 2 Click on the source data or form input you want to translate.



- 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 193
- 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 193.

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 193.

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:

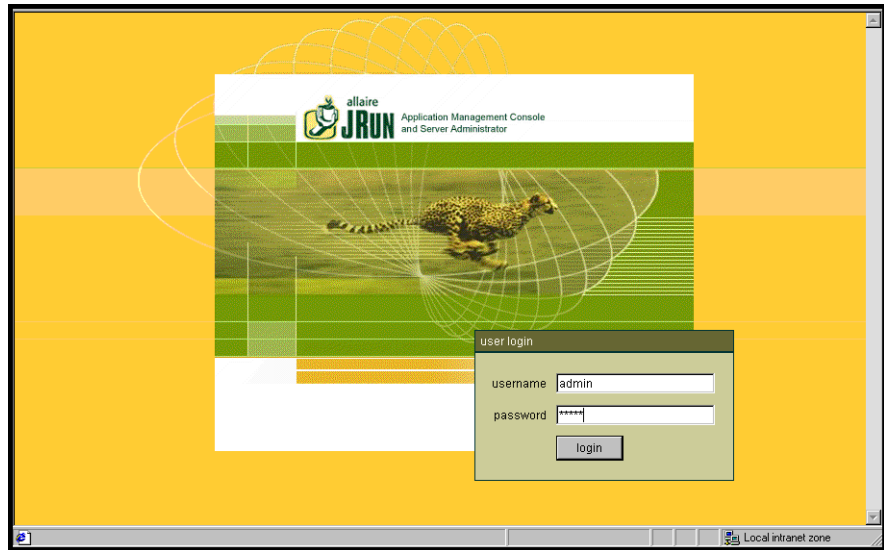
- 1 Browse to the following URL:
http://www.macromedia.com/support/jrun/updates/3/updates_31.html
- 2 Click the link for the **JRun edition (Enterprise, Advanced, or Professional) and operating system of your server**.
- 3 Follow the installation instructions provided.

Deploying the Portal WAR file to JRun

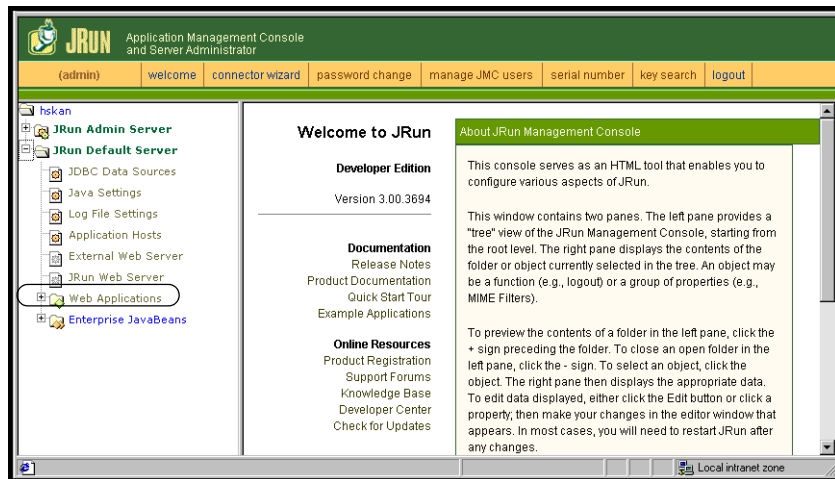
The Portal WAR file creates the folder structure necessary to deploy Get-Answers in your application server. After you have deployed this file to WebLogic you will be ready to run the Get-Answers installer.

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

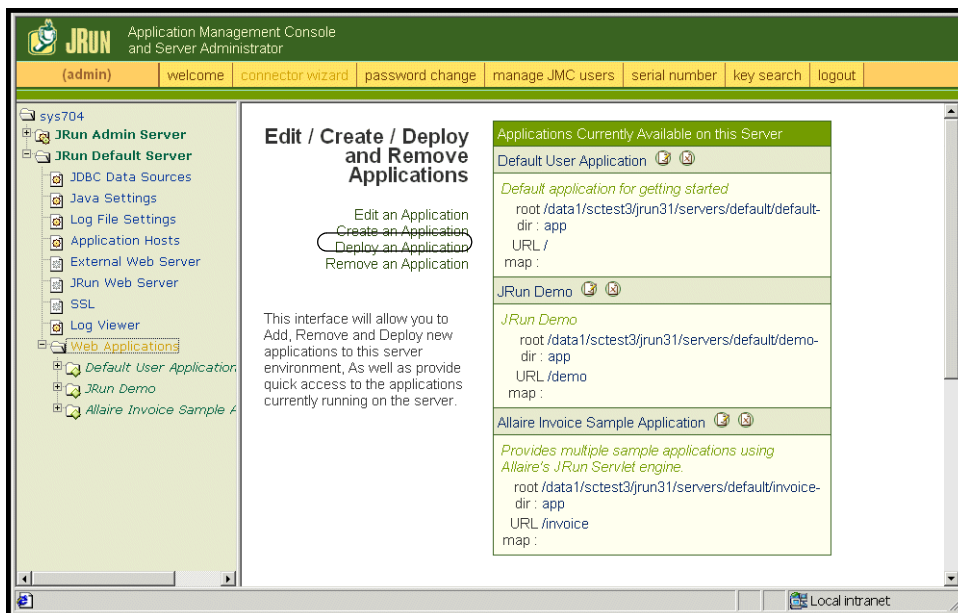
- 1 Open the JRun Management Console and log in.



- 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 193.

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/oaawebinf/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.

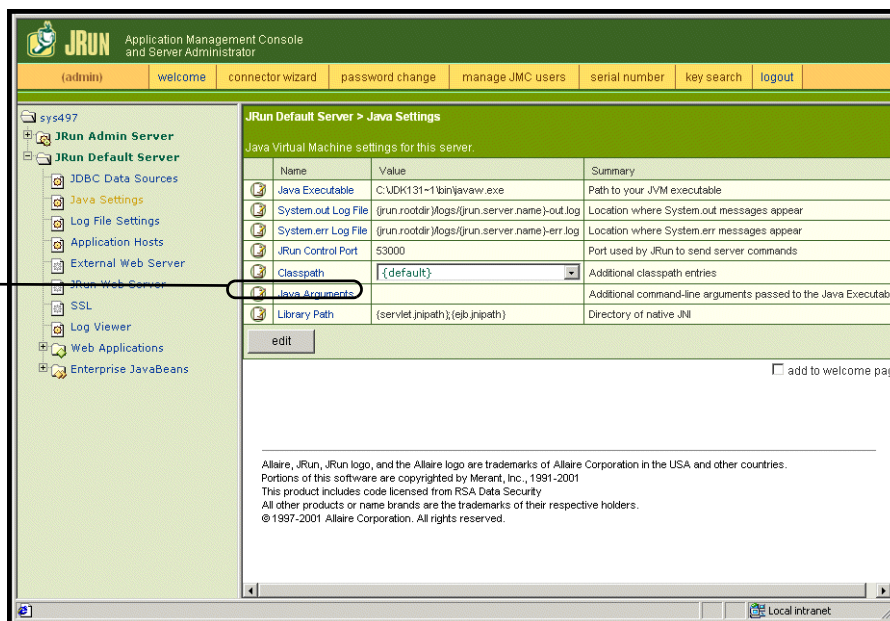
Configuring Java settings

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**.

Click **Java Arguments**.



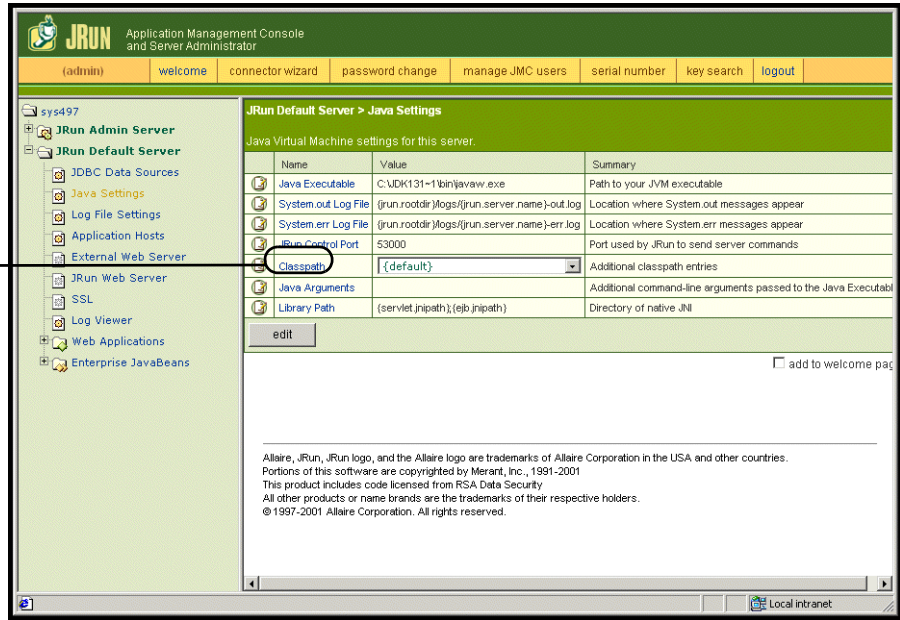
The Edit Window opens.

- 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.

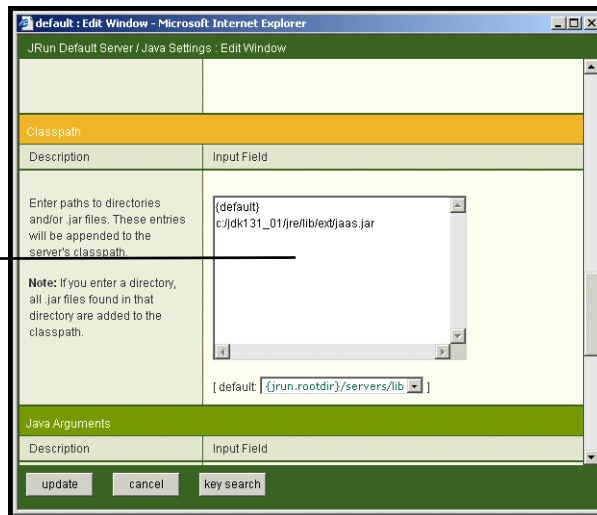
5 On the Java Settings page, click **ClassPath**.

Click **ClassPath**.



The Edit Window opens.

Type the path to the JAR files here.



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.zip:

/oracle/ora81/jdbc/lib/classes12.zip

- 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.

