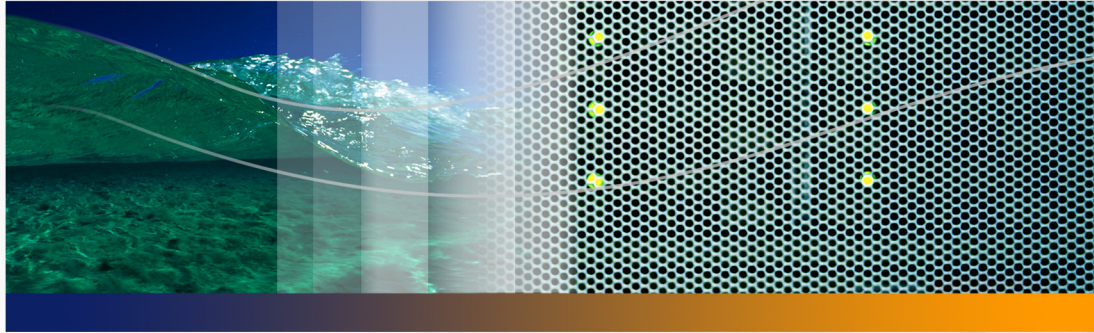


Peregrine Systems, Inc.

# Get-Answers 4.2



## Installation Guide



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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

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## Related documentation

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

- [Get-Answers Release Notes](#) which provides information about new features, corrected issues, and known issues and is located on the Get-Answers CD.
- [Get-Answers Administration Guide](#) which provides information about controlling access to document collections and customizing Get-Answers.
- [Get-Answers User Guide](#) which provides information about searching the Get-Answers document collection, working with documents, authoring new documents, and generating reports.
- [Notification Services Quick Start Guide](#) 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.

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## Associated applications

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

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

## Typographical conventions

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

Convention	Meaning
<b>Bold</b>	Information that you must type exactly as shown appears in bold. The names of buttons, menus, and menu options also 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> .
Monospace	Code or script examples, output, and system messages appear in a monospace font. <pre>var msgTicket = new Message( "Problem" ); ... msgTicket.set( "_event", "epmc" );</pre> <p>An ellipsis (...) is used to indicate that portions of a script have been omitted because they are not needed for the current topic. Samples of code are not entire files, but they are representative of the information discussed in a particular section.</p> <p>Filenames, such as <code>login.asp</code>, appear in a monospace font.</p>

## 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
<b>Important:</b>	Information that is required to complete a task
<b>Note:</b>	Information that is of general interest
<b>Tip:</b>	Information that can make a task easier or faster
<b>Warning:</b>	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, sc60ga.un1.

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

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

## Organization of the guide

The following table shows you where in this guide to find the information you need.

This section	Provides information about
Chapter 1, Get-Answers Installation Overview	Installation requirements and description of different types of installations for Get-Answers.
Chapter 2, Setting Up the Get-Answers Servers	Detailed instructions for setting up database server and the Search Engine server.
Chapter 3, Get-Answers Installation	Detailed instructions for installing Get-Answers in a Windows and Unix environment.
Chapter 4, Completing the Installation	Detailed instruction for the initial configuration steps you need to complete before you can begin using Get-Answers.
Chapter 5, Upgrading Get-Answers on Application Servers	Detailed instructions for upgrading Get-Answers.

This section	Provides information about
Chapter 6, Load-Balancing Tomcat Application Servers	Suggestions and instructions for loading the Tomcat application servers.
Chapter 7, Configuring Integrations	Integrating Get-Answers with ServiceCenter and also includes configuration information for the email adapter used by Notification Services.
Appendix A, Troubleshooting Installation and Operation	Troubleshooting installation problems with Apache Web server, Tomcat, and OAA.
Appendix B, Copyright Notices	Additional licensing information.

## Need further assistance?

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

### Customer Support

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

To contact customer support:

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

### Documentation Web site

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

To view the document listing:

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

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

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

## Education Services Web site

Peregrine Systems offers classroom training anywhere in the world, as well as “at-your-desk” training using the Internet. For a complete listing of Peregrine’s training courses, refer to the following web site:

<http://www.peregrine.com/education>

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





# 1

## CHAPTER

# Get-Answers Installation Overview

This book describes how you install Get-Answers version 4.2.

**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 [Get-Answers architecture on page 18](#).
- Software and platform requirements for Get-Answers. See [Installation requirements on page 20](#).
- 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](#).

---

## What's new in Get-Answers 4.2

Major new features of this release include:

- Improved integration with ServiceCenter
- More configurable advanced search
- Hit highlighting for search results
- Manage retired document links

- Configurable search mapping
- Contextual search history
- Improved document feedback management
- Save draft documents functionality
- HIPAA security

---

## 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 following Peregrine products: Get-Answers, Get-Services, and Get-Resources.

The Peregrine OAA Platform is not sold as a separate product. Further, you do not need Get-Services or Get-Resources to use Get-Answers.

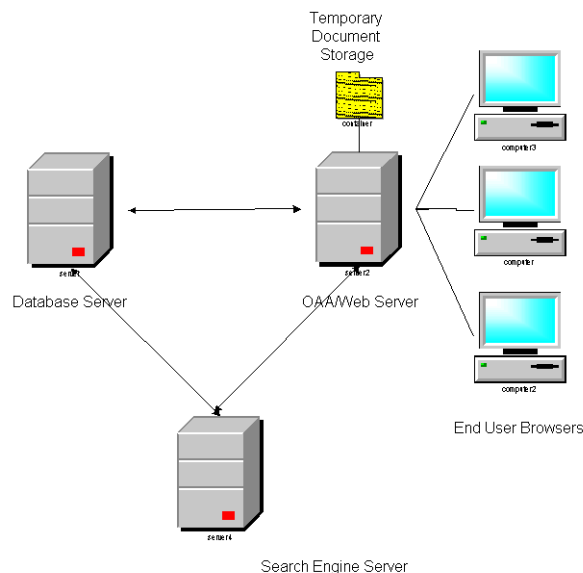
**Note:** This book contains references to OAA, which is the Peregrine OAA platform. The Get-Answers installation includes installation of the Peregrine OAA Platform.

Get-Answers uses three servers: a database server, a search engine server, and an OAA/Web server. The OAA server is a generalization of an application (servlet container) server such as Tomcat, Websphere, or WebLogic. You do not need a detailed understanding of the functions of each server to install Get-Answers, but a high-level understanding is necessary.

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

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

This image explains the relationships between servers as well. The Get-Answers servers interact with each other in several ways to manage the information users need.



The Database Server keeps track of all Get-Answers documents.

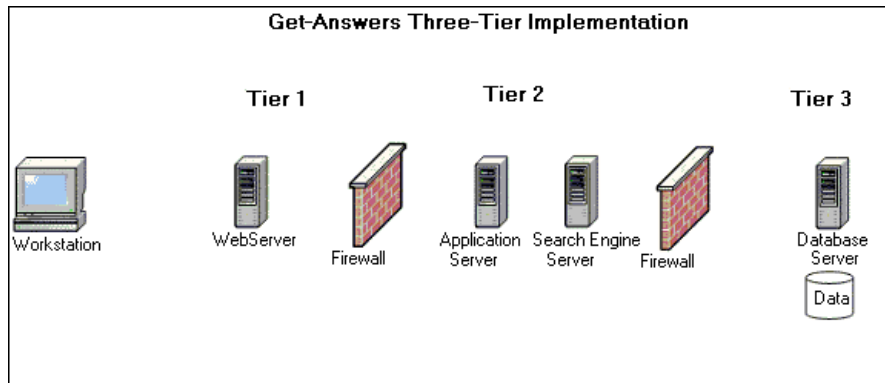
Users access Get-Answers through their browsers, which talk to the OAA Get-Answers Server.

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

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

## Three-tier architecture

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



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

## Installation requirements

The requirements for proper installation and configuration of Get-Answers are described in the Get-Answers Compatibility Matrix, which is available at the Peregrine Systems Customer Support site. Go to <http://support.peregrine.com>; click Documentation; choose Get-Answers; and then choose Compatibility Matrices.

**Important:** Make sure to check the entire Get-Answers compatibility matrix *before* starting the installation process.

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

## Hardware requirements

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

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

## Get-Answers installation overview

You can run Get-Answers in either:

- A Windows environment using Oracle, DB2, or SQL Server 2000 as the database
- OR-
- An AIX or Solaris environment, using either Oracle, DB2, or SQL Server 2000 as the database.

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

Installation and platform type	Application server type	Web server type	Required chapters
First-time installation on Windows, AIX, or Solaris	WebSphere, WebLogic, or Tomcat	Apache, IBM HTTP Server, IIS 5 or IIS 6, iPlanet/SunONE	Chapter 2, Setting Up the Get-Answers Servers Chapter 3, Get-Answers Installation Chapter 4, Completing the Installation
Upgrading to Get-Answers	WebSphere, WebLogic, or Tomcat	Apache, IBM HTTP Server, IIS 5 or IIS 6, iPlanet/SunONE	Chapter 5, Upgrading Get-Answers on Application Servers Chapter 4, Completing the Installation

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

- [Configuring Integrations on page 193](#)
- [Troubleshooting Installation and Operation on page 197](#)

## Get-Answers installation worksheet

Use this worksheet to record information required for installation. For more information that is specific to the database you are using, see one of the following sections:

- [Setting up Oracle on the Database server on page 30](#)
- [Setting up DB2 on the database server on page 33](#)
- [Setting up SQL Server 2000 on the database server on page 36](#)

Step	Configuration item
1	Database Name. Required for Oracle, DB2 and SQL Server.
2	One of the following: the System ID (SID) for Oracle; the Instance Name for DB2; or the Server Name for SQL Server.
3	Database Tablespace Name:
4	Database User ID:
5	Database User Password:
6	Database Server Net Service Name:
7	Database Server Hostname (machine name):
8	Database Server port number:  Note: The default Oracle port is 1521. The default DB2 port is 50000. The default SQL Server port is 1443. These values can be changed. Consult your Database Administrator for further information.
9	Search Engine Server Installation Directory:  From <a href="#">Installing the Search Engine on the Search Engine server on page 49</a> .
10	Search Engine Server host name (machine name):  From <a href="#">Installing the Search Engine on the Search Engine server on page 49</a> .

**Step Configuration item**

11 Search Engine Search/Index Port:

From *Installing the Search Engine on the Search Engine server* on page 49.

12 Web Server Presentation Directory:

---

**Tip:** Print and save this table for use during the Get-Answers installation process and for future reference.

---

## Pre-installation checklist

Before installing Get-Answers, review this information, which outlines essential information about some of the third-party products used in conjunction with Get-Answers.

### General recommendations

Before installing Get-Answers:

- Read the latest version of the Peregrine Systems Inc. compatibility matrix. Available at: <http://support.peregrine.com>.
- Read the release notes for the product. Release notes contain the latest information regarding the product and may include information not available in the product documentation. Available at: <http://support.peregrine.com>.



## Application server recommendations

After reviewing the compatibility matrix and product release notes:

- Ensure that the application server or servers (Websphere, Weblogic, Tomcat, iPlanet, SunONE) on which you will be installing the servlet container have the correct database client software loaded.

For example:

If you are using an Oracle database, make sure that you load the Oracle client on your application server. Also, check that you loaded the correct Oracle JDBC drivers.

If you use Microsoft SQL Server, you have the option of using the Microsoft JDBC drivers or the JDBC drivers provided by i-Net (Sprinta driver).

- Confer with your application server administrator about having an HTTP server such as IBM HTTP, Apache, IIS, or iPlanet available.
- Confer with your application server administrator to determine if any other Web-based applications are installed on the server. It is helpful to know if Get-Answers will be installed on a server that has more than one Web/http server process running. It is also important to understand if the application server is running other Web applications/instances. This information is necessary to determine if the application server and Web/http server are running on non-standard TCP ports.

For example, a Web/http server usually runs on port 80 and Tomcat defaults to 8009 and 8080.

- Confer with your network administrator to ensure that the application server can communicate using TCP to the Get-Answers Search Engine server.
- Confer with your network administrator to ensure that the application server can communicate using TCP to your database server.

## Database server recommendations

To anticipate and resolve any database issues:

- If you are using IBM DB2 version 7, ensure that both your database server and database clients (the Get-Answers application server) are utilizing the same version and fix-pack level. This is an IBM requirement and not Peregrine's.
- Confer with your database administrator to confirm that you have a valid database user ([Step 4 of the Get-Answers installation worksheet](#)) and password ([Step 5 of the worksheet](#)) to access the RDBMS. In addition, ensure that a tablespace has been created for use by Get-Answers.
- Confer with your database administrator and verify the hostname and TCP port number ([Step 8 of the worksheet](#)) of the database server hosting the Get-Answers database.
- Confer with your network administrator to ensure that the database server can communicate using TCP to the application server hosting Get-Answers.
- Confer with your network administrator to ensure that the database server can communicate using TCP with the Search Engine server.

## Search engine server

To anticipate and resolve any database issues:

- For DB2, ensure that your Get-Answers search engine server (where you will be installing the Search Engine component) has the Microsoft Data Access Components (MDAC) installed. This software is necessary in order to create and establish an ODBC connection to your RDBMS for use by the search engine.
- For SQL Server, install the SQL Server client utility.
- Ensure that the search engine server has a Java RunTime Environment (JDK) installed (version 1.3.1\_05 or greater). You can download the JDK from the Sun Website before attempting the installation of the Search Engine.

The search engine can only be installed on a server using Windows 2000 or 2003.

- The installer defaults the TCP and UDP port of the search engine to 5327. If you wish to keep the default port number, ensure that this port is NOT in use by any other application or process on the server.
- The search engine utilizes both the TCP and UDP protocols for its communications processes. If you install more than one search engine, ensure that you configure the additional search engine to use a different port number.





# 2 Setting Up the Get-Answers Servers

## CHAPTER

This chapter provides instructions on setting up the database server and the Search Engine server. It includes instructions for setting either Oracle, DB2, or SQL Server 2000 as your database. Complete the procedures in this chapter before installing Get-Answers. If you are upgrading to Get-Answers 4.2

**Important:** Complete the tasks in the order in which they appear.

**Step 1** Setting up the Get-Answers database on your Database server. See [Setting up the database server](#).

**Step 2** Setting up and installing the Search Engine server. See [Setting up and installing the Search Engine server on page 42](#).

---

## Setting up the database server

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

- If you are using Oracle, see [Setting up Oracle on the Database server on page 30](#).
- If you are using DB2, see [Setting up DB2 on the database server on page 33](#).
- If you are using SQL Server 2000, see [Setting up SQL Server 2000 on the database server on page 36](#).

## Setting up Oracle on the Database server

Get-Answers 4.2 uses Oracle as the default database server. This section explains how to set up the Oracle server, either version 8.1.7 or 9i, from the Oracle CD.

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

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 ([Step 2 on page 23](#) of the [Get-Answers installation worksheet](#)).

**Note:** Before starting the installation process, print a copy of the [Get-Answers installation worksheet on page 23](#); then use it to record the following information during the Oracle installation: the Server ID (SID) ([Step 2](#) of the worksheet), Database Server Hostname (machine name) ([Step 7](#) of the worksheet), and Database Server port number ([Step 8](#) of the worksheet).

After you install Get-Answers and start completing all installations, make sure the Get-Answers Search Engine settings point to this database.

The next step is to add a new database user to the Oracle database.

### Creating the tablespace and the rome user

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

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

### Creating the tablespace

Create the tablespace on the database server.

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

To create the tablespace:

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

**Note:** Do not use SQLPlus. Use SQLPlus Worksheet.

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

Consult your database administrator if you need help here.

- 3 Type the following:

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

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

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

- 4 Click the lightning icon to run the script.

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

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

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

## Creating the Rome user

The rome user is the database administrator ID that Get-Answers uses to connect to the database. The following script creates the rome user with “connect” and “resource” rights.

**Note:** Though this section uses `rome` as the user and tablespace names, you can use another name if you prefer. In addition, you can tailor the script as necessary for your system. Consult your Database Administrator for assistance.

“Connect” provides the following rights.

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

“Resource” provides these rights:

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

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.

```
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;
GRANT RESOURCE TO ROME;
ALTER USER ROME DEFAULT ROLE CONNECT, RESOURCE;
GRANT UNLIMITED TABLESPACE TO ROME;
COMMIT;
```



**Note:** Though the example script that follows uses `rome` as the user name and tablespace name, you can use another name if you prefer. Specify the database `<password>` that you want to use.

Make sure to record the Database User ID ([Step 4](#)), Database User Password ([Step 5](#)), and Tablespace Name ([Step 3](#)) in the [Get-Answers installation worksheet on page 23](#).

3 Click the Lightning Bolt icon to execute the script.

**Important:** Do not continue to the next step until the script is finished running. Once the script completes, proceed to [Setting up and installing the Search Engine server on page 42](#).

## Setting up DB2 on the database server

To run Get-Answers and connect to a DB2 database, first follow the instructions in this section to set up the DB2 database.

**Important:** Make sure that an expert DB2 Database Administrator sets up DB2. The following instructions require advanced knowledge of DB2 to complete successfully. The database administrator can provide you with the database Server Hostname (machine name) ([Step 7](#)) and port number ([Step 8](#)), which you record in the [Get-Answers installation worksheet on page 23](#) for use when installing Get-Answers.

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

**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 <fileName>.sql`  
Where `<fileName>` is the name of your text file.

**Note:** Though the example that follows uses `rome` as the database name, you can use another name if you prefer.

Make sure to record the Database Name ([Step 1](#)), Database User ID ([Step 4](#)), Database User Password ([Step 5](#)), and Database Tablespace Name ([Step 3](#)) in the [Get-Answers installation worksheet on page 23](#) for use when installing Get-Answers.

To set up DB2:

- 1 Create the database using this command:  

```
create database rome
```

This creates a database called “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:

```
connect to rome

create regular tablespace user32k pagesize 32k managed by system
using ('user32k') bufferpool bp32k

create user temporary tablespace usertemp32k pagesize 32k managed by
system using ('usertemp32k') bufferpool bp32k

create system temporary tablespace rometemp32k pagesize 32k
managed by system using ('rometemp32k') bufferpool bp32k

grant createtab,connect,implicit_schema on database to user rome

grant use of tablespace user32k to user rome

grant use of tablespace usertemp32k to user rome
```

Make sure the user creating the bufferpool and tablespaces is the db2admin. By default, the user creating those is the user that is logged into

the DB2 server that stores the DB2 server software. To identify the user, type connect to <Database\_Name>

For example, type:

```
db2 => connect to rome
```

Information such as the following appears:

Database Connection Information:

```
Database server          = DB2/NT 7.2.5
```

```
SQL authorization ID    = ADMINIST...
```

```
Local database alias    = rome
```

Note that ADMINIST... is the SQL authorization ID.

You should probably see DB2ADMIN or DB2INST1 (Windows and UNIX, respectively).

- 5 If this is set up wrong, you can correct it as the ADMINISTRATOR (assuming that is who is logged in) by adding at the end of the section:

```
grant use of tablespace user32k to user db2admin;
grant use of tablespace usertemp32k to user db2admin;
grant use of tablespace rometemp32k to user db2admin;
```

- 6 You can increase the size of the default bufferpool using the following command, but this may require a large amount of memory. Do so only on the advice of your DB2 database administrator.

```
alter bufferpool ibmdefaultbp size 25000
alter bufferpool bp32k size 25000
```

- 7 Set the log file configuration parameters.

```
update db cfg for rome using logretain off logprimary 3 logsecond 2
logfilsiz 1000
```

- 8 Bizdoc uses this table to verify if connection is still alive, if not Bizdoc reconnects to the database.

**Note:** The rome adapter uses Bizdoc as the connector to the database.

```
grant select on table sysibm.sysdummy1 to public
```

- 9 Disconnect from the database using the following command:  
disconnect rome

## Setting up SQL Server 2000 on the database server

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

**Note:** You do either step 2 or 3 depending upon which JDBC driver you use.

Step 1 JDBC drivers on page 36.

Step 2 Determining the required number of Sprinta software licenses on page 37.

Step 3 Downloading the Microsoft SQL Server 2000 Driver for JDBC on page 37

Step 4 Preparing the SQL Server 2000 for Get-Answers on page 38.

Step 5 Select a case-insensitive Collation name. Collation name is the drop-down list box under the General tab: on page 38.

Step 6 Creating a Security Login name on page 40.

Step 7 Setting security authentication on page 41.

### JDBC drivers

With the SQL Server database you can use the appropriate Microsoft driver for the SQL Server database that you can download from the Microsoft Web site (Type 4 Microsoft SQL Server 2000 Driver for JDBC). If you are using the Sprinta driver, you must purchase Sprinta driver licenses from i-net Software. To purchase Sprinta drivers, go to <http://www.inetsoftware.de/English>; search for JDBC drivers for Microsoft SQL Server; and purchase Sprinta driver licenses.

## Determining the required number of Sprinta software licenses

The number of Sprinta licenses required for your Get-Answers deployment is based on the maximum number of database connections that Get-Answers can use, which depends on the number of Java Virtual Machines (JVMs) employed and the number of database adapters configured in the Administration module. The minimum number of connections is 3 per JVM, but in a production environment you would expect to use 12 or more. Each JVM require up to 2 connections for administration plus the number of connections configured. The number of connections actually used increases with load, but never exceeds the configured maximum.

To determine the number of database adapters, click Settings in the left Navigation Bar in the Peregrine Portal; click the rome tab; and check the Adapter Pool Size field. (The default is 10.) To calculate the maximum number of connections use the following formula:

$$\text{Maximum\_Connections} = \text{Number\_of\_JVMs} \times (2 + \text{Adapter\_Pool\_Size})$$

For example, a Get-Answers deployment application running on 3 JVMs and configured to use 10 adapters can use up to 36 database connections, calculated as follows:  $36 = 3 \times (2 + 10)$ .

## Downloading the Microsoft SQL Server 2000 Driver for JDBC

To download Microsoft's driver for the SQL Server database:

- 1 Go to the Microsoft Web site and download the Type 4 Microsoft SQL Server 2000 Driver for JDBC. Download the latest Service Pack and at the least SP3.
- 2 Using `setup.exe` or `mssqlserver.tar`, find or extract these three jar files from the resulting directory structure:
  - `msbase.jar`
  - `mssqlserver.jar`
  - `msutil.jar`

**Note:** After you install Get-Answers, you will need to use these files to set up the database parameters. For more information, see [Setting the Microsoft SQL Server 2000 parameters on page 147 in Chapter 4, Completing the Installation.](#)

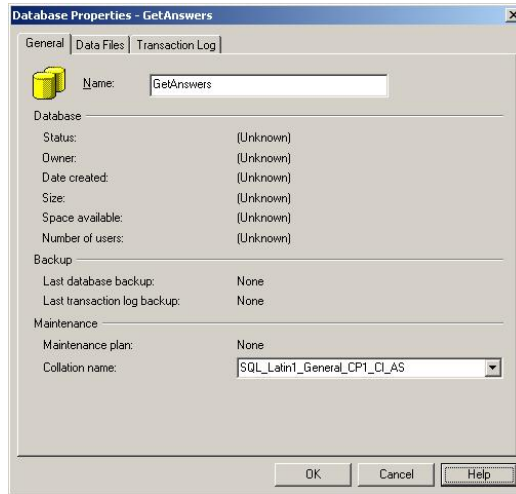
## Preparing the SQL Server 2000 for Get-Answers

You must successfully install the SQL Server and record the Database Name, Database Server Hostname, and Database Server port number information in the [Get-Answers installation worksheet on page 23](#).

To prepare the SQL Server 2000:

- 1 Acquire and install SQL Server 2000.
- 2 Create the tablespace on the database server using the Microsoft SQL Server Enterprise Manager.
  - a Right-click the database.
  - b Select New Database.

A window opens requesting the properties of the new database; for example, GetAnswers.



**Important:** Make sure that the Database Name (Step 1 on the worksheet) is alphanumeric and does not contain any dashes.

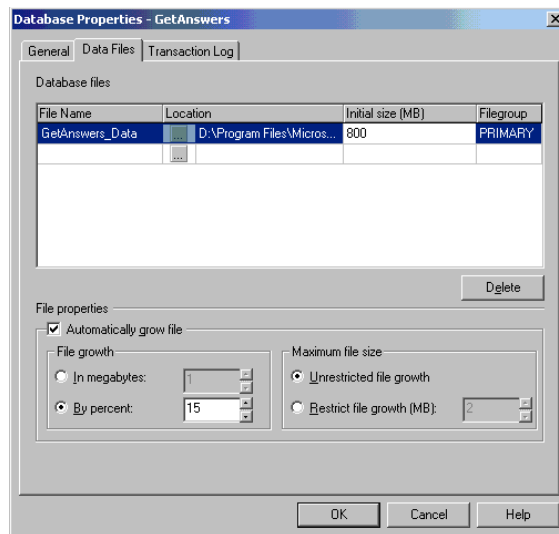
- 3 Select a case-insensitive Collation name. Collation name is the drop-down list box under the General tab:

In the SQL Server Enterprise Manager, when you create a new SQL Server database for Get-Answers, it must be case-insensitive. During the database creation, choose a Collation name under the General tab with a value such as SQL\_Latin1\_General\_CP1\_CI\_AS, where the CI stands for case-insensitive. Only select the Server default for the Collation name value if you are certain that the Server default is case-insensitive.

**Important:** A database Collation name that has CS as part of its value is case-sensitive, and will not work with Get-Answers.

Consult your SQL Server help files to determine which Collation names are case-insensitive if neither CI nor CS appears in the Collation name.

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



- 4 Under the Data Files tab in the **Initial size (MB)** field, set the database size to 800 (at a minimum) and set the **By percent** to 15.
  - If the database is less than 800 MB at creation time, intermittent **Update failure** messages will occur, and the database will need to be backed up, dropped, a new database of size 800MB created, and the old data restored into the newer larger database.

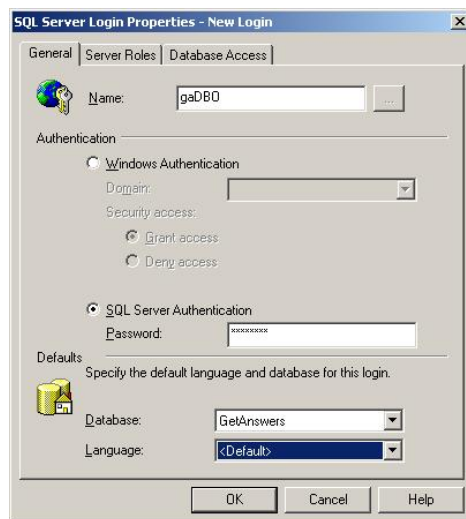
- Always consult your SQLServer database administrator on how to best configure the database.
  - Click **OK**.
- 5 Record this information about your SQL Server installation in the [Get-Answers installation worksheet on page 23](#).
- Database Name ([Step 1](#))
  - Database Server Hostname (machine name) ([Step 7](#))
  - Database Server port number ([Step 8](#))

## Creating a Security Login name

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

To create a Security Login name:

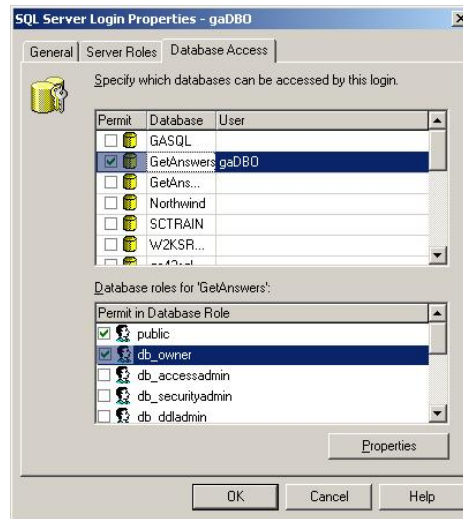
- 1 From the SQL Server Enterprise Manager, scroll to the Security folder and right-click **Logins** to open the SQL Server Login Properties - New Login dialog box.



- a Type the login name, for example **rome** or **gaDBO**.
- b Select the **SQL Server Authentication** option and type a password.



- c Select a database from the drop-down list.
- 2 Click the Database Access tab to set permissions for the database roles.



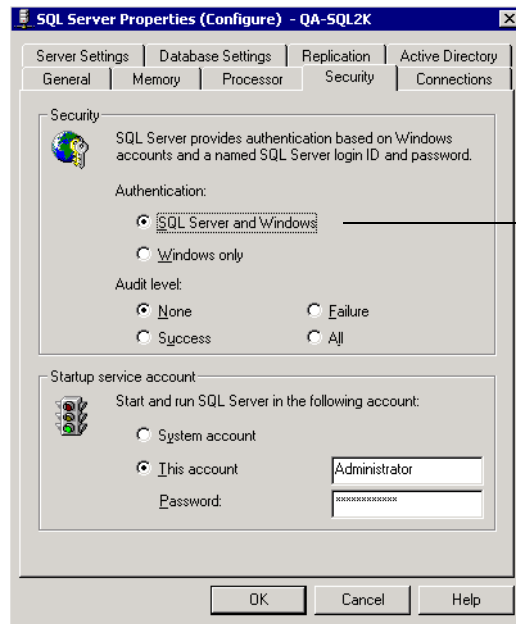
## Setting security authentication

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

To set security authentication:

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

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



Verify that you select the SQL Server and Windows option.

