BEA AquaLogic™ Enterprise Repository (Evaluation Version)

Installation Guide

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Note: See the ALER **Administration Guide** for more information on configuration.

Installation Prerequisites

Successful installation of AquaLogic Enterprise Repository requires the following:

1. **BEA WebLogic Server 8.1**
   - (SP2 thru SP6)

2. **Oracle 9i Database**
   - Properly configured and running
   - Minimum patch level 9.2.0.6.0

3. **Oracle 10g JDBC Driver Release 2 (10.2.0.2)**
   - `ojdbc14.jar` must be available on the computer on which ALER is to be installed.
   - Oracle JDBC drivers are available from: http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/index.html

Oracle Database Installation

Example Scripts

Note	ALER requires that the Oracle database is configured to support the UTF-8/ Unicode character encoding.

- Notice that the Tablespace scripts below are for a Linux based DataFile.
- A Windows path of `c:\oracle\...\file.dbf` would be appropriate syntax for a Windows installation.

```
CREATE TABLESPACE aler_data
    DATAFILE '/opt/oracle/data/aler_data.dbf' SIZE 100M AUTOEXTEND
ON NEXT 10240K MAXSIZE UNLIMITED
    EXTENT MANAGEMENT LOCAL AUTOALLOCATE
    LOGGING
    ONLINE
    SEGMENT SPACE MANAGEMENT AUTO;

CREATE TABLESPACE aler_index
    DATAFILE '/opt/oracle/data/aler_index.dbf' SIZE 100M AUTOEXTEND
ON NEXT 5120K MAXSIZE UNLIMITED
    EXTENT MANAGEMENT LOCAL AUTOALLOCATE
    LOGGING
    ONLINE
    SEGMENT SPACE MANAGEMENT AUTO;

DROP USER aler CASCADE;

CREATE USER ALER IDENTIFIED BY aler_pwd
    DEFAULT TABLESPACE ALER_DATA
    TEMPORARY TABLESPACE TEMP
    PROFILE DEFAULT
    ACCOUNT UNLOCK;
```

```
GRANT "CONNECT" TO ALER;
GRANT "RESOURCE" TO ALER;
ALTER USER ALER DEFAULT ROLE "CONNECT", "RESOURCE";
GRANT CREATE MATERIALIZED VIEW TO ALER;
GRANT CREATE SEQUENCE TO ALER;
GRANT CREATE SESSION TO ALER;
GRANT CREATE SYNONYM TO ALER;
GRANT CREATE TABLE TO ALER;
GRANT CREATE TRIGGER TO ALER;
GRANT CREATE VIEW TO ALER;
```

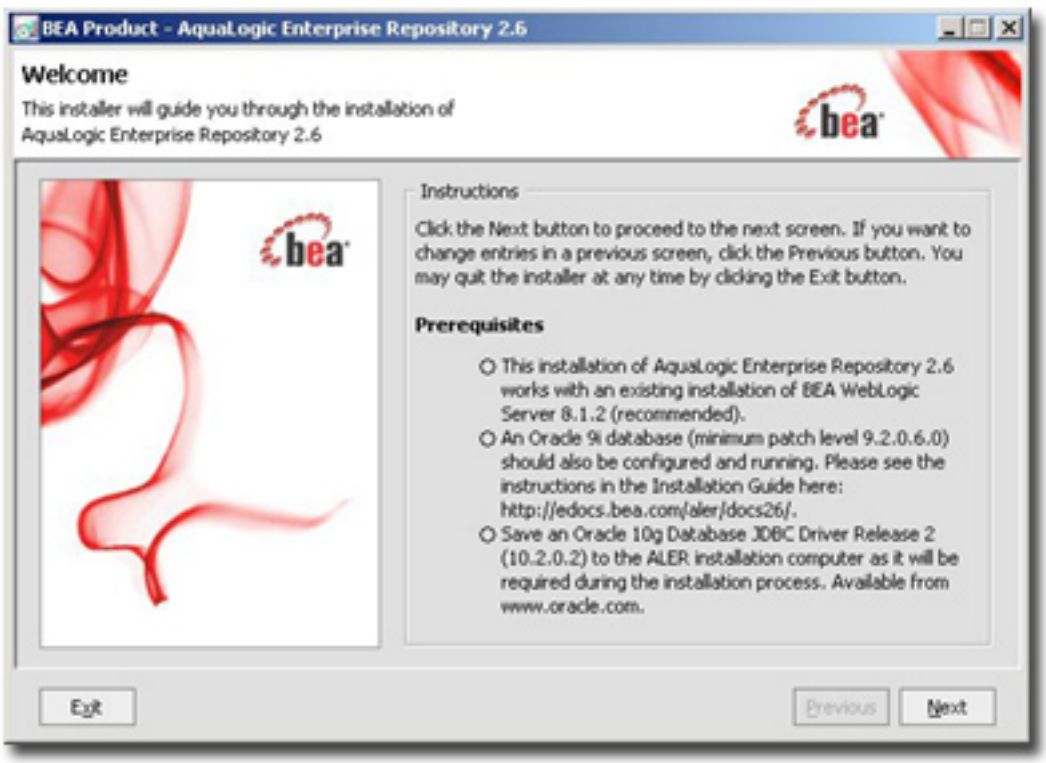
BEA AquaLogic Enterprise Repository (Evaluation Version)

Windows and Linux Installation

Note: Click **Exit** at any point to terminate the installation process.

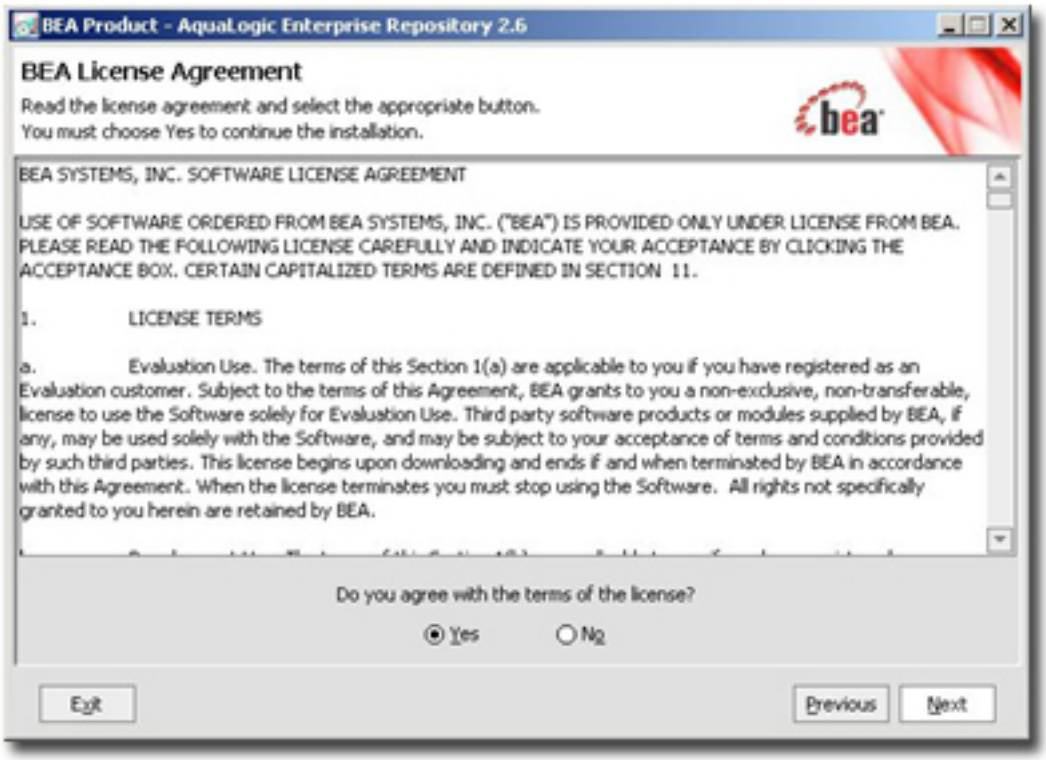
1. Launch the BEA ALER Installer application by double-clicking the `alerXX_wind32.exe` file, or if running Linux, execute the `alerXX_linux32.bin` file from a shell prompt.

2. Review the Instructions in the **Welcome** pop-up.



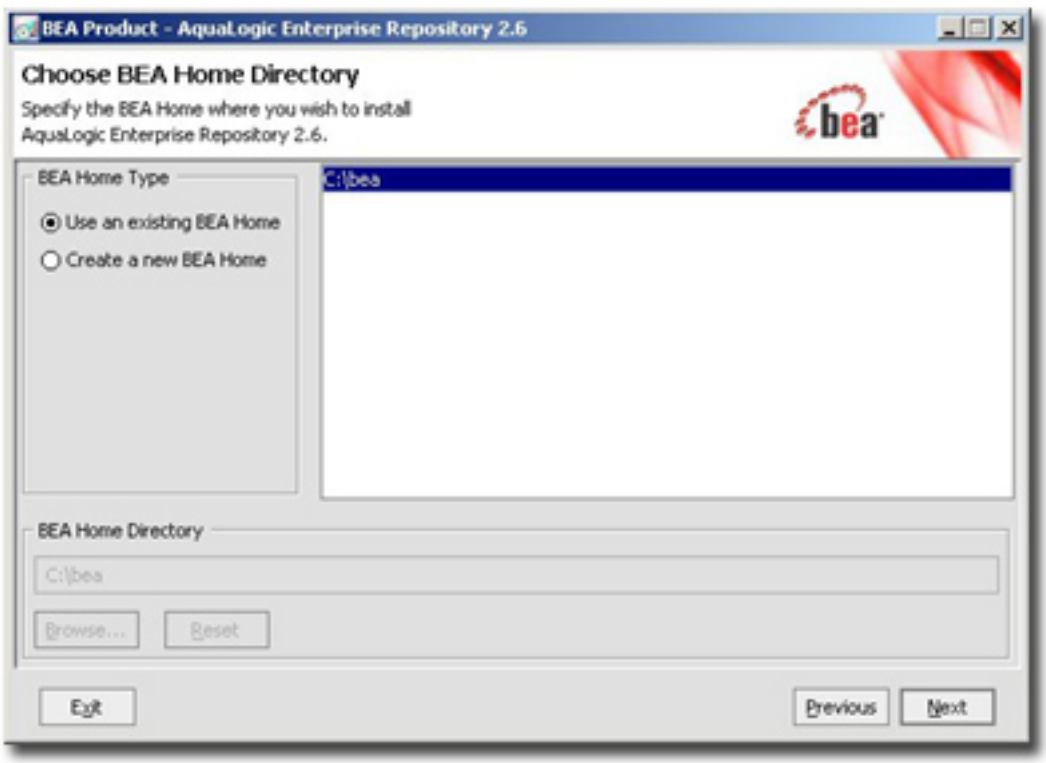
3. Click **Next** to proceed.

4. Review the terms of the **BEA Software License Agreement**. Select the **Yes** radio button to indicate acceptance. (**No** ends the installation process.)



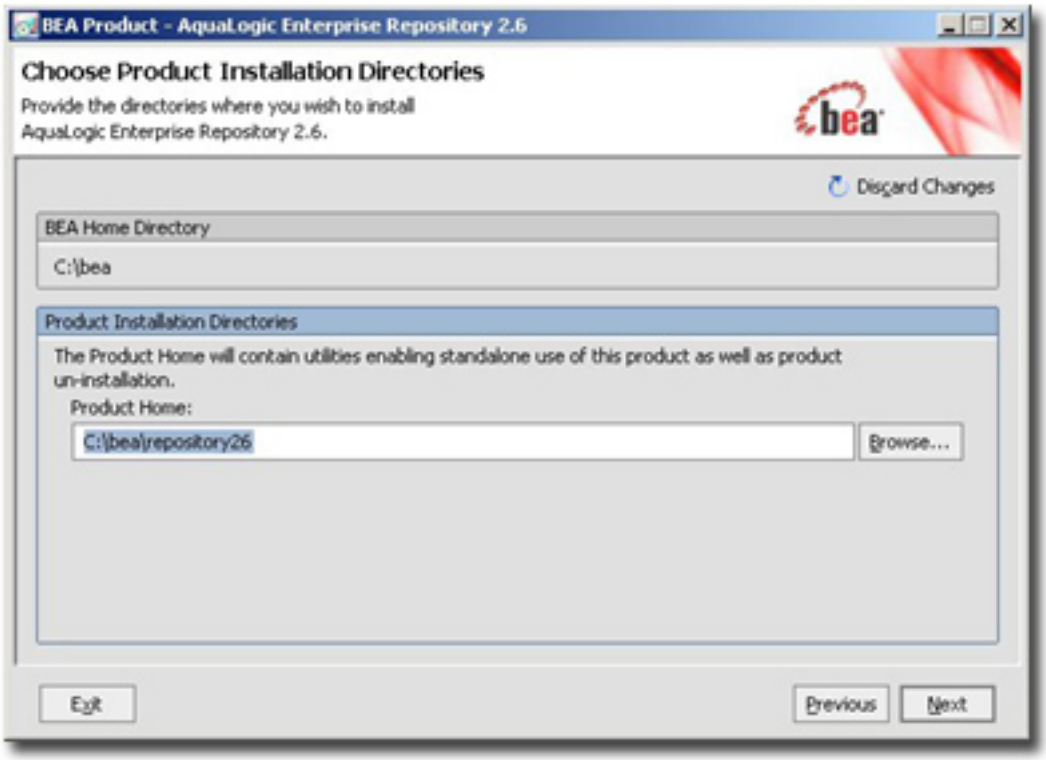
5. Click **Next** to proceed.

6. Use the radio buttons to select **Use an existing BEA Home** or **Create a new BEA home** in the the **Choose BEA Home Directory** pop-up.



7. Click **Next** to proceed.

8. Enter information as appropriate in **Product Home** or use the **Browse** button to specify the **Product Installation Directory**. (Defaults to a subdirectory of the previously specified **BEA Home Directory**.)



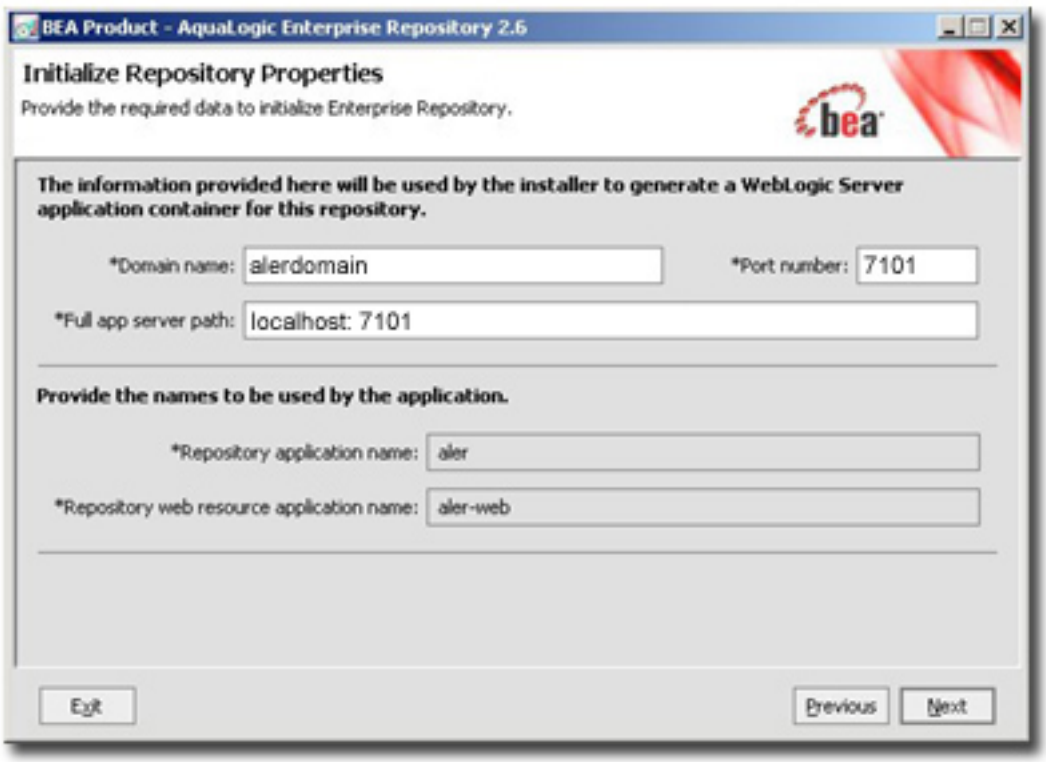
9. Click **Next** to proceed.

10. Use the radio buttons to select the appropriate **Start Menu** shortcut location.

11. Click **Next** to proceed.

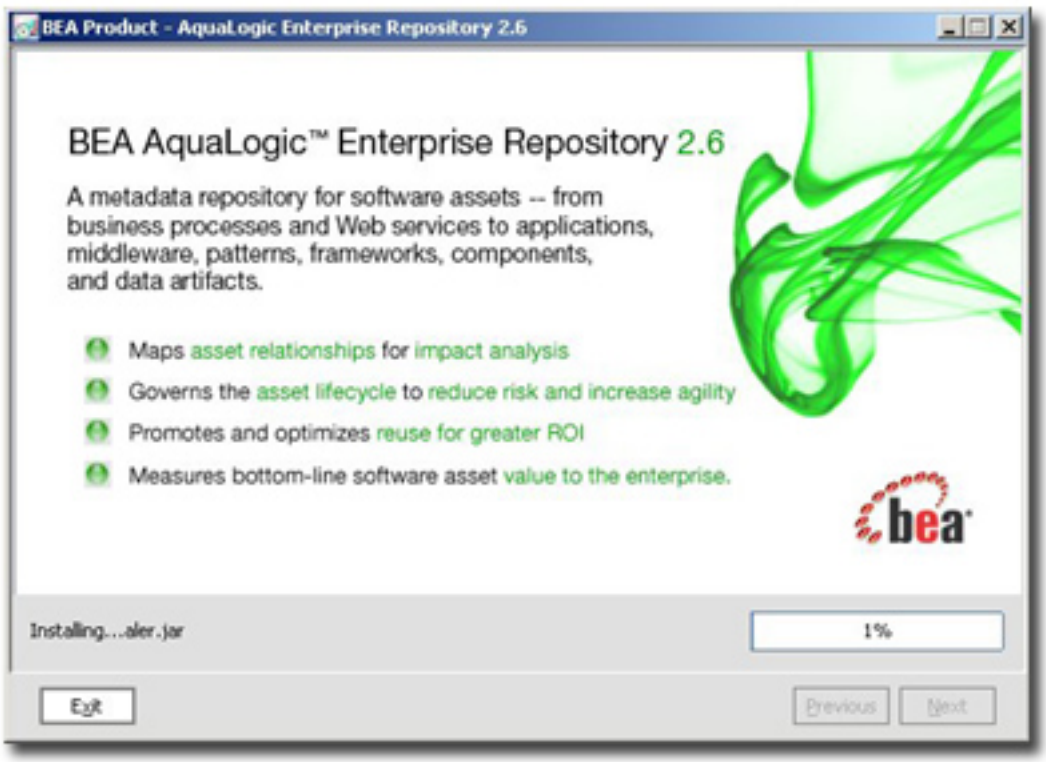
12. Enter the appropriate information in the **Domain Name**, **Port Number**, **Full app server path** (as a combination of the fully-qualified host name of the server and appending the port number specified in the port number field) text boxes.

