

ERDAS APOLLO 2010 QuickStart Guide

Version 10.1

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Introduction

In this chapter:

- [What is Covered in This Guide](#)
- [Audience](#)
- [Additional Help](#)
- [Conventions](#)

What is Covered in This Guide

This guide explains how to use the ERDAS APOLLO single-installer system to install a basic, working instance of the following components of the ERDAS APOLLO system:

- ERDAS APOLLO Server (Advantage/Professional edition)*
- ERDAS APOLLO Server (Essentials-SDI edition)*
- ERDAS APOLLO Data Manager.

These instructions are designed so that you can install your product and begin using it as quickly as possible.

** The ERDAS APOLLO Web Client is installed and published automatically when you install the ERDAS APOLLO Server.*

Audience

The instructions in this guide are designed to be easy and thorough for people who are new to installing the ERDAS APOLLO products and the programs that are needed to run it.

The instructions are designed to work for the most common system configurations. Other system configurations may require additional installation steps.

The ERDAS APOLLO system can be configured and optimized to work differently depending on the needs of your organization. The administrator's guides described in the Additional Help section below contain instructions for advanced installation, configuration, and optimization of the system. Those guides are recommended for database administrators and system administrators only.

Additional Help

- The *ERDAS APOLLO Concepts Guide* explains the terminology and technology that you need to know in order to understand the ERDAS APOLLO product. ERDAS recommends that you review this guide before trying to install or configure the product.
- The *ERDAS APOLLO Data Manager Guide* provides instructions for the ERDAS APOLLO Data Manager, which is the ERDAS APOLLO system component that you will be using to create and manage your imagery catalog and/or service providers.
- The *ERDAS APOLLO User Guide* gives instructions on using the ERDAS APOLLO Web Client and instructions on using HTTP requests to interact with your ERDAS APOLLO Server.
- The *ERDAS APOLLO Administrator's Guide* contains instructions for advanced installation, configuration, and optimization of the server application for ERDAS APOLLO. There are two different editions of this guide, depending on which version of the ERDAS APOLLO system you will be using:
 - *ERDAS APOLLO Administrator's Guide (Advanced/Professional edition)*
 - *ERDAS APOLLO Administrator's Guide (Essentials-SDI edition)*

Conventions

Because you can choose where to install a program, the root directory where it is installed is referred to <APPNAME_HOME>, where APPNAME represents the name of the program.

Installing ERDAS APOLLO

In this chapter:

- [System Requirements Checklist](#)
- [Upgrading ERDAS APOLLO](#)
- [Installing and Configuring the Accessory Software](#)
- [Installing ERDAS APOLLO Server on Windows](#)
- [Installing ERDAS APOLLO Server \(Essentials-SDI\) on Linux](#)
- [Deploying Your ERDAS APOLLO Product](#)
- [After the ERDAS APOLLO Installation is Complete](#)

Getting Started

In order to have a complete and functional ERDAS APOLLO system, you will need to install the following:

On your server computer:

- ERDAS APOLLO Server
- a compatible application server

On one or more client computers:

- ERDAS APOLLO Data Manager

There are three levels of the ERDAS APOLLO Server that you can install.

- **Professional** - allows you to add, edit, or retrieve data from an imagery data catalog, create and manage service providers, and work with geospatial processes.
- **Advantage** - allows you to add, edit, or retrieve data from an imagery data catalog and create and manage service providers.
- **Essentials-SDI** - allows you to create and manage service providers

The ERDAS APOLLO Data Manager is the same for all three levels and can interact with any tier of the ERDAS APOLLO Server.

The ERDAS APOLLO Server installer can install any level of the product (there is an option in the installer that allows you to specify which one you need).

The ERDAS APOLLO Data Manager has a separate installer.



*If you are about to install this ERDAS APOLLO system as a replacement for an older ERDAS APOLLO system, be sure to see **Upgrading ERDAS APOLLO** on page 10 before you begin!*

System Requirements Checklist

You will need certain hardware and software in order for your system to support the ERDAS APOLLO products.

Hardware Requirements

Your hardware must meet the following standards in order to support the ERDAS APOLLO system.

CPU

- 32-bit or 64-bit dual-core processor (two dual-cores or one quad-core is best)
- Speed - 2.0 GHz or higher

Memory

- At least 2 GB (4 GB or more is best)

NOTE: The amount of memory supported by Windows can be found on the following web site:

<http://msdn.microsoft.com/en-us/library/aa366778.aspx>

Available Hard Disk Space

- 2 GB for ERDAS APOLLO Server (any version)
- 200 MB for ERDAS APOLLO Data Manager

Network

- At least 100 MB backbone (a 1GB backbone is best)

Data Storage

- 7200 RPM speed disk storage (recommend High Speed Disk Storage, > 15000 RPM, RAID Arrays or External SAN/NAS)

Media Reader

- DVD-ROM drive for reading the installation disk

Display

- Super VGA 1024 X 768 X 32 or higher

Software Requirements

Operating Systems

ERDAS APOLLO Server (Advantage/Professional) is compatible with the following operating systems:

- Microsoft Windows Server 2008
Standard and Enterprise Editions (32-bit and 64-bit)
- Microsoft Windows Server 2003
Standard and Enterprise Editions (32-bit and 64-bit)

ERDAS APOLLO Server (Essentials-SDI) is compatible with the following operating systems:

- Microsoft Windows Server 2008
Standard and Enterprise Editions (32-bit and 64-bit)
- Microsoft Windows Server 2003
Standard and Enterprise Editions (32-bit and 64-bit)
- Microsoft Windows XP Professional SP2 or higher (32-bit)
- Red Hat Linux Enterprise 5 (32-bit and 64-bit)
- CentOS 5.1 and 5.2 (32-bit)

ERDAS APOLLO Data Manager is compatible with the following operating systems:

- Microsoft Windows Server 2003
- Microsoft Windows XP Professional

Application Servers

ERDAS APOLLO Server (Advantage/Professional) is compatible with the following application servers:

- JBoss version 4.2.2.GA (*bundled with product*)
- BEA WebLogic 10.0

If you want to use JBoss, the installer will put it on your computer when it installs ERDAS APOLLO Server. If you want to use WebLogic, you will need to configure it yourself using the instructions provided in this guide.

ERDAS APOLLO Server (Essentials-SDI) is compatible with the following application servers:

- Apache Tomcat 5.5 (*bundled with product*)
- Apache Tomcat 6.0
- JBoss 4.2.2.GA
- BEA WebLogic 10.0

If you want to use Apache Tomcat 5.5, the installer put it on your computer when it installs ERDAS APOLLO Server. If you want to use one of the other application servers, you will need to install and configure it yourself. The ERDAS APOLLO Server installer also provides an option for you to use an application server not specified in this list.

Database Requirements

ERDAS APOLLO Server requires a database in order to work and is compatible with the Oracle, PostgreSQL, or SQL Server 2008 database platforms.

The specific versions and any required add-ons are listed below.

- Oracle
 - Oracle version 10g Release 2, standard or enterprise edition
OR
Oracle 11g, standard or enterprise edition.
 - Locator feature is used or the Spatial cartridge if available.
 - The following patches must be applied to Oracle and are only available from Oracle support. You can access Oracle support at <http://support.oracle.com>

For Oracle 10g

- 10.2.0.4 patchset - patch number 6810189
10.2.0.4 patch 17 - patch number 8258839

For Oracle 11g

- 11.1.0.7 patchset - patch number 6890831
11.1.0.7 patch 7 - patch number 8260294

- PostgreSQL
 - PostgreSQL version 8.3
 - PostGIS 1.3.3
- Microsoft SQL Server 2008

Your database administrator will need to set up the database for you and will be able to give you the following information so that you can install ERDAS APOLLO Server:

- Name of the server where the database is located.
- The listener port number.
- SID/Database Name
- The catalog user name
- The catalog user password

Java Requirements

The ERDAS APOLLO Server installer automatically places the Java Development Kit (JDK) 5.0 Update 17 on the server computer when you install the product.

The ERDAS APOLLO Data Manager installer automatically places the The Java Runtime Environment (JRE) 5.0 Update 16 on each client machine on which you install the ERDAS APOLLO Data Manager application.

Internet Browsers

The ERDAS APOLLO Web Client can be viewed with these browsers:

- Microsoft Internet Explorer 7.x and up
- Mozilla Firefox

Licensing Requirements

The ERDAS-Net License Admin Tool must be installed on the same computer as your ERDAS APOLLO Server and configured with valid licenses.

For information about using the ERDAS-Net License Admin Tool, see the *ERDAS-Net License Administration* guide.

If you need additional assistance with licensing, e-mail teamlicensing@erdas.com

Antivirus Software Requirements

If you are using antivirus software that features real-time protection and it is scanning your geospatial data files or your ERDAS APOLLO installation directory, it may cause your ERDAS APOLLO system to be unreasonably slow.

For best results, create an “exception rule” that excludes the data files and the installation directory from the scanning of the real-time protection feature.

Upgrading ERDAS APOLLO

Any time you upgrade your ERDAS APOLLO installation, you should first make a copy of all the files contained in the installation folder or folders for your previous products, AND your ERDAS APOLLO database or databases.

Upgrading to ERDAS APOLLO 2010 from ERDAS APOLLO 9.3.x

If ERDAS APOLLO 2010 will be replacing a SINGLE product (either ERDAS APOLLO Server or ERDAS APOLLO Image Manager), you will need to do the following:

1. Stop the application servers that are associated with your previous ERDAS APOLLO product.
(See [How to Stop an Application Server](#) for detailed instructions.)
2. If the application server was installed as a Windows service, you need to uninstall it.
(See [How to Uninstall a Windows Service](#) for detailed instructions.)
3. Follow the ERDAS APOLLO 2010 installation process as indicated in this guide, but make sure you provide the installer with the following information:
 - a. When it asks you where you would like to install, instruct it to install in a new directory (not the directory containing your previous ERDAS APOLLO product).
 - a. When it asks you to provide database connection information, provide the information to connect to the database you were already using for the ERDAS APOLLO product you had.
 - b. When it asks you if you are installing ERDAS APOLLO 2010 as a replacement for an older product, select "Yes".
 - c. It will ask you for the paths to the directories where you have been storing your thumbnail and ISO metadata files. Provide the path to the thumbnail and ISO metadata files you already have.

When the installer runs, it will upgrade your database schema so that it is compatible with the new version of ERDAS APOLLO.

It will place a link in the database that allows ERDAS APOLLO 2010 to locate your existing thumbnails and ISO metadata files.

Any thumbnails and ISO metadata files that are created by ERDAS APOLLO 2010 will be stored in the directory specified in the `providers.fac` file.

(See "Centralization of Metadata, Thumbnails, Pyramids, and WPS Outputs" in the *ERDAS APOLLO 2010 Administrator's Guide: Advantage/Professional Edition* for more information).

4. You will still need to make sure the customizations you made to your older product are applied to your new product. To do that, follow the instructions for existing ERDAS APOLLO users in the section, **After the ERDAS APOLLO Installation is Complete** on page 56 of this guide.

If ERDAS APOLLO 2010 will be replacing TWO products (both ERDAS APOLLO Server and ERDAS APOLLO Image Manager), you will need to do the following:

1. Stop the application servers that are associated with your previous ERDAS APOLLO products.
(See **How to Stop an Application Server** for detailed instructions.)
2. If the application servers were installed as Windows services, you need to uninstall them.
(See **How to Uninstall a Windows Service** for detailed instructions.)
3. Follow the ERDAS APOLLO 2010 installation process as indicated in this guide, but make sure you provide the installer with the following information:
 - a. When it asks you where you would like to install, instruct it to install in a new directory (not the directory containing your previous ERDAS APOLLO product).
 - a. When it asks you to provide database connection information, provide the information to connect to the database you were using for ERDAS APOLLO Image Manager.
 - b. When it asks you if you are installing ERDAS APOLLO 2010 as a replacement for an older product, select "Yes".
 - c. It will ask you for the paths to the directories where you have been storing your thumbnail and ISO metadata files. Provide the path to the thumbnail and ISO metadata files you already have.

When the installer runs, it will upgrade your database schema so that it is compatible with the new version of ERDAS APOLLO.

It will place a link in the database that allows ERDAS APOLLO 2010 to locate your existing thumbnails and ISO metadata files.

Any thumbnails and ISO metadata files that are created by ERDAS APOLLO 2010 will be stored in the directory specified in the `providers.fac` file. (See "Specifying the Storage Directories for Metadata, Thumbnails, Pyramid & WPS Outputs" in the *ERDAS APOLLO 2010 Administrator's Guide: Advantage/Professional Edition* for more information).

4. You will still need to make sure the customizations you made to your older product are applied to your new product. To do that, follow the instructions for existing ERDAS APOLLO users in the section, **After the ERDAS APOLLO Installation is Complete** on page 56 of this guide.

Upgrading to ERDAS APOLLO 2010 version 10.1 from ERDAS APOLLO 2010

There are two installers available that will upgrade an ERDAS APOLLO 2010 installation to version 10.1: a short update installer, or the full installer.

About the ERDAS APOLLO 2010 version 10.1 Update Installer

The update installer will upgrade your database and edit some of the files in your current ERDAS APOLLO 2010 installation. If you have made prior customizations to a file that the update installer typically would update, it will not overwrite those files, but you will need to apply the change manually.

About the ERDAS APOLLO 2010 version 10.1 Full Installer

The full installer will install a brand new instance of ERDAS APOLLO 2010 v10.1 that can replace your ERDAS APOLLO 2010 instance.

To upgrade to version 10.1 using the UPDATE installer:

1. Stop the application server.
(See [How to Stop an Application Server](#) for detailed instructions.)
2. If you have customized any of the files that will be edited by the update installer, copy those files and place them in a safe location so you can look at them later.
3. Obtain the update installer file, `ERDAS_APOLLO_2010_1.exe`. Place it in the same directory as the `installer.properties` file that was generated when you installed ERDAS APOLLO 2010.
4. Launch `ERDAS_APOLLO_2010_1.exe`.
5. When the installer begins, the Introduction screen appears first. Read the instructions and click **Next** to proceed.
6. The update installer will display a message box reminding you to back up the files contained in your ERDAS APOLLO 2010 installation. Make sure you have done this, and click **OK**.
7. The update installer will attempt to determine where you installed ERDAS APOLLO 2010, and the path to that installation should appear in the installer panel.

If the installer displays the wrong path, do not proceed with the update installer. Upgrade using the full installer instead.

If it displays the correct path, click **Install**.

8. If you had customized any files that were just edited by the update installer, open them alongside the backup copies that you made and make sure your changes are applied to the new version of the file.
9. When you are finished editing the files, restart the application server.

To upgrade to version 10.1 using the Full installer:

1. Back up the files contained in your ERDAS APOLLO 2010 installation.
2. Stop the application servers for ERDAS APOLLO 2010.
(See [How to Stop an Application Server](#) for detailed instructions.)
3. Follow the ERDAS APOLLO installation process as indicated in this guide, but make sure you provide the installer with the following information:
 - a. When it asks you to provide database connection information, provide the information to connect to your existing ERDAS APOLLO database.
 - b. When it asks you if you are installing ERDAS APOLLO 2010 as a replacement for an older product, select "Yes".
 - c. It will ask you for the paths to the directories where you have been storing your thumbnail and ISO metadata files. Provide the path to the thumbnail and ISO metadata files you already have.

When the installer runs, it will upgrade your database schema so that it is compatible with the new version of ERDAS APOLLO.

It will place a link in the database that allows ERDAS APOLLO 2010 v10.1 to locate your existing thumbnails and ISO metadata files.

Any thumbnails and ISO metadata files that are created by ERDAS APOLLO 2010 v10.1 will be stored in the directory specified in the `providers.fac` file. (See "Specifying the Storage Directories for Metadata, Thumbnails, Pyramid & WPS Outputs" in the *ERDAS APOLLO 2010 Administrator's Guide: Advantage/Professional Edition* for more information).

4. You will still need to make sure the customizations you made to your older product are applied to your new product. To do that, follow the instructions for existing ERDAS APOLLO users in the section, [After the ERDAS APOLLO Installation is Complete](#) on page 56 of this guide..

How to Stop an Application Server

The procedure for doing this varies depending on what kind of application server you are using. The procedures for stopping the ones most often used by our customers are listed below.

To stop the JBoss application server:

1. Open the **Control Panel**.
2. Select **Administrative Tools > Services**
3. Find **JBoss Application Server 4.2** in the grid, right-click it, and select **Stop** in the menu.

To stop the Apache Tomcat application server:

If Apache Tomcat is running as a Windows service:

1. Open the control panel.
2. Select **Administrative Tools > Services**
3. Find **Apache Tomcat** in the grid, right-click it, and select **Stop** in the menu.

If Apache Tomcat was not running as a Windows service:

1. Go to the command line window that you used to start the `startup.bat` file and press Ctrl-C on the keyboard or close the command line window.

To stop the WebLogic application server:

1. Click the **Windows Start** button.
2. Click **All Programs**.
3. Select **BEA Products > User Projects > apollo_domain > Stop Admin Server**.
4. A command line window will open.
Enter the user name `weblogic` and the password `weblogic` to log in to the domain.

How to Uninstall a Windows Service

To uninstall a JBoss Windows service:

1. Open a command line window.
2. Navigate to the `<JBOSS_HOME>/bin` directory.
3. At the prompt, type `service.bat uninstall` and press Enter.

To uninstall an Apache Tomcat Windows service:

1. Open a command line window.
2. Navigate to the `<TOMCAT_HOME>/bin` directory.
3. At the prompt, type `service.bat remove` and press Enter.

Installing and Configuring the Accessory Software

Any version of ERDAS APOLLO Server requires an application server in order to work. ERDAS APOLLO Server (Advantage/Professional) requires a database in order to work.

Database

Before you install ERDAS APOLLO, you will need to create a new database and a user account that the installer can use to access the database so it can create the tables that are necessary for the ERDAS APOLLO system.



For the most part, you need to follow the rules established by the database platform when you create the password for your “master” user account.

However, you also need to make sure that the password does not include the dollar sign (\$), as the ERDAS APOLLO installer cannot process any dollar signs it receives as input.

Oracle

If you are using an Oracle database you will need to create a user that will own the registry schema. You must grant this user the "connect" and "resource" roles and the “analyze any” system privilege. The “connect” and “resource” roles have to be set as "default" roles (for TOAD users).

PostgreSQL

You must have a working PostGIS database in your PostgreSQL instance. A PostGIS database can be created at installation time or later using the template 'template_postgis'. You also need a user who has permission to create database objects and has a schema in the PostGIS database. During the installation, you will be asked for the credentials of this user and the database administrator (usually 'postgres'), the actual database name, and the port number.

Microsoft SQL Server

Inside your SQL Server instance, you need to create:

- a login with all server roles enabled.
- a user account that is associated with that login.
The user should be a member of all the database roles.
- a blank database for ERDAS APOLLO that is owned by that user account.

You will also need to enable XA transactions. Microsoft provides instructions for that in their SQL Server Developer Center, on the following web site:

<http://msdn.microsoft.com/en-us/library/aa342335.aspx>

Application Server

The list of application servers that are compatible with each version of the ERDAS APOLLO Server can be found in [Application Servers](#) on page 6 in the System Requirements section.