- 3 In Security, select **SQL Server and Windows**.
- 4 Click **OK**.
- 5 Record the User Id (Step 4) and User Password (Step 5) on the [Get-Answers installation worksheet](#) on page 23.

## 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.

### Installing and configuring an Oracle client

If the search engine server is on a different computer than the Oracle server, you need install a client on the search engine server. This client is available on the

Oracle CD. If you already have already installed and configured the Oracle client, go to [Installing the Search Engine on the Search Engine server on page 49](#).

**Note:** This section included two sets of configuration instructions. One is for Oracle 8.1.7i and one is for Oracle 9i. You should follow the instructions appropriate for your configuration. You can use a 9i client with either 8i or 9i server, but you can only use the 8i client with an 8i server. Consult with your DBA if you require further clarification regarding Oracle server/client compatibility.

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

Perform the following procedures on the search engine server.

To configure the Oracle client for Oracle 8i:

- 1 Select **Start > Programs > Oracle - OraHome8i > Network Administration > Net8 Configuration Assistant**.
- 2 Select **Local Net Service Name** configuration and then click **Next**.
- 3 Select **Add** and then click **Next**.
- 4 Select Oracle 8i database or service and then click **Next**.
- 5 Under **Service Name**, type the word ORCL (or the value you listed in [Step 2 of the Get-Answers installation worksheet on page 23](#)) and then click **Next**.

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

- 6 Select **TCP** as the network protocol and then click **Next**.
- 7 In the Host Name text 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 text box and then click **Next**.

**Note:** Use the Oracle server Hostname you recorded in [Step 7](#) and Server port number you recorded in [Step 8](#) on the [Get-Answers installation worksheet](#).

8 Select **Yes** to 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 and then click **OK**.

**Note:** Use the Database User ID ([Step 4](#)), Database User Password ([Step 5](#)), and Tablespace Name ([Step 3](#)) that you recorded 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 Database Server Net Service Name in [Step 6](#) of the [Get-Answers installation worksheet](#).

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.

To configure the Oracle client for Oracle 9i:

- 1 Click **Start > Programs > Oracle - OraHome92 > Configuration and Migration Tools > Net Configuration Assistant**.

Ensure that a Listener has been configured before you continue.

- 2 Click **Local Net Service Name** configuration and then click **Next**.
- 3 Click **Add** and then click **Next**.
- 4 Click **Oracle 8i or later database or service** and then click **Next**.
- 5 Under Service Name, type the word **ORCL** (or the value you listed in [Step 2](#) of the [Get-Answers installation worksheet on page 23](#)) and then click **Next**.

**Note:** The database name ([Step 1](#) of the worksheet) should be recorded in Database Name (global name or service name).

- 6 Select TCP as the network protocol and then click **Next**.
- 7 Type the Hostname ([Step 7](#) of the worksheet) for name of the server hosting the database. If the port number is not the standard port number 1521, click **Use another port number** and type the port number ([Step 8](#) of the worksheet) in the accompanying text box and then click **Next**.
- 8 Select **Yes** to perform a test and 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 (Database User ID, [Step 4](#) of the worksheet) and password (Database User Password, [Step 5](#) of the worksheet) the search engine server should use to connect to the Get-Answers database and then click **OK**.

**Note:** Record the user name in the Database User ID step and password in the Database User Password step of the [Get-Answers installation worksheet](#).

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 [Step 6](#) of the worksheet.

13 Select No to indicate you do not want to configure another net service name and then 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.

## In a Windows environment

**Step 1** Do one of the following:

- If Oracle is your database, use the procedures in the section, [Making the ODBC connection to the Oracle database on page 47](#).
- If DB2 is your database, use the procedures in the section, [Setting up DB2 on page 47](#).
- If SQL Server 2000 is your database, use the procedures in the section, [Setting up SQL Server 2000 on page 48](#).

**Step 2** Follow the procedure in the section, [Installing the Search Engine on the Search Engine server on page 49](#) regardless of which database you use.

**Step 3** Complete the process by following the steps in the section, [Checking the search engine installation on page 57](#), regardless of which database you use.

## Making the ODBC connection to the Oracle database

In Get-Answers 4.2, the Get-Answers Search Engine provides native drivers from Convera to connect to the database. You no longer need to install an Oracle ODBC driver.

## 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 if you are using DB2 version 7.

To determine your fixpack level:

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

- 1 From the command prompt at the server, navigate to the SQLLIB/bin directory.
- 2 Type **db2level**.
- 3 Write down the information you see.

- 4 Repeat this procedure on the client and write down the information you see when you type **db2level**.
- 5 Compare both the server and the client settings.

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

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

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

## Making the ODBC connection to the DB2 database

To make the ODBC connection to the DB2 database (versions 7 and 8), use the DB2 Client Configuration Assistant utility to create a connection from the Search Engine server and ensure that the "Register this database for ODBC As a system data source" option is checked.

## Setting up SQL Server 2000

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



# Installing the Search Engine on the Search Engine server

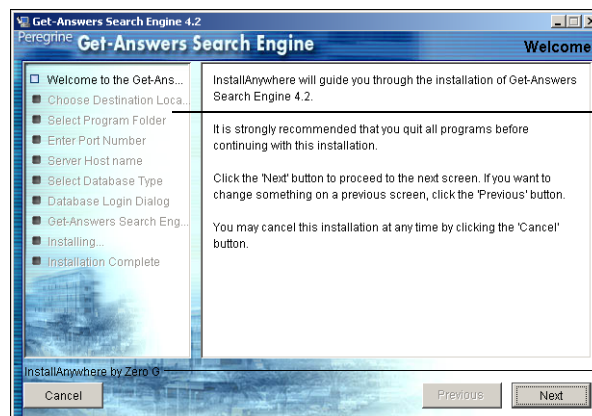
Install the Get-Answers search engine on the search engine server.

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

To install the Get-Answers search engine:

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

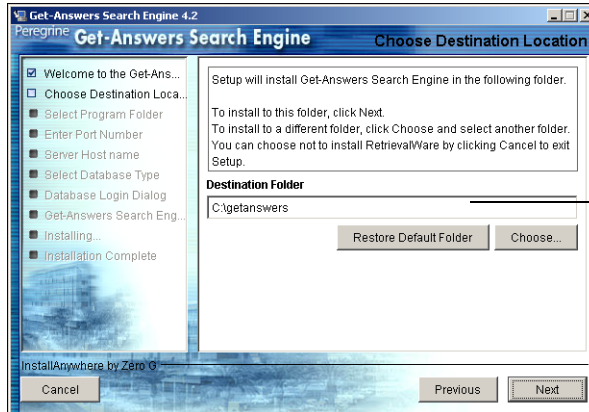
The installation process starts automatically.



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

## 2 Click **Next**.

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



The name of the default folder appears here.

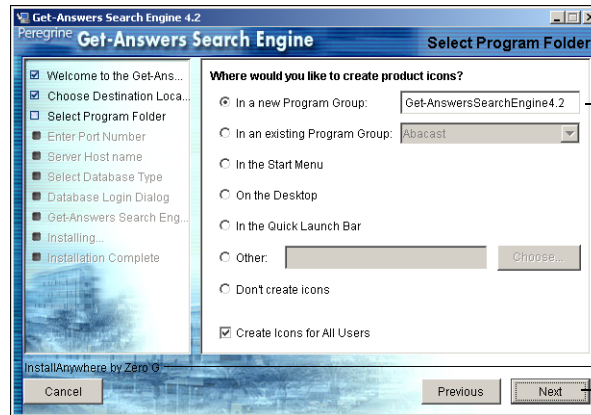
## 3 To select the destination folder, do one of the following:

- 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 Search Engine installation folder name in [Step 9](#) of the [Get-Answers installation worksheet on page 23](#).

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

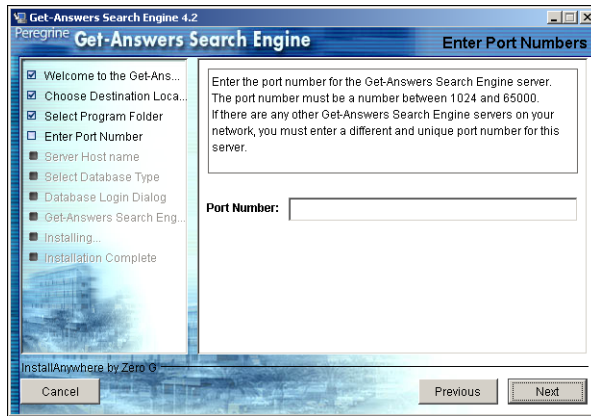


- 5 In Enter Port Numbers dialog box, type the port number for the search engine server. Click **Next**.

**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.

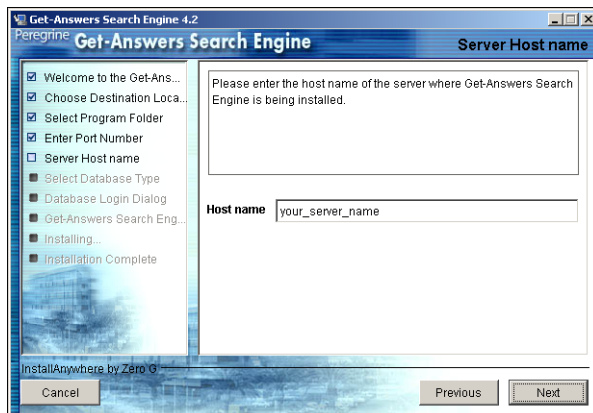
**Note:** Record this port number selection in [Step 11](#) of the [Get-Answers installation worksheet](#).



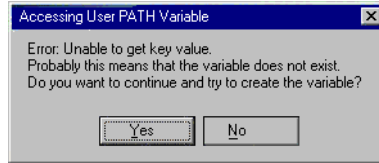
6 In the Server Host name dialog box, type the host name of the search engine server and click **Next**.

**Note:** Record the Search Engine Server host name and IP address in [Step 10](#) of the [Get-Answers installation worksheet](#).

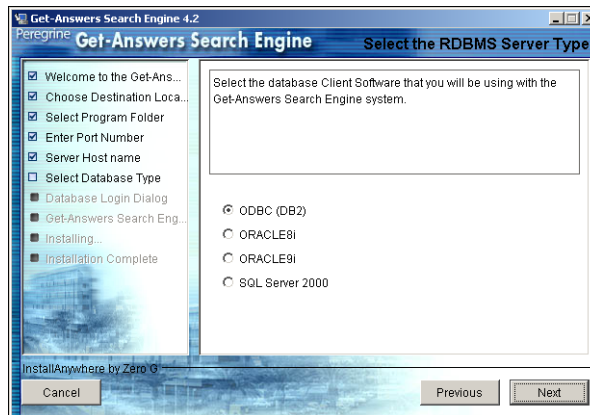
**Important:** Make sure that you type the host name and not the IP address.



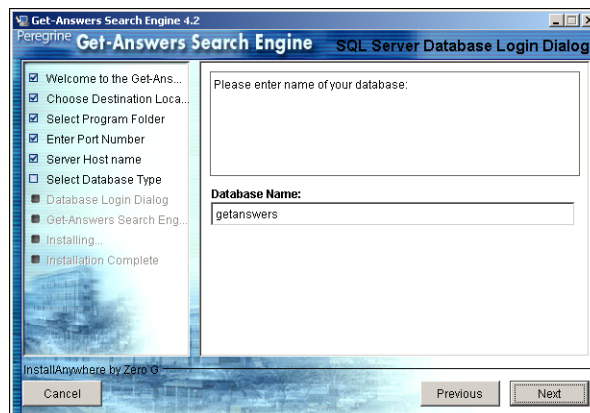
- 7 If the Accessing User Path Variable message appears, click **Yes**.



- 8 In the Select RDBMS Server Type dialog box that opens, choose your server type. Click **Next**.



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



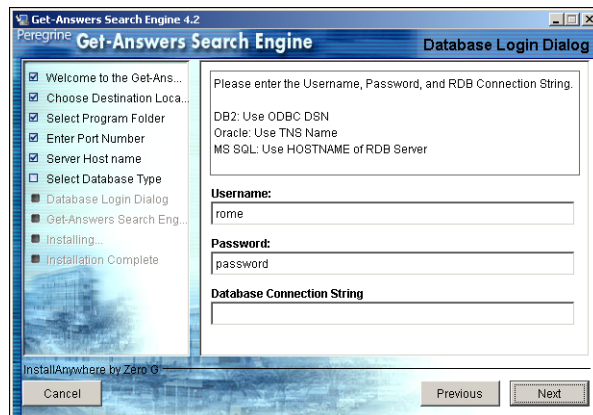
**Warning:** The field only accepts alphanumeric characters. Do not use dashes or spaces.

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

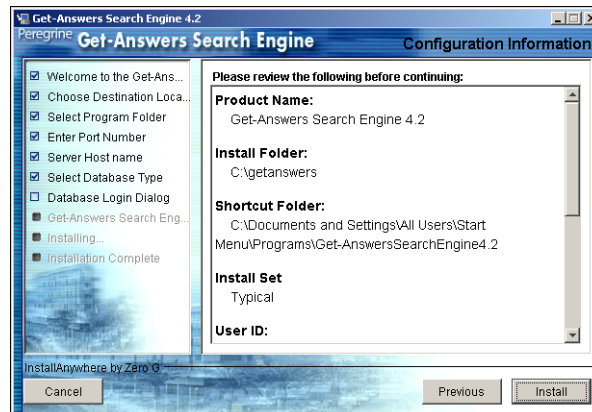
- 10 In the Database Login dialog box, type the values the Search Engine Search Server should use to log on to the Get-Answers database and click **Next**.

Field	Description
Username	Type the value found in Database User ID in <a href="#">Step 4</a> of the <a href="#">Get-Answers installation worksheet</a> .
Password	Type the value found in Database User Password in <a href="#">Step 5</a> of the worksheet
ODBC Data Source Name (DSN)	Type the value found in Database Server Net Service Name in <a href="#">Step 6</a> of the worksheet. DB2: Use the ODBC DSN Oracle: Use the TSN name MS SQL: Use Hostname of the RDB Server

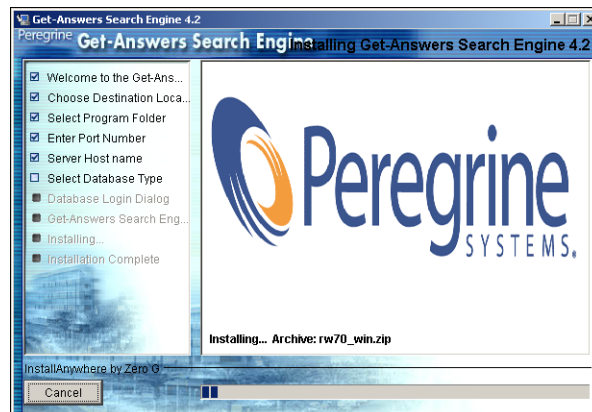
**Note:** For SQL, type the HOSTNAME of the server hosting SQL Server 2000.



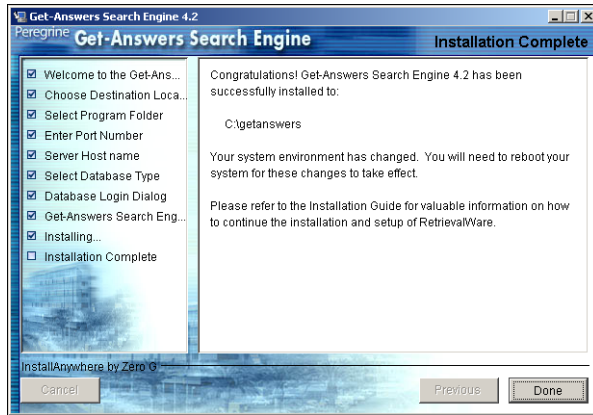
- 11 In the Configuration Information dialog box, confirm your search engine configuration settings and make sure you have adequate disk space, and click **Install**.



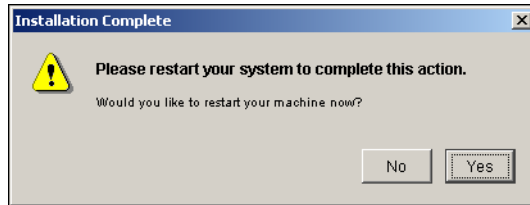
The installer copies the search engine files to your server. This may take several minutes.



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



13 Click **Yes** to restart your system.



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

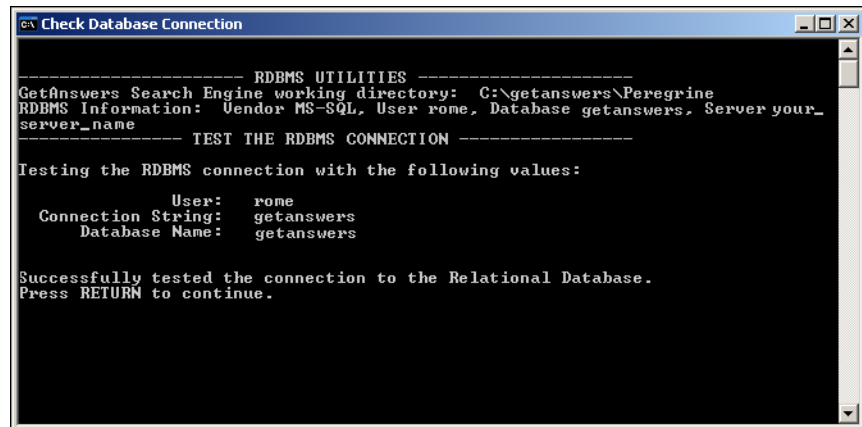


## Checking the search engine installation

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

To check your search engine database connection:

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



```
----- RDBMS UTILITIES -----
GetAnswers Search Engine working directory: C:\getanswers\Peregrine
RDBMS Information: Vendor MS-SQL, User rome, Database getanswers, Server your_
server_name
----- TEST THE RDBMS CONNECTION -----

Testing the RDBMS connection with the following values:

      User:      rome
Connection String: getanswers
      Database Name: getanswers

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 Peregrine\KMLib.

Example: c:\getanswers\Peregrine\KMLib

The name of the Search Engine Server Installation Directory should be recorded in [Step 9 on page 23](#) of the [Get-Answers installation worksheet](#).

- 3 Press any key to exit.





# 3

## CHAPTER

# Get-Answers Installation

This chapter explains the installation and configuration of Get-Answers on the OAA platform on a Windows or UNIX system using the application servers listed in the Get-Answers Compatibility Matrix. These instructions are for a new installation of Get-Answers. If you are upgrading Get-Answers from a previous version, see Chapter 4.

The installation program no longer deploys files directly into an application server's directory structure. Instead, files are deployed into a *staging area* on the file system. This staging area functions as a common place into which one or more Peregrine Portal applications are deployed. From these deployed files, the installation program builds a WAR file and terminates.

**Important:** After the installation program executes, you must perform additional steps to complete the installation process.

With the WAR file, you must use the application server's deployment process to install the Peregrine Portal application. Once installed and running in the application server, an administrator can then access the Get-Answers Administration page to complete the setup process.

This WAR file distribution complies with the J2EE application deployment process and enables one WAR file, containing the Peregrine Portal application(s), to be conveniently deployed into separate test and production environments.

Before you install the OAA platform on the Web server, see the recommended configurations in the Get-Answers Compatibility Matrix, available at the Peregrine Systems Customer Support site.

To view the compatibility matrices:

- 1 In a browser, navigate to <http://support.peregrine.com>
- 2 Log in with your user name and password.
- 3 Click **Documentation > Get-Answers > Compatibility Matrices**.

**Note:** All of the instructions in this chapter assume that you have installed a database server and the search engine as described in Chapter 2.

**Warning:** Before you begin the installation process, close all anti-virus software programs.

This section describes configurations required for the application servers and Web servers to support Peregrine's Open Application Architecture (OAA) and the Get-It applications.

Application servers	Web servers
Tomcat	Apache
WebSphere Application Server	IBM HTTP Server
WebLogic	IIS
	iPlanet
	SunONE

**Note:** The following configuration information assumes that the server or servers are installed and the services are enabled and running.

---

## Pre-installation overview

Before installing any of the Get-It 4.2 applications, make note of the following changes.

**Note:** This section provides an overview only of the configuration changes described in this chapter. Follow the detailed instructions for all of the configurations that Peregrine Systems supports.

- Use JDK 1.4.2 with OAA 4.2 applications when the application is not being deployed to an application server that supplies its own JDK. This simplifies the installation process.
- When using JDK 1.4.2 with any OAA 4.2 application, it is no longer necessary to copy any files to `$JAVA_HOME/jre/lib/ext`.

**Note:** Placing files in `JRE/lib/ext` with JDK 1.4 is not appropriate when the standard extension to 1.3 has been integrated into 1.4, as is the case of JAAS, JCE, JSSE and JAXP. To override the built-in behavior of the 1.4 VM, you must use the Endorsed Standards Override Mechanism located at <http://java.sun.com/j2se/1.4.2/docs/guide/standards/index.html>. This is required for the Xerces XML parser to be used, but Tomcat already handles this case in its startup script. While JDK 1.4 ships with Xalan, the XML parser included is Crimson, not Xerces.

- When you use a Get-It 4.2 application with JDK 1.4.2 and Tomcat, there is no need to place any files in `JRE/lib/ext` or to directly make use of the Endorsed Standards Override Mechanism. The only files formerly installed in `jre/lib/ext` that are still required are:

```
js.jar
jai_core.jar
jai_codec.jar
mlibwrapper_jai.jar
```

Install these in `WEB-INF/lib`. The Xerces and Xalan supplied with Tomcat are sufficient, as are the versions of `mail.jar` and `activation.jar`. The `oaasecurityproxy.jar` file is no longer needed since the bug that required this work-around was resolved when JAAS was integrated into JDK 1.4. Detailed instructions for doing this are in the sections that follow.

- When using WebSphere with a Get-It 4.2 application, ensure that the Web application server classloading is configured to favor classes under `WEB-INF` over those visible to parent classloaders. This is configured in the WAS administration tool. Use the *parent last* setting. This setting is automatically configured when using WebLogic with the included `weblogic.xml` file.

- When using WebSphere 4 or 5, it is no longer necessary to add the following parameters to the `local.xml` file.

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

While these options are still available, you no longer need to manually set them on any of the Peregrine Systems supported platforms for Get-It 4.2 applications.

- When you are using Tomcat with JDK 1.4, do NOT use the LE version of Tomcat. From the Tomcat FAQ at <http://jakarta.apache.org/tomcat/faq/misc.html>

**Should I use the LE version?**

No. It was an experiment, it failed. (YMMV) The original purpose of LE was because `jdk1.4` provides a LOT of standard functionality that Tomcat uses that was not in `jdk1.3`. So to save some space two distributions were made to save some bandwidth. Since then, it has been an exercise in confusion...

Also, you need to place the `xalan.jar` in the Tomcat `/endorsed` directory.

- When using an application server other than Tomcat with JDK 1.4, you may have to add both Xerces and Xalan using the Endorsed Standards Override Mechanism.
- If you are using WebSphere Application Server (WAS) 5.1, update to WAS 5.1.1 or later.

# Configuring the servers to run Get-Answers

You must configure your application and Web servers *prior* to running the Get-Answers installer. This section describes how to configure some of the common application and Web server combinations with Get-Answers.

## Tomcat and Apache servers

These instructions describe how to configure Tomcat 4.1.x as an application server and Apache as a Web server, with no other applications running on this configuration. Tomcat 5.0.x uses the same procedures.

To configure Tomcat and Apache:

- Step 1** Download and install the Java Software Development Kit and the servers. See [Downloading the software on page 64](#).
- Step 2** Download the Web server connectors for Apache. See [Downloading the Web server connectors for Apache on page 64](#).
- Step 3** Run the installer. See [Running the installer on page 64](#).
- Step 4** Copy the `oaa.war` file. See [Copying the oaa.war file on page 65](#).
- Step 5** Start the application server. See [Starting the Tomcat application server on page 65](#).
- Step 6** Copy the jar files. See [Copying the jar files on page 65](#).
- Step 7** Add the database driver jar. See [Adding the database driver jar file on page 66](#).
- Step 8** Edit the `httpd.conf`, `mod_jk2.conf` and `workers2.properties` files. See [Editing the connector files on page 66](#).
- Step 9** Start the Web server. See [Starting the Apache Web server on page 69](#).
- Step 10** Test the configuration. See [Testing the configuration on page 70](#).

## Downloading the software

Download and install the Java Software Development Kit, Tomcat application server, and Apache Web server.

Download	Web site
Java J2SE v 1.4.x Software Development Kit (SDK)	<a href="http://java.sun.com">http://java.sun.com</a>
Tomcat 4.1.x application server or Tomcat 5.0.x	<a href="http://jakarta.apache.org">http://jakarta.apache.org</a>
Apache Web server	<a href="http://httpd.apache.org">http://httpd.apache.org</a>

## Downloading the Web server connectors for Apache

To properly configure the servers, you must download the Tomcat Web server connectors (JK2) for Apache and extract the files.

- 1 Download the following compressed Tomcat Web server connectors (JK2) file for Apache from <http://jakarta.apache.org>:

(jakarta-tomcat-connectors-jk2.0.4-[operating system]-apache2.x.x.zip)

- 2 Extract `mod_jk2.so` to your `Apache2\modules` directory.
- 3 Extract `mod_jk2.conf.sample` to your `Apache2\conf` directory.
  - a Copy it to the same directory.
  - b Rename it to `mod_jk2.conf`.
- 4 Extract `workers2.properties.sample` to your `Apache2\conf` directory.
  - a Copy it to the same directory.
  - b Rename it to `workers2.properties`.

## Running the installer

Follow the instructions in [Running the installer on page 124](#) to install Get-Answers on a Tomcat application server.

**Note:** Make sure that you stop Tomcat and Apache before installing Get-Answers.



## Copying the oaa.war file

The installer creates the oaa.war file that you need to deploy the application.

- Copy the oaa.war file that the installer created from the Portal directory to the <tomcat\_home>\webapps directory, where <tomcat\_home> is the path to your Tomcat application server.

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

## Starting the Tomcat application server

When you start the Tomcat application server, the application automatically deploys, creating an oaa directory under the webapps directory. The default path is: C:\Program Files\Apache Group\Tomcat 4.1\webapps\oaa.

Once the application finishes deploying, stop the Tomcat application server.

## Copying the jar files

The installer generates jar files that you must copy to the application server endorsed directory.

- 1 Copy the following files from the installation directory  
C:\Program Files\Peregrine\Portal\SupportFiles\JavaExtensions

```
xalan.jar  
xercesImpl.jar  
xml-apis.jar
```

where C:\Program Files\Peregrine\Portal specifies the location of your application installation,

to the <tomcat\_home>\common\endorsed directory.

**Note:** Create the endorsed directory if one does not exist.

- 2 If necessary, replace any older versions of these files.
- 3 If `xmlParserAPIs.jar` exists in the endorsed directory, delete it.
- 4 For Tomcat 5.0.x, copy the following files from the installation directory `C:\Program Files\Peregrine\Portal\SupportFiles\JavaExtensions`

```
activation.jar
mail.jar
pop3.jar
```

to the `<tomcat_home>\webapps\oaa\WEB-INF\lib` directory.

## Adding the database driver jar file

Add the database driver jar to the `<tomcat_home>\webapps\oaa\WEB-INF\lib` directory.

## Editing the connector files

You must edit the `httpd.conf`, `mod_jk2.conf`, and `workers2.properties` files to properly configure the servers.

- 1 From the `Apache\conf` directory, using a text editor, open `httpd.conf`.

- a Add the following code to the end of the file:

```
include "C:\Program Files\Apache Group\Apache2\conf\mod_jk2.conf"
```

where `C:\Program Files\Apache Group\Apache2\conf\mod_jk2.conf` specifies the location of the `mod_jk2.conf` file on your Apache Web server.

- b Save and close the file.

- 2 From the `Apache2\conf` directory, using a text editor, open `mod_jk2.conf`.

- a Delete any contents that may already exist in this file.

- b Add the following code to instruct Apache to load the `jk2` module:

```
LoadModule jk2_module modules\mod_jk2.so
```

- c Add the following code to instruct Apache to use the `workers2.properties` file for configuration:

```
JkSet config.file "C:\Program Files\Apache Group\Apache2\conf\workers2.properties"
```

where `C:\Program Files\Apache Group\Apache2\conf\workers2.properties` specifies the location of the `workers2.properties` file on your Web server.

- d Add the following code to make Apache aware of the location of the `/oaa` context:

```
Alias /oaa "C:/Program Files/Apache Group/Tomcat 4.1/webapps/oaa"
```

where `C:/Program Files/Apache Group/Tomcat 4.1/webapps/oaa` specifies the location of the `webapps/oaa` directory on your Apache Tomcat application server.

- e Add the following entries to set access to the specified content in the /oaa directory.