    Note: If you accept the default **localhost** setting for **Full app server path**, you will be the only user able to access this ALER installation.



13. Click **Next** to proceed.

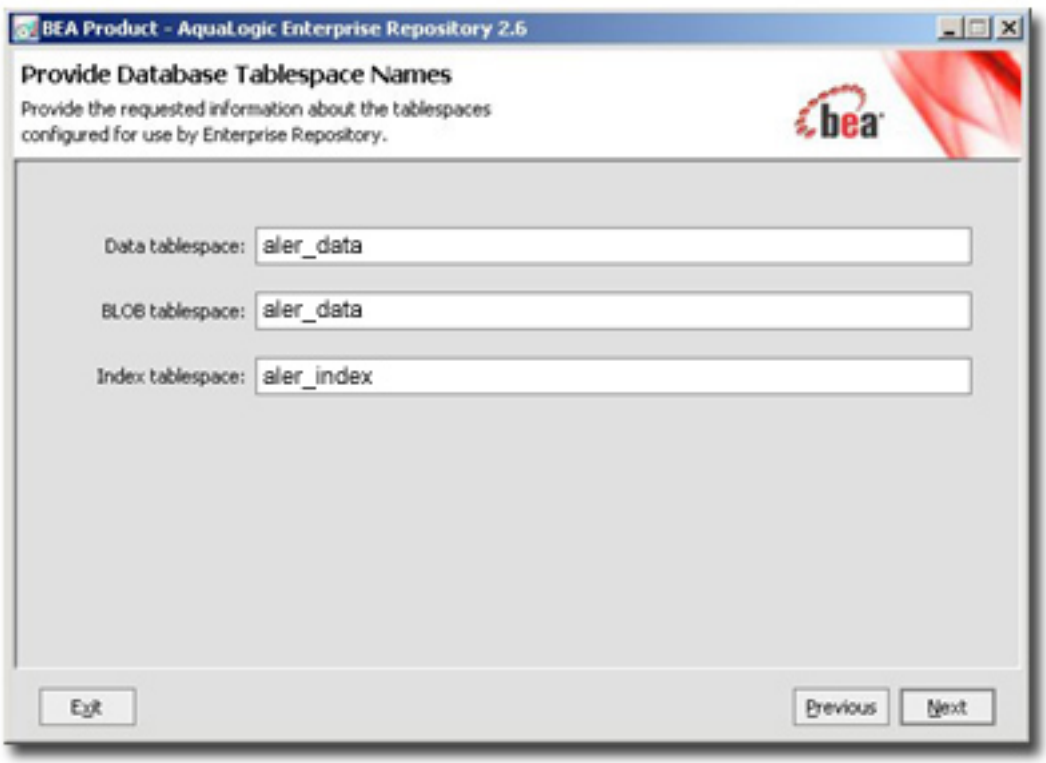
    The domain installation begins.



14. Installation progress is indicated by the progress bar.

15. Click **Next** to proceed.

16. Enter the appropriate information in the **Data tablespace**, **BLOB tablespace**, and **Index tablespace** text boxes.



17. Click **Next** to proceed.

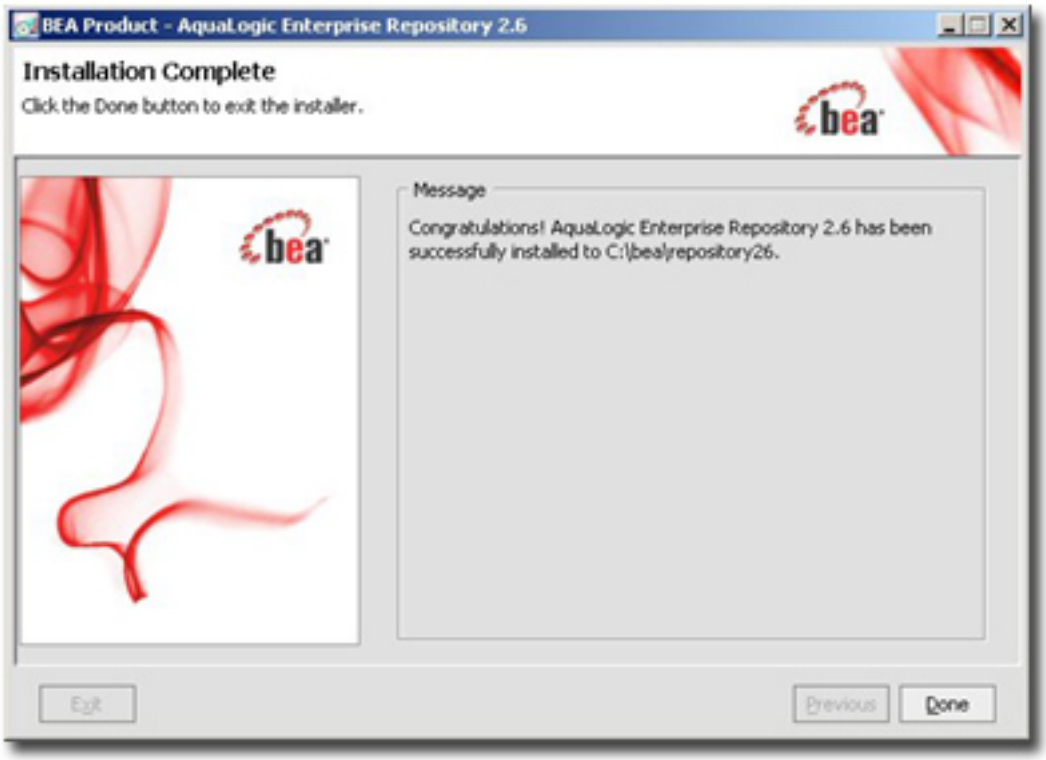
18. Enter the appropriate information in the **Database Type**, **Driver**, and other text boxes.

19. Click the **Test Connection** button.

    A successful test is indicated by a pop-up message.

20. Click **Next** to proceed. The installation process will begin to build the database tables and load the sample data at this point. There may be a long delay while this process is completed depending on your database configuration.

21. When the installation process has completed, Click **Done** to exit the installer.



Starting the AquaLogic Enterprise Repository application

1. If you have installed the ALER in a Windows environment, you can start and/or stop the ALER application by using the following Start menu items:
    - Starting: Start -> All Programs -> AquaLogic Enterprise Repository 2.6 -> Start ALER
    - Stopping: Start -> All Programs -> AquaLogic Enterprise Repository 2.6 -> Stop ALER

2. If you have installed the ALER in a Linux environment, you can start and/or stop the ALER application by using the following shell commands:
    - Starting: $BEA_HOME/user_projects/domains/<your domain name>/startWebLogic.sh
    - Stopping: $BEA_HOME/user_projects/domains/<your domain name>/stopWebLogic.sh

Accessing the AquaLogic Enterprise Repository

Starting the ALER WebLogic Domain

- When using Windows, start the domain through the Start menu option under the AquaLogic Enterprise Repository 2.6 program group -> Start AquaLogic Enterprise Repository.
- When using Linux, navigate to the `BEA_HOME/user_projects/alerdomain` and execute the shell script `./startWebLogic.sh`
- Navigate to the URL specified during the installation process (e.g. http://host:7101/aler)
- When you are presented with the login screen, login as follows:
  - Username: **admin**
  - Password: **admin**

  This will provide administrator privileges and access.

Stopping the ALER WebLogic Domain

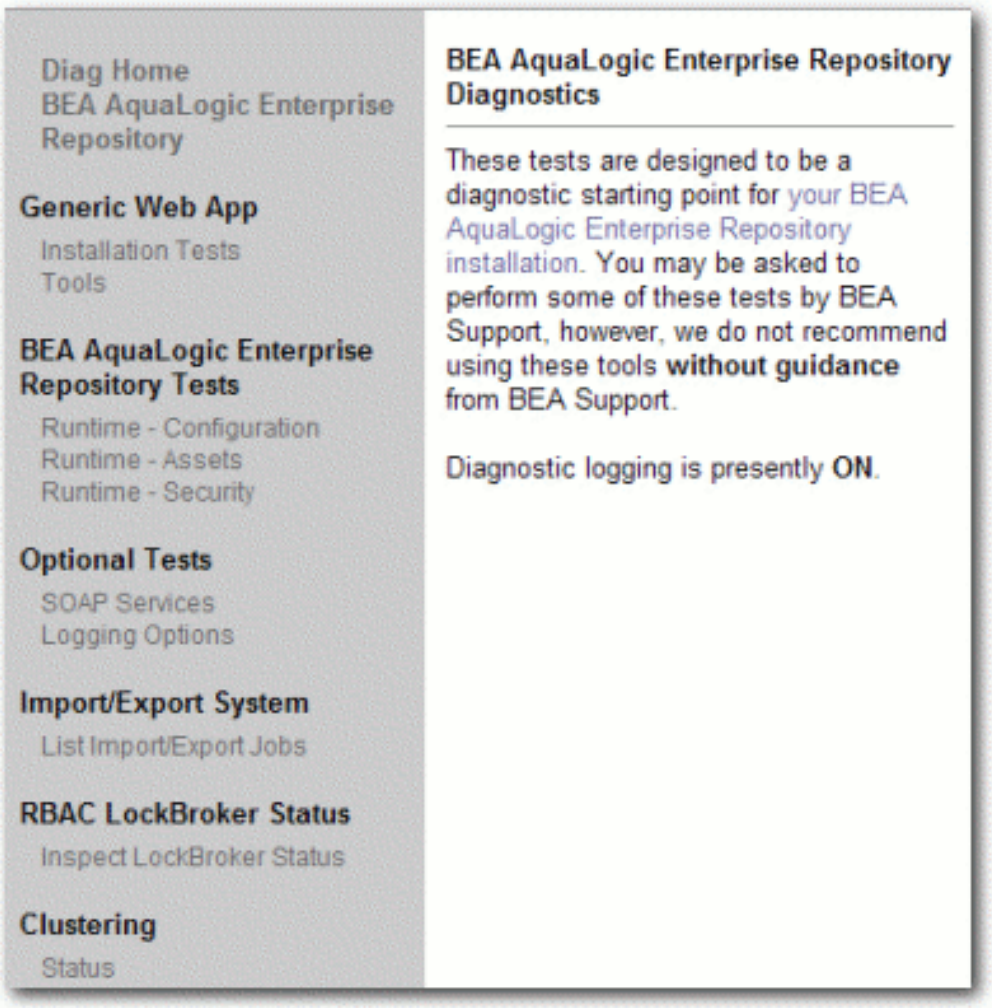
- When using Windows, stop the running domain through the Start menu option under the AquaLogic Enterprise Repository 2.6 program group -> Stop AquaLogic Enterprise Repository.
- When using Linux, navigate to the `BEA_HOME/user_projects/alerdomain` and execute the shell script `./stopWebLogic.sh`

Utilizing the Diagnostics Testing Tool

The **Diagnostics** tool allows testing and troubleshooting of certain aspects of BEA AquaLogic™ Enterprise Repository application.

Launching the Diagnostic Tool

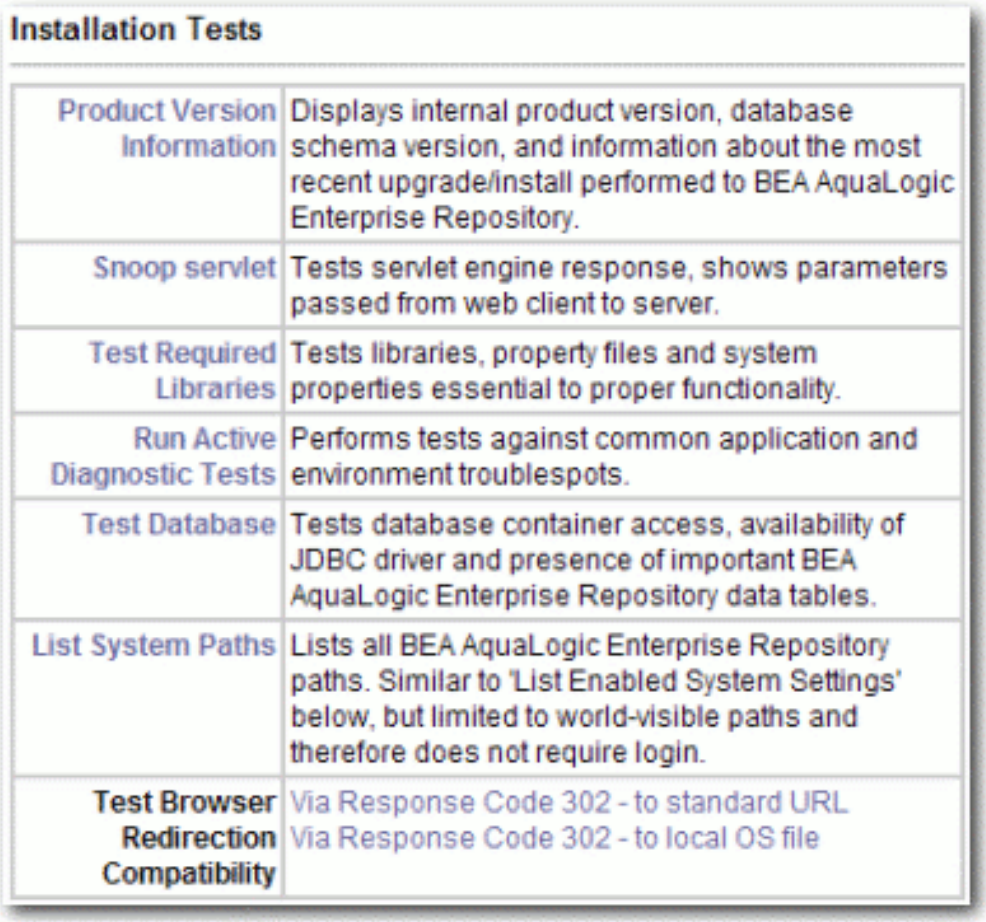
To launch the ALER **Diagnostics** tool, navigate to: `http://host_name/application_name/diag/index.jsp`



Navigating the Diagnostics Tool

In addition to the **Diag Home** and **BEA AquaLogic Enterprise Repository** links, the left sidebar of the **Diagnostics** tool (the gray area in the image above) includes links to several tests that can be run to check your installation of ALER. Click any of these links to display the available tests in the main pane of the **Diagnostics** tool.

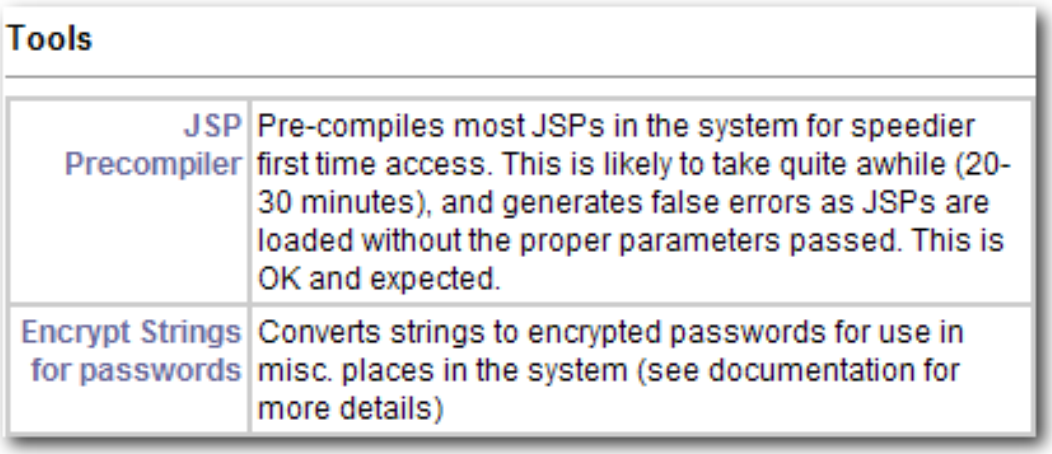
- **Generic Web App**
  - Installation Tests
    - *Product Version Information*
      - Provides information on the installed version of the ALER, the version of the installed ALER database, upgrade dates, and the maintenance mode setting for the database.
    - *Snoop Servlet*
      - Provides an output listing of all cookies, headers, CGI-Variables, Servlet Context Attributes, Session information and Session values set as a part of the request to the application server.
    - *Test Required Libraries*
      - Provides information about the application server's configuration regarding required JAR library files, installed XML parsers, and and the presence of the minimally required ALER properties files.
    - *Run Active Diagnostic Tests*
      - Runs a JUnit test against the installed ALER application. Many of these tests are required to allow ALER to build and parse XML data.
    - *Test Database*
      - Provides insight into the JDBC driver functionality, including the number of database side functions that are expected to be supported. Also tests the connection string set in the `database.properties` file, provides additional information regarding the version of the JDBC driver, and may also indicate deficiencies within the database tables.
    - *List System Paths*
      - Lists the pathways (local and absolute URL's) configured within the `cmee.properties` file as well as those stored within the database. Also helps to indicate why some parts of the application deployment function while others do not (such as images not loading).



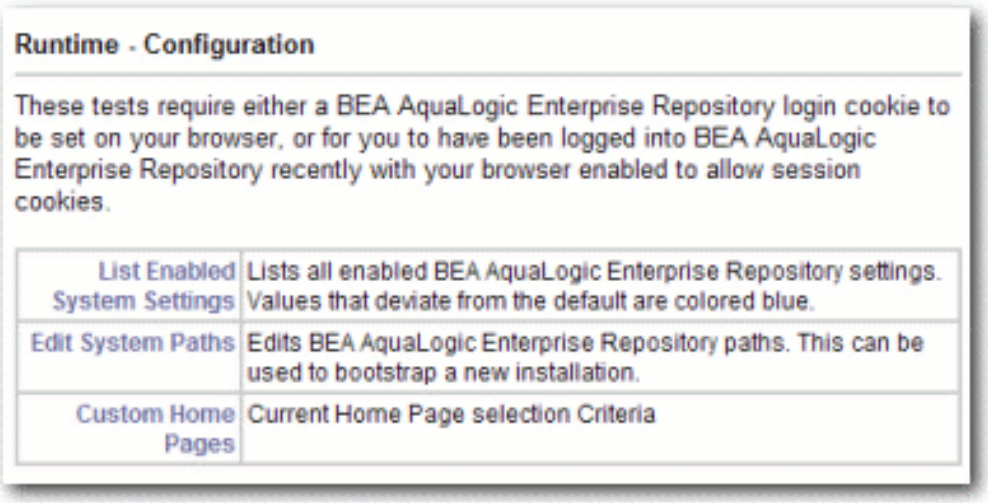
Installation Tests

Product Version Information	Displays internal product version, database schema version, and information about the most recent upgrade/install performed to BEA AquaLogic Enterprise Repository.
Snoop servlet	Tests servlet engine response, shows parameters passed from web client to server.
Test Required Libraries	Tests libraries, property files and system properties essential to proper functionality.
Run Active Diagnostic Tests	Performs tests against common application and environment troublespots.
Test Database	Tests database container access, availability of JDBC driver and presence of important BEA AquaLogic Enterprise Repository data tables.
List System Paths	Lists all BEA AquaLogic Enterprise Repository paths. Similar to 'List Enabled System Settings' below, but limited to world-visible paths and therefore does not require login.
Test Browser Redirection Compatibility	Via Response Code 302 - to standard URL Via Response Code 302 - to local OS file

- Tools
  - *JSP Precompiler*
    - Forces the application server to perform an immediate JIT compile of JSP pages within the ALER application. This process greatly improves the performance of page loads if performed after each application server restart.
  - *Encrypt Strings for Passwords*
    - Performs an MD5 Hash on a string supplied in a text field. Useful if a user forgets hhis/her password. Please contact BEA Support for the proper procedure to update a password in the database.