The screenshot shows the JRun Application Management Console interface. The main window is titled "JRun Default Server > Java Settings". Below the title, there is a table of "Java Virtual Machine settings for this server". The table has columns for Name, Value, and Summary. The "Library Path" setting is highlighted, and its value is shown as "/usr/bin:/usr/ucblib".

Name	Value	Summary
Java Executable	/data1/sctest3/jdk131/bin/java	Path to your JVM executable
System.out Log File	{jrun.root.dir}/logs/{jrun.server.name}.out.log	Location where System.out messages
System.err Log File	{jrun.root.dir}/logs/{jrun.server.name}.err.log	Location where System.err messages
JRun Control Port	50001	Port used by JRun to send server com
Classpath	{jrun.root.dir}/servers/lib	Additional classpath entries
Java Arguments	-Xmx250m	Additional command-line arguments ps
Library Path	{senlet.jniphath};{ejb.jniphath}/data1/sctest3/ac360/bin/usr/bin;/data/oracle/Oracle6/lib;/usr/ucblib	Directory of native JNI

At the bottom of the console, there is a copyright notice: "Allaire, JRun, JRun logo, and the Allaire logo are trademarks of Allaire Corporation in the USA and other countries. Portions of this software are copyrighted by Merant, Inc., 1991-2001. This product includes code licensed from RSA Data Security. All other products or name brands are the trademarks of their respective holders. © 1997-2001 Allaire Corporation. All rights reserved."

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	<code><oaa></code>
Map to physical path	<code><JRun>/oaa</code>
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.

Setting up the File server

The File server, as described in the first chapter of this guide, stores the Get-Answers documents. Any standard server can operate as the File server. This section describes how to set up the File server.

To set up the File server:

- ▶ On the server you have chosen as your File server, create a folder to hold the Get-Answers documents. This is your Get-Answers documents directory.

Note: Write down the drive and directory of this folder on the File server in the Get-Answers Intallation worksheet in the first chapter of this book.

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/oa

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.

This completes the installation. If you have not already done so, you will now 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.

Typical Installation Procedures

This section explains how to install Get-Answers with a Tomcat application server and an Apache web server on an AIX, Linux, or Solaris operating system.

To perform a typical installation of Get-Answers on AIX:

- 1 Login to your server.

Important: You must login with an account that has root privileges.

- 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
```

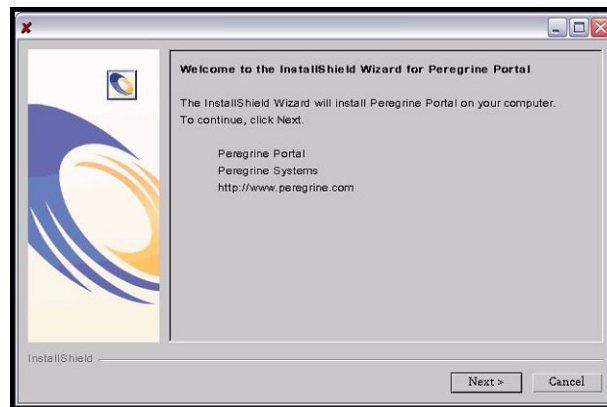
Change directories to your CD ROM. For example:

```
cd /cdrom
```

Enter the installer script specific for your operating system:

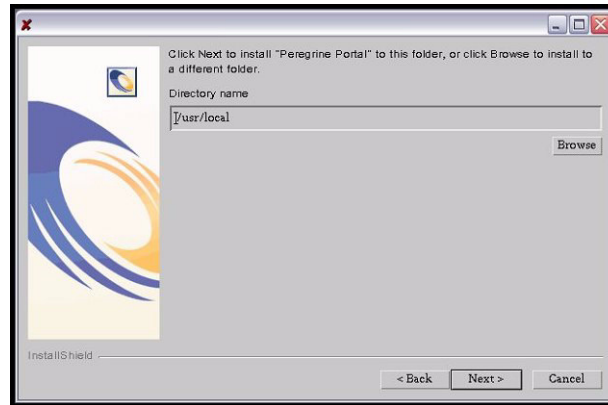
Operating system	Shell script to run
AIX 5.1	./setupaix

The installer welcome page opens.



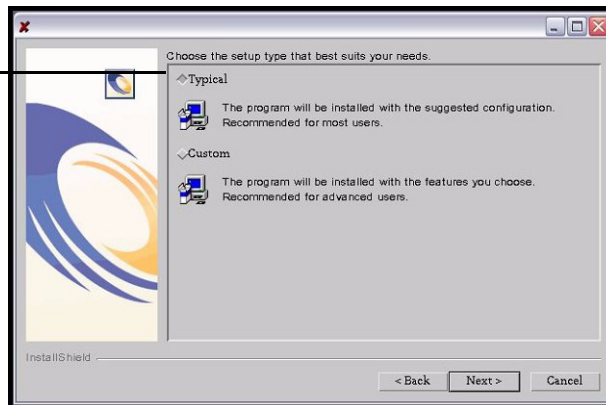
- 3 Click Next to continue to the next page of the wizard.

The installation location page opens.



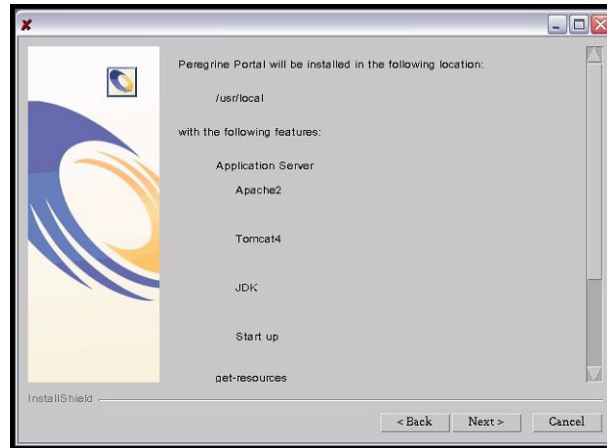
- 4 Click **Browse** to change the default installation location of /usr/local.
- 5 Click **Next** to continue to the next page of the wizard.
The setup type page opens.

Click **Typical**.

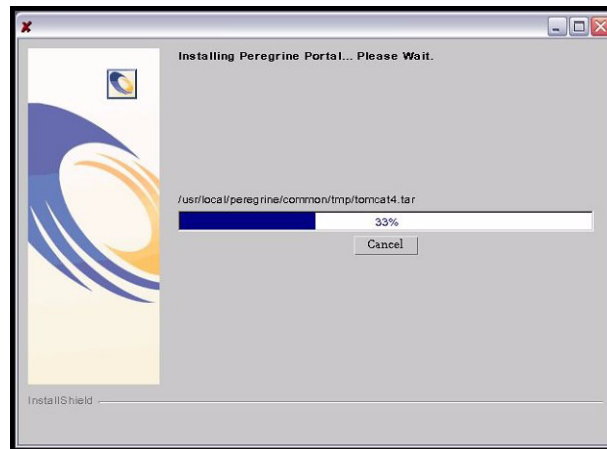


- 6 Select **Typical**.
- 7 Click **Next** to continue to the next page of the wizard.

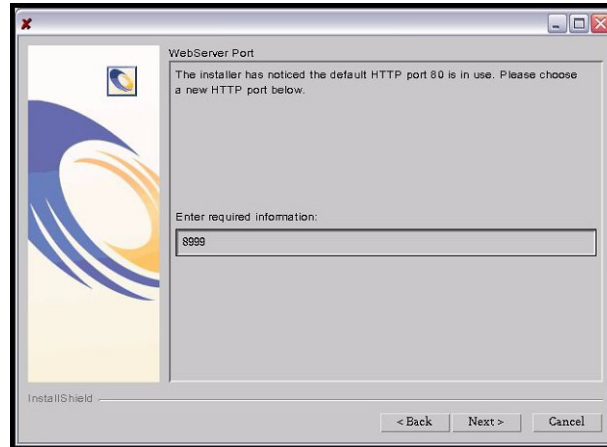
The review components page opens.



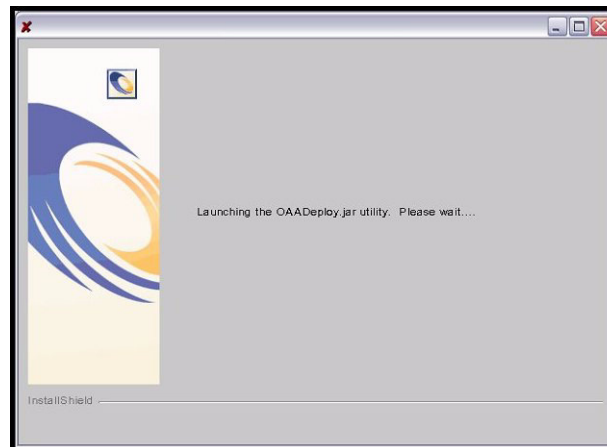
- 8 Click Next to continue to start installing Get-Answers components.
The installation progress page opens.



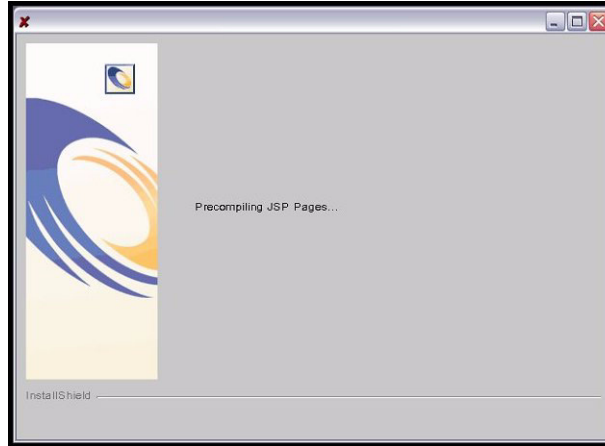
After installation is complete, the installer verifies the availability of port 80 for the Apache Web server. If the installer finds a port conflict on port 80 the Web server port page opens.



- 9 If required, enter the new Web server communications port.
- 10 Click Next to start deploying Get-Answers components.
The Get-Answers deployment utility page opens.

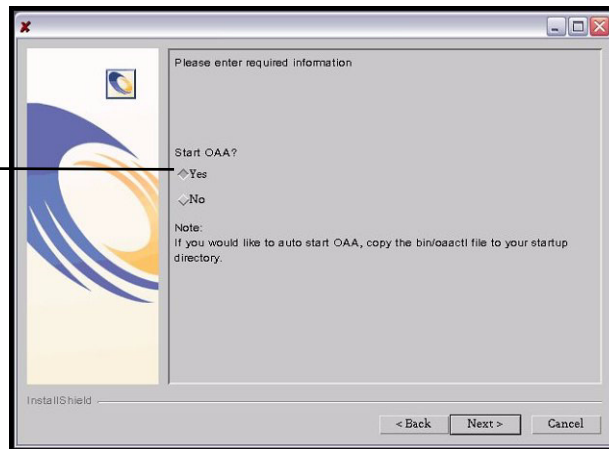


During deployment, the installer precompiles the Java server pages for use by Tomcat.



After the installer has successfully deployed Get-Answers, the start OAA page opens.

Select **Yes**
to start
Get-Answers
immediately.



- 11 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. By default this file is located at:
`/usr/local/peregrine/bin/`

You have now installed Get-Answers. 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	<ul style="list-style-type: none"> ■ Apache 2.0.43 ■ IBM HTTP Server 1.3.19 ■ Microsoft IIS 5.0
Application Server	<ul style="list-style-type: none"> ■ Tomcat 4.1.12 ■ WebSphere 4.02 ■ 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

To perform a custom installation of Get-Answers on UNIX:

- 1 Login to your server.

Important: You must login with an account that has root privileges.

- 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
```