```
<Directory "C:/Program Files/Apache Group/Tomcat 4.1/webapps/oaa">
    AllowOverride None
    Options None
    Order allow,deny
    Allow from all
</Directory>
<Location "/oaa/WEB-INF/">
    AllowOverride None
    deny from all
</Location>

# Use Directory attribute also. Location doesn't work unless case
# matches.
<Directory "C:/Program Files/Apache Group/Tomcat 4.1
/webapps/oaa/WEB-INF/">
    AllowOverride None
    deny from all
</Directory>

# The following line prohibits users from directly accessing
META-INF
<Location "/oaa/META-INF/">
    AllowOverride None
    deny from all
</Location>

# Use Directory attribute also. Location doesn't work unless case
# matches.
<Directory "C:/Program Files/Apache Group/Tomcat 4.1
/webapps/oaa/META-INF/">
    AllowOverride None
    deny from all
</Directory>
```

**Note:** You must update the path specified in the examples with the path that matches your Tomcat installation:  
(C:/Program Files/Apache Group/Tomcat/...).

f Save and close the file.

3 From the Apache2\conf directory, using a text editor, open the workers2.properties.

a Add the following lines of code:

```
[uri:/oaa/servlet/*]
info=Prefix mapping

[uri:/oaa/*.do]
info=Extension mapping

[uri:/oaa/*.jsp]
info=Extension mapping

[uri:/oaa/answers/attachments/*]
info=Prefix mapping

[uri:/oaa/attachments/*]
info=Attachment mapping
```

b Save and close the file.

## Starting the Apache Web server

To activate the new configurations, start the Apache Web server.

## Testing the configuration

After the application and Web servers are properly configured, log on to the Get-Answers Admin page to configure the settings that are stored in the `local.xml` file.

- 1 To verify that the Tomcat and Apache servers are properly configured, check the following URLs.
  - *<http://<server>:80> for the Apache Web server*
  - *<http://<server>:8080> for the Tomcat application server*

Make sure that the appropriate Tomcat and Apache services or applications are started before proceeding.

- 2 Follow the steps described in [Configuring Get-Answers on page 127](#) to complete the Get-Answers configuration.

## Tomcat and IIS servers

The following instructions configure Tomcat 4.1.x to connect to an IIS 5.0 Web server and Tomcat 5.0.x to connect to an IIS 5.0 or IIS 6.0 Web server. These instructions set up Tomcat to use a single Java Virtual Machine (JVM). See the [Load-Balancing Application Servers](#) chapter in this guide for information about installing multiple JVMs.

To configure Tomcat and IIS:

- Step 1** Download and install the Java Software Development Kit and the Tomcat application server. See [Downloading the software on page 71](#).
- Step 2** Download the Tomcat-IIS JK2 Web server connector zip file. See [Downloading the Web server connector for IIS on page 71](#).
- Step 3** Reboot your system. See [Rebooting the system on page 72](#).
- Step 4** Run the installer. See [Running the installer on page 72](#).
- Step 5** Copy the `oaa.war` file. See [Copying the oaa.war file on page 73](#).
- Step 6** Start the application server. See [Starting the Tomcat application server on page 73](#).

- Step 7** Copy the jar files. See [Copying the jar files on page 73](#).
- Step 8** Copy the jk2.reg file. See [Copying the jk2.reg file on page 74](#).
- Step 9** Configure the ISAPI Plug-in for IIS. See [Configuring the ISAPI Plug-in for IIS on page 74](#).
- Step 10** Configure IIS to use isapi\_redirector2.dll as an ISAPI Filter. See [Configuring the isapi\\_redirector2.dll as an ISAPI filter on page 76](#).
- Step 11** Create and configure a jakarta virtual directory in IIS. See [Configuring a jakarta virtual directory in IIS on page 77](#).
- Step 12** Create and configure an oaa virtual directory in IIS. See [Configuring an oaa virtual directory in IIS on page 77](#).
- Step 13** 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 78](#).
- Step 14** Install Tomcat as a service using installservice.bat (Optional). This file can be found in the <tomcat\_home>\bin directory. See [Installing Tomcat as a service on page 79](#).
- Step 15** Test the configuration. See [Testing the configuration on page 81](#).

## Downloading the software

Download and install the Java Software Development Kit and Tomcat application server.

Download	Web site
Java J2SE v 1.4.x Software Development Kit (SDK)	<a href="http://java.sun.com">http://java.sun.com</a>
Tomcat 4.1.x or 5.0.x application server	<a href="http://jakarta.apache.org">http://jakarta.apache.org</a>

## Downloading the Web server connector for IIS

To properly configure the servers, you must download the Tomcat Web server connector (JK2) for IIS and extract the files.

- 1 Download the following compressed Tomcat Web server connector (JK2) file for IIS from <http://jakarta.apache.org>:

(jakarta-tomcat-connectors-jk2.0.4-[operating system]-IIS.zip)

- 2 Extract workers2.properties.sample to your <tomcat\_home>\conf directory.
  - a Copy it to the same directory.
  - b Rename it to workers2.properties.
  - c Using a text editor, add the following lines of code to the end of file:

```
[uri:/oaa/servlet/*]
info=Prefix mapping
group=1b

[uri:/oaa/*.do]
info=Extension mapping
group=1b

[uri:/oaa/*.jsp]
info=Extension mapping
group=1b

[uri:/oaa/answers/attachments/*]
info=Prefix mapping
group=1b

[uri:/oaa/attachments/*]
info=Attachment mapping
group=1b
```

- 3 Extract isapi\_redirector2.dll to your <tomcat\_home>\bin directory.

## Rebooting the system

Before continuing with the configuration, reboot your system.

## Running the installer

Follow the instructions in [Running the installer on page 124](#) to install Get-Answers on a Tomcat application server.

**Note:** Make sure that you stop Tomcat and IIS before installing Get-Answers.



## Copying the oaa.war file

The installer creates the oaa.war file that you need to deploy the application.

- Copy the oaa.war file that the installer created from the Portal directory to the <tomcat\_home>\webapps directory, where <tomcat\_home> is the path to your Tomcat application server.

The default Tomcat path is: C:\Program Files\Apache Group\Tomcat.

## Starting the Tomcat application server

When you start the Tomcat application server, the application automatically deploys, creating an oaa directory under the webapps directory. The default path is: C:\Program Files\Apache Group\Tomcat\webapps\oaa.

Once the application finishes deploying, stop the Tomcat application server.

## Copying the jar files

The installer generates jar files that you must copy to the application server endorsed directory.

- 1 Copy the following files from the installation directory  
C:\Program Files\Peregrine\Portal\SupportFiles\JavaExtensions

```
xalan.jar  
xercesImpl.jar  
xml-apis.jar
```

where C:\Program Files\Peregrine\Portal specifies the location of your application installation,

to the <tomcat\_home>\conf directory.

**Note:** Create the endorsed directory if one does not exist.

- 2 If necessary, replace any older versions of these files.
- 3 If `xmlParserAPIs.jar` exists in the endorsed directory, delete it.
- 4 For Tomcat 5.0.x, copy the following files from the installation directory `C:\Program Files\Peregrine\Portal\SupportFiles\JavaExtensions`

```
activation.jar  
mail.jar  
pop3.jar
```

to the `<tomcat_home>\webapps\oaa\WEB-INF\lib` directory.

## Copying the jk2.reg file

The `jk2.reg` file creates a Windows registry entry.

Copy the `jk2.reg` file from the installation directory `C:\Program Files\Peregrine\Portal\SupportFiles\AppServerFiles` directory to the `<tomcat_home>\common\endorsed` directory,

where `C:\Program Files\Peregrine\Portal` specifies the location of your application installation and where `<tomcat_home>` is the path to your Tomcat application server.

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

The default Tomcat 5.0.x path is:

`C:\Program Files\Apache Software Foundation\Tomcat 5.0`.

## Configuring the ISAPI Plug-in for IIS

The ISAPI plug-in 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.

Use the following procedures to configure the plug-in for your intranet environment.

To configure the ISAPI plug-in for IIS 5.0 or IIS 6.0:

- 1 Open the file `jk2.reg` in a text editor. The file path for Tomcat 4.1.x is:

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

The file path for Tomcat 5.0.x is:

```
C:\Program Files\Apache Software Foundation\Tomcat 5.0\conf
```

- 2 Verify that the `ServerRoot` and `workersFile` entries list the proper installation path to Tomcat.

- For Tomcat 4.1.x, the default values are:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Apache Group\Jakarta Isapi Redirector\2.0]
"ServerRoot"="C:\\Program Files\\Apache Group\\Tomcat 4.1"
"workersFile"="C:\\Program Files\\Apache Group\\Tomcat 4.1\\conf\\
workers2.properties"
```

- For Tomcat 5.0.x, the default values are:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Apache Group\Jakarta Isapi Redirector\2.0]
"ServerRoot"="C:\\Program Files\\Apache Software Foundation\\Tomcat 5.0"
"workersFile"="C:\\Program Files\\Apache Software Foundation
\\Tomcat 5.0\\conf\\
workers2.properties"
```

- 3 Verify that the HKEY\_LOCAL\_MACHINE path is correct for your Tomcat version.
  - For Tomcat 4.1.x, modify each version of Tomcat as follows:

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Apache Group\Jakarta Isapi Redirector\2.0]
"serverRoot"="C:\\Program Files\\Apache Group\\Tomcat 4.1"
"extensionUri"="/jakarta/isapi_redirector2.dll"
"workersFile"="C:\\Program Files\\Apache Group
\\Tomcat 4.1\\conf\\workers2.properties"
```

- For Tomcat 5.0.x, modify each version of Tomcat as follows:

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Apache Software Foundation\Jakarta Isapi
Redirector\2.0]
"serverRoot"="C:\\Program Files\\Apache Software Foundation\\Tomcat 5.0"
"extensionUri"="/jakarta/isapi_redirector2.dll"
"workersFile"="C:\\Program Files\\Apache Software Foundation
\\Tomcat 5.0\\conf\\workers2.properties"
```

- 4 Save and close the jk2.reg file.
- 5 Right-click and select MERGE or double-click 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 must install isapi\_redirector2.dll as an ISAPI filter.

To install isapi\_redirector2.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:

Field	Value	Comments
Filter Name	jakarta	The filter name must match the name you defined in the jk2.reg registry file. By default, the filter name is jakarta.
Executable	isapi_redirector2.dll	The file path is: C:\<tomcat_home>\bin\ isapi_redirector2.dll

- 6 Click **OK**.

**Note:** Stop and restart the IIS service for changes to take effect. Also, restart your Tomcat service.

- 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.

## 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:

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

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

## Configuring an oaa virtual directory in IIS

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

To configure an oaa virtual directory in IIS:

Use the following guidelines to create the virtual directory.

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

## 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:\<tomcat_home>\conf
```
- 2 Create a <Context> element entry from Tomcat to the Get-Answers deployment directory to establish a point of reference for docBase.
  - For Tomcat 4.1.x, add the entry just above the **examples** Context entry.

Example:

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

- For Tomcat 5.0.x, see the code creating a <Context> element on [page 15](#) of [Editing the server.xml files](#).

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

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

## Installing Tomcat as a service

After you edit the Tomcat files, you can install Tomcat as Windows services using the installservice.bat file. See [Installing Tomcat instances as services on page 17](#) for more information.

This completes the procedure for IIS 5.0.

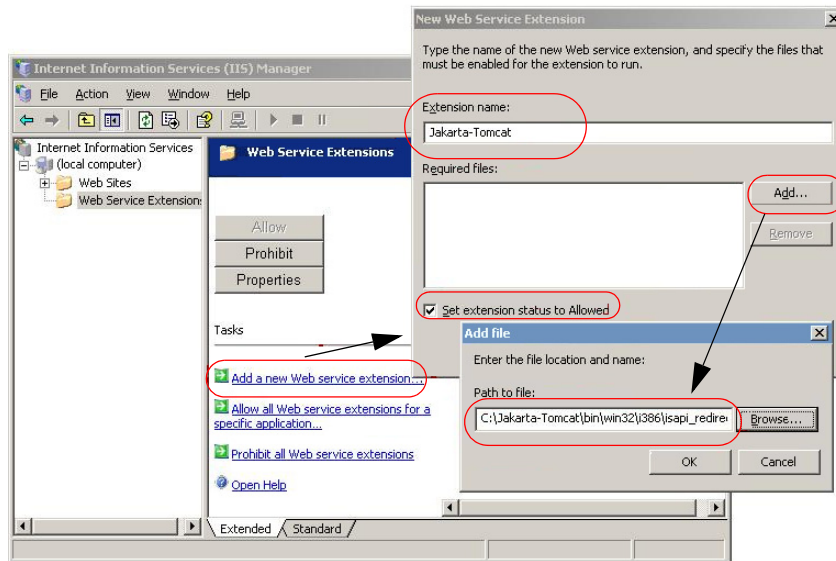
To configure the ISAPI plug-in connection between Tomcat and IIS 6.0, complete the following:

- 1 Set the ISAPI Redirector Filter DLL in the Web Service Extensions to **Allowed**.

**Note:** This explicitly allows the redirector DLL to work within IIS. The enhanced security in IIS 6.0 includes **Web Service Extensions**. The redirector DLL, added as an ISAPI Filter, needs to be added to this area of IIS and set as **Allowed**.

- 2 Go to the management console.

### 3 Click Web Services Extensions.



- 4 Choose **Add a new Web service extension**.
- 5 Enter an extension name (for example, Jakarta-Tomcat), and then select the **Set extension status to Allowed** check box.
- 6 Click **Add**.
- 7 Enter the path to `isapi_redirector2.dll` and click **OK**.



## Testing the configuration

After the application and Web servers are properly configured, log on to the Get-Answers Admin page to configure the settings that are stored in the `Local.xml` file.

- 1 To verify that the Tomcat and IIS servers are properly configured, check the following URLs.

- *<http://<server>:80> for the IIS Web server*
- *<http://<server>:8080> for the Tomcat application server*

Make sure that the appropriate Tomcat and IIS services or applications are started before proceeding.

- 2 Follow the steps described in [Configuring Get-Answers on page 127](#) to complete the Get-Answers configuration.

## WebLogic 6.1 SP4 and IIS

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

To configure WebLogic 6.1 SP4 with IIS:

- Step 1** Stop both WebLogic and your Web server. See [Stopping the servers on page 82](#).
- Step 2** Edit the `startWebLogic.cmd` file to set the system password, memory settings, and start mode. See [Editing startWebLogic.cmd on page 82](#).
- Step 3** Edit the `Server.Policy` file to set the debug to true. See [Editing the Server.Policy file on page 84](#).
- Step 4** Run the Get-Answers installer. See [Running the installer on page 84](#).
- Step 5** Move jar files to the Java development kit ext directory. See [Moving jar files to the Java Development Kit ext directory on page 84](#).
- 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 85](#).

**Step 7** Configure IIS to use `iisproxy.dll` as an extension. See [Configuring the iisproxy.dll as an extension on page 86](#).

**Step 8** Copy the installed files to your WebLogic directory. See [Copying the installed files to your WebLogic directory on page 87](#).

**Step 9** Create a virtual directory for Get-Answers in your Web server. See [Creating a virtual directory for Get-Answers on page 88](#).

**Step 10** Restart WebLogic and your Web server. See [Restarting the servers on page 89](#).

**Step 11** Configure Get-Answers. See [Configuring Get-Answers on page 89](#).

## 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 Using a text editor, open the `startWebLogic.cmd` file. 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.
set WLS_PW=password

```

- 3 In the last line, change the word password to your WebLogic system password.
- 4 Search for the `-ms` parameter and set it to 256m or greater.
- 5 Search for the `-mx` parameter setting in the file. The recommended setting is 512m.

**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.

- 6 Set the `STARTMODE` variable to `STARTMODE=false`.

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

- 7 Add the following phrase to the entry that precedes the `weblogic.Server` entry. Keep the quotation marks.

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

Where `<WebLogic>` is the installation path for WebLogic. The default path is: `c:\bea\wlserver6.1`

- 8 Save the file.

## Editing the Server.Policy file

To edit Server.Policy:

- 1 Using a text editor, open the Server.Policy file. 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 and close the file.

## Running the installer

Follow the instructions in [Running the installer on page 124](#) to install Get-Answers on a WebLogic 6.1 application server.

## Moving jar files to the Java Development Kit ext directory

The installer generates jar files that you must copy, or FTP, to the Java Development Kit ext directory.

To move jar files:

- 1 Verify that the following directory exists. If it does not, create it:  
c:\bea\jdk131\jre\lib\ext
- 2 Go to <install\_dir>\Portal\image\WEB-INF\lib where <install\_dir> is the location where you installed Get-Answers. The default location is C:\Program Files\Peregrine\Portal\image\WEB-INF\lib.
  - a Move the log4j-1.2.6.jar file to \bea\jdk131\jre\lib\ext.
  - b Copy the following files to \bea\jdk131\jre\lib\ext.

```
jai_codec.jar
jai_core.jar
mlibwrapper_jai.jar
```

- 3 Go to the <install\_dir>\Portal\SupportFiles\JavaExtensions directory and copy the following files to the \bea\jdk131\jre\lib\ext directory.

```
jaas.jar  
jce1_2_2.jar  
jcert.jar  
jnet.jar  
jsse.jar  
ocal_policy.jar  
oaasecurityproxy.jar  
sunjce_provider.jar  
US_export_policy.jar  
xalan.jar  
xercesImpl.jar  
xml-apis.jar
```

- 4 Copy the following files from the installation directory C:\Program Files\Peregrine\Portal\SupportFiles\JavaExtensions

```
activation.jar  
mail.jar  
pop3.jar
```

to the <APP\_DEPLOYMENT\_DIR>\WEB-INF\lib directory.

## Configuring the iisforward.dll as an ISAPI filter and an extension

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

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

- 1 Open the Internet Services management console.
- 2 Right-click the <Machine\_name> and then click **Properties**.

**Note:** This is not a Web site; it is the parent node in the tree for the Web sites.

- 3 Click **Edit** from the Master Properties pane.
- 4 Click the **ISAPI Filters** tab.
- 5 Click **Add**.

- 6 Enter the following information.

Filter Name	iisforward
Executable	iisforward.dll
	The default file path is:
	c:\bea\wlserver6.1\bin\iisforward.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.

Executable	iisforward.dll
	The default file path is:
	c:\bea\wlserver6.1\bin\iisforward.dll
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 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, click **Add**.
  - b Enter the following information:

Executable	<code>iisproxy.dll</code> The default file path is: <code>c:\bea\wlserver6.1\bin\iisproxy.dll</code>
Extension	<code>.jsp</code>

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

- 6 Close the Internet Services management console.

## Copying the installed files to your WebLogic directory

The installer generates files that you must copy, or FTP, to your WebLogic application directory.

To copy the installed files:

- 1 Copy the Portal\image directory (the default path is C:\Program Files\Peregrine\Portal\image) to the <WebLogic>\applications directory.

The WebLogic default path is: C:\bea\weblogic6.1\config\<my-domain>

- 2 Rename <WebLogic>\applications\image directory to <WebLogic>\applications\oaa.

**Tip:** If you need to FTP files from one server to another to perform the copy, it is more convenient to FTP the oaa.war file in <Portal>\oaa.war to your WebLogic server than to extract the oaa.war files into a <WebLogic>\applications\oaa directory.

## Creating a virtual directory for Get-Answers

To run Get-Answers, you create a virtual directory in your Web server that maps to your WebLogic deployment directory.

To configure a virtual directory:

- 1 Use the following guidelines to create the virtual directory in WebLogic and map it to your deployment directory with the following settings.

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

Where <oaa> is the name of the virtual directory you want to use for Get-Answers. Peregrine recommends oaa as the virtual directory name. Use this name in your application server configuration.

For <WebLogic>, enter the path to your WebLogic installation. The default file path is: c:\bea\weblogic6.1\config\<my-domain>\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

To activate the new WebLogic configurations, restart the servers.

To activate the WebLogic configurations:

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

## Configuring Get-Answers

Follow the instructions in [Configuring Get-Answers on page 127](#).

## WebLogic 8.1

The following sections provide instructions for installing, setting up, and configuring Get-Answers on a Windows or Unix platform with WebLogic 8.1 using WebLogic's internal Web server.

**Step 1** Install Get-Answers, then copy or FTP the image directory. See [Installing Get-Answers on page 90](#).

**Step 2** Copy the jar files. See [Copying jar files on page 91](#).

**Step 3** Edit the startmydomain file. See [Editing the startmydomain file on page 92](#).

- Step 4** Edit the `Server.Policy` file. See [Editing the Server.Policy file on page 94](#).
- Step 5** Deploy the Web Application Module to the application server. See [Deploying to the application server on page 94](#).
- Step 6** Modify the `local.xml` file to configure Get-Answers. See [Configuring Get-Answers using the local.xml file on page 94](#).

## Installing Get-Answers

Follow these step-by-step instructions to install Get-Answers on a WebLogic 8.1 application server. The installer creates an image directory that you must copy or FTP to a deployment directory on the WebLogic server.

To install Get-Answers:

- 1 Run the installer on the installation CD. (See [Running the installer on page 124](#))
- 2 Do one of the following:
  - On Windows, copy the entire contents of the image directory (the default path is `C:\Program Files\Peregrine\Portal\image`) to a deployment directory of your choice on the WebLogic server.  
Example: `C:\Program Files\Peregrine\Portal\applications\oaa`
  - On Unix, FTP the entire contents of the image directory (the default path is `C:\Program Files\Peregrine\Portal\image`) to a deployment directory of your choice on the WebLogic server.

Example: `app\peregrine\applications\oaa`.

**Note:** These instructions refer to the deployment directory as `<APP_DEPLOYMENT_DIR>`.

## Copying jar files

The installer generates jar files that you must copy, or FTP, to the application server endorsed directory.

- On Windows, copy the following files to the `<jdk_dir>\jre\lib\endorsed\` directory on the WebLogic server, where `<jdk_dir>` represents the path to the JDK home directory.

```
xercesImpl.jar
xalan.jar
xml-apis.jar
```

The default path for these files is:

```
C:\Program Files\Peregrine\Portal\JavaExtensions
```

Create the endorsed directory if it does not exist in the JDK home directory.

- On Unix, FTP the following files to the `<jdk_dir>\jre\lib\endorsed\` directory on the WebLogic server, where `<jdk_dir>` represents the path to the JDK home directory.

```
xercesImpl.jar
xalan.jar
xml-apis.jar
```

The default path for these files is:

```
C:\Program Files\Peregrine\Portal\JavaExtensions
```

Create the endorsed directory if it does not exist in the JDK home directory.

- Copy, or FTP, the following files from the installation directory `C:\Program Files\Peregrine\Portal\SupportFiles\JavaExtensions`

```
activation.jar
mail.jar
pop3.jar
```

to the `<APP_DEPLOYMENT_DIR>\WEB-INF\lib` directory.

## Editing the startmydomain file

- On Windows, use a text editor to modify the `startmydomain.cmd` file (or whichever file you use to start the WebLogic server).

Add the following string to the final start up command (led by calling java):

```
-Djava.security.auth.login.config=%WL_HOME%\server\lib\Server.Policy
```

Example:

```
%JAVA_HOME%\bin\java %JAVA_VM% %MEM_ARGS% %JAVA_OPTIONS%  
-Dweblogic.Name=%SERVER_NAME%  
-Dweblogic.ProductionModeEnabled=%PRODUCTION_MODE%  
-Djava.security.policy="%WL_HOME%\server\lib\weblogic.policy"  
-Djava.security.auth.login.config="%WL_HOME%\server\lib\Server.Policy"  
" weblogic.Server
```

- On Unix, modify the `startmydomain.sh` file according to your operating system.

Operating System	Action
------------------	--------

Solaris	<p>Add the following string to the final start up command (led by calling java).</p> <pre>-Djava.security.auth.login.config=\${WL_HOME}/server/lib/Server.Policy</pre>
---------	--

Example:

```
java ${JAVA_VM} ${MEM_ARGS} ${JAVA_OPTIONS}
-Dweblogic.Name=${SERVER_NAME}
-Dweblogic.management.username=${WLS_USER}
-Dweblogic.management.password=${WLS_PW}
-Dweblogic.ProductionModeEnabled=${STARTMODE}
-Djava.security.policy="${WL_HOME}/server/lib/weblogic.policy"
-Djava.security.auth.login.config=${WL_HOME}/server/lib/Server.Policy
weblogic.Server
```

AIX	<p>At the top of the file, add a single entry for LIBPATH and set it to the path for the appropriate ServiceCenter libraries.</p>
-----	---

For example, when running ServiceCenter 5:

```
LIBPATH=<APP_DEPLOYMENT_DIR>/WEB-INF/lib/AIX/ServiceCenter5
```

When running ServiceCenter 6:

```
LIBPATH=<APP_DEPLOYMENT_DIR>/WEB-INF/lib/AIX/ServiceCenter6
```

Export the completed variable entry using the following command:

```
export LIBPATH
```

Add the following string to the final start up command (led by calling java).

```
-Djava.security.auth.login.config=${WL_HOME}/server/lib/Server.Policy
```

Example:

```
java ${JAVA_VM} ${MEM_ARGS} ${JAVA_OPTIONS}
-Dweblogic.Name=${SERVER_NAME}
-Dweblogic.management.username=${WLS_USER}
-Dweblogic.management.password=${WLS_PW}
-Dweblogic.ProductionModeEnabled=${STARTMODE}
-Djava.security.policy="${WL_HOME}/server/lib/weblogic.policy"
-Djava.security.auth.login.config=${WL_HOME}/server/lib/Server.Policy
weblogic.Server
```

Linux	<p>Add the following string to the final start up command (led by calling Java).</p> <pre>-Djava.security.auth.login.config=\${WL_HOME}/server/lib/Server.Policy</pre>
-------	--

Example:

```
java ${JAVA_VM} ${MEM_ARGS} ${JAVA_OPTIONS}
-Dweblogic.Name=${SERVER_NAME}
-Dweblogic.management.username=${WLS_USER}
-Dweblogic.management.password=${WLS_PW}
-Dweblogic.ProductionModeEnabled=${STARTMODE}
-Djava.security.policy="${WL_HOME}/server/lib/weblogic.policy"
-Djava.security.auth.login.config=${WL_HOME}/server/lib/Server.Policy
weblogic.Server
```

## Editing the Server.Policy file

Edit the `Server.Policy` file to define the back-end system.

- Create or edit the `Server.Policy` file (in the `<WL_HOME>/server/lib` directory for Unix or `<WL_HOME>\server\lib\` for Windows), with the following contents.

```
oaa{
  com.peregrine.oaa.security.OAALoginModule optional target=rome;
  com.peregrine.oaa.security.OAALoginModule optional target=oaakm;
};
getit.admin{com.peregrine.oaa.security.GetitAdminLoginModule required;};
getit.anonymous{com.peregrine.oaa.security.GetitAnonymousLoginModule required;};
rome{com.peregrine.oaa.security.OAALoginModule required target=rome;};
oaakm{com.peregrine.oaa.security.OAALoginModule required target=oaakm;};
ServerLoginModule{weblogic.security.internal.ServerLoginModule required;};
```

## Deploying to the application server

Deploy the Web Application Module from the WebLogic 8.1 Web console using the `<APP_DEPLOYMENT_DIR>` as the target.

## Configuring Get-Answers using the local.xml file

To configure Get-Answers, you need to manually edit the `local.xml` file found in `<APP_DEPLOYMENT_DIR>/WEB-INF/local.xml`. If you do not find the `local.xml` file in `<APP_DEPLOYMENT_DIRECTORY>/WEB-INF/`, you need to create it by following the steps in [Creating a local.xml file on page 94](#). If you have a `local.xml` file, go to [Editing the local.xml file on page 95](#).

### Creating a local.xml file

- 1 Start the WebLogic 8.1 server with the `startmydomain.sh` script.

Once the server finishes initializing, open the URL

<http://<WebLogic Server>:7001/<Context Root>/admin.jsp> in a browser.

This assumes your server port is **7001**. Substitute your port number in the URL if you are not using port **7001**.

- 2 Log in with username **System**, keeping the password field blank.
  - a From the Administration menu, click **Settings**.
  - b Select the **Common** tab.

- c Scroll down to the Server URL field and replace the entry with the correct URL.

Example: `http://<WebLogicServer>:7001/<Context Root>/login.jsp`

- d Click **Save** at the bottom of the tab.
- e Log out of the Peregrine Portal.
- f Stop the WebLogic server.

This creates the `local.xml` file, which you now need to edit.

### Editing the local.xml file

Edit the `local.xml` file found in

`<APP_DEPLOYMENT_DIRECTORY>/WEB-INF/local.xml`.

To edit the `local.xml` file:

- 1 Using a text editor, add the following lines to the `<settings></settings>` section of the `<APP_DEPLOYMENT_DIR>/WEB-INF/local.xml` file.