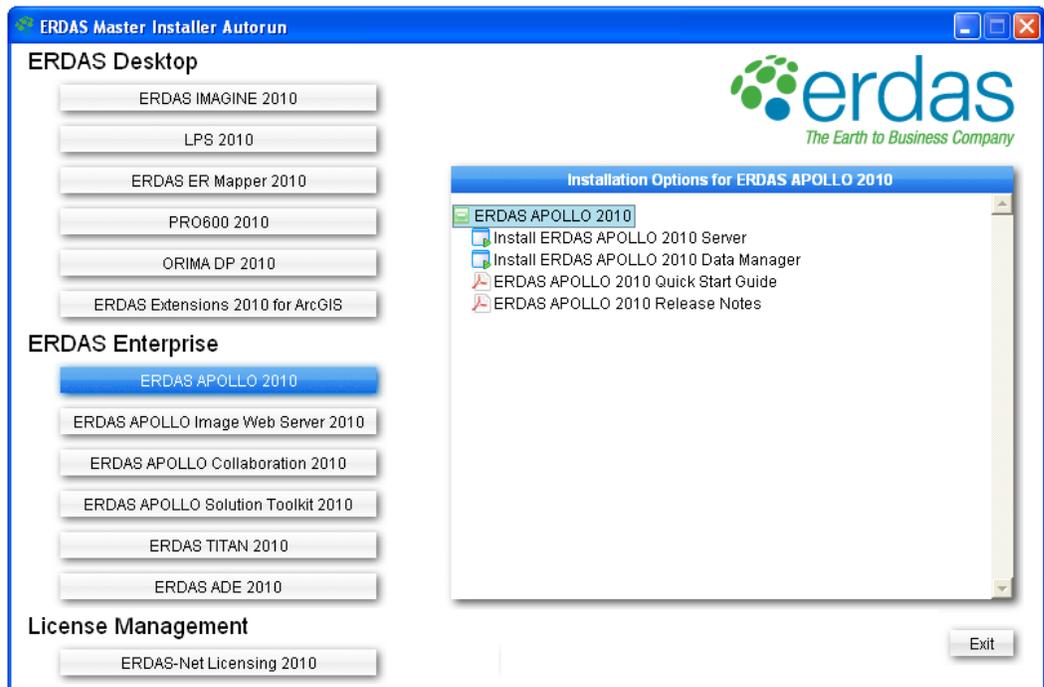
ERDAS APOLLO Server has an application server that is bundled with it. ERDAS APOLLO Server (Advantage/Professional) comes with JBoss, and ERDAS APOLLO Server (Essentials-SDI) comes with Tomcat 5.5. If you select the bundled application server when you are running the ERDAS APOLLO Server installer, the installer will also place this application server on your system, configure it to work with ERDAS APOLLO, and even deploy it.

If you want to use one of the other compatible application servers for your ERDAS APOLLO Server instead of the one that comes bundled with it, you will need to install it, configure it so that it runs on your system, and deploy ERDAS APOLLO on it. You will also need to place a line in the startup script of the application server that will create an environment variable called **IMAGINE_HOME_PATH** with the value **SET**. You must do this in the startup script of the application server, NOT in the operating system.

Installing ERDAS APOLLO Server on Windows

The same installation program can be used to install any version of ERDAS APOLLO Server. You will only be able to run the version for which you have a valid license.

1. Insert the ERDAS Software DVD into your DVD drive. The following screen will appear on your computer.

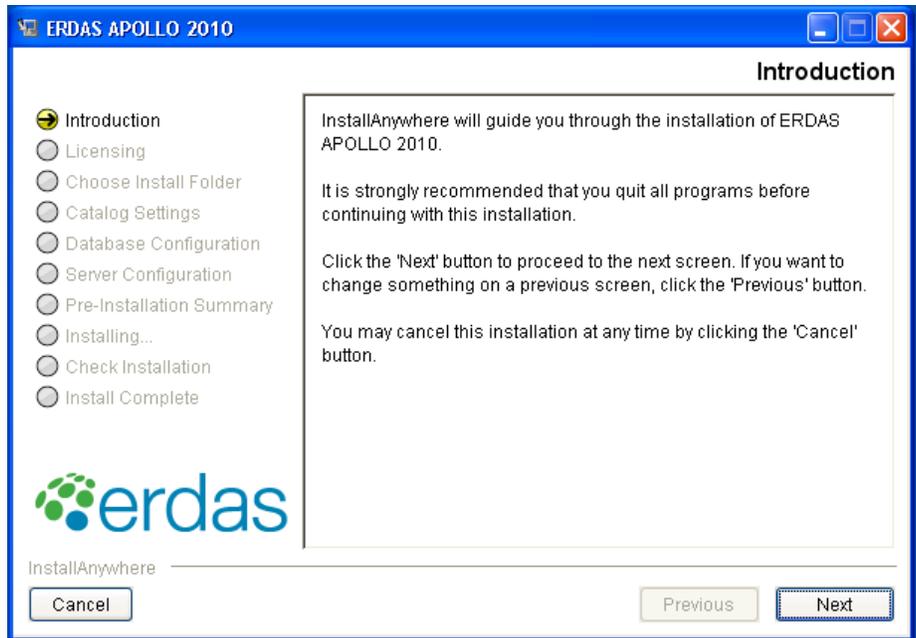


2. Click **ERDAS APOLLO 2010**.
3. Select **Install ERDAS APOLLO 2010 Server** in the installation options list.

The installer has to prepare for the installation procedure. This can take a few minutes.

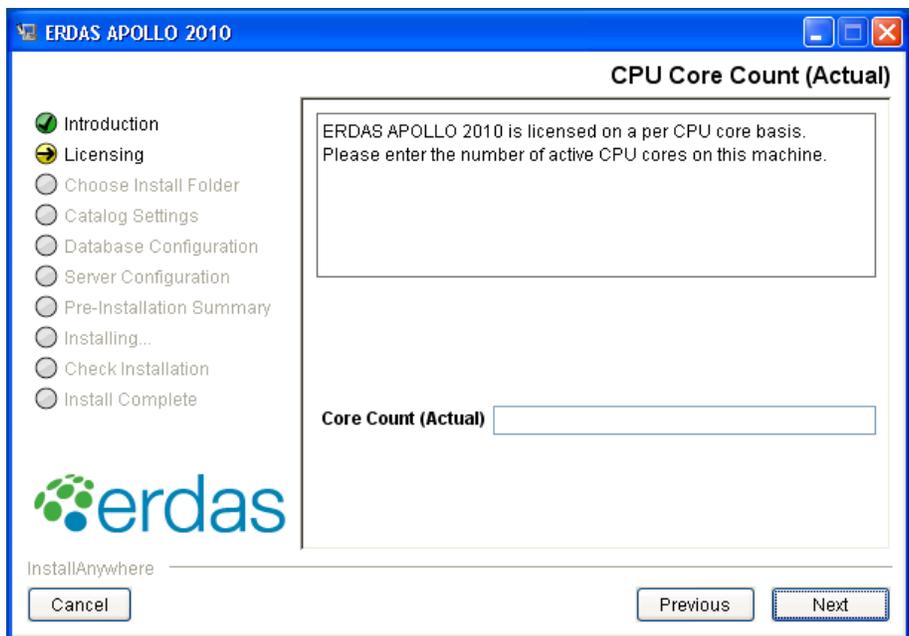
4. When the installer begins, the Introduction screen appears first. Read the instructions and click **Next** to proceed.

Figure 1: Installer Main Screen



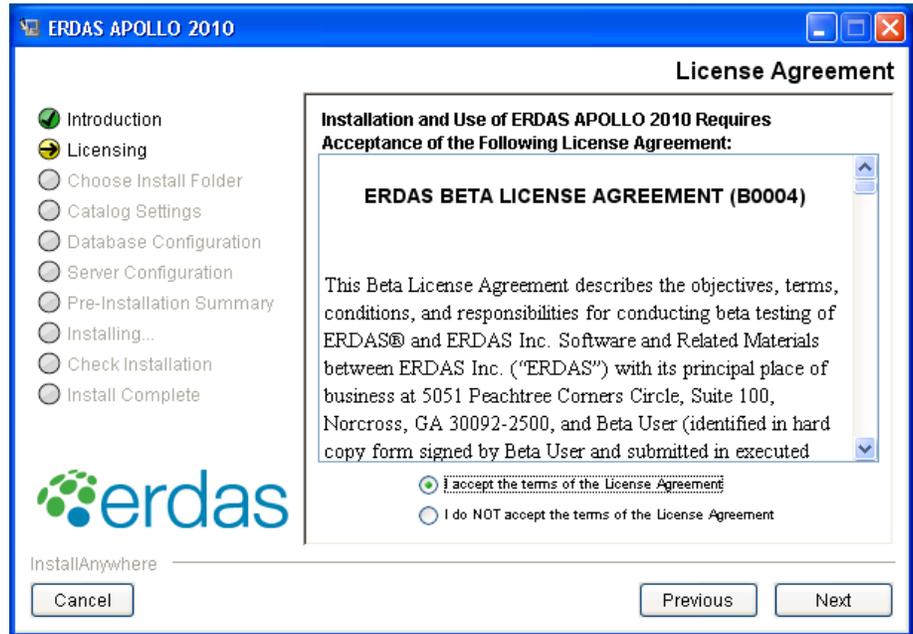
5. The next step asks you to indicate the number of CPU cores in the computer. Your license agreement stipulates that all ERDAS enterprise products are licensed by CPU core, so please provide the correct number of cores.

Figure 2: CPU Core Count



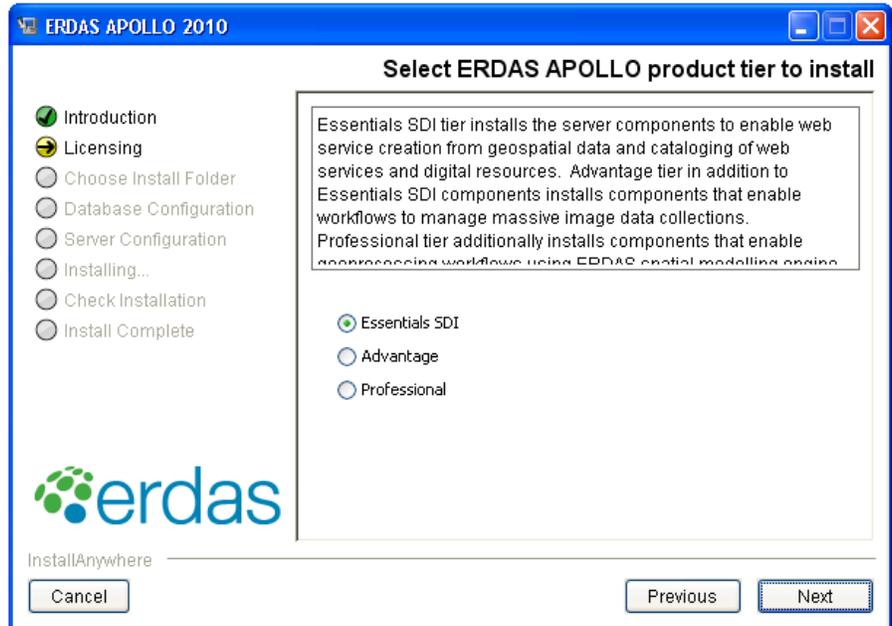
- The next step of the installer asks you to read and accept the terms of the ERDAS APOLLO License Agreement. Click **Next** to proceed.

Figure 3: The ERDAS APOLLO License Agreement

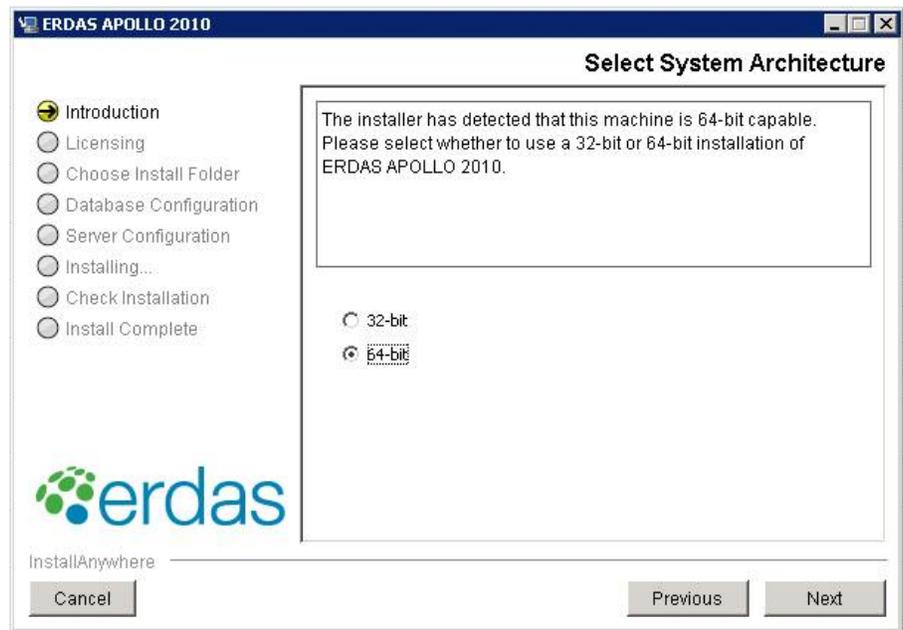


- Next, the installer asks you to specify which tier of the ERDAS APOLLO product you would like to install.

Figure 4: Select the Edition of ERDAS APOLLO Server to Install

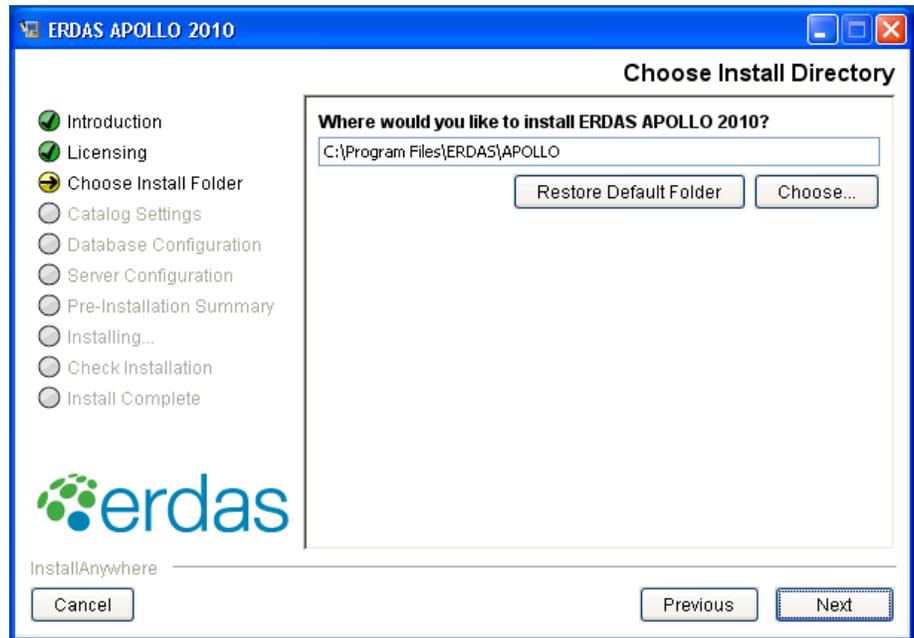


8. If you are running the installer on a 64-bit computer, the installer will ask you if you want to install the 32-bit or 64-bit version of ERDAS APOLLO.



9. Choose a directory in which to install the product.
You cannot install ERDAS APOLLO in a directory that has spaces in the name.

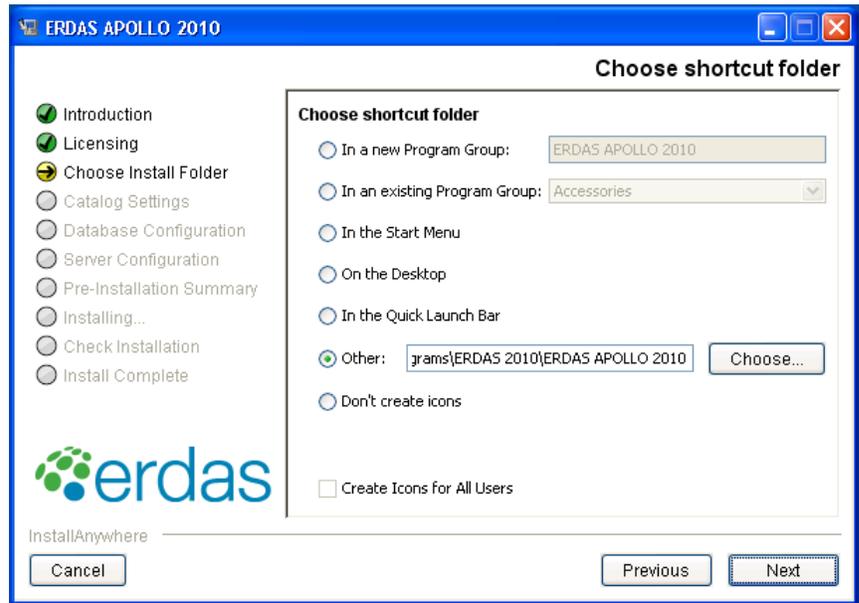
Figure 5: Specify Installation Location for ERDAS APOLLO Server



Do not install the ERDAS APOLLO products in the same folder where you have installed your application server.

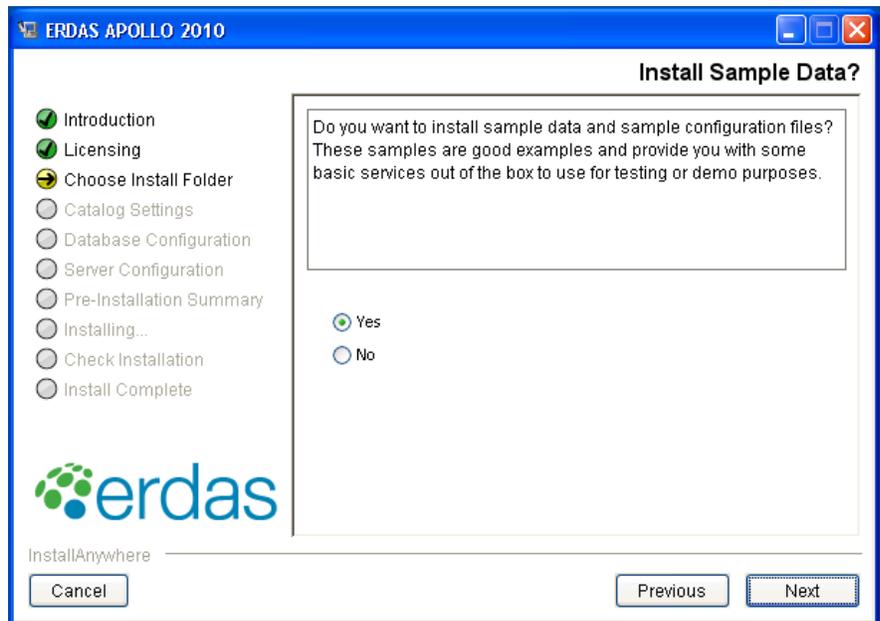
10. The next step of the installer asks you if you want a shortcut to the application, and if so, where you want it to be located.

Figure 6: Location of the Application Shortcut



11. The next step asks you if you would like to install sample data and sample configuration files. This is helpful if you are new to the system and need to learn how it works, or if you will be customizing the system and need some examples of the customizations.

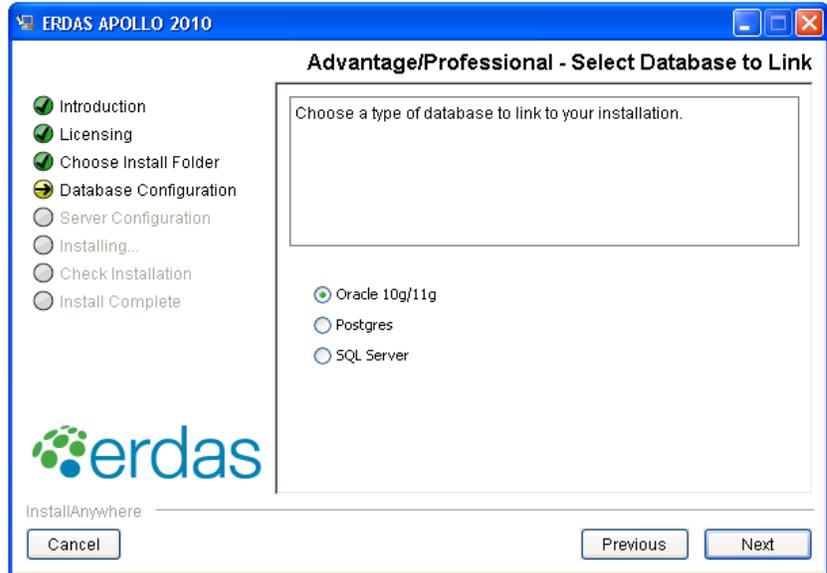
Figure 7: Install Sample Data for Your ERDAS APOLLO System



12. The ERDAS APOLLO Server (Advantage/Professional) must be connected to a database in order to work.

The installer asks you which type of database you want to connect the server to.

Figure 8: Database Platform Choice for Advantage/Professional



13. Next, the installer will ask you for the following information so it can connect to the database:

- The name of the server where the database is located
- The listener port number (default is set to 1521)
- The database server ID
- The database user name
- The database user password

NOTE: Passwords that contain dollar signs (\$) cannot be processed by the installer.

Figure 9: Oracle Info Settings

The installer will automatically configure your servlet for access to the chosen database user. Please provide the necessary information.