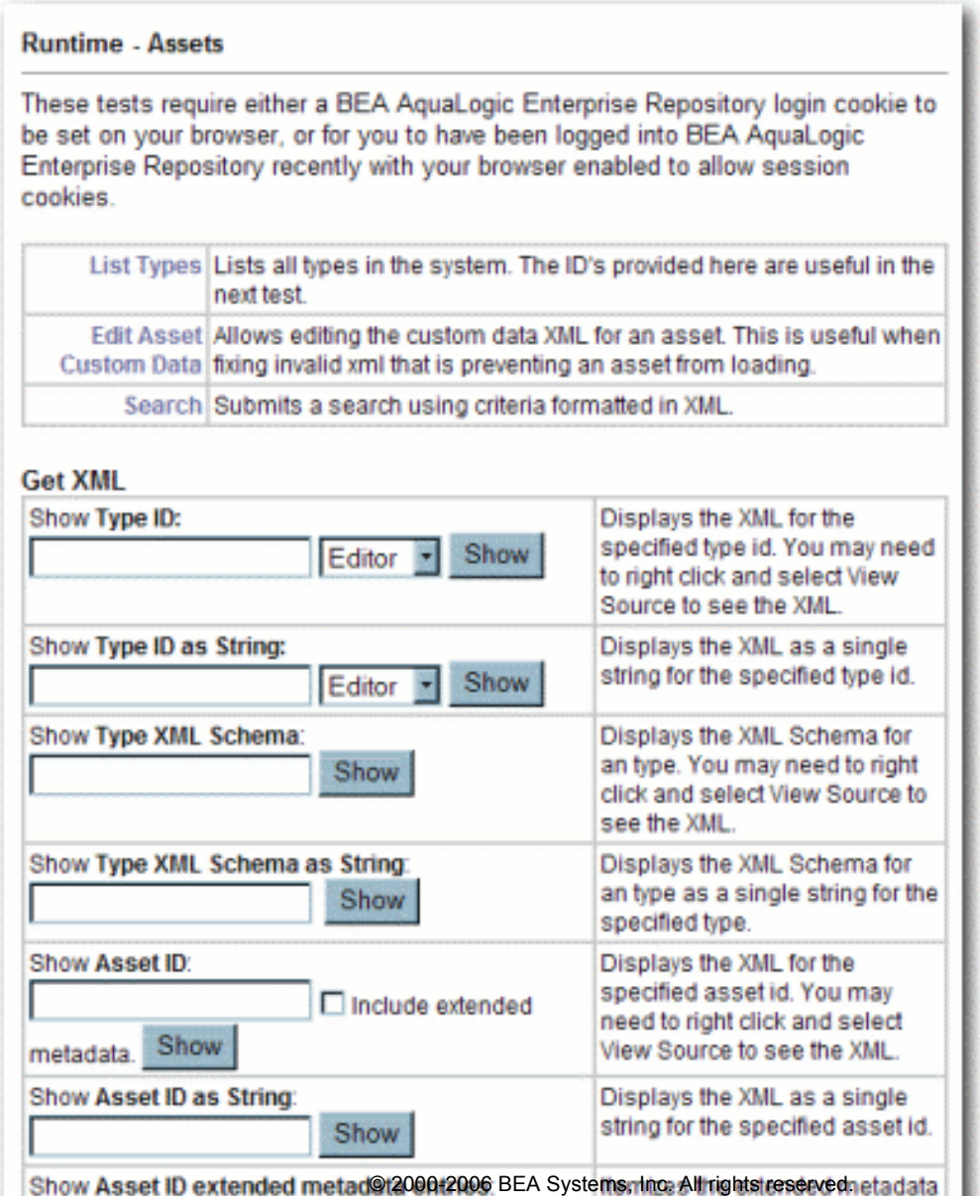
- **BEA AquaLogic Enterprise Repository Tests**
  - Runtime - Configuration
    - *List Enabled System Settings*
      - Lists all values set in the ALER database as well as those set in properties files).
    - *Edit System Paths*
      - Allows an administrator to make permanent changes to the `cmee.properties` file on the application server.



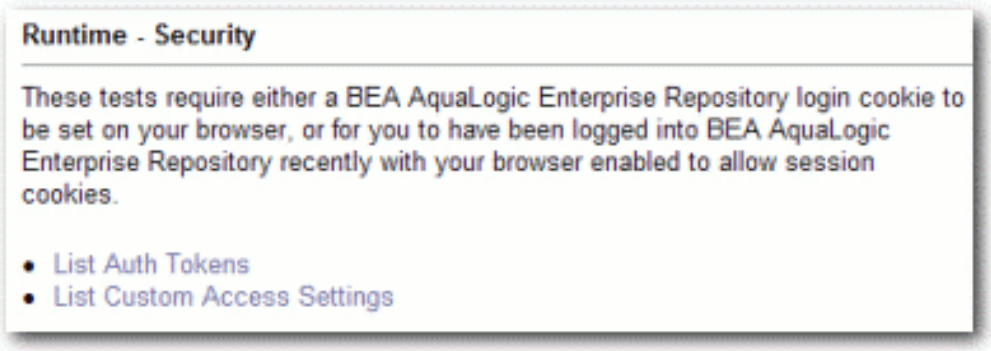
  - Runtime - Assets
    - *List Types*
      - Produces XML output that describes all Asset Types stored within the ALER's database.
    - *Edit Asset Custom Data*
      - Allows a registrar to modify XML data contained within an asset in the event that an asset's metadata is otherwise uneditable. **Do not use this tool unless specifically directed by BEA Support personnel**
    - *Get XML: Show Type ID*
      - Produces the XML description of a specific Asset Type based on the

unique ID of the Asset Type record.

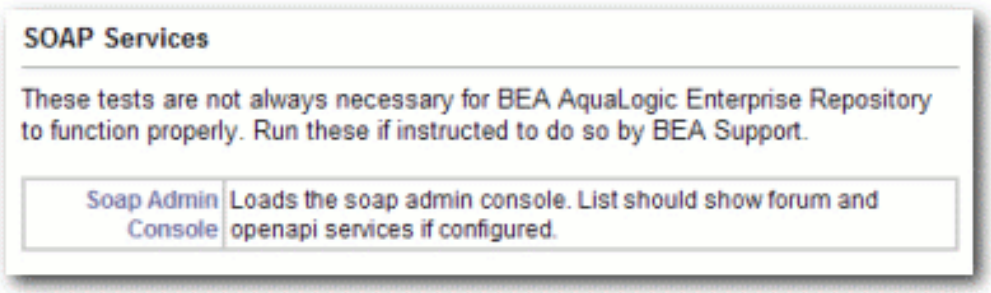
- *Get XML: Type ID As String*
  - Produces the XML description of a specific Asset Type based on the unique ID of the Asset Type record as one continuous string.
- *Get XML: Type XML Schema*
  - This tool produces the XML schema of a specific Asset Type based on the unique ID of the Asset Type record.
- *Get XML: Type XML Schema as String*
  - This tool produces the XML schema of a specific Asset Type based on the unique ID of the Asset Type record as one continuous string.
- *Get XML: Asset ID*
  - Produces the XML data of an Asset based on the uniqe ID of the Asset.
  - The **include extended metadata** option produces additional information related to Policies and other data.
- *Get XML: Asset ID as String*
  - Produces the XML data of an Asset based on the uniqe ID of the Asset as one continuous string.



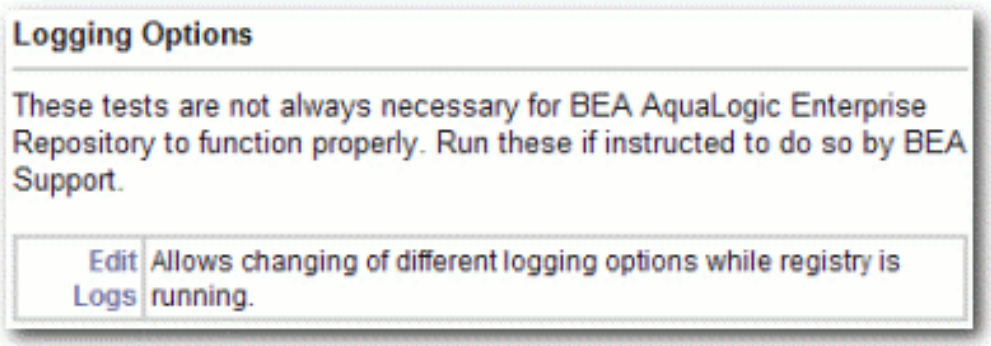
- *Runtime - Security*



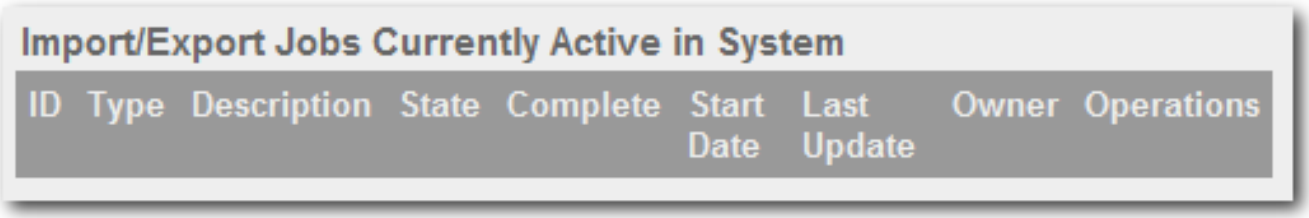
- **Optional Tests**
  - SOAP Services



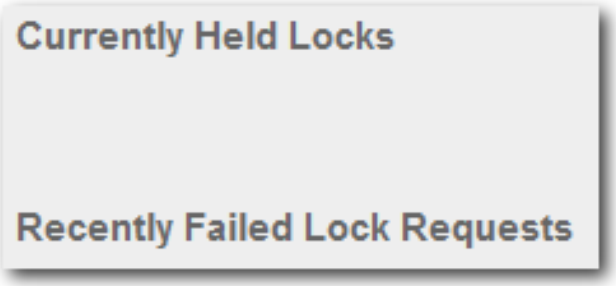
  - *Logging Options*



- **Import/Export System**
  - *List Import/Export Jobs*



- **RBAC LockBroker Status**
  - *Inspect LockBroker Status*

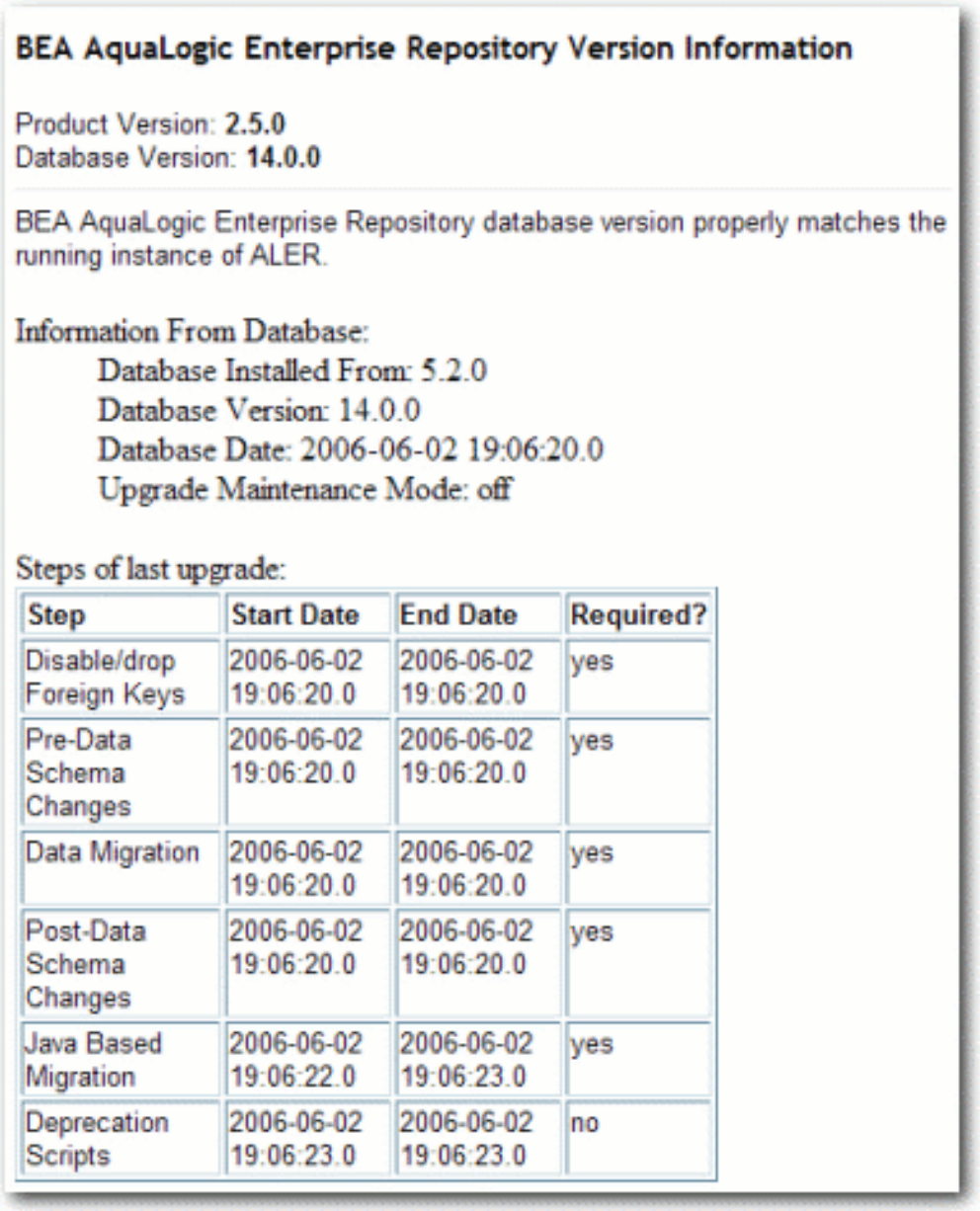


- To access the ALER login page click the **AquaLogic Enterprise Repository** link in the sidebar of the **Diagnostics** page.
- To activate the debugging mode for the current session, click the **turning logging on** link in the main pane.

Checking Product Version Information

1. Click **Installation Tests** under **Generic Web App**.
2. Click **Product Version Information** in the main pane. .

   A new browser window opens to display information on the internal product version, database schema version, and information about the most recent upgrade/install.



BEA AquaLogic Enterprise Repository Version Information

Product Version: **2.5.0**
Database Version: **14.0.0**

BEA AquaLogic Enterprise Repository database version properly matches the running instance of ALER.

Information From Database:

Database Installed From: 5.2.0
Database Version: 14.0.0
Database Date: 2006-06-02 19:06:20.0
Upgrade Maintenance Mode: off

Steps of last upgrade:

Step	Start Date	End Date	Required?
Disable/drop Foreign Keys	2006-06-02 19:06:20.0	2006-06-02 19:06:20.0	yes
Pre-Data Schema Changes	2006-06-02 19:06:20.0	2006-06-02 19:06:20.0	yes
Data Migration	2006-06-02 19:06:20.0	2006-06-02 19:06:20.0	yes
Post-Data Schema Changes	2006-06-02 19:06:20.0	2006-06-02 19:06:20.0	yes
Java Based Migration	2006-06-02 19:06:22.0	2006-06-02 19:06:23.0	yes
Deprecation Scripts	2006-06-02 19:06:23.0	2006-06-02 19:06:23.0	no

Test Servlet Functionality

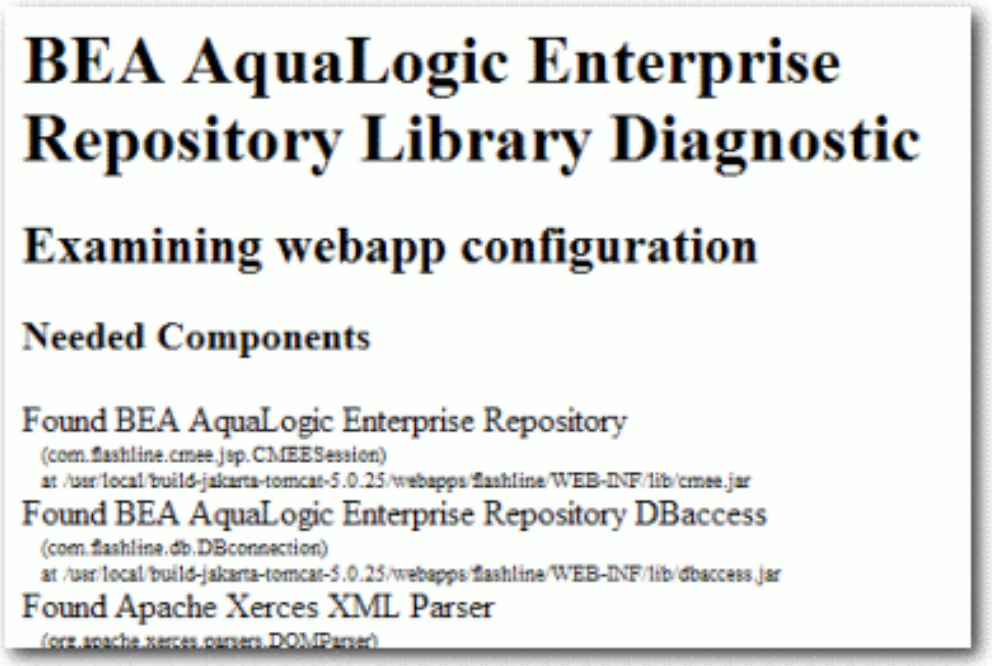
1. Click **Installation Tests** under **Generic Web App**.
2. Click **Snoop Servlet** in the main pane.

   A new browser window opens to display information on the parameters passed from the Web client to server.

