

Oracle® Product Data Quality
Oracle DataLens Server
Administration Guide
Version 5.5

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ORACLE®

Oracle Product Data Quality Oracle DataLens Server Administration Guide, Version 5.5

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Preface

About this Book

This describes the administration of an Oracle DataLens Administration Server.

Successful use of this manual requires an understanding of the core system concepts including the Oracle Product Data Quality Knowledge Studio, Application Studio, and Governance Studio for Oracle DataLens Server administrators.

Intended Audience

This document is intended for all users of the DataLens Technology, including:

- IT administrators responsible for configuring and tuning the Oracle Product Data Quality.
- Oracle DataLens Server administrators that manage the configuration of the system, such as setting up database connections, job control, and setting up users and assigning roles.

Conventions Used in This Book

The following typographical conventions that are used in this book:

file, directory, or path name

Used for the names of files, directories, or path names.

<server>

Used to indicate text that is to be replaced by user-supplied values.

bold

Used for new terms, new concepts, graphical user interface elements, or keyboard keys.

italics

Shows a book or cross-reference to related material or for emphasis.

Ctrl+x

Used to indicate a key sequence. A sequence such as **Ctrl-x** indicates that you must hold down the key labeled Ctrl while you press another key or button.

Note: Indicates additional or supplemental information.

Caution: Indicates essential information to follow to avoid data loss, data corruption, or damage to hardware or software.

Related Information

The following documents and resources contain useful information.

- The *Oracle Product Data Quality Application Studio Reference Guide* provides information about creating and maintaining Data Service Applications (DSAs).
- The *Oracle Product Data Quality AutoBuild Reference Guide* provides information about creating initial data lens based on existing product information and data lens knowledge.
- The *Oracle Product Data Quality Knowledge Studio Reference Guide* provides information about creating and maintaining data lenses.
- The *Oracle Product Data Quality Glossary* provides definitions to commonly used Oracle Product Data Quality technology terms.
- The *Oracle Product Data Quality Governance Studio Reference Guide* provides information about creating and maintaining Data Service Applications (DSAs).
- The *Oracle Product Data Quality Services for Excel Reference Guide* provides information about creating a DSA based on data contained in a Microsoft Excel spreadsheet.
- The *Oracle Product Data Quality Task Manager Reference Guide* provides information about managing tasks created with the Task Manager or Governance Studio applications.
- The *Oracle Product Data Quality Oracle DataLens Server Installation Guide* provides detailed Oracle Product Data Quality Oracle DataLens Server installation instructions.
- The *Oracle Product Data Quality Connector Implementation Guide* provides information about installing and configuring Oracle Product Data Quality.
- The *Oracle Product Data Quality COM Interface Guide* provides information about installing and using the Oracle DataLens Server COM APIs.
- The *Oracle Product Data Quality Java Interface Guide* provides information about installing and using the Oracle DataLens Server Java APIs.
- The *Oracle Product Data Quality User Guide* provides information about how to use Oracle Product Data Quality.

Chapter 1

Introduction

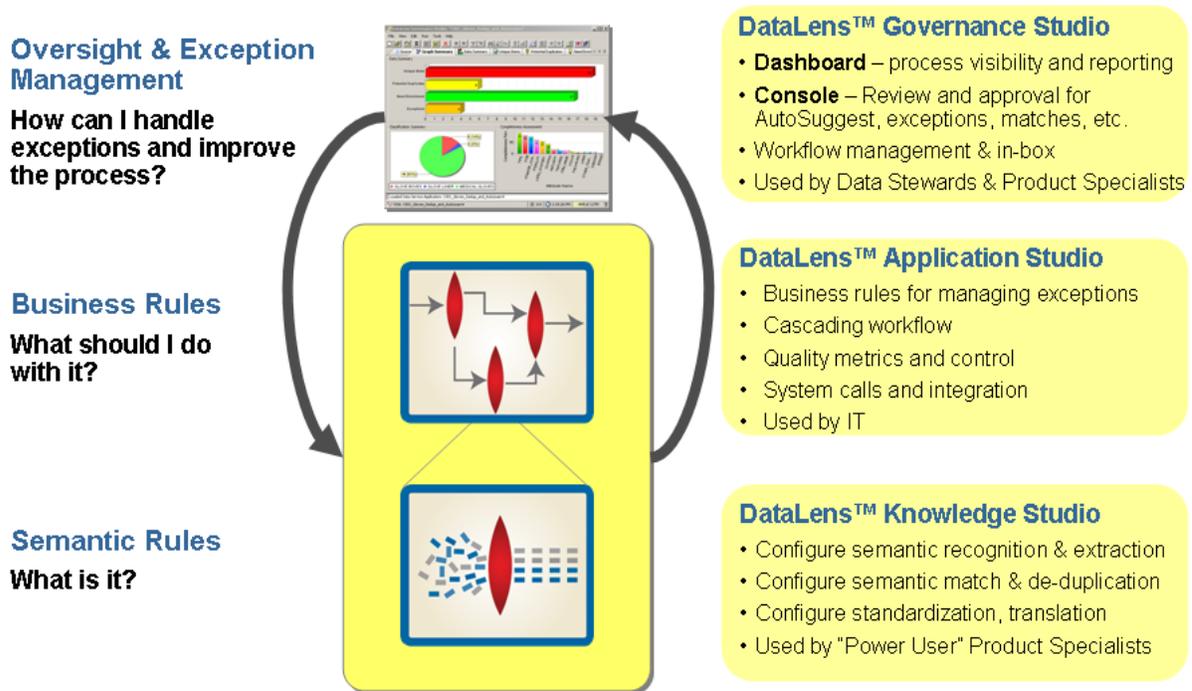
In this chapter

- Operation

3

Oracle Product Data Quality is built on industry-leading DataLens™ Technology to standardize, match, enrich, and correct product data from different sources and systems. The core DataLens Technology uses patented semantic technology designed from the ground up to tackle the extreme variability typical of product data.

Oracle Product Data Quality uses three core DataLens Technology modules: Governance Studio, Knowledge Studio, and Application Studio. The following figure illustrates the process flow of these modules.



Oracle Product Data Quality provides network-wide access to DataLens Servers (Data, Transaction, and Knowledge Engineering Services). The DataLens Administration Server is for archiving data lenses and Data Service Applications (DSAs) and running large amounts of data through these data lenses and DSAs.

Each Oracle DataLens Server consists of the following facilities:

- Servlet Engine
- Configuration Repository
- Oracle DataLens Server Administration Web Application Engine
- Oracle DataLens Web Application Engine
- Oracle DataLens Server Group Engine

Operation

The Oracle DataLens Server provides an HTTP service operating on a dedicated port (default port 2229), executing the Server Web Application. The Knowledge Studio and Server Web pages both communicate with the Oracle Product Data Quality using HTTP SOAP requests.

Web Application Server

The Oracle Product Data Quality components run under a standard Java J2EE Servlet Engine in a web application server environment (for example, Oracle Web Logic). In this environment, Oracle Product Data Quality runs as a independent web application.

Supported Environments

The Oracle DataLens Administration Server supports both Linux and Windows servers, and Web Logic and Apache Tomcat application servers. For more information, see the interface and installation guides listed in Related Information on page vii.

Chapter 2

Oracle DataLens Server Administration Web Pages

In this chapter

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- Home Page 6
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- Server 32
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- Troubleshooting 51

The Oracle DataLens Server includes a set of administrative web pages that allow both local or remote administration of the Oracle DataLens Server. All the administration for the Oracle DataLens Server topology is handled using the web pages accessed on the Administration Server.

The Oracle DataLens production servers can be accessed using a web page. The production server web page provides information on the status of the license, data directories, software

versions, and log files. Each production server provides separate informational web page as previously described.

Web Page Operation

The Oracle Product Data Quality supports the Microsoft Internet Explorer browser version 7 or greater.

On the server, browse to:

<http://localhost:2229/datalens>

Or remotely browse to

<http://server:2229/datalens>

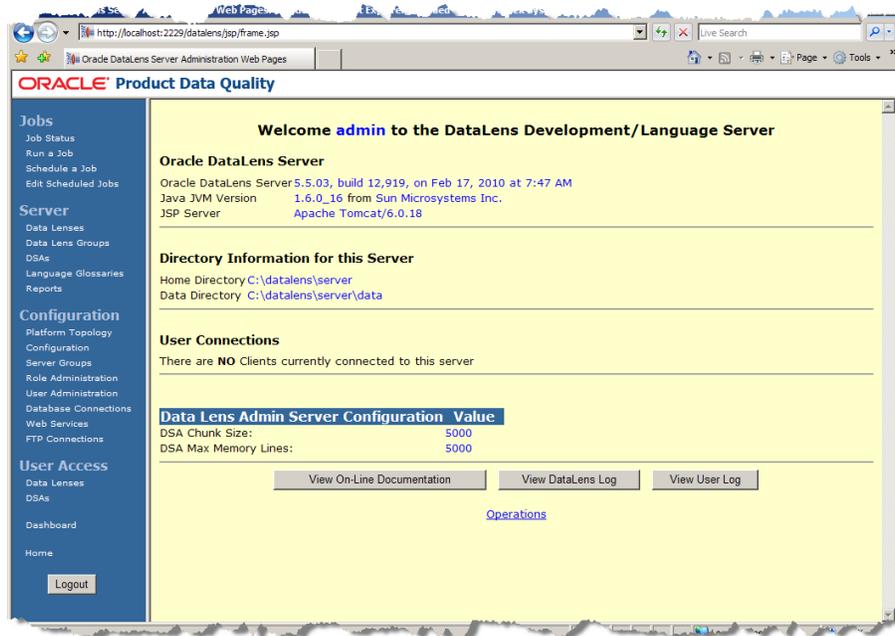
The Oracle Product Data Quality login screen is displayed



Enter a login name and password and click **Login**.

Home Page

Upon a successful login to the server, the user is allowed to enter the Oracle DataLens Server Home Page. This page contains a welcome message, shows the type of server configuration and a menu to the left showing links to the Oracle DataLens Server Administrator Web Pages.



This home page displays the name of the user currently logged into the Data Server Administrator, as well as, the type of server that was installed.

If logging onto an Oracle DataLens Server, then this home page is the only page that is available.

If logging in as a user without Administrator privileges, then the Web pages are all read-only. There is no way to change the server configuration without logging in as user with Administrator privileges.

Note: If you are logging in as the administrator, you may need to refresh the screen in order to see all of the administrative selections.

Menus and Information Displayed

These menus are available only to the Administration Server.

The versions of the software used by the server are displayed.

Any users connected to the Oracle DataLens Server from the Knowledge Studio or the Application Studio will be listed as part of the User Connections.

This home page displays information about the configuration and operation of the Oracle DataLens Server. The configuration and installation directories are displayed here. These

directories are changed during the Oracle DataLens Server installation. If they need to be changed after the server has been installed, then the `web.xml` file will need to be manually manipulated. For more information, see Configuration Files on page 55.

Home Directory

This is the location of the Oracle DataLens Server Configuration directory. This directory contains the configuration files, system information, and the Oracle DataLens log files used by the server. The installation WAR file is also located in this directory.

Connected Users

This will show what users are currently connected to the server from the Oracle Product Data Quality Client applications such as the Knowledge Studio and the Application Studio.

This is useful if an administrator needs to bring the server down, or make backups or make substantial changes to the server configuration and wants to know what users may be currently working and using the server. The administrator should also check the server jobs to check what users are running real-time or batch jobs against the server as well.

Server Configuration Values

Data Service Application Chunk Size

This size is used to:

- determine how many records are sent to a single step in a DSA one time
- determine how many records are delegated to a separate Oracle DataLens Server as a single group from an executing DSA
- determine how many records are read from a database at one time from a DSA

Data Service Application Max Memory Lines

This size defines how many lines of data to keep in memory between the steps of a DSA. If the number of lines of data is greater than this parameter, then the data is written to disk between each step of the DSA, thus hinder performance.

Documentation and Log Files

Viewing the On-Line Documentation

Click the **View On-Line Documentation** button on home page to display the Oracle Product Data Quality on-line documentation. This documentation provides an overview of the system, with separate documents on various parts of the system that are displayed as Adobe PDF documents.

View the Oracle DataLens Log

Click the **View DataLens Log** button on home page to display the contents of the Oracle DataLens log file. This file is automatically backed up when the file size reaches one megabyte in size. The older files are saved with a version number in the home directory. The file is listed in historical order, with the latest information at the bottom of the file.

This file lists any errors that have happened, as well as a complete list of all the administrative commands that have been issued on the server.

The following is an example of the time-stamped history in the log file:

```
DLS Log file
INFO 22 Dec 2009 11:26:49 [main] - Initialized Logging facility to check
log.cfg every 20 seconds
INFO 22 Dec 2009 11:26:50 [main] - The DataLens Administrator is starting.
INFO 22 Dec 2009 11:26:50 [main] - Version 5.6.02, build 9,488, on Dec 22, 2009
at 9:43 AM
INFO 22 Dec 2009 11:26:50 [main] - Data Service Application chunk size=5000,
max memory lines=5000
INFO 22 Dec 2009 11:26:54 [main] - Writing profile to database: LVALLAD-T60
INFO 22 Dec 2009 11:42:46 [main] - Initialized Logging facility to check
log.cfg every 20 seconds
```

View User Log

Click the **View User Log** button on home page to display the contents of the Oracle DataLens log file. This log is a record of changes made to users of the system.

The following is an example of the time-stamped history in the log file:

```
22 Dec 2009 12:04:27 - DB Connection MySQL added by: admin
22 Dec 2009 12:05:47 - User Added: lvallad (Lorna Vallad) by: admin
22 Dec 2009 12:06:23 - User Added: dleeper (David Leeper) by: admin
14 Jan 2010 09:04:12 - Data Service Application Retail_Capabilities_Showcase,
revision 1, Checked In by lvallad
14 Jan 2010 09:04:13 - Data Service Application Retail_Capabilities_Showcase,
revision 1, deployed to Development by lvallad
14 Jan 2010 09:32:24 - DB Connection MySQLData added by: admin
14 Jan 2010 09:37:16 - Data Lens Demo_Retail_Manufacturers, revision 1, Checked
In by lvallad
14 Jan 2010 09:37:16 - Data Lens Demo_Retail_Manufacturers, revision 1,
deployed to Development by lvallad
14 Jan 2010 09:38:40 - Data Service Application Retail_Capabilities_Showcase,
revision 2, Checked In by lvallad
14 Jan 2010 09:38:41 - Data Service Application Retail_Capabilities_Showcase,
revision 2, deployed to Development by lvallad
14 Jan 2010 09:38:44 - Data Lens Demo_Retail_Apparel, revision 1, Checked In by
lvallad
```

Operations

The **Operations** link is available only from the home page. The individual Oracle DataLens Servers only have the home page available when logging on using the Oracle DataLens Server Administration Web pages. This makes the operations available to any of the servers in the pod.

Debugging Options

This toggles informational output in SOAP format from external HTTP request to the server. This is useful for verifying or debugging information being sent from a client application to the Oracle DataLens Server.

The screenshot displays the Oracle DataLens Server Administration web interface. It is divided into three main sections:

- Packet Tracing Administration:** Contains a table for configuring trace levels and a toggle for packet tracing.
- Log4J Logging Administration:** Includes a button to reload log configuration information.
- Internal Data Tracking:** Features an input field and a 'GetData' button.

Trace Level	Toggle packet tracing on or off
Trace Data Lenses (Real-Time)	<input type="radio"/> on <input type="radio"/> off
Trace Transform Maps	<input type="radio"/> on <input type="radio"/> off
Trace DSAs	<input type="radio"/> on <input type="radio"/> off
Trace General Packets	<input type="radio"/> on <input type="radio"/> off

NOTE: This Form does not display the current state of packet tracing, it is just an on/off toggle. Check the log file for verification that the toggles are set correctly. Packet information goes to standard output, which in Tomcat is typically the Tomcat logs/stdout.log file.

Note: Contact Professional Services for additional information before using the Debugging Options.

Configuration Options

These options configure the Oracle Product Data Quality server related elements including:

- Platform topology administration
- Configuration of server constants
- Server and server group administration
- Role administration
- User administration
- Database connection administration
- Web services administration
- FTP connection administration

Platform Topology

This is where the server configuration options are changed for the Administration Server, all other Oracle DataLens Servers, and the Server Groups. This also provides a view of the Oracle DataLens Platform topology.

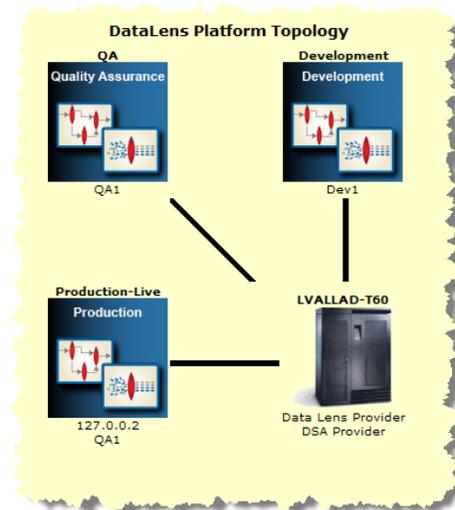
The administration of Oracle DataLens Servers and the Administration Server are controlled from the Administration Server.

In the following topology, there are the following servers:

- 1 Admin server
- 1 Development servers
- 1 QA servers
- 2 Production servers

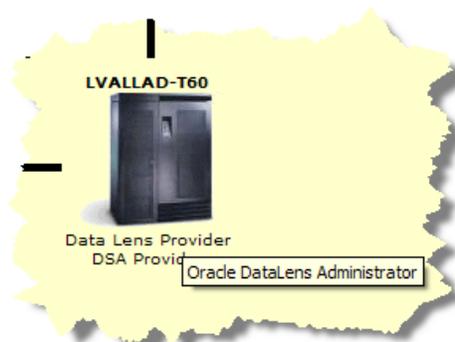
It is more important for the QA server group to match the Production server group so realistic stress testing, load balancing, and performance monitoring can occur.

The initial page will look like the following, depending on the number of Oracle DataLens Server Groups that are part of the Oracle DataLens topology.



This initial screen shows the Oracle DataLens Administrator Server (LVALLAD-T60), with the Oracle DataLens Server Groups radiating out. This screen is generated dynamically based on the individual topology of your particular server configuration. The names of the Oracle DataLens Servers are listed in the Server Group in which they belong.

Note: In the preceding server topology, the server named LVALLAD-T60 is the administrator server. In some cases, the administrator server is also a development server thus is called a combo server. In this case, the topology will list the capabilities of the combo server below the icon as shown in the following.