```
<jaas_config>
  <useStandardJAASConfiguration>true</useStandardJAASConfiguration>
  <jaasConfiguration>oaa</jaasConfiguration>
</jaas_config>
```

- 2 Start the WebLogic 8.1 server with the `startmydomain.sh` command or the `startmydomain.cmd` command.
- 3 Once the server finishes initializing, open the URL `http://<WebLogic Server>:7001/<Context Root>/admin.jsp` in a browser.

This assumes your server port is **7001**. Substitute your port number in the URL, if you are not using port **7001**.

- 4 Log in with username **System**, keeping the password field blank.
- 5 Follow the steps described in [Configuring Get-Answers on page 127](#).

## WebLogic 8.1 and IIS 5

The following instructions configure the WebLogic 8.1 application server with the Microsoft Internet Information Server (IIS) Web server.

- Step 1 Stop both WebLogic and your IIS Web server. See [Stopping the servers on page 96](#).
- Step 2 Run the Get-Answers installer. See [Running the installer on page 96](#).
- Step 3 Copy the installed files to your WebLogic directory. See [Copying the installed files to your WebLogic directory on page 96](#).
- Step 4 Create the oaa virtual directory. See [Creating a virtual directory for Get-Answers on page 97](#).
- Step 5 Copy the `iisproxy.dll` file. See [Copying the iisproxy.dll file on page 98](#).
- Step 6 Configure the IIS plug-in. See [Configuring the IIS plug-in on page 99](#).
- Step 7 Restart the servers. See [Restarting the servers on page 103](#).
- Step 8 Test your configurations. See [Testing the configuration on page 103](#).

### Stopping the servers

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

### Running the installer

You must do this on a Windows machine. See [Running the installer on page 124](#).

### Copying the installed files to your WebLogic directory

The installer generates files that you must copy, or FTP, to your WebLogic application directory.



To copy the installed files:

- 1 Copy the Portal\image directory (the default path is C:\Program Files\Peregrine\Portal\image) to the <WebLogic>\applications directory.

The WebLogic default path is: C:\bea\weblogic8.1\config\<my-domain>

- 2 Rename <WebLogic>\applications\image directory to <WebLogic>\applications\oaa.

**Tip:** If you need to FTP files from one server to another to perform the copy, it is more convenient to FTP the oaa.war file in <Portal>\oaa.war to your WebLogic server than to extract the oaa.war files into a <WebLogic>\applications\oaa directory.

## Creating a virtual directory for Get-Answers

To run Get-Answers from IIS, you need to create a virtual directory that maps to your WebLogic deployment directory.

- 1 Create the virtual directory in WebLogic and map it to your deployment directory with the following settings:

Requirement	Setting
Create virtual directory	<oaa>
Map to physical path	<WebLogic>/applications/oaa
Directory access rights	Read, Run scripts, Execute

Where <oaa> is the name of the virtual directory you want to use for Get-Answers. Peregrine recommends oaa as the virtual directory name. You must replicate the name that you enter as the virtual directory name in your application server configuration.

For <WebLogic>, enter the path to your WebLogic installation. The default file path is: c:/bea/weblogic81.

- 2 Copy, or FTP, the following files to the <jdk\_dir>/jre/lib/endorsed/ directory on the WebLogic server, where <jdk\_dir> represents the path to the JDK home directory.

```
xercesImpl.jar  
xalan.jar  
xml-apis.jar
```

The default path for these files is:

```
C:/Program Files/Peregrine/Portal/JavaExtensions
```

Create the endorsed directory if it does not exist in the JDK home directory.

- 3 Copy the following files from the installation directory  
C:\Program Files\Peregrine\Portal\SupportFiles\JavaExtensions

```
activation.jar  
mail.jar  
pop3.jar
```

to the <APP\_DEPLOYMENT\_DIR>\WEB-INF\lib directory.

## Copying the iisproxy.dll file

These instructions use the WL\_HOME/server/bin directory as the default location for the DLLs.

- Copy the iisproxy.dll file from the WL\_HOME/server/bin directory of your WebLogic Server installation to a convenient directory that is accessible to IIS.

Where WL\_HOME/server/bin is the top-level directory for the WebLogic Platform and Server and contains the WebLogic Server installation files.

BEA recommends that this directory also contain the iisproxy.ini file that you create in [Step 5 on page 102 of Configuring the IIS plug-in](#).

## Configuring the IIS plug-in

WebLogic supports two methods of configuring the IIS plug-in:

- proxying by path
- proxying by MIME type

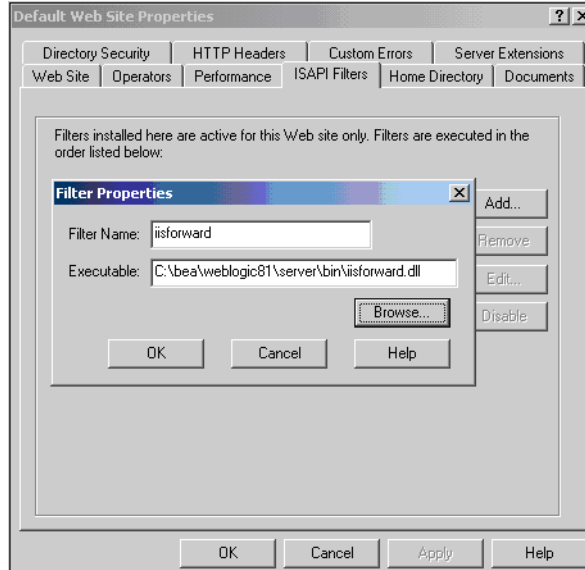
These instructions focus on the proxying by path method. It takes precedence over proxying by MIME type. For more information about these methods for configuring the IIS plug-in, refer to your BEA WebLogic documentation.

- 1 Start the Internet Information Service Manager by selecting it from the Start menu.
- 2 Place the `iisforward.dll` file in the same directory as the `iisproxy.dll` file, and add the `iisforward.dll` file as a filter service in IIS.
  - a Open the properties for the Default Web site by right-clicking the Web site selection in the left panel and selecting Properties.

**Note:** Substitute the appropriate Website if you do not want to use the Default Website.

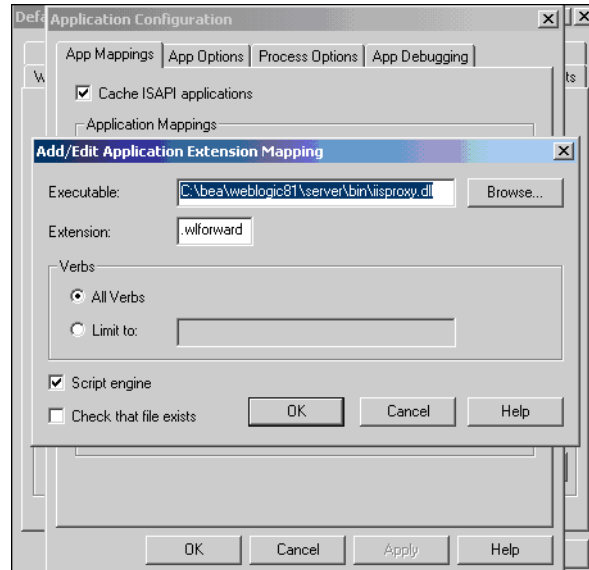
- b Select the ISAPI Filters tab and click **Add**.

- c Define the ISAPI filter as shown in the following example.



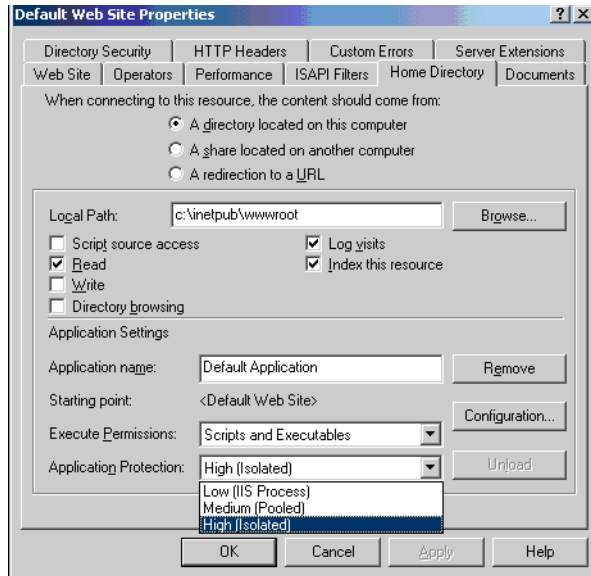
- d When you finish, click **OK** to save the configuration.
- 3 Register .wl forward as a special file type that iisproxy.dll handles.
- a In the Properties panel, select the Home Directory tab, and click **Configuration** in the Applications Settings section.

- b Define the Application Mapping as shown in the following example.



- c When you finish, click **OK** to save the configuration.
- d In the Application configuration window, select the **Cache ISAPI applications** option.

- e Click **OK** to save the configuration.
- f At the Website properties window, set the Application Protection to **High (isolated)**.



- 4 Create the `iisproxy.ini` in the same directory where the `iisproxy.dll` is located.
- 5 Define the following properties in the `iisproxy.ini`.

```
# This file contains the configuration parameters
# for the IIS/WebLogic plug-in.
WebLogicHost=csx602
# substitute your WebLogic hostname above
WebLogicPort=7001
# substitute your WebLogic port number above
ConnectTimeoutSecs=20
ConnectRetrySecs=2
WLIOTimeoutSecs=unlimited
WlForwardPath=/oaa/servlet/archway,/oaa/servlet/oemlicense.OE
MlicenseServlet,/oaa/answers/attachments/*,/oaa/servlet/rpcro
uter,/oaa/servlet/messagerouter,/oaa/servlet/download/*,/oaa/
attachments/*,/oaa/servlet/upload,/oaa/*.do,/oaa/*.jsp,/oaa/*
.jsv,/oaa/*.jsw,/oaa/j_security_check
```

**Note:** The `WLForwardPath` parameter is all one line, delimited by commas.

If you need to debug your application, set the `Debug=ON` parameter in `iisproxy.ini`. The system generates a `c:\tmp\iisforward.log` file that contains a log of the plug-in's activity that you can use for debugging purposes.

For more information on the available configuration parameters for the `iisproxy.ini` file, refer to your BEA WebLogic documentation.

## Restarting the servers

Restart WebLogic and your IIS Web server for the new settings to take effect. The IIS Admin and World Wide Web Publishing services control the IIS plug-in.

- 1 Start the WebLogic application server.
- 2 For IIS, from the Start menu, click **Control Panel > Administrative Tools > Services**, then select IIS Admin and World Wide Web Publishing services.

## Testing the configuration

After the application and Web servers are properly configured, log on to the Get-Answers Admin page to configure the settings that are stored in the `Local.xml` file.

Make sure that the servers and services are started before proceeding.

- 1 To verify that the WebLogic and IIS servers are properly configured, check the following URLs.
  - <http://<server>:7001/oa/login.jsp> for the WebLogic application server
  - <http://<server>/oa/login.jsp> for the IIS Web server
- 2 Follow the steps described in [Configuring Get-Answers on page 127](#) to complete the Get-Answers configuration.

## WebLogic 8.1 and Sun ONE

The following instructions configure the WebLogic 8.1 application server with the Sun ONE 6.1 Web server. You must modify two Sun ONE files, `obj.conf` and `magnus.conf`, found in the `<SunONE_Home>/https-<server.domain>/config` directory.

**Important:** Before you begin using this procedure, ensure that you have completed all of the steps for configuring the WebLogic 8.1 server as described in [WebLogic 8.1 on page 89](#).

To configure WebLogic 8.1 and Sun ONE:

**Step 1** Modify the `obj.conf` file. See [Modifying the obj.conf file](#).

**Step 2** Modify the `magnus.conf` file. See [Modifying the magnus.conf file on page 109](#).



## Modifying the obj.conf file

For the WebLogic and Sun ONE servers to run the Peregrine Portal, you must configure the obj.conf file.

To modify the obj.conf file:

**Note:** These instructions refer to the deployment directory as  
<APP\_DEPLOYMENT\_DIR>.

- 1 With a text editor, update the original obj.conf file.

### Original obj.conf file

```
<Object name="default">
AuthTrans fn="match-browser" browser="*MSIE*" ssl-unclean-shutdown="true"
NameTrans fn="ntrans-j2ee" name="j2ee"
NameTrans fn=pfx2dir from=/mc-icons dir="/SunOne61_WS/ns-icons"
name="es-internal"
NameTrans fn=document-root root="$docroot"
PathCheck fn=unix-uri-clean
PathCheck fn="check-acl" acl="default"
PathCheck fn=find-pathinfo
PathCheck fn=find-index index-names="index.html,home.html,index.jsp"
ObjectType fn=type-by-extension
ObjectType fn=force-type type=text/plain
Service method=(GET|HEAD) type=magnus-internal/imagemap fn=imagemap
Service method=(GET|HEAD) type=magnus-internal/directory fn=index-common
Service method=(GET|HEAD|POST) type=~magnus-internal/* fn=send-file
Service method=TRACE fn=service-trace
Error fn="error-j2ee"
AddLog fn=flex-log name="access"
</Object>

<Object name="j2ee">
ObjectType fn=force-type type=text/html
Service fn="service-j2ee" method="*"
</Object>

<Object name="cgi">
ObjectType fn=force-type type=magnus-internal/cgi
Service fn=send-cgi user="$user" group="$group" chroot="$chroot" dir="$dir"
nice="$nice"
</Object>

<Object name="es-internal">
PathCheck fn="check-acl" acl="es-internal"
</Object>

<Object name="send-compressed">
PathCheck fn="find-compressed"
</Object>

<Object name="compress-on-demand">
Output fn="insert-filter" filter="http-compression"
</Object>
```

- a Add the following lines of code to the original `obj.conf` file.

**Note:** When you add these lines, add them to the file in the order shown in the example `obj.conf` file.

```
NameTrans fn="assign-name" from="/oaa/*.jsp" name="oaaservlet"
NameTrans fn="assign-name" from="/oaa/*.do" name="oaaservlet"
NameTrans fn="assign-name" from="/oaa/eopro/*" name="oaaservlet"
NameTrans fn="assign-name" from="/oaa/servlet/*" name="oaaservlet"
NameTrans fn="assign-name" from="/oaa/answers/*" name="oaaservlet"
NameTrans fn="pfx2dir" from="/oaa" dir="/<APP_DEPLOYMENT_DIR>/oaa"
NameTrans fn="pfx2dir" from="/oaa/eopro" dir="/<APP_DEPLOYMENT_DIR>/oaa/eopro"
NameTrans fn="pfx2dir" from="/oaa/servlet" dir="/<APP_DEPLOYMENT_DIR>/oaa/eopro"

PathCheck fn="find-index" index-names="index.html,home.html,index.jsp"
```

**Note:** The PathCheck line entry instructs the Sun ONE server to reject any request with a URL that contains the path `/WEB-INF`. Each servlet application (context) has a special `WEB-INF` directory. This directory contains sensitive configurations data and Java classes and must be hidden from Web users.

- b Comment out the following lines of code.

```
#NameTrans fn="ntrans-j2ee" name="j2ee"
#NameTrans fn="pfx2dir" from="/mc-icons" dir="/SunOne61_WS/ns-icons"
name="es-internal"

#Error fn="error-j2ee"
```

- c Add the following new configuration object.

```
<Object name="oaaservlet">  
ObjectType fn="force-type" type="text/plain"  
Service fn=2l_proxy WebLogicHost=<servername> WebLogicPort=7001  
</Object>
```

- d Verify that the `obj.conf` you modified matches the following sample in both content and the order of the lines of code.

## Sample obj.conf after you have made the required modifications

```

<Object name="default">
AuthTrans fn="match-browser" browser="*MSIE*" ssl-unclean-shutdown="true"
#NameTrans fn="ntrans-j2ee" name="j2ee"
#NameTrans fn="pfx2dir" from="/mc-icons" dir="/SunOne61_WS/ns-icons"
name="es-internal"
NameTrans fn="assign-name" from="/oaa/*.jsp" name="oaaservlet"
NameTrans fn="assign-name" from="/oaa/*.do" name="oaaservlet"
NameTrans fn="assign-name" from="/oaa/eopro/*" name="oaaservlet"
NameTrans fn="assign-name" from="/oaa/servlet/*" name="oaaservlet"
NameTrans fn="assign-name" from="/oaa/answers/*" name="oaaservlet"
NameTrans fn="pfx2dir" from="/oaa" dir="/<APP_DEPLOYMENT_DIR>/oaa"
NameTrans fn="pfx2dir" from="/oaa/eopro" dir="/<APP_DEPLOYMENT_DIR>/oaa/eopro"
NameTrans fn="pfx2dir" from="/oaa/servlet" dir="/<APP_DEPLOYMENT_DIR>/oaa/eopro"
NameTrans fn="document-root" root="$docroot"
PathCheck fn="unix-uri-clean"
PathCheck fn="check-acl" acl="default"
PathCheck fn="deny-existence" path="*/WEB-INF/*"
PathCheck fn="find-pathinfo"
PathCheck fn="find-index" index-names="index.html,home.html,index.jsp"
ObjectType fn="type-by-extension"
ObjectType fn="force-type" type="text/plain"
Service method="(GET|HEAD)" type="magnus-internal/imagemap" fn="imagemap"
Service method="(GET|HEAD)" type="magnus-internal/directory" fn="index-common"
Service method="(GET|HEAD|POST)" type="*-magnus-internal/*" fn="send-file"
Service method="TRACE" fn="service-trace"
#Error fn="error-j2ee"
AddLog fn="flex-log" name="access"
</Object>

<Object name="j2ee">
ObjectType fn="force-type" type="text/html"
Service fn="service-j2ee" method="*"
</Object>

<Object name="cgi">
ObjectType fn="force-type" type="magnus-internal/cgi"
Service fn="send-cgi" user="$user" group="$group" chroot="$chroot" dir="$dir"
nice="$nice"
</Object>

<Object name="es-internal">
PathCheck fn="check-acl" acl="es-internal"
</Object>

<Object name="send-compressed">
PathCheck fn="find-compressed"
</Object>

<Object name="compress-on-demand">
Output fn="insert-filter" filter="http-compression"
</Object>

<Object name="oaaservlet">
ObjectType fn="force-type" type="text/plain"
Service fn=w1_proxy WebLogicHost=mustang WebLogicPort=7001
</Object>

```

## 2 Save and close the file.

## Modifying the magnus.conf file

For the WebLogic and Sun ONE servers to run the Peregrine Portal, you must configure the `magnus.conf` file.

**Note:** These instructions refer to the deployment directory as `<APP_DEPLOYMENT_DIR>`.

To modify the `magnus.conf` file:

- 1 Using a text editor, replace the following line of code in `magnus.conf`:

```
Init fn=flex-init access="$accesslog" format.access="%Ses->client.ip% -
%Req->vars.auth-user% [%SYSDATE%] \"%"%Req->reqpb.clf-request%\"
%Req->srvhdrs.clf-status% %Req->srvhdrs.content-length%"
```

with these two lines.

```
Init fn="load-modules" funcs="wl_proxy,wl_init"
shlib="<AppServerPath>/server/lib/solaris/libproxy.so"

Init fn="wl_init"
```

- 2 Verify your changes.

Original section of the `magnus.conf` file being modified.

```
Init fn=flex-init access="$accesslog" format.access="%Ses->client.ip% -
%Req->vars.auth-user% [%SYSDATE%] \"%"%Req->reqpb.clf-request%\"
%Req->srvhdrs.clf-status% %Req->srvhdrs.content-length%"

Init fn="load-modules" shlib="/appSunOne61_WS/bin/https/lib/libjeeplugin.so"
shlib_flags="(global|now)"
```

Updated section of the `magnus.conf` file being modified.

```
Init fn="load-modules" funcs="wl_proxy,wl_init"
shlib="<AppServerPath>/server/lib/solaris/libproxy.so"

Init fn="wl_init"

Init fn="load-modules" shlib="/appSunOne61_WS/bin/https/lib/libjeeplugin.so"
shlib_flags="(global|now)"
```

- 3 Save and close the file.

After you have modified the `obj.conf` and the `magnus.conf` configuration files, you need to update the Sun ONE configuration on the server.

To update the Sun ONE configuration:

- 1 Use Sun One Web Server Administration Server to update the Sun ONE configuration.
- 2 Restart the Sun One Web server.
- 3 Restart the WebLogic application server.
- 4 Verify that the server is running.  
  
*<http://<servername>/oaa/admin.jsp>*
- 5 Log in with username **System**, keeping the password field blank.
- 6 If necessary, follow the steps described in [Configuring Get-Answers on page 127](#).

## WebSphere 5.0.2

You must configure your application and Web servers *prior* to running the Get-Answers installer.

### Assumptions

Before beginning installation, verify that you have the following software.

- WebSphere 5.0.2 using Java version 1.3.1 or later
  - Java™ 2 Runtime Environment, Standard Edition (build 1.3.1)
  - Classic VM (build 1.3.1, J2RE 1.4.1 IBM Windows 32 build cn1411-20031011 (JIT enabled: jitc))
- IBM HTTP Server 1.3.26 or later

### Configuring WebSphere 5.0.2

Use the following procedures to configure WebSphere 5.0.2 to run Get-Answers.

**Step 1** Run the installer. See [Running the installer](#).

**Step 2** Deploy the oaa.war file. See [Deploying the oaa.war file](#).

- Step 3 Copy the jar files. See [Copying jar files on page 112](#).
- Step 4 Edit the application settings using the WebSphere Administrative Console. See [Editing the application settings on page 113](#).
- Step 5 Edit the `httpd.conf` file to add the plug-in modules. See [Editing the httpd.conf file on page 115](#).
- Step 6 For AIX, if you are using ServiceCenter as the back-end, update the path to the ServiceCenter libraries in the `startServer` file. See [Editing the startServer file for AIX on page 115](#).
- Step 7 Start the WebSphere Administration server. See [Starting the WebSphere Administration server on page 116](#).
- Step 8 Complete the configuration. See [Configuring Get-Answers on page 116](#).

## Running the installer

You must do this on a Windows machine. See [Running the installer on page 124](#).

## Deploying the oaa.war file

The `oaa.war` file creates the directory structure necessary to deploy Get-Answers to your application server.

To deploy the `oaa.war` file using the WebSphere Administrative Console:

- 1 Start the WebSphere Administration Server.
- 2 Log on to the WebSphere Administrative Console.
- 3 Click **Applications** on the Administrative Console menu.
- 4 Click **Install New Application**.
- 5 In the Local path field, browse to the `oaa.war` file created at installation.
- 6 Specify the Context Root, a value such as **oaa** (the virtual directory name).

7 Click **Next**.

This may take several minutes.

8 Accept the default settings and click **Next**.

9 Click **Use Binary Configuration**.

10 In the Application Name field, specify a name, such as **oaa**.

11 Keep all the other settings at their defaults, and click **Next**.

12 Keep the default settings, and click **Next**.

13 Keep the default settings, and click **Next**.

14 Click **Finish**.

15 Click **Save to Master Configuration** to save the server configuration.

16 Click **Save**.

17 Log out of the Administrative Console.

18 Stop the WebSphere Administration Server.

## Copying jar files

The installer generates jar files that you must copy to the application server endorsed directory.

1 Verify that the following files are in the <APP\_DEPLOYMENT\_DIR>/WEB-INF/lib directory, where <APP\_DEPLOYMENT\_DIR> is the path to your Get-Answers deployment directory.

```
js.jar  
jai_core.jar  
jai_codec.jar  
mlibwrapper_jai.jar
```



- 2 Copy, or FTP, the following files from the installation directory  
C:\Program Files\Peregrine\Portal\SupportFiles\JavaExtensions

```
activation.jar  
mail.jar  
pop3.jar
```

to the <APP\_DEPLOYMENT\_DIR>\WEB-INF\lib directory.

- 3 Copy, or FTP, the following files from the installation directory  
C:\Program Files\Peregrine\Portal\SupportFiles\JavaExtensions

```
jaas.jar  
xalan.jar  
xercesImpl.jar  
xml-apis.jar  
oaasecurityproxy.jar  
jsse.jar
```

where C:\Program Files\Peregrine\Portal specifies the location of your application installation,

to the \$JAVA\_HOME/jre/lib/ext directory.

- a If necessary, replace any older versions of these files.
- b If xmlParserAPIs.jar exists in the ext directory, delete it.

## Editing the application settings

Using the WebSphere Administrative Console, edit the application settings.

To edit the application settings:

- 1 Start the WebSphere Administration Server.
- 2 Log on to the WebSphere Administrative Console.
- 3 Click the Enterprise Application link.
- 4 Click the Get-Answers link from the list for the application that you just installed.

- 5 Click **Web Modules** under Related Items.
- 6 Click the **oaa.war** link.
- 7 Change the **Classloader Mode** to **PARENT\_LAST**.
- 8 Click **OK**, click **Save**, then click **Save** again under **Save to Master Configuration** to save the server configuration.
- 9 Configure the database library to the application.
  - Click **Environment > Shared Libraries**.
  - In the main frame, click **New**.
  - Type a name for the library in the Name field, and the full path to `classes12.jar` or `db2java.zip` in the Classpath field.
  - Click **Apply**.
  - Under Applications, go back to the definition for the OAA Enterprise Application.
  - Click **Libraries** under Additional Properties.
  - Click **Add**.
  - Select the library you defined and click **Apply**.
  - Save the master configuration.
- 10 To regenerate the plug-ins, click **Environment > Update Web Server Plugin**.
  - Click **OK** to update the Web server plugin.
  - Wait for confirmation that the plugin is updated.
- 11 Log out of the Administrative Console.
- 12 Stop the WebSphere Administration Server.

## Editing the httpd.conf file

Modify the httpd.conf file to add the plug-in modules, an alias for the virtual directory, and an alias for EOPro.

- 1 From the IBM HTTP Server configuration /conf/httpd.conf file, add the plug-in modules.

On Windows:

```
LoadModule ibm_app_server_http_module
<AppServerPath>\bin\mod_ibm_app_server_http.dll
WebSpherePluginConfig <AppServerPath>\config\cells\plugin-cfg.xml
```

On UNIX:

```
LoadModule ibm_app_server_http_module
<AppServerPath>/bin/mod_ibm_app_server_http.so
WebSpherePluginConfig <AppServerPath>/config/cells/plugin-cfg.xml
```

- 2 Create an alias in httpd.conf for the virtual directory.

```
Alias /oaa <AppServerPath>/AppServer/installedApps/<hostname>
/oaa_war.ear/oaa.war
```

**Note:** The /oaa alias needs to match the Context Root specified in [Step 6 on page 111 of Deploying the oaa.war file](#).

- 3 Create an alias for EOPro to <APP\_DEPLOYMENT\_DIR>/eopro.

```
Alias /eopro <AppServerPath>/AppServer/installedApps/<hostname>
/oaa_war.ear/oaa.war/eopro
```

- 4 Save and close the file.

Restart the IBM HTTP Server.

## Editing the startServer file for AIX

When using ServiceCenter as the back-end, the AIX environment requires you to add the path to the ServiceCenter libraries in the startServer.sh file.

- 1 Using a text editor, open the startServer.sh file.

- 2 At the top of the file add a single entry for LIBPATH and set it to the path for the appropriate ServiceCenter libraries.

For example, when running ServiceCenter 5:

```
LIBPATH=/WebSphere/AppServer/installedApps/oaas.ear/oaas.war/  
WEB-INF/lib/AIX/ServiceCenter5
```

When running ServiceCenter 6:

```
LIBPATH=/WebSphere/AppServer/installedApps/oaas.ear/oaas.war/  
WEB-INF/lib/AIX/ServiceCenter6
```

Export the completed variable entry using the following command:  
export LIBPATH

- 3 Save and close the file.

## Starting the WebSphere Administration server

Start the WebSphere Administration server for the new settings to take effect.

## Configuring Get-Answers

To complete the configuration, follow the instructions in [Configuring Get-Answers on page 127](#).

# WebSphere 5.1 and IBM HTTP server

You must configure your application and Web servers *prior* to running the Get-Answers installer.

## Assumptions

Before beginning installation, verify that you have the following software.

- WebSphere 5.1 using Java version 1.4.1 or later
  - Java™ 2 Runtime Environment, Standard Edition (build 1.4.1)
  - Classic VM (build 1.4.1, J2RE 1.4.1 IBM Windows 32 build cn1411-20031011 (JIT enabled: jitc))
- IBM HTTP Server 1.3.26 or later

## Configuring WebSphere 5.1

Use the following procedures to configure WebSphere 5.1 to run Get-Answers.

- Step 1 Run the installer. See [Running the installer on page 117](#).
- Step 2 Deploy the oaa.war file. See [Deploying the oaa.war file on page 117](#).
- Step 3 Copy the jar files. See [Copying jar files on page 118](#).
- Step 4 Edit the application settings using the WebSphere Administrative Console. See [Editing the application settings on page 119](#).
- Step 5 Edit the httpd.conf file to add the plug-in modules. See [Editing the httpd.conf file on page 121](#).
- Step 6 For AIX, if you are using ServiceCenter as the back-end, update the path to the ServiceCenter libraries in the startServer file. See [Editing the startServer file for AIX on page 122](#).
- Step 7 Start the WebSphere Administration server. See [Starting the WebSphere Administration server on page 122](#).
- Step 8 Complete the configuration. See [Configuring Get-Answers on page 122](#).

## Running the installer

You must do this on a Windows machine. See [Running the installer on page 124](#).

## Deploying the oaa.war file

The oaa.war file creates the directory structure necessary to deploy Get-Answers to your application server.

To deploy the oaa.war file using the WebSphere Administrative Console:

- 1 Start the WebSphere Administration Server.
- 2 Log on to the WebSphere Administrative Console.
- 3 Click **Applications** on the Administrative Console menu.
- 4 Click **Install New Application**.

- 5 In the Local path field, browse to the `oaa.war` file created at installation.
- 6 Specify the Context Root, a value such as `oaa` (the virtual directory name).
- 7 Click **Next**.  
  
This may take several minutes.
- 8 Accept the default settings and click **Next**.
- 9 Click **Continue**.
- 10 Click **Use Binary Configuration**.
- 11 In the Application Name field, specify a name, such as `oaa`.
- 12 Keep all the other settings at their defaults, and click **Next**.
- 13 Keep the default settings, and click **Next**.
- 14 Keep the default settings, and click **Next**.
- 15 Click **Finish**.
- 16 Click **Save to Master Configuration** to save the server configuration.
- 17 Click **Save**.
- 18 Log out of the Administrative Console.
- 19 Stop the WebSphere Administration Server.

## Copying jar files

The installer generates jar files that you must copy to the application server endorsed directory.

- 1 Verify that the following files are in the `<APP_DEPLOYMENT_DIR>/WEB-INF/lib` directory, where

<APP\_DEPLOYMENT\_DIR> is the path to your Get-Answers deployment directory.