Test Required Libraries

1. Click **Installation Tests** under **Generic Web App**.
2. Click **Test Required Libraries** in the main pane.

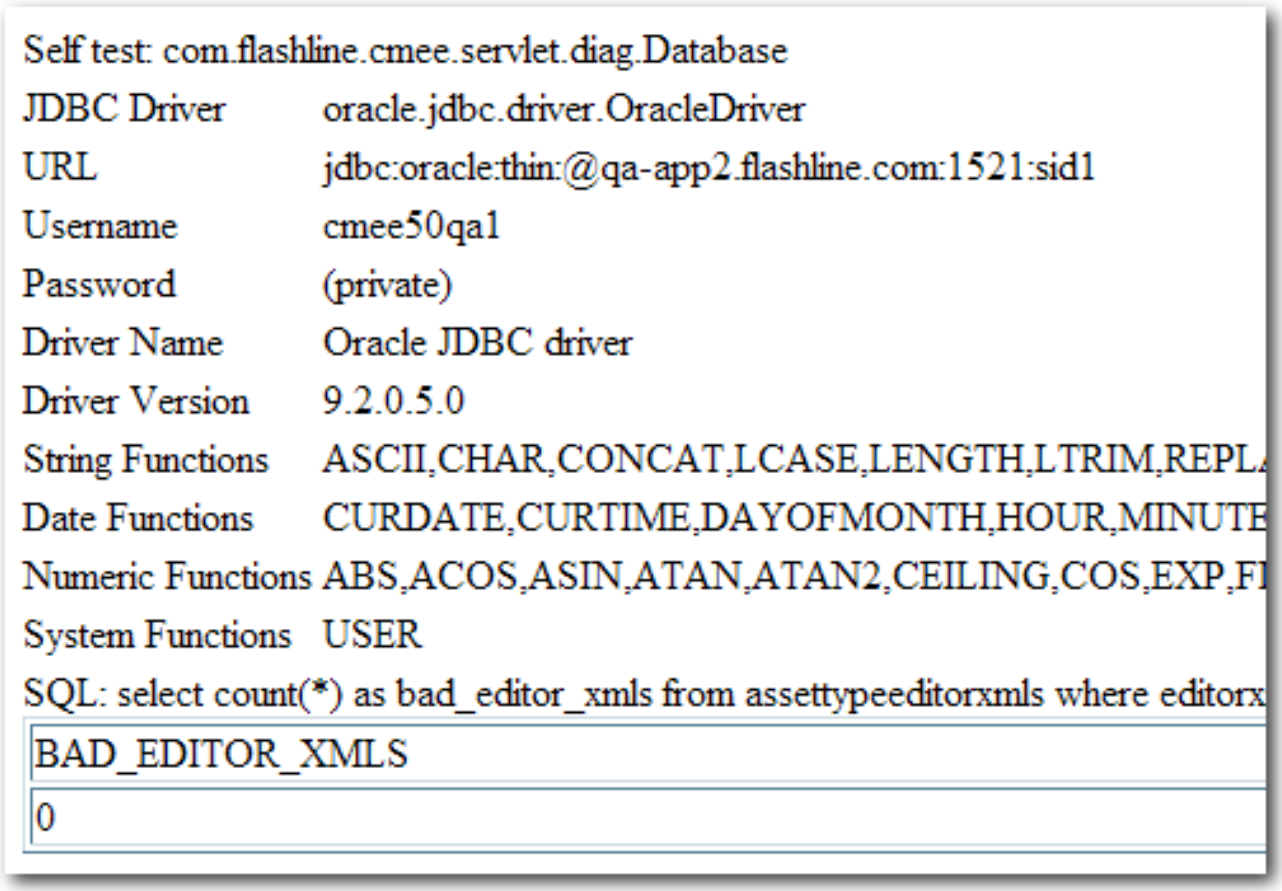
   A new browser window opens to display information on the property files and system properties essential to proper functionality.



Test Database Connectivity

1. Click **Installation Tests** under **Generic Web App**.
2. Click **Test Database** in the main pane.

   A new browser window opens to display information on container access, the availability of JDBC drivers and the presence of important ALER data tables.



List System Paths

1. Click **Installation Tests** under **Generic Web App**.
2. Click **List System Paths** in the main pane.

   A new browser window opens to display all ALER paths.

```
cmee.server.paths.image=http://qa-app2.flashline.com:3080/flashline-web/images
cmee.server.paths.jnlp-tool=http://qa-app2.flashline.com:3080/flashline-
web/webstart
cmee.server.paths.jsp=http://qa-app2.flashline.com:3080/flashline
cmee.server.paths.resource=http://qa-app2.flashline.com:3080/flashline-web
cmee.server.paths.servlet=http://qa-app2.flashline.com:3080/flashline
cmee.server.paths.upload=/usr/local/build-jakarta-tomcat-
5.0.25/webapps/flashline/WEB-INF/upload
cmee.server.paths.upload-registrar=\\qa-app2\upload-autobuild\
cmee.server.paths.upload-repository=
```

Run Pre-Compile Servlet

1. Click **Tools** under **Generic Web App**.
2. Click **JSP Precompiler** in the main pane.

   A new browser window opens to display a list of system JSPs that have been pre-compiled for speedier first time access.

   - **Note:**
     - The Pre-Compile Servlet test does not function for WebSphere 5.0
     - This servlet produces errors within the error log; please reset logs before

starting the application server.

Other Features

Additional **Diagnostics** functionality includes:

- Testing browser redirection compatibility to both a standard URL or local file
- Listing all enabled ALER Settings
- Listing all Types in the system
- Displaying XML for a specific Type (both editor and viewer).
- Displaying ml for a specific asset.
- Current `authtokens` and custom access settings.
- Listing import/exports jobs
- Inspecting LockBroker status
- SOAP admin console

You may be instructed by BEA Support to use these optional features as a troubleshooting measure.

Test the Web Server Installation

1. Open a browser and enter the URL for the Web server: `Host:port/aler-web`, followed by `/images/logo.gif`.
2. When the page loads, note the address and whether the image appears in the browser. That address, minus `/logo.gif`, is the value for `aler.server.paths.image`.

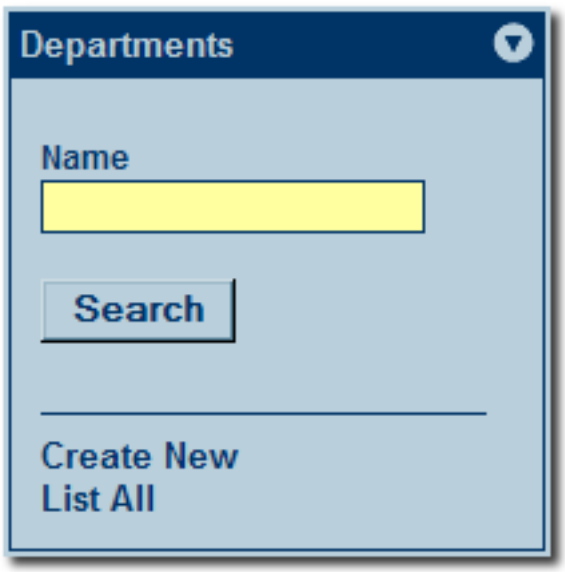
Departments

Departments should be set up before **Users** and **Projects**.

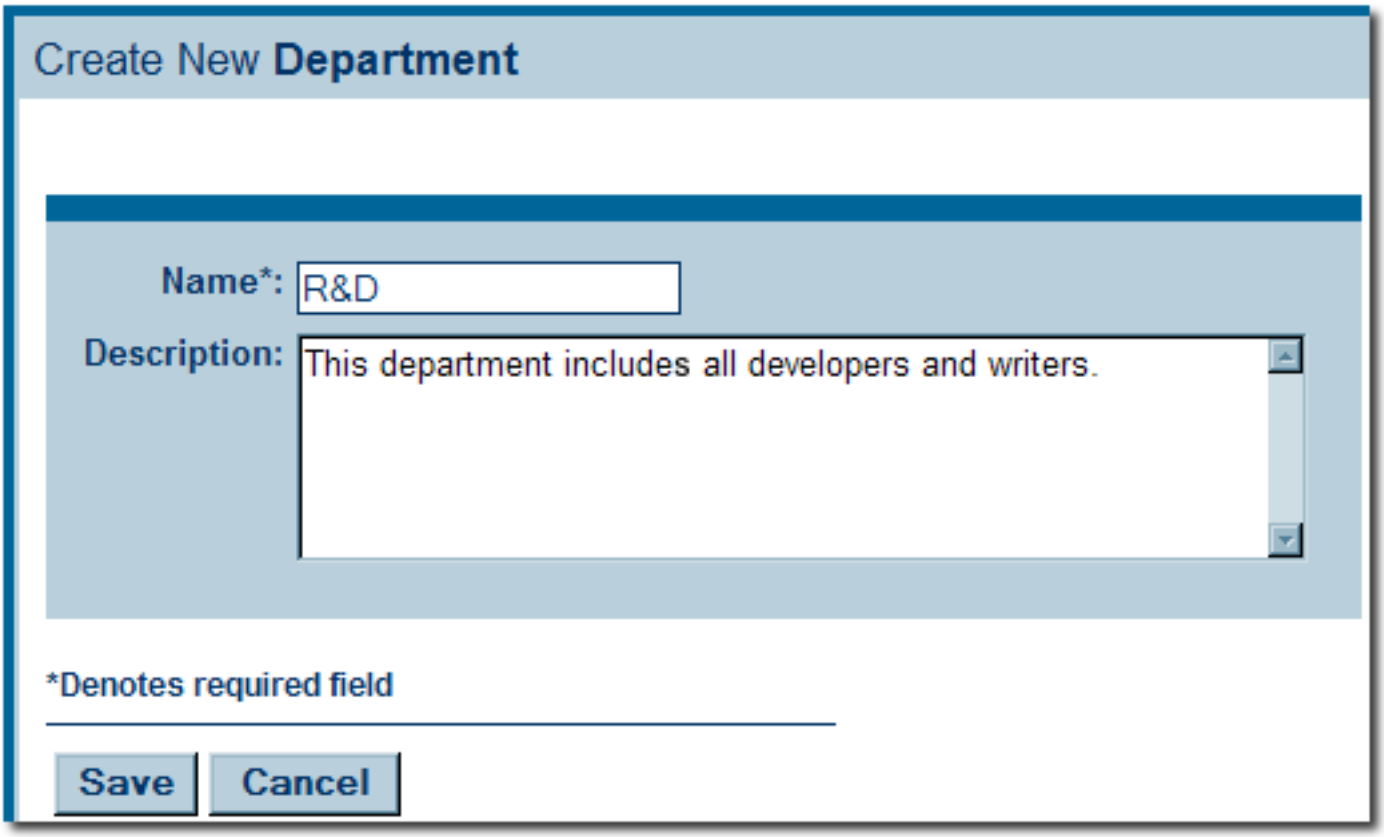
Creating a New Department

This procedure is performed on the **Admin** screen.

1. Click **Departments**.
2. Click **Create New** in the **Departments** section.



3. In the **Create New Department** dialog box, enter the appropriate information in each of the text boxes.

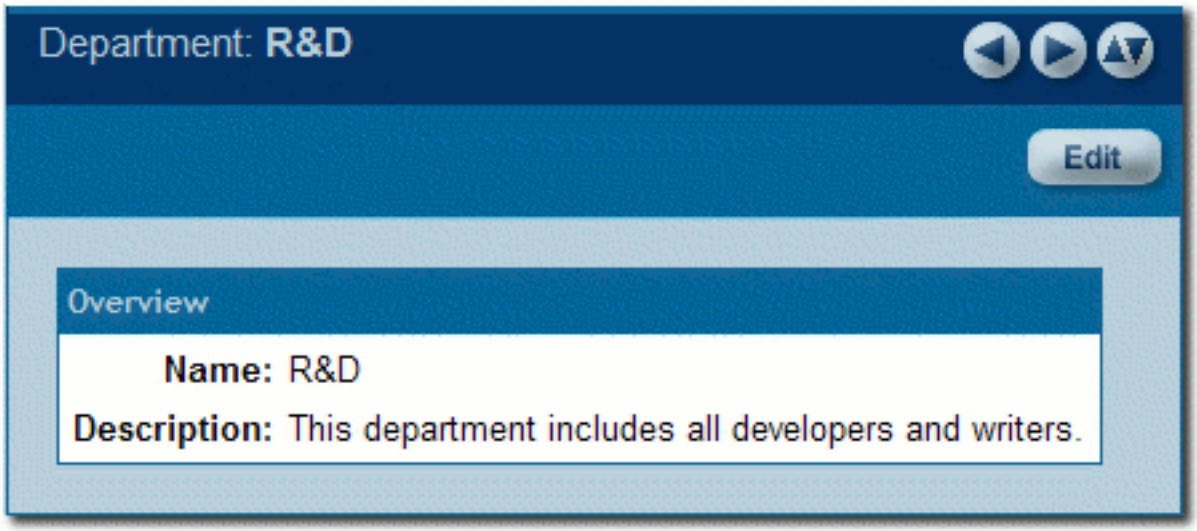


4. When finished, click **Save**.

Editing Department Information

This procedure is performed on the **Admin** screen.

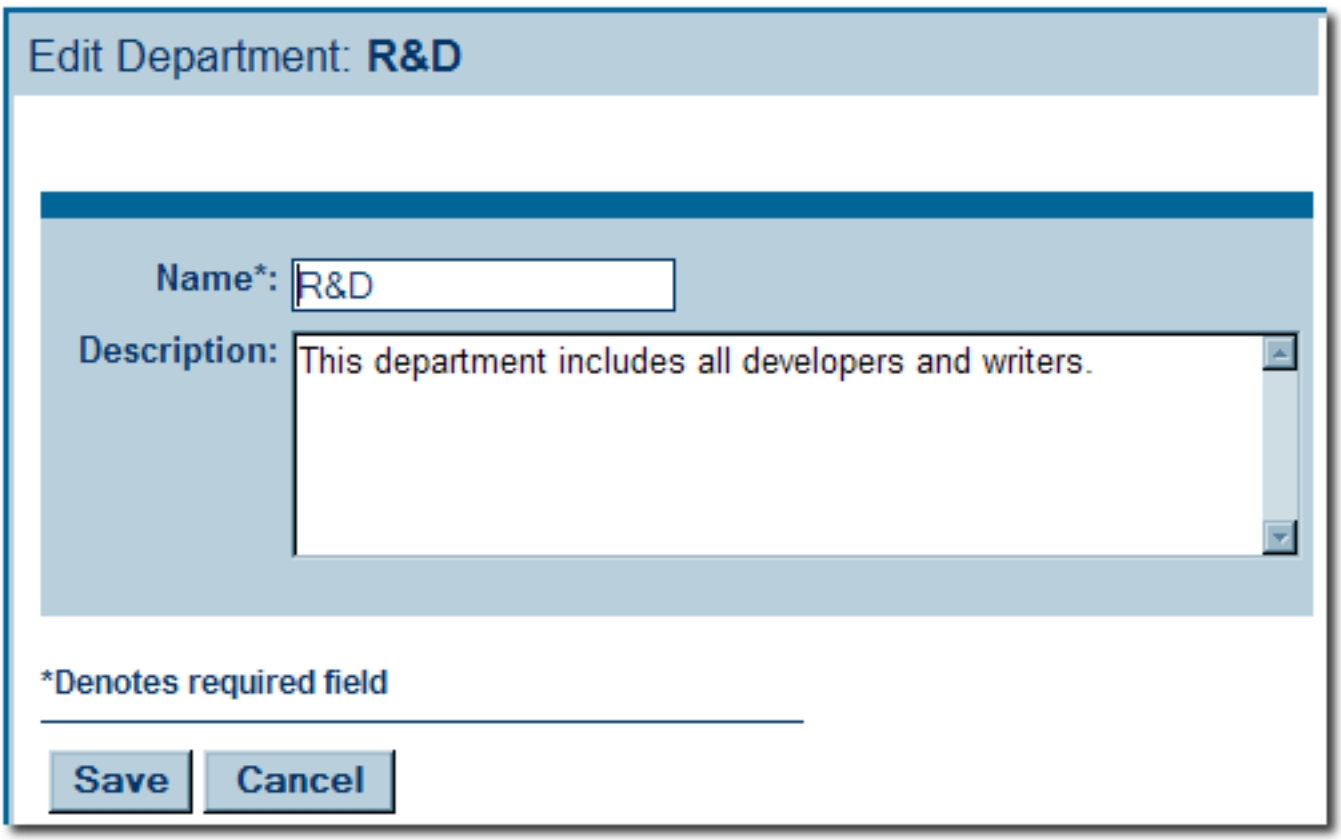
1. Click **Departments**.
2. Click **List All**, or search for a particular department.
3. Select the department to be edited from the list in the main pane.



The department's detail is displayed in the bottom frame.

4. Click **Edit** in the department detail.

5. In the **Edit Department** dialog box, make changes as necessary to information in each of the text boxes.

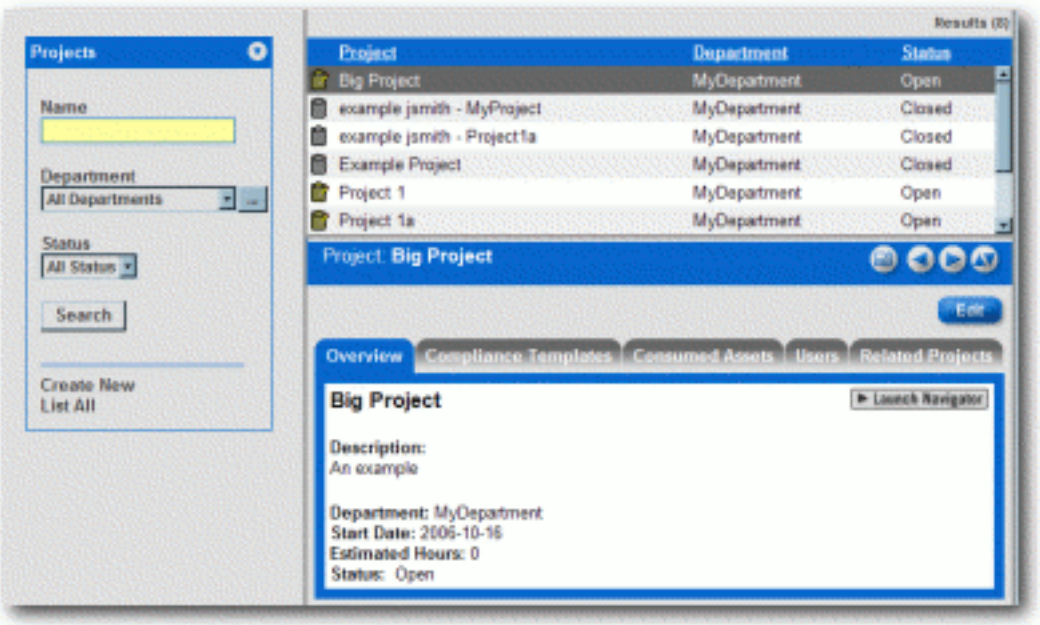


6. When finished, click **Save**.

Projects

Overview

The AquaLogic Enterprise Repository **Projects** screen provides access to tools for creating and managing projects.