The use of a combo server is not the recommended configuration. In this example, this combo server can be used for development testing of data lenses and DSAs.

Clicking on one of the servers advances you to the Topology Page for that particular Server Group as shown in the following when clicking on the Engineering Development Server Group.

Platform Topology for Oracle DataLens Server Group
Production-Live

[First QA server.:2229](#)
DOWN
DSA Provider

[First production server.:2229](#)
DSA Provider

LVALLAD-T60
Data Lens Provider
DSA Provider

Server Group Administrative Options

Max Running High Jobs Maximum number of concurrently running High-Priority DSA jobs

Max Running Medium Jobs Maximum number of concurrently running Medium-Priority DSA jobs

Max Running Low Jobs Maximum number of concurrently running Low-Priority DSA jobs

Email Recipient The Email address of the recipient of server messages

The server in the center of the diagram is always the Oracle DataLens Administration Server (LVALLAD-T60 in this example). The other servers in the topology are Oracle DataLens Servers. Clicking on any server will take you to the administration page for that server.

The controls on this page are used as follows:

Max Running High Jobs

This is the maximum number of high-priority jobs that will be run simultaneously on this server group.

Max Running Medium Jobs

This is the maximum number of medium-priority jobs that will be run simultaneously on this server group.

Max Running Low Jobs

This is the maximum number of low-priority jobs that will be run simultaneously on this server group.

Email Recipient

This is the email address of the administrator that is notified when warnings or errors occur at a server group level from the Oracle DataLens Server.

Server Group Status

Clicking this button allows you to idle or start the server group depending on its state.

You may occasionally need to stop and re-start the Batch Service. This is the best way to stop processing on the servers. The server group will wait until all current requests have finished processing before idling the servers in the group. Any requests that come in after the server group has been idled will be denied access.

Idling the Batch Service:

Click the **Idle this Server Group** button to set the server group to an idle state.

Upon successful completion of the stop request, the button changes to **Restart this Server Group**. If there are jobs running, and you need to stop the server, the currently running jobs will finish and the server will be idled.

Starting the Batch Service:

Click the **Restart this Server Group** button.

Upon successful completion of the start request, the button changes to **Idle this Server Group**.

Configuration Information

Select an Oracle DataLens Server by clicking on the image of the Oracle DataLens Server from the Topology Web Page to get to the configuration information for the Oracle DataLens Server. If you select an Oracle DataLens Server image for a particular server, the configuration page for that particular Oracle DataLens Server will be loaded. For this example, we are changing the configuration information for the DL Server 5:2229 Oracle DataLens Server. This will take you to the page displayed as follows.

Server Configuration Information
Data Lens Administrator LVALLAD-T60 using port 2229
Server ID 1

Descriptive Server Name	LVALLAD-T60
Description	Oracle DataLens Administration Server
Max Batch Jobs	2 Maximum number of simultaneous batch jobs
Max Revisions	0 Maximum number of revisions to keep (0 = keep ALL)
Max Database Connections	0 Maximum number of DataLens internal database connections (0 = Use internal default)
Memory Warning Percentage	70 Percentage value above which a memory warning is issued
Memory No Load Percentage	90 Percentage value above which Data Lenses are no longer loaded on the server
Max Cache Entries	0 Maximum cache entries for NLE Parse Results
Max Cache Entries AM2	0 Maximum cache entries for Attribute Match-2

This server will load the Data Lenses on demand.

List of the Development-Deployed Data Lenses available to be Loaded ON-DEMAND on this Server

- Demo_Resistors_Complete
- Demo_Retail_Apparel
- Demo_Retail_Cameras
- Demo_Retail_Computers
- Demo_Retail_Consumer_Electronics
- Demo_Retail_Jewelry

Max Batch Jobs

The default number of simultaneous batch jobs is 2. By setting this to 1, the currently running batch job will finish as fast as possible, but smaller batch jobs in the queue will have to wait for the large job to finish before processing. On a multi-CPU machine, the maximum number of simultaneous batch jobs can be increased.

Changing these settings will not take effect until the application server has been restarted.

You will notice this change when looking at the **Active Batch Jobs** screen.

Max Revisions

The number of copies of a data lens, Transformation Map or DSA in the repository. The copies have revision history information with dates, comments and the user that changed them. Any revision that is stored in the repository can be checked out the Knowledge Studio if case regressions are needed.

Max Database Connections

This is the maximum number of connections that the Oracle DataLens Server group will use internally to connect to the system configuration information. This setting is for internal administration only.

Memory Warning Percentage

This is a value from 0 to 100. If the memory currently being used by Web Server and the Oracle DataLens Server exceeds this value, then a warning is issued to the email recipient listed as follows.

Memory No Load Percentage

This is a value from 0 to 100. If the memory currently is being used by the Application Server and the Oracle DataLens Server exceeds this value, then no more data lenses will be loaded into memory on this particular server.

Max Cache Entries

This is an integer value. It sets the maximum number of parsed data that a data lens will cache. This cache is a Least Recently Used Cache, so when the maximum is reached, the least recently used entry is dropped and the newly parsed data is added as an entry. The default value, zero, indicates that no caching will occur; the higher the value the more memory is allotted for caching.

Max Cache Entries AM2

This is an integer value. It sets the maximum number of entries in the Attribute Match 2 Cache. This cache is a Least Recently Used Cache, so when the maximum is reached, the least recently used entry is dropped and the new data retrieved from a database query is added as an entry. The default value, zero, indicates that no caching will occur; the higher the value the more memory is allotted for caching.

Load Data Service Applications

This is always toggled to true on an Administration Server. The Oracle DataLens Servers can be configured to control the DSAs that an individual server can load.

Deployed Data Lenses

In addition, there is a set of checkboxes for all the Data Lenses that are deployed to the Oracle DataLens Servers. This gives the system administrator further control over which KBs are loaded on each particular Oracle DataLens Server. This is probably the most important consideration because the bulk of the processing usually takes place in the data lenses, and the KBs take up the most memory on the server as well.

Platform Topology – Oracle DataLens Server

The Administration Options page is slightly different for the Admin Server. In this case, the Load Data Service Applications (Load DSAs).

Options are disabled.

Configuration

Click the **Configuration** link to modify the various Admin server options as follows:

DataLens String Constants Administration

Value	Description
mail.silvercreeksystems.com	The mailhost to be used when the software sends email
admin@lvallad-t60	The "from" address to use when the software sends email
undefined	The main Admin email address
undefined	The DataLens Admin email address
undefined	The Transform Map Admin email address
undefined	The DSA Admin email address
undefined	The address from which DGD will send email

DataLens Numeric Constants Administration

Value	Description
22	This is the number of historical hours of DSA Job information to display in the Admin Web pages
1	DGS Augmentation Update action (1=No Update, 2=Update No Deploy, 3=Update and Deploy)
0	DGS Augmentation Batch Update (0=Immediately, 1-24=Hour to do batch Update, 24=midnight)
88	Maximum Memory Percent for adding to Global Parse Cache
500	Check Global Parse Cache Memory every N records
5000	Processing Chunk Size

DataLens Boolean Constants Administration

Value	Description
true	Allow processing on Admin Server
false	Log timings for certain processing tasks
false	Log AttributeMatch2 Cache entries
false	Log information about AttributeMatch2 processing

Select any of the values to change the current settings. Each of these selections is a configuration parameter that can be set for the platform as a whole.

Server Groups

Server Groups allow Oracle DataLens Servers to be grouped together for use in the following scenarios.

- Development
- Production
- Quality Assurance Testing

Each Server in the group will participate in automatic server load balancing within the group. The servers can also be used for round robin checking from client applications to determine which server in the group is running and available to handle requests.

The Oracle DataLens Servers do not have a “type” until they are assigned to a server group. The type of server will depend on the type of group that the server is assigned to.

Oracle DataLens Server Group Administration

Server Groups Currently Defined

Name	Description	Number of Servers	Area	Created	Created By	Updated	Updated By
Admin	Combination Admin/Development	1	Admin	NA	NA	NA	NA
Production-Live	Live production server group.	2	Production	Fri Feb 12 10:39:13 MST 2010	admin	Thu Feb 18 13:04:47 MST 2010	admin
QA	Quality Assurance server group.	1	QA	Fri Feb 12 10:39:36 MST 2010	admin	NA	NA
Development	Development server group.	1	Development	Fri Feb 12 10:40:22 MST 2010	admin	NA	NA

Server Groups can be created, edited, and deleted. The groups that are created can be seen graphically from the Topology Web Pages.

There are two special groups in the preceding. These groups cannot be deleted or renamed, but the configuration parameters can be modified.

Admin Group

This is the group where the admin server or the admin-development combination server resides. This group does not show up on the Topology page.

Adding a New Server Group

Click the **Create A New Server Group** button to get the following screen.

Create a New Oracle DataLens Server Group

Name:

Description:

Area:

Job Delete Days: Delete jobs older than this (0 means never delete)

Max Running High Jobs: Maximum number of concurrently running High-Priority DSA jobs

Max Running Medium Jobs: Maximum number of concurrently running Medium-Priority DSA jobs

Max Running Low Jobs: Maximum number of concurrently running Low-Priority DSA jobs

Email Recipient: The Email address of the recipient of server messages

1. Enter the name of the new server group and give it a description.
2. Select a type. There are 3 choices in the drop-down menu

- Production – This group will contain the servers used in a production environment to process data.
 - Development – This group will contain the servers used in a development environment to test new changes to data lenses, and DSAs.
 - QA – This group will contain the servers used in a Quality Assurance environment to test the work done by the developers, prior to their use in a production group.
3. Set the parameters for this server group. These parameters can be increased as new servers are added to the group.
 4. Select **Save** to create the new Server Group

Creating or Deleting Oracle DataLens Servers

Adding a Server

In the server group administration page (as shown previously), click the **Add a new Oracle DataLens Server** button.

Add a new Server to the DataLens Platform

HostServer Name Host Name (or IP Address) of this new server

Port Number Port number of this new server

Server ID Unique ID; this is needed for adding a new server

Descriptive Server Name

Description

Max Batch Jobs Maximum number of simultaneous batch jobs

Max Revisions Maximum number of revisions to keep (0 = keep ALL)

Max Database Connections Maximum number of DataLens internal database connections (0 = Use internal default)

Memory Warning Percentage Percentage value above which a memory warning is issued

Memory No Load Percentage Percentage value above which Data Lenses are no longer loaded on the server

Max Cache Entries Maximum cache entries for NLE Parse Results

Max Cache Entries AM2 Maximum cache entries for Attribute Match-2

Server Alias The URL to get to this server

Oracle DataLens Server Group Select the Oracle DataLens Server Group where this server belongs.

This will add a new Oracle DataLens Server to the Oracle DataLens topology. The server must be physically installed onto the hardware prior to adding the server to the topology. Once the server has been physically installed on a machine and started, then it is ready to be added here.

1. Enter the Network name or IP address of this new server as the server name.
2. Change the port number if not 2229.
3. Change the Server ID to match the ID used when installing the Oracle DataLens Server.

4. Give the server a Description.
5. Select the configuration options (use the defaults if unsure of what to use).
6. The server alias is a URL that will work within the network environment to take a user to the server Web Page for this new server.
7. Select a Server Group. If none has been created, then it will go into the default group.
8. Determine if the server can run DSAs. This is used as part of the load balancing to distribute the processing. If these options are set to false, then application programs accessing the server topology will not be able to point to this server to run DSAs.
9. Click **Submit** to create the new server in the Oracle DataLens topology.

Delete a Server

From the Configuration/Platform Topology page, select the server group and then select the particular server to be deleted from the topology.

Server Configuration Information
Production 127.0.0.2 using port 2229

Server ID 2

Descriptive Server Name	First production server.
Description	Oracle DataLens Server
Max Batch Jobs	10 <small>Maximum number of simultaneous batch jobs</small>
Max Revisions	0 <small>Maximum number of revisions to keep (0 = keep ALL)</small>
Max Database Connections	0 <small>Maximum number of DataLens internal database connections (0 = Use internal default)</small>
Memory Warning Percentage	60 <small>Percentage value above which a memory warning is issued</small>
Memory No Load Percentage	80 <small>Percentage value above which Data Lenses are no longer loaded on the server</small>
Max Cache Entries	0 <small>Maximum cache entries for NLE Parse Results</small>
Max Cache Entries AM2	0 <small>Maximum cache entries for Attribute Match-2</small>
Server Alias	http://127.0.0.2:2229/datalens <small>The URL to get to this server</small>
Oracle DataLens Server Group	Production-Live <small>Select the Oracle DataLens Server Group where this server belongs.</small>

Check the Production-Deployed Data Lenses to be Loaded on this Server

Click the **Delete this datalens Server** to delete the server from the Oracle DataLens topology.

Role Administration

Selecting the **Role Administration** link takes you to the following page.

Oracle DataLens Server Role Administration

Roles Currently Defined

Name	Description
Oracle DataLens Server Administrator	Grants users Administrator Privileges to the Oracle DataLens Servers
Oracle DataLens Knowledge Studio User	Grants users full access to use the Oracle DataLens Knowledge Studio
Oracle DataLens Application Studio User	Grants users full access to use the Oracle DataLens Application Studio
Oracle DataLens Governance Studio User	Grants users full access to use the Oracle DataLens Governance Studio
Oracle DataLens Task Manager User	Grants users basic access to use the Oracle DataLens Task Manager
Oracle DataLens Task Manager Supervisor	Grants users full supervisory access to use the Oracle DataLens Task Manager

This allows you to add additional roles that can be assigned to users of the Oracle DataLens Server. These roles allow users to be conveniently grouped together for similar permissions. The roles can be created, edited, renamed, and deleted.

When creating a new role, then the following page is used.

Add a new Role

Role Name:

Role Description:

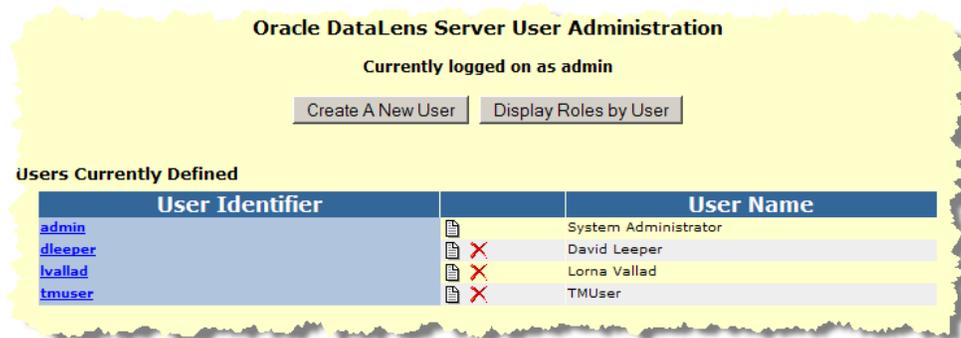
Oracle DataLens Knowledge Studio	Oracle DataLens Application Studio	Oracle DataLens Governance Studio	Oracle DataLens Task Manager	Web
<input type="checkbox"/> Run Oracle DataLens Knowledge Studio	<input type="checkbox"/> Run Oracle DataLens Application Studio	<input type="checkbox"/> Run Oracle DataLens Governance Studio	<input type="checkbox"/> Run Oracle DataLens Task Manager	<input type="checkbox"/> Web - System Administrator
<input type="checkbox"/> Check-Out Data Lens for Editing	<input type="checkbox"/> Create/Edit DSA	<input type="checkbox"/> Edit Fields	<input type="checkbox"/> Add Tasks	<input type="checkbox"/> Web - Administer Users
<input type="checkbox"/> Create new Data Lens	<input type="checkbox"/> Deploy a DSA at Checkin	<input type="checkbox"/> Create New Projects	<input type="checkbox"/> Change Status of Own Tasks	<input type="checkbox"/> Web - Administer Lenses
<input type="checkbox"/> Import or Export Data Lens			<input type="checkbox"/> Change Status of All Tasks	<input type="checkbox"/> Web - Administer Maps
<input type="checkbox"/> Deploy a Data Lens at Checkin			<input type="checkbox"/> Close Tasks	<input type="checkbox"/> Web - Run Reports
<input type="checkbox"/> Create/Edit Data Lens			<input type="checkbox"/> Delete Tasks	<input type="checkbox"/> Web - Administer Roles
<input type="checkbox"/> Compact Data Lens				<input type="checkbox"/> Web - Administer Jobs
<input type="checkbox"/> Import Rules				<input type="checkbox"/> Web - Administer Job Scheduler
<input type="checkbox"/> Create/Edit Unit Conversion Types				<input type="checkbox"/> Web - Administer Passwords
<input type="checkbox"/> Check-Out Standardization Types for Editing				<input type="checkbox"/> Web - Administer DSA
<input type="checkbox"/> Create Unit Standardization Types				
<input type="checkbox"/> Create/Edit Standardizations				
<input type="checkbox"/> Check-Out Classification Types for Editing				
<input type="checkbox"/> Create Unit Classification Types				
<input type="checkbox"/> Create/Edit Classifications				

Simply check the permissions that you would like to be included in the new role and they will be part of the role when the submit button is selected.

When editing a role, the same page is also displayed. Add or delete permissions that you want included in the role and click the **Submit** button when done.

User Administration

Selecting the "User Administration" link takes you to the following page.



Additional users need to be added for use with the Oracle Product Data Quality client software and to enable logging into the Administration Web pages. These users need to be created before the Oracle Product Data Quality clients may be used.

This allows you to add additional users that can login to the Oracle DataLens Administration Web Pages and change the passwords of existing users. These new users can be deleted as well.

Note: User names and passwords are case-sensitive.

User admin is a special super-user that has access to parts of the Oracle DataLens Administration Web Pages that other users do not have access. This user cannot be deleted, although you can change the default password.

Users are created and assigned one or more roles, using the following screen.

