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Preface

The Oracle Secure Enterprise Search Administration API Guide documents two interfaces to the Administration API: a command-line interface and a Web services interface. It also introduces the Web services Java client. The Administration API supports the same features as the Oracle SES Administration GUI, and some new features that are currently not supported by the GUI.

This preface contains these topics:

- Audience
- Documentation Accessibility
- Related Documents
- Conventions

Audience

This document is intended for anyone using the Oracle SES Administration API:

- **Administrators** of Oracle Secure Enterprise Search may find a command-line interface to be easier for routine tasks than a graphical user interface. Administrators of large installations, who make the same changes across many instances of Oracle SES, may find the command-line interface to be particularly useful.

- **Web services developers** can create custom administrative tools using any technology that supports Simple Object Access Protocol (SOAP), such as Java and Microsoft ASP.NET.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.
Related Documents

For more information about Oracle Secure Enterprise Search, refer to the following resources:

- **Oracle Secure Enterprise Search Administrator’s Guide**
  
  Explains how to administer Oracle Secure Enterprise Search instances, including how to set up a variety of information sources, crawl and index those sources, and customize the search results.

- **Oracle Secure Enterprise Search Release Notes**
  
  Provides version information and identifies known issues.

- **Oracle Secure Enterprise Search Installation Guides**
  
  Discuss installation requirements and tips, and provides information on how to get started using Oracle Secure Enterprise Search.

- **Oracle Secure Enterprise Search Java API Reference**
  
  Describes the classes and methods in the Oracle SES Java APIs.

up-to-date Release Notes are posted on Oracle Technology Network (OTN). You must register online before using OTN. Registration is free and can be done at this location:

http://www.oracle.com/technetwork/community/join/overview/index.htm

If you have a user name and password for OTN, then you can go directly to the documentation section of OTN at this location:


Conventions

The following text conventions are used in this document:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>boldface</strong></td>
<td>Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.</td>
</tr>
<tr>
<td><strong>italic</strong></td>
<td>Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.</td>
</tr>
<tr>
<td><strong>monospace</strong></td>
<td>Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.</td>
</tr>
</tbody>
</table>

This reference presents syntax in a simple variant of Backus-Naur Form (BNF) that includes the following symbols and conventions:

<table>
<thead>
<tr>
<th>Symbol or Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>Brackets enclose optional items.</td>
</tr>
<tr>
<td>{ }</td>
<td>Braces enclose a choice of items of which only one is required.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>...</td>
<td>Ellipses indicate that the preceding syntactic element can be repeated.</td>
</tr>
</tbody>
</table>
A slash separates levels of a directory path. On Windows, use a backslash (\) instead of a slash (/).

**delimiters**

Delimiters other than brackets, braces, vertical bars, and ellipses must be entered as shown.

**italics**

Words appearing in italics are placeholders for which you must substitute a name or a value. Words that are not in italics are keywords and must be entered as shown.

**MW_HOME**

MW_HOME is the top-level directory for Oracle Fusion Middleware products. This directory is called Middleware home. The Middleware home for Fusion Applications is named fusionapps. Each application is installed in its own Oracle home under MW_HOME.

**ORACLE_HOME**

ORACLE_HOME for Oracle Secure Enterprise Search represents the path MW_HOME/ses by default; a different name can be specified during installation. It is the directory where Oracle SES is installed.

<table>
<thead>
<tr>
<th>Symbol or Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>/</td>
<td>A slash separates levels of a directory path. On Windows, use a backslash () instead of a slash (/).</td>
</tr>
<tr>
<td>delimiters</td>
<td>Delimiters other than brackets, braces, vertical bars, and ellipses must be entered as shown.</td>
</tr>
<tr>
<td>italics</td>
<td>Words appearing in italics are placeholders for which you must substitute a name or a value. Words that are not in italics are keywords and must be entered as shown.</td>
</tr>
<tr>
<td>MW_HOME</td>
<td>MW_HOME is the top-level directory for Oracle Fusion Middleware products. This directory is called Middleware home. The Middleware home for Fusion Applications is named fusionapps. Each application is installed in its own Oracle home under MW_HOME.</td>
</tr>
<tr>
<td>ORACLE_HOME</td>
<td>ORACLE_HOME for Oracle Secure Enterprise Search represents the path MW_HOME/ses by default; a different name can be specified during installation. It is the directory where Oracle SES is installed.</td>
</tr>
</tbody>
</table>
What's New

This chapter provides a brief description about the features available in the Administration API in Oracle Secure Enterprise Search (Oracle SES) 11g Release 2.