Server

Port

SID/Database Name

Catalog User Name

Catalog User Password

Cancel Previous Next

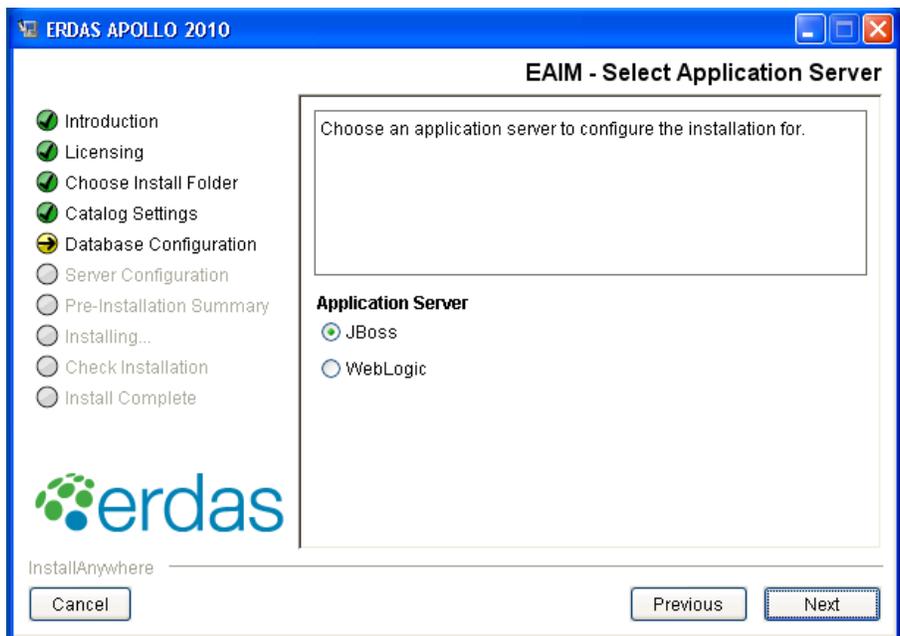
14. The next step asks you to indicate which application server you want to use with ERDAS APOLLO Server. This step of the wizard looks different depending on which product you are installing.

ERDAS APOLLO Server (Advantage/Professional) is compatible with the following application servers:

- JBoss version 4.2.2.GA
- BEA WebLogic 10.0

If you want to use JBoss, the installer will put it on your computer when it installs ERDAS APOLLO Server. If you want to use WebLogic, you will need to install and configure it yourself using the instructions provided in [Appendix A](#) of this guide.

Figure 10: Select the Application Server to Use with ERDAS APOLLO Server (Advantage/Professional)



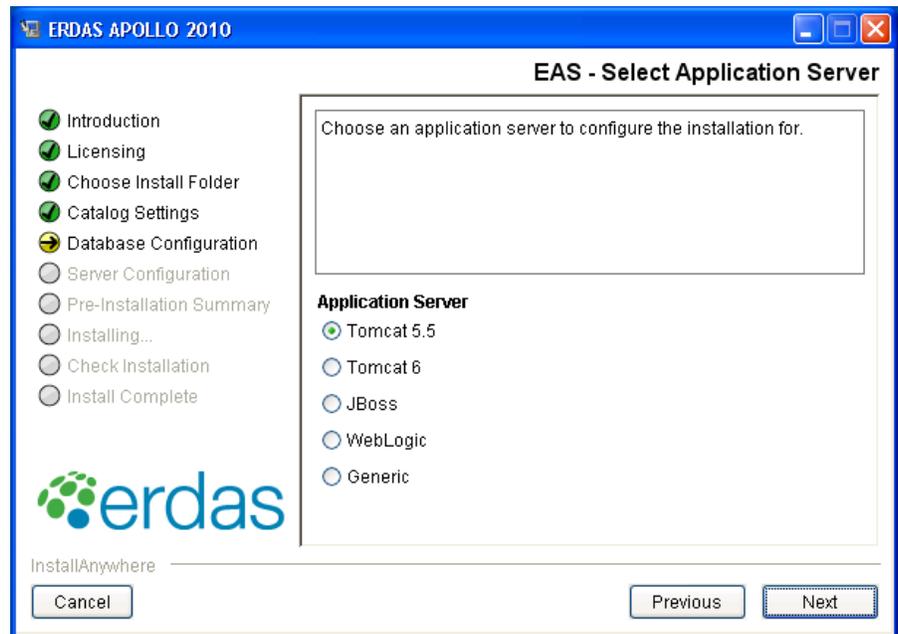
ERDAS APOLLO Server (Essentials-SDI) is compatible with the following application servers:

- Apache Tomcat 5.5
- Apache Tomcat 6.0
- JBoss 4.2.2.GA
- BEA WebLogic 10.0

If you want to use Apache Tomcat 5.5, the installer will put it on your computer when it installs ERDAS APOLLO Server. If you want to use one of the other application servers, you will need to install and configure it yourself.

The **Generic** option allows you to install ERDAS APOLLO Server so it can work with another application server besides the ones listed here.

Figure 11: Select the Application Server to Use with ERDAS APOLLO Server (Essentials-SDI)



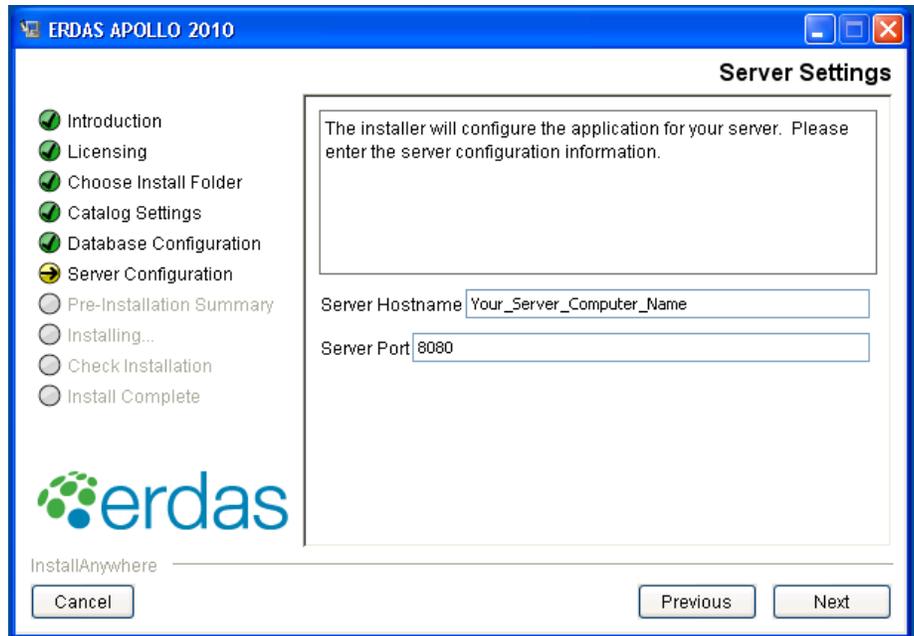
15. The next step will ask you to provide the server settings for the computer where your ERDAS APOLLO product will be installed. This step looks different depending on which version of ERDAS APOLLO Server you are installing and which application server you intend to use.

If you are installing the following products, then you will see the following panel in the installer:

- ERDAS APOLLO Server (Advantage/Professional)
(with either JBoss or WebLogic),
- ERDAS APOLLO Server (Essentials-SDI)
(with JBoss, Tomcat 6, WebLogic, or a generic application server)

In the **Server Host** box, type the name of the computer that you are installing ERDAS APOLLO Server on, or the static IP address of that computer. In the **Server Port** box, type the port number that should be used to access the service. The default server port number is 8080.

Figure 12: Server Settings for ERDAS APOLLO Server

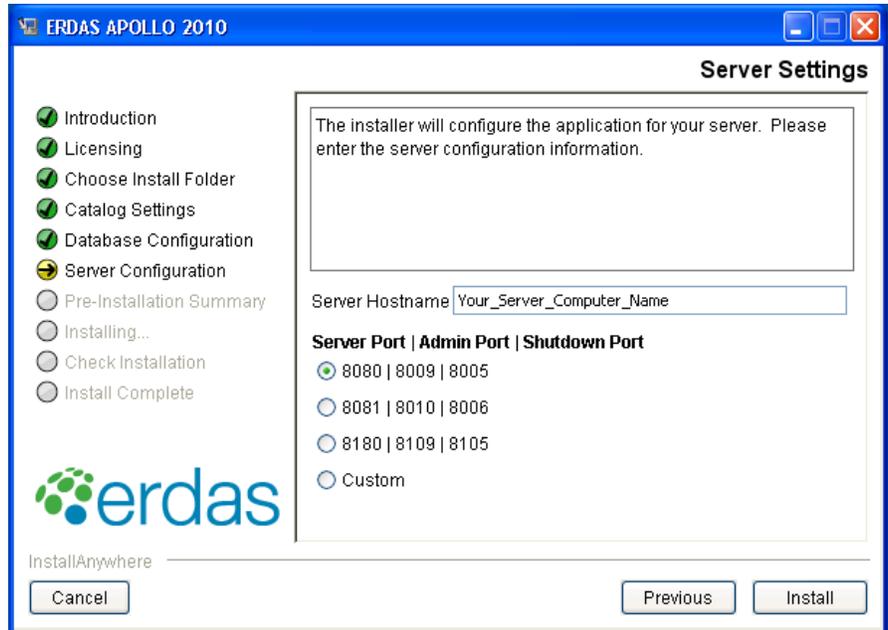


If you are installing EAS and using the application server that is bundled with it (Apache Tomcat 5.5), you will see the following panel instead.

In the **Server Host** box, type the name or static IP address of the computer on which you are installing ERDAS APOLLO Server. Next, select the set of port numbers that you want to use. The **server port** number is the port used to access the service, the **admin port** number is used to manipulate Tomcat remotely, and the **shutdown port** is requested by a command line call in order to prepare the server to shut down.

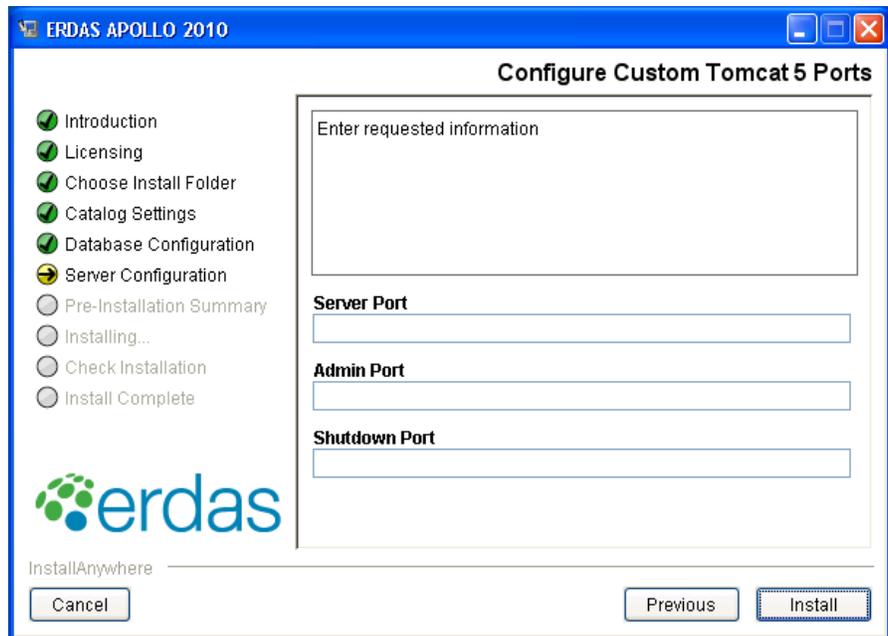
It is best to accept the default port numbers (8080|8009|8005) unless you need to avoid a conflict with another application.

Figure 13: Server Settings for ERDAS APOLLO Server (Essentials-SDI) with Apache Tomcat 5.5



If you need to customize the port numbers further, select the **Custom** option and click Next. The installer will display the following panel, which allows you to specify any port values you want.

Figure 14: Specifying Custom Ports for Apache Tomcat 5.5



16. The Simple Mail Transfer Protocol (SMTP) configuration page asks for an e-mail server, port number, and user name that ERDAS APOLLO Server can use to send e-mails. This step only appears if you are installing ERDAS APOLLO Server (Advantage/Professional).

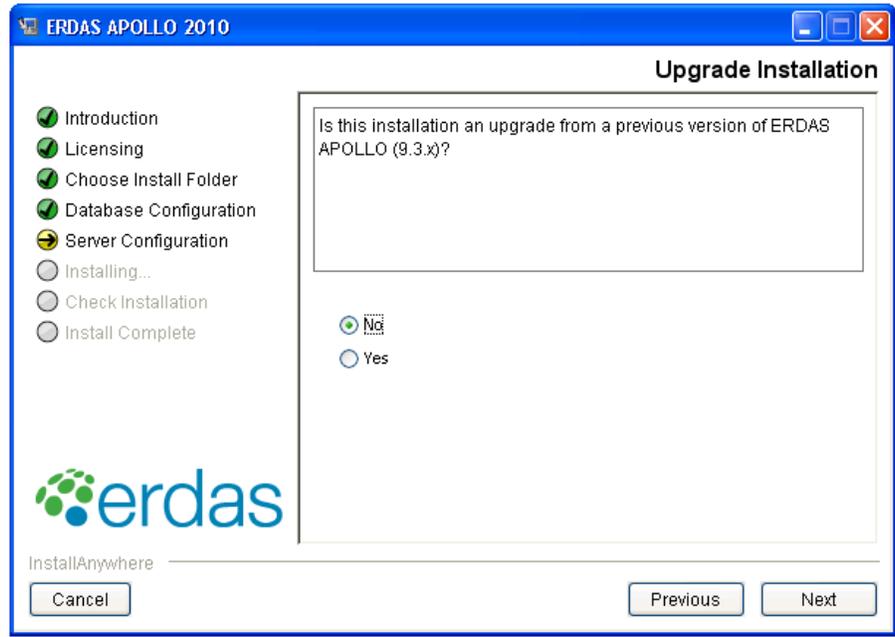
NOTE: Windows Firewall and other anti-virus programs may block outgoing e-mail. To avoid this, you can add your application server to the list of applications that the firewall and anti-virus program should allow to send e-mail from the server.

Figure 15: SMTP Settings for ERDAS APOLLO Server (Advantage/Professional)

The screenshot shows the 'SMTP Settings' dialog box for ERDAS APOLLO 2010. The window title is 'ERDAS APOLLO 2010'. The main title is 'SMTP Settings'. On the left side, there is a vertical list of installation steps, each with a radio button. The steps are: Introduction (checked), Licensing (checked), Choose Install Folder (checked), Catalog Settings (checked), Database Configuration (checked), Server Configuration (selected with a yellow arrow), Pre-Installation Summary (unchecked), Installing... (unchecked), Check Installation (unchecked), and Install Complete (unchecked). Below the list is the ERDAS logo and the text 'InstallAnywhere'. The main area of the dialog contains a text box with the instruction: 'Please provide a Simple Mail Transfer Protocol (SMTP) server to send emails from the ERDAS APOLLO 2010.' Below this text box are three input fields: 'SMTP Hostname' with the placeholder text 'Your_Mail_Host_Name', 'SMTP Port' with the value '25', and 'SMTP User' with the placeholder text 'The_Mail_User'. At the bottom of the dialog are three buttons: 'Cancel', 'Previous', and 'Install'.

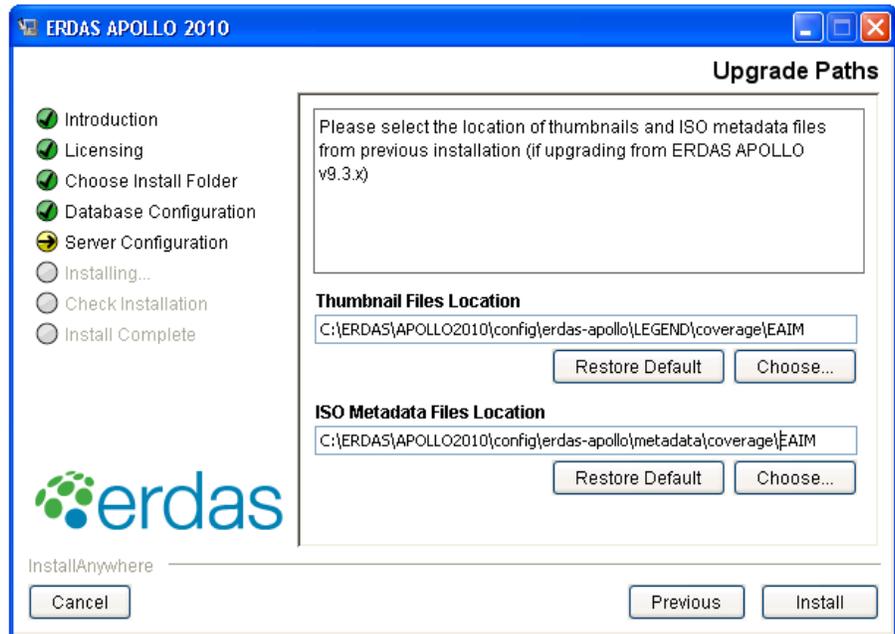
17. If you are installing the Advantage or Professional versions of ERDAS APOLLO Server 2010, the next step asks you if you are installing this product in order to upgrade from a previous version of ERDAS APOLLO.

NOTE: This step does not appear in the installer if you are installing the Essentials-SDI version of ERDAS APOLLO Server.



If yes, then the installer will ask you to specify the directories in which you were storing the thumbnail and ISO metadata files in the previous version.

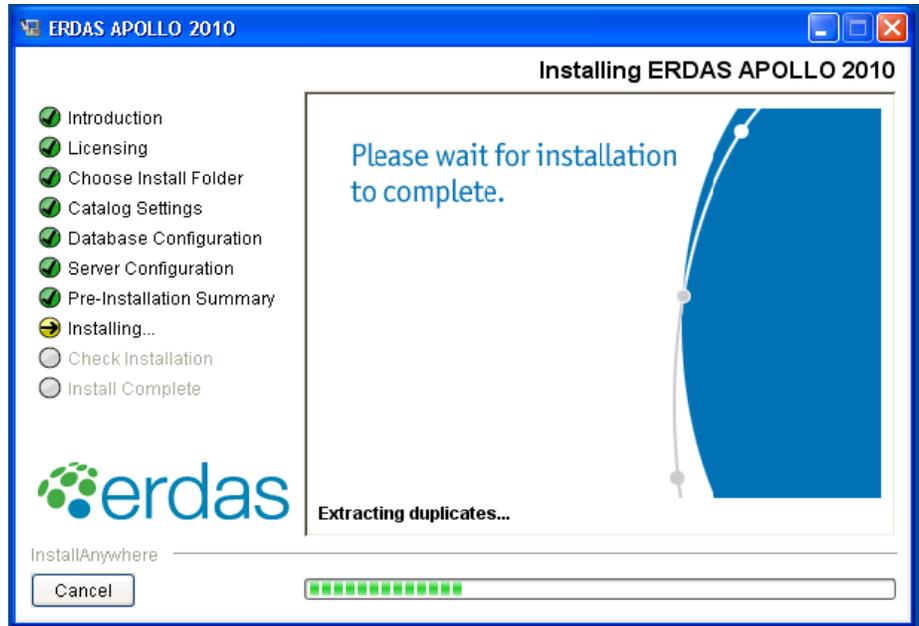
Initially, the installer displays the paths of the default storage directories used by the Advantage/Professional tier of ERDAS APOLLO.



18. You can use the **Previous** button to review any of your selections in the installer.

Click **Install** when you are satisfied with your selections. The installer will begin and will display a panel that will allow you to monitor its progress.

Figure 16: Installation Phase



19. After copying the necessary files and executing the configuration, the last panel of the installer will notify you that the installation is complete.

Installing ERDAS APOLLO Server (Essentials-SDI) on Linux

The following instructions explain how to install ERDAS APOLLO Server (Essentials-SDI) on a Linux computer in console mode.

You can also install ERDAS APOLLO Server (Essentials-SDI) on a Linux machine using the graphical user interface for Linux. If you use the graphical interface for Linux, the installation steps are basically the same as the ones for installing ERDAS APOLLO Server on a Windows computer.