Add a new User

User ID:
User Name:
Password:
Password Again:
email:

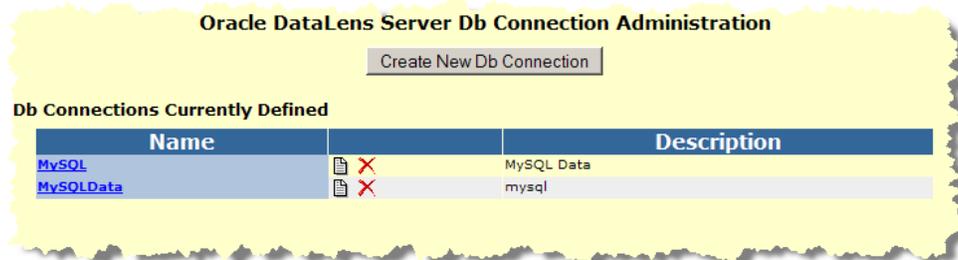
Role Information

- Oracle DataLens Server Administrator (Grants users Administrator Privileges to the Oracle DataLens Servers)
- Oracle DataLens Knowledge Studio User (Grants users full access to use the Oracle DataLens Knowledge Studio)
- Oracle DataLens Application Studio User (Grants users full access to use the Oracle DataLens Application Studio)
- Oracle DataLens Governance Studio User (Grants users full access to use the Oracle DataLens Governance Studio)
- Oracle DataLens Task Manager User (Grants users basic access to use the Oracle DataLens Task Manager)
- Oracle DataLens Task Manager Supervisor (Grants users full supervisory access to use the Oracle DataLens Task Manager)

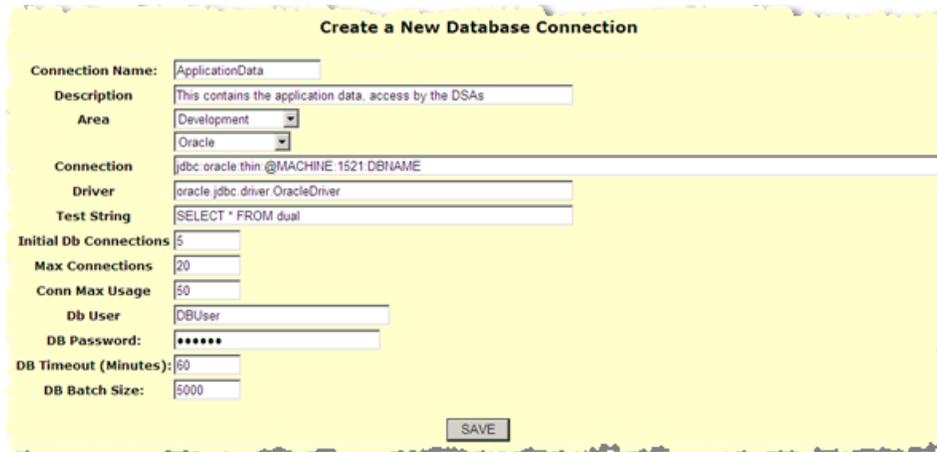
Database Connections

This page allows the administrator to create named database connections that can be used by DSAs across the Oracle DataLens Server topology.

The initial page will be empty; following is a page after several Db connections have been defined.



The names are those that can be used by any of the Jobs that need access to a database. To create a new database connection the following page is used.



- Create a named connection to be used in all the DSAs.
- Select an area. Different user logins can be used for different areas. In fact, entire different databases can be used for different areas.
- Select a Database Type to pre-populate the Connection and Driver fields. There is default connection information for
 - Oracle
 - MySQL
 - MS SQL Server
 - PostgreSQL
 - User-Defined – This allows the user to enter any connection information for alternate databases

Use the default setting if unsure what values to use for the other options on this page. Save the connection information and it will be added to the list of database connections. Select the new connection that you have created to edit the connection and test that the connection definition is working properly.

[Note: This single page shows all the connection information for all the areas for which connection has been defined.](#)

View Database Connection for ApplicationData

Development Connection	QA Connection	Production Connection
Description <input type="text" value="This contains the application data, access by the DSAs"/>	<input type="button" value="Create New Db Connection"/>	<input type="button" value="Create New Db Connection"/>
Connection <input type="text" value="jdbc:oracle:thin:@MACHINE:1521:DBNAME"/>		
Driver <input type="text" value="oracle.jdbc.driver.OracleDriver"/>		
Test String <input type="text" value="SELECT * FROM dual"/>		
Initial Db Connections <input type="text" value="5"/>		
Max Connections <input type="text" value="20"/>		
Conn Max Usage <input type="text" value="50"/>		
Db User <input type="text" value="DBUser"/>		
DB Password: <input type="password" value="*****"/>		
DB Timeout (Minutes): <input type="text" value="60"/>		
DB Batch Size: <input type="text" value="5000"/>		
<input type="button" value="SAVE Development changes"/>		
<input type="button" value="Test Saved Development Connection"/>		
<ul style="list-style-type: none">Created by: adminCreated on: Wed Dec 17 14:58:33 MST 2008Updated by:Updated on:		

New connections for the other areas can also be created here for this same named database connection using the **Create** buttons.

There is also a **Test Saved Development Connection** button to check the saved database connection.

If your databases connection has been successfully defined, then a confirmation message is displayed.

If the connection definition has not been successfully defined, then an error message will be output, indicating the problem with the database connection.

Web Services

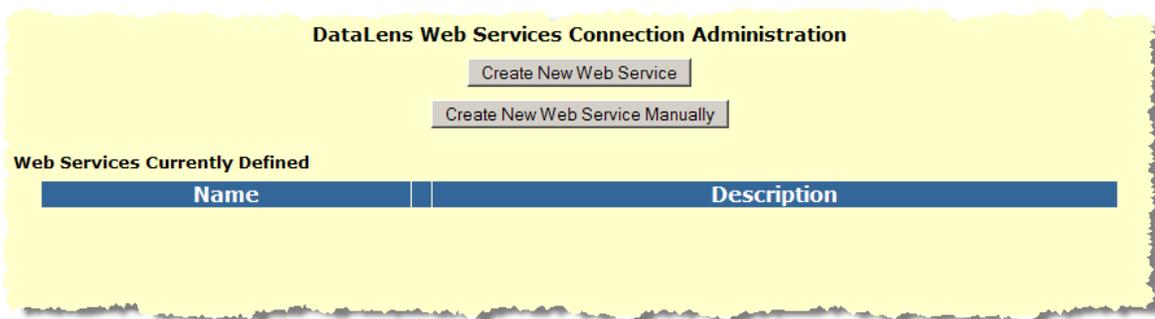
Named WSDL connections can be created and configured for use in Data Services Applications (DSA) and the DSA Transform maps (used by a DSA Step). These connections can be configured differently for QA, Development and Production servers, but all sharing a common name. This allows the Web Services to be different in different environments, but the DSAs will never need to change based on the deployment environment.

Note: The web service that is being called **must only return a single string**. All transforms in the Application Studio are expected to return a single string. This includes the web service calls.

Web services that return multiple fields (such as in the following example), return the multiple fields as character-separated data (such as a vertical bar) within the single string. In the Application Studio, you could then use the **Get Field** add-in function to extract the individual fields in the returned data.

In the following example, we are using the WSDL creation wizard to create a named WSDL connection to the Oracle Product Data Quality Web Service to process a single line of data.

Click the **Web Services** link



Enter the name and description.

Enter a valid WSDL

Click the **Find Service** button.

The screenshot shows a web form titled "Create a New Web Service Definition". It contains the following fields: "Name" with the value "DLS One Line Processir", "Description" with the value "Process One Line of data from any DataLens DSA Map", "WSDL" with the value "http://localhost:2229/datalens/ws/WebServiceTest?wsdl", and "Service" with a dropdown menu showing "WebServiceTest". A "Find Ports" button is located below the form.

Select the service that you want from the Service drop-down selection box.
Click the **Find Ports** button.

The screenshot shows the same web form as above, but with the "Port" field added, showing a dropdown menu with "WebServiceTestPort" selected. The "Find Operations" button is now visible below the form.

Select the Port that you want from the **Port** drop-down list box.
Click the **Find Operations** button.

The screenshot shows the same web form as above, but with the "Operation" field added, showing a dropdown menu with "processData" selected. The "Find Remaining" button is now visible below the form.

Select the Operation that you want from the **Operation** drop-down list box.

Click the **Find Remaining** button.

Create a New Web Service Definition

Name: DLS One Line Processin

Description: Process One Line of data from any DataLens DSA Map

WSDL: http://localhost:2229/datalens/ws/WebServiceTest?wsdl

Service: WebServiceTest

Port: WebServiceTestPort

Operation: processData

Parameters Description:


```
int : numberOne
double : numberTwo
boolean : uppercase
String : data
```

Namespace: http://www.silvercreeksystems.com/ws

End Point: http://localhost:2229/datalens/ws/WebServiceTest

Area: Development

Save

In this example, the parameters are populated automatically from the Web Service and we have added a sample line for testing.

The **Namespace** and **End Point** parameters are automatically populated.

Select the **Area**.

Note: It is useful to add a sample line for testing that you can cut and paste from for testing, as follows:

Click the **Save** button.

DataLens Web Services Connection Administration

Create New Web Service

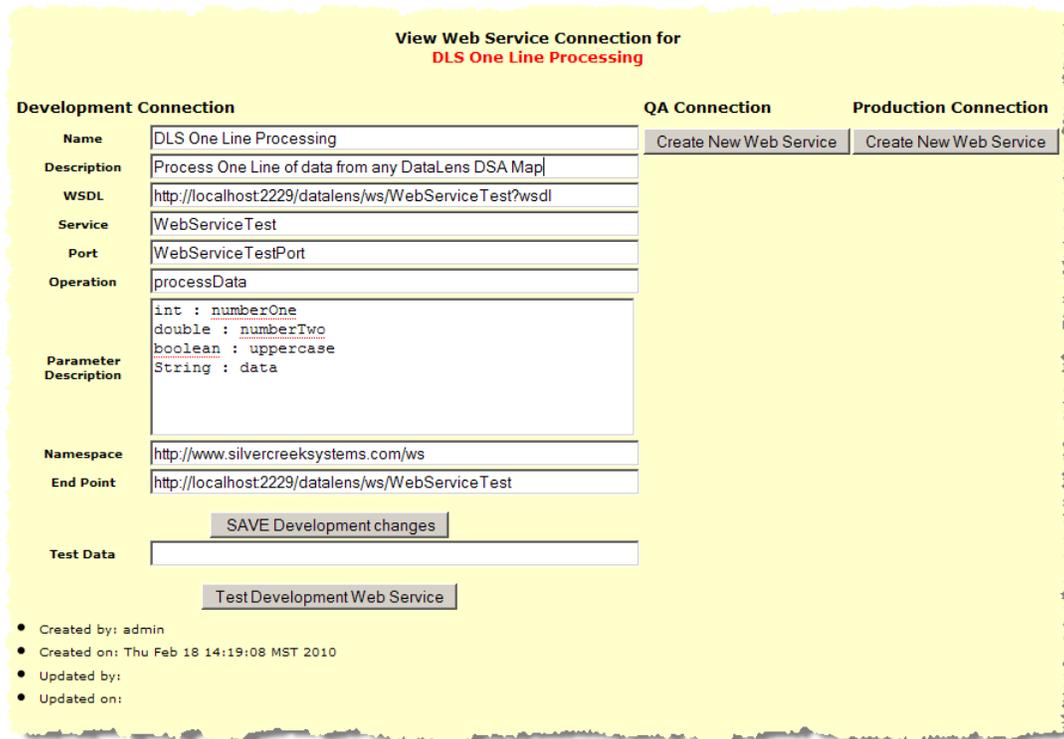
Create New Web Service Manually

Web Services Currently Defined

Name	Description
DLS One Line Processing	Process One Line of data from any DataLens DSA Map

The Web Service Administration page is displayed with all Web Services.

Select a named Web Service definition to test the web service.



We have entered our test data into the **Test Data** input field.

Click the **Test Development Web Service** button to test the connection by processing the data with the Oracle Product Data Quality Web Service.

The returned data is a single “|” separated string. This named Web Service is now ready for use in the DSAs.

FTP Connections

Named FTP connections can be created for use in DSA and from DSA Transform Maps (used by a DSA Step). The result data from a DSA job can be sent directly to one of these named FTP connections. Jobs run from the real-time programming interface can specify an FTP connection for the output.

Click the **FTP Connections** link.



Select the **Create a New Ftp Connection** button.

Create a New Ftp Connection

Connection Name:

Description:

Directory:

Port:

Host:

Ftp User:

Ftp Password:

1. Name the connection
2. Specify a directory where the files will be placed in the remote FTP directory.
3. Enter the Port and Host
4. Enter the user and password
5. Save the new FTP connection definition

The connection is listed in the Ftp connections page.

Oracle DataLens Server Ftp Connection Administration

Ftp Connections Currently Defined

Name	Description	Directory	Host	Port	User	Created	Created By	Updated	Updated By
Development	Development FTP server connection.	test	10.2.2.20	21	admin	Thu Feb 18 14:28:52 MST 2010	admin		

The **Test** button can be used to test this new connection. During the test, a small file will be placed in the remote ftp directory. This is the test configuration page.

Test the FTP connection for Development

Output File Name (on Ftp Server):

Source Path (on SCS Server):

Output File Name

This is the name of the file that will be copied to the directory on the FTP host. This directory is specified as part of this FTP connection.

A sample file name is provided as a default.

Source Path

This is the complete pathname to a file on the server machine that can be used for testing. The file is actually copied to the FTP host as part of the test. The source path can be a directory path on the DataLens Server or can be a UNC path to a file on a remote machine.

Here are some examples

- C:/tmp/test.txt
- //node_name/shared/test.txt

Select the **Test** button to test the connection. The source path needs to be a file on the server, or a UNC path of a file on the network (as shown previously).

If the FTP test is successful, then a confirmation message is displayed.

User Access

These options control the user access to the Oracle Product Data Quality applications such as the Knowledge Studio, Transformation Map Builder, and Application Studio. This will also control the user access to the Web pages as well.

Data Lenses and DSAs

These pages allow the administrator to control exactly which users have access to which data lens and DSA, with specified levels of access for each user. This is in addition to the role-based permissions that these users are already assigned.

These three all work the same, so we will describe how this works for DSAs. A list of all the DSAs in the repository with a brief description is displayed.

DSA Access - Administration

DSA Name	Description
01_Gloves_Demo_Create_IM	No Description
02_GLOVES_DEMO_CREATE_CACHE	No Description
03_GLOVES_DEMO_MATCH_SKEY1	No Description
04_GLOVES_DEMO_MATCH_SKEY2_EXPO	No Description
05_GLOVES_DEMO_MATCH_SKEY2_LINER	No Description
06_GLOVES_DEMO_MATCH_SKEY2_EOL	No Description
DL2_Train_Create_Item_Attributes	No Description
Genie_Data_Assessment	SQLServer Version. This DSA performs the Ngram Analysis Ngram Error Evaluation Frequency Analysis Global Attribute Analysis To use on your dataset you need to change DATASETNAME & DbConnection.
MRO_Capabilities_Showcase	This process will match hughes parts against the nww parts master. THIS IS A NEW DESCRIPTION APPENDED TO EXISTING
My_DSA	My DSA
Ngram_Classification	SQLServer Version. This DSA performs the Ngram Analysis Ngram Error Evaluation Frequency Analysis Global Attribute Analysis To use on your dataset you need to change DATASETNAME & DbConnection.
Ngram_Quick_Lookup	Look up context for an NGRAM in the original data
Retail_Capabilities_Showcase	This process will match hughes parts against the nww parts master. THIS IS A NEW DESCRIPTION APPENDED TO EXISTING
samplePMap	SampleTest1 will test null first col.
samplePMapIDefXmlOutput	Standardize description, classify, and extract attributes for electronic components. Attribute extraction currently only for resistors.
SCS_APPLY_ALT_CAT_RESULTS	This process will update the Staging IF tables and the associated attributes in the Oracle Apps Unlimited schema
SCS_APPLY_STD_RESULTS	This process will update the Staging IF tables and the associated attributes in the Oracle Apps Unlimited schema
SCS_BATCH_PROCESSING_MAIN	This process will match hughes parts against the nww parts master. THIS IS A NEW DESCRIPTION

Select the hyperlinked name of the DSA to get to the user access page as shown follows:

MRO_Capabilities_Showcase DSA Access Permissions

MRO_Capabilities_Showcase	Default Data Lens Access Permission
MRO_Capabilities_Showcase Default Permission	<input checked="" type="radio"/> System Default <input type="radio"/> None <input type="radio"/> Read-Only <input type="radio"/> Read-Write
User Id (User name)	Individual User Permissions
dleeper (David Leeper)	<input checked="" type="radio"/> Default <input type="radio"/> None <input type="radio"/> Read-Only <input type="radio"/> Read-Write
lvallad (Lorna Vallad)	<input checked="" type="radio"/> Default <input type="radio"/> None <input type="radio"/> Read-Only <input type="radio"/> Read-Write
tmuser (TMUser)	<input checked="" type="radio"/> Default <input type="radio"/> None <input type="radio"/> Read-Only <input type="radio"/> Read-Write

The access each user is been granted is displayed. You can change permissions for any user and then click **Submit** to save the changes.

Dashboard

Click the **Dashboard** link.

ORACLE Product Data Quality

Real-time Dashboard

Oracle DataLens Server Status

Server Group	Server	Availability	Running Jobs	Waiting Jobs	Completed Jobs	Canceled-Failed
admin (Administration)						
Production-Live (Production) Idle	LVALLAD-T60	On-Line	0	0	0	0
	First production server.	On-Line	0	0	0	0
	First QA server.	Off-Line	0	0	0	0
QA (QA) Available	First QA server.	Off-Line	0	0	0	0
Development (Development) Available						
	First development server.	Off-Line	0	0	0	0

User Connections
There are **NO** Clients currently connected to this server

Database Connection	Area	Status
MySQL	Development	Responsive
MySQLData	Development	Responsive

This spawns a separate page that is used for Oracle DataLens Server monitoring. This page can be left up in a system command center for a company or enterprise to keep a constant monitor on the state of the Oracle DataLens Server. The page will refresh every minute.

Any problems with the Oracle DataLens Server are highlighted in **RED**.

- There are three users connected to the Administration Server from an Oracle Product Data Quality application, such as the Knowledge Studio.
- There is one database connection that is unresponsive. Any DSAs using these unresponsive database connections will prevent the applications from connecting to the database.

Server

The Server is where the data lenses and DSAs are stored for use by the Oracle DataLens Administration Server. This contains information on the different versions of the data lenses and DSAs as well as instances of the versions themselves. Only users of the Knowledge Studio, as well as users using the Administration Web Pages for the Administration Server can directly manipulate these data lenses. There is *no* direct access to the repository from the Oracle DataLens Servers.

These data lenses are loaded to the server from the Knowledge Studio.

Server Data Lenses and Server DSAs are those that are being versioned by the Oracle DataLens Server for shared use by different team members. This prevents possible problems with more than one user updating a data lens at the same time and possibly losing work. This also provides a single location for backing up the valuable data lenses. Server data lenses can be checked out for edit or read by users of the Knowledge Studio.

- Data lenses are the basic unit of knowledge building.
- DSAs define the application of knowledge, data lenses, to record level data for the purposed of cleansing, attribute extraction, classification, and item level matching.