Release 11.2.2

Disabled features

The Oracle SES 10g Administration API is deprecated in this release (searchadminct1 and the associated Web services). The Oracle SES 11g Administration API replaces it. The following public Web services are disabled in this release:

- oracle.search.admin.ws.client.SearchAdminClient

  The following are the operations provided by this Web service:
  - getEstimatedIndexFragmentation
  - getSchedules
  - getSchedueStatus
  - optimizeIndexNow
  - startSchedule
  - stopSchedule
  - login
  - logout
- oracle.search.admin.ws.client.Schedule
- oracle.search.admin.ws.client.ScheduleStatus

Release 11.2.1

New administrative objects

- **docServiceInstance**: Describes a document service instance.
- **docServiceManager**: Describes a document service manager.
- **docServicePipeline**: Describes a document service pipeline.
- **facetTree**: Describes a facet tree for faceted navigation.
- **globalBoundaryRules**: Describes the default rules limiting the scope of the crawler on each new source.
- **globalDocumentTypes**: Describes the default document types that are defined for each new source.

- **relevanceRanking**: Describes the rules for ranking the importance of various document attributes when ordering the search results.

**Modified administrative objects:**

- **crawlerSettings**: Parameters from crawler.dat are now managed by elements in this object. Other new elements configure the crawlers on Oracle RAC installations.

- **partitionConfig**: Partitioning now has state and can be activated.

- **queryConfig**: Parameters from search.properties and ranking.xml are now managed by elements in this object.

- **source**: The `<search:urlRewriter>` and `<search:authorizationPlugin>` elements are disabled in Web sources.

- **storageArea**: Storage areas cannot be created in Oracle SES. Instead, you must first create the tablespace using a database tool, then register it as a `storageArea` with a create operation.

**Disabled administrative objects:**

- alert
- clustering
- clusterTree
- resultList
- skinBundle
- source: These source types are disabled
  - FileNet Content Engine
  - FileNet Image Services
  - Hummingbird
  - IBM DB2
  - Open Text Livelink

- spaceCalculator
- task

**Disabled operations:**

- **docServiceManager**: create, createAll, delete, deleteAll, deleteList
- **identityPlugin**: create, createAll, delete, deleteAll, deleteList
- **sourceType**: create, createAll, delete, deleteAll, deleteList
This chapter explains basic concepts and use of the Administration API. It contains the following topics:

- Introduction to the Administration API
- Command Interface
- Web Services Interface
- Object Types
- Object Properties
- Operations

Introduction to the Administration API

The Oracle SES Administration API supports management of large-scale deployments. It provides a command-line interface and a Web services interface to the same administrative tasks performed using the Oracle SES Administration GUI.

The following are the building blocks of the Administration API:

- **Administrative Objects**: An administrative object (or simply an object) models a feature in Oracle SES that can be managed directly through the API.
  
  An object is either creatable or universal. You can create multiple instances of a creatable object, such as a source or a schedule. You can configure, but not create, a universal object, such as the crawler settings. The administrative objects are described in Chapter 2, "Administration Object Types."

- **Operations**: Operations perform an action on one or more objects, such as creating, deleting, starting, or stopping them. If an operation fails, then all changes are rolled back. The command-line operations are described in Chapter 3, "searchadmin Commands," and the Web services operations are described in Chapter 4, "Web Service Operations."

Command Interface

The `searchadmin` command provides a command-line interface to the Administration API. You can open an interactive session, or you can issue individual commands to the operating system.

You must supply the administrator password each time you issue the `searchadmin` command. You can include the password in the command or wait for the prompt to enter it.
Opening an Interactive Session

To open an interactive session, enter the `searchadmin` command at the operating system prompt. You can connect to a single instance or multiple instances.

To connect to a single instance, use the `--CONNECTION` option with an HTTP connection string, like the one shown here.

```bash
$ searchadmin --CONNECTION=http://myhost:7777/search/api/admin/AdminService
```

After providing the administrator password, you get the SES prompt. You can start entering commands to the Oracle SES Administration API. This type of connection is called session mode.

Example 1–1 shows a brief interactive session, which ends with a `quit` command.