ERDAS APOLLO Server (Advantage/Professional) cannot run on Linux. If you need to install the Advantage or Professional levels of the ERDAS APOLLO Server, see [Installing ERDAS APOLLO Server on Windows](#) on page 19.

1. Open a console (local or Telnet/SSH) then start the installer using the command `sh install.bin -i console`. The `i console` option indicates that you are running the installer in the console mode.

NOTE: You will need to use the `chmod u+x` command on the `install.bin` file to be able to execute it.

NOTE: The installer requires sufficient temp space while executing in order to execute successfully. You can either clean up your default temp folder (typically the default temp directory is `/tmp`) or set the environment variable `IATEMPDIR` using the `export` command. For example, `export IATEMPDIR=/your/temp/space/directory`.

```
$ ./install.bin -i console
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...
Launching installer...
Preparing CONSOLE Mode Installation...
=====
ERDAS Apollo Server                               (created with InstallAnywhere)
=====
Introduction
-----
InstallAnywhere will guide you through the installation of ERDAS Apollo Server.
It is strongly recommended that you quit all programs before continuing with
this installation.
Respond to each prompt to proceed to the next step in the installation.  If you
want to change something on a previous step, type 'back'.
You may cancel this installation at any time by typing 'quit'.
PRESS <ENTER> TO CONTINUE:
```

2. The Licence Agreement begins. The console displays the license agreement in several parts, and after each part, you are prompted to press Enter to continue reading the agreement.

```
=====
License Agreement
-----

Installation and use of ERDAS Apollo Server requires acceptance of the
following License Agreement:

ERDAS INC.

ERDAS APOLLO ENTERPRISE SOFTWARE LICENSE and

LIMITED WARRANTY AGREEMENT

* PLEASE READ THIS NOTICE CAREFULLY BEFORE USING THE SOFTWARE *

THIS ERDAS INC. SOFTWARE LICENSE AND LIMITED WARRANTY AGREEMENT IS A LEGAL
AGREEMENT, WITH IMPORTANT LEGAL CONSEQUENCES, BETWEEN YOU (EITHER AN INDIVIDUAL
OR A SINGLE ENTITY) AND ERDAS INC. REGARDING THE ACCOMPANYING SOFTWARE. THIS
AGREEMENT IS PRESENTED FOR REVIEW AND APPROVAL AS A MANDATORY STEP IN THE
INSTALLATION OF THE SOFTWARE. DO NOT INSTALL OR USE THE SOFTWARE UNTIL YOU
HAVE READ AND AGREED TO THE TERMS OF THIS AGREEMENT; BY CONTINUING WITH THE
INSTALLATION PROCESS OR USING THE SOFTWARE, YOU AGREE TO ALL OF THE TERMS OF
THE LICENSE, THE LIMITED WARRANTY, AND THE LIMITATIONS OF LIABILITY AND
REMEDIES SET FORTH BELOW.

IF YOU DO NOT AGREE WITH ANY OF THESE TERMS, YOU MUST RETURN THE SOFTWARE,
TOGETHER WITH THE ACCOMPANYING DOCUMENTATION AND PROOF OF PURCHASE, TO THE
PARTY FROM WHOM YOU RECEIVED IT, WITHIN TEN (10) DAYS OF RECEIPT, FOR A FULL
REFUND.

PRESS <ENTER> TO CONTINUE:
```

3. At the end of the license agreement, you are asked to either type Y to indicate that you accept the terms of the license agreement or type N to indicate that you do not accept the terms.

To proceed with the installation of the product, you must type Y to accept the agreement.

```
PRESS <ENTER> TO CONTINUE:
_____

ERDAS Inc.
5051 Peachtree Corners Circle,
Suite 100, Norcross, GA 30092-2500

770-776-3400

DO YOU ACCEPT THE TERMS OF THIS LICENSE AGREEMENT? (Y/N): y
```

4. Next, the installer asks you to indicate how many active CPU cores are on the computer.

```
=====
CPU Core Count (Actual)
-----

ERDAS Apollo Server is licensed on a per CPU core basis. Please enter the number of
active CPU cores on this machine.

Core Count (Actual) (DEFAULT: ):

```

NOTE: The installer does not provide you with a default value, so type your core count. This information is available in the /proc/cpuinfo file.

5. You must choose your install directory. The default install directory is Erdas/ApolloServer under your home directory. To accept the default directory, press ENTER.

```
=====
Choose Install Folder
-----

Where would you like to install?

Default Install Folder: /home/user/Erdas/ApolloServer

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:
```

6. The installer asks you if you want to create links to the application and if so, in which folder do you want the links.

```
=====
Choose Link Location
-----

Where would you like to create links?

->1- Default: /home/user
   2- In your home folder
   3- Choose another location...

   4- Don't create links

ENTER THE NUMBER OF AN OPTION ABOVE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:
```

7. The installer asks you which application server you will be using to deploy ERDAS APOLLO Server.

The default selection will install a preconfigured Tomcat 5.5 application server, and automatically deploy ERDAS APOLLO Server artifacts to the Tomcat 5.5 webapps location.

If you do not choose the default option, you must download and install one of the supported application servers after this installation. The deployable files that will be installed are made specifically for each of the listed application servers and will have to be manually deployed to the targeted application server.

```
=====
Choose Application Server
-----

Deployable war files will be generated for the application server of your choice.
This step can be repeated as needed after installation according to instructions in
the Administrator's Guide.

->1- Tomcat 5.5 (Included Server)
   2- Tomcat 6
   3- JBoss 4.2
   4- Weblogic
   5- Generic

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:
```

8. Choose your RDBMS by typing the number corresponding to your choice. The default RDBMS is Oracle.

```
=====
Choose Database Type
-----

Please choose the type of database to connect with Apollo Catalog.

->1- Oracle
   2- Postgres
   3- None

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:
```

9. The following steps are the configuration of the connection to the database.

```
=====
Configure Database Connection
-----

Please configure the database connection to be used by the catalog.

Hostname (DEFAULT: ): host

Port (DEFAULT: 1521):

Database/SID (DEFAULT: ): db

Username (DEFAULT: ): user

Password (DEFAULT: ): pwd
```

- 10.** ERDAS APOLLO Server can be configured to utilize the same raster libraries from the ERDAS IMAGINE product. Choosing Yes will allow the ERDAS IMAGINE raster libraries to be used in attempts to decode image data before the open source GDAL image library is used. If No is selected, only the GDAL image library will be used.

```
=====
ERDAS IMAGINE Raster Support
-----

Would you like to use ERDAS IMAGINE Raster Support for decoding IMAGINE supported
Raster formats?

->1- Yes
   2- No

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:
```

- 11.** The next step of the installer asks you to provide information that can be used to connect to ERDAS APOLLO Server. This step is presented differently depending on the application server you selected.

If you chose JBoss, Tomcat 6, WebLogic, or a generic application server, the installer displays the following. For the Server Host, type the name of the computer that you are installing ERDAS APOLLO Server on, or the static IP address of that computer. The server port number is set to 8080.

```
=====
Configure Server Settings
-----

Please enter the hostname for the ERDAS Apollo Server services Server Port will be
8080
Server Host (DEFAULT: ): host
```

If you indicate that you will be using the application server that is bundled with this version of ERDAS APOLLO Server (Tomcat 5.5), the installer displays the following instead. For the Server Host, type the name or static IP address of the computer on which you are installing ERDAS APOLLO Server. Next, select the set of port numbers that you want to use. The server port number is the port used to access the service, the admin port number is used to manipulate Tomcat remotely, and the shutdown port is requested by a command line call in order to prepare the server to shut down.

It is best to accept the default port numbers (8080|8009|8005) unless you need to avoid a conflict with another application.

```
=====
Configure Server Settings
-----

Please enter the hostname and the ports for the ERDAS Apollo Server services

Server Host (DEFAULT: ):
Server Port (DEFAULT: 8080):
Admin Port (DEFAULT: 8009):
Shutdown Port (DEFAULT: 8005):
```

12. Provide the URL to the catalog that you want to associate this server with. By default, the local catalog will be used for this instance of ERDAS APOLLO Server.

```
=====
Configure Server Settings
-----

Configure this URL if you wish to bind the Apollo Web Client to an existing Apollo
Catalog instance.
By default the Apollo Web Client will use the Apollo Catalog bundled with this
install to discover harvested OGC service resources.

Catalog URL (DEFAULT: http://host:8080/apollo-catalog):
```

13. The installer asks you if you want to initialize the database schema as a part of the installation process. If you are installing ERDAS APOLLO Server for the first time, you must create the database schema so that ERDAS APOLLO Server can successfully catalog imagery. You can allow the installer to initialize it, or you can do it manually later by following the instructions in the *ERDAS APOLLO Server Main Guide*.

If you are already using a previous version of ERDAS APOLLO Server, the installer will upgrade the database to the latest schema version and migrate any existing data.

ERDAS strongly recommends that you perform a backup of your data before you upgrade the schema.

Type "2" to create or upgrade the schema.

```
=====
Database Initialization
-----

Would you like to initialize the database schema as part of installation?  If
the database is already initialized, this step will upgrade it to the latest
schema version and migrate your data.
Note: This step can be manually run after installation according to the
instructions in the Administrator's Guide.
(WARNING: Backup is recommended prior to performing migration as it is a
one-way transformation)

->1- No
   2- Yes

ENTER THE NUMBER OF THE DESIRED CHOICE, OR PRESS <ENTER> TO ACCEPT THE
DEFAULT:
```

14. The installer now displays a pre-installation summary of all the choices you made. Please review it carefully before you continue.

If you are satisfied with your choices, press **Enter** to install ERDAS APOLLO Server. If not, press **Ctrl + C** to stop the installation.

```
=====
Pre-Installation Summary
-----

Please Review the Following Before Continuing:

Product Name:
ERDAS Apollo Server

Install Folder:
/home/user/Erdas/ApolloServer

Link Folder:
/home/user

Disk Space Information (for Installation Target):
Required: 587.083.766 bytes
Available: 100.746.977.280 bytes

PRESS <ENTER> TO CONTINUE:

=====
Ready To Install
-----

InstallAnywhere is now ready to install ERDAS Apollo Server onto your system at
the following location:
/home/user/Erdas/ApolloServer

With:
Java Home set to /home/user/Erdas/ApolloServer/tools/jdkS
DB Hostname: host
DB Port: 1521
Database/Sid: db
DB Username: user

Server Host: host
Server Port: 8080

Catalog URL: http://host:8080/apollo-catalog

PRESS <ENTER> TO INSTALL:
```

15. The installer displays an ASCII progress bar while it is working.

```
=====
Installing...
-----

[===== | ===== | ===== | =====]
[----- | -----...]

```

16. The installation is complete.

```
=====
Installation Complete
-----

Congratulations. ERDAS Apollo Server has been successfully installed to:

/home/user/Erdas/ApolloServer

If you chose the included Tomcat 5.5 service, to start your services, execute
/home/user/Erdas/ApolloServer/tomcat/bin/startup.sh

PRESS <ENTER> TO EXIT THE INSTALLER:

```

Deploying Your ERDAS APOLLO Product

Deploying ERDAS APOLLO Server (Advantage/Pro)

Deploying ERDAS APOLLO Server (Advantage/Professional) on a JBoss Application Server

If you selected JBoss as your application server while you were running the ERDAS APOLLO Server installer, JBoss has already been installed on your server and ERDAS APOLLO Server has been deployed for you.

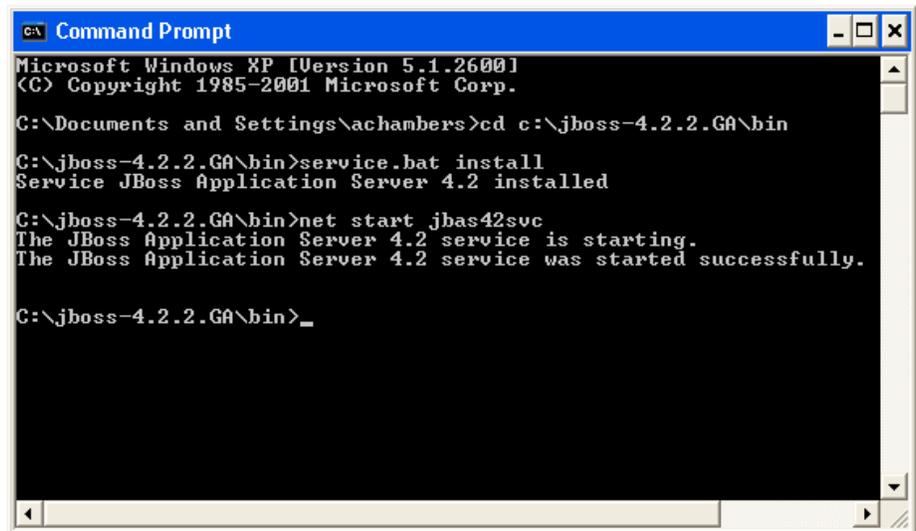
After you install ERDAS APOLLO Server, you need to start it by doing **one** of the following:

- reboot your computer
- install JBoss as a Windows service and start the service

To install JBoss as a Windows service and start the service:

1. Open a command line window.
2. Navigate to the <APOLLO_HOME>/jboss/bin directory.
3. At the prompt, type `service.bat install` and press Enter.
4. After that command finishes, type `net start jbas42svc` at the prompt.
The server will indicate that it has started.
5. Close the command line window.

The following screen shot shows the implementation of this process. Notice that you can use the command `cd` to change directories so you can navigate to the directory that you want.



```
Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\achambers>cd c:\jboss-4.2.2.GA\bin

C:\jboss-4.2.2.GA\bin>service.bat install
Service JBoss Application Server 4.2 installed

C:\jboss-4.2.2.GA\bin>net start jbas42svc
The JBoss Application Server 4.2 service is starting.
The JBoss Application Server 4.2 service was started successfully.

C:\jboss-4.2.2.GA\bin>_
```

Deploying ERDAS APOLLO Server (Advantage/Professional) on a WebLogic Application Server

To deploy ERDAS APOLLO Server (Advantage/Professional) on WebLogic, you first need to install and configure WebLogic using the instructions in the sections [Installing the WebLogic Software](#) on page 66 and [Configuring WebLogic for ERDAS APOLLO Server \(Advantage & Professional\)](#) on page 68 of Appendix A of this guide.

To deploy ERDAS APOLLO Server on the WebLogic application server, you have to edit the file that will be used to start WebLogic (`startWebLogic.cmd`). You will then need to restart WebLogic. Finally, you have to open the WebLogic Administration Console to actually deploy ERDAS APOLLO Server.

To edit the `startWebLogic.cmd` files:

1. Open the directory
C:\bea\user_projects\domains\apollo_domain\bin
2. Right-click the file `startWebLogic.cmd` and select **Edit** in the menu.

3. Find the line that says

```
set CLASSPATH=%CLASSPATH%;%MEDREC_WEBLOGIC_CLASSPATH%
```

Add "REM" at the beginning of the line to comment it out. It will then look like the following:

```
REM set CLASSPATH=%CLASSPATH%;%MEDREC_WEBLOGIC_CLASSPATH%
```

Just under that line, add the following new line:

```
set CLASSPATH=%CLASSPATH%;%MEDREC_WEBLOGIC_CLASSPATH%;  
<APOLLO_HOME>\dist\weblogic\erdas-apollo.ear\conf;
```

Be sure to change `<APOLLO_HOME>` to the full path of the directory where you installed ERDAS APOLLO Server, and make sure the entire statement appears on a single line.

4. Find the line that says

```
for %%i in ("%DOMAIN_HOME%") do set DOMAIN_HOME=%%~fsi
```

Just above that line, add the following new line:

```
set LOG4J_CONFIG_FILE=<APOLLO_HOME>\dist\weblogic\log4jConfig.xml
```

Be sure to change `<APOLLO_HOME>` to the full path of the directory where you installed ERDAS APOLLO Server. Also note that the command is on different lines here, but should be on a single line in your file.

5. Just after the line you just added, but before the line

```
for %%i in ("%DOMAIN_HOME%") do set DOMAIN_HOME=%%~fsi,
```

add the line

```
set JAVA_OPTIONS=%JAVA_OPTIONS%-Djava.security.auth.login.config  
=<APOLLO_HOME>\dist\weblogic\auth.conf
```

Be sure to change `<APOLLO_HOME>` to the full path of the directory where you installed ERDAS APOLLO Server. Also note that the command is on different lines here, but should be on a single line in your file.

6. Save the file and close it.

After you edit the `startWebLogic.cmd` file, you need to restart WebLogic.

To restart the WebLogic application server:

1. Click the **Windows Start** button.
2. Click **All Programs**.
3. Select **BEA Products > User Projects > apollo_domain > Start Admin Server for WebLogic Server Domain**.
4. A command line window will open.
Enter the user name `weblogic` and the password `weblogic` to log in to the domain.
5. You will know the server has started successfully when the text stops scrolling in the window and you see the notice “Server started in RUNNING mode”.



Do not close the command line window that opened while you were starting WebLogic.

To deploy ERDAS APOLLO Server (Advantage/Professional):

1. Launch the WebLogic Server Administration Console by opening your browser and typing `http://localhost:7001/console` in the address bar.
2. Click **Deployments** in the Domain Structure box on the left of the page.
3. Click the **Lock & Edit** button on the top left corner of the page in order to enable the Install button.
4. Click **Install**.
5. Navigate to the `<APOLLO_HOME>\dist\weblogic` directory and click the radio button next to **erdas-apollo.ear** in the list of files in that directory.
6. Click **Next**.
7. The next step asks you to choose the targeting style and has the default option as **Install this deployment as an application**. Accept this option and click **Next**.

8. On the Optional Settings page, find the **Security** section and select the option that says, "**Custom Roles: Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.**"
9. Click **Finish**.
10. Click the green **Activate Changes** button on the top left corner of the page.
11. Check the box to the left of **erdas-apollo.ear** in the Deployments table.
12. Click the **Start** button. A menu will appear below the button. Select **Servicing all requests** in the menu.
13. Click **Yes** to continue starting the deployment.
14. Click startRunning in the **State** field for the *erdas-apollo.ear* entry in the Deployments table. It will change to Active.

Create two more deployments by repeating steps 3-14 and using the following file names in steps 4 and 14:

- `apollo-client.war`
- `provisioning.war`

When you are finished, `erdas-apollo.ear`, `apollo-client.war`, and `provisioning.war` will appear in the Deployments table.

Deploying ERDAS APOLLO Server (Essentials-SDI)

If you select Apache Tomcat 5.5. or JBoss as your intended application server when you install ERDAS APOLLO Server (Essentials-SDI), the installer will automatically install your application server and deploy ERDAS APOLLO Server. After your installation is complete, you will only need to start ERDAS APOLLO Server by doing **one** of the following:

- reboot your computer
- install JBoss or Apache Tomcat as a Windows service and start the service

If you select Apache Tomcat 6, WebLogic 10.0, or some other application server when you install ERDAS APOLLO Server (Essentials-SDI), you will need to install your chosen application server and deploy ERDAS APOLLO Server by yourself.

Deploying ERDAS APOLLO Server (Essentials-SDI) on Apache Tomcat 6

Successfully deploying ERDAS APOLLO Server on Apache Tomcat 6 has a few of basic steps. First of all, you have to copy the EAS **Web AR**chive (WAR) files from the directory where you installed EAS and place them in the directory where you installed Apache Tomcat. Second, you have to increase the memory settings for Apache Tomcat. Finally, you can start Apache Tomcat.

To copy and paste the ERDAS APOLLO Server WAR files:

1. Open the `<APOLLO_HOME>\dist` directory.
2. Copy the files `apollo-client.war` and `erdas-apollo.war`.
3. Open the `<TOMCAT_HOME>\webapps` folder and paste the files you just copied into it.

To adjust the memory settings for Apache Tomcat:

1. Open the `<TOMCAT_HOME>/bin` folder.
If you are installing EAS on a Windows machine, find the file named `catalina.bat`.
If you are installing EAS on a machine with a UNIX-based operating system, find the file named `catalina.sh`.
2. Open the `catalina` file for editing.
3. If you are installing on Windows, add the following line at the beginning of the file:

6. Change the Startup type to **Automatic** if you want the application to start automatically when Windows starts.
7. Click the **Start** button under the **Service status** field. The Service status should change to **Started**.
8. Close the Apache Tomcat Properties dialog box and the Services window.