Once these are in the repository, any of the data lenses and DSAs can be edited and upgraded when needed.

Data Lenses

This page shows information about all current data lenses in the server in the Administration Server.

Data Lens - Administration						
Data Lens Name		Development Deployed Revision	QA Deployed Revision	Production Deployed Revision	Description	Data Lens Administrator User Lock
Demo_Resistors_Complete	 	1	Not Deployed	Not Deployed	This is a demo DataLens(tm) for resistor electronic components. This DataLens standardizes the description, classifies the description to UNSPSC and to FSC, extract the primary resistor attributes, and translates to Spanish and Russian.	Not Locked
Demo_Retail_Apparel	 	4	Not Deployed	Not Deployed	This is a DataLens for the purposes of classifying and extracting attributes from the 5312 Luggage handbags packs and cases Domain. It was automatically created using the Silver Creek Systems UNSPSC/ECCMA based Lens creation process. It's initial purpose	admin
Demo_Retail_Cameras	 	1	Not Deployed	Not Deployed	No Description	lvallad
Demo_Retail_Computers	 	1	Not Deployed	Not Deployed	No Description	lvallad
Demo_Retail_Consumer_Electronics	 	1	Not Deployed	Not Deployed	No Description	lvallad
Demo_Retail_Jewelry	 	1	Not Deployed	Not Deployed	No Description	lvallad

Additional fields in this table include the following:

Data Lens Name

This is the name of the data lens, with a hyperlink to the complete history information for this data lens. The history area is where the specific versions of the repository Data lenses are deployed to the server (see the following.)

Actions

 **Edit**

Fine-grained control over the version of the data lens to be deployed to the Administrator or Production servers.

 **Delete**

This will permanently delete the data lens from the Server Repository.

 **Lock**

This will lock the data lens with a named user.

 **Unlock**

This will remove the user lock from the data lens.

 **Rename**

Rename the KB, keeping all the revision information.

Development Deployed Revision

The revision number of the deployed data lens to the Development (or the Administration/development) Server.

Black text means the Development-deployed revision is the last version that was checked into the repository.

Red text means the Development-deployed revision is *not* the latest version in the repository.

QA Deployed Revision

The revision number of the deployed data lens to the Quality Assurance data directory.

Production Deployed Revision

The revision number of the deployed data lens to the Production data directory.

Description

The initial description of the data lens when it was first checked into the repository. For more information, view the history of the data lens. This description can be updated from the Application Studio application.

Administration Server User Lock

This shows the Knowledge Studio user that has locked this data lens for exclusive access. "Not Locked" means that the data lens is available for checkout by any Knowledge Studio user.

User Locks

Typically, the user locks on the repository Data lenses are created by users of the Knowledge Studio. Occasionally, these locks will need to be overridden by the server administrator.

A user might be on vacation and left a data lens locked that is needed by another user.

A user might have inadvertently started editing a data lens in the Knowledge Studio and failed to get a user lock first. This user would not want to check out the data lens to get the lock because that would overwrite the work the user has done on the data lens so far. The administrator must be careful in this case because the data lens that the user started on (and did not check out) might not have been the latest version.

Removing User locks

Just click the **Unlock** button in the second column to remove the lock that the user has on the data lens.

Adding User locks

Click the **Lock** button in the second column to add a lock on this data lens

Data Lens Repository History

This hyperlink from the KB Repository page will display the complete history of the data lens listed from the most recent to the oldest.

Click the **View History** button in the second column to get to the following page.

Data Lens History

Data Lens Component Details for Demo_Resistors_Complete

Description: This is a demo DataLens(tm) for resistor electronic components. This DataLens standardizes the description, classifies the description to UNSPSC and to PSC, extract the primary resistor attributes, and translates to Spanish and Russian.
Cache Parse Results: true

Source	Standardizations	Classifications	Target Locales	Unit Conversions
en_US	Default	Federal Supply Classification 2003 UNSPSC 6 11 1	es_ES ru_RU	Default

History Chronology for Demo_Resistors_Complete

Rev	Information	Deployed
1	<ul style="list-style-type: none"> Comment: test Checked In by: admin Check-In Date: Tue Aug 04 11:19:40 MDT 2009 	

Source

This is the language that the data lens uses as the “from” translation language.

Standardizations

This is a list of the alternate standardizations that the data lens uses. In this case there is only the default standardization being used, so this column is blank.

Classifications

This is a list of the Classifications that the data lens uses. In this case there are two separate classifications that are being used by the data lens.

Target Locales

This is a list of the languages that can be translated to.

Unit Conversions

This is a list of the numeric conversions that have been defined for this data lens.

The second table on the View History page is the version information and the deploy/undeploy icons as follows:

Revision

The particular revision, starting from one, listed in reverse order so the latest revision is always at the top of the list. In this example there is only 1 revision.

Development/QA/Production Deployment Icons

Select an icon to deploy a particular version of this data lens to the Administrator or Oracle DataLens Server. This means this data lens will be listed as a data lens available for loading on the Administrator or Oracle DataLens Server. In this example, we do not have a QA Server Group, so the QA deployment icon is not enabled.

Information

This shows the revisions of the data lenses including:

- Comments on what the Knowledge Studio user did to the data lens on this particular revision

- The name of the Knowledge Studio user that made the revision.

- The date/time that the revision was checked into the server

Administrator/Production Deployed Icons

These icons show which versions of the data lens are deployed to the Administrator and/or Oracle DataLens Server area.

Undeploy from Development

This will undeploy a data lens from the Development Server, which means it will not be listed as a data lens to be loaded as well. This button is only available for version 8 in the example, because that is the version that is deployed to the Administration Server.

Undeploy from Production

This will undeploy a data lens from the Oracle DataLens Server, which means it will not be listed as a data lens to be loaded as well. This button is *not* available in the preceding example, because this data lens is not currently deployed to the Oracle DataLens Server.

Undeploy from QA

If there is a QA server group defined, then there will be a button to undeploy or deploy to the QA area.

Deploying a Data Lens

From the history page of the data lens, select the **Deploy data_lens_name to Development** icon.

Now the data lens is deployed to the development area and is ready for use in the development group as in the following:

Data Lens Name	Development Deployed Revision	QA Deployed Revision	Production Deployed Revision	Description	Data Lens Administrator User Lock
Demo_Resistors_Complete	1	1	Not Deployed	This is a demo DataLens(tm) for resistor electronic components. This DataLens standardizes the description, classifies the description to UNSPSC and to FSC, extract the primary resistor attributes, and translates to Spanish and Russian.	Not Locked

It is recommended that data lens only be deployed to the development area. Data lens deployment to the QA and Production areas can be done more easily by using the package deployment of DSAs, and the packages give a level of version tracking that cannot be done by manual data lens deployment.

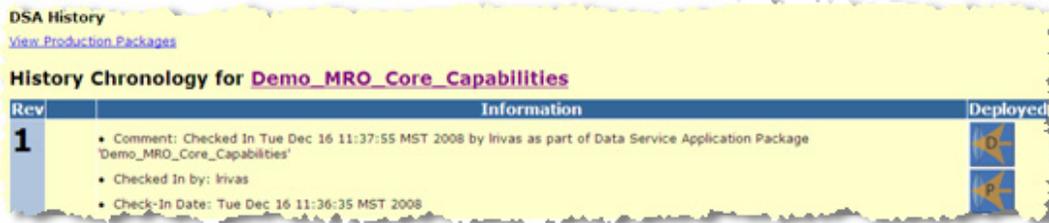
Data Service Applications

This page shows information about all current DSAs in the repository on the server.

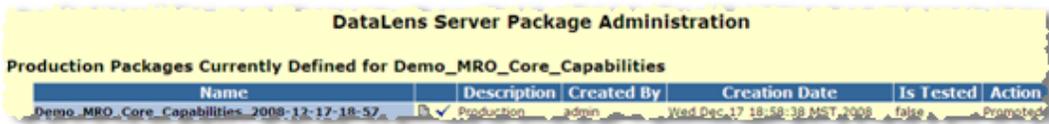
This page works the same as the Data Lenses page. See the preceding description for details on this page.

DSA Name	Development Deployed Revision	QA Deployed Revision	Production Deployed Revision	Description	Data Lens Administrator User Lock
01_Gloves_Demo_Create_IM	1	Not Deployed	Not Deployed	No Description	admin
02_GLOVES_DEMO_CREATE_CACHE	2	Not Deployed	Not Deployed	No Description	admin
03_GLOVES_DEMO_MATCH_SKEY1	2	Not Deployed	Not Deployed	No Description	admin
04_GLOVES_DEMO_MATCH_SKEY2_EXPO	1	Not Deployed	Not Deployed	No Description	admin
05_GLOVES_DEMO_MATCH_SKEY2_LINER	1	Not Deployed	Not Deployed	No Description	admin
06_GLOVES_DEMO_MATCH_SKEY2_EOL	1	Not Deployed	Not Deployed	No Description	admin
DL2_Train_Create_Item_Attributes	1	Not Deployed	Not Deployed	No Description	admin
Genie_Data_Assessment	2	Not Deployed	Not Deployed	SQLServer Version. This DSA performs the Ngram Analysis Ngram Error Evaluation Frequency Analysis_Global	admin

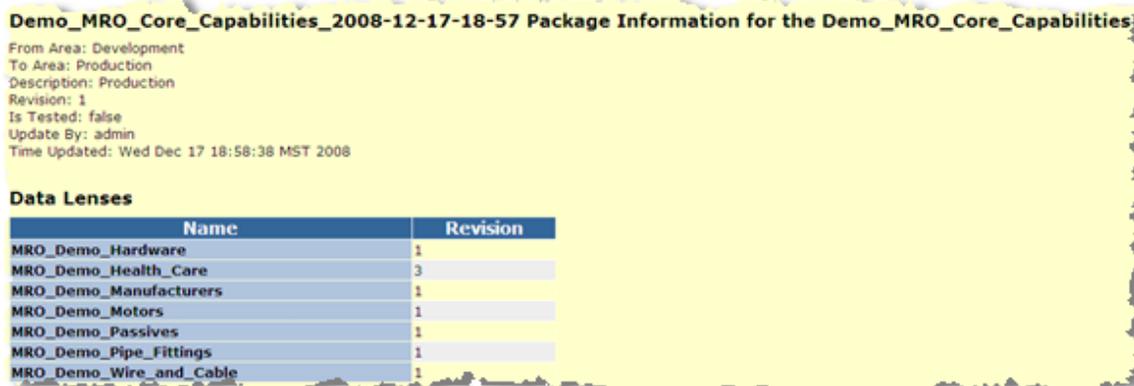
To view the packages that were used to deploy to the Production area, select the **View Production Packages** link from the main page for a particular DSA.



This will show the Production Packages as follows:

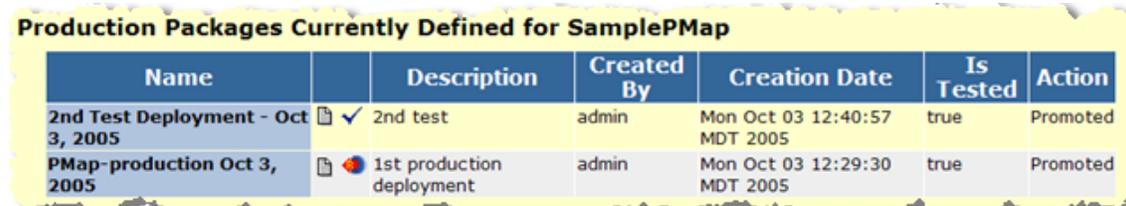


Drilling down into the details for this package using the view settings button  gives the following details.



This reports that this package uses revision 1 of Demo_MRO_Core_Capabilities with a set of data lenses.

If there is more than one package for the DSA, then the package menu lists all the package versions as follows:



There are two new icons that are enabled when there is more than a single package. These are

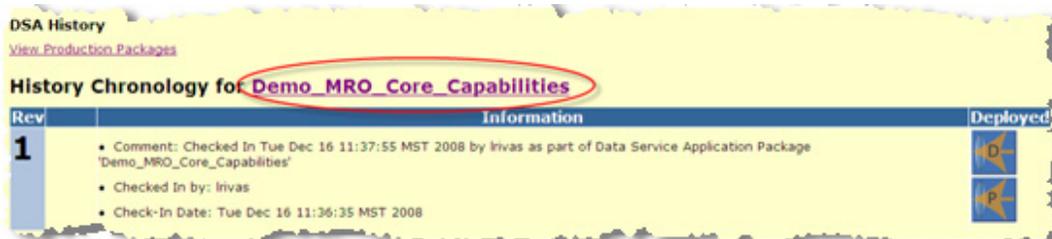
✓ **Current Package Tag**

This marks the current package that is deployed to production.

Data Service Application Details

Details for a particular DSA can be obtained from the history page for a particular DSA.

Note: Deploy and un-deploy icons are also available. We recommend that only the Deploy to Development icon be used. For deployment to QA or Production, we recommend that packages be used rather than these deploy icons, to be able to track versions in the QA or Production server groups.



Click the DSA name link to view the DSA details as follows:

This process will match hughes parts against the nww parts master. THIS IS A NEW DESCRIPTION APPENDED TO EXISTING

Input Steps	Output Steps	Transform Maps	Data Lens	Web Services	Database Connections
Input	05_Mfg_Standardization	Add_Std_Mfg_Name	MRO_Demo_Hardware	NONE Defined	MySQLData
	10_Classification_Summary	Attribute_Extraction_and_Std	MRO_Demo_Health_Care		
	16_Item_Standardization	AutoAbbreviate_40	MRO_Demo_Manufacturers		
	17_AutoAbbreviate	AutoAbbreviate_60	MRO_Demo_Motors		
	17_AutoExtract	AutoEnrich	MRO_Demo_Passives		
	18_AutoClassify	AutoTranslate	MRO_Demo_Pipe_Fittings		
	20_AutoTranslate	Category_Breakdown	MRO_Demo_Wire_and_Cable		
	21_Duplicates_Review	Class_to_eClass			
	22_Data_Quality_Trend	Class_to_FSC			
	25_AutoSuggest	Class_to_GPC			
	26_Mfg_Quality_Score_Card	Class_to_HTS			
	30_Exceptions	Class_to_UNSPSC			
	35_Unknown_Manufacturers	Data_Assessment			
		Dedup			
		Description_Std			
		Enriched_Data			
		Enrichment_Step			
		Format_40_Char			
		Format_60Char			
		Format_Abbs			
		Format_AutoSuggest			
		Format_Categories			
		Format_eClass			
		Format_FSC			
		Format_GPC			
		Format_HTS			
		format_Translations			
		Format_UNSPSC			
		Insert_Enriched			
		Manufacturer_Breakout			
		Mfg_Quality_Score_Card			
		Overall_DQ_Trend			
		Process_Unknowns			
		Report_Inline_Dups			
		Standardize_Mfg_Name			
		Unknown_Manufacturers			

Language Glossaries

Click the **Language Glossaries** link to access information about the available translation Smart Glossaries.

This table is a listing of all the glossaries that are available to the Oracle DataLens Server topology. There is the glossary name with the source and target languages for the translation.

Glossary Name	Source Language	Target Language
Bulk_Cable	English	German
Bulk_Cable	English	Spanish
Bulk_Cable	English	French
Bulk_Cable	English	Italian
Bulk_Cable	English	Portuguese
Cable_and_Wire	English	Arabic
Cable_and_Wire	English	German
Cable_and_Wire	English	English
Cable_and_Wire	English	Spanish
Cable_and_Wire	English	French
Cable_and_Wire	English	Italian
Cable_and_Wire	English	Japanese
Cable_and_Wire	English	Portuguese

Reports

Click the **Reports** link to access all reporting functions.

Administrative Reports

Report Name	Report Description
Server User Administration	DataLens Server Administration Report on all User Operations
DataLens Server Topology	Show all the DataLens Servers in the Topology

Data Lens Reports

Report Name	Report Description
DataLens Repository History	DataLens Server Report on all the Data Lenses and their history.
DataLens Usage	Used to see which DSAs are using a particular data lens. <ul style="list-style-type: none"> • Select a data lens from the list. • Select an area.
Demo_Resistors_Complete Development	
Production Data Lenses	Production Data Lenses displays the name, description, revision, table of transforms.

DSA Reports

Report Name	Report Description
DSA Repository History	DataLens Server Report on all the DSAs and their history.
DSABOM	Show all the dependencies for a particular DSA, including data lenses, and databases. <ul style="list-style-type: none"> • Select a DSA from the list. • Select Deployed DSA or Repository Report • Select an area if reporting on Deployed DSAs.
01_Gloves_Demo_Create_IM Use Selected Deploy Area (below) Development	

Administrative Reports

These are generic reports on the state of the Oracle DataLens Server Topology.

Server User Administration

This will show all the user activity on the Oracle DataLens Server.

DataLens Server Topology

This shows all the servers in the Oracle DataLens Topology, with the capabilities of each server.

Data Lens Reports

Data Lens Repository History

This shows all the transformations that the KB can perform along with a complete repository history.

Data Lens Usage

This is useful to see where a particular KB is being used in the data lens topology for the selected deployment area.

Production Data Lenses

A detailed listing of all the data lenses that are deployed to Production.

DSA Reports

DSA Repository History

This shows a complete repository history of all the DSAs on the Administration Server.

DSA BOM Bill of Materials

This is useful to see what Data Lenses and database connections are used by a particular DSA. This can be listed from the repository or any of the selected deployment areas.

Job Status

The administrator can view the status of DSA jobs and can change the state of the jobs on the Oracle DataLens Server.

Data Service Application Jobs

To view a list of the DSA jobs that have been run, click the **Job Status** link.

The page is separated into three types of Map jobs.

- Those Active Jobs currently running
- Those Pending DSA jobs currently waiting in the queue
- Map Job History with information on jobs that have finished, have been cancelled, or have failed.

DSA Job Status since Sun Dec 14 19:15:10 MST 2008

Active DSA Jobs (Running)

Job ID	Owner	Status	Start	Input Line Count	Description	Server	Priority	Action
There are currently 0 active job(s) running								

Pending DSA Jobs (in Queue)

Job ID	Owner	Status	Start	Input Line Count	Description	Server	Priority	Action
There are currently 0 pending job(s) waiting								

DSA Job History (Completed, Canceled, Failed)

Job ID	Owner	Status	Start	Duration	Input Line Count	Description	Server	Priority
408	SOAPUTEST	Completed	2008-12-17 17:29:04.885 H:0 M:0 S:0	135		SOAPUTEST OF PROCESSORACLE_DB	perseus	High

Active Jobs, Pending and Completed Jobs

The server will interleave multiple jobs so the jobs can run concurrently and a single very large batch job will not take control of the server.