**Example 1–1  Issuing Commands at the SES Prompt**

```bash
$ searchadmin --CONNECTION=http://myhost:7777/search/api/admin/AdminService

Search Admin Command Line - Release 11.2.1.0.0

Copyright (c) 2006, 2010, Oracle and/or its affiliates. All rights reserved.

Password:

SES> getAPIVersion

11.2.1.0.0

SES> export index

<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
  <search:index>
    <search:indexingBatchSize>250</search:indexingBatchSize>
    <search:indexingMemorySize>275</search:indexingMemorySize>
  </search:index>
</search:config>

SES> quit

$
```

Issuing Individual Commands

You can issue commands individually at the operating system prompt. You can also use this command format to create scripts and batch files, thus simplifying routine tasks. This type of connection is called single job mode.

Example 1–2 shows two commands entered at the operating system prompt. One includes the password in the command, and the other responds to the Password prompt. In a script or batch file, you must provide a password for each command.

**Example 1–2  Issuing Commands at the Operating System Prompt**

```bash
$ searchadmin --CONNECTION=http://myhost:7777/search/api/admin/AdminService
getAPIVersion

Search Admin Command Line - Release 11.2.1.0.0
```
Issuing Commands to Multiple Oracle SES Instances

The `searchadmin` command connects to the search instance defined by the `CONNECTION` parameter. However, you can issue commands to multiple Oracle SES instances by supplying the connection information in a text file. Then reference the file using the `--CONNECTION_LIST` option. Each command is executed across all instances.

This command opens connections using a file named remotehosts.lst:

```
$ searchadmin --CONNECTION_LIST=remotehosts.lst
```

Using the Help Command

The Help command provides the basic command syntax and descriptions of administrative objects. You can enter the help command in an interactive session or as an individual command, as shown here:

```
$ searchadmin help
```

Table 1–1 describes the `searchadmin` help commands.
Command Syntax

The following is a summary of the `searchadmin` command syntax.

```
searchadmin [--USERNAME=admin] [--PASSWORD=password] [--CONNECTION=connection] [--CONNECTION_LIST=filename] [operation]
```

or

```
searchadmin [-u admin] [-p password] [-c connection | -m filename] [operation]
```

**admin**
Administrator user name, which is searchsys by default.

**password**
Password for the administrator. You are prompted for the password if you omit it from the command. If you are connecting to multiple instances, the password is used for authentication on all of them; omit this argument if they do not use the same password.

**connection**
Connection to an Oracle SES instance using HTTP:

```
http://host:port/search/api/admin/AdminService
```

The port number is the same as connecting to the Administration GUI.

**filename**
The name of the connection file. The path can be absolute or relative to the current directory.

**operation**
An administrative operation, as described in Chapter 3, "searchadmin Commands." Omit this argument to open an interactive session. Like the `searchadmin` command, the operations have a short form and a long form for many arguments.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>help</td>
<td>Provides the <code>searchadmin</code> command syntax, and lists the administrative operations.</td>
</tr>
<tr>
<td>help object_type</td>
<td>Describes <code>object_type</code>.</td>
</tr>
<tr>
<td>help operation</td>
<td>Provides the command syntax for <code>operation</code>.</td>
</tr>
<tr>
<td>help statusCodes</td>
<td>Describes the status codes that are displayed after an operation is performed on multiple objects by createAll, deleteAll, deleteList, or updateAll.</td>
</tr>
<tr>
<td>help duplicateMethod</td>
<td>Describes the settings of the <code>--DUPE_METHOD</code> parameter in the createAll command.</td>
</tr>
<tr>
<td>help updateMethod</td>
<td>Describes the settings of the <code>--UPDATE_METHOD</code> parameter in the update and updateAll commands.</td>
</tr>
<tr>
<td>help notFoundMethod</td>
<td>Describes the settings of the <code>--NOT_FOUND_METHOD</code> parameter in the updateAll command.</td>
</tr>
</tbody>
</table>
Web Services Interface

The Oracle SES Web services interface enables you to create client applications easily in a variety of technologies that support Simple Object Access Protocol (SOAP), such as Java and Microsoft ASP.NET. Moreover, two Web services clients are available out-of-the-box:

- A Java client enables you to develop Java programs that use the Administration API.
- A WebLogic test client enables you to test individual SOAP requests to the Administration API, thus facilitating development of new client applications.

Connecting to the Web Services Endpoint

The endpoint for the Web service has the following URL:

http://host:port/search/api/admin/AdminService

The host name and port number are the same ones that you use to connect to the Administration GUI.