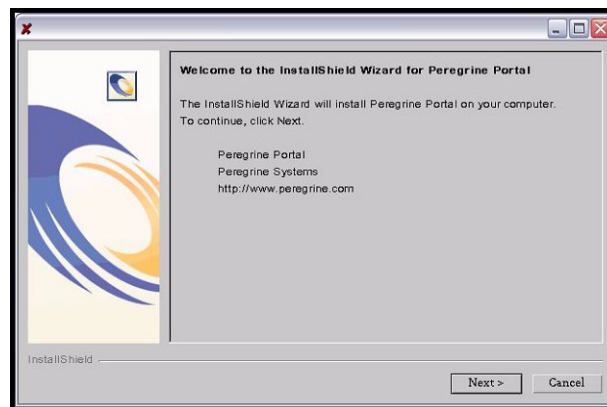
Change directories to your CD ROM. For example:

```
cd /cdrom
```

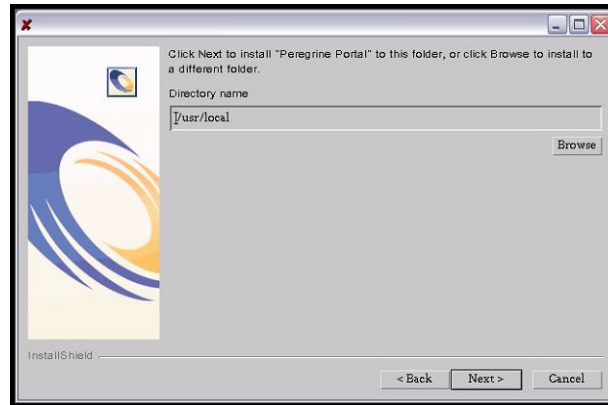
Enter the installer script specific for your operating system:

Operating system	Shell script to run
AIX 5.1	./setupaix

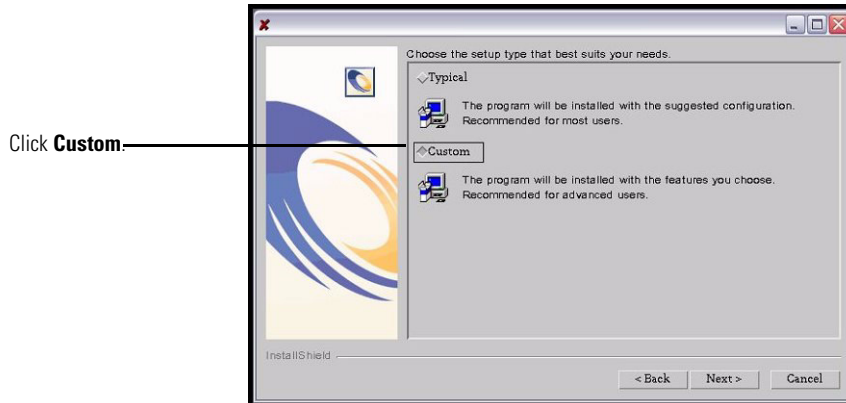
The installer welcome page opens.



- 3 Click **Next** to continue to the next page of the wizard.
The installation location page opens.



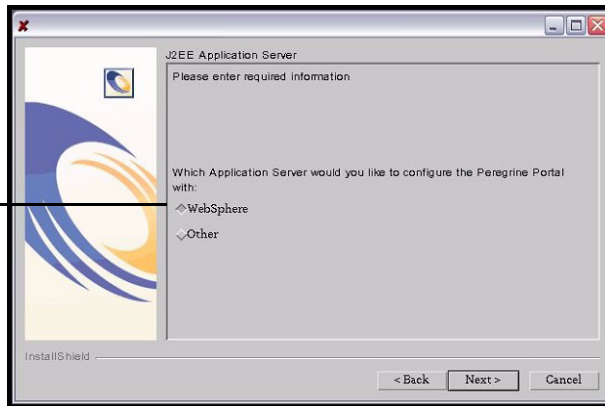
- 4 Click **Browse** to change the default installation location of `/usr/local`.
- 5 Click **Next** to continue to the next page of the wizard.
The setup type page opens.



- 6 Select **Custom**.
- 7 Click **Next** to continue to the next page of the wizard.

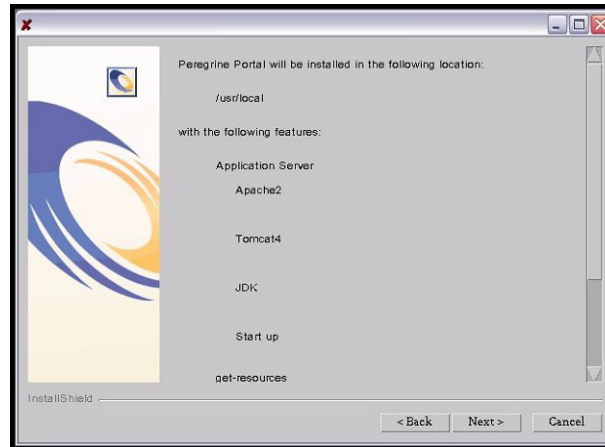
The select J2EE application server page opens.

Select your application server from the list provided.



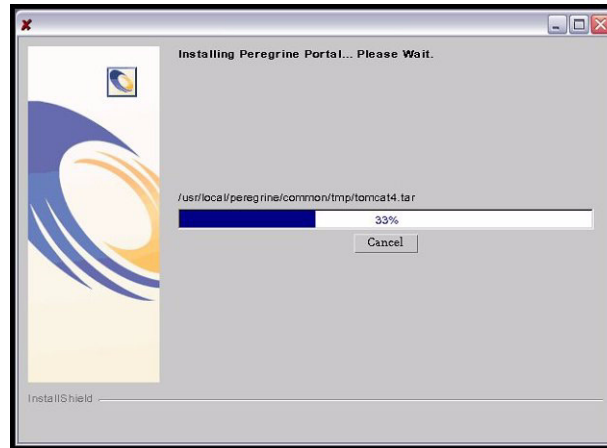
- 8 Click **WebSphere** to configure a WebSphere application server, or click **Other** to configure any other application server. Click **Next** to continue to the next page of the wizard.

The review components page opens.



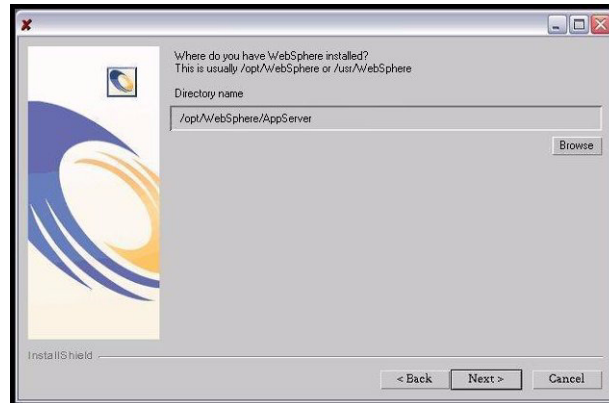
- 9 Click **Next** to continue to start installing Get-Answers components.

The installation progress page opens.



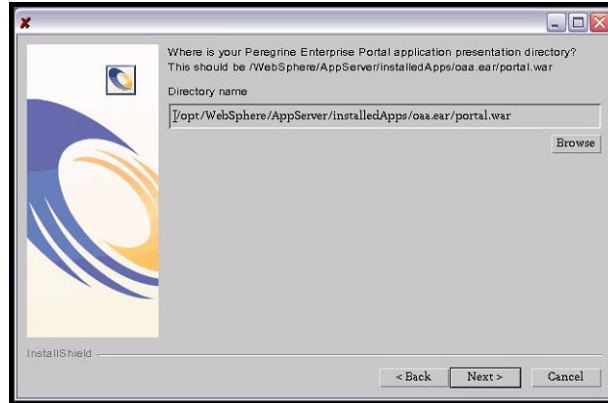
If you have selected to configure a WebSphere application server, you will see the screens in step a through step e.

The WebSphere AppServer installation location page opens.



- a Click **Browse** to locate the directory where you installed the WebSphere AppServer. Click **Next** to continue.

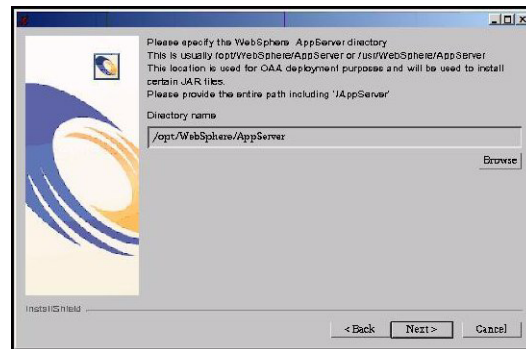
The presentation directory location page opens.



- b Click **Browse** to locate the directory where you deployed the `portal.war` file. Click **Next** to continue.