The maximum number of concurrent jobs is controlled as part of the server configuration, described later.

An administrator can do two things with currently active batch jobs. The first is to look at the details of the job and the other is to cancel the job.

Job Id

The Job Id is assigned by the system during job submission and is comprised of the username followed by a job number.

Owner

This field shows the User Id of the person who submitted the job.

Status

This field shows the status of the job. Status definitions are as follows:

Running

The job is currently running.

Pending

The job has not started, but will start as soon as a slot becomes available. Only two jobs can run concurrently on the Oracle DataLens Server. Jobs submitted while two jobs are already running will get a status of "Pending" and will start in order of submission as the others jobs finish processing.

Finished

The job has successfully finished processing.

Cancelled

The Administrator canceled the job during processing or before processing started.

Failed

The job failed. This status means that something went wrong during the submission or processing of the data. Failed jobs will yield an entry in the Oracle DataLens Server Log.

Start

Shows the "date" and "time" the job started.

Duration

This shows the total time in hours/minutes/seconds for a completed job.

Input Line Count

This field shows the number of records processed so far for the Data Service Application (DSA) job. If a job is in "Running" status, this number will update when you click the browser's refresh button.

Description

The description the user entered when submitting the job.

Server

The server that the job was sent to for processing. Note that in a server group with more than one server, there may be multiple servers handling the request.

Priority

The priority that the job was given.

Low priority

Jobs are large batch-type jobs processing tens of thousands and millions of lines of data.

Medium priority

Jobs are jobs where the results should be obtained while any low priority job is running.

High priority

Jobs are jobs with just a few lines to process, or jobs run from an interactive user environment, where the results need to be returned immediately.

Action

This is available for running or pending jobs. Two action buttons are available.

Cancel

This allows the administrator to cancel a running or pending job. The job may be on the incorrect data set or may just be too large for the user to run during the day when other users are also accessing the server.

Priority

This allows the administrator to change the priority of a running or pending job.

Job Details

Select the hyperlink in the Job ID column for details on the currently running, pending or completed job.

By selecting the 402 link in the Completed Jobs table, we can see the details of this job as shown in following the table.

Property		Value
Job ID		402
Status		Completed
Definition		Demo_Resistors
Description		Excel: Demo_Resistors.xls
Start Time		December 17, 2008 2:36:00 PM MST
Finish Time		December 17, 2008 2:36:00 PM MST
Duration		H:0 M:0 S:0
Created by		mkreider
Input Line Count		103
Output Line Count (Good)		103
Output Line Count (Not Processed)		0
Output Path/File		Not Used
Run-time Locale		en_US

DSA Step Details									
Step Name	Type	Status	Description	Start Time	End Time	Duration	Input Line Count	Output Line Count	Comment
Input	Input	Completed	Data Input	2008-12-17 14:36:00.405	2008-12-17 14:36:00.408	H:0 M:0 S:0	0	103	
Resistors	Processing	Completed	Extract, classify, and standardize Resistor product information	2008-12-17 14:36:00.418	2008-12-17 14:36:00.788	H:0 M:0 S:0	103	103	
Exceptions	Processing	Completed	Exceptions	2008-12-17 14:36:00.797	2008-12-17 14:36:00.799	H:0 M:0 S:0	0	0	
output	Output	Results Retrieved	output	2008-12-17 14:36:00.802	2008-12-17 14:36:00.805	H:0 M:0 S:0	103	103	

This table contains the details of this currently completed DSA job. This particular job ran and processed 103 lines of data. The job was run successfully and the results from the job were retrieved by the client application.

Job History

The administrator can look at the details of the job to get information and statistics on these finished jobs. In the configuration screen, the number of days of archived information can be controlled.

We can view the details of the job by clicking on the hyperlink with the job name to get the same details as shown in the preceding currently running jobs.

Run a Job

This allows an administrator to run a DSA job directly from the Administration Web Pages. You must have the Web - Administer Job Scheduler permissions to access these menus.

Following is an example of running a job using the **Run a Job** main menu item.



The screenshot shows the 'DataLens DSA Job Runner' form. The 'Select a Server Group' dropdown menu is open, showing 'Admin (Development)' as the selected option. Below the dropdown is a 'Submit Server Group' button.

Select the Oracle DataLens Server Group that you want to process your DSA job. Click the **Submit Server Group** button.



The screenshot shows the 'DataLens DSA Job Runner' form with the following fields and options:

- Server Group:** Admin
- Description:** (empty text box)
- Select a Development DSA:** MRO_Capabilities_Showcase
- Select a Run-time Locale:** English (United States)
- Job Output:** Oracle DataLens Governance Studio or Excel Adapter

Below the form is a 'Submit DSA' button.

1. Enter a description for your job.
2. Select the **Data Service Application (DSA)** from the drop-down list.
3. Select the **Run-Time Locale** from the other drop-down list.
4. Select the **Job Output** check box if you want the results returned to the Governance Studio.

- Click the **Submit DSA** button.

DataLens DSA Job Runner

Server Group:

DSA

Description:

DSA:

Run-Time Locale:

Input

Note: Enter a UNC path to the appropriate input file (text, MS Excel, or XML).
E.g., //machine/dir/file.txt or //machine/dir/file.xls(xlsx) or //machine/dir/file.xml
If a non-UNC path is specified then the path will be a path to the text file on the Server (not the client)

Input File:

Input Encoding: Separator Char:

Override Outputs

Note: Leave the Output Directory Empty, if you want to use the directory defined in the individual Output Steps (see hint)

Output Directory:

Output Encoding:

Note: Leave the email and FTP empty, if you want to use the ones defined in the individual Output Steps (see hints)

Email Address: FTP Location:

Job Options

Sample Percent: Job Priority:

- Change the Separator character from the Tab character if needed
- Change the Output encoding if needed.
- Enter the Output Directory
- Input File – Add the Full UNC pathname to a file on your network. Make sure that the directory with the file is shared and available on the network. A non-UNC pathname will write to a directory on the Admin Server.
- Input File Encoding – Choose the input file encoding used.

Note: [UTF-8 also includes ASCII so most text files will work with this encoding](#)

- Separator Char - Select the type of field separator used in the input text file.
- Output Directory – Add the full UNC pathname to a directory on your network to hold the output file. Make sure that this directory is shared and available on the network. A non-UNC pathname will write to a directory on the Admin Server.
- Output File Encoding – Select the file encoding for the output file.
- Email Address - Optionally add an email address to send the results to.
- FTP Location - Optionally add a FTP location to send the results to.
- Sample Percent – Enter a value for the percentage of the input file to sample, rather than using the entire file. The default of 0 will process the entire input file.

If you have a huge file but only want to run a small test, change the sample percent to 1. This will randomly sample your input file, only sending 1% of the contents of the file to the server for processing.

12. Job Priority - Change the job priority if needed. Large jobs should be sent with a priority of Low and small jobs where you want the results immediately should be sent with a priority of high. If there are not multiple simultaneous jobs running on the server, then this will not matter.

13. Click the **Run This Job** button.

This will run the job and take you to the Data Service Application Job Status page that job statistics for the currently running job. For more information, see Job Status.

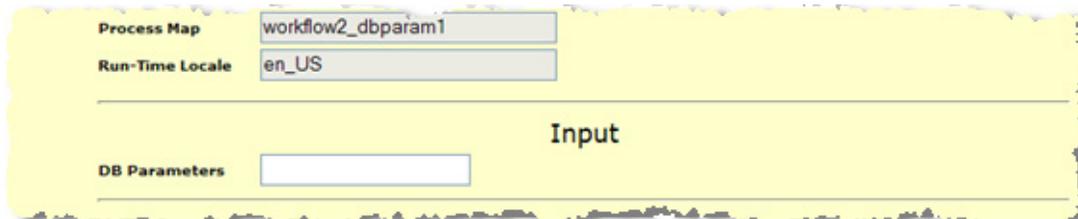
The finished job will output the results into the output directory and give the results a name as follows:

JobId-ProcessMapName-StepName.txt

For Example, a job was output to the C:\tmp directory with a file called 6-samplePMapIDef-output.txt.

Database Jobs

If your job is a database job, then the input file screen will be replaced with a database parameter screen as shown below.



The screenshot shows a web form with the following elements:

- Process Map**: A text input field containing "workflow2_dbparam1".
- Run-Time Locale**: A text input field containing "en_US".
- Input**: A section header.
- DB Parameters**: A label next to an empty text input field.

Enter a "|" separated list of database parameters.

Schedule a Job

This allows an administrator to run a DSA job directly from the Administration Web Pages. You must have the Web - Administer Job Scheduler permissions to access these menus.

Click the **Schedule a Job** link to set a job to execute.

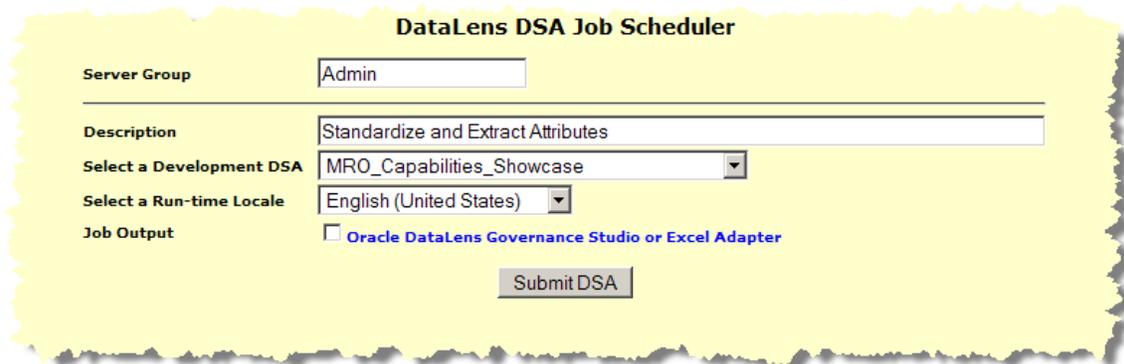


The screenshot shows the "DataLens DSA Job Scheduler" interface with the following elements:

- DataLens DSA Job Scheduler**: The title of the section.
- Select a Server Group**: A dropdown menu with "Admin (Development)" selected.
- Submit Server Group**: A button below the dropdown menu.

Select the Oracle DataLens Server Group that you want to process your DSA job.

Click the **Submit Server Group** button.



The screenshot shows a web form titled "DataLens DSA Job Scheduler". The form contains the following fields and controls:

- Server Group:** A text input field containing "Admin".
- Description:** A text input field containing "Standardize and Extract Attributes".
- Select a Development DSA:** A dropdown menu with "MRO_Capabilities_Showcase" selected.
- Select a Run-time Locale:** A dropdown menu with "English (United States)" selected.
- Job Output:** A checkbox labeled "Oracle DataLens Governance Studio or Excel Adapter" which is currently unchecked.
- Submit DSA:** A button located below the Job Output checkbox.

1. Enter a description for your job.
2. Select the **Data Service Application** from the drop-down list.
3. Select the **Run-Time Locale** from the other drop-down list.
4. Select the **Job Output** check box if you want the results returned to the Governance Studio.

5. Click the **Submit DSA** button.

DataLens DSA Job Scheduler

Server Group:

DSA

Description:

DSA:

Run-Time Locale:

Input

Note: Enter a UNC path to the appropriate input file (text, MS Excel, or XML).
 E.g., //machine/dir/file.txt or //machine/dir/file.xls(xlsx) or //machine/dir/file.xml
 If a non-UNC path is specified then the path will be a path to the text file on the Server (not the client)

Input File:

Input Encoding: Separator Char:

Override Outputs

Note: Leave the Output Directory Empty, if you want to use the directory defined in the individual Output Steps (see hint)

Output Directory:

Output Encoding:

Note: Leave the email and FTP empty, if you want to use the ones defined in the individual Output Steps (see hints)

Email Address: FTP Location:

Job Options

Sample Percent: Job Priority:

Data Service Application Job Scheduling

Server Scheduled Time	Scheduled Recurrence	Scheduled Duration
Start: <input type="text" value="0:00 AM"/>	<input checked="" type="radio"/> One Time Only <input type="radio"/> Every day <input type="radio"/> Every Weekday <input type="radio"/> Every Week <input type="radio"/> Every Month (day)(Week 3 on Fri at 09:00 PM) <input type="radio"/> Every Month (date)(Day 17 at 06:00 AM)	start: <input type="text" value="February"/> <input type="text" value="19"/> <input type="text" value="2010"/> end: <input type="text" value="February"/> <input type="text" value="19"/> <input type="text" value="2010"/>

1. Provide the requested information, which is the same as previously described in the Run a Job section.
2. Scheduled Time – Select the time of day for the job to be run.
3. Scheduled Recurrence – Select the time period to run this job.
 - One Time Only - The job is only run a single time.
 - Every Day - The job is run every day at the scheduled time
 - Every Weekday - The job is run every weekday (no weekends), starting with the initial run day.
 - Every Week - The job is run once per week on the day that the initial job is run.
 - Every Month (day) - The job is run on the particular day every month (2nd Wednesday for example).
 - Every Month (date) - The job is run on a particular day every month (the 23rd for example).

4. Scheduled Duration (Start) The specific day, month and year that the job is to start.
5. Scheduled Duration (End) The specific day, month and year that the job is to end. Leave blank if the job scheduling has no termination date.
6. Data Options These are the same as were documented for running a job immediately.
7. Click the **Schedule This Job** button to schedule the job.

This schedules the job and advances you to the **Scheduled Job Administration** page that lists the jobs that are currently scheduled.

Oracle DataLens Server Scheduled Job Administration
 Server Time: **Fri, Feb 19 2010 09:22**
 Client Clock
 09:22:32 AM

Scheduled Jobs Currently Defined

Job Description	DSA	Server Group	Frequency	End Date
 Standardize and Extract Attributes	MRO_Capabilities_Showcase Admin		One Time (Fri, Feb 19 2010 09:30 AM)	Fri, Feb 19 2010

Running the Job Scheduler on Server Groups

The job scheduler will run the jobs on a particular Oracle DataLens Server Group. The actual server that is selected in the server group is randomly selected by the Admin server as part of the round-robin server selection process.

ALL the servers in the group are potential candidates to be the server that is selected to run the DSA. This means that it is important that **all the servers in the group be setup to Load Data Service Applications**. This is done with the Administration Web pages in the Server Topology pages.

Edit Scheduled Jobs

Click the **Edit Scheduled Jobs** link to modify a job that is scheduled to run.

Oracle DataLens Server Scheduled Job Administration
 Server Time: **Fri, Feb 19 2010 09:22**
 Client Clock
 09:22:32 AM

Scheduled Jobs Currently Defined

Job Description	DSA	Server Group	Frequency	End Date
 Standardize and Extract Attributes	MRO_Capabilities_Showcase Admin		One Time (Fri, Feb 19 2010 09:30 AM)	Fri, Feb 19 2010

Select the **Delete Scheduled Job** icon  to delete a scheduled job. A confirmation query is displayed so that you can ensure that you want to delete the selected job.

Select the **View Settings and Edit Job** icon  to change the parameters for a scheduled job.

DataLens DSA Job Editor

Server Group

DSA

Description
DSA
Run-Time Locale

Input

Note: Enter a UNC path to the appropriate input file (text, MS Excel, or XML).
 E.g., //machine/dir/file.txt or //machine/dir/file.xls(xlsx) or //machine/dir/file.xml
 If a non-UNC path is specified then the path will be a path to the text file on the Server (not the client)

Input File
Input Encoding **Separator Char**

Override Outputs

Note: Leave the Output Directory Empty, if you want to use the directory defined in the individual Output Steps (see hint)

Output Directory
Output Encoding

Note: Leave the email and FTP empty, if you want to use the ones defined in the individual Output Steps (see hints)

Email Address **FTP Location**

Job Options

Sample Percent **Job Priority**

Data Service Application Job Scheduling

Server Scheduled Time	Scheduled Recurrence	Scheduled Duration
Start: <input type="text" value="9:30 AM"/>	<input checked="" type="radio"/> One Time Only <input type="radio"/> Every day <input type="radio"/> Every Weekday <input type="radio"/> Every Week <input type="radio"/> Every Month (day)(Week 3 on Fri at 09:00 PM) <input type="radio"/> Every Month (date)(Day 17 at 06:00 AM)	start: <input type="text" value="February"/> <input type="text" value="19"/> <input type="text" value="2010"/> end: <input type="text" value="February"/> <input type="text" value="19"/> <input type="text" value="2010"/>

All the parameters for your scheduled job can be changed, as previously described in this section, with the exception of the following:

- Server Group
- DSA
- Run-Time Locale

If you need to change the preceding parameters, you should create and schedule a new job.

Troubleshooting

Most of the troubleshooting information comes from log files. Look at the Log information from the Oracle DataLens Administration Web Pages Home Page. Usually the information is needed, will be in this log. If there is a problem bringing up the server, so that this log cannot be accessed from the Web pages, then see Appendix B for more information.