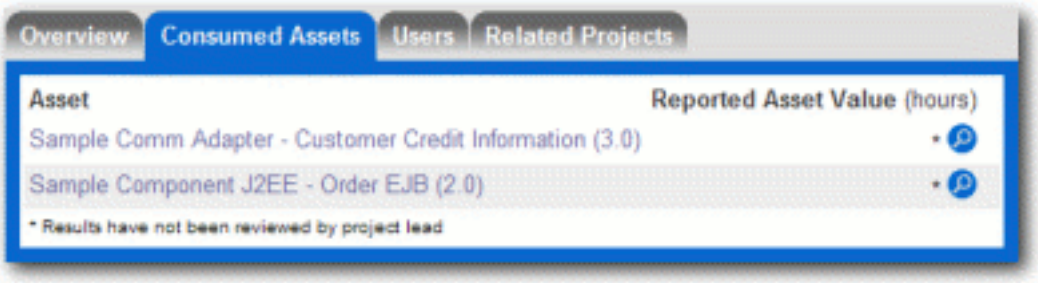


The Project Detail

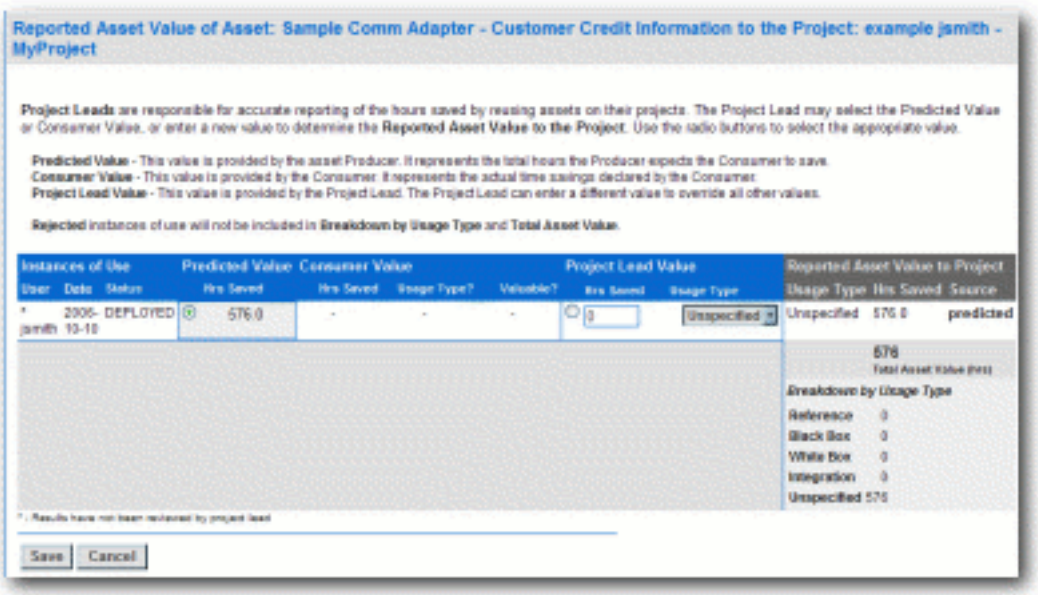
Project information is displayed in the same manner as asset information, via a series of tabs:

- **Overview**
  - Includes a project **Description**, and indicates the assigned **Department**, **Start Date**, **Estimated Hours**, and project **Status**.
- **Consumed Assets**

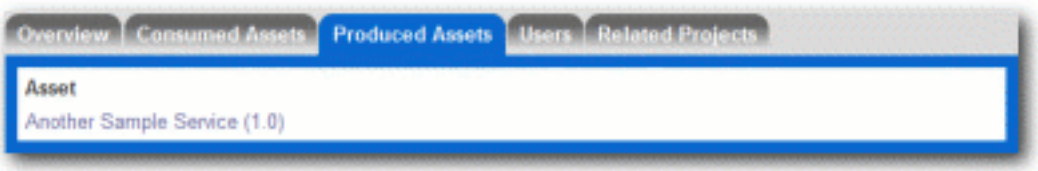
- Lists any assets used in (or under consideration for use in) the project.



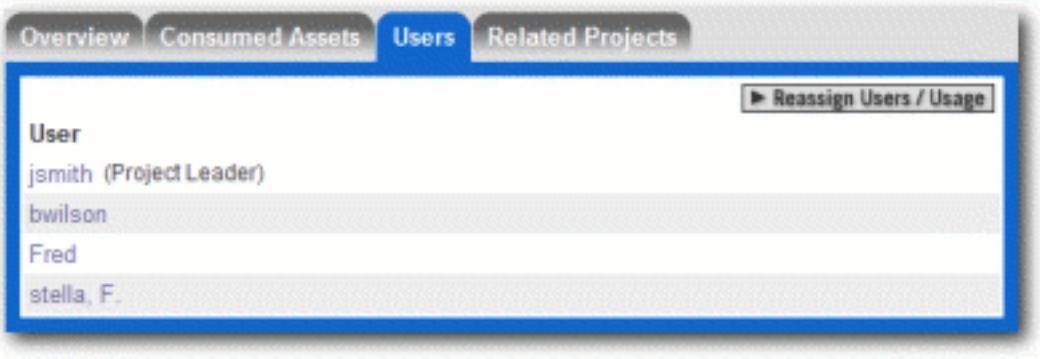
Click next to any listed asset to display its **Reported Asset Value**. (This feature is only available to the project leader.)



- **Produced Assets**
  - Lists any assets produced by the project.



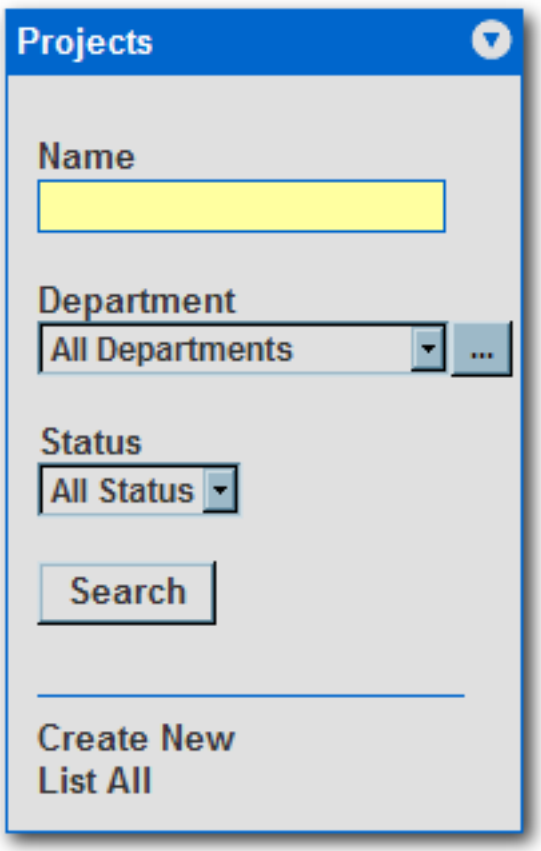
- **Users**
  - Lists all users associated with the project, as well as each user's role on the project (leader/members).



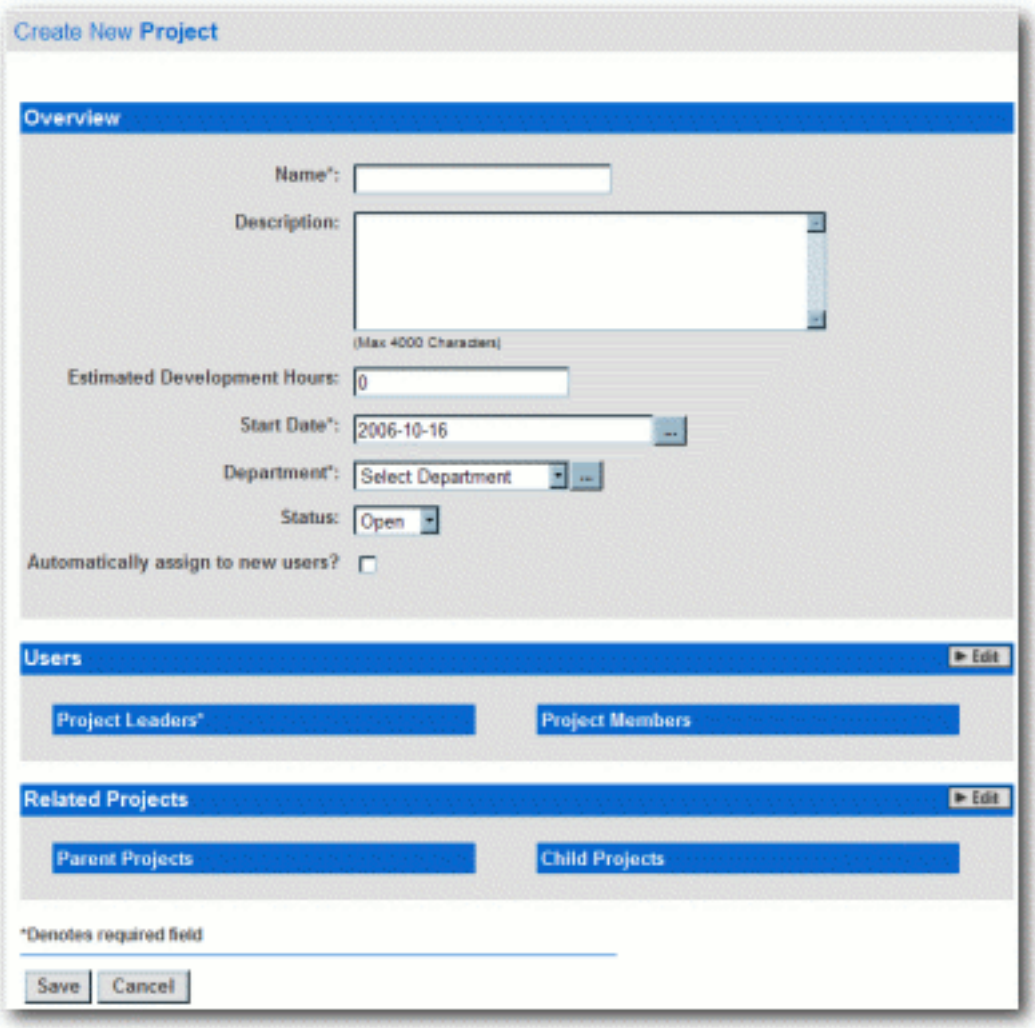
- **Related Projects**
  - When enabled, lists any related projects, and defines the relationships in parent/child terms.

Create a Project

1. Click **Create New** in the **Projects** sidebar.

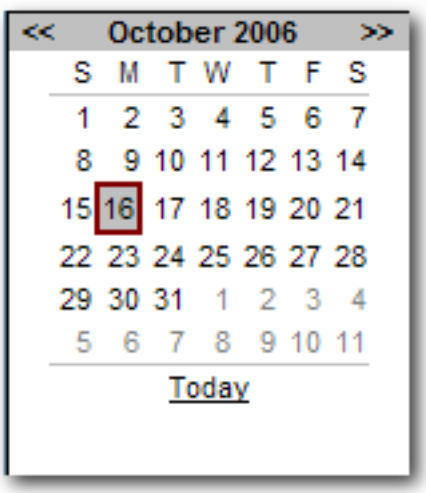


The **Create New Project** pop-up opens.

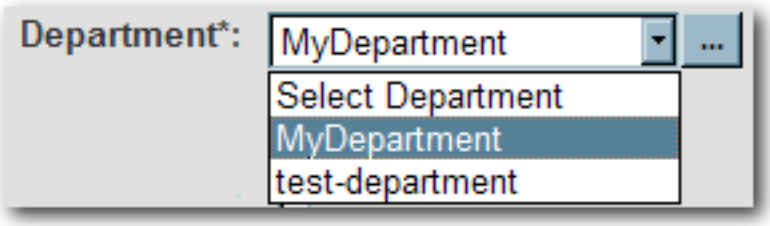


2. Enter the appropriate information in the **Name**, **Description**, and **Estimated Development Hours** text boxes.

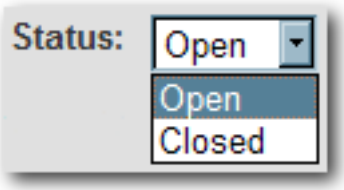
3. Click ... to open the calendar to select a **Start Date**.



4. Select a department from the **Department** drop-down.

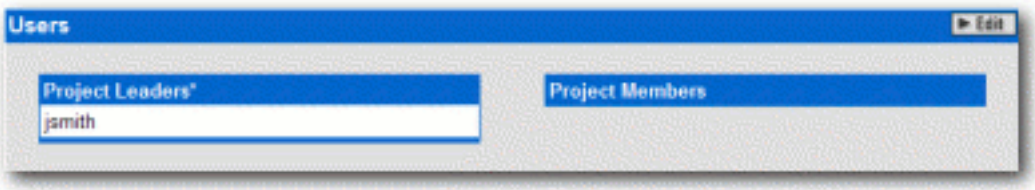


5. Select the appropriate status in the **Status** drop-down.

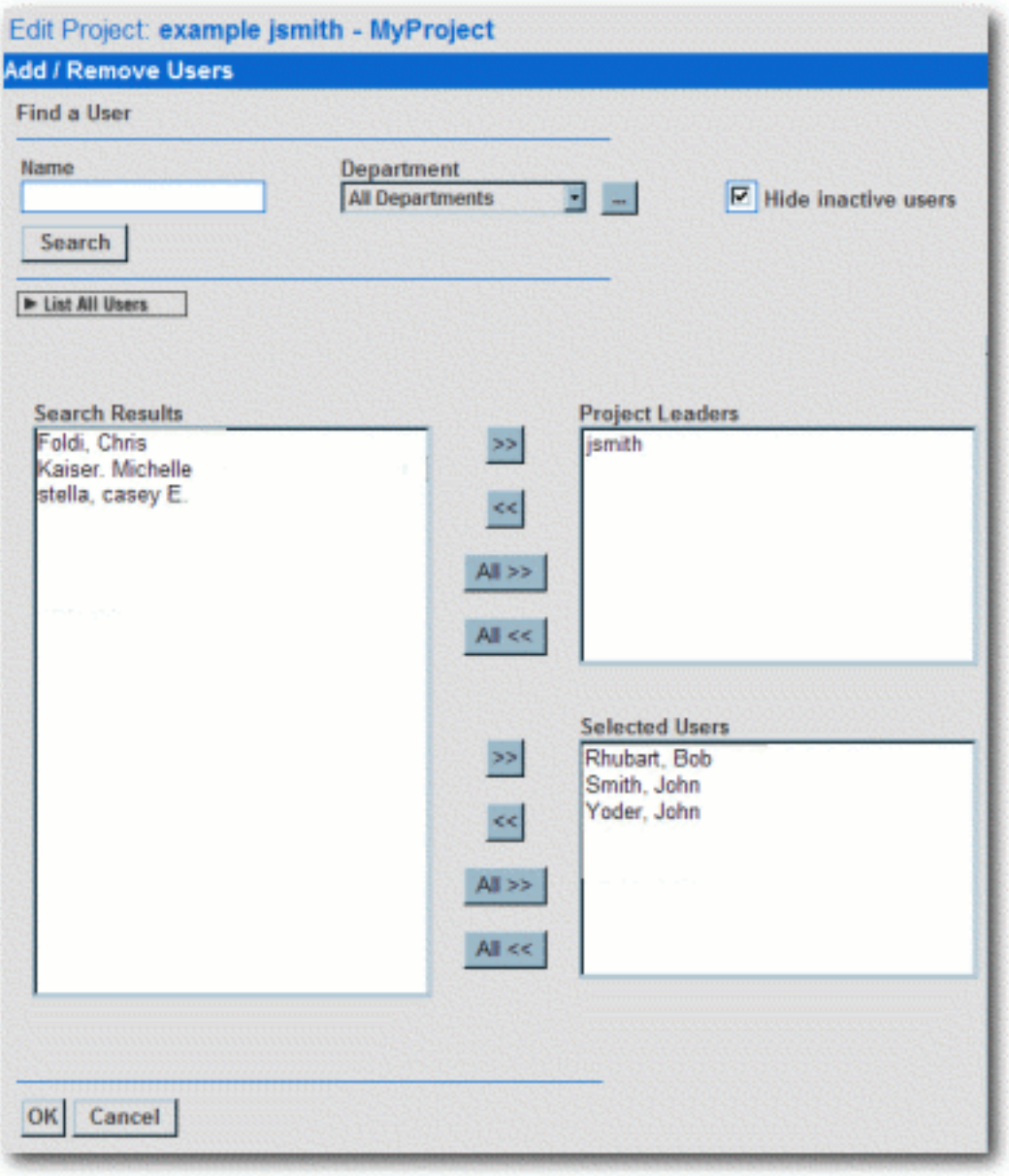


6. If necesssary, select **Automatically Assign New Users**.

7. Click **Edit** in the **Users** section.

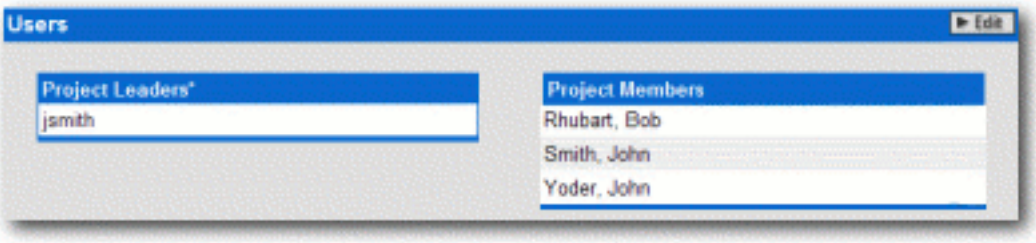


The **Add / Remove Users** pop-up opens.



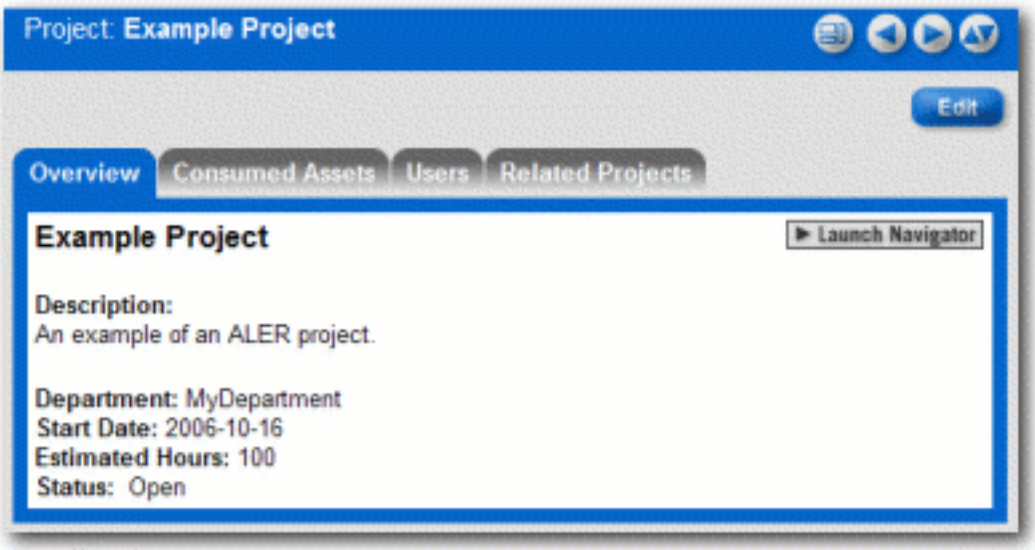
8. Use **Search** or **List All Users** to display a list of users in the **Search Results** section.
    - Use the **Department** drop-down to filter search results.
9. Use the **>>** and **<<** buttons to move users between the **Search Results**, **Project Leaders**, and **Selected Users** sections.
10. Click **OK**.