The endpoint page provides this information:

- **Service Name**: `{http://search.oracle.com/Admin}AdminService`
- **Port Name**: `{http://search.oracle.com/Admin}Admin`
- **Address**: `http://host:port/search/api/admin/AdminService`
- **WSDL**: `http://host:port/search/api/admin/AdminService?wsdl`
- **Implementation class**: `oracle.search.admin.api.ws.OracleSearchAdminImpl`

Providing Credentials

Like the command-line interface, the Web services interface has two modes of operation:

- **Stateful**: The administrative user name and password are provided at the beginning and retained for all subsequent operations, while the client maintains the HTTP session. Use this mode when executing a sequence of operations, and thus achieve the best performance. You can provide credentials in any operation. Your application does not have to retain the password.

- **Stateless**: The administrative user name and password are provided for each operation. Use this mode to avoid maintaining open HTTP connections when, for example, use of the application is sporadic.

Using the Web Services Java Client

Using the Java client, you can develop your own programs for managing Oracle SES instances. The *Oracle Secure Enterprise Search Java API Reference* describes the classes and methods.

**See Also**: Appendix A, "Java Example"

Java Libraries

You need to include the following JAR files in the CLASSPATH for using the Oracle SES Web services Java client:
Web Services Interface

- `MW_HOME/oracle_common/modules/oracle.webservices_11.1.1/oracle.webservices.standalone.client.jar`
- `ORACLE_HOME/search/lib/search_adminapi_wsclient.jar`
- For the IBM-AIX platform, you also require the JAR file:
  `MW_HOME/oracle_common/modules/glassfish.jaxb.xjc.jar`

Creating a Stateful Web Services Client
The following Java code fragment creates a stateful client:

```java
private static AdminPortType getStatefulWebServiceClient(
    String webServiceURL,
    String userName,
    String password) throws Exception {
    AdminService adminService = new AdminService(
        new URL( webServiceURL ),
        new QName("http://search.oracle.com/Admin",
        "AdminService"
    );
    AdminPortType adminPort = adminService.getAdmin();
    ((BindingProvider)adminPort).getRequestContext().put(
        BindingProvider.SESSION_MAINTAIN_PROPERTY, true
    );
    // Create credentials argument
    Credentials credentials = new Credentials();
    credentials.setUserName( userName );
    credentials.setPassword( password );
    adminPort.login( credentials, "en" );
    return adminPort;
}
```

Creating a Stateless Web Services Client
This Java code fragment creates a stateless client. It does not provide credentials.

```java
private static AdminPortType getStatelessWebServiceClient(
    String webServiceURL) throws Exception {
    AdminService adminService = new AdminService(
        new URL( webServiceURL ),
        new QName("http://search.oracle.com/Admin",
        "AdminService"
    );
    return adminService.getAdmin();
}
```
You can use the stateless client by providing credentials for each operation.

```java
// Get stateless web service client
adminPort = getStatelessWebServiceClient(webServiceURL);

// Create Credentials object for operation
Credentials credentials = new Credentials();
credentials.setUserName(userName);
credentials.setPassword(password);
```

Creating an Administrative Object

This Java code fragment creates a Web source named example.

```java
String webSourceURL = "http://www.example.com";
String webSourceXML =
"<?xml version="1.0" encoding="UTF-8"?>" +
"<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">" +
'  <search:sources>
'    <search:webSource>
'      <search:name>example</search:name>
'      <search:startingUrls>
'        <search:startingUrl>
'          <search:url>" + webSourceURL + "</search:url>
'        </search:startingUrls>
'    </search:webSource>
'  </search:sources>
"</search:config>";

adminPort.createAll(
  "source",
  webSourceXML,
  "password",
  credentials,
  null,
  null,
  "en"n
);
```

Object Types

The Administration API enables you to perform a variety of operations on the administrative objects. These objects fall into two basic categories: universal and creatable.

Universal Objects

Oracle SES has one instance of each universal object out of the box. You can change the default settings, but you cannot create a new instance or delete the existing one. In the Administration GUI, you can edit the settings of universal objects on the Global Settings pages. 

Table 1–2 describes the universal object types.
Creatable Types

Oracle SES may have multiple instances of a creatable type out of the box, or it may have none. You can create new instances and, for most types, modify existing ones. In the Administration GUI, you can create and edit most of these objects on the Home and Search pages.

An object key uniquely identifies a particular instance of a creatable type. The key can be a single value, such as the name of a source, or a composite value, such as the jar file name and class of an identity plug-in. If an object key contains spaces, then all references must be enclosed in quotes in the command-line interface:

--NAME=this_DataSource
--NAME="This Data Source"

Table 1–3 describes the creatable objects.