Windows Platforms

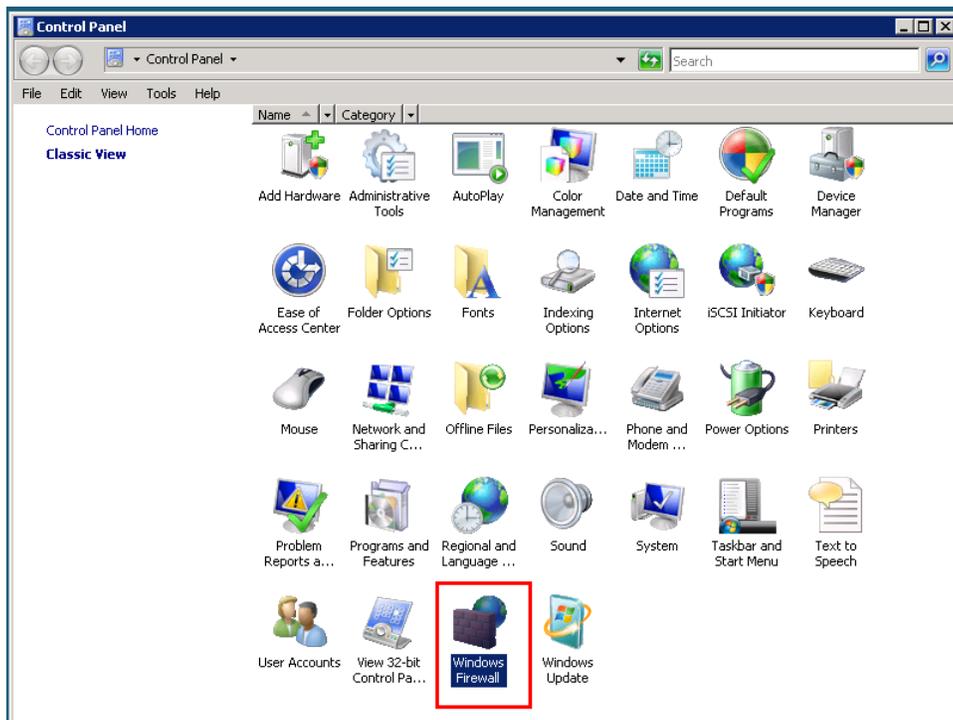
Problems Starting a Non-Admin Oracle DataLens Server

Two ports on the Admin server need to be accessible from the Oracle DataLens Servers. These are

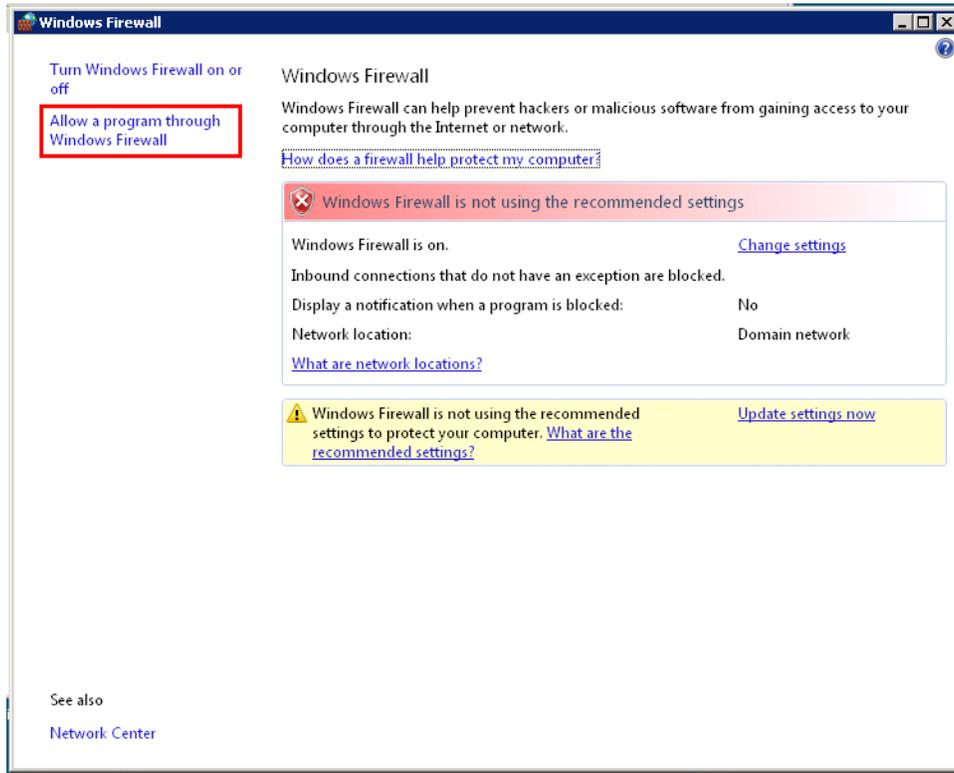
- 2229 – The IANA assigned port for the Oracle DataLens Server.
- 1527 – The port that is needed to connect to the data lens configuration information.

The following are the steps needed (on Windows) to open up these ports on the firewall if needed.

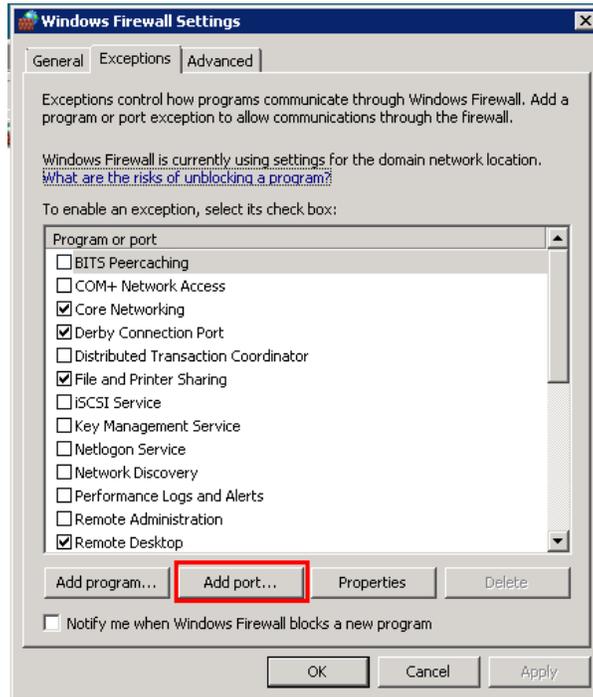
From the MS Windows control panel, launch the **Windows Firewall**.



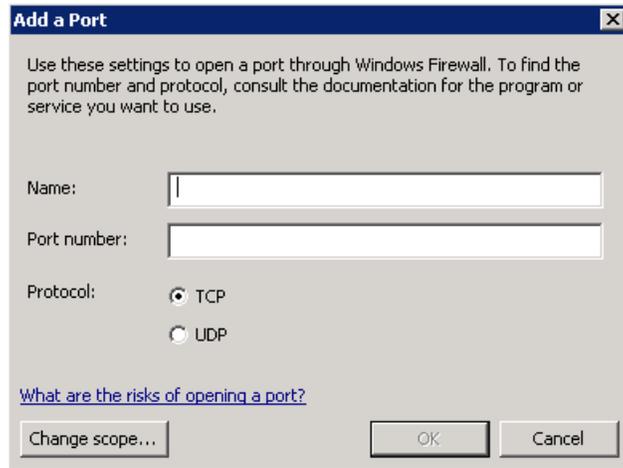
Select the **Allow a program through the Windows Firewall** link.



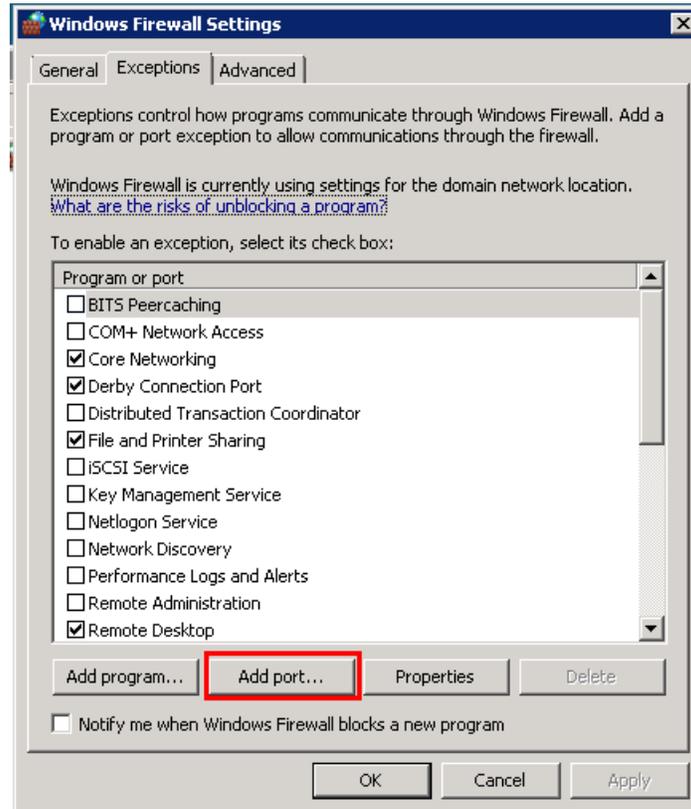
Select the **Add port...** button.



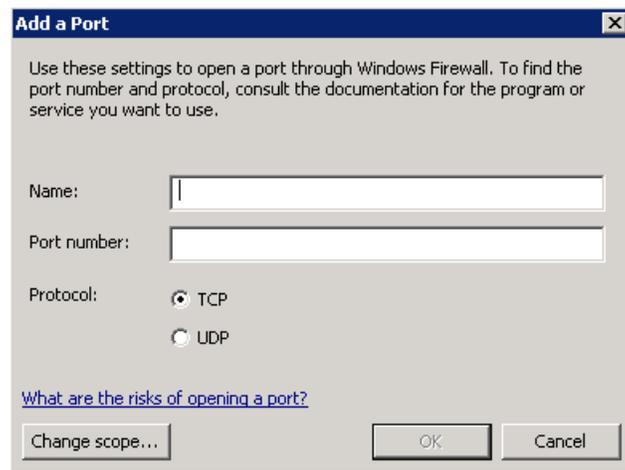
Enter PDQCMS Configuration Port in the **Name:** field and 1527 in the **Port number:** field.



Select the **Add port...** button again.



Enter PDQCMS in the **Name:** field and 2229 in the **Port number:** field.



Select **OK** and the Oracle DataLens Servers will be able to communicate with the Admin Server.

Appendix A

Configuration Files

Updating the configuration file(s) will change the Oracle DataLens Server configuration and require a server restart before the change will take effect.

Server Restart

Stop and re-start the server using the platform specific commands. Note that during the (short) Oracle DataLens Server downtime, active clients may fail to complete the current request.

File Types

You should not change any other properties in this file without first consulting with Professional Services. Configuration files residing within the Oracle DataLens Server installation define the Oracle DataLens Server configuration. The Java Property file and XML document configuration file formats are used.

Server.cfg

This file is a Java property file.

Unlike typical Java properties files, where properties are identified by a simple “key”, data lens configuration files utilize a “path” based property specification. The path is a dot-separated list of names identifying the object. Lower case names in the path correspond to the application logical object structure, and the leaf element (starting in Capital letter) specifies the property name. The property value is separated from the property identifier by an equal sign.

For example, the following property file fragment may be used to configure the Administration Web Pages Statistics display:

```
# Any Production or Administration Server can send statistics if this flag is
# turned on. The Language server will not send statistics.
Server.send.statistics=true
```

The file C:\datalens\server\config.cfg defines the basic Servlet executive behavior as defined by data lens. Under normal circumstances, this file should not be changed. In fact, most of the parameters here can be modified from the Oracle DataLens Web Server Administration pages described earlier in this document.

Some useful options for the server.cfg file are displayed in the following table.

Server.send.statistics=true	Any Oracle DataLens Server will send statistics if this flag is turned on.
Server.qi.failure.count=100	Shows the number of failures that will be accumulated by project. 0 or no entry means do not accumulate at all.
Server.cookie.life.minutes=60	Lifetime of login information stored in local cookies (default is 1 hour)
statistics.chart.bgcolor=#FFFFCC	Background color to use for the charts and chart keys
server.nle.instances=3	Set the number of parameterized domain instances that will be loaded into memory. A single domain with two instances might want to set instances to 3. 1 for the first parameterized domain, another for the second, and a third for both in memory

Web.xml

The file `web.xml` defines the specifics of the Oracle DataLens Server application.

This file is located in the WAR file.

This file is used to route requests to Oracle DataLens Server Servlets.

The one value that may need to be changed is the location of the data directories that are used by this server installation. The data directories can be located on any machine on the network and is set by the server installation process.

```
<servlet>
  <servlet-name>Init</servlet-name>
  <servlet-class>com.onerealm.solx.svr.servlet.InitServlet</servlet-
class>
  <init-param>
    <param-name>profileid</param-name>
    <param-value>1</param-value>
  </init-param>
  <init-param>
    <param-name>homedir</param-name>
    <param-value>C:\datalens\server</param-value>
  </init-param>
  <init-param>
    <param-name>sharedir</param-name>
    <param-value>C:\datalens\server\data\shared\common</param-value>
  </init-param>
  <init-param>
    <param-name>reposdir</param-name>
    <param-value>C:\datalens\server\data\repository</param-value>
  </init-param>
```

Under normal circumstances, this file should not be changed.

Appendix B

Logging

Oracle DataLens Server Log File

The main log file used by the Oracle DataLens Server is located in the server home directory

```
C:\datalens\server\log\dataserver.log
```

This file is most easily accessed using the Administrator Web Pages described earlier in this document, unless the server is failing to come up.

Java Server Log Files

See the installation guide for information on the log files for the particular Application Server that you are using.

Appendix C

Server Configuration

Copying the Repository

This scenario may occur if there is a complete test system that needs to be copied to a production environment.

*NOTE: In a topology with a central Administration server and development and/or production server groups, then this is not needed because the package deployment will take *care of this*.*

Prior to starting this procedure, stop the server service for the target server.

Copy the Directories

Basically, the repository files need to be copied from the test system to the production system. The repository contains the following directories that will need to be copied.

Simply copy the data directory from the server home directory (C:\datalens\server\data). This data directory contains the following subdirectories

- repository
- shared
- local

For example, you have a test server with the data repository in the root DataLensData directory.

You want to copy the repository to the prod server. You need to copy the data directory listed from the `//test/datalens/server` directory to the `//prod/datalens/server` directory.

Configure the New Server

In the server with the newly copied directories, change the configuration to point to these new directories. Edit the file `web.xml` file if you have deviated from the standard directory location used in the test system. See the preceding information for information on editing the `web.xml` file.

Edit the `C:\datalens\server\data\shared\common\config\DbInfo.xml` file.

Change the name of the server to the new server hosting the prod server.

Now, the target server can be restarted with the new data directories.

Browse to the Administration Web Page and re-create the following.

- The database connections that are needed in the target system.
- The FTP definitions that are needed.
- User accounts, privileges and roles that will be used.

Job Continuation

The Job continuation feature allows large batch jobs to continue to run and new API jobs to start and run even when Transform Servers lose connectivity with the internal database repository (Administration Server is down).

Expected Results

The following table outlines the expected results for each job type and the DB connection status.

	Db down at startup	Db down - Interrupted	Reconnect
Governance Studio	fail	run	run
Scheduled Jobs	fail	run	run
Java API	run	run	run
COM API	run	run	run

DB down at startup:

Means that the Transform Servers do not have access to the database.

Note: If there is no DB connection when the job is started, all new jobs will get a JobID of a negative number. The JobID's negative number range is based on the server profile id * 100,000.

DB down - Interrupted:

Means that the Transform Server had access to the database when the job began, but lost access to the database at some point during the running of the job.

Note the following:

- Submitted from Services for Excel, Governance Studio, or from the Job Runner web page the text results are not retrievable. If the results are persisted in the file system or database, they are placed there by the job itself and those results are available.
- Once the Administration server is back up, the Job status page will be incorrect for interrupted jobs in two ways. The job will be considered running and will have to be canceled to clear the job from the running list and it will have incomplete step information because the transform server could not write back the results to the database.

Reconnect:

Means that the Transform Server access to the database has been fully re-established.

Appendix D

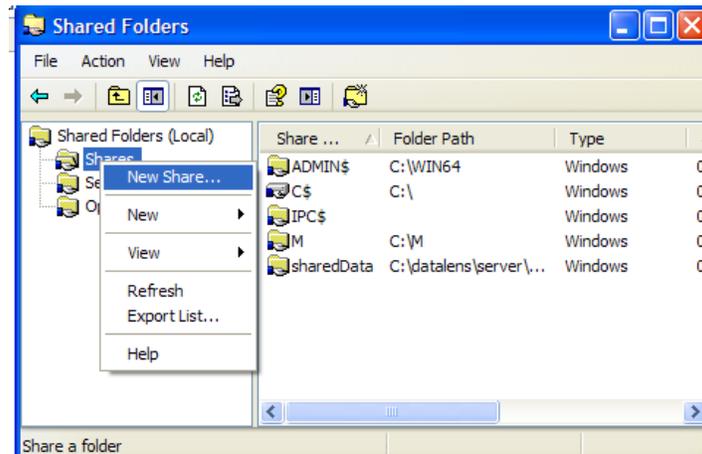
Mounting a Remote Repository

When mounting a remote repository, the only directory that needs to be mounted is the shared directory. This is typically located in the following directory.

```
C:\datalens\server\data\shared
```

Windows-to-Windows Mounting

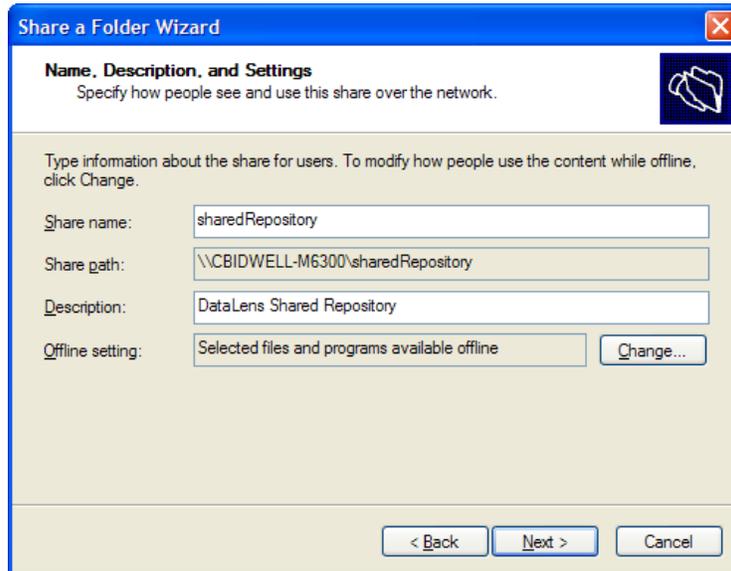
On the Admin server, click **Start->Run**, and type `fsmgmt.msc` in the **Run** dialog. This will open the shared folders administration tool. Click on shares, and right click to select **New File Share**.



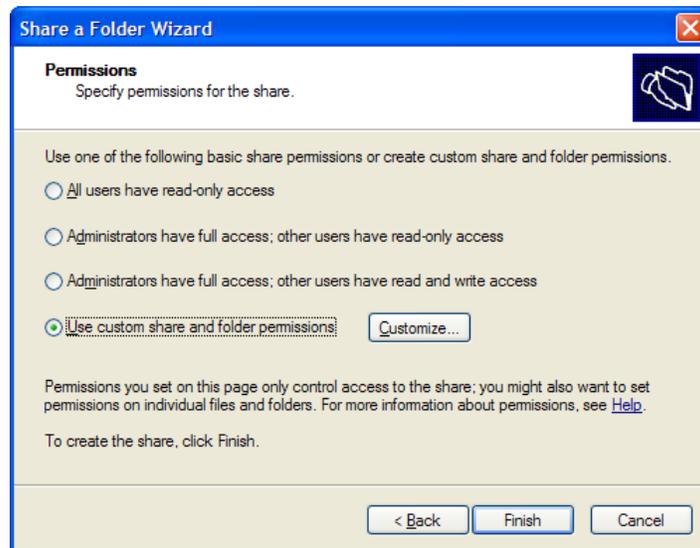
Click next on the welcome page, then on the **Set Up a Shared Folder** page, enter `C:\datalens\server\data\shared` for the folder name.