Deploying ERDAS APOLLO Server (Essentials-SDI) on WebLogic

To deploy ERDAS APOLLO Server (Essentials-SDI) on WebLogic, you first need to install and configure WebLogic using the instructions in the sections [Installing the WebLogic Software](#) on page 66 and [Configuring WebLogic for ERDAS APOLLO Server \(Essentials-SDI\)](#) on page 88 of Appendix A of this guide.

NOTE: It is assumed that ERDAS APOLLO Server will be deployed in a fresh new domain. Deployment of ERDAS APOLLO Server in an existing domain will also work provided it has been configured with the requirements of the product.

To deploy ERDAS APOLLO Server on WebLogic:

1. Open the WebLogic Administration Console.
2. In the domain structure tab on the left, choose **Deployment**.
3. Click the **Install** button.
If the Install button is disabled, click on the Lock and Edit button in order to activate it.
4. Navigate to the `<APOLLO_HOME>\dist\weblogic` folder and click on the **Next** button.
5. Choose to install the deployment as an application and click on the **Next** button.
6. In the Security configuration, choose the **Custom Roles** option and click on the **Finish** button.

After you have deployed ERDAS APOLLO Server, you need to start it.

To start ERDAS APOLLO Server:

1. Click on the **Activate Changes** button which will redirect you to the list of applications installed on the server.

2. In the list, check the ERDAS APOLLO Server application (EAS by default).
3. Click on the **Start** button, then click **Servicing all requests**. Confirm your selection in the next screen

Testing Your Installation

The ERDAS APOLLO products come with a web tools welcome page that is installed and published when you install any version of the ERDAS APOLLO Server.

If you have successfully installed the product, you will see the welcome page when you visit the following web address

http://<server_name>:<portnumber>/erdas-apollo.

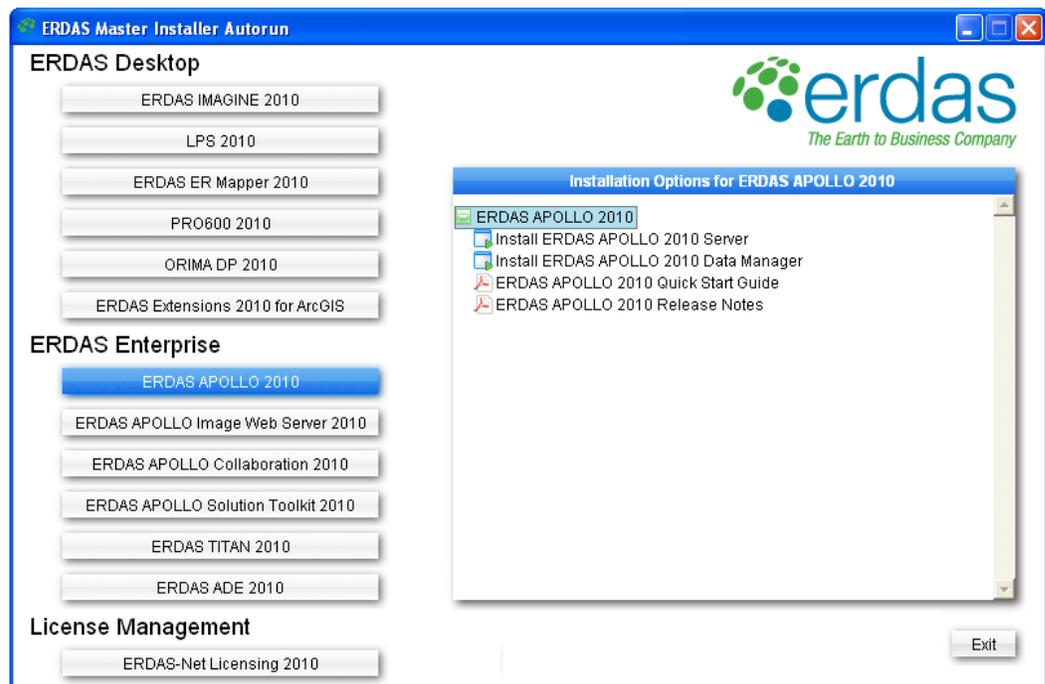
Installing ERDAS APOLLO Data Manager

After you have installed the ERDAS APOLLO Server and you have verified that it is running, you should install the ERDAS APOLLO Data Manager. The ERDAS APOLLO Data Manager is designed to be installed on one or more separate computers that have a network connection to the computer on which you installed the ERDAS APOLLO Server.

The ERDAS APOLLO Data Manager can connect to one or more installations of an ERDAS APOLLO Server (Advantage/Professional) in order to add, edit, or retrieve data from your imagery data catalog and create and manage web services. It can also connect to one or more installations of an ERDAS APOLLO Server (Essentials-SDI) in order to create and manage web services.

To install the ERDAS APOLLO Data Manager component:

1. Insert the ERDAS Software DVD into your DVD drive. The following screen will appear on your computer.

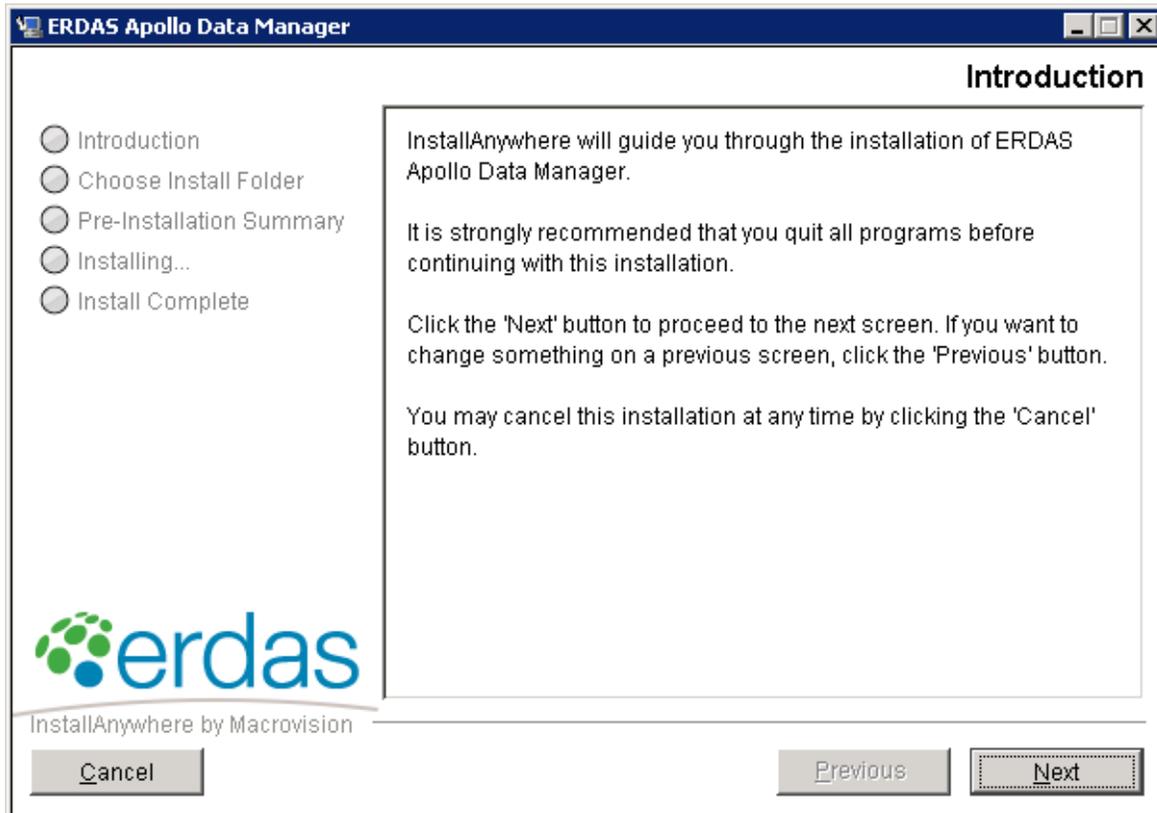


2. Click **ERDAS APOLLO 2010**.
3. Select **Install ERDAS APOLLO 2010 Data Manager** in the installation options list.

The installer has to prepare for the installation procedure. This can take a few minutes.

4. When the installer begins, the Introduction screen appears first. Read the instructions and click **Next** to proceed.

Figure 17: Installer for the ERDAS APOLLO Data Manager



5. Specify the path to the folder where you want to install the ERDAS APOLLO Data Manager. Click **Next** when you are satisfied with your selection.

If a version of the ERDAS APOLLO Data Manager is already installed in that folder, it will be uninstalled.

6. The ERDAS APOLLO Data Manager Installer allows you to choose where you want it to install the shortcut to the product.

Notice that if you choose to place it in a new program group, in your Start menu, or on your desktop, you can also choose whether to place it there just for the Windows user who is currently logged in or for all of the people who have Windows users accounts on that computer.

Click **Next** when you are satisfied with your selection.

7. The installer shows a summary of all the options that you selected. Click **Install** to install the ERDAS APOLLO Data Manager on your computer.

After the ERDAS APOLLO Installation is Complete

ERDAS APOLLO 2010 is ready to use as soon as you complete the installation process.

If you were already using an ERDAS APOLLO product, you will need to do a few things to make sure the changes you made to your old system show up in the new system as well.

If this is your first ERDAS APOLLO product, you may want to use the many configuration options that we provide so that you can customize the system so that it suits your preferences and special requirements.

For Users Who Upgraded to ERDAS APOLLO 2010 v10.1 from ERDAS APOLLO 2010

If you were already using ERDAS APOLLO 2010 and just upgraded to version 10.1 using the full installer rather than the short update installer, then you should complete the directions in the following section immediately after your installation is complete:

- [Keeping Your Existing Customizations](#) on page 62

For Users Who Upgraded to ERDAS APOLLO 2010 from ERDAS APOLLO 9.3.x

If you have already been using an ERDAS APOLLO 9.3.x product, you will be in one of the following situations. Depending on your situation, you will need to do different things to make sure that the information and customizations you were using before are carried over into your new system.

Choose the situation that applies to you from the choices given below and follow the instructions for that situation.

Situation 1

If you were using **only ERDAS APOLLO Image Manager** before you installed ERDAS APOLLO 2010, then you should complete the directions in the following section immediately after your installation is complete:

- [Keeping Your Existing Customizations](#) on page 62

Situation 2

If you were using **only ERDAS APOLLO Server before** you installed ERDAS APOLLO 2010, then you should complete the directions in all of the following sections immediately after your installation is complete:

- [Migrating Service Providers from ERDAS APOLLO Server to ERDAS APOLLO 2010](#) on page 57
- [Keeping Your Existing Customizations](#) on page 62

Situation 3

If you were using **both ERDAS APOLLO Server** and **ERDAS APOLLO Image Manager** before you installed ERDAS APOLLO 2010, then you should complete the directions in all of the following sections immediately after your installation is complete:

- [Migrating Service Providers from ERDAS APOLLO Server to ERDAS APOLLO 2010](#) on page 57
- [Migrating Data from the ERDAS APOLLO Server Database into the ERDAS APOLLO 2010 Database](#) on page 60
- [Keeping Your Existing Customizations](#) on page 62

Migrating Service Providers from ERDAS APOLLO Server to ERDAS APOLLO 2010

The service providers in your previous ERDAS APOLLO Server are not automatically moved into ERDAS APOLLO 2010. If you do not want to use the service providers any more, you are not required to move them into your new ERDAS APOLLO system; it will still work properly. If you still want to use your existing service providers, ERDAS APOLLO comes with a Service Provider Migration Tool that allows you to move them into your new system.

The service provider migration tool is a simple command line tool. You will provide the tool with a path to the location of the existing service providers you want to move and with a path to the new location you want to use for these service providers.

When the tool runs, it reads the definitions for your existing service providers from the following files in your ERDAS APOLLO Server installation directory:

- <EAS_HOME>/config/erdas-apollo/providers/coverage/ providers.fac
- <EAS_HOME>/config/erdas-apollo/providers/map/ providers.fac
- <EAS_HOME>/config/erdas-apollo/providers/vector/ providers.fac

It copies the definitions from each file into a corresponding file named `migrated.fac`. Any paths that are copied into `migrated.fac` that point to a location in the ERDAS APOLLO Server installation directory are automatically converted so that they point to the corresponding location in the ERDAS APOLLO 2010 directory. All other paths are copied "as is".

These `migrated.fac` files are then placed in the following directories in your new ERDAS APOLLO 2010 directory, alongside your new `providers.fac` files:

- `<APOLLO2010_HOME>/config/erdas-apollo/providers/coverage`
- `<APOLLO2010_HOME>/config/erdas-apollo/providers/map`
- `<APOLLO2010_HOME>/config/erdas-apollo/providers/vector`

The service provider migration tool also copies the configuration files that are located in the directory `<EAS_HOME>/config/erdas-apollo/storage` and places the copies in `<APOLLO2010_HOME>/config/erdas-apollo/storage`.

The styles for vector providers are copied to the new installation. The styles for coverage service providers are not copied.

For coverage providers, the index files in GML for the index and list providers are copied but the dataset paths contained in those files are copied "as is". If you move the datasets, you will need to edit the index files and change the paths.

For map providers, the image provider definitions are copied into `<APOLLO2010_HOME>/config/erdas-apollo/providers/coverage/migrated.fac`. The other provider definitions (proxy, portray, ArcSDE raster, pyramid, context, ...) are copied into `<APOLLO2010_HOME>/config/erdas-apollo/providers/map/migrated.fac`. Any paths that are copied into `migrated.fac` that point to a location in the ERDAS APOLLO Server installation directory are automatically converted so that they point to the corresponding location in the ERDAS APOLLO 2010 directory. All other paths are copied "as is".

The migration tool will not copy any of the sample service providers that are included with your ERDAS APOLLO Server. ERDAS APOLLO 2010 contains sample providers, however. Your ERDAS APOLLO 2010 installer gives you the option to install these files when the product is installed.

The migration does not affect any of the service providers that you may have already created in ERDAS APOLLO 2010.

To use the service provider migration tool:

1. Open a command line window.
2. Navigate to the directory <APOLLO2010_HOME>/tools/provider migrator.
3. At the prompt, type
`runmigrate <source_path> <targetpath> -v`

Where:

<source_path> is the path to the ERDAS APOLLO Server home directory.

<target_path> is the path to the ERDAS APOLLO 2010 home directory.

-v is a command that tells the tool to display information about what it is doing. This command is optional, but recommended.

You must use the correct case when specifying the path in order for the service provider migration tool to work properly.

If the paths contain blank spaces, you should enclose them in quotation marks.

4. Press **Enter**.

After you run the service provider migration tool, you need to:

1. Copy the legend icons and thumbnails located in <EAS_HOME>/config/erdas-apollo/legend and place the copies in <APOLLO_HOME>/config/erdas-apollo/legend.
2. Copy the metadata files located in <EAS_HOME>/config/erdas-apollo/metadata and place the copies in <APOLLO2010_HOME>config/erdas-apollo/metadata.
3. If you have been storing your data inside <EAS_HOME> you need to move the data to the corresponding directory inside <APOLLO2010_HOME>, or you need to change the paths to the data inside the `migrated.fac` files.

4. Test your old service providers in APOLLO 2010 to make sure they work as expected.

If they do not, you should first check the definition for that provider in the `migrated.fac` file to make sure the paths to the data are accurate.

If the service providers are still not working properly, or if you have some other reason to believe that the migration failed, you can delete the `migrated.fac` files in the `<APOLLO2010_HOME>/config erdas-apollo/providers` directory and run the service provider migration tool again. The tool may display messages to indicate that some of the target directories already exist, but the tool will perform all of the migration tasks again.

Migrating Data from the ERDAS APOLLO Server Database into the ERDAS APOLLO 2010 Database

If you are upgrading to erdas Apollo 2010 from a single ERDAS APOLLO product (either ERDAS Apollo server OR ERDAS APOLLO Image Manager), then the installer has already connected ERDAS APOLLO 2010 to your existing APOLLO database and upgraded it.

If you are upgrading to ERDAS APOLLO 2010 and you were using both ERDAS APOLLO Server (EAS) and ERDAS APOLLO Image Manager (EAIM) before, you should have the installer connect to your existing EAIM database and upgrade it. This will serve as the database for ERDAS APOLLO 2010. You can then migrate the data from your EAS database into the upgraded database that you are using for ERDAS APOLLO 2010.



Even after your EAIM 9.3.2 database is upgraded to ERDAS APOLLO 2010, the pyramid paths within it are still set for the 932 version, and are still pointing to the absolute 932 installation location (unless you customized your EAIM 9.3.2 installation to store the pyramids outside the `<EAIM932_HOME>` directory).

You need to move your pyramids out of the `<EAIM932_HOME>` directory and upgrade these paths in the database before you uninstall EAIM 9.3.2 version, or you will lose your existing pyramids ERDAS provides a script for Oracle users to make this task easier. Contact your support representative.

To migrate information from your ERDAS APOLLO Server database to your ERDAS APOLLO 2010 database:

1. Make sure that ERDAS APOLLO Server is running.
2. Open your internet browser and go to the URL
http://<host>:<port>/apollo-catalog/rest/services.txt?maxresults=1000

Where:

<host> is the name of the computer on which ERDAS APOLLO Server is installed

<port> is the HTTP port for the application server used by EAS 9.3.2

3. This URL will return a list of service URLs. Save the file from your browser in the `<APOLLO2010_HOME>/tools/harvester-console` directory as `services.txt`.
4. Open a command line window.
5. Navigate to the `<APOLLO2010_HOME>/tools/harvester-console` directory.
6. At the prompt, type `edit build.properties` and press Enter. An editor will open inside the command line window and the contents of the file `build.properties` will be shown inside the editor.
7. Check the **catalog.url** property to make sure it is set to the correct URL to the ERDAS APOLLO 2010 catalog.
8. Check the **catalog.user** and **catalog.password** properties to make sure they are set to a user who has permission to write to the ERDAS APOLLO 2010 database.
9. Save and close the `build.properties` file.
10. To run the harvester tool, type `ant run` at the prompt and press Enter.

After the harvesting is complete, the harvester will display the number of OGC service providers that were harvested, the number that were unable to be harvested. A list of the services that could not be harvested is displayed, along with a message to indicate the reason that the harvesting failed.

If you are able to correct any of the situations that caused these services to not be harvested, you can try to harvest these services again. The tool places the list of the services that failed to harvest in the file `services-exceptions.txt`. You can run the tool to just try to harvest these services by typing the following at the prompt and pressing Enter:

```
ant run -Dservices.path=services-exceptions.txt
```

Keeping Your Existing Customizations

After you have installed the new version of ERDAS APOLLO Server, you will need to make sure the customizations to your ERDAS APOLLO system are retained in the newer version of the software.

Because there are many different combinations of customizations that you could have made to your ERDAS APOLLO system, an administrator who knows what files were changed will need to open the changed files in the previous installation and use them as a guide to change the files in the new installation.

For more information about the possible customizations for the ERDAS APOLLO system, see the appropriate ERDAS APOLLO 2010 Administrator's Guide for your product level.



It is especially important that you make sure you add any custom SRSs back to the system before you begin using it. The chapter entitled "Adding a New SRS" in the ERDAS APOLLO 2010 Administrator Guide: Advantage /Professional Edition contains complete instructions on how to add your custom SRSs back to the system.



If you were using geoprocessing (WPS) in the previous version of your software, you may need to move the WPS models or change the directory where the newest installation of ERDAS APOLLO will look for them. by default, ERDAS APOLLO expects to find the models in the directory <APOLLO_HOME>\storage\wps.

For more information, see the section entitled "Specifying the Storage Directories for WPS Models and Outputs" in the ERDAS APOLLO 2010 Administrator Guide: Advantage /Professional Edition.

For New ERDAS APOLLO Users

If you need to customize your installation, see the **ERDAS APOLLO Administrator's Guide**. It contains instructions for configuration and optimization of the server application for ERDAS APOLLO.

There are two different editions of this guide, depending on which version of the ERDAS APOLLO system you will be using:

- *ERDAS APOLLO Administrator's Guide (Advanced/Professional edition)*
- *ERDAS APOLLO Administrator's Guide (Essentials-SDI edition)*

To begin using the system, you will use the ERDAS APOLLO Data Manager to either create a catalog and/or create service providers for your data (depending on which edition of ERDAS APOLLO that you purchased). The **ERDAS APOLLO Data Manager Guide** provides information about the interface in that program as well as instructions for using it.

After you have created a catalog and/or service providers, you may want to familiarize yourself with the ERDAS APOLLO Web Client that will be used to deliver the data. The **ERDAS APOLLO User Guide** contains instructions for setting up the web client for your end users and using the web client.