Table 1–2  Universal Objects

<table>
<thead>
<tr>
<th>Object Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>crawlerSettings</td>
<td>Global crawler configuration</td>
</tr>
<tr>
<td>globalBoundaryRules</td>
<td>Global crawler boundary rules</td>
</tr>
<tr>
<td>globalDocumentTypes</td>
<td>Global crawler document types</td>
</tr>
<tr>
<td>index</td>
<td>Indexing parameters</td>
</tr>
<tr>
<td>indexOptimizer</td>
<td>Index optimization</td>
</tr>
<tr>
<td>partitionConfig</td>
<td>Partition configuration</td>
</tr>
<tr>
<td>queryConfig</td>
<td>Query configuration</td>
</tr>
<tr>
<td>relevanceRanking</td>
<td>Attribute relevance ranking</td>
</tr>
</tbody>
</table>

Table 1–3  Creatable Object Types

<table>
<thead>
<tr>
<th>Object Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>altWord</td>
<td>Alternate words</td>
</tr>
<tr>
<td>docServiceInstance</td>
<td>Document service instance</td>
</tr>
<tr>
<td>docServiceManager</td>
<td>Document service manager</td>
</tr>
<tr>
<td>docServicePipeline</td>
<td>Document service pipeline</td>
</tr>
<tr>
<td>facetTree</td>
<td>Facet tree</td>
</tr>
<tr>
<td>identityPlugin</td>
<td>Identity plug-ins</td>
</tr>
<tr>
<td>proxyLogin</td>
<td>Proxy log-ins</td>
</tr>
<tr>
<td>schedule</td>
<td>Schedules</td>
</tr>
<tr>
<td>searchAttr</td>
<td>Search attributes</td>
</tr>
<tr>
<td>source</td>
<td>Sources</td>
</tr>
<tr>
<td>sourceGroup</td>
<td>Source groups</td>
</tr>
<tr>
<td>sourceType</td>
<td>Source types</td>
</tr>
<tr>
<td>suggLink</td>
<td>Suggested links</td>
</tr>
<tr>
<td>thesaurus</td>
<td>Thesaurus</td>
</tr>
</tbody>
</table>

1  These objects cannot be created or modified in Oracle Fusion Applications.
Object Properties

All object types have properties that configure the object to operate in a particular way. An XML document describes these properties. When you create or modify an object, you submit an XML document to Oracle SES that describes the object and sets the values of its properties. When you query Oracle SES for a description of an object, it returns the information as an XML document.

XML Documents

Although you can develop XML descriptions of administration objects from the start, an easier method is to let Oracle SES do the work for you. For universal objects, you can export the description to a file for editing. For creatable objects, you can use the Administration GUI to develop an object and then export the description to a file. You can then edit the file or copy it to create similar objects. This method is particularly useful when creating or updating complex object types, such as sources.

Sample XML Document of an Administration Object

The following is a very simple example of an XML document generated by Oracle SES. It describes the universal index object:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:index>
    <search:indexingBatchSize>250</search:indexingBatchSize>
    <search:indexingMemorySize>275</search:indexingMemorySize>
  </search:index>
</search:config>
```

Identifies the file as an XML document. The encoding of exported XML is set to UTF-8, but imported documents can have other encoding.

`<search:config>`

Contains all Oracle SES object configuration elements. This is the root element of the XML document.

`<search:index>`

Contains the configuration settings for the universal index element. You can describe administration objects in individual XML files or all objects in one XML file.

Chapter 2, "Administration Object Types," discusses the XML description of each object type.

Editing XML Files

The XML complies with the standard conventions for XML documents. You should have a working knowledge of XML before using the administration APIs.

XML is a text-based markup language, so you can use any text editor to create and edit XML files. However, an ordinary text editor cannot detect when the document is correctly formed and, more importantly, when it contains syntax errors. For that, you should use an XML editor. You can choose from professional and freeware versions that are available for download on the Web.

An XML editor can also check an XML document against the XML Schema Definition (XSD). Oracle SES has two files for the XSD:
State Properties

Some object types have state properties that provide information about the current state of the object. For example, a cluster tree has a status property that reports whether it is enabled or disabled. Both universal and creatable object types can have state properties. Chapter 2, "Administration Object Types," lists the state properties for each object type.

Oracle SES returns the current state of an object in the form of an XML document. See "XML Description of State Properties" on page 2-8.

<table>
<thead>
<tr>
<th>Object Type</th>
<th>State Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>identityPlugin</td>
<td>status</td>
</tr>
<tr>
<td>index</td>
<td>estimatedFragmentation</td>
</tr>
<tr>
<td>indexOptimizer</td>
<td>endTime, startTime, status</td>
</tr>
<tr>
<td>partitionConfig</td>
<td>status</td>
</tr>
<tr>
<td>schedule</td>
<td>lastCrawled, logFilePath, nextCrawl, scheduleError, status</td>
</tr>
</tbody>
</table>

Operations

You execute various operations to manage the administration objects. Chapter 3, "searchadmin Commands," provides the syntax of these operations and command examples. The same operations are available as XML documents in the Web services interface, described in Chapter 4, "Web Service Operations."

Command Syntax

The commands have this general syntax for universal object types:

```
operation object_type [parameters] [options]
```

The syntax for creatable types includes the object key for operations performed on a single object:

```
operation object_type [object_key] [parameters] [options]
```

Note: The clustering object used in the following examples is disabled in Oracle Fusion Applications.

For example, the following command activates clustering. The clustering object is a universal object type, and the command consists only of the required operation and object_type:

```
activate clustering
```

The next command updates the clustering configuration. This command requires the path to the input XML file with the new configuration settings and an update method:
update clustering --INPUT_FILE=clustering.xml --UPDATE_METHOD=overwrite

Most parameters and some common options have a shortcut notation. The previous update command can also be expressed with this syntax:

update clustering -i clustering.xml -a overwrite

Sources are creatable, so the command to change the configuration of a source requires the object key. For sources, the object key is the name. The following command also includes the INPUT_FILE parameter.

update source --NAME="Doc Library" --UPDATE_METHOD=overwrite --INPUT_FILE=sources.xml

The shortcut notation looks like this:

update source -n "Doc Library" -a overwrite -i sources.xml

Using the Message Logs

The message logs can help you debug problems executing an operation. All messages are written to the WebLogic Server logs, which you can view in the WebLogic console.

Managing Universal Objects

Use these operations to manage universal administration objects:

<table>
<thead>
<tr>
<th>Table 1–5 Operations on Universal Objects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation</td>
</tr>
<tr>
<td>export</td>
</tr>
<tr>
<td>update</td>
</tr>
</tbody>
</table>

Managing Creatable Objects

Use these operations to manage creatable administration objects:

<table>
<thead>
<tr>
<th>Table 1–6 Operations on Creatable Objects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation</td>
</tr>
<tr>
<td>create</td>
</tr>
<tr>
<td>createAll</td>
</tr>
<tr>
<td>delete</td>
</tr>
<tr>
<td>deleteAll</td>
</tr>
<tr>
<td>deleteList</td>
</tr>
<tr>
<td>export</td>
</tr>
<tr>
<td>exportAll</td>
</tr>
<tr>
<td>exportList</td>
</tr>
<tr>
<td>update</td>
</tr>
<tr>
<td>updateAll</td>
</tr>
</tbody>
</table>
Managing Object State

Use these operations to manage both universal and creatable administration objects with state properties.

<table>
<thead>
<tr>
<th>Table 1–7 Operations on Objects With State Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operation</strong></td>
</tr>
<tr>
<td>activate</td>
</tr>
<tr>
<td>deactivate</td>
</tr>
<tr>
<td>getAllStates</td>
</tr>
<tr>
<td>getState</td>
</tr>
<tr>
<td>getStateList</td>
</tr>
<tr>
<td>start</td>
</tr>
<tr>
<td>stop</td>
</tr>
</tbody>
</table>

Status Codes for Bulk Operations

Operations that involve multiple objects, such as createAll, deleteAll and deleteList, return status codes for each processed object, as described in Table 1–8.

<table>
<thead>
<tr>
<th>Table 1–8 Status Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status Code</strong></td>
</tr>
<tr>
<td>CREATE_NOT_SUPPORTED</td>
</tr>
<tr>
<td>CREATE_SUCCEEDED</td>
</tr>
<tr>
<td>DELETE_NOT_SUPPORTED</td>
</tr>
<tr>
<td>DELETE_SUCCEEDED</td>
</tr>
<tr>
<td>DUPLICATE_IGNORED</td>
</tr>
<tr>
<td>DUPLICATE_OVERWRITTEN</td>
</tr>
<tr>
<td>INVALID_STATE_IGNORED</td>
</tr>
<tr>
<td>NOT_FOUND_CREATED</td>
</tr>
<tr>
<td>NOT_FOUND_IGNORED</td>
</tr>
<tr>
<td>UPDATE_NOT_SUPPORTED</td>
</tr>
<tr>
<td>UPDATE_SUCCEEDED</td>
</tr>
</tbody>
</table>
Administration Object Types

This chapter describes the object types in the Oracle SES Administration API. It contains these topics:

- Alphabetic List of Administration Object Types
- Document Support
- Globalization Support
- Encryption
- XML Description of State Properties
- Partitioning for Parallel Query

Alphabetic List of Administration Object Types

A C D F G I P Q R S T

A
altWord

C
crawlerSettings

D
docServiceInstance
docServiceManager
docServicePipeline

F
facetTree

G
globalBoundaryRules
globalDocumentTypes

I
identityPlugin
index
indexOptimizer
Table 2–1 identifies the document formats supported by Oracle SES.

**Table 2–1 ** Document Formats

<table>
<thead>
<tr>
<th>Document Format</th>
<th>MIME Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adobe Framemaker Document</td>
<td>application/x-framemaker</td>
</tr>
<tr>
<td>Adobe Framemaker Interchange</td>
<td>application/vnd.mif</td>
</tr>
<tr>
<td>Format (MIF) Document</td>
<td></td>
</tr>
<tr>
<td>Corel Presentations Document</td>
<td>application/vnd.corel-presentations</td>
</tr>
<tr>
<td>DICOM Image</td>
<td>application/dicom</td>
</tr>
<tr>
<td>DocuShare Ichitaro Document</td>
<td>application/x-js-taro</td>
</tr>
<tr>
<td>GIF Image</td>
<td>image/gif</td>
</tr>
<tr>
<td>GNU ZIP Archive</td>
<td>application/x-gzip</td>
</tr>
<tr>
<td>Haansoft HWP Document</td>
<td>application/x-hwp</td>
</tr>
<tr>
<td>HTML</td>
<td>text/html</td>
</tr>
<tr>
<td>JPEG 2000 Image</td>
<td>image/jp2</td>
</tr>
<tr>
<td>JPEG Image</td>
<td>image/jpeg</td>
</tr>
<tr>
<td>Lotus 1-2-3 Document</td>
<td>application/x-lotus123 (also represents application/vnd.lotus-1-2-3)</td>
</tr>
<tr>
<td>Lotus AMI Pro Document</td>
<td>application/xami</td>
</tr>
<tr>
<td>Lotus Freelance Document</td>
<td>application/x-freelance (also represents application/vnd.lotus-freelance)</td>
</tr>
<tr>
<td>Lotus Word Pro Document</td>
<td>application/vnd.lotus-wordpro</td>
</tr>
<tr>
<td>LZH Archive</td>
<td>application/x-lzh-compressed</td>
</tr>
</tbody>
</table>
Globalization Support

Oracle SES provides localization support for source documents, metadata translation, and user queries. You can specify this information in the configuration of administration objects.

Product Languages

Oracle SES user interface components are translated into the languages listed in Table 2–2. The locale of the Oracle SES host system sets the default language for error messages, the Administration GUI, and the Search Application. In the Web services interface, you can set the language for error messages in individual operations.

<table>
<thead>
<tr>
<th>Language</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese, Simplified</td>
<td>zh_CN</td>
</tr>
<tr>
<td>Chinese, Traditional</td>
<td>zh_TW</td>
</tr>
</tbody>
</table>
Crawlable Documents

For Oracle SES to crawl and index source documents, they must be stored in a supported language and character set.

Table 2–3 lists the codes for languages supported by the crawler.

<table>
<thead>
<tr>
<th>Language</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic</td>
<td>ar</td>
</tr>
<tr>
<td>Chinese</td>
<td>zh</td>
</tr>
<tr>
<td>Czech</td>
<td>cs</td>
</tr>
<tr>
<td>Danish</td>
<td>da</td>
</tr>
<tr>
<td>Dutch</td>
<td>nl</td>
</tr>
<tr>
<td>English</td>
<td>en</td>
</tr>
<tr>
<td>Finnish</td>
<td>fi</td>
</tr>
<tr>
<td>French</td>
<td>fr</td>
</tr>
<tr>
<td>German</td>
<td>de</td>
</tr>
<tr>
<td>Greek</td>
<td>el</td>
</tr>
<tr>
<td>Hebrew</td>
<td>he</td>
</tr>
<tr>
<td>Hungarian</td>
<td>hu</td>
</tr>
<tr>
<td>Italian</td>
<td>it</td>
</tr>
<tr>
<td>Japanese</td>
<td>ja</td>
</tr>
<tr>
<td>Korean</td>
<td>ko</td>
</tr>
<tr>
<td>Norwegian</td>
<td>no</td>
</tr>
<tr>
<td>Polish</td>
<td>pl</td>
</tr>
<tr>
<td>Portuguese</td>
<td>pt</td>
</tr>
<tr>
<td>Romanian</td>
<td>ro</td>
</tr>
<tr>
<td>Russian</td>
<td>ru</td>
</tr>
<tr>
<td>Slovak</td>
<td>sk</td>
</tr>
<tr>
<td>Spanish</td>
<td>es</td>
</tr>
</tbody>
</table>