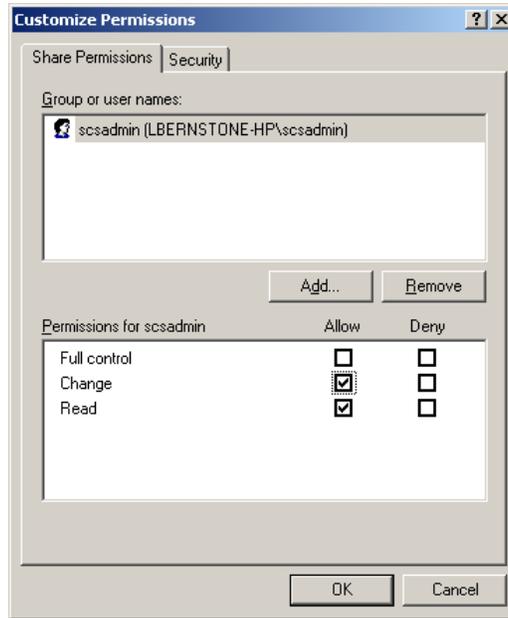
Enter **SharedRepository** as the share name and optionally a share description.



On the permissions page, choose to customize permissions, and then click the **Custom** button.



On the customize page, remove everyone from the list, and add your Application Server service user. Set the service user to have **Change** and **Read** permissions, and then click **OK**. Click **Next** on the permissions page, and then **Finish** to complete the share.



Once the share is created, the `web.xml` can be configured to use UNC paths, as long as all the Application Server service account users have the same name and password.

Linux-to-Windows Mounting

When connecting to a Linux Admin server from a windows production pod, samba can be used to provide SMB shares. On RHEL4, the samba-common and samba-server packages will be needed. For more complex security environments, other packages and configuration may be needed.

Configure a samba share for your repository by appending the following to your `/etc/samba/smb.conf` file.

```
/etc/samba/smb.conf:  
  
...  
  
[repository]  
comment = DataLens Data Repository  
path = /opt/datalens/DataLensData  
browseable = no  
read only = no  
  
valid users = dlsadmin
```

After modifying the file, restart samba with `/etc/init.d/samba restart`. The `web.xml` can now be configured using UNC pathing on windows pods as long as the user name and password (`dlsadmin`) is used as the service account for the Application Server on windows.

Windows to Linux Mounting

In an environment with a Windows Admin server and Linux nodes, `smbfs` can be used to mount a windows share. In RHEL4, this will require the `samba-client` and `samba-common` packages to be installed on the server. On the windows server, create a share called `repository` pointing to `c:\dlsdata`, as described in the windows-to-windows section.

On the Linux servers, add the share to `/etc/fstab`.

```
/etc/fstab:
```

```
...
```

```
//adminsrv/repository /opt/datalens/DataLensData smbfs  
credentials=/root/DataLensData,workgroup=adminsrv 0 0
```

The `credentials` file contains the following information, as configured in your windows share:

```
/root/DataLensData:
```

```
username = DataLensData
```

```
password = HighlySecure
```

After modifying the files, run `mount -a` in order to activate the share. Proceed with configuration of `web.xml` in the next section.

Linux to Linux Mounting

In an environment with a Linux Admin server and Linux nodes, NFS provides a simple and robust method for mounting the DataLensData. On the Admin server, configure the exports file.

/etc/exports:

```
/opt/datalens/DataLensData          production1(rw) production2(rw)
```

After modifying the exports file, run **exportfs -a** as root on the server command line to have it refresh the nfs export cache. On the production servers, add the following to the fstab file.

/etc/fstab:

```
adminserver:/opt/datalens/DataLensData /opt/datalens/DataLensData nfs
defaults      0          0
```

After modifying the fstab create the mount directory `/opt/datalens/DataLensData` and then run `mount -a` to mount the remote file system. Ensure that the `dlsadmin` user has the same uid and gid on all boxes with `getent passwd | grep dlsadmin`, as file access rights are determined by the numerical uid.

Configuring the web.xml File

The `web.xml` file will be automatically updated with the correct path to the shared repository files when installing the non-admin Oracle DataLens Servers. Contact Professional Services if you need to make modifications to the repository, after the initial installation.

Appendix E

User Authentication with LDAP

Lightweight Directory Access Protocol (LDAP) contains the functions to provide user authentication. If this is used, then users do *not* need to be separately created in the Oracle DataLens Server Administration Web pages and assigned roles and passwords.

When LDAP is used, the Oracle DataLens Server will contact the LDAP server, and attempt to login with the provided credentials. If login is successful, it will find the group objects corresponding to its internal roles, and determine which of these groups the user is a member of in order to assign the appropriate rights.

Oracle DataLens Server LDAP Configuration Files

There are two files that need to be placed in the `server/config` directory (defined in `web.xml`).

- `ldap.keystore`
- `ldap.xml`

The Oracle DataLens Server will check for these two files in the `config` directory and will use LDAP user authentication if these files are found. The `admin` user within the DLS server will always be checked internally to prevent lockouts.

The `ldap.keystore` file needs to be created by your local IT Administrator with the `java keystore` utility. Professional Services can also create this file for you given the CA root certificate file generated by the LDAP directory server (for example, by Active Directory). The DLS supports LDAP and LDAPS connections, not SASL or negotiated TLS.

The `ldap.xml` file needs to be manually edited based on your local LDAP settings.

Following is an example ldap.xml file, configured for use with Microsoft Active Directory

```
<LdapInfo>
  <!-- Connection Information -->
  <host>AD-LDAP</host>
  <port>636</port>
  <!-- Security information -->
  <keystoreFile>ldap.keystore</keystoreFile>
  <!--Proxy Information →
  <proxyUser>cn=proxytest,cn=users,dc=ad-ldap,dc=datalens,dc=com
</proxyUser>
  <proxyPass>password</proxyPass>
  <displayNameAttribute>sAMAccountName</displayNameAttribute>
  <!-- Users -->
  <userPrefix>cn=</userPrefix>
  <userSuffix>ou=dlsusers,dc=ad-ldap,dc=com</userSuffix>
  <!-- Roles -->
  <rolePrefix>cn=</rolePrefix>
  <roleSuffix>ou=datalens,dc=ad-ldap,dc=datalens,dc=com</roleSuffix>
  <memberAttribute>member</memberAttribute>
</LdapInfo>
```

The entries control the directory lookup behavior as follows:

host

This should be the LDAP server name or address. Host names must be able to be resolved on the Oracle DataLens Server.

port

Use port 389 for unencrypted, 636 for SSL connections.

keystoreFile

If a keystore file entry is included, SSL connections will be used to connect and make all queries against LDAP.

proxyUser (optional)

If a proxy user is included, an initial connection will be made as the proxy user to search recursively through the directory for a user whose entered name is found in the directory with a matching `displayNameAttribute`.

proxyPassword (optional)

Login password for the proxy user.

displayNameAttribute (optional)

If a proxy user is used, this will be the criteria used to search for the username entered in the login screens. For example, `sAMAccountName` is used for Active Directory, or `uid` in many other systems.

userPrefix

This is the attribute prefix on user objects, typically `cn=` or `uid=`

userSuffix (optional)

The base container in which to search for users. If a proxy user is not used, searches are conducted in this scope only, and are not recursive. If a proxy user is used, this tag is ignored.

rolePrefix

The attribute prefix for group objects, typically `cn=`.

roleSuffix

The base container in which to search for groups. This is a single scope search, and group names must exactly match the roles in the Oracle DataLens Server.

memberAttribute

The attribute of the group objects, which will contain the list of users within the group.

LDAP User Restrictions

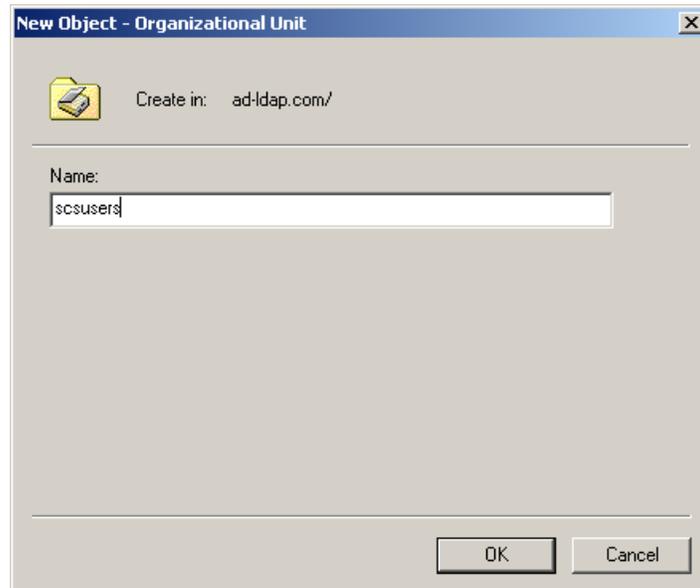
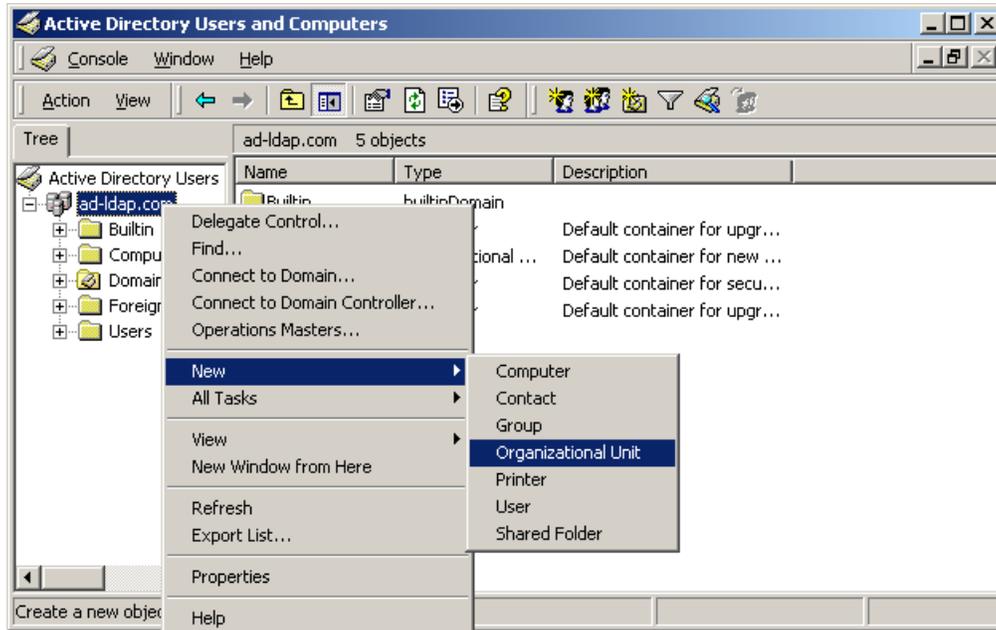
The LDAP administrator must define roles (groups) that are used by the Oracle DataLens Server. These roles are mapped from LDAP to the Oracle DataLens Roles based on the name only. New roles can be created and used with LDAP, as long as corresponding groups are created in the LDAP directory.

Out-of-the-box role names for the Oracle DataLens Server include the following.

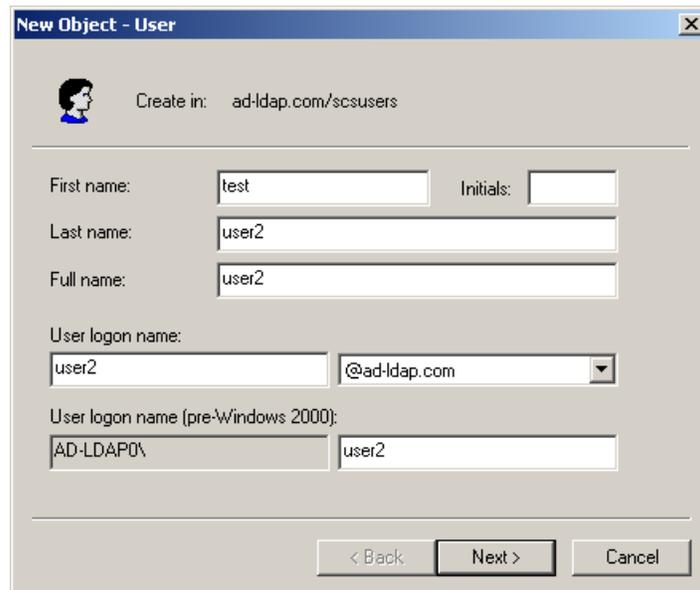
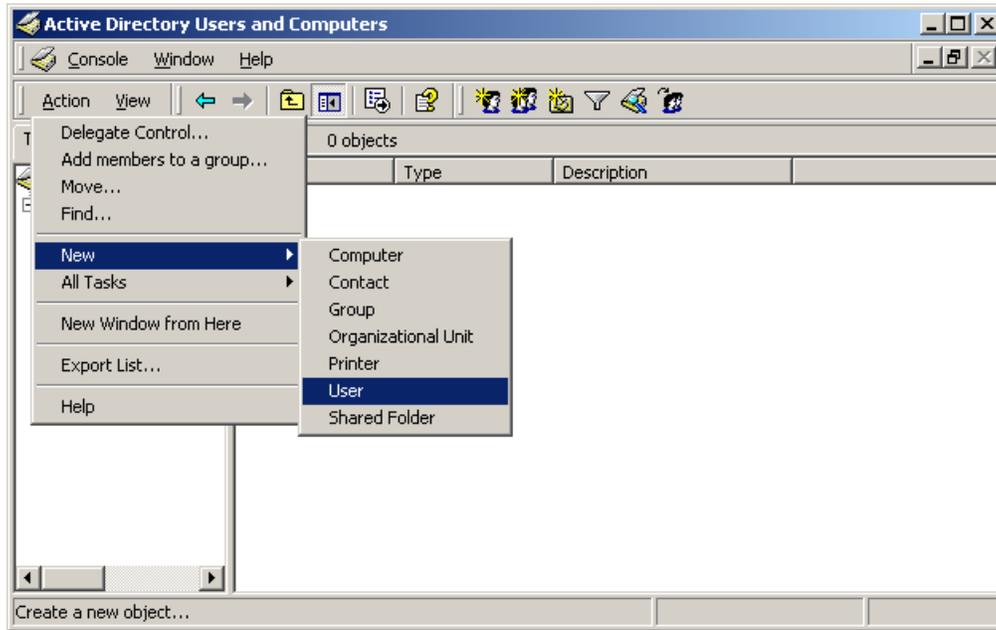
- Server Admin
- Knowledge Studio
- Application Studio
- Governance Studio User

Setting Up a Sample LDAP Directory

First, make a new OU (organization unit) to house your users:



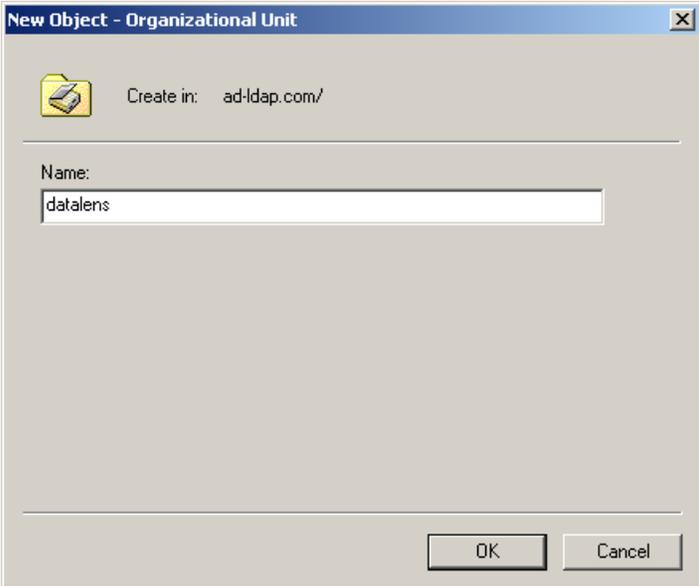
Now, make some users in that OU:





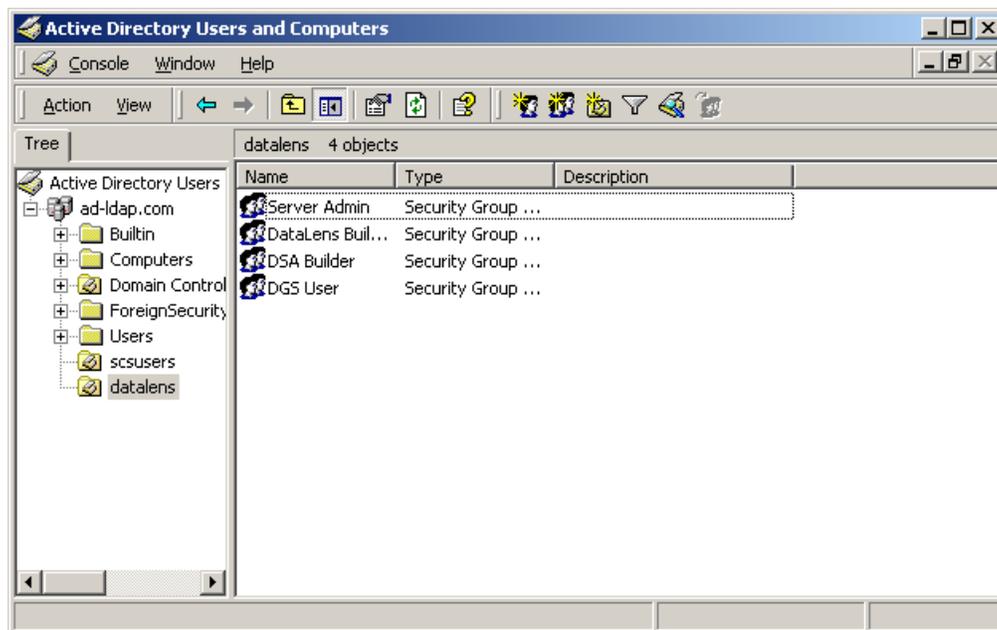
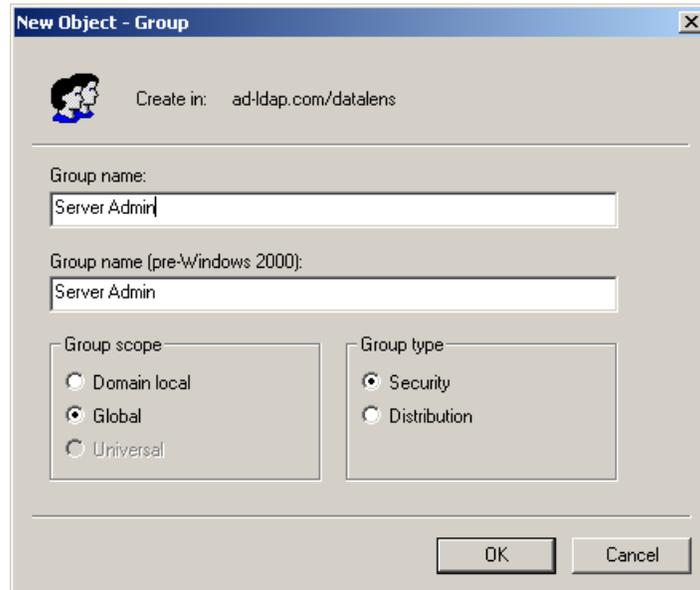
The dialog box is titled "New Object - User". It features a user icon and the text "Create in: ad-ldap.com/scsusers". Below this, there are two password input fields labeled "Password:" and "Confirm password:", both containing "*****". There are four unchecked checkboxes: "User must change password at next logon", "User cannot change password", "Password never expires", and "Account is disabled". At the bottom, there are three buttons: "< Back", "Next >", and "Cancel".