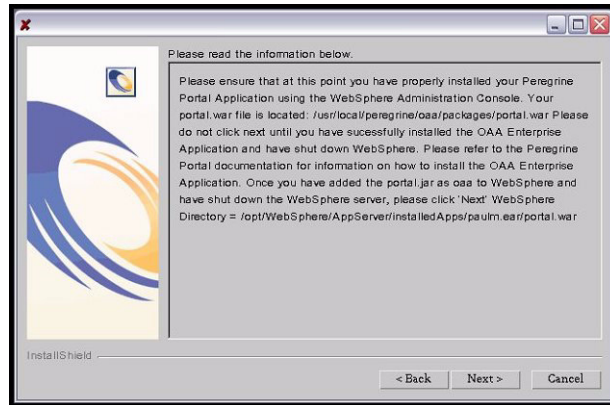
WebSphere automatically created this directory when you deployed the Get-Answers `portal.war` as an enterprise application. See [WebSphere 4.0.2](#) on page 154 for more information on deploying a WAR file.

The WebSphere JDK installation location page opens.



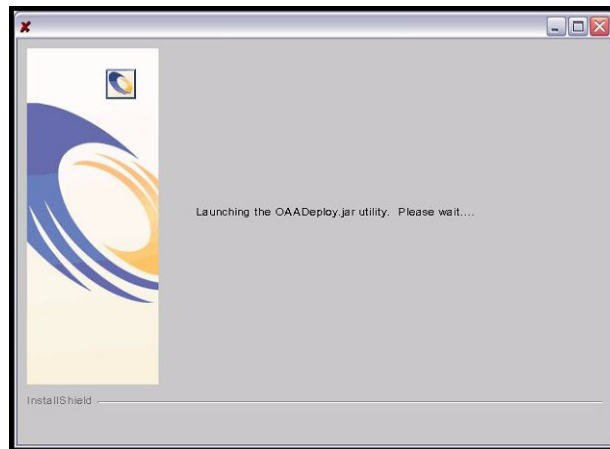
- c Click **Browse** to locate the directory where you installed the Java development kit used by WebSphere. Click **Next** to continue.

The deployment confirmation page opens.

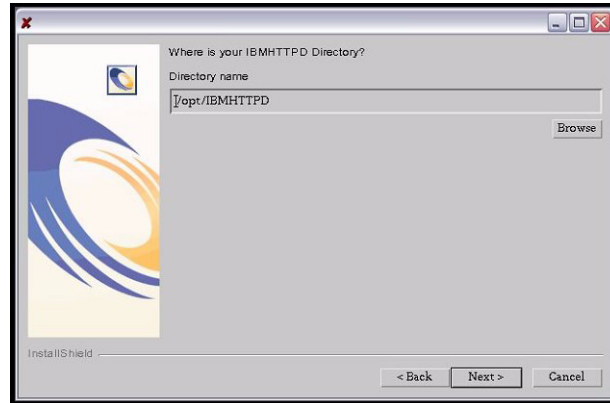


- d After you have successfully deployed `portal.war` in WebSphere, click **Next** to continue.

The Get-Answers deployment utility page opens.



The IBM HTTP Server location page opens.

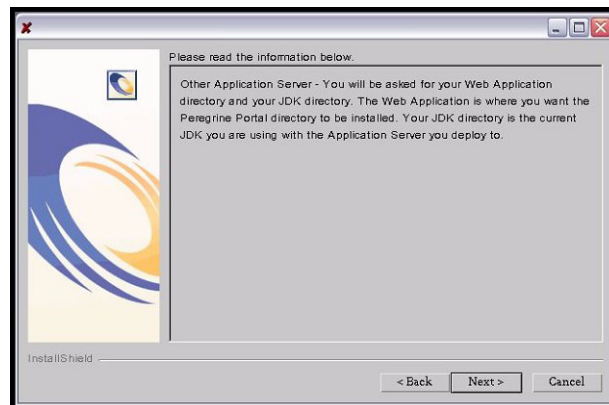


- e Click Browse to locate where you installed the IBM HTTP Server. Click Next to continue.

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 4.0.2](#) on page 154 or [Configuring a virtual directory for IBM HTTP Server](#) on page 1 for a list requirements.

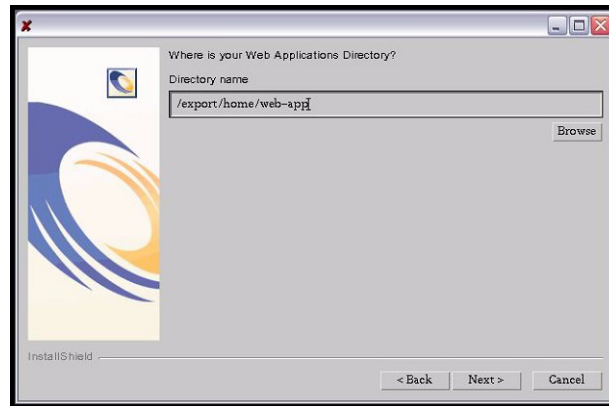
If you have selected to configure another application server, you will see the screens in step f through step h.

The other application server information page opens.



- f Click Next to configure your application server.

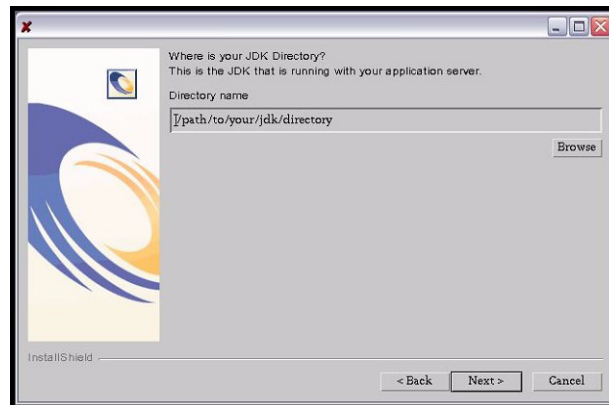
The Web applications directory page opens.



- g Click **Browse** to locate the directory where you deployed the `portal.war` file. Click **Next** to continue.

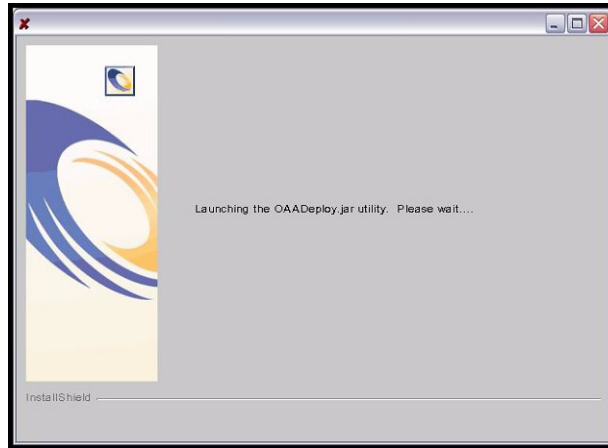
For more information on deploying a WAR to application servers, see *Configuring alternate application servers* on page 151.

The application server JDK installation location page opens.



- h Click **Browse** to locate the directory where you installed the Java development kit used by your application server. Click **Next** to continue.

The Get-Answers deployment utility page opens.



- 10 Click Finish to close the installer.
- 11 Enter the library path environment variables required by your operating system and application server.

Operating system	Environment variable	Add these path values
AIX	LIBPATH	<ul style="list-style-type: none"> ■ /<App server>/WEB-INF/lib/AIX ■ /<App server>/WEB-INF/lib/AIX/ServiceCenter4

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/oa.a.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\oa.a.ear\portal.war\eopro"

Completing Get-Answers installation

Defining OAA runtime parameters

Perform the following steps on the Web server.

To define OAA runtime parameters:

- 1 Verify that your application server (such as Tomcat) is running.
- 2 Open a Web browser and navigate to <http://<hostname>/oaa/admin.jsp>.
- 3 Press **Enter**.

The Get-Answers Administrator login page opens.

- 4 In the Name field, type **Admin**, and leave the Password field blank.
- 5 Click **Login as Administrator**.
- 6 In the menu options, click **Settings**.
- 7 Select the Web Application tab and enter **rome** in the Alias for field.
- 8 Scroll to the bottom of the page and click **Save**.
The Control Panel page opens.
- 9 In the menu options, click **Settings**.
- 10 Select the Portal DB tab and enter **rome** in the Alias for field.
- 11 Scroll to the bottom of the page and click **Save**.
The Control Panel page reopens.
- 12 Click **Reset Server**.
When the server has been reset, a confirmation message appears at the top of the page.

Configuring the rwsrvr.cfg file

During installation, Get-Answers created a file called `rwsrvr.cfg` in your `<web server presentation directory>/oaa/WEB-INF` config directory. This is the file you configure here.

Perform the following steps on the Web server.

To configure the `rwsrvr.cfg` file:

- 1 Open Notepad or another text editor and use it to open the `rwsrvr.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.
- 5 Open the `web.xml` file and add these `<servlet>` lines to the section that has `<servlet>` lines:
Note: Do not add these lines within `<!-- comment -->` lines.

```

<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>

```

- 6 Add these <servlet-mapping> lines to the section that has <servlet-mapping> lines:

```

<servlet-mapping id="ServletMapping_eopro">
<servlet-name>OEMLicenseServlet</servlet-name>
<url-pattern>/servlet/oemlicense.OEMLicenseServlet</url-pattern>
</servlet-mapping>

```

Copying the sample documents and connecting servers

In this procedure, you copy the sample documents provided with Get-Answers to the documents directory on your File server and make sure that all servers can access the documents directory.

Copying the sample documents and mapping drives

To copy the sample documents: and connect the servers to the directory:

- 1 Find the Get-Answers documents directory that you set up in the section *Setting up the File server* on page 184.

Note: You can also find this information in the Get-Answers Installation Worksheet in the first chapter of this book.

- 2 From the Get-Answers CD, copy the contents of the documentation directory into the documents directory on the File server.
- 3 If you are using different machines for your File, Web and Search Engine servers, put share rights on the documents directory to the other servers.
- 4 On the Web server, create a network drive mapping to the documents directory from the Web server.
- 5 On the Serach Engine server, create a network mapping to this directory from the file server.

Connecting the servers

In this procedure, you make sure all the Get-Answers servers can talk to each other.