Appendix A - WebLogic

Installing and Configuring a WebLogic Application Server

If you will be using the WebLogic application server for your ERDAS APOLLO Server installation, you need to **install ERDAS APOLLO Server** first, but do not deploy it. Then, install and configure WebLogic. Finally, deploy ERDAS APOLLO Server on the WebLogic application Server.

To set up the WebLogic application server, you first need to install the files for the BEA WebLogic application using the directions below. The instructions for installing the WebLogic application server are the same regardless of the level of ERDAS APOLLO Server that you are using.

After you install the WebLogic software, you will need to:

- **configure it to be compatible with ERDAS APOLLO Server (Advantage/Professional)**

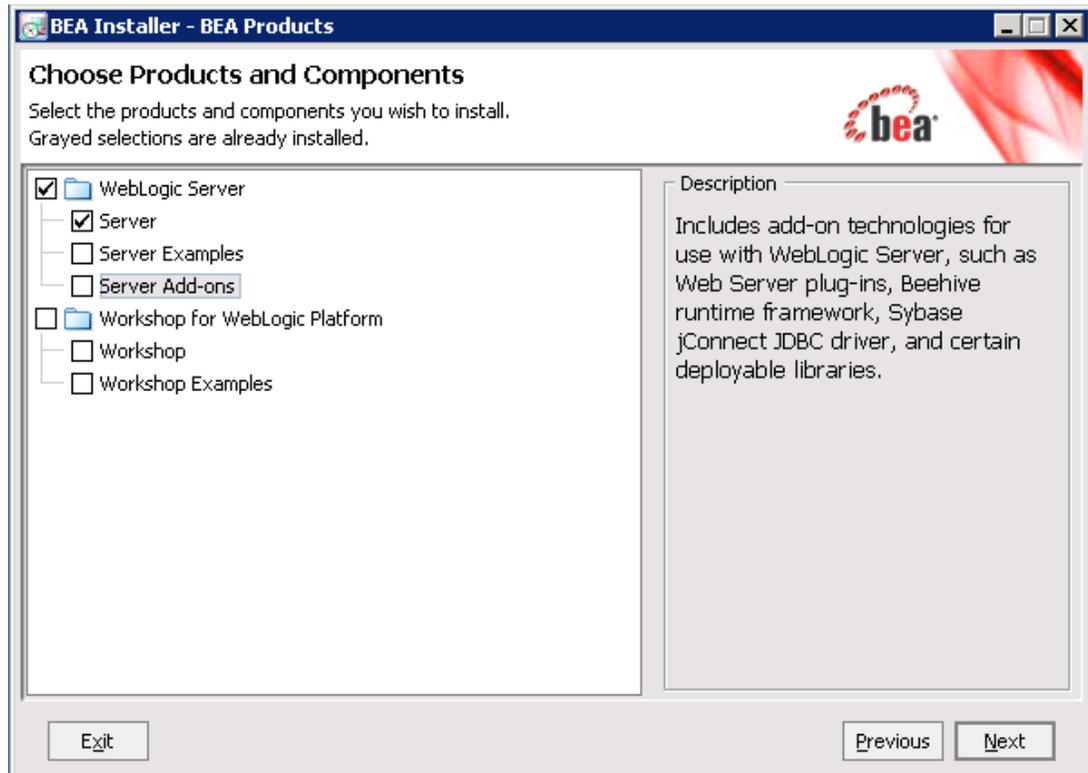
or

- **configure it to be compatible with ERDAS APOLLO Server (Essentials-SDI)**

Installing the WebLogic Software

1. The WebLogic installer is in a zip file.
For security reasons, Windows Server often blocks this type of file. It is safe to unblock it.
To unblock the zipped WebLogic installer file:
 - Right-click the zip file.
 - Select **Properties** on the popup menu.
 - Click the **Unblock** button at the bottom of the General tab.
 - Click **OK**.
2. Extract the zip file by right-clicking it and selecting **Extract All** from the menu. Accept all the default options in the wizard that opens. The installer is very large, so extraction may take awhile.
3. In the folder you extracted the zip file contents into, locate the file `server1001_win32.exe` and click it to launch the WebLogic installer. The BEA Installer goes through a preparation step that takes about a minute to complete.
4. The installer opens with a welcome message that provides instructions for navigating through the installer. Read the message and click **Next**.
5. The next step asks you to choose a home directory for WebLogic. The default choice is **Create a new BEA Home**. Do not change this selection.
The default installation directory is `C:\bea`. Accept this option and click **Next**.
6. The installer asks you to choose the type of installation you want to perform. Select **Custom** and click **Next**.

- The installer shows you the different components that you can choose to install. They are all selected by default. You should only select WebLogic Server and Server, as shown below. Click **Next**.



- The installer asks you to choose the product installation directories. Do not change the default directories. Click **Next**.
- The installer asks you if you want to install Node Manager as a Windows Service. Accept the default option of **No** and click **Next**.
- The installer asks you where to place the WebLogic shortcuts. Leave the default option, "**All Users**" **Start Menu folder** selected.
- BEA WebLogic now installs and displays a progress bar so you can monitor the installation process.
- The installer notifies you when the installation is complete. Click the **Run QuickStart** check box to clear it.
- Click **Done** to close the installer.

Configuring WebLogic for ERDAS APOLLO Server (Advantage & Professional)

The procedure to configure WebLogic application Server to work with ERDAS APOLLO Server (Advantage/Professional) has these basic parts:

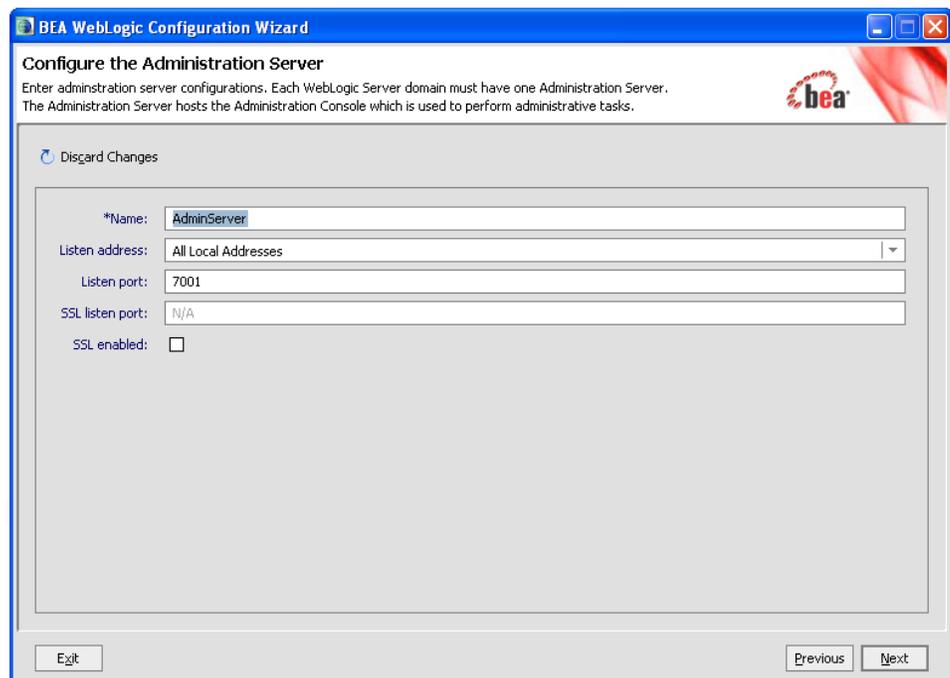
- [Creating the Domain](#)
- [Creating the JDBC Data Sources](#)
- [Configuring the Java Message Service \(JMS\)](#)
- [Configuring WebLogic Security](#)

Creating the Domain

1. Click the **Windows Start** button.
2. Click **All Programs**.
3. Select **BEA Products > Tools > Configuration Wizard**.
4. When the configuration wizard opens, it will ask whether you want to create a new domain or extend an existing one. The default option is **Create a new WebLogic Domain**. Leave this option selected and click **Next**.
5. The wizard asks you to select the domain source. The default option is **Generate a domain configured automatically to support the following Bea products** and the **WebLogic Server** is the only product selected. Accept the default selections and click **Next**.
6. The wizard asks you to create a user who will be the domain administrator. Accept the default user name of *weblogic* and set the password to be *weblogic* also. Click **Next** to continue.
7. The next panel asks you to specify the server start mode and JDK to be used for the domain.
 - In the WebLogic Domain Startup Mode section, select **Development Mode** only if you are a developer. All other types of users, including customers, should select **Production Mode**.
 - In the JDK Selection section, select the **Other JDK** option. Click the **Browse** button and navigate to the directory where you installed the Java SDK. If you accepted the default installation location when you installed it, it will be located in `C:\Program Files\Java\jdk1.5.0_14`.

8. The next panel asks you if you want to customize the environment and services settings. If you need to change the WebLogic port number in order to avoid a port conflict on your machine, select Yes. Otherwise, leave the default option of No selected and click Next. If you selected No, the wizard will advance to the panel indicated in the next numbered step of this guide.

If you selected Yes because you need to change the WebLogic port number, the wizard will show you four more panels. The first of these additional panels will appear after you click Next. In this screen, you should type your new port number in the **Listen Port** box. Your network administrator can help you find a new number that is not being used already. After you type in your new port number, click **Next**.



The screenshot shows the 'BEA WebLogic Configuration Wizard' window. The title bar reads 'BEA WebLogic Configuration Wizard'. The main heading is 'Configure the Administration Server'. Below the heading, there is a sub-heading 'Enter administration server configurations. Each WebLogic Server domain must have one Administration Server. The Administration Server hosts the Administration Console which is used to perform administrative tasks.' The BEA logo is visible in the top right corner. A 'Disgard Changes' link is present. The configuration fields are: '*Name:' with the value 'AdminServer'; 'Listen address:' with a dropdown menu set to 'All Local Addresses'; 'Listen port:' with the value '7001'; 'SSL listen port:' with the value 'N/A'; and 'SSL enabled:' with an unchecked checkbox. At the bottom, there are 'Exit', 'Previous', and 'Next' buttons.

The second additional panel shows each instance of WebLogic that you have installed on this computer already. The instance of WebLogic that you are currently installing will not appear in this screen. You can click **Next** to advance past this panel. The third additional panel shows information about configuring machines. Click **Next** to advance past this panel. The final additional panel shows some review information. Click **Next** to advance past this panel and continue with the next numbered step in this guide.

NOTE: The WebLogic port number can also be changed after the installation process.

If you want to change the WebLogic port number after installation:

- Open the directory
C:\bea\user_projects\domains\apollo_domain\config
- Copy the `config.xml` file and paste it in the same directory so you have a backup copy of the working `config.xml` file.
- Highlight the original file and right-click it.
- Select **Open With...** in the menu.
- In the **Programs** list in the Open With dialog, select **NotePad**.
- Click **OK**.
- If you used the default port number at install time, you will be able to find a block of text in your file that looks similar to the following (the line in blue will only be there if you tried to set the port number to something other than the default value of 7001 when you first installed WebLogic):

```
<server>
  <name>AdminServer</name>
  <listen-port>1234</listen-port>
  <listen-address></listen-address>
</server>
```

- To change the port number, add the line with the `listen-port` tags if it is not there already and type the port number you want to use between the tags.
 - Save this file and close it.
9. The final panel asks you to specify the name and location for the domain. Type `apollo_domain` in the **Domain name** box. Do not change the path in the **Domain location** box. Click **Create** when you are finished.
 10. The configuration wizard notifies you when the domain has been created successfully. Click **Done** to close the wizard.

Starting the Admin Server for the WebLogic Server Domain

1. Click the **Windows Start** button.
2. Click **All Programs**.
3. Select **BEA Products > User Projects > apollo_domain > Start Admin Server for WebLogic Server Domain**.
4. A command line window will open.
Enter the user name `weblogic` and the password `weblogic` to log in to the domain.
5. You will know the server has started successfully when the text stops scrolling in the window and you see the notice "Server started in RUNNING mode".



Do not close the command line window that opened while you were starting WebLogic.

Creating the JDBC Data Sources

NOTE: If you will be using a PostgreSQL database, you will need to install the PostgreSQL database drivers before you complete the rest of this section.

To install the PostgreSQL Drivers:

1. Find the `commEnv.cmd` file inside the folder
`<WEBLOGIC_HOME>/wlserver_10.0/common/bin`.
2. Right-click on the file and select the **Edit** option in the menu that appears.
3. Find the following line of the `commEnv.cmd` file:

```
set PATCH_CLASSPATH=
```

*and change it to the following. Be sure to change
<APOLLO_HOME> to the directory where you installed ERDAS
APOLLO Server.*

```
set PATCH_CLASSPATH=<APOLLO_HOME>dist\weblogic\erdas-apollo.ear\lib\postgresql-8.3-603.jdbc3.jar
```

4. Save and close the `commEnv.cmd` file.

To create the JDBC data sources:

1. Launch the **WebLogic Server Administration Console** by opening your browser and typing `http://localhost:7001/console` in the address bar.
2. Enter the user name `weblogic` and the password `weblogic` to log in to the WebLogic server.
3. Locate the **Services** node in the Domain Structure box on the left of the page and expand it by clicking the plus sign next to it.
4. Find the **JDBC** node inside the Services node, and expand it by clicking the plus sign next to it.
5. Click **Data Sources** under the JDBC node.
6. Click the **Lock & Edit** button on the top left corner of the page in order to enable the New button.
7. Click **New**.
8. Type `WL_MQDS` in the **Name** box.
9. Type `WL_MQDS` in the **JNDI Name** box.
10. Select the type of database you will be using for ERDAS APOLLO Server in the **Database Type** list.
11. Select the database driver to be used in the **Database Driver** list.

If you are using an Oracle database, select
***Oracle's Driver (Thin XA) Versions:9.0.1,9.2.0,10**

If you are using PostgreSQL, select
PostgreSQL's Driver (Type 4) Versions:Any

If you are using a Microsoft SQL Server database, select
Microsoft's MS SQL Server Driver (Type 4 XA) Versions 2000, 2005

NOTE: If you need to select the PostgreSQL database driver and do not see it in the list, you will need to [install the PostgreSQL database driver](#).

12. Click **Next**.
13. Read the Transaction Options statement and click **Next**.
14. Type the name of the database you are using for ERDAS APOLLO Server in the **Database Name** box.

15. Type the name or the IP address of the server where the database is located in the **Host Name** box.
16. Do not change the port number in the **Port** box.
17. Type the name of the database user to log in to the database in the **Database User Name** box.
18. Type the password for that user in the **Password** box, and again in the **Confirm Password** box.
19. Click **Next**.
20. Click the **Test Configuration** button on the top left corner of the page to make sure you can connect using the information you typed. Click **Next** after you know you can connect with this information.

NOTE: If you cannot connect, click the Back button and make sure you typed the information correctly. If you typed your information correctly and still cannot connect, speak with your database administrator to make sure you have the correct database type, database name, server name, user name, and password.

21. Check the **AdminServer** option on the Select Targets page and click **Finish**.

Create another JDBC data source named *SpatialPlatformDS* by following steps 7-21 again, and typing `SpatialPlatformDS` in steps 8 and 9.

After you have added both of the JDBC data sources, click the green **Activate Changes** button on the top left corner of the page to save them.

Configuring the Java Message Service (JMS)

There are four steps in the process of configuring the Java Message Service:

- [Create Persistent Stores](#).
- [Configure a JMS Server](#)
- [Configure a JMS System Module](#)
- [Configure the Resources for the System Module](#)

Create Persistent Stores

1. Find the configuration file that contains all of the settings for this domain.

It is named `config.xml` and is located in the directory
`C:\bea\user_projects\domains\apollo_domain\config`

2. Copy the file and paste it in the same directory so you have a backup copy of the working `config.xml` file.
3. Highlight the original file and right-click it.
4. Select **Open With...** in the menu.
5. In the **Programs** list in the Open With dialog, select **NotePad**.
6. Click **OK**.
7. Select the following block of text that is appropriate for your database platform and copy it.

Oracle

```
<jdbc-store>
  <name>APOLLO-JDBCStore</name>
  <data-source>WL_MQDS</data-source>
  <target>AdminServer</target>
  <deletes-per-batch-maximum>20</deletes-per-batch-maximum>
  <inserts-per-batch-maximum>20</inserts-per-batch-maximum>
  <deletes-per-statement-maximum>20</deletes-per-statement-maximum>
</jdbc-store>
```

PostgreSQL

```
<jdbc-store>
  <name>APOLLO-JDBCStore</name>
  <create-table-ddl-file>
    <APOLLO_HOME>\dist\weblogic\erdas-apollo.ear\conf\postgres.ddl
  </create-table-ddl-file>
  <data-source>WL_MQDS</data-source>
  <target>AdminServer</target>
</jdbc-store>
```

Microsoft SQL Server

```
<jdbc-store>
  <name>APOLLO-JDBCStore</name>
  <data-source>WL_MQDS</data-source>
  <target>AdminServer</target>
</jdbc-store>
```

8. Place your cursor at the beginning of the line that contains the following text:

```
<admin-server-name>AdminServer</admin-server-name>
```

Press Enter to move this line down one line.

9. Place your cursor in the blank line before the line

```
<admin-server-name>AdminServer</admin-server-name>
```

and paste the copied text into this location in the `config.xml` file.

10. Save the file and close it.
11. You must stop the WebLogic Admin Server and then restart it so that WebLogic will recognize the change to the file.

To stop WebLogic:

1. Click the **Windows Start** button.
2. Click **All Programs**.
3. Select **BEA Products > User Projects > apollo_domain > Stop Admin Server**.
4. A command line window will open. Enter the user name `weblogic` and the password `weblogic` to log in to the domain.

To restart WebLogic:

1. Click the **Windows Start** button.
2. Click **All Programs**.
3. Select **BEA Products > User Projects > apollo_domain > Start Admin Server for WebLogic Server Domain**.
4. A command line window will open. Enter the user name `weblogic` and the password `weblogic` to log in to the domain.
5. You will know the server has started successfully when the text stops scrolling in the window and you see the notice "Server started in RUNNING mode".



Do not close the command line window that opened while you were starting WebLogic.

Configure a JMS Server

1. Locate the **Messaging** node under the Services node and expand it by clicking the plus sign next to it.
2. Click **JMS Servers** under the Messaging node.
3. Click the **Lock & Edit** button on the top left corner of the page. This activates the New button.
4. Click **New**.
5. Type `APOLLO-JMSServer` in the **Name** box.
6. Select **APOLLO-JDBCStore** in the **Persistent Store** list and click **Next**.
7. Select **AdminServer** in the **Target** list. It will be the target on which you will deploy the JMS Server.
8. Click **Finish**.
9. Click the green **Activate Changes** button on the top left corner of the page.

Configure a JMS System Module

1. Click **JMS Modules** under the Messaging node.
2. Click the **Lock & Edit** button on the top left corner of the page. This activates the New button.
3. Click **New**.
4. Type `APOLLO-SystemModule` in the **Name** box.
5. Leave the **Descriptor File Name** and **Location in Domain** boxes blank and click **Next**.
6. Select **AdminServer** as the target on which you want to deploy this JMS system module and click **Next**.
7. Check the box next to the question "Would you like to add resources to this JMS module?"
8. Click **Finish**.
9. Click the green **Activate Changes** button on the top left corner of the page.

Configure the Resources for the System Module

1. Click the **Lock & Edit** button on the top left corner of the page. This activates the **New** button.
2. Click **New**.
3. Select **Topic** as the type of resource you want to create and click **Next**.
4. Type `ApolloEventTopic` in the **Name** box.
5. Type `topic/ApolloEventTopic` in the **JNDI Name** box.
6. Do not change the selection in the **Template** list. Click **Next**.
7. Click the **Create a New Subdeployment** button located to the right of the Subdeployment box.
8. Type `ApolloEventTopicSubdeployment` in the **Subdeployment Name** box and click **OK**.
9. **ApolloEventTopicSubdeployment** should now be selected in the **Subdeployments** list box.
10. Select **APOLLO-JMSServer** in the **Targets** list and click **Finish**.
11. Click the **New** button on the **Configuration** tab.
12. Select **Connection Factory** as the type of resource you want to create and click **Next**.
13. Type `APOLLO-TopicConnectionFactory` in the **Name** box.
14. Type `TopicConnectionFactory` in the **JNDI Name** box and click **Next**.
15. Click the **Advanced Targeting** button.
16. Select **ApolloEventTopicSubdeployment** in the **Subdeployments** list.
17. The **Targets** list will appear and **APOLLO-JMSServer** will be selected for you. Accept this selection and click **Finish**.