```
js.jar  
jai_core.jar  
jai_codec.jar  
mllibwrapper_jai.jar
```

- 2 Copy, or FTP, the following files from the installation directory  
C:\Program Files\Peregrine\Portal\SupportFiles\JavaExtensions

```
activation.jar  
mail.jar  
pop3.jar
```

to the <APP\_DEPLOYMENT\_DIR>\WEB-INF\lib directory.

- 3 Copy, or FTP, the following files from the installation directory  
C:/Program Files/Peregrine/Portal/SupportFiles/JavaExtensions

```
xalan.jar  
xercesImpl.jar  
xml-apis.jar
```

where C:/Program Files/Peregrine/Portal specifies the location of your application installation,

to the \$JAVA\_HOME/jre/lib/endorsed directory.

- a If necessary, replace any older versions of these files.
- b If xmlParserAPIs.jar exists in the endorsed directory, delete it.
- c Create the endorsed directory if one does not exist.

## Editing the application settings

Using the WebSphere Administrative Console, edit the application settings.

To edit the application settings:

- 1 Start the WebSphere Administration Server.

- 2 Log on to the WebSphere Administrative Console.
- 3 Click the Enterprise Application link.
- 4 Click the Get-Answers link from the list for the application that you just installed.
- 5 Click **Web Modules** under Related Items.
- 6 Click the **oaa.war** link.
- 7 Change the **Classloader Mode** to **PARENT\_LAST**.
- 8 Click **OK**, click **Save**, then click **Save** again under **Save to Master Configuration** to save the server configuration.
- 9 Configure the database library to the application.
  - Click **Environment > Shared Libraries**.
  - In the main frame, click **New**.
  - Type a name for the library in the Name field, and the full path to `classes12.jar` or `db2java.zip` in the Classpath field.
  - Click **Apply**.
  - Under Applications, go back to the definition for the OAA Enterprise Application.
  - Click **Libraries** under Additional Properties.
  - Click **Add**.
  - Select the library you defined and click **Apply**.
  - Save the master configuration.
- 10 To regenerate the plug-ins, click **Environment > Update Web Server Plugin**.
  - Click **OK** to update the Web server plugin.
  - Wait for confirmation that the plugin is updated.



- 11 Log out of the Administrative Console.
- 12 Stop the WebSphere Administration Server.

## Editing the httpd.conf file

Modify the httpd.conf file to add the plug-in modules, an alias for the virtual directory, and an alias for EOPro.

- 1 From the IBM HTTP Server configuration /conf/httpd.conf file, add the plug-in modules.

On Windows:

```
LoadModule ibm_app_server_http_module
<AppServerPath>\bin\mod_ibm_app_server_http.dll
WebSpherePluginConfig <AppServerPath>\config\cells\plugin-cfg.xml
```

On UNIX:

```
LoadModule ibm_app_server_http_module
<AppServerPath>/bin/mod_ibm_app_server_http.so
WebSpherePluginConfig <AppServerPath>/config/cells/plugin-cfg.xml
```

- 2 Create an alias in httpd.conf for the virtual directory.

```
Alias /oaa <AppServerPath>/AppServer/installedApps/<hostname>
/oaa_war.ear/oaa.war
```

**Note:** The /oaa alias needs to match the Context Root specified in [Step 6 on page 118](#) in [Deploying the oaa.war file](#).

- 3 Create an alias for EOPro to <APP\_DEPLOYMENT\_DIR>/eopro.

```
Alias /eopro <AppServerPath>/AppServer/installedApps/<hostname>
/oaa_war.ear/oaa.war/eopro
```

- 4 Save and close the file.
- 5 Restart the IBM HTTP Server.

## Editing the startServer file for AIX

When using ServiceCenter as the back-end, the AIX environment requires you to add the path to the ServiceCenter libraries in the startServer . sh file.

- 1 Using a text editor, open the startServer . sh file.
- 2 At the top of the file add a single entry for LIBPATH and set it to the path for the appropriate ServiceCenter libraries.

For example, when running ServiceCenter 5:

```
LIBPATH=/WebSphere/AppServer/installedApps/oaas.ear/oaas.war/  
WEB-INF/lib/AIX/ServiceCenter5
```

When running ServiceCenter 6:

```
LIBPATH=/WebSphere/AppServer/installedApps/oaas.ear/oaas.war/  
WEB-INF/lib/AIX/ServiceCenter6
```

Export the completed variable entry using the following command:  
export LIBPATH

- 3 Save and close the file.

## Starting the WebSphere Administration server

Start the WebSphere Administration server for the new settings to take effect.

## Configuring Get-Answers

To complete the configuration, follow the instructions in [Configuring Get-Answers on page 127](#).

---

# Specifying a file path to the local.xml file

The default path to the parent directory of the local.xml file is <APP\_DEPLOYMENT\_DIR>\WEB-INF\. You may specify an alternate directory path by adding a JVM runtime property to your Get-Answers application through your application server's administrative interface. Consult your application server's documentation on adding a JVM runtime property. The property name is com.peregrine.sharedSettingsDir.

For example, if your directory path is `c:\share\oaa\` (or `/usr/share/oaa/`), you provide a URI as `file:/c:/share/oaa/` (or `file:/usr/share/oaa/`) or a file system path as `c:/share/oaa/` (or `/usr/share/oaa/`).

If no administrative interface exists to perform the change, you can use command line switch as part of the JVM runtime property command that executes the Java JVM, as follows:

```
-Dcom.peregrine.sharedSettingsDir=file:/c:/share/oaa/
```

or

```
-Dcom.peregrine.sharedSettingsDir=c:/share/oaa/
```

Alternately, you can set the path as an initialization parameter to the Archway servlet. You can do this through the application server's administrative interface. Consult your application server's documentation on adding a servlet initialization parameter. The parameter name and value are as described above.

If no administrative interface exists to add the initialization parameter, you can edit the `web.xml` file in `<APP_DEPLOYMENT_DIR>/WEB-INF/` manually to contain an `init-param` for the Archway servlet as follows:

```
<servlet>
  <servlet-name>Archway</servlet-name>
  <display-name>Archway</display-name>
  <description></description>
  <servlet-class>com.peregrine.oaa.archway.ArchwayServlet</servlet-class>
  <load-on-startup>1</load-on-startup>
  <init-param>
    <param-name>com.peregrine.sharedSettingsDir</param-name>
    <param-value>file:/c:/share/oaa/</param-value>
  </init-param>
</servlet>
```

You have to restart the application server for Get-Answers application after making any of these.

# Running the installer

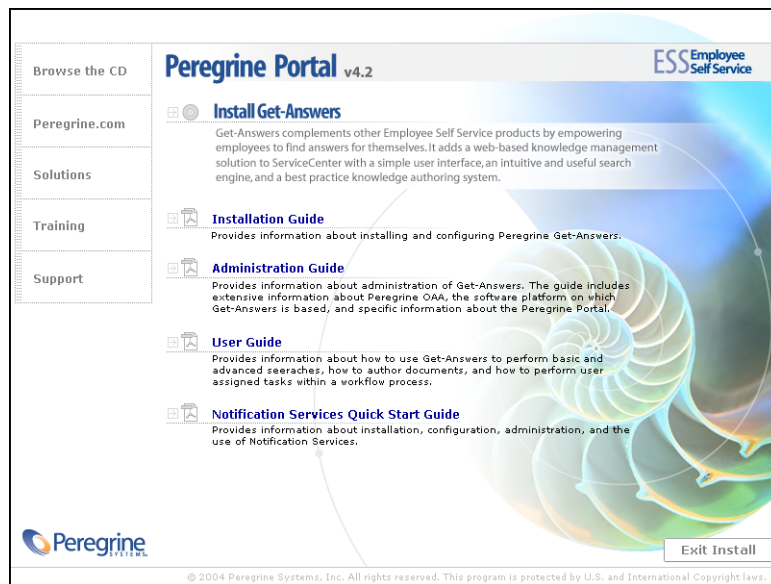
Prior to Get-Answers installation, you must install and configure the application and Web servers for your environment.

To install Get-Answers:

- 1 Insert the Get-Answers installation CD-ROM into the CD-drive.

If you are installing on a system that has autorun enabled, the CD browser starts automatically. If autorun is disabled, you can manually start the installer from the CD.

- Use Windows Explorer to navigate to the CD-ROM directory. Double-click **Autorun.exe**.
- Start the Get-Answers installation from the Windows command prompt. Type **D:\>autorun** where D identifies the CD-ROM drive. Substitute your CD-ROM drive identifier.



- 2 Click **Install Get-Answers** to start the setup wizard.

- 3 At the Welcome screen, click **Next**.
- 4 Accept the License Agreement and click **Next**.
- 5 Choose your destination directory and click **Next**.
- 6 Confirm the setting of your Java installation and click **Next**.
- 7 Click **Install** to install Peregrine Portal 4.2.

The command prompt window shows what is being deployed and added. This may take several minutes.

- 8 When the installation is complete, click **Finish**.
- 9 Click **Exit Install**.

The installer creates the `oaa.war` and `oaadeploy.properties` files in the `Portal` directory. The default location is: `C:\Program Files\Peregrine\Portal`.

File	Purpose
<code>oaa.war</code>	Most of the application server configurations require this file to deploy the application.
<code>oaadeploy.properties</code>	This file is useful if you run <code>oaadeploy</code> to recreate the image directory or when you are installing a patch.

# Installing multiple Peregrine Portal applications

When multiple Peregrine Portal applications, including Get-Answers, are deployed, *all* applications must use the same version of OAA. Multiple Peregrine Portal applications that use different versions of OAA are not supported.

The `oaa.war` file contains the files that you need for each application. When you install additional applications, the installer appends the application files you need to the `oaa.war` file.

**Important:** Make sure that you use the same installation directory for each Peregrine Portal application.

To install multiple Peregrine Portal applications:

- 1 Back up your `local.xml` file.
- 2 Use the application server to stop and uninstall existing Peregrine Portal applications.

For Tomcat, stop Tomcat, then delete the OAA deployment directory and `oaa.war` file from Tomcat's directory structure.

For example, if Tomcat 4.1 is your application server, the default path is:  
`C:/Program Files/Apache Group/Tomcat 4.1/webapps/oaa`

- 3 Run the installer (see [page 124](#)) for the application.
- 4 Use the application server's deployment mechanism to deploy the WAR file that contains all the applications.

For Tomcat, merely place the WAR file into the `webapps` directory.

- 5 Copy the `local.xml` file into the deployment directory's `WEB-INF` directory.
- 6 Use the application server to start the Peregrine Portal.

For Tomcat, start Tomcat.

## Configuring Get-Answers

This section contains information on how to use the Administration function to configure search engine, the database, and the database values. The settings are stored in the `local.xml` file.

To configure Get-Answers:

- 1 Log on to the Peregrine Portal Administration login page (`admin.jsp`).
- 2 From the Administration menu, click **Settings**.
- 3 Click the **Get-Answers** tab.
- 4 Type the host name for the Search Engine Server and number for the Search Engine Port.
- 5 Scroll to the bottom of the tab and click **Save**.
- 6 Click **Settings** menu on the left.
- 7 Click the **Rome** tab.
- 8 Type and verify the following database settings:
  - Database Type
  - Database URL
  - Database Driver Class

- Database User Name
- Database User Password

Use the following information in completing the database settings.

### Oracle

Database Management System	Oracle
Database URL	jdbc:oracle:thin:@dbserver:dbport:dbservice
Database Driver Class	oracle.jdbc.driver.OracleDriver
Database User Name	dbuser
Database User Password	dbpassword

The **dbserver** is the computer name or IP address of the database server.

The **dbport** is the port the db uses (default 1521).

The **dbservice** is the servicename for the Oracle service (as registered for `tnsnames.ora`).

The **dbuser** and **dbpassword** are set for the database when following the setup instructions in [Chapter 2](#) of the [Get-Answers Installation Guide](#).

### DB2

Database Management System	DB2
Database URL	jdbc:db2:dbname
Database Driver Class	COM.ibm.db2.jdbc.app.DB2Driver
Database User Name	dbuser
Database User Password	dbpassword

The **dbname**, **dbuser**, and **dbpassword** are set for the database admin when following the setup instructions in [Chapter 2](#) of the [Get-Answers Installation Guide](#).

### SQLServer 2000

Database Management System	MSSQLServer (Sprinta driver)
Database URL	jdbc:inetdae7:dbserver:dbport?database=dbname
Database Driver Class	com.inet.tds.TdsDriver
Database User Name	dbuser
Database User Password	dbpassword



Database Management System MSSQLServer (Microsoft driver)  
 Database URL jdbc:microsoft:sqlserver://SERVERNAME:PORT;D  
 atabaseName=DATABASE;SelectMethod=cursor  
 Database Driver Class com.microsoft.jdbc.sqlserver.SQLServerDriver

The **dbserver** is the computer name or IP address of the database server.

The **dbport** is the port the database uses (default 1433).

The **dbname**, **dbuser**, and **dbpassword** are set for the database admin when following the setup instructions in [Chapter 2](#) of the [Get-Answers Installation Guide](#).

9 If the back-end database is:

Database	Action
DB2	Copy the db2java.zip file to the <APP_DEPLOYMENT_DIR>/WEB-INF/lib directory and rename it to db2java.jar.
SQLServer	Copy the msbase.jar, mssqlserver.jar, msutil.jar files to the <APP_DEPLOYMENT_DIR>/WEB-INF/lib directory. or Copy the Sprinta.jar file to the <APP_DEPLOYMENT_DIR>/WEB-INF/lib directory.
Oracle	Copy the classes12.zip file to the <APP_DEPLOYMENT_DIR>/WEB-INF/lib directory and rename it to classes12.jar.

10 Click **Save**.

11 Click the **Settings** menu on the left.

12 Click the **Common** tab.

- 13 Set the Server URL to the URL you opened after starting your application server (Tomcat, WebLogic, Websphere), replacing `admin.jsp` with `login.jsp?_bookmark=`.

example:

```
http://<application_server_hostname:<port>/<Context  
Root>/login.jsp?_bookmark=
```

Substitute your port number in the URL.

- 14 Ensure that the Common Backend is set to rome.
- 15 Ensure that the Event queue is set to rome.
- 16 Click **Save**.
- 17 From the Administration menu, click **Control Panel**.
- 18 Click **Reset Peregrine Portal**.

## Uninstalling Get-Answers from Windows

Use the Windows **Add or Remove Programs** option from the Control Panel to remove Get-Answers.

To uninstall Get-Answers:

- 1 From the Windows Control Panel, select **Add or Remove Programs**.
- 2 Scroll to **Peregrine Portal 4.2** and click **Remove**.
- 3 Click **Yes** when asked to remove Peregrine Portal 4.2 from your computer.
- 4 From Windows Explorer, navigate to the installation files.

The default path is: C:/Program Files/Peregrine/Portal.

- 5 Delete the Portal directory and its contents.
- 6 From your application server, remove the deployment directory and its contents.





# 4 Completing the Installation

## CHAPTER

This chapter describes the initial configuration steps you need to complete before you can begin using Get-Answers.

**Step 1** Setting up the database driver. See [page 133](#).

**Step 2** Accessing the Peregrine Portal Admin module. See [page 134](#).

**Step 3** Configuring the adapters. See [page 140](#).

**Step 4** Setting up the search engine. See [page 150](#).

**Step 5** Verify the Get-Answers installation. See [page 154](#).

Once you have complete these steps you should be able to use Get-Answers. Refer to the *Get-Answers Administration Guide* for additional information regarding administering Get-Answers.

---

## Setting up the database driver

After you have installed Get-Answers, you need to copy the appropriate JDBC driver files to <OAA\_DEPLOYMENT\_DIR>\WEB-INF\lib\. This section identifies the files you need to copy to this directory for each of the databases Get-Answers supports.

## Oracle

If you are using an Oracle database, you need to create a copy of `classes12.zip`, rename the copy to `classes12.jar`, then move `classes12.jar` to `<OAA_DEPLOYMENT_DIR>\WEB-INF\lib\`.

## DB2

If you are using a DB2 database, you need to create a copy of `db2java.zip`, rename the copy to `db2java.jar`, then move to `<OAA_DEPLOYMENT_DIR>\WEB-INF\lib\`.

## SQL Server 2000

If you are using an SQL Server 2000 database with the Microsoft SQL Server 2000 driver copy the following files to `<OAA_DEPLOYMENT_DIR>\WEB-INF\lib\`

- `msbase.jar`
- `mssqlserver.jar`
- `msutil.jar`

If you are using an SQL Server 2000 database with the Sprinta driver copy `Sprinta.jar` to `<OAA_DEPLOYMENT_DIR>\WEB-INF\lib\`.

---

# Accessing the Peregrine Portal Admin module

The Peregrine Portal administrator login page accesses the Peregrine Portal Admin module. You use the Admin module to define the settings for your Peregrine system.

A default administrator, `System`, gives you access to the Admin module without being connected to a back-end system. After you configure your user name on the Common tab, you can also access the Admin module from the Navigation menu.

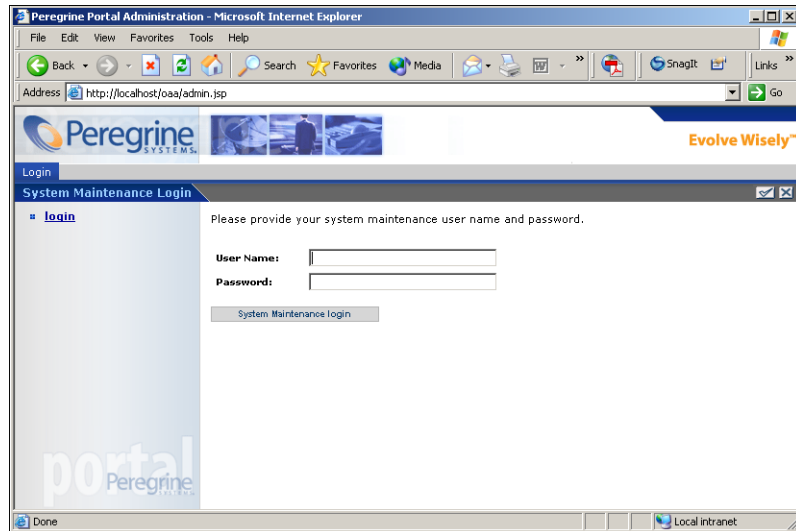
**Important:** When you change parameters using the Admin module, a `local.xml` file is created in the `<appsrv>\WEB-INF` directory to store these parameters. If you reinstall Get-Answers, make a copy of this file and store it outside your Get-Answers installation. Failure to do this will result in your parameter values being lost during the new installation.

To access the Peregrine Portal administrator login page:

- 1 Verify that your application server (for example, Tomcat) is running.
- 2 In your Web browser Address field, type:

*<hostname>/oaa/admin.jsp*

- 3 Click **Go** to open the Portal administrator login page.



- In the Name field, type **System**.

No password is required on initial login. Refer to the [Get-Answers Administration Guide](#) for detailed instructions on how to change the Administrator login name and password.

- Click **System Maintenance login** to open the Control Panel page.

The screenshot shows the Administration Control Panel interface. The left sidebar contains a navigation menu with the following items: Admin, Control Panel, Deployed Versions, Server Log, Settings, Show Script Status, Show Message Queues, Show Queue Status, Adapter, Transactions/Minute, IBM Websphere Portal Integration, and local.xml File. The main content area displays a message: "Here is a list of the adapters currently registered in this server. If necessary, you may also reset the Peregrine Portal and its adapter connections." Below this message are three tables and a button.

Connection Status		
Target	Adapter	Status
<a href="#">GICommonDB</a>	com.peregrine.oaa.adapter.sc.SCAAdapter	connected
<a href="#">portalDB</a>	com.peregrine.oaa.adapter.sc.SCAAdapter	connected
<a href="#">sc</a>	com.peregrine.oaa.adapter.sc.SCAAdapter	connected
<a href="#">mail</a>	com.peregrine.oaa.adapter.mail.MailAdapter	disconnected
<a href="#">weblication</a>	com.peregrine.oaa.adapter.sc.SCAAdapter	connected

Active User Sessions				
Server Name	Last Min.	5 Min. Avg.	20 Min. Avg.	Peak
localhost	0	0	0	1

Page Hits per Minute				
Server Name	Last Min.	5 Min. Avg.	20 Min. Avg.	Peak
localhost	0	0	1	11

Reset Peregrine Portal

## Activity menu

The left pane Activity menu provides access to a number of different administrative utilities for Get-Answers. You need to access some of these during this installation process. The utilities and their functions are described in detail in the [Get-Answers Administration Guide](#).

## Using the Control Panel

Use the Control Panel page to check the status of the connections to the databases you are accessing with Get-Answers and your Web applications. You can also reset the connection between the Archway servlet and the adapters to the back-end systems.

**Note:** When you first access the Control Panel page, the status for all target adapters is "Disconnected." The status changes after you define target adapters, as described later in this section.



All changes involving the Control Panel require the following steps.

**Step 1** Log in to the Admin page with the username **System**.

**Step 2** Go to the Settings page.

**Step 3** Make your changes.

**Step 4** Reset the portal server.

# Using the Settings page

From the Admin module Activity menu, click **Settings** to open the current parameter settings. The Settings page is divided into tabs. The tabs that you see depend on the Web applications that you installed and the adapters that you use. The Common tab is available for all installations.

To open the Settings page:

- 1 From the Admin module, click **Settings**.

You use the tabs to configure settings for Get-Answers.

By default, the Common settings page opens.

Common	E-mail	Get-Answers	Get-Answers Portal	Logging	NotificationDB	Notification Services	Portal	Portal DB
rome	Themes	Web Application	Workflow DB	Workflow Engine	XSL			
Maximum attached file size (in KB):		<input type="text" value="0"/>		The size limit, in KB, of files that may be submitted as attachments. value of 0 indicates that no limit is set. This setting is a default that can be overridden by individual attachment fields.				
Common Backend:		<input type="text" value="rome"/>		Adapter target name used to support common user operations. <a href="#">Click for default: [portalDB]</a>				
List of target aliases:		<input type="text" value="weblication;mail"/>		Specifies a list of semicolon delimited target aliases used by web applications in this package.				
System Maintenance username:		<input type="text" value="System"/>		The system maintenance username. This login provides access to administrative functionality. The system maintenance user is independent of any deployed adapter(s). Use this login to configure newly installed system or to troubleshoot an existing install.				
System Maintenance password:		<input type="password"/>		The system maintenance password.				
Application path:		<input type="text" value="/WEB-INF/apps/"/>		Directory location of the Peregrine Portal Web Applications.				
Event queue:		<input type="text" value="rome"/>		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"> <li>• To use ServiceCenter's repository, enter "sc"</li> <li>• To use AssetCenter's repository, enter "ac"</li> </ul>				
				<a href="#">Click for default: [portalDB]</a>				

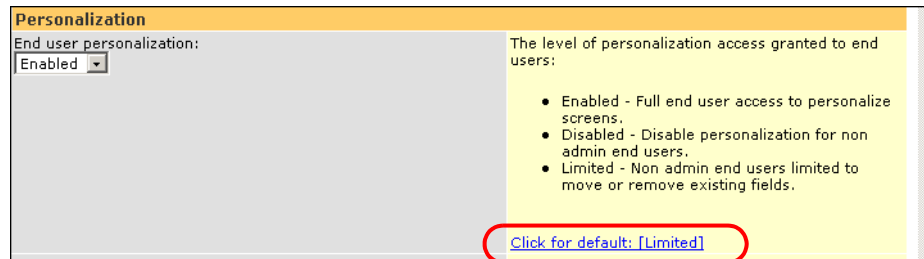
- 2 Click the appropriate tab to change setting parameters.

When you change the parameter default value for any setting and save it, the corresponding description column adds a link with the default value listed in brackets so that you can return to the default at any time.

To revert to the default setting:

- 1 Navigate to the appropriate setting parameter.

- From the description column next to the changed parameter, select the **Click for default** link.



- To return to the default setting, click **Click for default: [Limited]** and click **Save**.

The parameter returns to the default state.

## Resetting the server

After making any configuration changes in the Peregrine Portal Administration module, the following informational message appears at the top of the page.

The settings have been saved. To ensure all changes take effect, you must reset the Peregrine Portal server.

Return to the Control Panel to reset the server and apply your configuration changes to Get-Answers.

To reset the connection between the Archway servlet and back-end system:

- From Control Panel, click **Reset Peregrine Portal**.

When the operation is complete, the following message indicates that the connections are reset.

The Peregrine Portal and its Adapter connections have been successfully reset. If you have deployed in a clustered

environment all web application instances must be reset to ensure consistent application of the new configuration.

- 2 Verify your changes in the Connection Status table.

Changes include the addition, removal, or connectivity of the target adapters.

---

## Configuring adapter connections

This section describes how to configure and verify the following settings.

- KMGAAadapter
- Portal DB adapter
- Web Application database adapter

## Connection settings

This section describes how to configure and verify settings.

To define common settings for Get-Answers:

- 1 From the Peregrine Portal Admin module, click **Settings**.

This displays the Settings page which provides access to the various tabs that configure settings for Get-Answers.

The Common settings page opens by default.

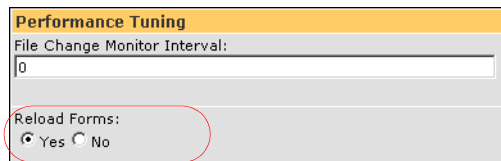
Common	E-mail	Get-Answers	Get-Answers Portal	Logging	NotificationDB	Notification Services	Portal	Portal DB
rome	Themes	Web Application	Workflow DB	Workflow Engine	XSL			
Maximum attached file size (in KB):		jb		The size limit, in KB, of files that may be submitted as attachments. A value of 0 indicates that no limit is set. This setting is a default that can be overridden by individual attachment fields.				
Common Backend:		rome		Adapter target name used to support common user operations. <a href="#">Click for default: [portalDB]</a>				
List of target aliases:		weblocation;mail		Specifies a list of semicolon delimited target aliases used by web applications in this package.				
System Maintenance username:		System		The system maintenance username. This login provides access to administrative functionality. The system maintenance user is independent of any deployed adapter(s). Use this login to configure a newly installed system or to troubleshoot an existing install.				
System Maintenance password:				The system maintenance password.				
Application path:		/WEB-INF/apps/		Directory location of the Peregrine Portal Web Applications.				
Event queue:		rome		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"> <li>• To use ServiceCenter's repository, enter "sc"</li> <li>• To use AssetCenter's repository, enter "ac"</li> </ul> <a href="#">Click for default: [portalDB]</a>				

- 2 Update the fields as required.

The Common tab includes the following settings.

Language Translation  
 Personalization  
 Attachments  
 Server-Side Scripts  
 Encoding, Locales, and Sessions  
 Performance Tuning

**Tip:** You can reload forms without having to reset your Peregrine OAA server. Set the Reload Forms option to Yes under Performance Tuning. This works best in a production environment.



The screenshot shows a 'Performance Tuning' configuration window. It has a title bar 'Performance Tuning' and a 'File Change Monitor Interval' field with the value '0'. Below that is the 'Reload Forms' section, which contains two radio buttons: 'Yes' (which is selected and circled in red) and 'No'.

Set the Reload Forms option to **Yes** to automatically reload the forms if their sources are modified after the server started.

- 3 Click **Save**.
- 4 Click **Control Panel > Reset Peregrine Portal** to apply your changes to the system.

## 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:** You cannot do this procedure until you index the documents. See [Reindexing the sample documents](#) in the Troubleshooting chapter.

- 1 From the Peregrine Portal Admin module, click Settings.

- 2 Verify the line on the next screen containing a reference to `oakm` and `com.peregrine.oaa.adapter.KMGAAAdapter` reads **connected**.

Target	Adapter	Status
<a href="#">notificationDB</a>	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
<a href="#">portalDB</a>	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
<a href="#">mail</a>	com.peregrine.oaa.adapter.mail.MailAdapter	connected
<a href="#">rome</a>	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
<a href="#">oaaworkflowDB</a>	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
<a href="#">oakm</a>	com.peregrine.oaa.adapter.km.KMGAAAdapter	connected
<a href="#">weblication</a>	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected

- 3 Log out.

Common	E-mail	Get-Answers	Get-Answers Portal	Logging	NotificationDB	Notification Services	Portal	Portal.DB	rome
Themes		Web Application		Workflow DB		Workflow Engine		XSL	
Default capabilities:					Semicolon separated list of default access rights that all users should have regardless of their profile. Access rights are assigned to target adapters in the following way: portalDB(getit.portal)				
portalDB(getit.portal)									
Alias for:					Specifies the target configuration for which this target is an alias.				
rome					<a href="#">Click for default: []</a>				
<input type="button" value="Save"/>									

- 4 In the **Alias for** field type **rome**, then click **Save**.

**Note:** You must manually set this field.

- 5 Click **Control Panel > Reset Peregrine Portal** to apply your changes to the system.
- 6 When the operation completes, verify that the adapter for the **portalDB** target is `com.peregrine.oaa.adapter.bizdoc.BizDocAdapter` and displays *Connected* in the Connection Status table.

**Important:** If you specify one alias and subsequently change that alias, you lose the personalizations of your portal application screens.

## Setting the Web Application database adapter

Get-Answers requires a database adapter connection to store settings and customizations to the Web application's interface screens. Until a database adapter is defined for the Web application, users cannot make personalization changes to the Web application.

To configure Get-Answers to save personalization to the Web application:

- 1 From the Peregrine Portal Admin module, click **Settings**.
- 2 At the top of the Settings page, click the **Web Application** tab to open the **Web Application** settings page.

Common	E-mail	Get-Answers	Get-Answers Portal	Logging	NotificationDB	Notification Services	Portal
<b>Portal DB</b>	rome	Themes	Web Application	Workflow DB	Workflow Engine	XSL	
Default capabilities:				Semicolon separated list of default access rights that all users should have regardless of their profile. Access rights are assigned to target adapters in the following way:			
<input type="text" value="portalDB(getit.portal)"/>				<input type="text" value="portalDB(getit.portal)"/>			
Alias for:				Specifies the target configuration for which this target is an alias.			
<input type="text" value="rome"/>				<a href="#">Click for default: []</a>			
<input type="button" value="Save"/>							

- 3 In the **Alias for** field type **rome**, then click **Save**.

**Note:** You must manually set this field.

- 4 Click **Control Panel > Reset Peregrine Portal** to apply your changes to the system.
- 5 When the operation completes, verify that the adapter for the **weblication** target is `com.peregrine.oaa.adapter.bizdoc.BizDocAdapter` and displays *Connected* in the Connection Status table.

**Important:** If you specify one alias and subsequently change that alias, you lose personalizations made to forms.

The installation is complete. For information on using Get-Answers, see the [Get-Answers User Guide](#) and the [Get-Answers Administration Guide](#).

## Updating Admin module settings

After connecting to the OAA Admin module at (<http://<localhost>/oaa/admin.jsp>) you can log on to Get-Answers Admin module from the System Maintenance page. In the OAA Administration module you can update the settings.

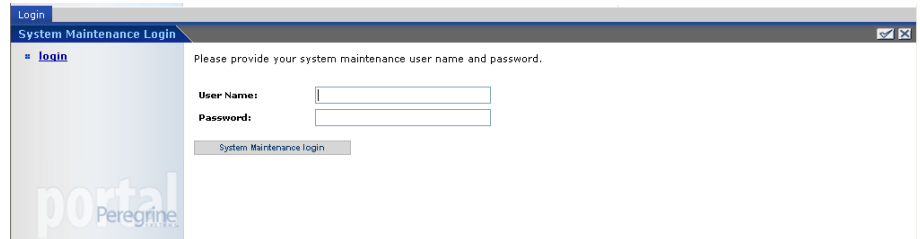


# Common tab settings

To update the Admin settings:

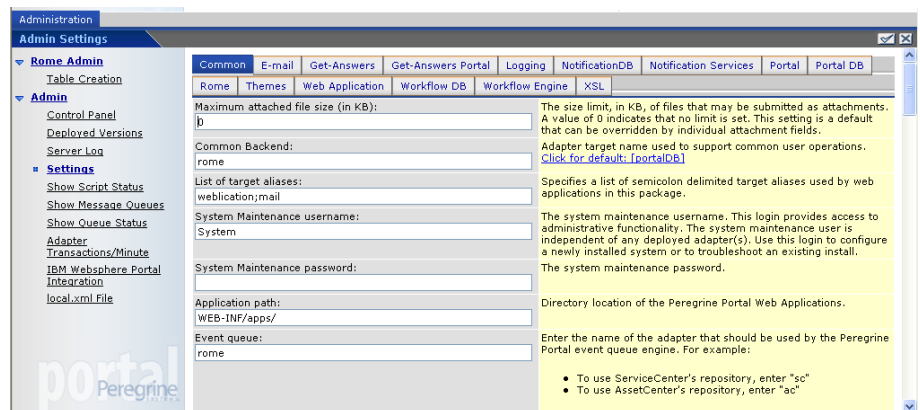
- 1 Use a browser to connect to <http://<localhost>/oaa/admin.jsp>

The System Maintenance Login page opens.



- 2 Log on as user System with no password.
- 3 Click **System Maintenance**.
- 4 Click **Settings** in the Activity menu.

The Admin Settings page opens.



- 5 On the Common tab:
  - In the Common Backend text box, type **rome**.
  - In the Event queue text box, type **rome**.

- In the Server URL text box, change  
`http://<localhost>/oaa/login.jsp?_bookmark=`  
to  
`http://<actual_server_name>:<port>/oaa/login.jsp?_bookmark=`  
filling in the `actual_server_name` with your application server name and, you must add the port number `<port>`, if you install on a port other than 80.

- 6 Click **Save**.
- 7 On the following tabs, type **rome** (or the alias you are using, such as **ac** or **sc**) in the Alias for text box.

Portal DB  
Web Application  
Workflow DB  
NotificationDB

- 8 Click **Save**.
- 9 On the Web Application tab in the Alias for text box, type **rome**.
- 10 Click **Save**.
- 11 Click the Control Panel link on the Activity menu.
- 12 Click **Reset Peregrine Portal**.

## Rome tab setting for the database parameters

This section describes the parameters you need to set on the database you are using with Get-Answers. You can set or verify these parameters on the Rome tab of the Admin Settings page.

To update the database parameters on the Rome tab:

- 1 On the Admin Settings page click the **Rome** tab.

- 2 Scroll to the section that displays the following parameters:
  - Database Management System
  - Database URL
  - Database Driver Class
  - Database User Name
  - Database User Password

Use the parameters identified below.

- 3 Click **Save**.

## Setting the Oracle parameters

- Database URL: jdbc:oracle:thin:@dbserver:dbport:dbservice
- Database Driver Class: oracle.jdbc.driver.OracleDriver
- Database User Name: dbuser
- Database User Password: dbpassword

The dbserver is the computer name or IP address of the database server. The dbport is the port the db uses (default 1521). The dbservice is the servicename for the Oracle service (as registered for tnsnames.ora). The dbuser and dbpassword are set for the database when following the setup instructions in Chapter 2 of the Get-Answers Installation Guide and should be available on the Get-Answers Installation worksheet.

## Setting the DB2 parameters

- Database URL: jdbc:db2:dbname
- Database Driver Class: COM.ibm.db2.jdbc.app.DB2Driver
- Database User Name: dbuser
- Database User Password: dbpassword

The dbname, dbuser, and dbpassword are set for the database admin when following the setup instructions in Chapter 2 of the Get-Answers Installation Guide.

## Setting the Microsoft SQL Server 2000 parameters

**Note:** These settings depend upon which driver you are using.

Use the following settings for the Sprinta driver.

- Database URL `jdbc:inetdae7:dbserver:dbport?database=dbname`
- Database Driver Class `com.inet.tds.TdsDriver`
- Database User Name `dbuser`
- Database User Password `dbpassword`

Use the following settings for the Microsoft driver.

- Database URL  
`jdbc:microsoft:sqlserver://SERVERNAME:PORT;DatabaseName=DATABASE;SelectMethod=cursor`
- Database Driver Class `com.microsoft.jdbc.sqlserver.SQLServerDriver`
- Database User Name `dbuser`
- Database User Password `dbpassword`

The `dbserver` is the computer name or IP address of the database server. The `dbport` is the port the database uses (default 1433). The `dbname`, `dbuser`, and `dbpassword` are set for the database admin when following the setup instructions in Chapter 2 of the Get-Answers Installation Guide.

## Updating the Get-Answers tab

This section describes the parameters you need to set for Get-Answers. You can set or verify these parameters on the Get-Answers tab of the Admin Settings page.

To update the search engine parameters on the Get-Answers tab:

- 1 On the Admin Settings page, click the **Get-Answers** tab.

- 2 Set the following parameters:
  - Search Engine Server: type the host name of the Search Engine server.
  - Search Engine Port: type the port number that the Search Engine server listens on.

Use the host name and port number that you used in the section [Installing the Search Engine on the Search Engine server](#) in Chapter 2 of the *Get-Answers Installation Guide*.

- 3 Click **Save**.

## Resetting the server

After you update the parameters on the Admin Settings page, you need to reset the server.

To reset the server:

- 1 Click **Control Panel** in the Activity menu on the Administration tab.

The Control Panel page opens.

Here is a list of the adapters currently registered in this server. If necessary, you may also reset the Peregrine Portal and its adapter connections.

Target	Adapter	Status
<a href="#">notificationDB</a>	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
<a href="#">portalDB</a>	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
<a href="#">mail</a>	com.peregrine.oaa.adapter.mail.MailAdapter	disconnected
<a href="#">rome</a>	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
<a href="#">oaaworkflowDB</a>	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected
<a href="#">qaadm</a>	com.peregrine.oaa.adapter.km.KMGAAAdapter	connected
<a href="#">weblocation</a>	com.peregrine.oaa.adapter.bizdoc.BizDocAdapter	connected

Server Name	Last Min.	5 Min. Avg.	20 Min. Avg.	Peak
localhost	1	1	1	2

Server Name	Last Min.	5 Min. Avg.	20 Min. Avg.	Peak
localhost	0	0	0	16

- 2 Verify the connection status before you create the tables.
- 3 Click **Reset Peregrine Portal**.

## Table creation

Follow these steps to create the required tables in the database.

To create tables:

- 1 Click **Table Creation** on the Activity menu in the Rome Activity section of the menu.
- 2 Click **Create Tables**.
- 3 Verify the process completes without any error messages appearing.
- 4 Stop and start the application server.

---

## Setting up and starting the search engine

This section explains how to setup the search engine server you installed as described in [Chapter 2, Setting Up the Get-Answers Servers](#).

### Setting up the search engine server as an NT service

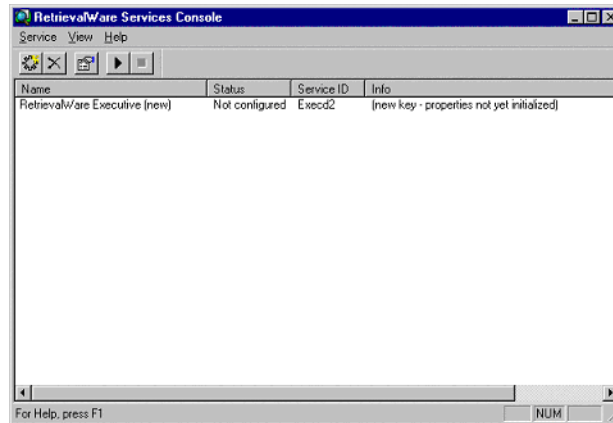
On Windows NT systems, you can run the Search Engine server as an NT service.

To run the Search Engine server as an NT service:

**Note:** If you do not run the Search Engine server a service, always make sure the Search Engine is running *before* you start Tomcat.

- 1 From the Start menu, choose **Programs > Get-Answers Search Engine > Services Console**.
- 2 In the RetrievalWare Services Console window, select the **Service menu and click New Service**.

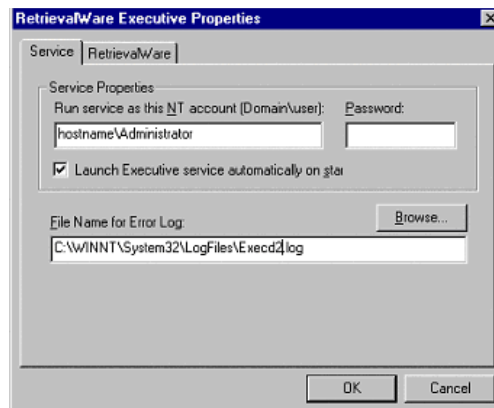
- 3 In the RetrievalWare Services Console, choose RetrievalWare Executive and click OK.



In the Services Console the status of the new service is “Not configured.”

- 4 Click the new service to select it. Then click **Service > Properties**.

The RetrievalWare Executive Properties dialog box is displayed.



- 5 On the Service tab, make the following entries and selection:
  - In the Run service as this NT account (Domain\user) text box, type a valid domain\username combination for an administrator account. The

account must have the rights to log on as a service, and have a valid login name and password for the Search Engine server.

Example: administrator\password

- Select the Launch Executive Service Automatically on Startup check box.

6 On the RetrievalWare tab, perform the following:

- In the Port address box, type the correct port number.

You entered this information 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, change the port number. For example, if your Get-Answers Search Engine Executive window displays the message: 'Execd v7.0 started on port 6003', then change the port number to 6003.

- Click the **Browse** button. Locate the `exec.cfg` file under the `\config` folder.

Example: `C:\getanswers\Peregrine\config\exec.cfg`

No entry is required in the Remote Name Server Address section.

**Note:** To confirm the correct port number, click Start > Programs > GetAnswersSearchEngine > Start Search Engine Server.

7 Click **OK**.

8 In the Service Console window, the Executive service status is now "Stopped." To start the service, select the Executive service and click Service > Start Service.

A message confirms that the service is being started, and the status in the Service Console window changes to "Running."

**Note:** If the service will not start, close the Search Engine Services Console. Open the NT or Windows 2000 Services; double-click the RetrievalWare Executive service to open it; change the permissions under the Log On tab; and then start the service.

9 Close the **RetrievalWare Services Console** window.



## Setting up the Web crawler

The following section describes how you set up the Web crawling feature (also called the *spider* feature) in Get-Answers. The Get-Answers Search Engine must be installed before you can configure Web crawling.

**Note:** The Get-Answers Search Engine directory is installed in `$USER_INSTALL_DIR$`, under `C:\getanswers` by default.

To setup the Web crawler:

- 1 To initialize the Spider Database, run the `DBSETUP.BAT` file found in `<$USER_INSTALL_DIR$>\spider\bin`.

A command prompt/log opens with the setup processes taking place.

- 2 In the `start.lst` file found in `$USER_INSTALL_DIR$\spider\KMSpider\config`, add the URLs (one per line) where you want to “crawl” for documents. For example:

*<http://www.peregrine.com>*

**Note:** See the chapter “Setting up Get-Answers” in the [Get-Answers Administration Guide](#) for a detailed description of configuring the Web crawler.

## Starting the search engine

To start the search engine:

- 1 On the server console for the search engine server, click **Programs > Get-AnswersSearchEngine4.2 > Start Search Engine Server**.

A command window opens.

- 2 Press any key to continue. This starts the search engine.
- 3 Restart the application server.

---

## Verify the Get-Answers installation

The following instructions describe how to verify the Get-Answers installation.

To verify the Get-Answers installation:

- 1 Log off Admin module (<http://<localhost>/oaa/admin.jsp>).
- 2 Log on to Get-Answers (<http://<localhost>/oaa/login.jsp>) as **suser**.
- 3 Contribute Doc (authored).
- 4 Publish from Workflow.
- 5 Browse to Doc.
- 6 After five minutes, search for keywords.



# 5 Upgrading Get-Answers on Application Servers

CHAPTER

The installation program no longer deploys files directly into an application server's directory structure. Instead, files are deployed into a *staging area* on the file system. This staging area functions as a common place into which one or more Peregrine Portal applications are deployed. From these deployed files, the installation program builds a WAR file and terminates.

**Important:** After the installation program executes, you must perform additional steps to complete the upgrade process.

You must backup any customizations from previous versions and backup certain configuration files, then uninstall the existing Peregrine Portal application from the application server using the application server's uninstall mechanism.

You then merge the backed up customizations and configuration files with the application files in the staging area, and re-create the WAR file. With the WAR file, use the application server's deployment process to install the upgraded Peregrine Portal application. This process of modifying files in the staging area, then generating the WAR file, is a best practice for customizations and future upgrades.

This WAR file distribution complies with the J2EE application deployment process and enables one WAR file, containing the Peregrine Portal application(s), to be conveniently deployed into separate test and production environments.

Once installed and running in the application server, an administrator can then access the Get-Answers Administration page to complete the setup.

## Upgrading Get-Answers on Tomcat 4.1.x and 5.0.x

If you are upgrading from Get-Answers 4.1.x to Get-Answers 4.2, complete the following steps.

- Step 1** Backup the `local.xml` file and any customizations from your current installation of Get-Answers. See [page 156](#).
- Step 2** Uninstall Get-Answers from Tomcat. See [page 157](#).
- Step 3** Run the Get-Answers installer. See [page 157](#).
- Step 4** Apply the backed up `local.xml` file and customizations to the staging area created by the installer. See [page 157](#).
- Step 5** Generate the WAR file from the files in the staging area. See [page 158](#).
- Step 6** Copy, or FTP, the WAR file to the Tomcat server machine, into the Tomcat's `webapps` directory. See [page 158](#).
- Step 7** Verify XML parser files are the same version as those from the installer. See [page 158](#).
- Step 8** Start Tomcat and complete the Get-Answers upgrade, then verify and complete the configuration. See [page 159](#).

### Backing up the `local.xml` file and any customizations

Before you make changes to any files, create a backup copy.

- 1** Backup the `local.xml` file. The default location is:  

```
<tomcat_home>webapps\oaa\WEB-INF\local.xml
```

  
where `<tomcat_home>` is the root directory in which Tomcat is installed.
- 2** Backup any schema extensions and any customization of themes created for the existing version. First read [Completing the Get-Answers upgrade on](#)

[page 170](#) to familiarize yourself with how certain customizations will be performed later.

- 3 Follow the steps in [Get-Answers pre-upgrade procedure on page 167](#).

## Uninstalling Get-Answers from Tomcat

Prior to uninstalling Get-Answers, make note of the OAA application directory name.

- 1 Note the name of the OAA application directory installed in `<tomcat_home>\webapps`. The default is **oaa**, such as `<tomcat_home>\webapps\oaa`. You will need to give the WAR file you will later generate the same name.
- 2 Stop Tomcat.
- 3 Delete the above application directory.
- 4 Delete any OAA WAR file existing in `<tomcat_home>\webapps`, like `oaa.war`.

## Running the Get-Answers Installer

Follow the instructions in [Running the installer on page 67](#).

## Applying backed up files to the staging area

The installation program deploys files into a staging area where one or more Peregrine Portal applications are deployed. Back up the following files to this staging area.

- 1 Copy the backed up `local.xml` file into the `<install_dir>\image\WEB-INF` directory where `<install_dir>` is the directory in which you directed the installer to deploy its files. The default is `C:\Program Files\Peregrine\Portal`.
- 2 Apply your backed up customizations to the files in the `<install_dir>\image` directory.

## Generating the WAR file

The following steps generate a WAR file.

- 1 From the command prompt, change your current working directory to `c:\Program Files\Peregrine\Portal\image`.
- 2 From the command line, type:

```
"<Java-path>\bin\jar.exe cvf <directory-where-war-file-will-be>\oaa.war ."
```

where `<Java-Path>` is the path to your Java installation.

**Important:** The command must contain the period after following `oaa.war`.

- 3 Press Enter.

**Important:** Name the WAR file the same name you noted in [Step 1 on page 157 of Uninstalling Get-Answers from Tomcat](#). For example, if the directory name was `myOaa`, name the WAR file `myOaa.war`.

## Copying the WAR file to the Tomcat server machine

Copy, or FTP, the WAR file you just generated into the `<tomcat_home>\webapps` directory.

## Verifying XML parser files

Make sure that you have the correct version of the JAR files.

- 1 If the Java JDK Tomcat is using version 1.3.X, follow the instructions in [Copying the jar files on page 7](#) to copy the latest version of the XML parser files. However, instead of the destination directory of `<tomcat_home>\common\endorsed`, use `<java_home>\jre\lib\ext`.

where `<java_home>` is the root directory of the Java JDK that Tomcat is using.

- 2 If the Java JDK Tomcat is using version 1.4.X, follow the instructions in [Copying the jar files on page 7](#) to copy the latest version of the XML parser files.

## Starting Tomcat and upgrading Get-Answers

You must start the application server to deploy the WAR file.

- 1 Start Tomcat to have it automatically deploy the upgraded WAR file.
- 2 Follow the steps in [Completing the Get-Answers upgrade on page 170](#).
- 3 Follow the steps in [Configuring Get-Answers on page 71](#) to configure the Get-Answers Admin settings.

---

## Upgrading Get-Answers on WebLogic 6.1 and 8.1

If you are upgrading from Get-Answers 4.1.x to Get-Answers 4.2, complete the following steps.

- Step 1** Backup the local.xml file and any customizations from your current installation of Get-Answers. See [page 160](#).
- Step 2** Uninstall Get-Answers from WebLogic 8.1. See [page 160](#).
- Step 3** Run the Get-Answers installer. See [page 160](#).
- Step 4** Apply the backed up local.xml file and customizations to the staging area created by the installer. See [page 161](#).
- Step 5** Generate the WAR file from the files in the staging area. See [page 161](#).
- Step 6** Copy, or FTP, the WAR file to the WebLogic server machine, into the WebLogic's webapps directory. See [page 161](#).
- Step 7** Verify WebLogic has the latest XML parser files. See [page 162](#).
- Step 8** Deploy the WAR file to the WebLogic server. See [page 162](#).
- Step 9** Verify and complete the configuration. See [page 162](#).
- Step 10** Complete the Get-Answers upgrade. See [page 162](#).

## Backing up the local.xml file and any customizations

Before you make changes to any files, create a backup copy.

- 1 Backup the configuration `local.xml` and `web.xml` files. The default location for the `local.xml` file is

```
<APP_DEPLOYMENT_DIRECTORY>/WEB-INF/local.xml
```

where `<APP_DEPLOYMENT_DIRECTORY>` is the deployment directory of the Peregrine Portal within the WebLogic Server. For example:  
`app\peregrine\applications\oaa.`

- 2 Backup any schema extensions and any customization of themes created for the existing version. First read [Completing the Get-Answers upgrade on page 170](#) to familiarize yourself with how certain customizations will be performed later.
- 3 Follow the steps in [Get-Answers pre-upgrade procedure on page 167](#) that are applicable to the WebLogic server.

## Uninstalling Get-Answers from WebLogic

Prior to uninstalling Get-Answers, make note of the Web Module name.

- 1 Stop WebLogic.
- 2 Note the name of the Web Module installed. You will need to redeploy Get-Answers using the same Web Module later.
- 3 Delete the Web Application Module using the WebLogic User Interface (UI).
- 4 Delete OAA files from the file system.

## Running the Get-Answers Installer

Follow the instructions in [Running the installer on page 67](#).



## Applying backed up files to the staging area

The installation program deploys files into a staging area where one or more Peregrine Portal applications are deployed. Back up the following files to this staging area.

- 1 Copy the backed up `local.xml` file into the `<install_dir>\image\WEB-INF` directory where `<install_dir>` is the directory in which you directed the installer to deploy its files. The default is `C:\Program Files\Peregrine\Portal`.
- 2 Apply your backed up customizations to the files in the `<install_dir>\image` directory. Follow the appropriate steps provided in the section [Migrating Get-Answers Customizations](#) in this chapter.

## Generating the WAR file

The following steps generate a WAR file.

- 1 From the command prompt, change your current working directory to `c:\Program Files\Peregrine\Portal\image`.
- 2 From the command line, type:

```
"<Java-path>\bin\jar.exe cvf <directory-where-war-file-will-be>\oaa.war ."
```

where `<Java-Path>` is the path to your Java installation.

**Important:** The command must contain the period after following `oaa.war`.

- 3 Press Enter.

## Copying the WAR file to the WebLogic Server machine

Copy, or FTP, the WAR file you just generated into the WebLogic server machine and extract to the `<WebLogic>\applications` directory. See [Copying the installed files to your WebLogic directory on page 29](#) for details.

## Verifying WebLogic has the latest XML parser files

Make sure that you have the correct version of the JAR files.

- If you are using WebLogic 6.1, follow the steps in [Moving jar files to the Java Development Kit ext directory on page 26](#).
- If you are using Weblogic 8.1, follow the steps in [Copying jar files on page 33](#).

## Deploying the WAR file to the WebLogic server

Use the WebLogic User Interface (UI) to deploy using the same Web Module name noted in [Step 2 on page 160 of Uninstalling Get-Answers from WebLogic](#).

## Verifying and completing the configuration for Get-Answers

Follow the steps in [Configuring Get-Answers on page 71](#) to configure the Get-Answers Admin settings.

## Completing the Get-Answers upgrade

Follow the steps in [Completing the Get-Answers upgrade on page 170](#) to complete the upgrade.

# Upgrading Get-Answers on WebSphere 5.0.2 and 5.1

If you are upgrading from Get-Answers 4.1.x to Get-Answers 4.2, complete the following pre-upgrade steps.

To prepare for the WebSphere upgrade:

- 1 Remove the following lines from the current `local.xml` file.

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

- 2 For WebSphere 5.0.2 only, remove the following files from `$JAVA_HOME/jre/lib/ext`.

```
oaasecurityproxy.jar
pop3.jar
js.jar
jai_core.jar
jai_codec.jar
mlibwrapper_jai.jar
xalan.jar
xercesImpl.jar
xml-apis.jar
```

- 3 Verify that there are no added entries for the following:
  - On Windows, remove any path entries to the ServiceCenter libraries placed in the `$PATH` environment variable.
  - On Solaris or Linux, verify that `startServer.sh` has no added entries for the `LD_LIBRARY_PATH` variables.
  - On AIX, remove any added path entries in `startServer.sh` for the `LIBPATH` variable, except for the path to the ServiceCenter libraries.

For example, when running ServiceCenter 5, keep this entry:

```
LIBPATH=/WebSphere/AppServer/installedApps/oaasvc.ear/oaasvc.war/
WEB-INF/lib/AIX/ServiceCenter5
```

For example, when running ServiceCenter 6, keep this entry:

```
LIBPATH=/WebSphere/AppServer/installedApps/oaas.ear/oaas.war/  
WEB-INF/lib/AIX/ServiceCenter6
```

When you complete the pre-upgrade steps for WebSphere, continue with the following instructions.

- Step 1** Backup the `local.xml` file and any customizations from your current installation of Get-Answers. See [page 164](#).
- Step 2** Uninstall Get-Answers from WebSphere. See [page 165](#).
- Step 3** Run the Get-Answers installer. See [page 165](#).
- Step 4** Apply the backed up `local.xml` file and customizations to the staging area created by the installer. See [page 165](#).
- Step 5** Generate the WAR file from the files in the staging area. See [page 166](#).
- Step 6** Copy, or FTP, the WAR file to the WebSphere server machine. See [page 166](#).
- Step 7** Copy required runtime libraries. See [page 166](#).
- Step 8** Use WebSphere to deploy the WAR file, then verify and complete the configuration. See [page 166](#).

## Backing up the local.xml file and any customizations

Before you make changes to any files, create a backup copy.

- 1 Backup the `local.xml` file. The default location is

```
<websphere_home>\AppServer\installedApps\<server_name>  
\oaas.ear\oaas.war\WEB-INF\local.xml.
```

where `<websphere_home>` is the root directory in which WebSphere is installed and `<server_name>` is the name of your server.

- 2 Backup any schema extensions and any customization of themes created for the existing version. First read [Completing the Get-Answers upgrade on](#)

[page 170](#) to familiarize yourself with how certain customizations will be performed later.

- 3 Follow the steps in the section below under Get-Answers Pre-upgrade Procedure.

## Uninstalling Get-Answers from WebSphere

Prior to uninstalling Get-Answers, make note of the Context Root and Application names.

- 1 Log on to the WebSphere Administrative Console.
- 2 Note the name of the Get-Answers Context Root installed in WebSphere. The default is **oaa**. Also note the Application Name. You will need to provide these names when you install the upgraded WAR file.
- 3 Uninstall Get-Answers using the WebSphere Administrative Console.

## Running the Get-Answers Installer

Follow the instructions in [Running the installer on page 67](#).

## Applying backed up files to the staging area

The installation program deploys files into a staging area into which one or more Peregrine Portal applications are deployed. Back up the following files to this staging area.

- 1 Copy the backed up `local.xml` file into the `<install_dir>\image\WEB-INF` directory where `<install_dir>` is the directory in which you directed the installer to deploy its files. The default is `C:\Program Files\Peregrine\Portal`.
- 2 Apply your backed up customizations to the files in the `<install_dir>\image` directory.

## Generating the WAR file

The following steps generate a WAR file.

- 1 From the command prompt, change your current working directory to `c:\Program Files\Peregrine\Portal\image`.
- 2 From the command line, type:

```
"<Java-path>\bin\jar.exe cvf <directory-where-war-file-will-be>\oaa.war ."
```

where `<Java-Path>` is the path to your Java installation.

**Important:** The command must contain the period after following `oaa.war`.

- 3 Press Enter.

## Copying the WAR file to the WebSphere server machine

Copy, or FTP, the WAR file you just generated to the WebSphere server machine, or verify the WAR file is accessible from the WebSphere server machine.

## Copying required JVM libraries

The installer generates jar files that you must copy to the application server.

- 1 If your WebSphere version is 5.0.2, follow the instructions in [Copying jar files on page 55](#) to copy required runtime libraries.
- 2 If your WebSphere version is 5.1, follow the instructions in [Copying jar files on page 61](#) to copy required runtime libraries.

## Using WebSphere to deploy the WAR file

The `oaa.war` file creates the directory structure necessary to deploy Get-Answers to your application server.

- 1 Follow the steps in [Deploying the oaa.war file on page 54](#) (for WebSphere 5.0.2) or [Deploying the oaa.war file on page 60](#) (for WebSphere 5.1) to deploy the upgraded WAR file.

**Important:** Set the Context Root and Application Name to the names you noted in Step 2 on page 165 in [Uninstalling Get-Answers from WebSphere](#).

- 2 Follow the steps [Editing the application settings on page 56](#) (for WebSphere 5.0.2) or [Editing the application settings on page 62](#) (for WebSphere 5.1) to set class loading to PARENT\_LAST and to regenerate the WebSphere plug-in.

You do not need to follow the step to set a Shared Library since it should already be set.

- 3 Stop and start the Administrative Console.
- 4 Follow the procedures in [Completing the Get-Answers upgrade on page 170](#) to complete the upgrade process.
- 5 Follow the steps in [Configuring Get-Answers on page 71](#) to configure the Get-Answers Admin settings.

---

## Get-Answers pre-upgrade procedure

### Backing up your database

Always protect your Get-Answers data by backing up your database before the upgrade. See your System Administrator or the documentation from your database provider to backup your data.

### Printing configuration information

- 1 Log in to Get-Answers as an administrator.
- 2 Go to the Administration tab.
- 3 Print copies of the information on the Common tab and other tabs that are used by your current version. See the Installation and Administration guide for your current version to determine which tabs are being used.

## Clearing Tomcat's cache

If Tomcat is your application server, and you are upgrading from Get-Answers 4.1.2 to 4.2, delete the files in Tomcat's cache so that the new edit-on Pro will work properly. The default location is:

```
C:\Program Files\Peregrine\Apache Group\Tomcat4\work\Standalone
\localhost\oaa.
```

## Upgrading the search engine

It is a good practice to back up the following folders before uninstalling the search engine.

- <search\_engine\_install\_directory>/Peregrine/config
- <search\_engine\_install\_directory>/resource
- <search\_engine\_install\_directory>/spider

If you have configured the Web crawler/Spider, back up the <search\_engine\_install\_directory>/spider/KMSpider/config directory and restore it after you re-install. Customized spider files include files such as:

- start.lst (list of sites to crawl)
- spider.cfg (basic settings such as page and site depth)
- permission.lst (list of allowable pages to crawl by name and wildcard)
- proxy.cfg (list of which sites to go through proxy server)
- revisit.cfg (how often to update the spider indexes if they vary from site to site)
- The settings for spider crons in the exec.cfg file in the getanswers\Peregrine\config directory.

If you have configured how often the spider or any other process runs using the CRONTAB settings in the exec.cfg file, back up the exec.cfg file and then restore the CRONTAB settings after you install the 4.2 search engine.

If you have added any custom fields to your rware.cfg file, you should back this file up before uninstalling and reinstalling the search engine. The rware.cfg file from 4.1.2 is NOT compatible with 4.2. Once you have installed the 4.2 Search engine, you need to copy and paste your custom fields from the 4.1.2 rware.cfg into the 4.2 rware.cfg. Copy ONLY your custom fields as some field flags and definitions for the default fields have changed.



If you have added a search engine custom dictionary or thesaurus using the instructions described in the *Get-Answers Administration Guide, Chapter 9* in the section, *Setting up custom dictionaries*, then you should save your customized files before uninstalling and reinstalling the search engine. The following instructions below explain what to do if you added an English dictionary named **userdict** in the default installation directory `C:\getanswers`. You may need to modify these instructions for your dictionary language and your installation directory.

To save your customized dictionary or thesaurus:

- 1 Back up (make a copy of) the directory someplace other than `C:\getanswers`.

Example: `C:\getanswers\resource\rw_english\userdict`

- 2 Back up the following files to a directory other than `C:\getanswers`.
  - `C:\getanswers\resource\rw_english\lang.cfg`
  - `C:\getanswers\resource\rw_english\rw_english.idx`
- 3 Uninstall the 4.1 version of the search engine by clicking **Start > Settings > Control Panel > Add or Remove Programs**.
- 4 Click **Get-Answers Search Engine 4.1**.
- 5 Click **Remove**.
- 6 Some files will remain in the search engine's installation directory; for example, the `C:\getanswers` directory. You need to delete these files manually.
- 7 Use the instructions in the section, [Setting up and installing the Search Engine server](#), in Chapter 2 of the *Installation Guide*, to install the 4.2 search engine. Install it in the same directory for ease of upgrading, then restart the server.

**Note:** Do not start the search engine yet.

- 8 Restore the backed up that you made of the custom dictionary directory to the same place that you backed it up from in step 1. For example, if you

added an English dictionary named **userdict** under the default installation directory `C:\getanswers`, then restore the directory to `C:\getanswers\resource\rw_english\userdict`.

- 9 Restore the `lang.cfg` and `rw_english.ilx` files to the same place that you backed them up from in step 2.

Example:

```
C:\getanswers\resource\rw_english\lang.cfg
```

```
C:\getanswers\resource\rw_english\rw_english.ilx
```

- 10 Refer to the instructions in Chapter 9 of the *Get-Answers Administration Guide* in the section title, *Setting up custom dictionaries*. In these instructions, the last step is to regenerate the indexes. To do this, follow the instructions in steps 5 and 6 of the [Setting up the search engine](#) section in Chapter 9.

- Open a command line and navigate to the `C:\getanswers\bin` directory
- 5 - Re-index the main Get-Answers dictionary (not your user dictionary) using the following command:

```
C:\getanswers\bin>dict_xrf.exe C:\getanswers\resource\rw_english\dict
```

- 6 - Re-index the user dictionary, "userdict" with the following command:

```
C:\getanswers\bin>dict_xrf.exe c:\getanswers\resource\rw_english\userdict
```

---

## Completing the Get-Answers upgrade

Follow the procedures in this section to complete the upgrade process.

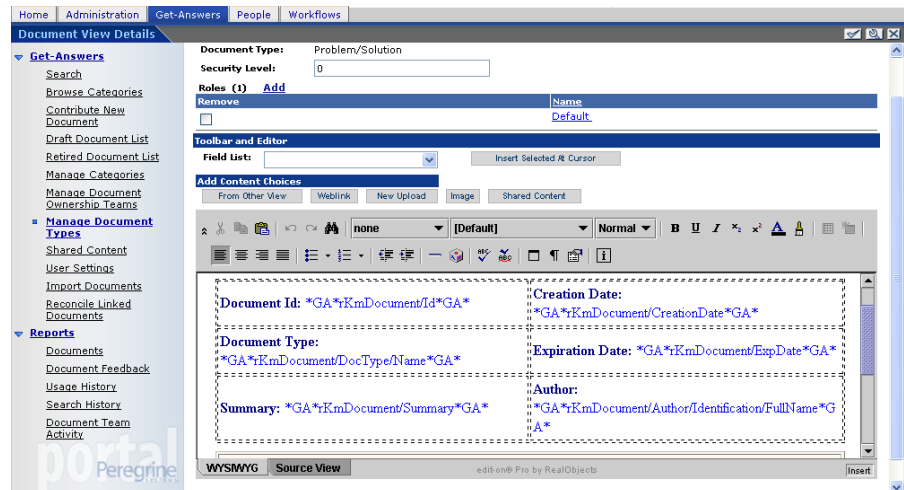
### Expiration dates and creation dates

In Get-Answers 4.1, the expiration date and creation date values on a view-only form rendered as `yyyy-mm-dd`. This is not consistent with the locale-specific date format. In order to consistently render these and any other date fields, perform the following steps after your system has been upgraded from Get-Answers 4.1 to Get-Answers 4.2.

To update the date format:

- 1 Log on to Get-Answers as the document team owner or the Get-Answers administrator.
- 2 Click the Get-Answers tab.
- 3 In the Get-Answers activity menu, click the **Manage Document Types** link.
- 4 In the Search page, click **View All** to list all of the document types.
- 5 From the Search Results page click one of the document types listed, Problem Solution for example.
- 6 In the Document Details page, click the first Document View link listed, **Default Probsol View**, for example.

The Document View Details page opens.



- 7 In the text edit, you need to change the prefix (\*GA\*) and suffix (\*GA\_Date\*) of each date field to indicate that it is a date field. For example,

#### From

\*GA\*rKmDocument/CreationDate\*GA\*  
\*GA\*rKmDocument/ExpDate\*GA\*

#### To

\*GA\_Date\*rKmDocument/CreationDate\*GA\_Date\*  
\*GA\_Date\*rKmDocument/ExpDate\*GA\_Date\*

- 8 After you edit all the date fields, click **Submit View Changes**.
- 9 In the Details page, select the next view to edit.
- 10 Continue editing the document views for the document type until all you have updated all of the document views for the document types.
- 11 Click **Submit Changes**.

A confirmation message appears. For example,

Document updated: 8320

- 12 Select the next document type in the list of document types on the Document Type Search Results page and repeat steps 6 to 11 until you have updated the date fields for all of the views in all of the document types.

Document updated: 8320  
Please click on any item to view it in detail.

Name	Description	Storage Value
<a href="#">Problem/Solution</a>	Description of a solution for a problem.	probsol
<a href="#">External</a>	A document created outside of Get-Answers. Examples are MS Office Documents, PDF, HTML, etc...	native
<a href="#">How-To</a>	Question and Answer fields you can edit	howto
<a href="#">Reference</a>	A one-field description of the reference.	reference
<a href="#">Error</a>	Description of an error message, steps taken before receiving the error message, and a work-around for the error.	errormsg

New Search   New

## Re-creating customizations in Get-Answers 4.2

You cannot directly migrate customizations implemented before version 4.0.1 to Get-Answers 4.2. Instead, you must re-create your changes using the new features and methods available in Get-Answers 4.2.

The following sections describe how to re-create your customizations from previous versions.

## No customizations

If you have made no customizations to Get-Answers, you can simply install Get-Answers 4.2 on a new system and migrate your data from your existing back-end database.

## Customized JSP files

In previous versions, users had to directly modify JSP files in order to add or remove certain functionality. The following table describes how to re-create some of the more common JSP file modifications.

JSP file modification	New method to use
Remove the user self-registration option from login page	Enable or disable the user registration option from the Administration Settings page
Remove the change password option from the login page	Enable or disable the change password option from the Administration Settings page

## Personalized pages

Get-Answers 4.2 offers many more pages that you can personalize directly from the Web interface. If you personalized pages in a previous version, you must re-create your personalized pages in Get-Answers 4.2 using DocExplorer. Refer to the [Get-Answers Administration Guide](#) for information on personalization.

You can use personalization to:

- Add or remove fields from a page
- Save a personalized search results or details on your portal page

## Customized skins, stylesheets, and themes

Get-Answers 4.2 has combined all interface images and stylesheets into themes. Users can no longer select separate skins and stylesheets. The new themes consist of skins (which themselves are composed of image files, frame definitions, and layer files), cascading stylesheet definitions, and XSL templates.

Although you can copy over older custom themes to Get-Answers 4.2, you may experience rendering errors due to the new images, CSS definitions, frame definitions, and layers. It is recommended that you re-create any custom themes using the Get-Answers 4.2 version of the classic theme as your template. Refer to the [Get-Answers Administration Guide](#) for information on customizing.

## Alternate login pages and authentication methods

If you used a custom login page or an alternate authentication method in a previous version, you can re-use or re-create these customizations using the updated instruction. You can find information about alternate security methods in the [Get-Answers Administration Guide](#).

## Preserving customized web.xml file settings

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

**Note:** Note that the `<appsrv>\WEB-INF\web.xml` file has been renamed to `<appsrv>\WEB-INF\web.xml.xxx.bak`, where `<appsrv>` is the path to your application server, and `xxx` represents a unique sequence of characters. This preserves any customizations that you might have.

After upgrading Get-Answers to 4.2, a new file called `web.xml.xxx.bak` is created in the `<appsrv>/WEB-INF` directory. You must reconcile the contents of this file with the contents of the new `web.xml` file. Any portion of the `web.xml.xxx.bak` file that does not exist in the new `web.xml` file needs to be added to the `web.xml` file.

## Table Creation

Follow the instructions provided in the Table Creation section of the [Completing Installation](#) chapter to run Table Creation on the Admin menu to automatically upgrade the back-end database.



# 6 | Load-Balancing Tomcat Application Servers

CHAPTER

This chapter covers the following topics:

- Load balancing application servers
- Load balancing with Apache and Tomcat on page 178
- Load balancing with IIS and Tomcat on page 181
- Creating multiple instances of Tomcat on page 183

---

## Load balancing application servers

A server running a Web application such as Peregrine’s Get-Services, Get-Answers, 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 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.

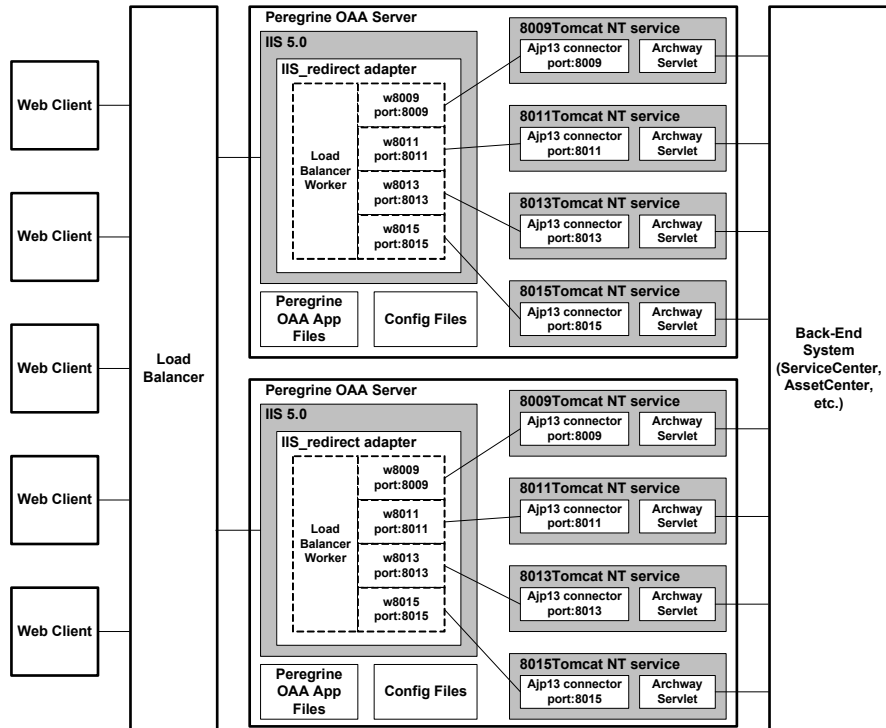
Each deployment may make different demands of the software and hardware, but, in any case, optimal back-end throughput for ServiceCenter and AssetCenter is achieved with the maximum number of application server instances that the server can handle without degraded performance due to lack of CPU headroom, 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 BizDocAdapter, performance beyond the 400-concurrent-user benchmark can be achieved.



The following diagram illustrates the architecture of multiple JVMs.



**Note:** A white paper on Peregrine OAA architecture and optimization is available on the Customer Support Web site at <http://support.peregrine.com>. In the Search Knowledge Base question field, type optimize and click Go. Click [Get-It: Guide for planning and implementing OAA-based applications](#) in the search results list and download the document.

## Load balancing with Apache and Tomcat

**Note:** The following procedures assume that you already installed Get-Answers and configured it with Tomcat and Apache. Refer to the installation chapter for more information on installing Get-Answers.

- Step 1** Log in to the Get-Answers administration page and disable the script poller settings. See [Disabling script pollers on the primary Tomcat instance on page 184](#).
- Step 2** Create multiple instances of Tomcat. See [Creating multiple instances of Tomcat on page 183](#).
- Step 3** Edit Apache's `mod_jk2.conf` file to establish a connection between Tomcat and Apache. See [Editing the `mod\_jk2.conf` file on page 179](#).
- Step 4** Edit the `httpd.conf` file to define the Tomcat workers available for Apache. See [Editing the `httpd.conf` file on page 180](#).
- Step 5** Test the configuration. See [Testing load balancing on Apache on page 180](#).

### Disabling script pollers on the primary Tomcat instance

You only need one Tomcat instance running script pollers. Before you copy your primary Tomcat instance, you should login to the Get-Answers administration page and turn off script polling. This will disable script polling on all of the Tomcat instances you create by copying the primary Tomcat instance.

To disable script pollers on the primary Tomcat instance:

- 1 Log in to the Get-Answers administration page. The default URL is:

*<http://<appsrv>/oaa/admin.jsp>*

- 2 Click **Settings**.

Get-Answers displays the common settings page.

- 3 Scroll down to the Server-Side Scripts section, and select **No** for the Enable script pollers option.
- 4 Scroll down to the bottom of the form and click **Save**.
- 5 Click the link for the Control Panel page.
- 6 Click **Reset Peregrine Portal** to commit your changes.
- 7 Log out of the Get-Answers administration page.
- 8 Stop the Peregrine Tomcat service to temporarily disable Get-Answers.

## Creating multiple instances of Tomcat

See [Creating multiple instances of Tomcat](#) on page 183.

## Editing the mod\_jk2.conf file

The mod\_jk2.conf file defines where the worker files are available in Apache. Edit mod\_jk2.conf only after successful deployment of necessary Get-Answers files; otherwise the Get-Answers mount points, file locations, and directories are not included in the mod\_jk2.conf file and have to be manually added.

To edit the mod\_jk2.conf file:

- 1 Make a copy of the mod\_jk2.conf file and rename the copy to mod\_jk2.conf.backup.

The mod\_jk2.conf file is located in the Apache/conf directory.

- 2 Open the mod\_jk2.conf file in any text editor.
- 3 Verify that JkSet points to the workers2.properties file in the Apache/conf directory. For example:

```
JkSet config.file "C:\Program Files\Apache Group\Apache2  
\conf\workers2.properties"
```

- 4 Save the file.

## Editing the httpd.conf file

The httpd.conf file must include mod\_jk2.conf.

To edit the httpd.conf file:

- 1 Open the httpd.conf file in any text editor.

The default location is: C:\Program Files\Apache Group\Apache2\conf.

- 2 Update the following line to point to Apache's mod\_jk2.conf file:

```
include "<Apache>/conf/mod_jk2.conf"
```

For <Apache> enter the path to your Apache installation. The default file path is: C:\Program Files\Apache Group\Apache2\Tomcat4.1

- 3 Save the file.

## Testing load balancing on Apache

After you create additional Tomcat instances, you can test load balancing.

To test load balancing:

- 1 Start all Tomcat instances.

If you are running on a Windows operating system and you installed Tomcat as a service, open the Windows Control Panel and start each instance from the Services dialog box.

- 2 Start the Apache web server.
- 3 Open a browser and log in to Get-Answers.
- 4 Perform an action in Get-Answers, such as a search.
- 5 Leave the browser open.

- 6 Repeat steps 3 through 5 for the same number of times as the number of Tomcat instances you created.

The load balancing mechanism uses a round-robin algorithm. If load balancing is working correctly, each login should use a different Tomcat instance.

- 7 Open the `archway.log` file from a Tomcat instance in a text editor. By default, there should be one `archway.log` file in each of the Tomcat instances working directory.
- 8 Verify that each `archway.log` contains log messages that state the port number on which the Tomcat instance is listening.

For example, if you have set on the Administration page the logging level to DEBUG, there will be log messages such as, "Beginning a new session:<session number>.<hostname>.<port>" where <port> is the port number on which a Tomcat instance is listening.

If a Tomcat instance does not have its own `archway.log` containing text with the required port number, then the system is not load balancing and needs troubleshooting.

---

## Load balancing with IIS and Tomcat

You can create multiple instances of Tomcat to load balance request to Get-Answers. Although this is not required, it improves performance, makes the instances easier to manage, and provides extra functionality. For example, you can restart the service if it fails or if the machine on which the instances are installed needs to be restarted.

**Note:** The following procedures assume that you already installed Get-Answers and configured it with Tomcat and IIS. Refer to the installation chapter for more information on installing Get-Answers.

**Step 1** Complete the steps described in [Creating multiple instances of Tomcat on page 183](#).

**Step 2** Test the configuration. See [Testing load balancing on IIS on page 182](#).

# Creating multiple instances of Tomcat

See [Creating multiple instances of Tomcat](#) on page 183.

## Testing load balancing on IIS

After you have created additional Tomcat instances, test load balancing.

To test load balancing:

- 1 Start all Tomcat instances.

If you are running on a Windows operating system and you installed Tomcat as a service, open the Windows Control Panel and start each instance from the Services dialog box.

- 2 Start the IIS web server.
- 3 Open a browser and log in to Get-Answers.
- 4 Perform an action in Get-Answers, such as a search.
- 5 Leave the browser open.
- 6 Repeat steps 3 through 5 for the same number of times as the number of Tomcat instances you created.

The load balancing mechanism uses a round-robin algorithm. If load balancing is working correctly, each login should use a different Tomcat instance.

- 7 Open the `archway.log` file from a Tomcat instance in a text editor. By default, there should be one `archway.log` file in each of the Tomcat instances working directory.
- 8 Verify that each `archway.log` contains log messages that state the port number on which the Tomcat instance is listening.

For example, if you have set on the Administration page the logging level to DEBUG, there will be log messages such as, "Beginning a new

session:<session number>.<hostname>.<port>” where <port> is the port number on which a Tomcat instance is listening.

If a Tomcat instance does not have its own archway.log containing text with the required port number, then the system is not load balancing and needs troubleshooting.

---

## Creating multiple instances of Tomcat

You can create multiple instances of Tomcat to load balance request to Get-Answers. Although this is not required, it improves performance, makes the instances easier to manage, and provides extra functionality. For example, you can restart the service if it fails or if the machine on which the instances are installed needs to be restarted.

To create multiple instances of Tomcat:

- Step 1** Log in to the Get-AnswersAdministration page and disable the script pollers setting. See [Disabling script pollers on the primary Tomcat instance on page 178](#).
- Step 2** Create copies of the Tomcat directory. See [Copying the Tomcat directory on page 184](#).
- Step 3** 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 on page 185](#).
- Step 4** Edit the server.xml files for each Tomcat instance. See [Editing the server.xml files on page 187](#).
- Step 5** Edit the jk2.properties files for each Tomcat instance. See [Editing the jk2.properties files on page 189](#).
- Step 6** For Windows operating systems, install multiple instances of Tomcat as a service using installservice.bat. [Installing Tomcat instances as services on page 190](#).

**Step 7** Log in to the Get-Answers Administration page for the primary Tomcat instance and enable the script pollers setting. See [Enabling script pollers on the primary Tomcat instance on page 191](#).

## Disabling script pollers on the primary Tomcat instance

You only need one Tomcat instance running script pollers. Before you copy your primary Tomcat instance, you should login to the Get-Answers administration page and turn off script polling. This will disable script polling on all of the Tomcat instances you create by copying the primary Tomcat instance.

To disable script pollers on the primary Tomcat instance:

1 Log in to the Get-Answers administration page. The default URL is:

*<http://<appsrv>/oaa/admin.jsp>*

2 Click **Settings**.

Get-Answers displays the common settings page.

3 Scroll down to the Server-Side Scripts section, and select **No** for the Enable script pollers option.

4 Scroll down to the bottom of the form and click **Save**.

5 Click the link for the Control Panel page.

6 Click **Reset Peregrine Portal** to commit your changes.

7 Log out of the Get-Answers Administration page.

8 Stop Tomcat to disable Get-Answers temporarily.

## Copying the Tomcat directory

You create a separate folder for each instance of Tomcat you want to use for load balancing.

**Important:** Stop Tomcat if it is still running before you begin copying a Tomcat directory.



To copy the Tomcat directory:

- 1 If you are running on a Windows operating system, copy the

```
<Portal_Install_Dir>/SupportFiles/AppServerFiles/  
installservices.bat
```

 file to the `<Tomcat>/bin` directory,

where `<Portal_Install_Dir>` is the path you directed the installer to deploy its files and `<Tomcat>` is the root of the Tomcat installation.

- 2 Copy the Tomcat install folder. For example, `C:\Program Files\Apache Group\Tomcat`.
- 3 Paste the folder into the same root path. For example, `C:\Program Files\Apache Group`
- 4 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 want four instances of Tomcat listening on ports 8009, 8011, 8013, and 8015, create four copies of the Tomcat folder and name them `\Tomcat_8009`, `\Tomcat_8011`, `\Tomcat_8013`, and `\Tomcat_8015`.

**Warning:** If you are using more than four Tomcat instances, change the port numbers to avoid conflicts.

- 5 Repeat steps 1 through 4 for each instance of Tomcat you want to use.

## Editing the `workers2.properties` file

For each Tomcat instance installed, there is only one `workers2.properties` file needed. This file is shared by all other Tomcat instances on that particular server.

The `workers2.properties` file specifies the worker threads that the Web server connector creates in order to communicate with the Tomcat instances. Each Tomcat instance must communicate on a different port. The host should be set to the name of the server running the Tomcat instances or `localhost` if they are running on the same server.

To edit the `worker2.properties` file:

- 1 If you installed:
  - Apache with Tomcat, edit the `workers2.properties` in the `Apache/conf` directory.
  - IIS with Tomcat, edit the `workers2.properties` in the `Tomcat/conf` directory of your primary Tomcat instance.
- 2 Open the `workers2.properties` file in any text editor.
- 3 Create a `channel.socket` entry for each Tomcat instance.

Example:

```
[channel.socket:<server>:<port>]
lb_factor=1
```

**Note:** For the existing `channel.socket` entry only, replace `host=localhost` and `port=8009` with the line, `lb_factor=1`.

For `<server>` enter the server name where the Tomcat instance is located.

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

The `lb_factor` is a number greater than or equal to 1 used 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 more user sessions to a given worker, then assign it a lower `lb_factor` number relative to the other workers.

- 4 Create an AJP13 worker for the `channel.socket` defined in the previous step.

```
[ajp13:<server>:<port>]
channel=channel.socket:<server>:<port>
group=lb
```

**Note:** For the existing ajp13 entry, verify <server> and <port> are correct.

Where <server> and <port> are the values you have for the channel.socket definition.

- 5 Save the file.

## Editing the server.xml files

A separate server.xml file is required for each Tomcat instance. The server.xml file contains the information that Tomcat needs to connect to the Web server and to find Peregrine OAA Platform Web application files.

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

To edit the server.xml files:

- 1 Each Tomcat instance has a server.xml file located in the conf directory. Open server.xml in any text editor.
- 2 Update the port number attribute of the <Server> element to a unique value that does not conflict with other port numbers used by Tomcat.

Peregrine Systems recommends that you use the port numbers 8005-8008 when configuring four Tomcat instances.

**Warning:** If you are using more than four Tomcat instances, change the port numbers to avoid conflicts.

For example:

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

- 3 Update the port number attribute of the Coyote/JK2 AJP 1.3 Connector <Connector> element to a unique value that will not conflict with other port numbers used by Tomcat.

Peregrine Systems recommends that you use port numbers 8009, 8011, 8013, and 8015 when configuring the Coyote Connector. Your primary

Tomcat instance may already have this set to 8009, and you will only need to modify the other instances.

Example:

```
<Connector className="org.apache.coyote.tomcat4.1.CoyoteConnector"
  port="8009" minProcessors="5" maxProcessors="75"
  enableLookups="true" redirectPort="8443" acceptCount="10"
  debug="0" connectionTimeout="20000" useURValidationHack="false"
  protocolHandlerClassName="org.apache.jk.server.JkCoyoteHandler" />
```

**Note:** Change port number only. Leave all other values the same.

- 4 Create a `<Context>` element entry from the first or primary Tomcat instance and copy it to the other Tomcat instances.

Example:

```
<Server port="...">
  <Service name="...">
    <Engine name="...">
      <Host name="...">
        <Context path="/oaa"
          docBase="<First_Tomcat_install>/webapps/oaa"
          crossContext="false"
          debug="0"
          reloadable="false" >
        </Context>
      </Host>
    </Engine>
  </Service>
</Server>
```

For the `docBase` attribute, set `<First_Tomcat_install>` to the absolute path of the first or primary Tomcat instance.

- 5 Update, or add if necessary, the `jvmRoute` attribute of the `<Engine>` element with the server name and communications port used by each Tomcat instance using port number 8009, 8011, 8013, or 8015 as appropriate. For example:

```
<Engine jvmRoute="localhost:8009" name="Standalone"
  defaultHost="localhost" debug="0">
```

**Important:** Verify that you are not modifying an `<Engine>` element that is surrounded by comment tags (`<!-- -->`) and thus commented out. Tomcat 5 has one `<Engine>` element commented out and another that is not.

- Update the `<Host>` element with the `webapps` directory used by the first or primary Tomcat instance. List the server information in the `appBase` attribute. For 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 primary Tomcat instance.

- Comment out for all of the Tomcat instances except for the primary Tomcat instance. For example:

```
<!-- Define a non-SSL Coyote HTTP/1.1 Connector on port 8080 -->
<!--
<Connector className="org.apache.coyote.tomcat4.1.CoyoteConnector"
  port="8080" minProcessors="5" maxProcessors="75"
  acceptCount="10" debug="0" connectionTimeout="20000"
  useURISValidationHack="false" />
-->
```

- Save the `server.xml` file.
- Repeat [Step 2](#) through [Step 8](#) for each copy of the `server.xml` file you created.

## Editing the `jk2.properties` files

You modify the `jk2.properties` file for each Tomcat instance. The `jk2.properties` file sets the `jk2` communication port.

To edit the `jk2.properties` files:

- 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 at the bottom of the file for the channelSocket port. The port number must match the port number defined in `workers2.properties` file for this Tomcat instance. For example:

```
channelSocket.port=8009
```

- 3 Save the `jk2.properties` file.
- 4 Repeat [Step 1](#) through [Step 3](#) for each Tomcat instance.

## Installing Tomcat instances as services

**Important:** Perform these steps only if Tomcat 4.1.x is running on a Windows operating system. For Tomcat 5.0.x refer to Apache/Tomcat5 documentation on Apache's website for instructions on how to install Tomcat as a service.

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

To install Tomcat instances as services:

- 1 Open a DOS command prompt and change directories to the `bin` directory of your Tomcat instance.
- 2 Enter the following command to create each Tomcat instance:

```
installservice <service_name> <tomcat_home> <jvm_dll_path>
```

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

**Note:** The `<service_name>`, `<tomcat_home>`, and `<jvm_dll_path>` cannot contain spaces.

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

**Note:** The command to create Tomcat instances cannot accept spaces in the file path. The following example avoids spaces in the file path name by replacing Program Files with Progra~1.