Then, make an OU for the Oracle DataLens roles:



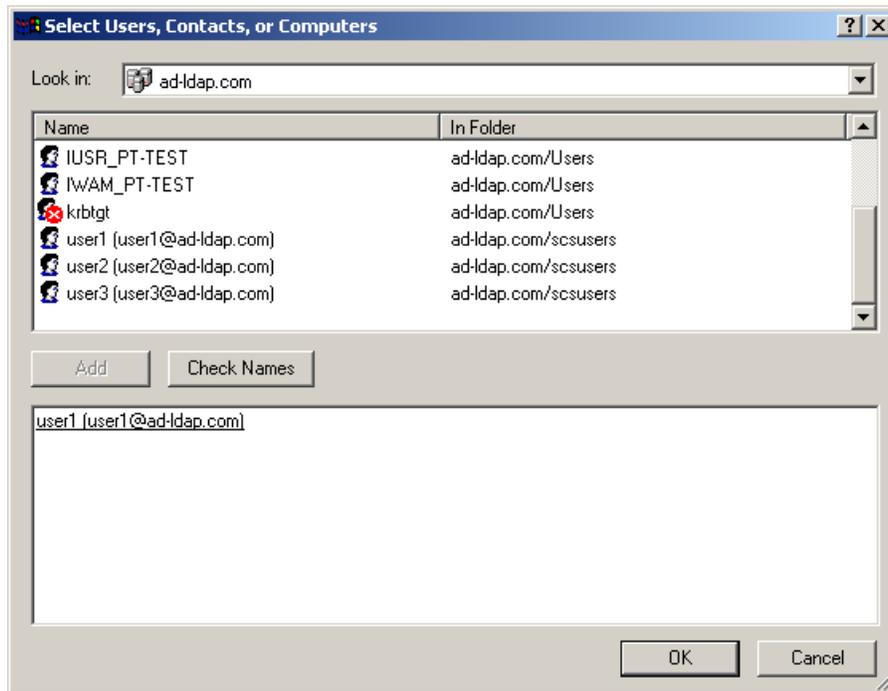
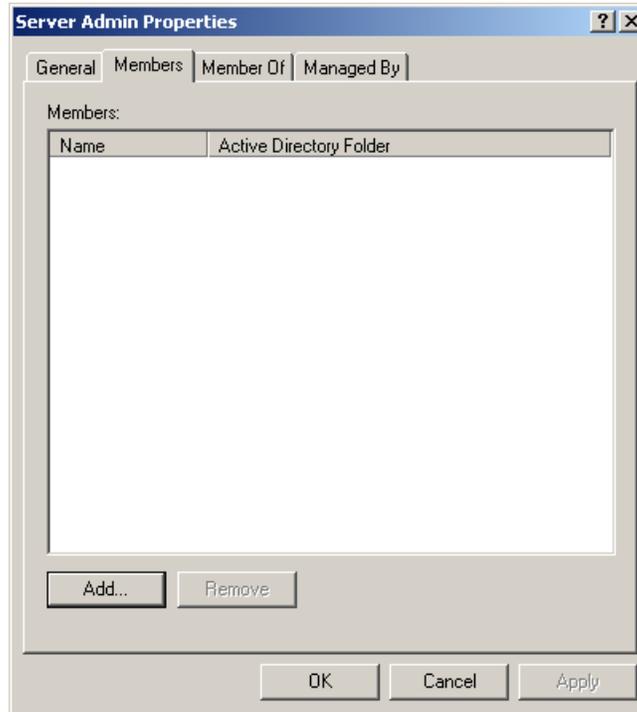
The dialog box is titled "New Object - Organizational Unit". It features a folder icon and the text "Create in: ad-ldap.com/". Below this, there is a "Name:" label and a text input field containing "datalens". At the bottom, there are two buttons: "OK" and "Cancel".

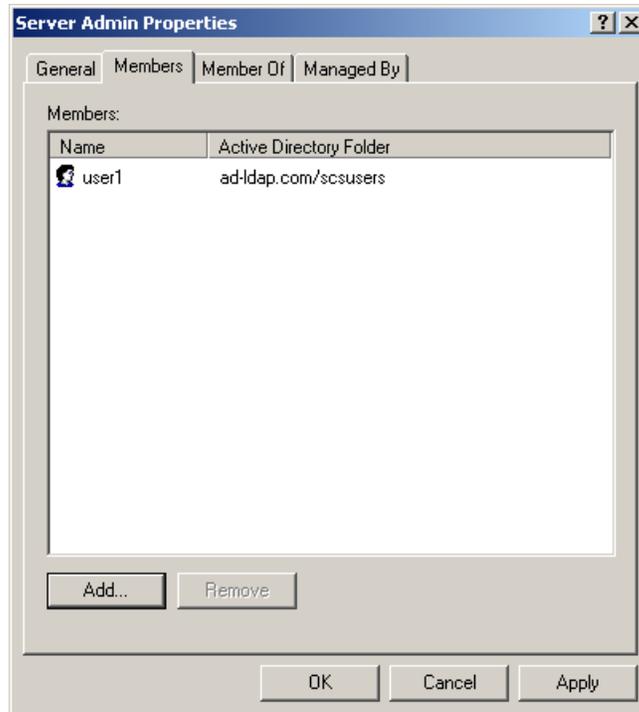
Create new groups for the Oracle DataLens Server roles:



Then add users to the corresponding role groups.

Note: Most likely, you will already have your network users set up. If this is the case, just add you existing users to the new Oracle DataLens Server group.





After configuring the Oracle DataLens Server with an appropriate ldap.xml and ldapstore.xml, the users will now be able to login with their Active Directory credentials.



Appendix F

Tuning the Server(s)

This section describes steps that can be taken to improve the throughput of the servers. The emphasis is on running DSA jobs as fast as possible.

Checking the Results

The most accurate way to check the timing is to place a timer around the calls to run the DSA.

Another way is to look at the results of the job in the Administration Web pages and check the duration of the job as follows:

Process Map Job History (Completed, Canceled, Failed)								
Job ID	Owner	Status	Start	Duration (seconds)	Input Line Count	Description	Server	Priority
135	Application_COM_Test	Completed	2006-10-25 09:53:02.0	4.0	105	QA Test Run (COM)	1	Medium
134	Application_COM_Test	Completed	2006-10-25 09:44:31.0	2.0	105	QA Test Run (COM)	1	Medium
133	Application_COM_Test	Completed	2006-10-25 09:43:20.0	0.0	105	QA Test Run (COM)	1	Medium
132	Application_COM_Test	Completed	2006-10-25 09:41:38.0	1.0	105	QA Test Run (COM)	1	Medium

Oracle DataLens Server Options

Load-Balancing the Servers

This cannot be taken advantage until there are two or more Oracle DataLens Servers in a single Server Group. The Oracle DataLens Server group will provide automatic load balancing and fail-over for all servers within a particular server group.

When running the application, be certain to call one of these production servers in the Server Group and *not* call the Admin server.

Manual load balancing can be performed for the servers in a single Server Group by selecting which data lenses are loaded by each server. Additionally, servers can be set to load DSA on a server-by-server basis. It is recommended that each server be setup with all the data lenses and DSAs and allow the Oracle DataLens Server to control the load balancing internally.

Round Robin Calls

When running DSA jobs from an application using the API, the Ping Servlet can be used to check for an active Oracle DataLens Server within a server group before making the call.

Ensure Tracing is Turned Off

This is turned off by default. Tracing is only turned on by Professional Services to trace information flow in the system. This can be turned off in the Options menu of the Administration Web Pages. Additionally, there are a set of `scs.trace.network` flags that should be omitted or set to `false` in the `server.cfg` configuration file.

Data Service Application Optimization

Simplify the Data Service Application Process Steps

Each step in a DSA incurs additional overhead. This is because there is job information stored in the RDBMS repository for each the step of a DSA. Additionally there is overhead to package-up and ship the SOAP data contents from the DSA to each step during processing. What this means is that simplifying the DSA structure and placing as much of the process flow inside of Decision Maps will improve the speed of execution. We have observed timing improvements of up to .2 seconds for each DSA step that is replaced with a Decision Map.

Running Ultra High-Priority Jobs

Ultra-high priority jobs are supported. These DSA jobs do not store the step information in the RDBMS repository. The overhead of job execution is eliminated at the expense of job information and details of completed jobs. Especially for single-line jobs, ultra-high priority makes sense because the job execution will be as fast as possible and job details on thousands of single-line jobs will just clog up the DSA Job status Administration Web pages.

Run Jobs at the Correct Priority

The rule here is that huge jobs should be run with a low priority, giving processing cycles to smaller medium and tiny high priority jobs. DSA jobs with a small number of input records and jobs where the user is waiting for a response need to be run at a high priority to get the fastest response time.

File Writing Between Steps

By default, when a DSA is being processed by the Oracle DataLens Server, all data will be held in memory, unless there are more than 5000 records being processed in a single DSA job. The speed of execution of these large jobs can be increased by setting the number of data records that are held in memory between these processing steps. This is controlled in the Oracle DataLens Server.cfg file with the following line:

```
wfg.maxlines=150000
```

Data Lens Optimization

Caching the Data Lenses

Individual data lenses can cache parsing rules in memory for re-use without re-loading the rule each time. This is mostly useful for data processing by data lenses that reuse the same data repeatedly. Examples of this would be manufacturer names, redundant data, part numbers that are reused often. Data lenses that are not a good candidate are those that process things like descriptions that are different each time and would require a different parse tree for each line.

The cache should be large enough that the most often repeated lines are allowed to stay in memory (using a LRU Queue where the least often used rules will drop out of memory). For instance if there are 300 manufacturer names that are often reused among several thousand names, then the cache should be set to 1000 or perhaps 2000 depending on the frequency of use, to ensure that the 300 most often used names continue to reside in memory.

This change is required for each data lens that need the caching.

- Check out the data lens to the client
- Go to the C:\Datalens\Applications\data\cbidwell\project\CablesF\config directory
- Edit the Project.xml file and modify the following line to the cache size

```
<parseTreeCacheSize>0</parseTreeCacheSize>
```

- Save and check-in the project after making this change.

Do Not Load Data Lenses That Are Not Being Used

When running in a production environment, the number of data lenses is controlled by the lenses that are deployed to Production. Do not deploy data lenses to Production if they are not going to be used for actual production DSA jobs.

Fine-tuning of which data lens are used by a particular server can be controlled by setting the particular data lenses that are loaded by a particular Production Oracle DataLens Server.

Server Configuration Information
Data Lens Administrator LVALLAD-T60 using port 2229

Server ID 1

Descriptive Server Name	LVALLAD-T60
Description	Oracle DataLens Administration Server
Max Batch Jobs	2 Maximum number of simultaneous batch jobs
Max Revisions	0 Maximum number of revisions to keep (0 = keep ALL)
Max Database Connections	0 Maximum number of DataLens internal database connections (0 = Use internal default)
Memory Warning Percentage	70 Percentage value above which a memory warning is issued
Memory No Load Percentage	90 Percentage value above which Data Lenses are no longer loaded on the server
Max Cache Entries	0 Maximum cache entries for NLE Parse Results
Max Cache Entries AM2	0 Maximum cache entries for Attribute Match-2

This server will load the Data Lenses on demand.

List of the Development-Deployed Data Lenses available to be Loaded ON-DEMAND on this Server

- Demo_Resistors_Complete
- Demo_Retail_Apparel
- Demo_Retail_Cameras
- Demo_Retail_Computers
- Demo_Retail_Consumer_Electronics
- Demo_Retail_Jewelry

Tuning Multiple Parameterized Domains

Set the number of parameterized domain instances that will be loaded into memory. A single domain with two instances should set instances to three to maximize performance when using these domains.

- 1 for the first parameterized domain
- another for the second
- a third for both in memory

This is set in the server.cfg file as follows:

```
server.nle.instances=3
```

API Integration

WSDL Versus Java API Calls

The WSDL definition will create a dynamically generated Java API call that should have the same performance as the Oracle Product Data Quality Java API. Which method you use should be based on your current architecture, but not be based on any performance considerations.

Optimize the Available Hardware and Operating Systems

Windows Memory and Application Servers

See the section **Tune memory usage on the servers** for information on memory limitations of Windows servers.

Linux Memory, Windows Memory, and Java Servers

Linux running on 64 bit hardware does not have the 1.6 GB memory limitation for Java Web Server that we have observed on 32 bit Microsoft Windows servers. Windows 64 bit servers do not have this memory limitation either.

Caution: In an Oracle Product Data Quality production environment, *only* run on a 64-bit server running a 64-bit installation of Java. *Never* try to run a production environment on any 32-bit servers.

Database Query Tuning

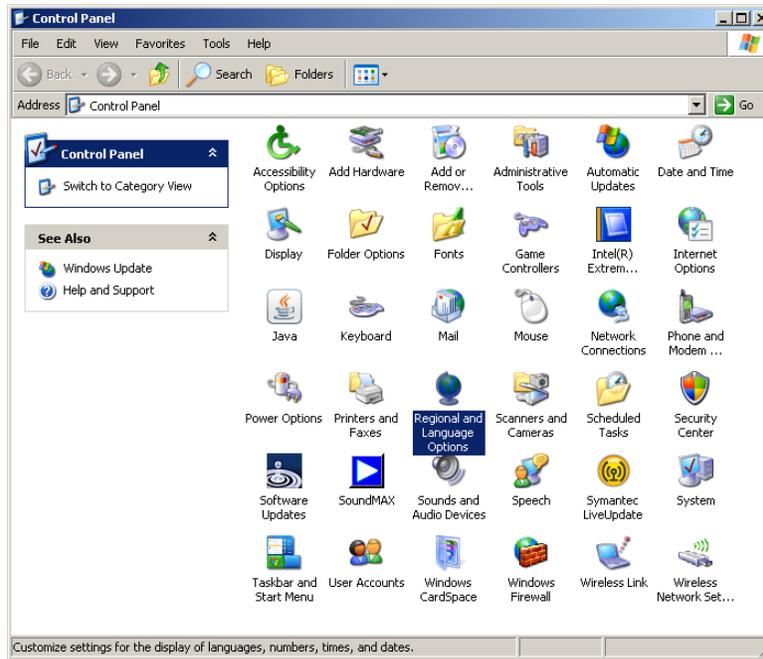
In database-intensive DSAs, major performance improvements can be made by tuning the database DDL statements. Simple things like indexing fields that are being searched on and reducing the number of tables in computationally intensive SQL joins can be very effective in improving the performance of the DSAs.

These tuning tasks are very dependent on the particular database schema and would need to be examined by a database professional or Professional Services.

Appendix G

Installing East Asian Language Support Files in Windows XP

To install support for East Asian Languages in Windows XP, open **Control Panel** and double-click **Regional and Language Options**.



Click on the **Languages** tab and check the box next to **Install files for East Asian Languages**. Click **OK**.

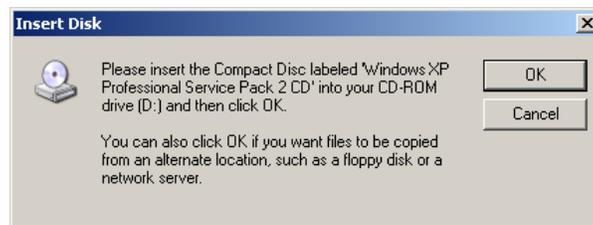


Read the dialog box that appears. Assuming you have 230 MB free to accommodate the installation, click **OK**.



Back on the **Regional and Language Options** dialog box click **OK** or **Apply** to begin the installation.

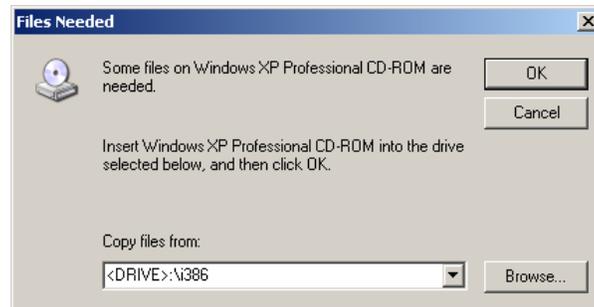
If prompted for installation media, click **OK**.



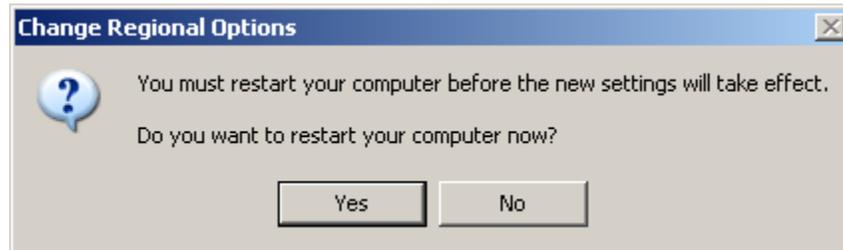
Browse to `<DRIVE>:\i386\lang` where `<DRIVE>` represents the location of the installation media. Click **OK**.



Depending on your system, you may be prompted a second time to insert your installation CD. If so, Browse to <DRIVE>:\i386 where <DRIVE> represents the location of the installation media. Click **OK**.



When asked to restart your computer, click **OK**. The installation is now complete.



The process to remove East Asian Languages support files from your system is simply the reverse of the installation process