Follow steps 11-17 to create one more connection factory, using the name `ConnectionFactory` in steps 13 and 14.

Click the green **Activate Changes** button on the top left corner of the page.

Configuring WebLogic Security

When you install ERDAS APOLLO and use the bundled JBoss application server, the roles and default users (with predefined user names and passwords) are already set up in the system by the installer, and you have the option of changing the default user names and passwords later. Most customers do opt to change the user names and passwords of the default **admin** and **public** users, because it makes their installations much more secure.

If you are using the WebLogic application server, you will need to create roles and users when you set up WebLogic. You should go ahead and set up the users with the user names and passwords that you want to use rather than the default ones. To make this process a little easier, you should first read about how ERDAS APOLLO security works in the “Security” section in the *ERDAS APOLLO 2010 Administrator’s Guide: Advantage/Professional Edition*.

Opening the Security Settings of WebLogic

1. In the WebLogic Server Administration Console, find **Security Realms** in the Domain Structure pane on the left of the page and click it.
2. In the grid on the middle of the page, click **myrealm**.

Create New Groups

1. Click the **Users and Groups** tab.
2. Click the **Groups** tab.
3. Click the **New** button.
4. Type `esp_administrator` in the **Name** box.
5. Type `esp_administrator` in the **Description** box.
6. Leave the option **DefaultAuthenticator** selected in the **Provider** box.
7. Click **OK**.

Create four more groups by following steps 3-7 again, and typing the following names and descriptions in steps 4 and 5.

- `esp_data_manager`
- `esp_data_analyst`
- `esp_consumer`
- `esp_anonymous`

Create New Users

The default users for the ERDAS APOLLO system are shown in the following table.

The instructions for this section will use these default user names and passwords; however, you should substitute your own user names and passwords for the admin and public users in order to make your installation more secure.

Table 1: Default User Names and Passwords in ERDAS APOLLO

User Name	Password
admin	apollo123
dm	apollo123
da	apollo123
consumer	apollo123
public	public123

If you use a different user name or password for the admin or public accounts, then you need to open the `server.properties` file and change some things in there as well. You can change the `server.properties` file either before or after you set the user accounts up in WebLogic.

To edit the security settings in the `server.properties` file:

1. Navigate to the `server.properties` file and open it.

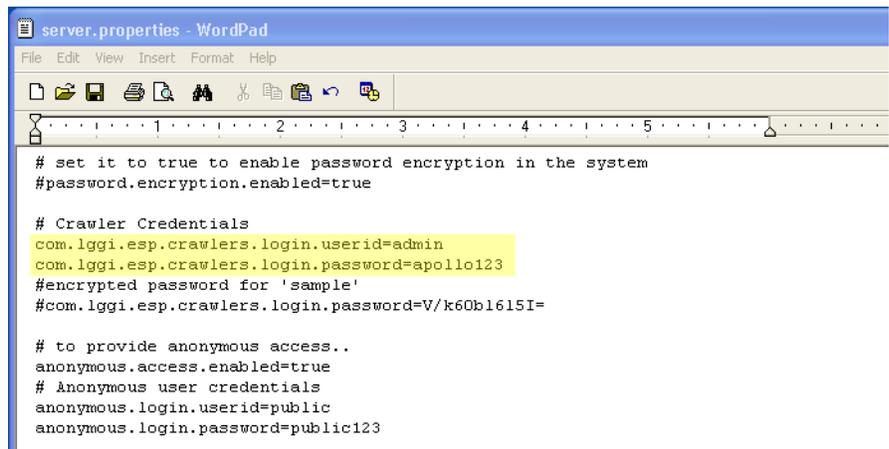
If you are using the JBoss application server that is bundled with the product, you will be able to find it in the following location:

```
<APOLLO_HOME>/jboss/server/default/deploy  
/erdas-apollo.ear/conf .
```

If you are using a WebLogic application server, you will be able to find it in the following location:

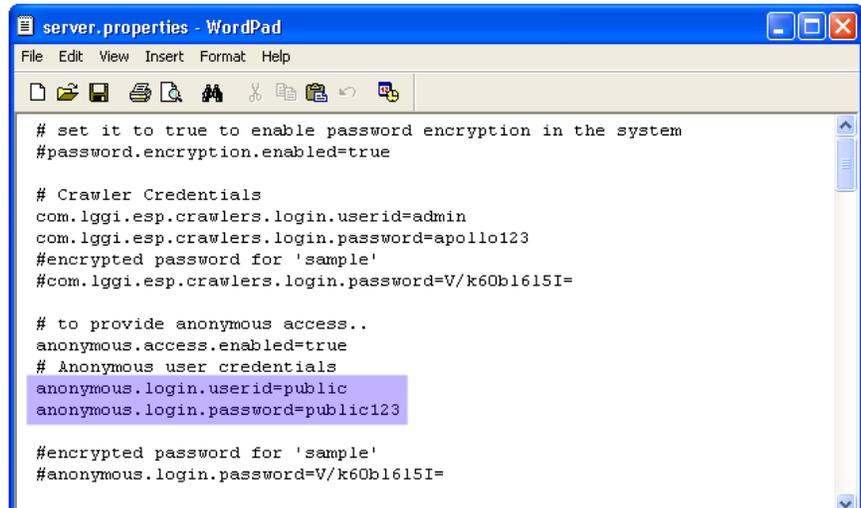
```
<APOLLO_HOME>\dist\weblogic\erdas-apollo.ear\conf
```

2. If you changed the **admin** user name or password, find the properties shown in the figure below. Change the values of those properties so that they match what you entered in `apollo-users.properties`.



```
server.properties - WordPad  
File Edit View Insert Format Help  
# set it to true to enable password encryption in the system  
#password.encryption.enabled=true  
  
# Crawler Credentials  
com.lggi.esp.crawlers.login.userid=admin  
com.lggi.esp.crawlers.login.password=apollo123  
#encrypted password for 'sample'  
#com.lggi.esp.crawlers.login.password=V/k60b1615I=  
  
# to provide anonymous access..  
anonymous.access.enabled=true  
# Anonymous user credentials  
anonymous.login.userid=public  
anonymous.login.password=public123
```

3. If you changed the **public** user name or password, find the properties shown in the figure below. Change the values of those properties so that they match what you entered in `apollo-users.properties`.



```
# set it to true to enable password encryption in the system
#password.encrypted.enabled=true

# Crawler Credentials
com.lggi.esp.crawlers.login.userid=admin
com.lggi.esp.crawlers.login.password=apollo123
#encrypted password for 'sample'
#com.lggi.esp.crawlers.login.password=V/k60b1615I=

# to provide anonymous access..
anonymous.access.enabled=true
# Anonymous user credentials
anonymous.login.userid=public
anonymous.login.password=public123

#encrypted password for 'sample'
#anonymous.login.password=V/k60b1615I=
```

4. Save and close the `server.properties` file.

To create the users:

1. Click the **Users** tab.
2. Click the **New** button.
3. Type `admin` in the **Name** box.
4. Type `admin` in the **Description** box.
5. Leave the option **DefaultAuthenticator** selected in the **Provider** box.
6. Type `apollo123` in the **Password** box, and again in the **Confirm Password** box. You must use `apollo123` as the password for this user.
7. Click **OK**.

Create three more users by following 2-7 again, and typing the following as the names and descriptions in 3 and 4. Your passwords must be at least 8 characters.

- `dm`
- `da`
- `consumer`

Create one more users by following 2-7 again, and typing `public` for the name and description in steps 3 and 4, and typing `public123` as the password for this user.

Specify Group Membership for Users

1. Click `admin` in the **Users** table.
2. Click the **Groups** tab.
3. Find `esp_administrator` in the **Available** list in the **Parent Groups** section and highlight it.
4. Click the right-pointing arrow to move `esp_administrator` from the **Available Parent Groups** list to the **Chosen Parent Groups** list.
5. Find `esp_consumer` in the **Available** list in the **Parent Groups** section and highlight it.
6. Click the right-pointing arrow to move `esp_consumer` from the **Available Parent Groups** list to the **Chosen Parent Groups** list.

7. Click **Save**.
8. At the top of the page, there is a breadcrumb trail that tells you what you clicked in order to arrive at the page you are on. Click **Users and Groups** in the breadcrumb trail.
9. Specify group memberships for the rest of the users you created in the domain by following steps 1-6 again and using the following user name and available parent group names in steps 1 and 3.
 - User *dm* belongs to the parent groups *esp_data_manager* and *esp_consumer*.
 - User *da* belongs to the parent groups *esp_data_analyst* and *esp_consumer*.
 - User *consumer* belongs to the parent group *esp_consumer*.
 - User *public* belongs to the parent group *esp_anonymous*.

Create Roles and Specify Role Membership for Groups and Users

1. Find **Security Realms** in the Domain Structure pane on the left of the page and click it.
2. In the grid on the middle of the page, click **myrealm**.
3. Click the **Roles and Policies** tab.
4. In the Roles table on the Realm Roles sub tab, expand the **Global Roles** node by clicking the plus sign next to it.
5. Click the word **Roles** in the Global Roles node.
6. Click **New**.
7. Type `esp_administrator` in the **Name** box.
8. Leave the option **XACMLRoleMapper** selected in the **Provider** box.
9. Click **OK**.
10. Click **esp_administrator** in the Global Roles grid.
11. Click the **Add Conditions** button located in the Role Conditions section.
12. Select **Group** in **Predicate List** and click **Next**.
13. Type `esp_administrator` in the **Group Argument Name** box and click **Add**.

14. Click **Finish**.

15. Click the **Add Conditions** button located in the Role Conditions section.

16. Select **User** in **Predicate List** and click **Next**.

17. Type `admin` in the **User Argument Name** box and click **Add**.

18. Click **Finish**.

19. In the dropdown box between the User and Group labels, select **And**.

The page you are looking at should look like the following picture when the role conditions are set up properly for this role.

Welcome, weblogic Connected to: **wl_server** | Home | Log Out | Preferences | Record | Help

Home > Users and Groups > dm > Users and Groups > consumer > Users and Groups > Summary of Security Realms > myrealm > Realm Roles > Global Roles > **Edit Global Role**

Edit Global Role

Global Role Conditions
This page is used to edit the conditions for a global role on an application.
This is the name of the global role.
Name `esp_administrator`
These conditions determine membership in the role.

Role Conditions

User : `apadmin`

Group : `esp_administrator`

20. Click **Save**.

21. Click **Global Roles** in the breadcrumb trail at the top of the page.

22. Specify the rest of the role memberships by following steps 6-21 again and using the following roles in steps 7 and 10, groups in step 13, and users in step 17.

- The role `esp_data_manager` has the `esp_data_manager` group and `dm` user as its members.

- The role *esp_data_analyst* has the *esp_data_analyst* group and *da* user as its members.

Now, specify the role memberships for the *esp_consumer* group. There are more members in this role, so there are a few extra steps you will need to follow.

1. Click **New**.
2. Type *esp_consumer* in the **Name** box.
3. Leave the option **XACMLRoleMapper** selected in the **Provider** box.
4. Click **OK**.
5. Click **esp_consumer** in the Global Roles grid.
6. Click the **Add Conditions** button located in the role conditions section.
7. Select **Group** in **Predicate List** and click **Next**.
8. Type *esp_consumer* in the **Group Argument Name** box and click **Add**.
9. Click **Finish**.
10. Click the **Add Conditions** button located in the Role Conditions section.
11. Select **User** in **Predicate List** and click **Next**.
12. Type *admin* in the **User Argument Name** box and click **Add**.
13. Type *dm* in the **User Argument Name** box and click **Add**.
14. Type *da* in the **User Argument Name** box and click **Add**.
15. 15. Type *consumer* in the **User Argument Name** box and click **Add**.
16. Click **Finish**.
17. In the dropdown box between the User and Group labels, select **And**.
18. The page you are looking at should look like the following figure when the role conditions are set up properly for this role.

Welcome, weblogic Connected to: **apollo_domain** [Home](#) [Log Out](#) [Preferences](#) [Record](#) [Help](#) [AskBEA](#)

Home > myrealm > Realm Roles > Global Roles > Edit Global Role > **Edit Global Role**

Edit Global Role

[Save](#)

Global Role Conditions
This page is used to edit the conditions for a global role on an application.
This is the name of the global role.

Name esp_consumer

These conditions determine membership in the role.

Role Conditions

[Add Conditions](#) [Combine](#) [Uncombine](#) [Move Up](#) [Move Down](#) [Remove](#) [Negate](#)

User : apadmin or dm or da or consumer

[And](#)

Group : esp_consumer

[Add Conditions](#) [Combine](#) [Uncombine](#) [Move Up](#) [Move Down](#) [Remove](#) [Negate](#)

[Save](#)

After you have finished creating the roles and specifying their conditions, the WebLogic application server is configured to work with ERDAS APOLLO Server (Advanced/Professional).

Configuring WebLogic for ERDAS APOLLO Server (Essentials-SDI)

Configuring WebLogic for ERDAS APOLLO Server (Essentials-SDI) consists of the following basic steps:

- Create a new WebLogic domain in the WebLogic configuration wizard tool.
- Change the default memory settings.
- Configure the security.

To open the WebLogic Configuration Wizard:

1. Click the **Windows Start** button.
2. Click **All Programs**.
3. Select **BEA Products > Tools > Configuration Wizard** .

Creating the Domain

1. Choose **Create a new WebLogic domain** and click **Next**.
2. Choose **Generate a domain configured automatically to support the following BEA products** and click **Next**.

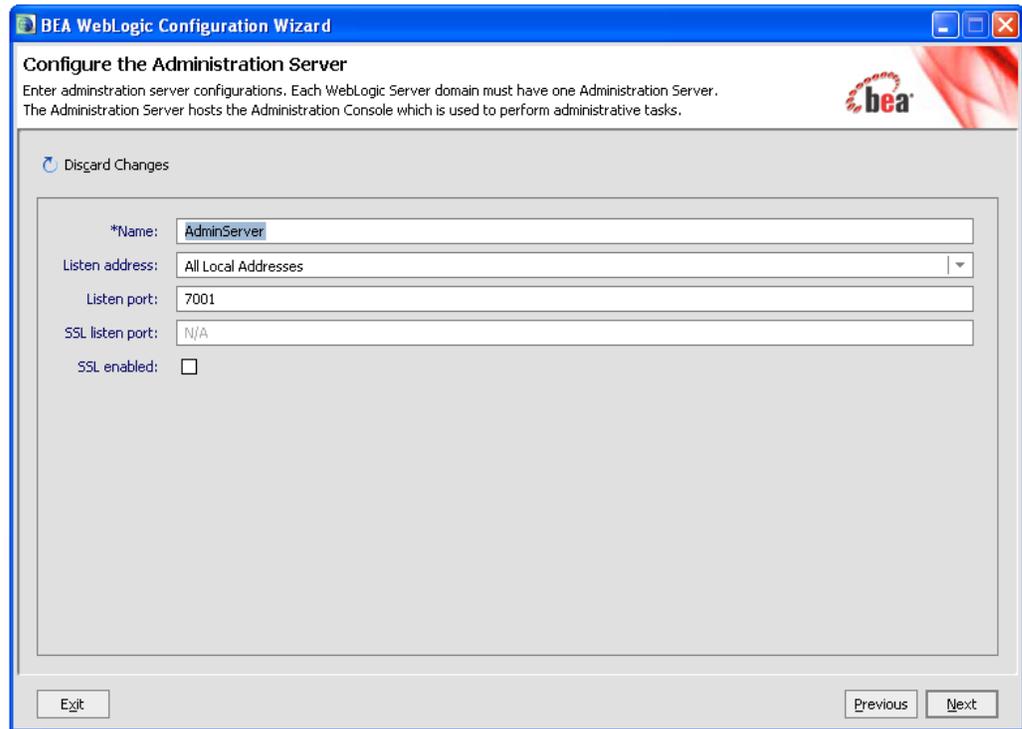
NOTE: It is not necessary to activate WebLogic Workshop.

3. Specify a password for the WebLogic administrator user.
4. In the next step, you are asked to specify a domain startup mode and the folder where the JDK is installed. Choose the domain startup mode that best fits your need and make sure to choose the SUN JDK 1.5 version.
5. The next step asks you to customize options for the domain. If you are satisfied with the default options, leave the default option of No selected and click **Next**.

If you need to change the WebLogic port number to avoid conflicts with another application, then select Yes and click Next.

If you select **Yes** because you need to change the WebLogic port number, the wizard will show you four more panels.

The first of these additional panels will appear after you click **Next**. In this screen, you should type your new port number in the **Listen Port** box. Your network administrator can help you find a new number that is not being used already. After you type in your new port number, click **Next**.



The second additional panel shows each instance of WebLogic that you have installed on this computer already. The instance of WebLogic that you are currently installing will not appear in this screen. You can click **Next** to advance past this panel.

The third additional panel shows information about configuring machines. Click **Next** to advance past this panel.

The final additional panel shows some review information. Click **Next** to advance past this panel and continue with the next numbered step in this guide.

NOTE: The WebLogic port number can also be changed after the installation process.

If you want to change the WebLogic port number after installation:

- Open the directory
C:\bea\user_projects\domains\apollo_domain\config
- Copy the `config.xml` file and paste it in the same directory so you have a backup copy of the working `config.xml` file.
- Highlight the original file and right-click it.
- Select **Open With...** in the menu.
- In the **Programs** list in the Open With dialog, select **NotePad**.
- Click **OK**.
- If you used the default port number at install time, you will be able to find a block of text in your file that looks similar to the following (the line in blue will only be there if you tried to set the port number to something other than the default value of 7001 when you first installed WebLogic):

```
<server>
  <name>AdminServer</name>
  <listen-port>1234</listen-port>
  <listen-address></listen-address>
</server>
```

- To change the port number, add the line with the `listen-port` tags if it is not there already and type the port number you want to use between the tags.
 - Save this file and close it.
6. The final panel asks you to specify the name and location for the domain. Click **Create** when you are finished.
 7. The configuration wizard notifies you when the domain has been created successfully. Click **Done** to close the wizard.

Changing the Default Memory Settings

1. The default memory settings of the virtual machine need to be changed. To do this, navigate to the directory `<WebLogic_Home>\user_projects\domains\eas\bin`. Locate the file named `startWeblogic.cmd` (for Microsoft Windows) or `startWeblogic.sh` (for Linux) and open the file in a text editor.

Add the following line at the beginning of the file:

```
@REM Memory customization for aeas;  
set USER_MEM_ARGS=-Xms512m -Xmx512m -XX:PermSize=128m -XX:MaxPermSize=256m
```

on Linux, add after the `#!/bin/sh` declaration:

```
# Memory customization for ERDAS APOLLO Server  
USER_MEM_ARGS="-Xms512m -Xmx512m -XX:PermSize=128m -XX:MaxPermSize=256m"
```

2. Start the WebLogic server using the file `startWeblogic.cmd` (for Microsoft Windows) or `startWeblogic.sh` (for Linux). This script can be found in the home directory of your domain (for instance `<WEBLOGIC_HOME>\user_projects\domains\eas`).

Configuring WebLogic Security

1. The role `esp_administrator` needs to be assigned to the users that need to use the ERDAS APOLLO Data Manager to interact with an ERDAS APOLLO Server. On WebLogic, go first to the admin console (`http://<hostname>:<portnumber>/console`) and connect using the WebLogic administrator user that was created with the domain).

2. Then, create a user by following these steps:
 - In the domain structure tab on the left, choose **Security Realms**.
 - Choose the realm that was used to initialize the security (*myrealm* by default).
 - Choose the **Users and Groups** tab.
 - Click on the **New** button and specify the information of the user you want to create. Click on the **OK** button.
3. Once the user has been created, the next step is to register the **esp_administrator** role and to assign it to the user:
 - In the domain structure tab on the left, choose **Security Realms**.
 - Choose the realm that was used to initialize the security (*myrealm* by default).
 - Choose the **Roles and Policies** tab.
 - Expand the **Global Roles** node and click on **Roles**.
 - Click on the **New** button and specify *esp_administrator* as the role name. Click on the **OK** button.
 - Click on the *esp_administrator* role.
 - On the role **Roles conditions** row, click on the **Add conditions** button
 - In the predicates list, choose **User** then click on the **Next** button.
 - In the **User Argument Name** field, specify the name of the user that was created, then click on the **Add** button.
 - Once this is done, click on the **Finish** button.
 - Click on the **Save** button to apply your changes.
4. At this point, ERDAS APOLLO Server is ready to be deployed. The deployment instructions can be found in the ERDAS APOLLO Server installation section.