    The assigned **Project Leaders** and **Project Members** appear in the **Users** section of the **Create New Project** pop-up.



11. Click **Save**

    The **Create New Project** pop-up closes, and the new project detail appears on the **Projects** screen.

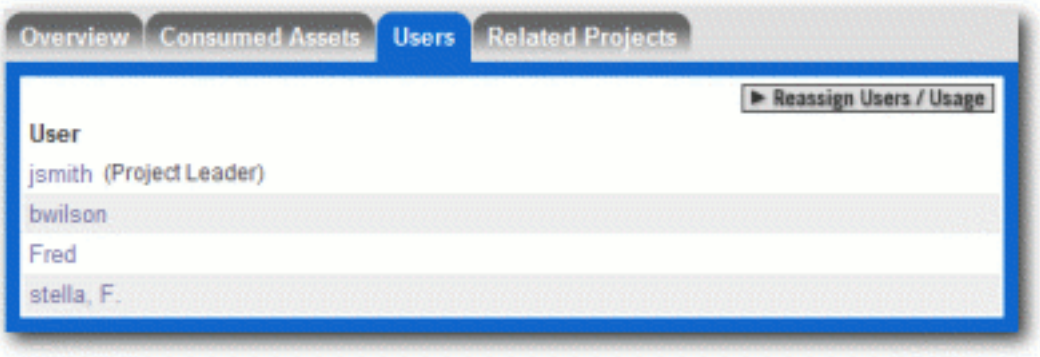


Edit a Project

1. Use **Search** or other means to locate the project to be edited.
2. Click the **Edit** button in the project detail.
3. Edit the project information as necessary. (See **Create a Project**.)

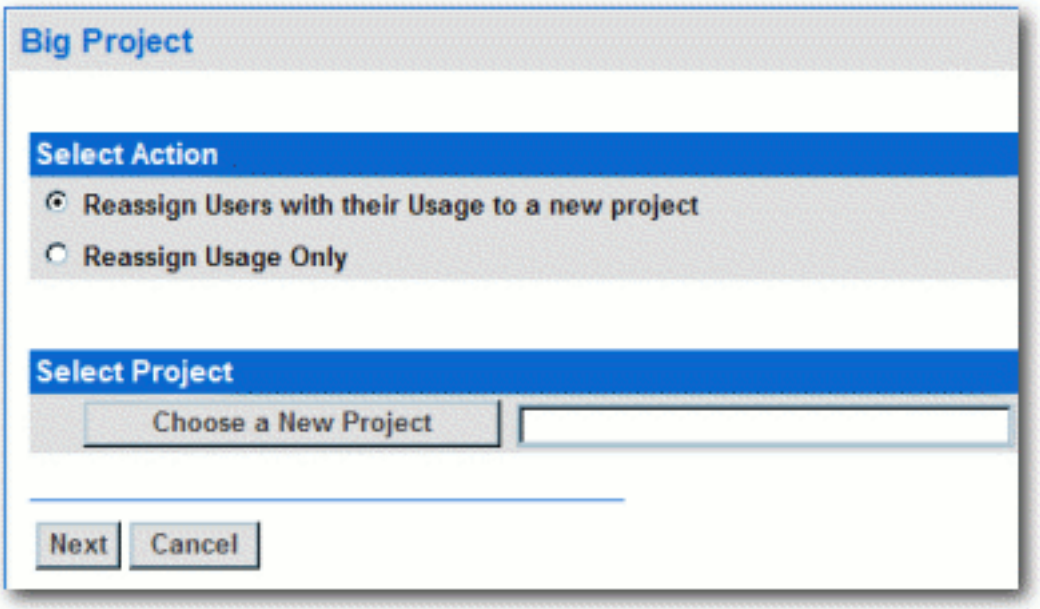
Reassign Users / Usage

1. Select the **Users** tab.



2. Click ▶ Reassign Users / Usage

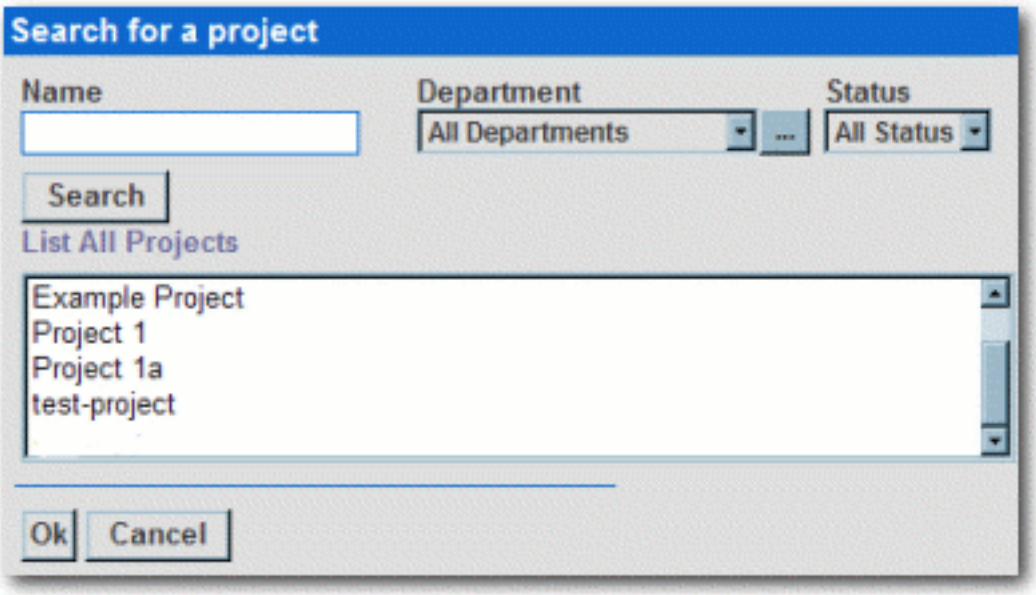
   The **Reassign** pop-up opens.



3. Use the radio buttons to select the appropriate action.

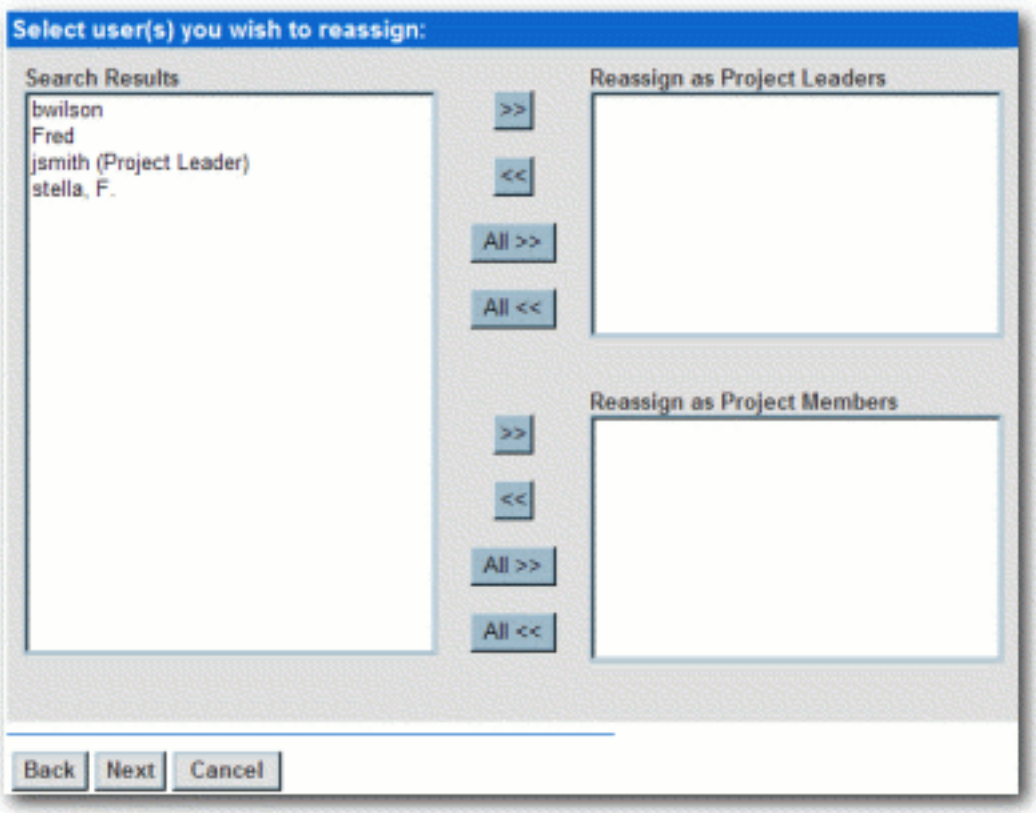
4. Click Choose a New Project

   The **Search for a Project** pop-up opens.



5. Use **Search** or **List All** to display a list of projects.
6. Select the project to which the users and/or usages are to be reassigned.
7. Click **Next**

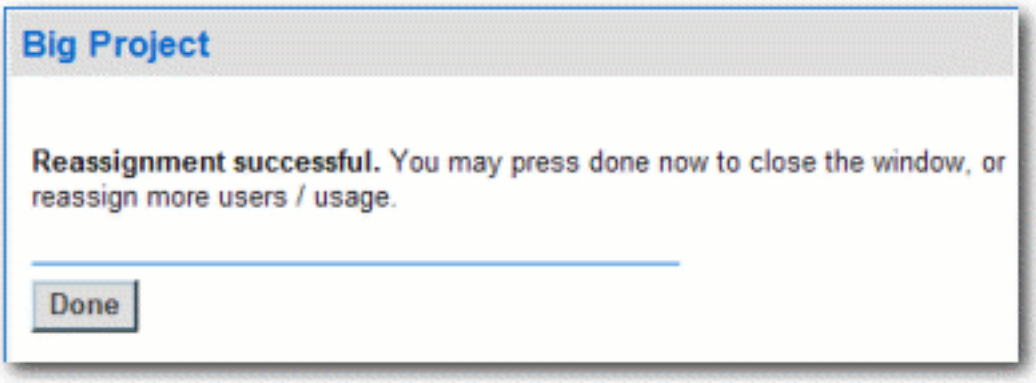
   The **Select users you wish to reassign** pop-up opens.



8. Use the **>>** and **<<** buttons to reassign users as **Project Leaders** and/or **Project Members**.

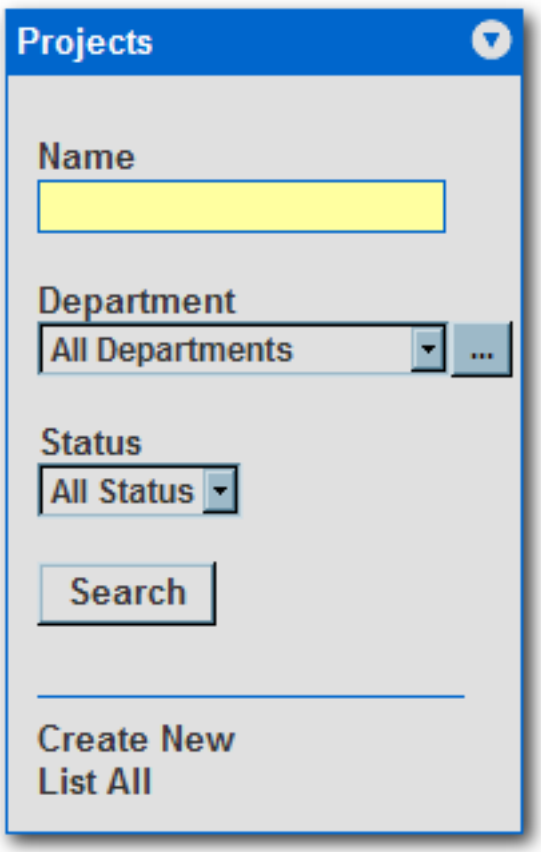
9. Click **Next**.

   A confirmation message appears.



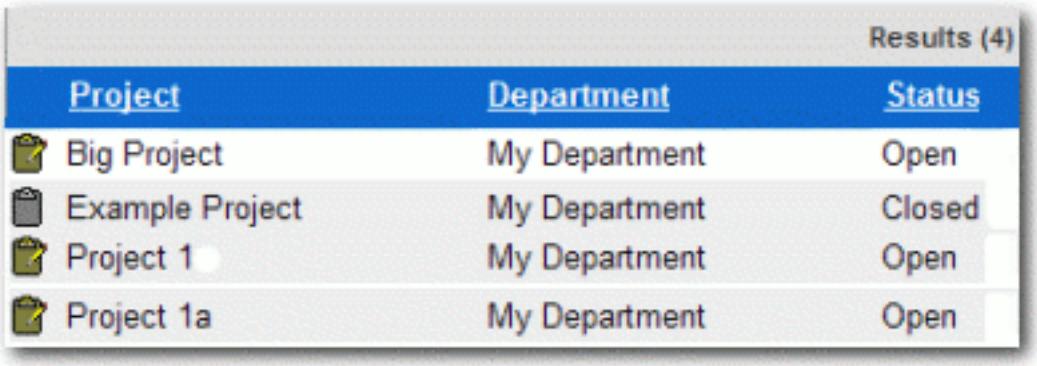
10. Click **Done**

Locate a Project



1. Enter a keyword or search term in the **Name** text box.
2. Use the **Department** and **Status** drop-downs as necessary to filter the search.
3. Click the **Search** button.

   Search results are listed in the main pane.

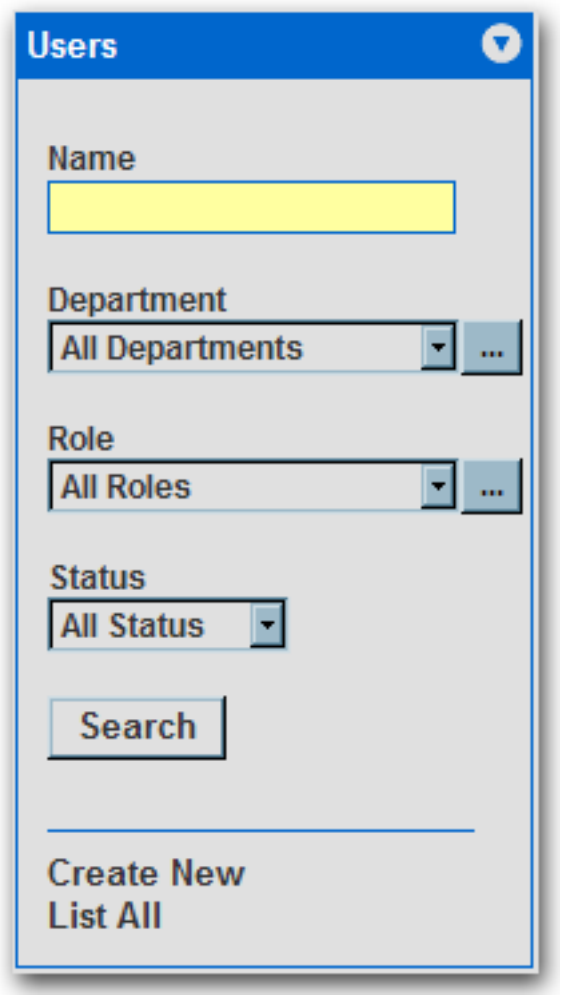


Users

Creating a New User

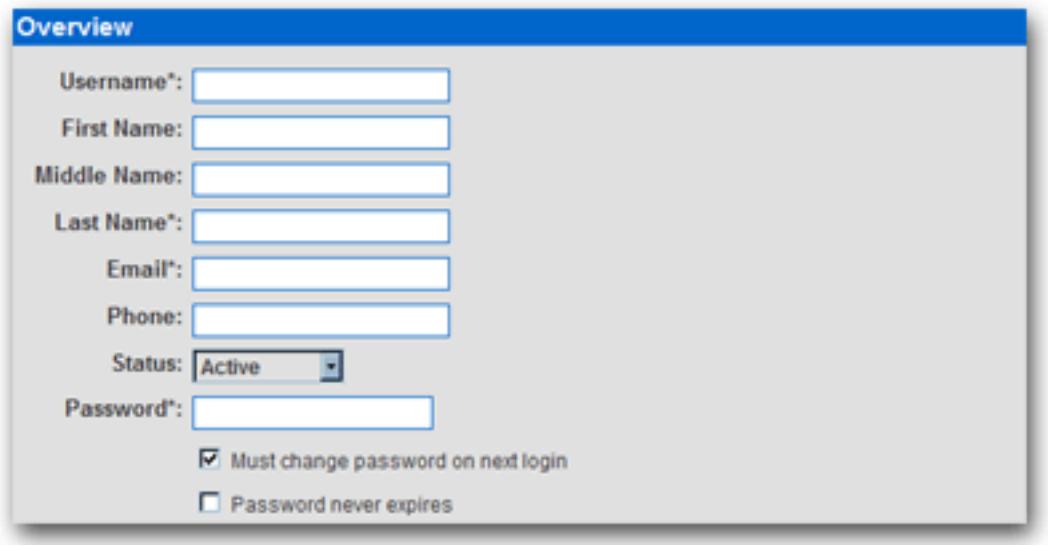
This procedure is performed on the BEA AquaLogic Enterprise Repository **Admin** screen.

1. Click **Create New** in the **Users** section.



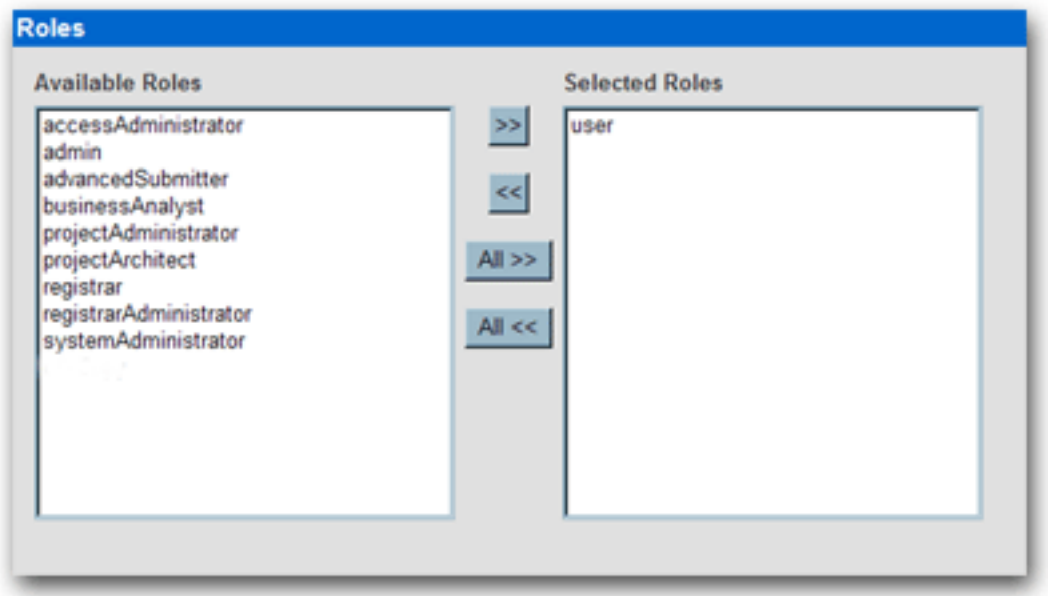
   The **Create New User** pop-up opens.