To connect the servers:

- 1 In your Web browser, go to `http://<hostname>/oaa/admin.jsp`.
- 2 Log in using Admin as the user name and leave the Password field blank.
- 3 On the Control panel, click **Settings**.
- 4 Scroll to the right and click the **Get-Answers** tab.
- 5 Make sure that **oaakm Adapter Debugging Log** and **Search Engine Logging** are turned off.
- 6 Set the **KmWebServerAttachPath** to the drive on your Web server that maps to the documents directory on the File server.
- 7 Set the **KmRWareServerAttachPath** to the drive on your Search Engine server that maps to the documents directory on your File server.
- 8 Set the **oaakmSearchEngineConfigPath** to `<web server presentation directory>/oaa/WEB-INF/config/rwserver.cfg`.
- 9 Scroll down to the bottom and click **Save**.
- 10 Click **Settings** again.
- 11 Click the **rome** tab.
- 12 Change the Database Management System to IBM DB2 in the drop-down list.
- 13 Change the Database URL attribute to `jdbc:db2:<databasename>`, substituting your database name in the brackets.
- 14 If you are using DB2, set the database type to **DB2** and set the database driver to **COM.ibm.db2.jdbc.app.DB2Driver**.
- 15 Change the Database User Name attribute to the value that you entered on the Get-Answers Installation Worksheet in the first chapter of this book.
- 16 Change the Database User Password attribute to the value that you entered on the Get-Answers Installation Worksheet in the first chapter of this book.
- 17 Scroll down to the bottom and click **Save**.
- 18 Click **Settings** again.
- 19 Click the **Common** tab.
- 20 Change Server URL to `http://<hostname>/oaa/login.jsp?_bookmark=`.
- 21 Scroll to the bottom and click **Save**.

Populating the database with sample data

Get-Answers includes data you can use to see how the product works as your build your own data. Use the following procedure to import the sample data into your database.

Important: Complete this procedure before you run your application server for the first time after you install Get-Answers.

To populate the database with sample data:

- 1 Find and open the file that contains the sample data.

- For DB2, the file location is:
WEB-INF/etc/DB2/GATablePopulateDB2.sql
- For Oracle, the location of the file is:
WEB-INF/etc/Oracle/GATablePopulateOracle.sql

- 2 Find the file, find the lines that contain the statements **update “KMDOCUMENT”** and **INSERT INTO “KMDOCUMENT”**.

For example, here is a line that contains the update “KMDOCUMENT” statement:

```
<sql>update “KMDOCUMENT” set...FILENAME='C:\Docs\empty.txt',...where  
lkmdocumentid=0</sql>
```

- 3 In each line that contains either the update “KMDOCUMENT” or INSERT INTO “KMDOCUMENT” statements, change the path to a fully qualified path to match the path on your File server.

Note: You can find this path on item 7 in the Get-Answers Installation Worksheet in the first chapter of this guide.

Important: For AIX, make sure all slashes in the document paths are forward slashes, with the exception of slashes contained in the Search Engine Server Attach Path. For example, with a Search Engine Server Attach Path of:G:\share one of the lines would be changed fromC:\docs\Get-Answers Team\Published\GetAnswers4InstallationGuide.pdf to G:\share/Get-Answers Team/Published/GetAnswers4InstallationGuide.pdf

- 4 Start the application server.

Starting the search engine and indexing the sample documents

You must start the Search engine and then have Get-Answers index the sample documents provided with the product to find them in searches. Complete these steps on the Search Engine server.

Complete these steps on the Search Engine server.

To start the Search engine and index the sample documents:

- 1 Go to **Start>Programs>Get-Answers Search Engine>Systems Utilities Menu**.
- 2 Choose **Search And Indexing Servers**.
- 3 Choose **Start servers in background**.
The window that opens shows that the Search Engine has started running.
- 4 Press any key to continue.
- 5 Choose **Return to previous menu**.
- 6 Choose **Indexing and Index Utilities**.
- 7 Choose **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 installation directory.KMLib\KMLib_index.err.
- 12 Go to the Web server and restart the Apache and Tomcat Web server software.

Checking the status of the KGMA Adapter

To complete this portion of the installation, check that the KGMA Adapter is connected using the following procedure.

To check the status of KMGAAadapter:

- 1 In a Web browser, go to **http://<hostname>/oaa/admin.jsp**.
- 2 Log in as **Admin** with no password.

- 3 In the page that opens, verify that the oaakm and com.peregrine.oaa.adapter.KGMAAdapter reads “connected.”
- 4 Log out.

The installation is complete. For information on using Get-Answers, see the *Get-Answers User’s Guide* and the *Get-Answers Administration Guide*.

7 Completing All Installations

CHAPTER

Once you have installed Get-Answers using Typical, Custom, Upgrade, or AIX/DB2 installation, there are five tasks to complete before the installation process is finished.

- Set up the Search Engine server as an NT service.
- Index the sample documents.
- Explore the features of the Search Engine service.
- Restart the Web server.
- Check the KMGAAadapter to make sure it is connecting the Web server to the Search Engine server.

Complete the procedures in this chapter in the order they appear to finish installation of Get-Answers.

Setting up the search engine server as an NT service

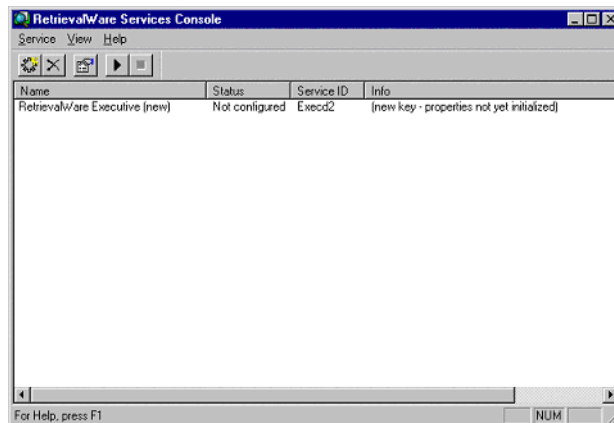
On Windows NT systems, you can run the search engine server as an NT service.

To run the search engine server as an NT service:

Note: If you do not make the Search Engine server a service on page 211, you must always make sure the Search Engine is running before you start Tomcat.

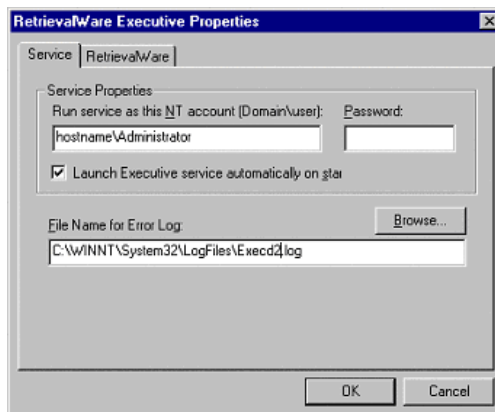
- 1 From the Start menu, choose **Programs > GetAnswers4.0 > Services Console**.

- 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 23.
 - 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 KMLib folder.
Example: C:\getanswers\KMLib\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>GetAnswersSearchEngine3.0.1>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.”
- 9 Close the 'RetrievalWare Services Console' window.

Indexing the sample documents

Before you continue with the installation, index the sample Get-Answers documents.

To index the sample documents:

- 1 On the search engine server, choose **Start >Programs >Get-Answers Search Engine >Start Search Engine Search Server**.
- 2 Press **Enter** to exit the command prompt window.
- 3 Begin indexing by choosing **Start >Programs >Get-Answers Search Engine >Reindex All Documents**.
- 4 Enter **KMLib**, and then enter **1=yes**.

When indexing is finished, you see the “All records have been submitted to the document handler” message.

- 5 Press any key to continue.

Note: Indexing error messages are written to the log file `<search engine installation directory>KMLib\logs\KMLib_index.err`.

Using the Search Engine Search Server

Here’s 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 on page 211, 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**.

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 v6.9 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 v6.9 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 re-indexing is complete, press any key to continue.

Restarting the web server

Perform the following steps on the web server.

- Restart the Apache and Tomcat web server.

Checking the status of the KMGAAadapter

The KMGAAadapter connects the web server to the search engine search server.

Perform the following steps on the web server.

Important: This procedure can't be performed until the documents are indexed. See *Indexing the sample documents* on page 213.

- 1 Using a browser, go to: `http://localhost/oa/login.jsp`.
- 2 Log on as **Admin** with no password.

Important: When you change the password for the Admin user later, you must change it in the Administration page under the Common tab in the Admin Password field and at the login page

To set this up, go the Administration page and click Settings. Then set the Enable Change Password option to true so you can later change the password from the login page.

- 3 Verify the line on the next screen containing a reference to `oaakm` and `com.peregrine.oaa.adapterKMGAAdapter` reads “connected.”
- 4 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 as Admin. (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.
- 5 Log out.

The installation is complete. For information on using Get-Answers, see the *Get-Answers User Guide* and the *Get-Answers Administration Guide*.

8

CHAPTER

Load-Balancing Application Servers

This chapter covers the following topics:

- *Load balancing application servers* on page 218
- *Creating multiple instances of Tomcat for Apache* on page 220
- *Creating multiple instances of Tomcat for IIS* on page 228
- *Using scriptpollers with application servers* on page 237.

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:

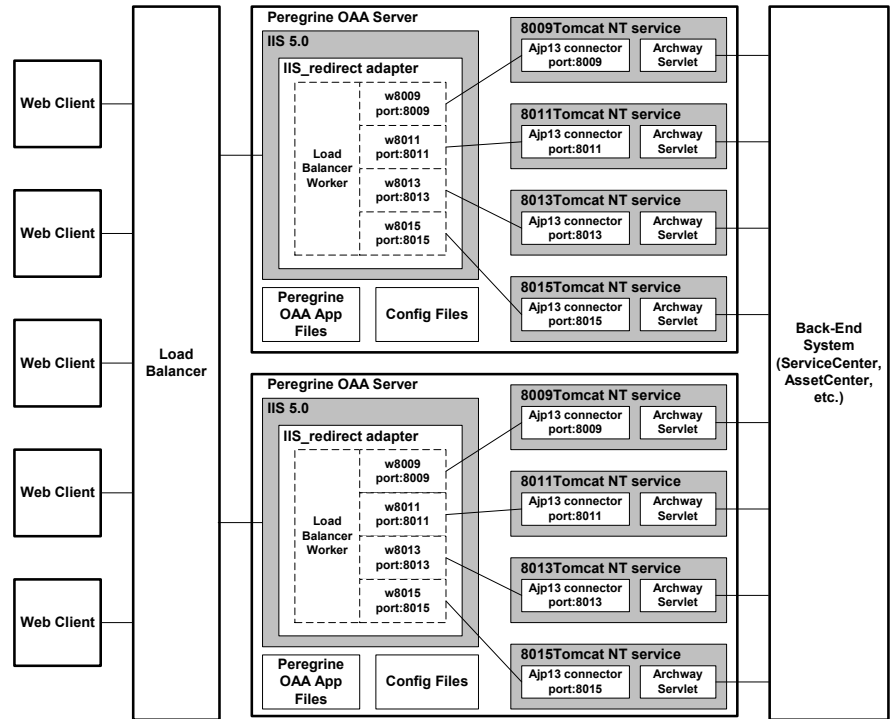
- The number of concurrent users.
- The processing power of the machine hosting the Get-Answers Web server.
- The number of processors on the machine.