Appendix B - ERDAS APOLLO Feature Interoperability

ERDAS APOLLO Feature Interoperability 2010 is an add-on utility that will allow you to create a vector service provider (which includes WFS and WMS interfaces) that is attached to data in the V7 DGN and V8 DGN data formats.

ERDAS Feature Interoperability includes the FME Universal Viewer and FME Workbench, which can be used to view and edit data that you are going to serve through ERDAS APOLLO. FME Universal Viewer allows you to view ERDAS APOLLO data in any of the formats supported by FME. FME Workbench allows you to perform data translations on ERDAS APOLLO data.

In order to use ERDAS APOLLO Feature Interoperability, you must be using ERDAS APOLLO 2010 version 10.1 or higher, and your ERDAS APOLLO Server and all Data Manager installations must be running on computers with Windows operating systems.

ERDAS APOLLO Feature Interoperability also requires another license in addition to the ERDAS APOLLO license.

To install ERDAS APOLLO Feature Interoperability:

1. Download the installer (`APOLLO2010_FIO.msi`) on ERDAS.com.
2. Run the installer.
It will simply ask you to accept the ERDAS APOLLO software license agreement and will indicate the progress of the installation.

The installer will place the add-on in the directory
`<APOLLO_HOME>\tools\native\fme`

3. Open the ERDAS-Net License Admin Tool and enter the license information for ERDAS APOLLO Feature Interoperability.

For information about using the ERDAS-Net License Admin Tool, see the *ERDAS-Net License Administration* guide.

If you need additional assistance with licensing, e-mail teamlicensing@erdas.com

To launch FME Universal Viewer:

1. Click the **Windows Start** button.
2. Click **All Programs**.
3. Select **ERDAS 2010 > ERDAS APOLLO 2010 > FME Universal Viewer**.

Safe Software, the makers of the FME Universal Viewer, provides documentation that you can access from inside that application.

To launch FME Workbench:

1. Click the **Windows Start** button.
2. Click **All Programs**.
3. Select **ERDAS 2010 > ERDAS APOLLO 2010 > FME Workbench**.

Safe Software, the makers of the FME Workbench, provides documentation that you can access from inside that application.

Appendix C - Troubleshooting Your Installation

The ERDAS APOLLO system is designed to work with certain commonly used operating systems, third-party software packages, and network configurations and it is tested rigorously to make sure that its standard configuration options allow it to work well with them. It is also designed to be flexible enough so that it can work with many others that are not so commonly used.

However, due to the variety of ways in which you can configure an operating system or network, and the many other applications you can run alongside ERDAS APOLLO, there are occasions when you may need to make some slight changes to something on your computer system in order for everything to work well together.

Below, you will find descriptions of the situations that some of our other customers have had and information about how to resolve each of them.

I just tried to connect my ERDAS APOLLO Data Manager to my ERDAS APOLLO Server for the first time, and I saw an error that said “cannot look up apolloserver/AdminBean/remote localhost:1099”.

There are a few different things that can cause this to appear.

First, check to make sure that you have installed the ERDAS-Net License Server and that you have it configured with valid licenses. There is a guide for that product that explains how to install and use it. If you have installed it correctly and are using it correctly, you should then check to make sure you have supplied all of the proper licenses.

If you are still having the problem after you have made sure the license server is running and has the correct licenses, you need to examine the application server.

If you are using JBoss, the ERDAS APOLLO installer placed it on your system, but you will need to start the application server.

To start your JBoss application server:

1. Open the **Control Panel**.
2. Select **Administrative Tools > Services**

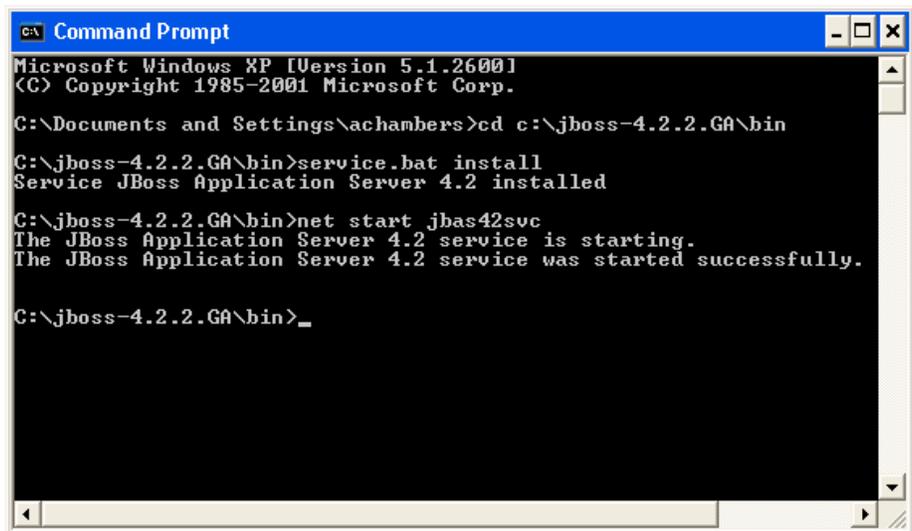
3. Find **JBoss Application Server 4.2** in the grid, right-click it, and select **Start** in the menu.

If you do not see JBoss in the list of services, you need to install JBoss as a Windows Service and then start it.

To install JBoss as a Windows service and start the service:

1. Open a command line window.
2. Navigate to the `<JBOSS_HOME>/bin` directory.
3. At the prompt, type `service.bat install` and press Enter.
4. After that command finishes, type `net start jbas42svc` at the prompt.
The server will indicate that it has started.

The following screen shot shows the implementation of this process. Notice that you can use the command `cd` to change directories so you can navigate to the directory that you want.



```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\achambers>cd c:\jboss-4.2.2.GA\bin

C:\jboss-4.2.2.GA\bin>service.bat install
Service JBoss Application Server 4.2 installed

C:\jboss-4.2.2.GA\bin>net start jbas42svc
The JBoss Application Server 4.2 service is starting.
The JBoss Application Server 4.2 service was started successfully.

C:\jboss-4.2.2.GA\bin>_
```

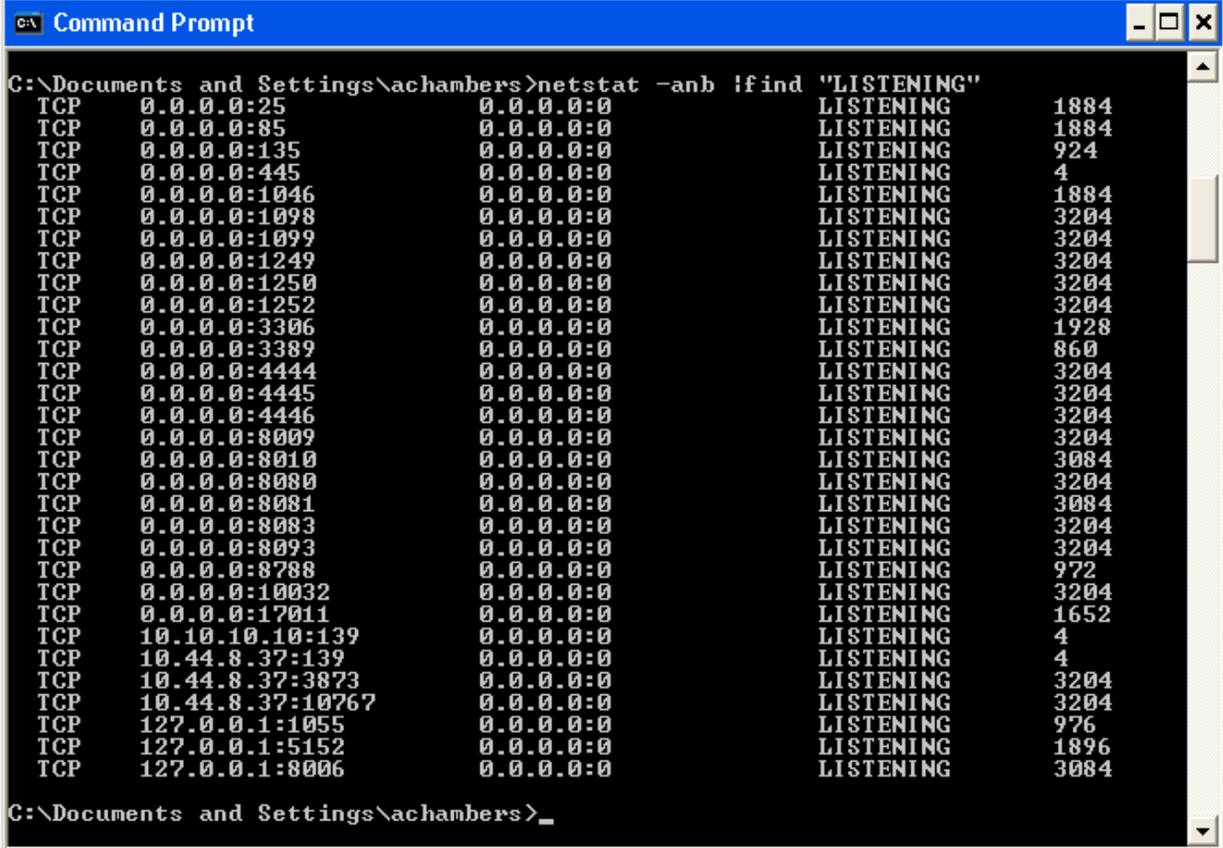
If you are still having the issue, then Windows may have allowed another application to use port number 1099, which is the one that JBoss needs.

To see if another application is using JBoss' port 1099:

1. Open a command line window.
2. At the prompt, type `netstat -anb |find "LISTENING"` and press Enter.

You may not see anything right away, because it often takes a little while for the computer to complete this task.

When it finishes, it will look similar to what you see in the following figure.



```
C:\Documents and Settings\achambers>netstat -anb |find "LISTENING"
TCP    0.0.0.0:25          0.0.0.0:*        LISTENING     1884
TCP    0.0.0.0:85         0.0.0.0:*        LISTENING     1884
TCP    0.0.0.0:135        0.0.0.0:*        LISTENING     924
TCP    0.0.0.0:445        0.0.0.0:*        LISTENING      4
TCP    0.0.0.0:1046       0.0.0.0:*        LISTENING     1884
TCP    0.0.0.0:1098       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:1099       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:1249       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:1250       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:1252       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:3306       0.0.0.0:*        LISTENING     1928
TCP    0.0.0.0:3389       0.0.0.0:*        LISTENING     860
TCP    0.0.0.0:4444       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:4445       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:4446       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:8009       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:8010       0.0.0.0:*        LISTENING     3084
TCP    0.0.0.0:8080       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:8081       0.0.0.0:*        LISTENING     3084
TCP    0.0.0.0:8083       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:8093       0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:8788       0.0.0.0:*        LISTENING     972
TCP    0.0.0.0:10032      0.0.0.0:*        LISTENING     3204
TCP    0.0.0.0:17011      0.0.0.0:*        LISTENING     1652
TCP    10.10.10.10:139    0.0.0.0:*        LISTENING      4
TCP    10.44.8.37:139    0.0.0.0:*        LISTENING      4
TCP    10.44.8.37:3873   0.0.0.0:*        LISTENING     3204
TCP    10.44.8.37:10767  0.0.0.0:*        LISTENING     3204
TCP    127.0.0.1:1055     0.0.0.0:*        LISTENING     976
TCP    127.0.0.1:5152    0.0.0.0:*        LISTENING     1896
TCP    127.0.0.1:8006    0.0.0.0:*        LISTENING     3084

C:\Documents and Settings\achambers>_
```

3. In the second column from the left, find the entry that has 1099 at the end of it.

NOTE: in the figure above, the entry is in the seventh row and looks like 0.0.0.0:1099.

Locate the corresponding process ID in the last column of that row.

NOTE: In the figure above, it is 3204.

4. In the second column from the left, find the entry that has your ERDAS APOLLO Server port number at the end of it. Usually, the port number is 8080.

NOTE: in the figure above, entry is in the eighteenth row and looks like 0.0.0.0:8080.

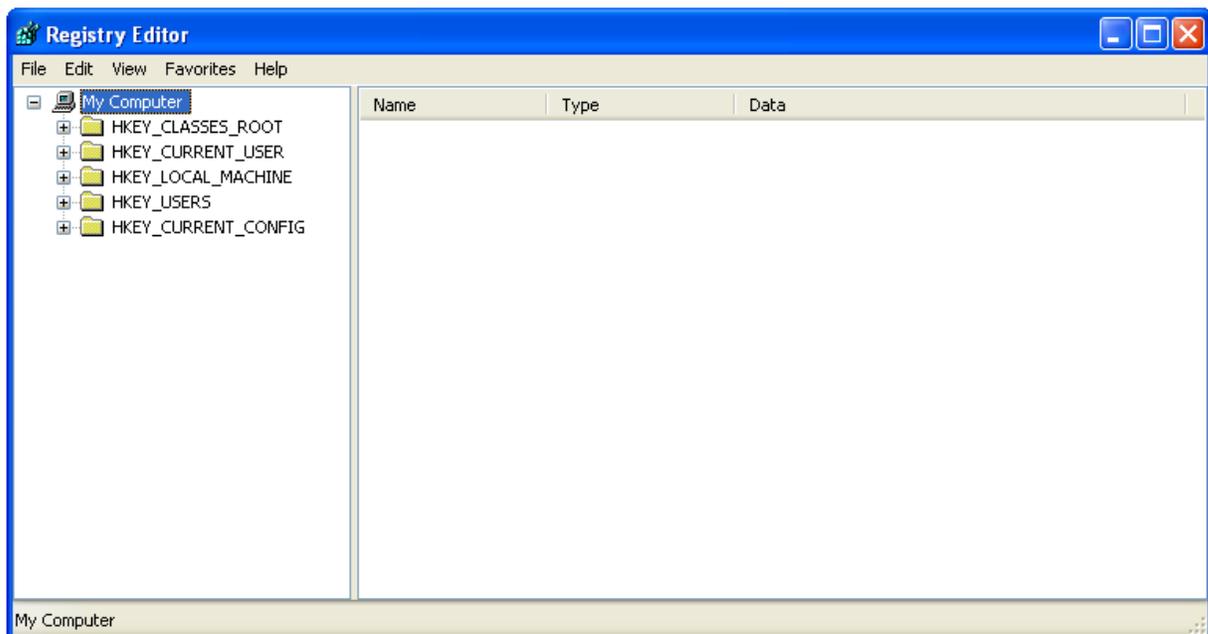
Locate the corresponding process ID in the last column of that row.

NOTE: In the figure above, it is 3204.

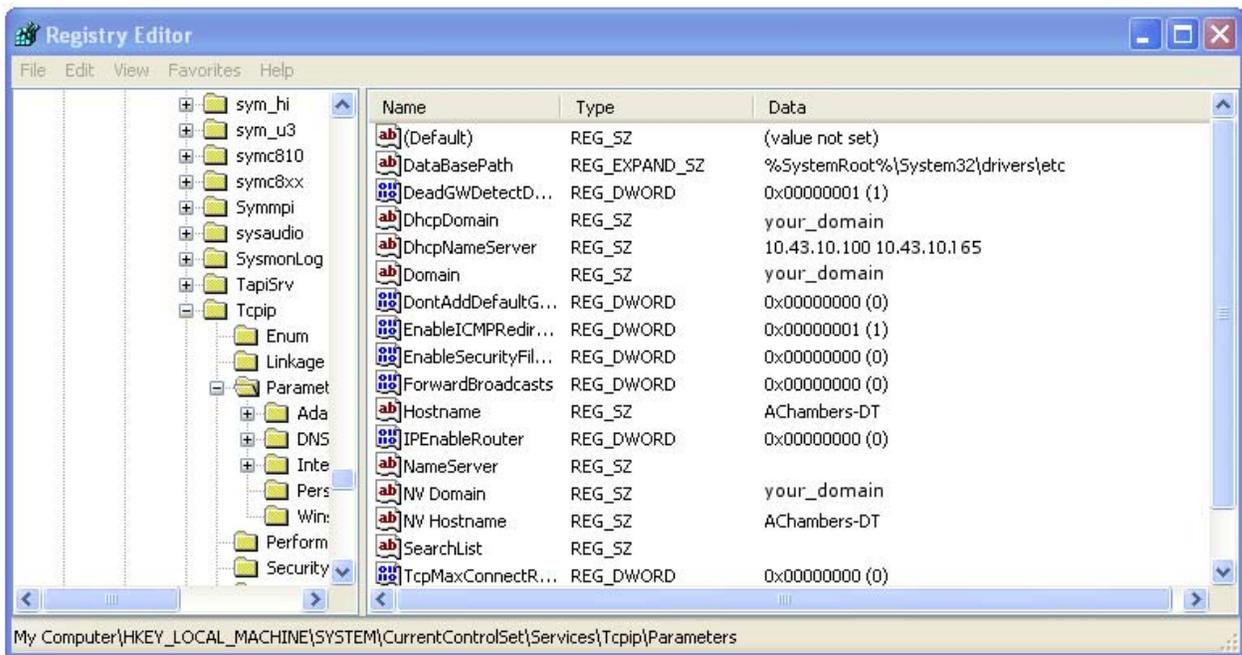
The process ID numbers that you found in steps 3 and 4 should be the same. If they are not, then you need to set 1099 as a reserved port in your Windows registry so that it will not allow other applications to use it.

To set 1099 as a reserved port in Microsoft Windows:

1. Open the Windows Registry editor.
 - a. Click the **Windows Start** button
 - b. Click **Run...** in the Start menu.
 - c. Type `regedt32` in the box that appears.
 - d. Click **OK** on the box.
The Registry Editor opens.



2. In the panel on the left side of the Registry Editor, you need to open HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters. To do this:
 - a. Open the **HKEY_LOCAL_MACHINE** node by clicking the plus sign next to it.
 - b. Open the **System** node by clicking the plus sign next to it.
 - c. Open the **CurrentControlSet** node by clicking the plus sign next to it.
 - d. Open the **Services** node by clicking the plus sign next to it.
 - e. Open the **Tcpip** node by clicking the plus sign next to it.
 - f. Click on the word **Parameters** inside the Tcpip node. Your Registry Editor should look similar to the figure below. Notice the path in the status bar.



3. Select **Edit > New > Multi-String Value** in the main Registry Editor menu. A value named **New Value #1** appears at the bottom of the panel on the right side of the Registry Editor.
4. Right-click the New Value #1 entry and select **Rename** on the menu that appears.
5. Type **ReservedPorts** and press Enter on the keyboard.

6. Double-click the **ReservedPorts** value.
The Edit Multi-String dialog box opens.
7. Type 1099-1099 in the **Value data** box and click **OK**.
8. Exit the Registry Editor.
9. Reboot the computer.

Microsoft Windows will now keep the 1099 port available so that JBoss will be free to use that port when it needs it.

If you are still having the problem after you have checked the ERDAS-Net License Server, made sure that the JBoss application server is started, and set 1099 as a reserved port, please contact ERDAS. Your technical support representative will be happy to provide you with further assistance.

I have been using the ERDAS APOLLO system for a little while now, and it seems like the WMS response times are a bit slower than they should be.

A possible cause is that your antivirus software has a real-time protection feature and is scanning either the geospatial data files that ERDAS APOLLO is trying to use or the ERDAS APOLLO installation directory.

To prevent this issue from occurring, see if your antivirus software will allow you to create an “exception rule” so that the ERDAS APOLLO installation directory and the data directories are not included in the list of directories that are subject to the scanning that occurs with the real-time protection feature.

When I try to use the Data Manager to crawl National Imagery Transmission Format (NITF) data so that I can add it to my catalog, the crawling job fails.

It's possible that one or more of the NITF datasets that you are trying to crawl doesn't conform completely to the official NITF standard, and is considered invalid.

To make sure that your data is fully compliant with the official NITF standard, you can use the CIVA tool, which is available from the Joint Interoperability Test Command's NITFS Compliance Test Facility. Information about the CIVA tool and how to get it can be found at <http://www.gwg.nga.mil/ntb/baseline/software/jitctest.html>.