```
installservice Tomcat8009 C:\Progra~1\Apache~1\Tomcat4_8009  
C:\Progra~1\jdk1.3.1_05\jre\bin\server\jvm.dll
```

3 Repeat [Step 1](#) and [Step 2](#) for each Tomcat service you wish to create.

**Tip:** You can easily remove a service. From the DOS command prompt, change directories to the bin directory of your Tomcat instance, then enter the following command: `tomcat -Uninstall <service name>`.

4 Start each Tomcat instance that you install.

## Enabling script pollers on the primary Tomcat instance

You only need one Tomcat instance running script pollers. Before you test your load balancing configuration, log in to the Get-Answers administration page of the primary Tomcat instance and enable script polling.

To enable script pollers on the primary Tomcat instance:

1 Log in to the Get-Answers administration page of the Tomcat instance. The default URL is:

*[http://<appsrv>:<port\\_number>/oaa/admin.jsp](http://<appsrv>:<port_number>/oaa/admin.jsp)*

For <port\_number> enter the connector port number you used in [Editing the server.xml files on page 187](#), typically port 8080.

2 Click **Settings**. Get-Answers displays the common settings page.

3 Scroll down to the Server-Side Scripts section, and select Yes for the Enable script pollers option.

4 Scroll down to the bottom of the form and click Save. Get-Answers displays the Control Panel page.

5 Click **Reset Peregrine Portal** to commit your changes.

6 Log out of the Get-Answers administration page.







# 7 Configuring Integrations

## CHAPTER

This chapter is intended for administrators who want to integrate Get-Answers with ServiceCenter. It also includes configuration information for the email adapter used by Notification Services.

---

## Configuring the ServiceCenter Integration

See the information in the *Get-Answers Administration Guide* for a complete discussion of configuring Get-Answers with ServiceCenter.

---

## Configuring the E-mail adapter

The following parameter controls the default setting used by the E-mail Adapter. To use Notification Services to alert users to changes in the status of Get-Answers documents, configure the following settings.

To configure the E-mail adapter settings for Get-Answers

- 1 In the Peregrine Portal Admin module, click the E-mail tab of the Settings screen.

**Note:** For information on accessing the Admin Module, see [Accessing the Peregrine Portal Admin Module](#) in Chapter 7, *Completing All Installations* of this guide.

## 2 Configure these settings..

E-mail Settings box	Default setting	Description
Inbound mail host	mailhost	The full name or IP address of the machine hosting the inbound mail server. If this field is empty, then the status of the mail adapter indicates the status of the outbound mail server connection.
Inbound mail protocol	imap	The protocol used by the inbound mail server, which is either imap or pop3.
Inbound mail user ID		The user ID used to access the inbound mail server.
Inbound mail password		The user password used to access the inbound mail server.
Mail sender address		
Legal domains	peregrine.com;	Enter a semicolon-separated list of mail domains with which the Peregrine Portal can correspond. Only users with an email address in these domains are allowed to complete online self-registration.
Anonymous user	falcon	The Anonymous user name used when an unknown user attempts to communicate with the mail adapter.
Anonymous password		The Anonymous user password for the mail adapter.
Outbound mail host	mailhost	The full name or IP address of the machine hosting the outbound mail server.
Outbound mail user ID		The user ID used to access the outbound mail server.

E-mail Settings box	Default setting	Description
Outbound mail password		The user password used to access the outbound mail server.
Adapter	<code>com.peregrine.oaa.adapter.mail.MailAdapter</code>	Full class path for the adapter associated with this target.

- 3 Scroll to the bottom of the form and click **Save**.





# A Troubleshooting Installation and Operation

## APPENDIX

This chapter explains the problems that may occur during or after installing Get-Answers and their solutions. The format of each problem includes symptom, cause, and solution.

- The *symptom* is the error message that appears or other sign you see when an error occurs.
- The *cause* is the underlying problem that produced the symptom.
- The *solution* is the procedure you can use to fix the problem.

---

## Troubleshooting errors

This table describes the errors (symptoms) you might see, the probable causes, and the solutions. Where the solutions require a procedure, the table refers you to the [Procedures for troubleshooting problems on page 203](#).

Symptom	Cause	Solution
You receive a General Protection Fault error when using Netscape 6.2 or 6.2.1 browsers	The Authoring applet causes these versions of Netscape to fail.	Use Internet Explorer browsers or Netscape 7.x with JVM 1.4.2 when authoring documents.
Imbedding images in the document text does not work properly if the name of the image file contains spaces.	Get-Answers does not support image files if the name of the image contains spaces.	Rename the file before attaching it to the document. Make sure the name does not include spaces.

Symptom	Cause	Solution
You access Get-Answers by using localhost in the URL—for example, <code>http://localhost/oaal.login.jsp</code> —and you encounter licensing problems when you try to Author documents.	The localhost URL does not support licensing.	When logging into the application server for the first time, use the server name (for example, <code>http://&lt;servername&gt;/oaal/login.jsp</code> ); must match the setting in the Admin > Common tab.
When logged into Get-Answers and using the browser's Forward, Back and Refresh buttons, you see unexpected behavior.	Some Get-Answers pages do not work properly with a browser's navigation and Refresh buttons.	Do not use the browser navigation or Refresh buttons on the pages that do not behave as expected.
After you refresh the login page ( <code>login.jsp</code> ), the language option drop-down list and the Login and Register buttons do not appear. This is true for both Internet Explorer and Netscape browsers.	Unknown	Click Refresh again to bring the list and buttons back.
You see the following error repeated in the Archway Log file: ERROR [noticenterpoller] GetitAnonymous(0) - MAILsendEmail(): Unexpected error - The mail adapter failed to connect. - com.peregrine.util.ResourceCreationFailureException	The Mail adapter is not configured.	Remove the Mail adapter as a target.  See <a href="#">Procedures for troubleshooting problems on page 203</a> .
You notice that you cannot upload a file in Contribute Documents pages,	The Maximum Attached File Size parameter is too small.	Change the Maximum attached file size parameter. See <a href="#">Setting Maximum attached file size parameters on page 207</a> .
Your system cannot sustain more than 10 Websphere connections to DB2 at one time.	Undetermined	See the IBM Knowledge Base article #1009742 on IBM Web site. <a href="http://www-3.ibm.com/cgi-bin/db2www/data/db2/udb/winos2unix/support/document.d2w/report?&amp;fn=1009742">http://www-3.ibm.com/cgi-bin/db2www/data/db2/udb/winos2unix/support/document.d2w/report?&amp;fn=1009742</a>
You notice the following error: Error Number : -6, Severity: FATAL, Source: rdb_index v6.9 CQDH Server Returned Error Clearing the indexes in preparation to rdbindex -	The database connection to the search engine is unstable or the Search Engine indexes are incomplete or corrupted.	See the section <a href="#">Correcting the "RPC Failed" error on page 204</a> .

Symptom	Cause	Solution
You see the following error: ORA-01658: unable to create INITIAL extent for segment in tablespace ROME	In the database, the ROME tablespace must be extended.	See the section, <a href="#">Extending the Rome tablespace on page 209</a> .
You are on a Solaris system and you see the following error: Schema not found	Your application is using a schema or server-side JavaScript whose file name contains both upper- and lower-case letters.	If you add a schema or a server-side JavaScript, make the file name all lowercase.
You see that Boolean search results show a relevance of 0% on the Advanced Search page.	Boolean search results are not ranked.	Ignore these zero-ranked search results items.
You see the following error: FATAL, Source: rdb_index v6.9 Connect system call failed: ' 'cqdh@10.11.12.231' '	You have attempted to index your documents without starting the Search Engine.	Start the Search Engine server and then index the documents. See the section, <a href="#">Starting the Search Engine and indexing sample documents on page 209</a> .
Users are either missing workflow messages or receiving duplicates of them.	There is a configuration problem with the web application.	Make sure that all of the properties set on the various tabs of admin.jsp are correct. In particular, make sure the Enable script pollers property on the Common tab is set to Yes.
On the Manage Documents page, Multiple workflow messages occur if you click the Transfer or Proceed button multiple times. An Editorial workflow is initiated for every click on the Proceed button. A Triage Workflow is initiated for every click on the Transfer button.	You have clicked the Transfer or Proceed button more than once for one item.	If you do click one of these buttons multiple times, you can revert the second Editorial Workflow message and accompanying working copy document after the first valid workflow is finished. You Delete any extra Triage Workflow items.
The Get-Answers workflow templates were not imported properly as part of the Get-Answers installation.	undetermined	The system will import the templates if no template is named Editorial Workflow or Triage Workflow.  Log in as the Admin.  From the Workflow tab Template Design menu item, rename any template named Editorial Workflow or Triage Workflow.

Symptom	Cause	Solution
<p>This error appears in the archway.log file once every minute:</p> <pre>ERROR [noticenterpoller] GetitAnonymous(0) - MAILsendEmail(): Unexpected error - The mail adapter failed to connect. - com.peregrine.util.ResourceCreatio nFailureException</pre>	The noticenterpoller is running.	Stop the noticenterpoller. See the section <a href="#">Stopping the Noticenter poller on page 209</a> .
<p>The Search Results page shows this message:</p> <p>We're sorry, but we are unable to perform your query - please contact your system administrator.</p>	The Search Engine is not running.	See the section, <a href="#">Avoiding the "unable to perform query" error on page 206</a> .
<p>The Search form shows this message when the user attempts to search:</p> <p>We're sorry, the oakm server is unavailable. Please contact your administrator or try again later.</p>	The KMAdapter cannot connect to the search engine.	Set the environment path correctly. See <a href="#">Setting the environment path to the Search Engine on page 210</a> .
<p>This message appears in the archway.log file:</p> <pre>KMGAdapter::connect - ERROR: unexpected exception when trying to login to RWcom.convera.hl. RWLoginFailedException: Failed to login to RetrievalWare server. API not initialized. Re-instantiate RWLoginSession.</pre>		
<p>The session times out while in the process of entering feedback and the feedback is not saved.</p>	The default session timeout setting is for 600 seconds.	Change the default setting. See <a href="#">Changing the default session timeout on page 212</a> .



Symptom	Cause	Solution
<p>With an ODBC connection to a DB2 back-end, as soon as a user logs in, the screen displays: Unexpected error in OAAForm.generate().</p> <p>With an ODBC connection to a DB2 backend, workflow task messages do not appear after submitting a new document. Under Template Design, the workflow templates will not display. In addition, the archway.log file contains this error: ERROR [Thread] - Message.newMessage XML parsing error at line -1 column -1 org.xml.sax.SAXParseException: Premature end of file</p>	<p>The setting LONGDATACOMPAT must be set to zero (0) in the \$DB2PATH/db2cli.ini file.</p>	<p>On the Windows server(s) with the ODBC connection, perform the following steps: Open the file \$DB2PATH/db2cli.ini in a text editor. Ensure that the value LONGDATACOMPAT is equal to LONGDATACOMPAT=0 in the \$DB2PATH/db2cli.ini file. Ensure that LONGDATACOMPAT=0 does NOT have a semicolon preceding it; for example, ;LONGDATACOMPAT=0. The semicolon would eliminate it (comment it out) from the code.</p>
<p>After a WebSphere installation, the Admin form at <a href="http://hostname/oa/login.jsp">http://hostname/oa/login.jsp</a> does not render.</p>	<p>Duplicate alias entries can occur from the IBM HTTP Server httpd.conf file during a WebSphere installation.</p>	<p>Remove duplicate Alias /oa lines from the httpd.conf file under the conf directory of the IBM HTTP or Apache web server. You want only one of the following: Alias /oa "C:\WebSphere\AppServer\installedApps\oa.ear\portal.war" Alias /oa "C:/WebSphere/AppServer/installedApps/oa.ear/portal.war"</p>
<p>On a WebSphere installation, the Authoring applet displays a licensing error.</p>	<p>During install, a SEVERE warning message is displayed: Please add OEMLicenseServlet mapping definition to web.xml after the installation completes.</p>	<p>Add lines to the web.xml and httpd.conf files. See <a href="#">Licensing error during WebSphere installation on page 212</a>.</p>

Symptom	Cause	Solution
<p>Initialization data is missing from the database. The symptoms of this are:</p> <ul style="list-style-type: none"> <li>the sample authoring views (How-To, Reference, Error Message/Cause, External, Problem/Solution) do not display correctly</li> <li>the sample authoring views are not listed in Contribute New Document</li> <li>default images do not display in the sample authoring views</li> <li>the workflow templates are missing</li> <li>the out-of-box users cannot log on</li> <li>the search engine shows a KMCOLLECTIONREFERENCE error</li> </ul>	<p>This is caused at the time of a new installation by the application server being stopped before it has completed the installation and database initialization.</p>	<p>Use these two steps to change several presentation directory files, and restart the application server to re-initialize the database.</p> <p>Unzip <code>ga_default_imgs.zip</code> in the <code>images</code> folder under the presentation directory into the same <code>/images</code> director.</p> <p>Remove this text</p> <pre>&lt;intalled&gt;true&lt;/intalled&gt;</pre> <p>from these files:</p> <pre>&lt;presentation directory&gt; \WEB-INF\apps\getanswers\rKmDoc ViewRoles.dat</pre> <p>If your database is Oracle, remove</p> <pre>&lt;intalled&gt;true&lt;/intalled&gt;</pre> <p>from</p> <pre>&lt;presentation directory&gt; \WEB-INF\etc\Oracle \GATablePopulateOracle.sql</pre> <p>If your database is DB2, remove</p> <pre>&lt;intalled&gt;true&lt;/intalled&gt;</pre> <p>from</p> <pre>&lt;presentation directory&gt; \WEB-INF\etc\DB2 \GATablePopulateDB2.sql</pre> <p>If your database is MS SQLServer, remove</p> <pre>&lt;intalled&gt;true&lt;/intalled&gt;</pre> <p>from</p> <pre>&lt;presentation directory&gt; \WEB-INF\etc\MSSQLServer \GATablePopulateMSSQLServer.sql</pre> <p>If this does not solve the problem, drop and recreate the user in your database.</p>

Symptom	Cause	Solution
On SQLServer, intermittent Update failure messages appear when the a document is published in a workflow, or a newly transferred document is lost and fails to appear in the Workflow My Messages list, or a new document view does not display correctly.	There was a configuration sizing error when your SQLServer database was created.	See the instructions for <a href="#">Preparing the SQL Server 2000 for Get-Answers on page 38</a> . Consult your SQLServer database administrator to determine how to backup your database, drop it, create a new database of size 800 MB, and restore the data into the larger new database.
After an upgrade of the DB2 database, Get-Answers doesn't function.	The version of the database driver is not current.	Upgrade the database driver. Copy the db2java.zip file from the <DB2home>/java directory on the OAA Get-Answers server, rename the copy to db2java.jar, then move db2java.jar to this directory on the OAA Get-Answers server <PresentationDir>\WEB-INF\lib

## Procedures for troubleshooting problems

Some errors have solutions that do not involve procedures. Others require a series of steps to fix. This section describes the procedures for solving some of the errors described in the section [Troubleshooting errors on page 197](#). See the table in that section to find out if the solution for an error you have seen is included in the table or described here instead.

### Removing the mail adapter

To remove the Mail adapter

- 1 Open <http://<servername>/oaa/admin.jsp>.
- 2 Log in as an administrator so that you have Administrator rights.
- 3 Click the **Settings** link.
- 4 Click the **Common** tab.
- 5 In the **List of target aliases** field, remove the word **mail**.
- 6 Scroll to the bottom of the page and click the **Save** button.

- 7 Click the **Notification Services** tab.
- 8 In the **Targets** field, remove the **mail**.
- 9 Scroll to the bottom of the page and click **Save**.
- 10 Click the **Control Panel** link.
- 11 Click **Reset Server**.

## Correcting the “RPC Failed” error

To correct this “RPC Failed” error

- 1 From the Start menu, choose **Programs >Get-Answers Search Engine> Stop Search Engine Server**.

The following messages appear:

```
exec at IPAddress:port
exec - shutdown
Shutting down the Search Engine Server
Press any key to continue . . .
```

- 2 Press any key to continue.
- 3 From the Start menu, choose **Programs> Get-Answers Search Engine> System Utilities Menu**.
- 4 Choose option 6 - Indexing and index utilities.
- 5 Choose option 10 - Delete and create empty indexes for a library.
- 6 At the “Indexes should be deleted for which library? Enter Library Name []>” command prompt, type **KMLib**.
- 7 At the “Are you sure? (1 = YES, 2 = NO)” command prompt, type **1**.

These messages appear:

```
Opening Library: KMLib
Thank you!
```

- 8 Press any key to continue.
- 9 Choose option 1 - Return to previous menu.
- 10 Choose option 1 - Exit this program.
- 11 From the Start menu, choose **Programs > Get-Answers Search Engine > Start Search Engine Server**.

These messages appear:

```
Starting up the Search Engine Server
Press any key to continue . . .
```

- 12 From the Start menu, choose **Programs > Get-Answers Search Engine > Reindex all Documents**.
- 13 At the “Enter the name of the library to be indexed. Enter Library Name []>” command prompt, type `KMLib`.
- 14 At the “Are you sure you wish to index the entire RDBMS now? (warning: this will delete any existing indexes in KMLib). (1 = YES, 2 = NO)” command prompt, type `1`.

This message appears:

```
All records have been submitted to the document handler.
```

- 15 Press any key to continue.

## Checking and configuring adapters

Use the following procedure to resolve

- 1 Go to the **Administration** tab and click **Control Panel**.
- 2 The page that opens shows a list of adapters and their connection status.
- 3 If the Mail adapter is disconnected and you do not use the mail adapter for notifications or the Business Objects database for reporting, ignore these messages.

- 4 If a adapter other than the Mail adapter is disconnected, click the **Reset Server** button.
- 5 If the status is still Disconnected, see the [Get-Answers Administrator's Guide](#) to configure the adapter again.

## Reindexing the sample documents

To reindex the documents

- 1 Go to **Start > Programs > Get-Answers Search Engine > System Utilities Menu**.
- 2 Choose option 6 - Indexing and Index Utilities.
- 3 Choose option 4 - Index RDBMS Records.
- 4 Choose option 3 - Index all RDBMS Records in your library.
- 5 Enter KMLib. This is the knowledge management library you want to index.
- 6 Enter 1 - Yes to update the index.
- 7 Choose option 1 - Return to previous menu.
- 8 Choose option 1 - Return to previous menu.
- 9 Choose option 1 - Exit this program.

## Avoiding the “unable to perform query” error

To avoid this error

- 1 Make sure the Get-Answers Search Engine's Search Engine Server is running before you start your application server; for example, Tomcat.

**Tip:** Start the search engine by choosing **Start > Get-Answers Search Engine > Start Search Engine Server**.

- 2 Then start the application server.

**Note:** It must be done in this order. If you're already running the application server, stop it, start the search engine server, then start the application server.

To verify that you've started everything correctly

1 In your browser, go to

*<http://SERVERNAME/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: System

no password

**Note:** This should bring up the OAA control panel. You should see a line in the list of adapters that says "oaakm." The status of oaakm should be "connected".

After that, you should be able to access our sample data. We have one sample document ownership team (called "Get-Answers Team"). That team owns one domain ("Get-Answers") and the Get-Answers documentation has been published into that domain.

There are three pre-defined users.

Login	Password	Function
owner	password	owner of the team
editor	password	an editor on the team
reviewer	password	a reviewer on the team

## Setting Maximum attached file size parameters

Go to the Common tab in the Admin Settings. The maximum attached file size parameter is used to limit the size of files that may be submitted as attachments.

A value of 0 indicates that no limit is set. This setting is a default that you can override by individual attachment fields. If for example, a value of 2048 was set, this would limit to 2mg, the size of a file that could be submitted in Get-Answers via the Contribute Documents menu option.

## Reestablishing the database connection and restarting the Search Engine

To re-establish the database connection

- Reboot the tomcat server.

If necessary, based on the presence of a database error in the Get-Answers Search Engine console screen, stop and then restart the Get-Answers Search Engine.

To restart the Get-Answers Search Engine

- 1 Go to **Start > Programs > Get-Answers Search Engine > System Utilities Menu**.
- 2 Choose option 4 - Search and Indexing Servers.
- 3 Choose option 5 - Stop servers. The Get-Answers Search Engine Executive window will close.
- 4 Press any key to continue.
- 5 Choose option 2 - Start servers in background. The Get-Answers Search Engine Executive will start running in a separate window.
- 6 Press any key to continue.
- 7 Choose option 1 - Return to previous menu.
- 8 Choose option 1 - Exit this program.



## Extending the Rome tablespace

This procedure can resolve the cause of the following error

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

To extend the Rome tablespace

- 1 From the Start menu, select **Programs > Oracle - OracleHome8i > Database Administration > SQLPlus Worksheet**.

- 2 Log in,

```
User: system
```

```
Password: manager
```

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

- 3 Delete the connect line in the upper pane.

- 4 Run this script:

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

## Starting the Search Engine and indexing sample documents

- 1 From the Start menu, choose **GetAnswers Search Engine > Start Search Engine Server**.

- 2 Index your documents by taking these steps:

- a Click the Start menu, and choose **Get-Answers**.

- b Click **Search Engine**, and then choose **Index Updated Documents**.

## Stopping the Noticenter poller

To stop the noticenterpoller

- 1 Click Administration and choose the Show Script Status.

- 2 Click the noticenterpoller link to suspend it.

**Note:** You must perform this step every time you start or restart the web or application server.

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

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

You need to do this step only once. The only way to restart the `noticenterpoller` is to place the `scriptpollers.ini` in the `\WEB-INF\apps\notification` directory again.

- 4 Remove the default notification capabilities from the Administration -> Settings > NotificationDB tab so that users will not see the basic notification UI.

For example, change:

```
notificationDB(oaa.ns.send;oaa.ns.view;oaa.ns.gui;oaa.ns.preferences)
```

to

```
notificationDB without the parenthesis.
```

- 5 Notify the workflow template/process designer that the notification options on the Workflow Activity details screens will not trigger email notifications without proper configuration of the email adapter and operation of the `noticenterpoller`.

## Setting the environment path to the Search Engine

If a user receives the message: `The oaakm server is unavailable`, it might occur because the `KMAAdapter` cannot connect to the Search Engine because the environment path is not set correctly. These instructions provide solutions for Windows and AIX installations.

To configure the PATH environment variable on Windows

- 1 Make sure that these fields appear in the PATH environment variable and that the PATH environment variable is less than the maximum size (256 characters).

```
<SearchEngineInstallDirectory>\lib;<SearchEngineInstallDirectory>
\inso;<SearchEngineInstallDirectory>\bin;<Get-AnswersContextRoot>
\WEB-INF\lib;
```

The default value for <SearchEngineInstallDirectory> is c:\getanswers.

The default value for <Get-AnswersContextRoot> on a Typical installation is C:\Program Files\Peregrine\Common\Tomcat4\webapps\oaa.

**Note:** You can create a drive mapping to a shorter path using the subst command; the subst command can then be run on startup from a batch file.

- 2 Stop the search engine, application server, and Web server.
- 3 Restart the search engine server before starting the application server and Web server.

## On AIX

If you are running on an AIX server, you must configure your WebSphere environment by editing the startupServer.sh script.

To configure the Websphere environment on AIX

- 1 Open startupServer.sh in any text editor.
- 2 Add an entry for LIBPATH and set it to the path values for AIX.

For example:

```
#!/bin/sh
LIBPATH=/usr/lib:/WebSphere/AppServer/installedApps/answer.ear
/porta1.4.0.0.55.war/WEB-INF/lib/AIX:/WebSphere/AppServer
/installedApps/answer.ear/porta1.4.0.0.55.war/WEB-INF/lib/AIX
/ServiceCenter4 export LIBPATH
```

- 3 Save the file.

## Changing the default session timeout

To avoid timing out while a popup window is open, modify the default session timeout in the Admin settings to be a higher time interval than 10 minutes (600 seconds). The Common tab has a section heading called Encoding, Locales, and Sessions. Session timeout is directly below the section heading.

To modify the default session time

- 1 From Admin >Settings >Common tab, scroll to the **Encoding, Locales, and Sessions** heading.
- 2 In the **Session timeout** parameter, type the number of seconds that you want for the session to remain active; for example, 6000.
- 3 Click **Save**, then click **Reset Server**.

## Licensing error during WebSphere installation

To correct the licensing error message, add the mapping definition to the web.xml file and update the httpd.conf file.

To correct the licensing error message

- 1 Using a text editor, open the web.xml file located at <appsrv>\oaa\WEB-INF and update the following sections.

**Note:** Be sure the lines are not within a section containing <!-- comment --> lines.

- a Add these lines to the <servlet> section.

```
<servlet id="Servlet_eopro">
  <servlet-name>OEMLicenseServlet</servlet-name>
  <display-name>Edit-On Pro License Servlet</display-name>
  <servlet-class>oemlicense.OEMLicenseServlet</servlet-class>
</servlet>
```

- b Add these lines to the <servlet-mapping> section.

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

- c Save and close the file.
- 2 Using a text editor, open httpd.conf under the conf directory of the IBM HTTP or Apache web server.

**Note:** Use the absolute path for your portal.war file.

- a Add the following line to the end of the file.

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

- b Save and close the file.

## Documents do not display message

To correct the documents not displaying error message, add the mapping definition to the web.xml file.

To correct the documents not displaying error message

- 1 Using a text editor, open the web.xml file located at <appsrv>\oaa\WEB-INF and update the following sections.

**Note:** Be sure the lines are not within a section containing `<!-- comment -->` lines.

2 Add the following lines after the installation completes.

a Add these lines to the `<servlet>` section.

```
<servlet id="Servlet_GAAttach">
  <servlet-name>GAAttachmentDownload</servlet-name>
  <display-name>GAAttachmentDownload</display-name>
  <description>A compression capable servlet used for downloading
file attachments associated with DBMS records.</description>

  <servlet-class>com.peregrine.getanswers.GADocumentDownloadServlet</
servlet-class>
  <init-param>
    <param-name>scope</param-name>
    <param-value>attachmentsOnly</param-value>
  </init-param>
</servlet>
```

b Add these lines to the `<servlet-mapping>` section.

```
<servlet-mapping>
  <servlet-name>GAAttachmentDownload</servlet-name>
  <url-pattern>/answers/attachments/*</url-pattern>
</servlet-mapping>
```

c Save and close the file.



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### Notices

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This product includes software developed by Eric Young (eay@mincom.oz.au).

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# Glossary

This glossary contains general terms used when describing Get-Answers, OAA platform, and Workflow.

Term	Definition
Activity	A task or set of tasks that forms one logical step within the process definition. An activity can be a <i>manual activity</i> or an <i>automated activity</i> .
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 <a href="#">Parallel routing</a> ).
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 <a href="#">Parallel routing</a> ). 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.

Term	Definition								
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	<p>An historical record of the progress of process instances and activity instances.</p> <p>Get-Answers collects the following information for process instances and activity instances:</p> <table border="0" data-bbox="696 713 1146 843"> <tr> <td data-bbox="696 713 876 739"><a href="#">Process Instance</a></td> <td data-bbox="962 713 1146 739"><a href="#">Activity Instance</a></td> </tr> <tr> <td data-bbox="696 748 805 774">Date Start</td> <td data-bbox="962 748 1122 774">Date Assigned</td> </tr> <tr> <td data-bbox="696 782 825 808">Date Ended</td> <td data-bbox="962 782 1065 808">Date Due</td> </tr> <tr> <td></td> <td data-bbox="962 817 1090 843">Date Ended</td> </tr> </table>	<a href="#">Process Instance</a>	<a href="#">Activity Instance</a>	Date Start	Date Assigned	Date Ended	Date Due		Date Ended
<a href="#">Process Instance</a>	<a href="#">Activity Instance</a>								
Date Start	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.								



Term	Definition
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 <a href="#">Organizational Role</a> ).
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.

Term	Definition
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.

Term	Definition
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	<p>A mechanism that associates workflow participants with workflow activities. The role defines how the user participates in a specific process or activity.</p>
Process state	<p>A representation of the status of a process instance. The Get-Answers workflow uses the following process states:</p> <p>Running      the process instance is running and one or more activities have started.</p> <p>Completed    the process instance has successfully completed all activities.</p> <p>Error          the process instance has encountered an error and stopped.</p>
Reader	<p>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.</p>
Reviewer	<p>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.</p>
Roles	<p>Roles consist of a group of users. Permissions are given to roles and/or individual users.</p>
Sequential routing	<p>A segment of a process instance where several activity instances are executed in sequence.</p>
Servlet	<p>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).</p>

Term	Definition
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	<p>A software service or “engine” that provides the run time execution environment for a process instance.</p> <p>The workflow engine interprets the process definition, creates process instances and manages their execution, and navigates activities and creates work items for their processing.</p>
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.

Term	Definition
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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