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:



Creating multiple instances of Tomcat for Apache

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.

For systems using IIS, see *Creating multiple instances of Tomcat for IIS* on page 228.

To creating multiple Tomcat instance for Apache:

- Step 1** Create copies of the Tomcat directory. See *Copying the Tomcat directory* on page 221.
- Step 2** Delete the `\webapps\oaa` directory from the newly copied instances of Tomcat. See *Copying the Tomcat directory* on page 221.
- Step 3** Edit the `workers.properties` file of the first or master Tomcat instance to set the values for each additional Tomcat instance. See *Editing the workers.properties file* on page 221.
- Step 4** Edit the `mod_jk.conf-auto` file of the first or master Tomcat instance to establish a connection between Tomcat and Apache. See *Editing the mod_jk.conf-auto file* on page 223.
- Step 5** Edit the `httpd.conf` file to define the Tomcat workers available for Apache. See *Editing the httpd.conf file* on page 223.
- Step 6** Edit the `server.xml` files for each Tomcat instance. See *Editing the server.xml files for Apache* on page 224.
- Step 7** Edit the `jk2.properties` files for each Tomcat instance. See *Editing the jk2.properties files for Apache* on page 226.
- 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 226.
- Step 9** Testing the configuration. See *Testing load balancing on Apache* on page 227.

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.

- 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, w8009, w8011, w8013, w8015
worker.loadbalancer.type=lb
worker.loadbalancer.balanced_workers=w8009, 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.w8009.port=8009
worker.w8009.host=localhost
worker.w8009.type=ajp13
worker.w8009.cachesize=40
worker.w8009.lbfactor=10
```

- 4 Comment out the following lines. These default workers will not be used.

```
worker.ajp12.port=8007
worker.ajp12.host=localhost
worker.ajp12.type=ajp12
worker.ajp12.lbfactor=1

worker.ajp13.port=8009
worker.ajp13.host=localhost
worker.ajp13.type=ajp13
worker.ajp13.lbfactor=1
worker.ajp13.cachesize=10
```

- 5 Save the file.

Editing the mod_jk.conf-auto file

The `mod_jk.conf-auto` 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-auto` file, and you will have to manually add them.

To edit the `mod_jk.conf-auto` file:

- 1 Make a copy of the `mod_jk.conf-auto` file and rename the copy to `mod_jk.conf-local`.

The `mod_jk.conf-auto` file is located in the Tomcat conf directory.

- 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:\Apache\Tomcat\conf\worker.properties"
```

- 4 Change all `JkMounts` to use *loadbalancer* instead of *default worker ajp12*.

Usage: `JkMount<file(s) or directory> <worker name>`

Example:

```
JkMount/aaa/servlet/* loadbalancer
JkMount/aaa/*.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.
- 2 Add the following line:

```
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

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.

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 Update the port number attribute of the `<Server>` element to a unique value that will not conflict with other port numbers used by Tomcat. It is recommended that the port numbers 8005-8008 be used when configuring four Tomcat instances.

Example:

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

- 3 Update the port number used by the Coyote Connector to a unique, non-conflicting value. If you are configuring four Tomcat instance, the values 8009, 8011, 8013, and 8015 are recommended.

Example:

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

- 4 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">
```


The port number should follow the convention used elsewhere in the configuration (8009, 8011, etc.). These entries must be the same as the Tomcat ID entries you added to the `workers2.properties` file.

- 5 Update the `appBase` attribute of the `<Host>` element with the absolute path to the `webapps` directory of the primary Tomcat instance.

Example:

```
<Host name="localhost" debug="0"
appBase="C:\Apache\Tomcat_w8009\webapps" unpackWARs="true"
autoDeploy="true">
```

- 6 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:

```
<!--
<Connector className="org.apache.coyote.tomcat4.CoyoteConnector"
port="8080" minProcessors="5" maxProcessors="75" enableLookups="true"
redirectPort="8443" acceptCount="10" debug="0"
connectionTimeout="20000" useURISValidationHack="false" />
-->
```

- 7 Change the OAA context so that it is not reloadable.

This prevents Tomcat from reloading the servlet without restarting the service. This improves performance and helps keep the JSP code that the Tomcat instances are serving in sync during an update. All other contexts should be set to `reload=false`.

Example:

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

- 8 Save the file.
- 9 Repeat step 2 through step 7 for each copy of the `server.xml` file you made.

Editing the `jk2.properties` files for Apache

You will need to modify each Tomcat instance's `jk2.properties`. 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 instances 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 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:\Apache\Tomcat8009 C:\jdk130_05
```

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

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 creating multiple Tomcat instance for IIS:

- Step 1** Create copies of the Tomcat directory. See *Copying the Tomcat directory* on page 229.
- Step 2** Delete the `\webapps\oaa` directory from the newly copied instances of Tomcat. See *Copying the Tomcat directory* on page 221.
- Step 3** Configure the ISAPI Plugin for IIS. See *Configuring the ISAPI Plugin for IIS* on page 229.
- Step 4** Create and configure a `jakarta` virtual directory in IIS. See *Creating and configuring a jakarta virtual directory in IIS* on page 230.
- Step 5** Configure IIS to use `isapi_redirector2.dll` as an ISAPI Filter. See *Configuring the isapi_redirector2.dll as an ISAPI filter* on page 230.
- Step 6** Create and configure an `oaa` virtual directory in IIS. See *Creating and configuring an oaa virtual directory in IIS* on page 231.
- Step 7** 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 232.
- Step 8** Edit the `server.xml` files for each Tomcat instance. See *Editing the server.xml files for IIS* on page 233.
- Step 9** Edit the `jk2.properties` files for each Tomcat instance. See *Editing the jk2.properties files for IIS* on page 235.
- Step 10** 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 236.
- Step 11** Testing the configuration. See *Testing load balancing on IIS* on page 236.

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.
- 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.

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 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\isapi_redirector2.dll
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
```

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 as Apache.

To edit the `worker2.properties` file:

- 1 Open the `workers2.properties` file (located in the `conf` directory of your 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 of where the Tomcat instance is located.

For `<port>`, enter the communications port on which the Tomcat instance is listening.

`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 have 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. 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.

It is recommended that the port numbers 8005-8008 be used when configuring four Tomcat instances.

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.

It is recommended that the port numbers 8009, 8011, 8013, and 8015 be used 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" useURIVValidationHack="false"
protocolHandlerClassName="org.apache.jk.server.JkCoyoteHandler" />
```

- 4 Create a `<Context>` element entry from the first or master Tomcat instance to the Get-Answers deployment directory.

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 master Tomcat instance.

- 5 Update the `<Engine>` element with the server name and communications port used by each Tomcat instance.

List the server information in the `jvmRoute` attribute.

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 master 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 Save the file `server.xml`.
- 8 Repeat step 2 through step 7 for each copy of the `server.xml` file you made.