2. Enter the appropriate information in each of the text boxes in the **Overview** section.

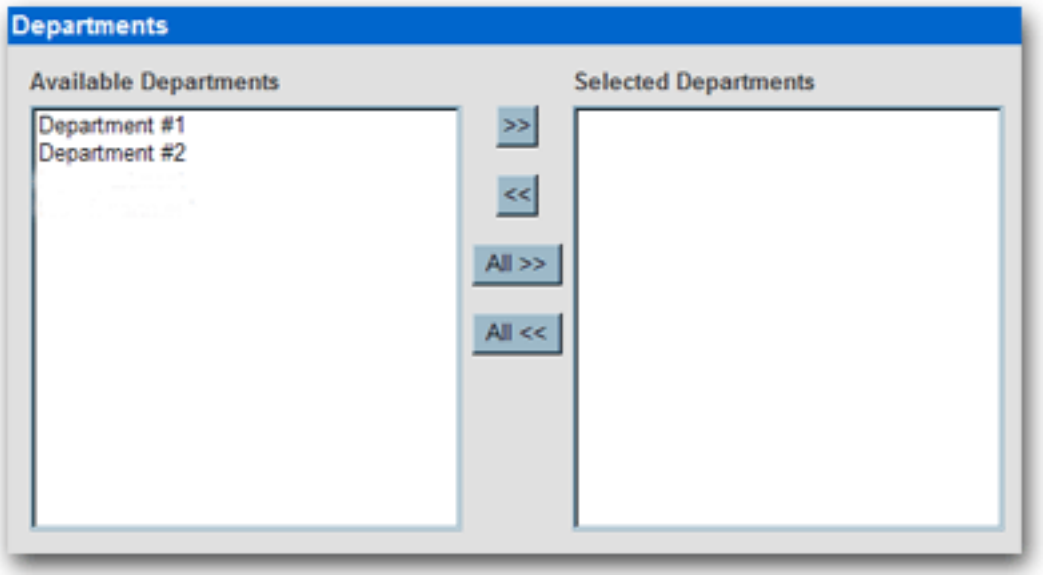


3. Select **Active** in the **Status** drop-down.

4. In the **Roles** section, assign roles to the new user by using the **>>** and **<<** buttons to move items from the **Available Roles** column to the **Selected Roles** column. (The **User** role is the default role for all new users.)



5. In the **Departments** section, assign the new user to departments by using the **>>** and **<<** buttons to move items from the **Available Departments** column to the **Selected Departments** column.



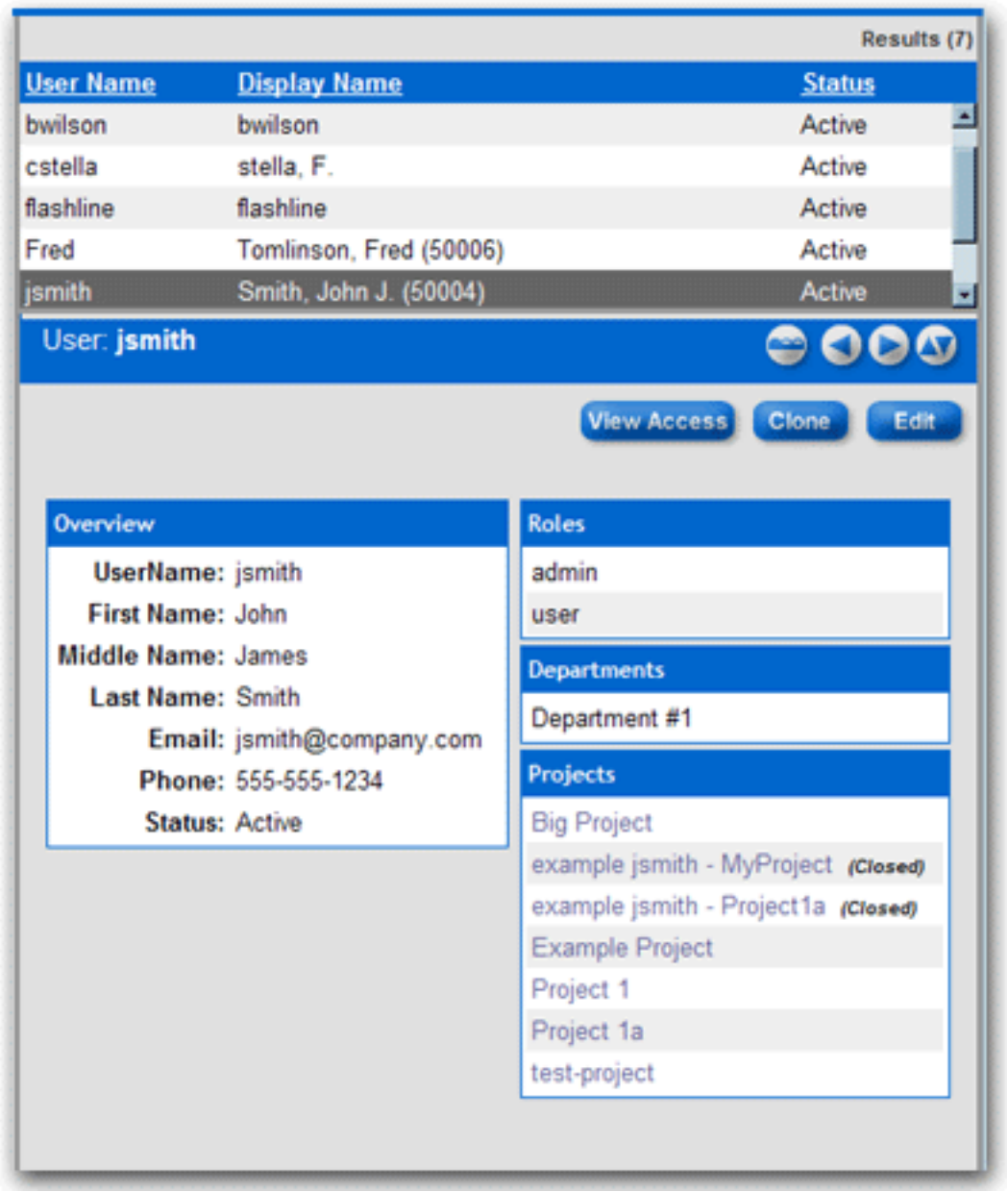
6. When finished, click **Save**.

Viewing User Information

This procedure is performed on the BEA AquaLogic Enterprise Repository **Admin** screen.

1. In the **Users** section, use **Search** or **List All** to locate the user(s) to be viewed.

   The list of users opens in the main pane.

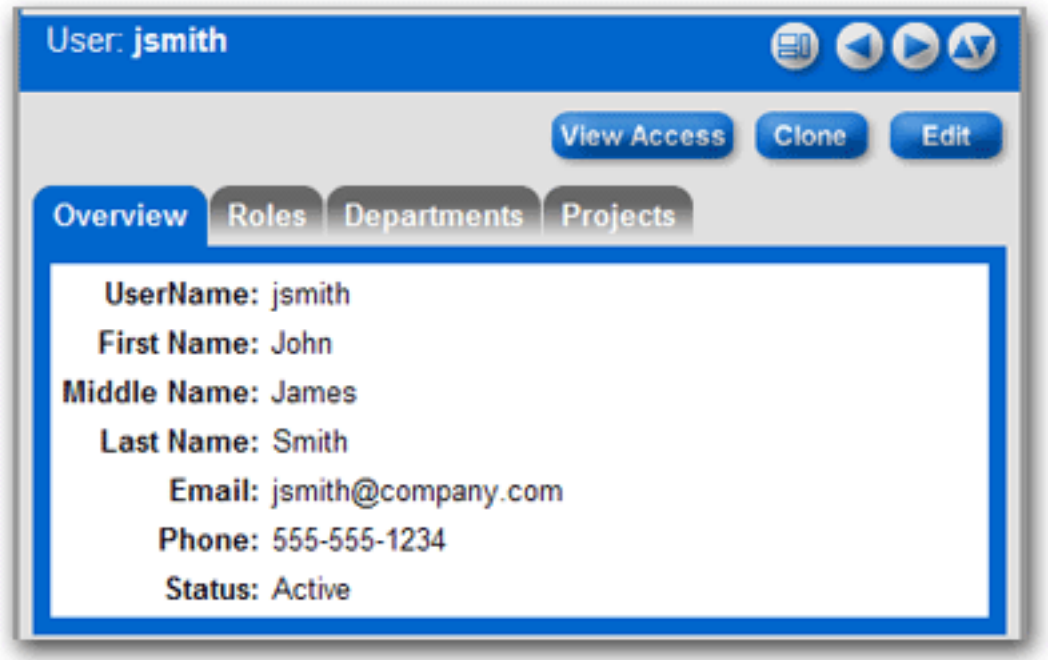


2. Select a user from the list.

   The user's information is displayed in the lower pane.

3. Click  to expand the **User** detail to fill the main pane.

4. Click  to switch to the tabbed view of the **User** detail.



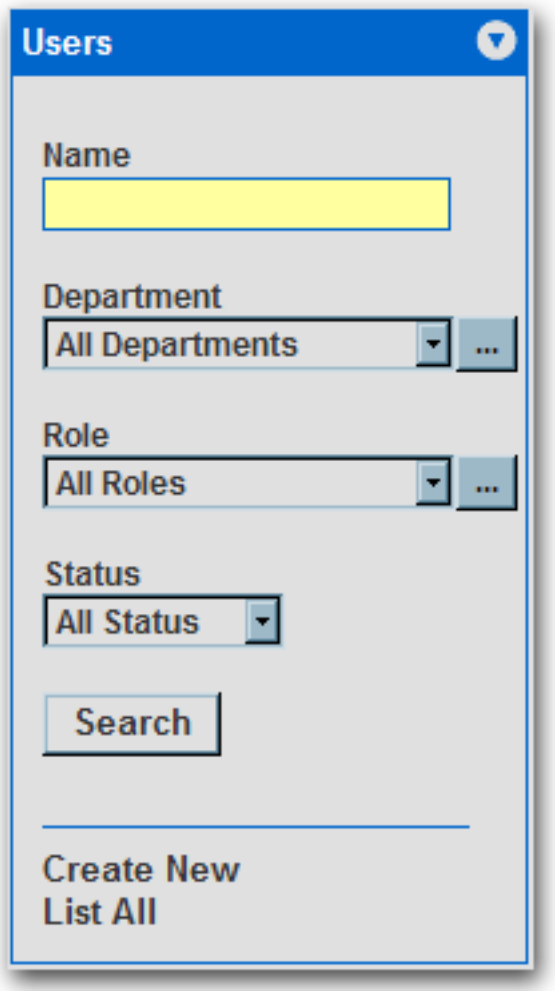
5. Click  to switch back to the standard view of the **User** detail.

6. Click  to scroll through the list of users.

User Search

This procedure is performed on the BEA AquaLogic Enterprise Repository **Admin** screen.

1. Enter appropriate text in the **Name** text box.



2. Use the Department, Role, and **Status** drop-downs as appropriate to narrow the search.

3. Click the **Search** button.

   Search results appear in the list in the upper frame of the main pane.

Cloning a User

Overview

Cloning a user provides an easy way for administrators to quickly duplicate user accounts.

This procedure is performed on the BEA AquaLogic Enterprise Repository **Admin** screen.

1. In the **Users** section, use **Search** or **List All** to locate the user to be cloned.

2. Click 

in the user detail.

   The **Clone User** pop-up opens (same form as the **Create New User** pop-up). The **Overview** section will be blank, but information in the **Roles** and **Departments** sections duplicates that of the cloned user.

3. Enter the appropriate information in each of the text boxes in the **Overview** section.

4. If necessary, edit the information in the in the **Roles** and **Departments** sections by using the **>>** and **<<** buttons to move items between the **Available** and **Selected** columns.

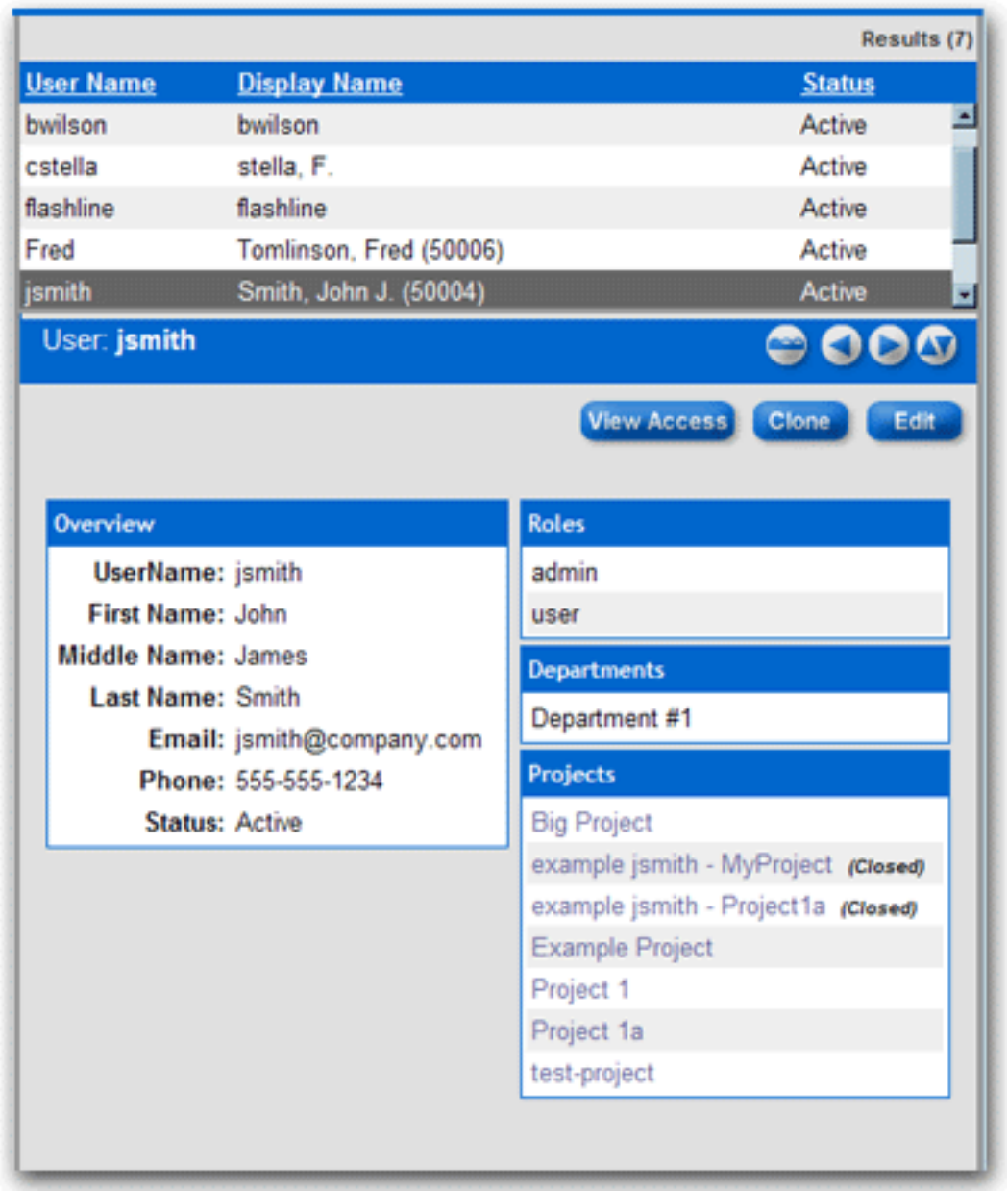
5. When finished, click **Save**.

Editing user Information

This procedure is performed on the BEA AquaLogic Enterprise Repository **Admin** screen.

1. In the **Users** section, use **Search** or **List All** to locate the user(s) to be edited.

   The list of users opens in the main pane.



2. Select a user from the list.

   The user's information is displayed in the lower pane.

3. Click  in the user detail.

   The **Edit User** pop-up opens (same form as the **Create New User** and **Clone User** pop-ups).

4. Make changes as necessary in the **Overview**, **Roles**, and **Departments** sections.

5. When finished, click **Save**.

Password Encryption

Password encryption is enabled by default within the BEA AquaLogic Enterprise Repository, however, you may use the JVM startup parameter *cmee.passwordencryption=false* to disable password encryption.

Generation of encrypted passwords

1. Access the **AquaLogic Enterprise Repository Diagnostics** page.
    - Navigate to: `http://host_name/application_name/diag/index.jsp` (replace *host_name* with the appropriate location).
2. Scroll down to the **Tools** section and click the *Encrypt Strings for passwords* link to lauch the **Password encryption** page.
3. Enter the clear text password into the **String to Encrypt** text box.
4. Click the **Submit Query** button.
5. Copy the resulting encrypted password string and paste it into the appropriate context or properties file(s).

Suggested uses of Encrypted Passwords

- **database.properties**
    - The connection password for the database.
- **Ant task property file or build script**
    - The password the ALER user will use at login.

Other Passwords

- Other passwords in the system are encrypted automatically. This operation is invisible to the user.

- A number of fields stored in the properties files are encrypted by default, including:

    - *ldap.bindPassword*
    - *enterprise.guest.password*
    - *cmee.wsaa.password*

  This encryption occurs when the properties are edited and saved. Automatic encryption of passwords during an upgrade script is unavailable at this time.

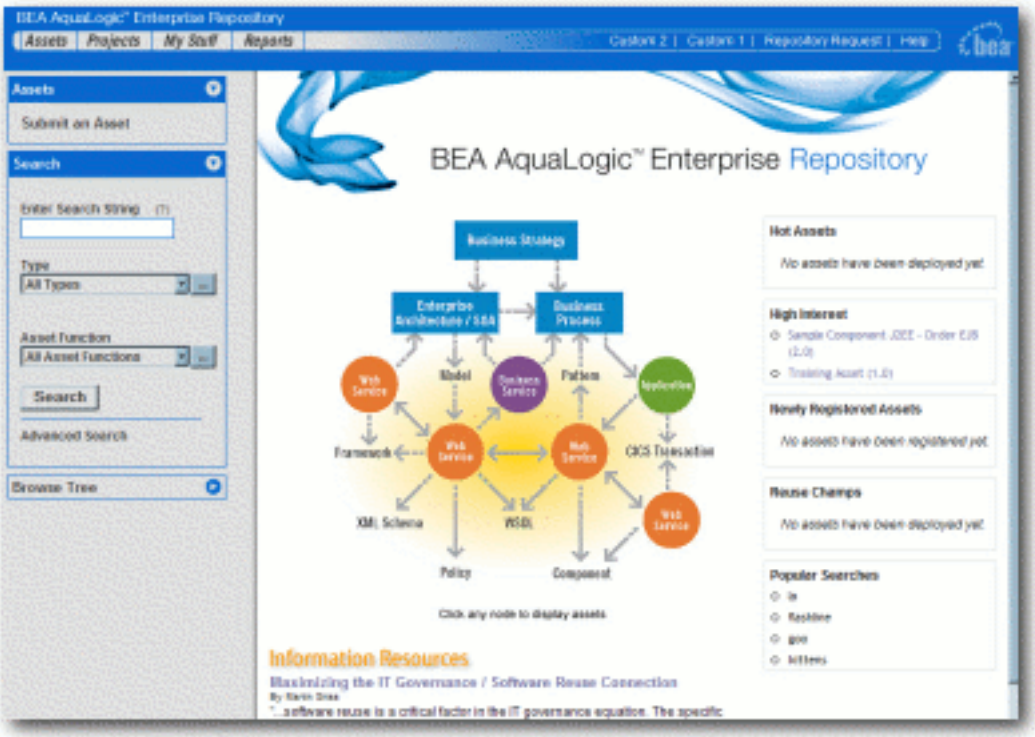
- Passwords stored with the repository hosts are stored in the database in an encrypted format.