Editing the `jk2.properties` files for IIS

You will need to modify each Tomcat instance's `jk2.properties`. 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.
- 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 instances 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 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\jre\bin\server\jvm.dll
```

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

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.

Using scriptpollers with application servers

Get-Answers uses scriptpollers to send and retrieve information. You must set up the scriptpollers on only one server. You do not need to set up the scriptpollers on every machine that you load-balance.

To set up scriptpollers on only one machine:

- 1 Log in to `Admin.jsp`.
- 2 Find the `Enable Scriptpollers` field for the server you want to run scriptpollers on, and click **Yes**.
- 3 In the remaining servers, click **No** in the `Enable Scriptpollers` field.
- 4 Scroll to the bottom of the page and click **Save**.

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. For information on configuring Get-Answers to integrate with Remedy Help Desk, see *Configuring the Remedy Help Desk Integration* on page 244.

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 240 to learn how.
- Step 2** Load the Get-Answers file into ServiceCenter. See page 240.
- Step 3** Creating the getans.serv field in ServiceCenter. page 241.
- Step 4** Configuring the ServiceCenter files. See page 242.

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

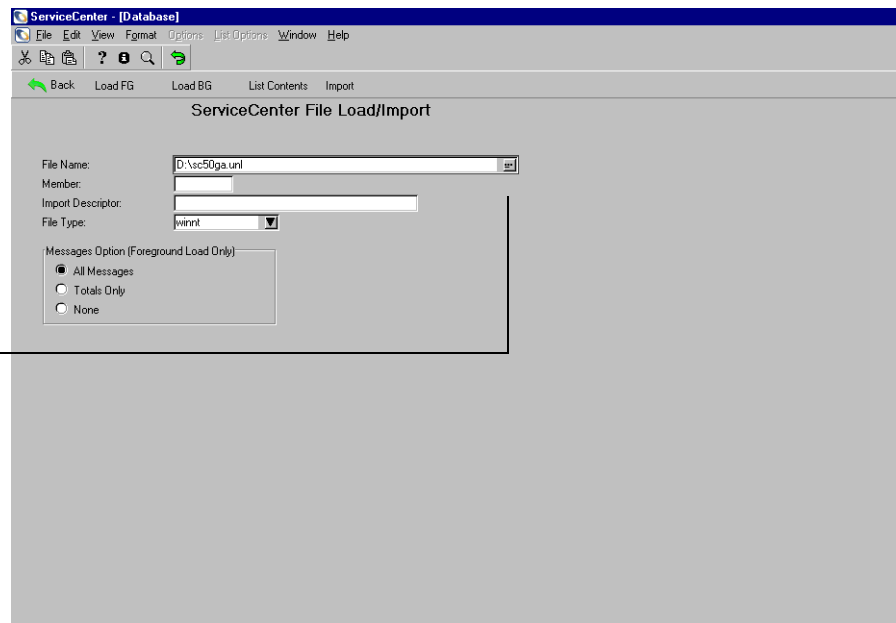
The file you incorporate into ServiceCenter is called SC05GA.unl. It is included with your Get-Answers installation. In this procedure, you must copy the SC05GA.unl file from your Get-Answers web server directory on to the ServiceCenter Server hard drive before you can load it into ServiceCenter.

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 the Load Fg button 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.serv field in ServiceCenter

Once you have imported the SC50GA.unl file into ServiceCenter, you must add the getans.serv field to the Database Dictionary before you can configure the file.

To add the getans.serv 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.serv 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.

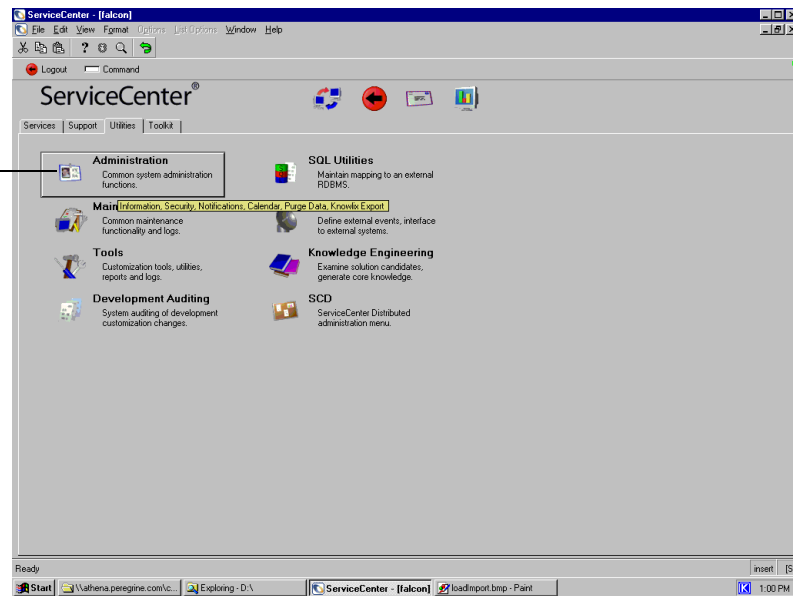
Configuring the ServiceCenter file

As the final phase in integrating Get-Answers with ServiceCenter, you must configure the file you just added.

To configure the SC50GA.unl file:

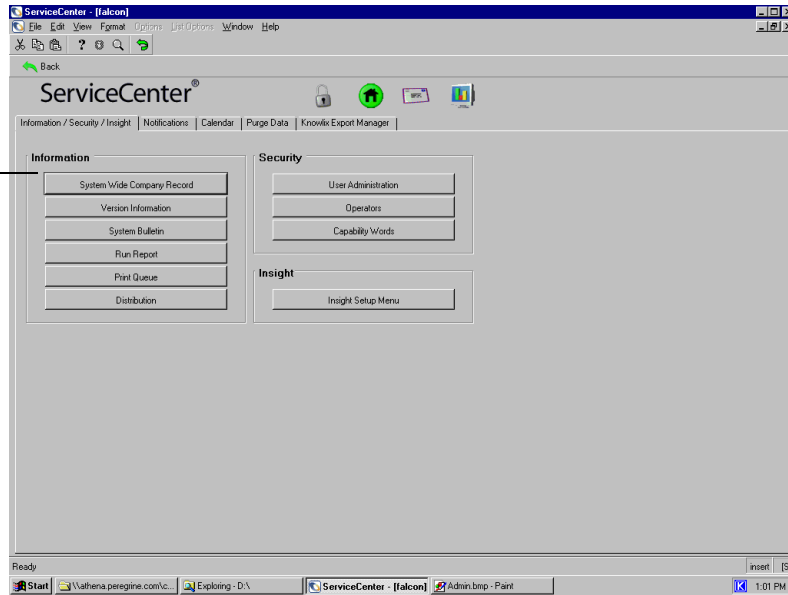
- 1 In ServiceCenter, go the Utilities tab and click **Administration**, as shown here.

Click the
Administration
button.



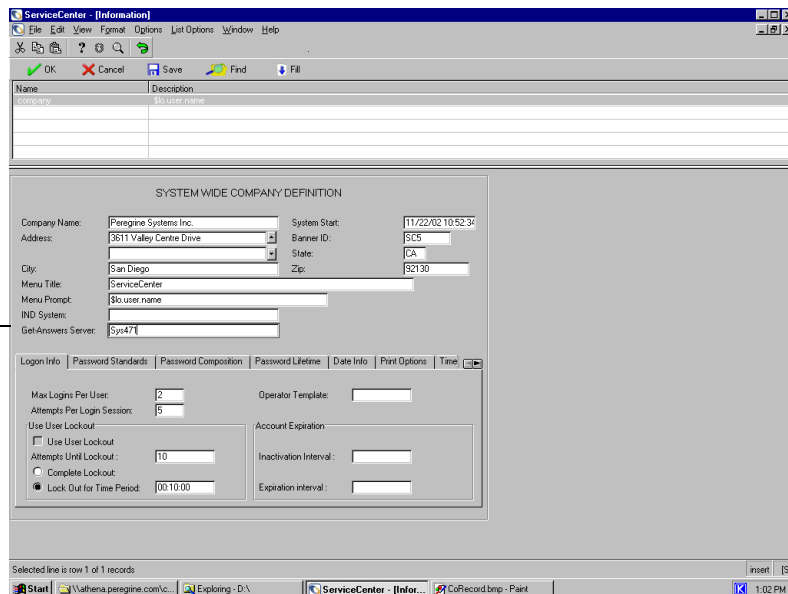
- 2 In the next window that opens, click Systemwide Company Record.

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 the OK button 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 Remedy Help Desk Integration

This section is intended for administrators who want to integrate Get-Answers with Remedy Help Desk. Get-Answers connects to Remedy Help Desk via an adapter called the ARAdapter.

It is recommended that you refer to the *Open Application Architecture Platform Administrator's Guide* for information about general administrative tasks in conjunction with reading this guide.

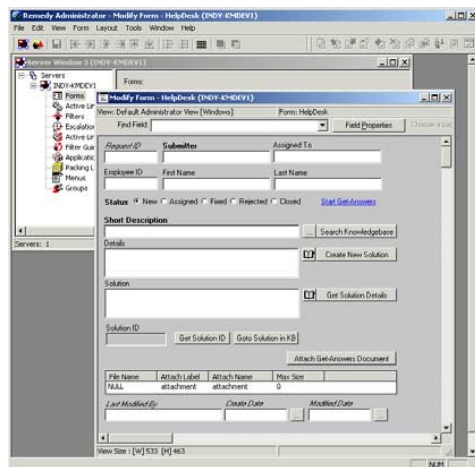
Note: For information on configuring Get-Answers to integrate with ServiceCenter, see *Configuring the ServiceCenter Integration* on page 239.

Sample definition file

When you install Get-Answers, a sample Remedy form definition file is installed on your web server. The sample definition file is GA31IntegrationExample.def.

This definition file contains an active link to start Get-Answers and buttons to start the appropriate DDE applets. You can use this form directly in your ARS system or use it as a basis to customize your own form.

When viewed in the Remedy Administrator, the Get-Answers integration definition file looks like this.



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 the Get-Answers Administration 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		This address is used as the default sender address in outbound email messages.
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.

E-mail Settings box	Default Setting	Description
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.
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**.

A Troubleshooting Installation and **APPENDIX** Operation

This chapter explains the error messages or problems that may occur during or after installing Get-Answers.

Authoring

General protection fault

Problem

The Authoring applet causes Netscape 6.2 and 6.2.1 browsers to fail with a General Protection Fault. All other Get-Answers features work properly.

Solution

All Document Ownership Team Owners and Editors need to use Internet Explorer browsers until the next release of Get-Answers.

Imbedded images not working

Problem

Imbedding images in the document text does not work properly if the name of the image file contains spaces.

Solution

Rename the file before attaching it to the document. Then you can embed the image in the document text.

Attached images not retired

Problem

When image files are attached to an authored document and the document is retired, the image files continue to reside in the document ownership team's directory.

Solution

Periodically clear out image files if many files with images are retired.

Licensing problem

Problem

If, after starting the application server, you first access the system by addressing the web server as "localhost" (e.g. <http://localhost/oa/login.jsp>), you will encounter licensing problems when you attempt to access the Authoring applet.

Solution

When logging into the application server for the first time, use the server name (e.g. <http://<servername>/oa/login.jsp>).

Browser

Navigation

Problem

When logged in to Peregrine OAA Platform, using the browser Back, Forward, and Refresh buttons can cause unexpected behavior of Peregrine OAA Platform forms.

Solution

Do not use the browser navigation or Refresh buttons when Peregrine OAA Platform forms are displayed.

Refreshing the Peregrine OAA Platform login page

Problem

After refreshing the Peregrine OAA Platform login page (login.jsp), the language option drop-down list and the **Login** and **Register** buttons may not be displayed. This is true for both Internet Explorer and Netscape browsers.

Solution

Click **Refresh** again to bring the buttons back. The cause is unknown at this time, but does not appear to be caused by a problem in the Peregrine OAA Platform software itself.

Resizing

Problem

Netscape 4.x browsers may not behave properly if the browser is resized while Peregrine OAA Platform is running.

Solution

Avoid sizing the browser after starting Peregrine OAA Platform.

Configuration

This section explains errors that can be resolved by correcting your configuration.

Adapters Not Properly Configured

Problem

In the Control Panel form under the Administration tab, if an adapter cannot connect, 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.

Solution

Mail and boDB may be the adapters that show a status of disconnected. If you do not use the mail adapter for notifications or the Business Objects database for reporting, ignore this error. Otherwise, configure whichever adapter is disconnected via the Settings menu in the left pane under the Administration tab.

Cannot upload a large document

Problem

Cannot upload a file in Contribute Documents, error says max file size exceeded, or Administrator wishes to limit the size of a file that a user can upload.

Solution

Change the Maximum attached file size parameter. 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.

Connection

This section describes what to do when you experience connection problems.

Application server loses connection

Problem

If the application server loses its connection to the database, the following error can appear: “An error occurred while ending the current transaction; ArchwayJVMName=getit_3.2.4.\bin.”

Solution

Correct any connectivity issues with the database and restart the application server.

Cannot build new class error

Problem

Connectivity between the web server, search engine server, and file server depend on mapping drives from the web server to the file server, and from the search engine server to the file server. If either of these connections fails, the following error may appear in the archway.log file.

Error Message: Runtime error Cannot build new class java.io.FileWriter, error: FESI.Exceptions.EcmaScriptException: Runtime error Error creating class java.io.FileWriter: java.io.FileNotFoundException:"

Solution

Reestablish connectivity between the servers. Restart the application server.

Cannot sustain more than 10 Websphere connections to DB2

Problem

Your system cannot sustain more than 10 Websphere connections to DB2 at one time.

Solution

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>

Lost database connection

Problem

The system appears to be hanging.

In the archway.log file, an “ORA-03114: not connected to ORACLE” entry appears. The database connection was lost.

Solution

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.

Network path not found

Problem

The network path was not found, and the screen displays:

ECMAScript Error:

Project.getanswers.ServerScripts.editorialWorkflow.uploadAuthoredDocAndAttachments:122

Source Code: var fileOut = new PrintWriter(new BufferedWriter(new FileWriter(xmlFile)));

Error Message: Runtime error Cannot build new class java.io.FileWriter, error: FESI.Exceptions.EcmaScriptException: Runtime error Error creating class java.io.FileWriter: java.io.FileNotFoundException: G:\AssetCenter Team\errormsg_23031.xml (The network path was not found.)

Solution

The network connection to the referenced drive was lost. The referenced drive in this case was the G:\ drive. You need to reestablish the network connection or mapping.

'RPC Failed' Error when Reindexing Documents

If the database connection to the search engine has been problematic or the Search Engine indexes are incomplete or corrupted. This 'RPC Failed' error may occur when the user attempts to reindex all documents via the Start menu:

How the error occurs

- 1 From the Start menu, choose **Programs >Get-Answers Search Engine >Reindex All Documents**.
- 2 At the “Enter the name of the library to be indexed. Enter Library Name []>” command prompt, you type KMLib.
- 3 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, you type 1.
- 4 Then this error occurs:

2002-05-23 13:04:02

Error Number: -6, Severity: FATAL, Source: rdb_index v6.9

CQDH Server Returned Error

Clearing the indexes in preparation to rdbindex -all**RPC Failed**

At the “All records have been submitted to the document handler.” message, you press any key to continue.

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.

Database

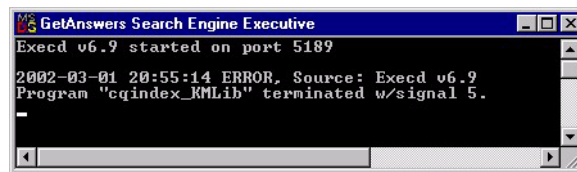
cqindex.exe exception

Problem

If the following cqindex.exe exception access violation occurs:



and/or the Get-Answers Search Engine executive displays the following message:



then the KmDocument table in the rome tablespace has a null or an undefined path in the file name column.

This can be caused by one of the following:

- The Get-AnswersTablePopulation_3.sql script was not executed during the system installation.
- When the Get-AnswersTablePopulation_3.sql script was executed, the following lines were not configured to point to the correct directory.