Install Java Web Start on the Client

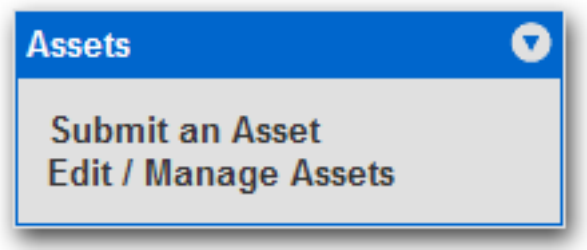
Java Web Start is a browser plug-in that runs files with `.JNLP` extensions. Java Web Start must be available on the client in order to use AquaLogic Enterprise Repository's **Asset Editor**.

Download and Install Java Web Start

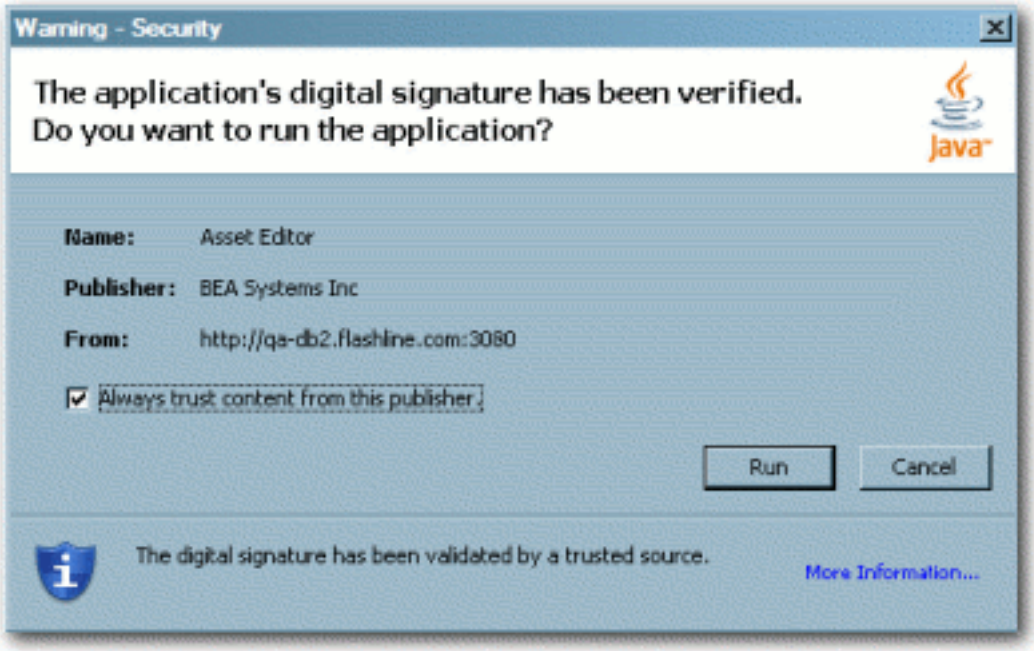
1. Download Java Web Start from java.sun.com.
2. When the download is complete, install Java Web Start.
3. When installation is complete, open the Windows control panel.
4. Open the Java Plug-in.
5. Click the browser tab and check the appropriate browser(s) with which to use the Java Web start application. (Required for proper **Asset Editor** functionality.)
6. Click the **Advanced** tab.
7. Select the appropriate SUN Java JRE version for use with the installed version of AquaLogic Enterprise Repository.
8. Close and re-open all instances of the Internet Explorer or Netscape browsers.
9. Navigate to the AquaLogic Enterprise Repository instance.



10. Click **Edit / Manage Assets** on the AquaLogic Enterprise Repository **Assets** screen.



A security warning pop-up opens. (This occurs only during the first launch of the **Asset Editor**.)



11. Click **Start**.

    Java Web Start installs and the **Asset Editor** opens.

Java Web Start Troubleshooting

AquaLogic Enterprise Repository employs a browser MIME type support checking process that is executed when the **Edit/Manage Assets** (**Assets** screen) and **Edit** (asset detail display) links are generated. This process will inspect the client browser to determine if there is a registered handler for a JNLP file (which should launch Java Web Start). If this process fails or returns no results, the link HREF target will point to `flashline-web/web start/launch.htm`.

The browser-supported mime type determines which client installed application will be presented as the target of the **Edit / Manage Assets** and **Edit** links. Java Web Start must be properly installed in order to work correctly with the operating system as the handler for JNLP files passed to the client browser.

The process of registering this mime type with the browser is normally handled during installation of the Java Web Start plug-in application. Certain corporate security measures or anti-spyware applications may block this kind of change to the Windows Registry, as will the improper installation and/or removal of the Java Web Start application, Java Run Time Environment or Java SDK if improperly registered within the Java Plugin applet within the

Windows Control Panel.

The following instructions may help to rectify the incorrect MIME type support, assuming that Java Web Start and an appropriate version of the SUN Java JRE are properly installed within the client computer system.

To manually set the file/MIME association within the Windows operating system using the Windows Explorer:

1. Open the **Tools** Menu.
2. Select **Folder Options**
3. Select the **File Types** tab.
4. Scroll down to JNLP or create a new JNLP file type.
5. Associate the Java Web Start Application (located in the correct path if more than one JWS is installed) with the JNLP file extension.
6. In the Windows **Control Panel**, add support (check the option) for Internet Explorer within the Java Plug-in console applet. This process should assign the JNLP file type to Java Web Start within the Windows operating system.

Enabling the Navigator

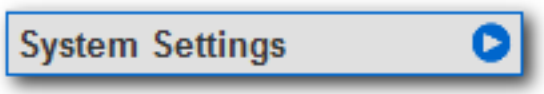
Overview

The AquaLogic™ Enterprise Repository **Navigator** provides a dynamic, three-dimensional graphical representation of relationships and interdependencies that connect assets and projects.

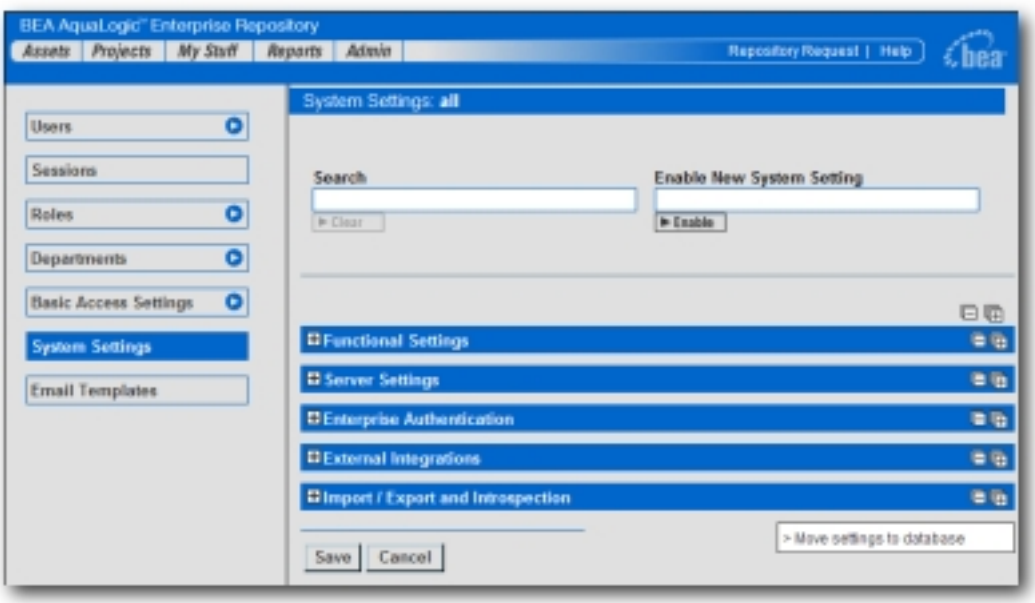
Enabling the Navigator

The procedure is performed on the AquaLogic Enterprise Repository **Admin** screen.

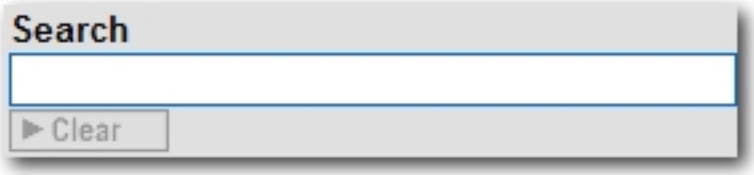
1. Click **System Settings**.



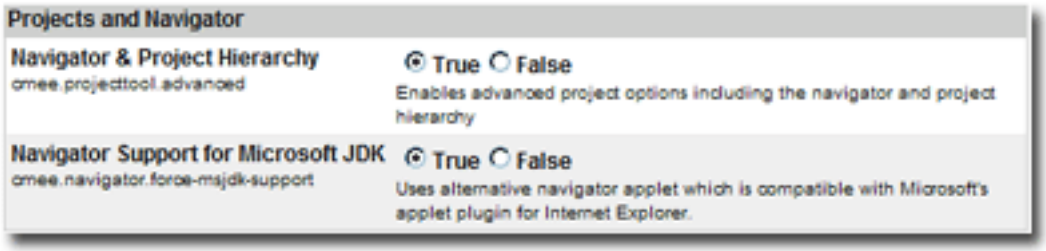
The **System Settings** section opens in the main pane.



2. Enter `navigator` in the System Settings **Search** text box.



   The **Projects and Navigator** section opens.

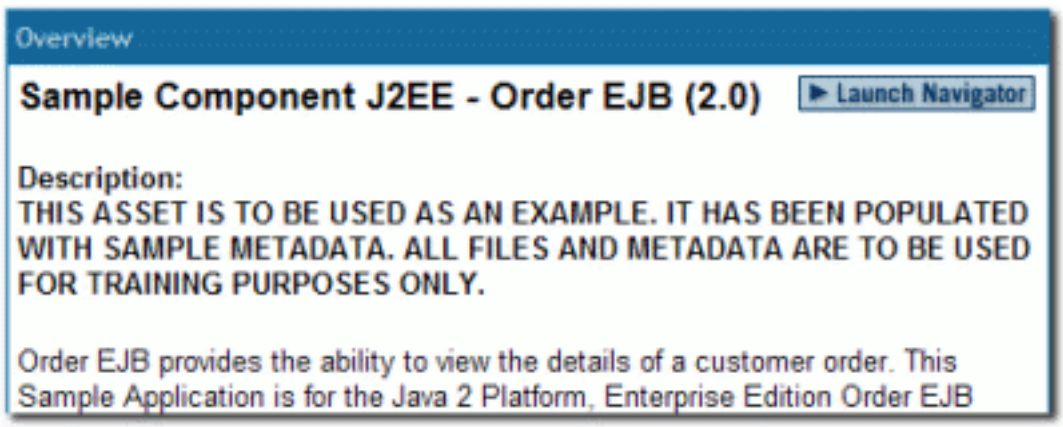


3. Set the **Navigator and Project Hierarchy** property to **True**.

4. Set the **Navigator Support for Microsoft JDK** property to **True**.

5. Click **Save**.

   The Navigator is now enabled. The **Launch Navigator** button now appears in the asset detail display.



Using an X Windows Server with the ALER Reporting Engine

When running on Unix/Linux, the reporting engine in AquaLogic Enterprise Repository requires a connection to an X Windows server in order to generate reports. This is a functional requirement of the Java JRE, which creates a handle to the graphics environment to determine font sizes and perform other graphics-related operations. On Windows platforms, availability of the graphics environment is a given, but on Linux and other Unix platforms, it is not always present. The X Windows server can run on either the same machine as the application server or on another machine, provided that proper access is granted to use the X Windows environment from the application server.

Two steps are necessary for use (unless the application server is started while logged into the X Windows environment). The X Windows security model generally only allows applications to use the environment if they are started within the X Windows environment.

Granting Temporary Access to an X Windows server

1. On a local machine, to allow a background server process access to the X Windows server, perform the following command in an xterm window (or equivalent):
    - `xhost +<user>`
        - (Where `<user>` is the username of the application server process.)

2. To allow the application to connect to a remote server, perform the following command on the remote X Windows server in an xterm window (or equivalent):
    - `xhost +<ip>`
        - (Where `<ip>` is the IP address of the application server.)

Granting Permanent Access to an X Windows server

To configure X Server access to selected hosts follow these three steps:

1. Search through all files in the directory /usr/lib/X11/xdm (or in /etc/X11/xdm) for

occurrences of the command "xhost +" or "/usr/bin/X11/xhost +".
2. Remove or comment out all such lines.
3. Create or edit the file "/etc/Xn.hosts" where 'n' is the display number of the server on the local host, normally 0, as in "/etc/X0.hosts".
4. To deny all X access to your system, the file /etc/X0.hosts will contain a single character, "-".
5. To grant access to hosts "localhost", "newhost.gov" and "secondhost.gov" and no other hosts the file /etc/X0.hosts will consist of:

```
-
+localhost
+newhost.gov
+secondhost.gov
```

Setting DISPLAY Variable

1. On the application server, preferably in the application server software's startup script, add the following (assumes an *sh* or *sh* derivative shell):
    - `DISPLAY=<xwindows host>:0.0 export DISPLAY`,
    - (Where `<xwindows host>` is the name or IP of the remote X Windows server.)
        - (`localhost` may be used for a server running on the same machine)
2. Restart the application server.

Other Notes

- While the reporting engine does not require the X Windows server to run on the application server itself, the X11 client libraries must be accessible on the application server to reference the graphics toolkit functions.
- In order to test the authorization and setting of the DISPLAY variable, launch an application, such as **xterm** or **xeyes** from the application server and verify that the application appears properly on the remote X Windows desktop.
- If you experience authorization problems with the application server connecting to the remote X Windows server, try "`xhost +`" to allow all remote client access to the X Windows server.

X Windows Alternatives

For installations where X Windows is not a feasable option within the Enterprise Architecture, or where servers are racked together within a datacenter and run headless. Since each of these options simulates an X server, the X Windows installation instructions above regarding setting the appropriate *DISPLAY* environment variable and the use of the *xhost* commands also apply. Two options have proven to be effective and compliant within many environments:

- **XVfb** - X Virtual Frame Buffer - An alternative to a fully fledged X Windows installation.
- **VNC Server** - Again an effective alternative with added benefits of allowing a remote console connection to the hosting machine if configured properly.
    - One of the more common misconfigurations with the VNC Server option is how a firewall will block a listening port for either of these services. For example, vncserver by default will listen on TCP port 5901 which would correspond with a *DISPLAY=:1.0*. A vncserver process configured to run on *DISPLAY=:11.0* the process would be listening on TCP port 5911, etc.
    - The very minimal installation of vncserver is all that is required to allow the functionality of the AquaLogic Enterprise Repository reporting engine.

Test the AquaLogic Enterprise Repository Installation

Testing the AquaLogic Enterprise Repository installation involves a number of tasks that ensure the proper operation of all ALER features and functions.

These instructions apply to all application servers currently supported by ALER.

Test Installed Assets

To test installed assets:

1. Launch ALER.
2. On the **Assets** tab, select an asset from the navigation tree.

Display of the asset in the main pane of the window indicates that XML data stored as BLOBS in the database are correctly loaded.

Submit an Asset

This procedure is performed on the ALER **Assets** screen.

1. Click **Submit an Asset**.
2. In the **Asset Submission** dialog box, enter the Asset **Name**, **Version**, and **Type**.
3. Enter a description of the asset and, in the URL box, enter the file's location URL (for example, `/ /.example.com/repository/`).

4. When finished, click **Continue**.
    - Note: Attempts to save as asset without first completing all required data fields will result in a warning message. A confirmation message indicates the the asset was successfully saved.
5. Click Close.

Accept an Asset

This procedure is performed on the ALER **Assets** screen.

1. Click **Edit/Manage Assets**.

   The **Asset Editor** launches.
2. Click the **Submitted** folder in the tree in the **Asset Editor**.
3. Locate and open the asset submitted in the previous task.
4. Click the asset's **Administration** tab.
5. Select **Accept**, **Accept and Assign**, or **Reject**, as appropriate.

Note: The registrar makes decisions about an asset based on company requirements. To accept and assign an asset means that the registrar accepts the asset and assigns it to another person to shepherd it through the remainder of the registration process.

Register an Asset

1. On the **General** tab, complete the remaining information, including the notification email, licensing information, forum information, and support contacts.
    - **Note:** The notification email automatically sends notification to the email address when the asset is downloaded/selected for use. The asset can be moved from its original location to the storage repository on this tab.

2. Click **Approve**.
    - Result: The tab label changes color and the **Approve** button changes to **Unapprove**.
3. Click the **Taxonomy** tab.
4. Assign the asset to the appropriate categories and/or domains.
    - Note: Categories and domains are configurable. (See the *AquaLogic Enterprise Repository Administration Guide*.)
5. Enter any keywords and classify the asset into one of five categories:
    - **Raw:** No assurance of quality or completeness.
    - **Educational:** To be used for educational purposes only. The asset may not be complete in terms of documentation, test results, or other information.
    - **Approved:** Approved for use by the registrar
    - **Recommended:** Successfully used on at least one project.
    - **Mandated:** Must be used whenever the functionality it provides is needed (This is especially relevant for Web services that access customer data, process payments, and so on).
6. Click **Approve**.
    - Result: The tab label changes color, and the Approve button changes to Unapprove.
7. Click the **Documentation** tab.
8. When all of the documentation requirements are met, click Approve.
9. Continue the approval process for each of the remaining tabs.
10. On the **Administration** tab, click **Register** to complete the registration process or **Assign** to assign the asset to someone else.

11. Save changes.
    - Result: The asset is moved to the **Registered** folder.

Test the new Asset

This procedure is performed on the ALER **Assets** screen.

1. Use **Search** or other means to locate the asset.

   The asset should appear in the list in the upper frame of the main pane, indicating that the XML data stored as a BLOB is correctly loaded in the database.

2. Click the asset to open the asset detail in the lower frame.