```

update "KMDOCUMENT"
set...FILENAME='C:\Get-AnswersRepository\empty.txt',...where
lkmdocumentid=0;
INSERT INTO "KMDOCUMENT" (...FILENAME...) VALUES
  (...C:\Get-AnswersRepository\Get-Answers Team\UserGuide.pdf' ...);
INSERT INTO "KMDOCUMENT" (...FILENAME...) VALUES
  (...C:\Get-AnswersRepository\Get-Answers Team\AdministrationGuide.pdf
...);
INSERT INTO "KMDOCUMENT" (...FILENAME...) VALUES
  (...C:\Get-AnswersRepository\Get-Answers Team\Install.pdf' ...);
INSERT INTO "KMDOCUMENT" (...FILENAME...) VALUES
  (...C:\Get-AnswersRepository\Get-Answers Team\Workflow.pdf'...);

```

This file server directory contains the sample Get-Answers files that were copied from the documentation directory on the Get-Answers CD. The name of this directory should appear in *File Server Get-Answers Documents Directory* in the *Get-Answers Installation Worksheet* on page 23. In the preceding examples directory is shown as C:\Get-AnswersRepository.

ORA-01658 error

Problem

In the database, the Rome tablespace will eventually need to be extended. After the database has been in use for some time, this error or a similar extent error may occur:

ORA-01658: unable to create INITIAL extent for segment in tablespace ROME

Note: It is best to extend the tablespace before the errors occurs, in order to prevent lost data.

Solution

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

Note: Or you can login as the super user for your database. Consult your Database Administrator for assistance.

3 Remove/delete the connect line in the upper pane.

4 Run this script:

```
ALTER TABLESPACE ROME AUTOEXTEND ON NEXT 1M MAXSIZE UNLIMITED;  
Commit;
```

JavaScript

Schema not found error

Problem

On a Solaris or Linux system, if you use a schema or server-side JavaScript with a file name that is mixed upper- and lowercase, you will get a “Schema not found error.”

Solution

If you add a schema or a server-side JavaScript, make the file name all lowercase.

Search Engine

Boolean search results

Problem

Boolean search results sometimes show a relevance of 0% on the Advanced Search page.

Solution

Please ignore these zero-ranked hitlist items.

Error Number 1100

Problem

If the Get-Answers Search Engine Executive displays the following:

Error Number: 1100, Severity: WARNING, Source: cqindex_KMLib v6.9

The file name for input to the document filter pipeline is not valid.

The file xxxxxxxx.

No such file or directory.

(cq_com_read_file)

Then the index application cannot find the file at path xxxxxxxx that is referenced in the Warning message. Specifically, in the file name column of the KmDocument table is a file path equal to xxxxxxxx, but the indexer cannot find the file at that path on the file server.

Note: This path that precedes the file name *File Server Get-Answers Documents Directory* in the *Get-Answers Installation Worksheet* on page 23.

The missing file is C:\Get-AnswersRepository\empty.txt. This file is not indexed because the indexer can not locate it.

Solution

Find the file (and if it is empty.txt, then create the file) and ensure the file is within the File Server Get-Answers Documents Directory in the sub-directory that is referenced in the Warning message.

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.

Search Engine Utility Errors

rdb_index v6.9 error

If you attempt to index your documents without starting the Search (and Indexing) Engine, a FATAL, Source: rdb_index v6.9 error occurs. Start the Search Engine and then index your documents.

Either of these choices without the Search Engine running in a Command Prompt window:

- Start > GetAnswers Search Engine > Index Updated Documents
- Start > GetAnswers Search Engine > Reindex All Documents

causes the following error:

```
Error Number: 4, Severity: FATAL, Source: rdb_index v6.9
Connect system call failed: "cqdh@10.11.12.231:5327"
```

Solution: Start the Search Engine

- 1 From the Start menu, choose **GetAnswers Search Engine > Start Search Engine Server**.
- 2 Index your documents by requesting either of these indexing operations again:
 - Start > GetAnswers Search Engine > Index Updated Documents

- Start > GetAnswers Search Engine > Reindex All Documents

“We are unable to perform your query” error

Problem

The search results screen displays:

We're sorry, but we are unable to perform your query - please contact your system administrator.

Solution

To avoid this error:

- 1 Make sure the Get-Answers Search Engine's Search Engine Server is running before you start your application server, e.g., 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/oaadmin/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: Admin
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
owner	password	owner of the team
editor	password	an editor on the team
reviewer	password	a reviewer on the team

Workflow

Missing or duplicate messages

Problem

If a user should have received a workflow message (e.g. they are an editor in a Document Ownership Team and an editorial workflow has been started within that team) and either receives no messages or receives duplicate messages, there is a configuration problem with the web application.

Solution

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.

Multiple messages

Problem

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

Solution

If you do click one of these buttons multiple times, the second Editorial Workflow message and accompanying working copy document can be reverted after the first valid workflow is finished. You can delete an extra Triage Workflow.

Workflow templates not imported

Problem

The Get-Answers workflow templates were not imported properly as part of the Get-Answers installation. This procedure occurs in *Importing the database workflow template* on page 75.

Solution

You can manually create the workflow templates. See the *Get-Answers Workflow* chapter in the *Get-Answers Administration Guide*.

java.io.FileNotFoundException

Problem

java.io.FileNotFoundException occurs when submitting a new document or previewing a document.

```
Error: ECMA Script Error: org.mozilla.javascript.JavaScriptException -  
java.io.FileNotFoundException: W:\Get-Answers  
Team\WorkingCopy\errormsg_55804.xml (Access is denied)
```

Solution

When Tomcat or any application server is installed as a service, it is imperative that the Log On Account for the service has the rights to access the file server directories on a remote file server. The Log On Account is specified under the Log On tab in the Properties for the service. The Typical installation sets this Log On as the Local System account, which is not ideal because the ability to read and write to the file server directories then depends on the rights of the user who is presently logged in. It is best to create a user who has read and write access rights to the file server directories. Then under Control Panel -> Services, for the application service, set this user's account as the permanent Log On for the service

Miscellaneous

Using a remote File server

For Get-Answers to function with a remote file server, the remote file server requires a user login name and password that is identical to the user login name and password for the service associated with the application server. Additionally, the user on the file server must have the right to log on as a service.

On the file server, you must create a user with the same login name and password as the user with the log on for the service associated with the application server.

If your file server is an NT 2000 server, give the user on the file server the right to log on as a service as follows.

Setting up the user as a service:

- 1 At the file server's console, go to Start -> Programs -> Administrative Tools -> Local Security Policy
- 2 Toward the bottom, double-click on Log on as a service
- 3 Click the **Add** button.
- 4 At the top of the Select Users or Groups box, in the Look In field, select your file server's machine name.
- 5 In the upper scrolling box, double-click on the name of your local user on the file server
- 6 Click **OK**.
- 7 Click **OK** again.

Noticenterpoller errors.

Problem

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
```

Cause

This error is caused by the noticenterpoller trying to send and retrieve email notification via the mail adapter while the mail adapter has not been configured properly. The 60 seconds interval is set in the scriptpollers.ini file located in the \WEB-INF\apps\notification directory. If they are not using email notification now, they can stop the noticenterpoller and the error will not appear. However, it is important to note that the email notification (either via the send notification UI or workflow notification options on the activity details) will not work without proper configuration of the email adapter and operation of the noticenterpoller.

Solution

Stop the noticenterpoller using the following procedure.

To stop the noticenterpoller:

- 1 Click Administration and choose the Show Script Status.
- 2 Click the noticenterpoller link to suspend it.

Important: This step is required every time the web or app server is started/restarted.

- 3 Rename or remove the scriptpollers.ini file located in the \WEB-INF\apps\notification directory.

You can rename the file to **scriptpollers.ini**Save or something similar.

Note: 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.

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 <i>Organizational Role</i>).
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	<p>A process definition represents a business process and consists of activities where the process tasks are defined.</p> <p>A process definition includes information about the activities and workflow users. Both manual activities and automated activities can be included in the process definition.</p>
Process instance	<p>A single instance of a process as defined by the process definition.</p> <p>A process that has been started is a process instance.</p>
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	<p>A representation of the status of a process instance. The Get-Answers workflow uses the following process states:</p> <ul style="list-style-type: none">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	<p>The automation of a business process where tasks are passed from one user to another, as defined by the process definition.</p> <p>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.</p>
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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