Table 2–3 (Cont.) Crawlable Languages

<table>
<thead>
<tr>
<th>Language</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedish</td>
<td>sv</td>
</tr>
<tr>
<td>Turkish</td>
<td>tr</td>
</tr>
</tbody>
</table>

Table 2–4 lists the codes for character sets supported by the crawler.

Table 2–4 Crawlable Character Sets

<table>
<thead>
<tr>
<th>Character Set</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard UTF-8</td>
<td>UTF8</td>
</tr>
<tr>
<td>16-Bit UCS Transformation Format</td>
<td>UTF-16</td>
</tr>
<tr>
<td>Big 5 Traditional Chinese</td>
<td>Big5</td>
</tr>
<tr>
<td>CNS 11643 Traditional Chinese</td>
<td>CNS11643</td>
</tr>
<tr>
<td>GB 18030 Simplified Chinese</td>
<td>GB18030</td>
</tr>
<tr>
<td>GB2312-80 Simplified Chinese</td>
<td>GB2312</td>
</tr>
<tr>
<td>GBK Simplified Chinese</td>
<td>GBK</td>
</tr>
<tr>
<td>ISO Latin/Arabic</td>
<td>8859-6</td>
</tr>
<tr>
<td>ISO Latin/Cyrillic</td>
<td>8859-5</td>
</tr>
<tr>
<td>ISO Latin/Greek</td>
<td>8859-7</td>
</tr>
<tr>
<td>ISO Latin/Hebrew</td>
<td>8859-8</td>
</tr>
<tr>
<td>ISO Latin-1</td>
<td>8859-1</td>
</tr>
<tr>
<td>ISO Latin-2</td>
<td>8859-2</td>
</tr>
<tr>
<td>ISO Latin-3</td>
<td>8859-3</td>
</tr>
<tr>
<td>ISO Latin-4</td>
<td>8859-4</td>
</tr>
<tr>
<td>ISO Latin-5</td>
<td>8859-9</td>
</tr>
<tr>
<td>Japanese (Auto-Detect)</td>
<td>JISAutoDetect</td>
</tr>
<tr>
<td>Japanese (EUC)</td>
<td>EUC_JP</td>
</tr>
<tr>
<td>Japanese (JIS)</td>
<td>JIS</td>
</tr>
<tr>
<td>Japanese (Shift-JIS)</td>
<td>SJIS</td>
</tr>
<tr>
<td>KSC5601 Korean</td>
<td>KSC5601</td>
</tr>
<tr>
<td>Macintosh Arabic</td>
<td>MacArabic</td>
</tr>
<tr>
<td>Macintosh Croatian</td>
<td>MacCroatian</td>
</tr>
<tr>
<td>Macintosh Cyrillic</td>
<td>MacCyrillic</td>
</tr>
<tr>
<td>Macintosh Dingbat</td>
<td>MacDingbat</td>
</tr>
<tr>
<td>Macintosh Greek</td>
<td>MacGreek</td>
</tr>
<tr>
<td>Macintosh Hebrew</td>
<td>MacHebrew</td>
</tr>
<tr>
<td>Macintosh Iceland</td>
<td>MacIceland</td>
</tr>
<tr>
<td>Macintosh Latin-2</td>
<td>MacCentralEurope</td>
</tr>
<tr>
<td>Macintosh Roman</td>
<td>MacRoman</td>
</tr>
<tr>
<td>Macintosh Romania</td>
<td>MacRomania</td>
</tr>
</tbody>
</table>
Providing Translations of Object Names

The names of some administration objects are displayed to users in the Search interface, such as source and sourceGroup. You can provide a display name in one or more languages by using the `<search:translations>` element, as shown here:

```xml
<search:name>
  <search:translations>
    <search:translation>
      <search:translatedValue>
        Macintosh Symbol
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Macintosh Thai
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Macintosh Turkish
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Macintosh Ukraine
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Arabic
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Baltic
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Canadian French
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Cyrillic
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Greek
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Hebrew
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Icelandic
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Latin-1
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Latin-2
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Modern Greek
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Nordic
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Original
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Portuguese
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Russian
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        PC Turkish
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Arabic
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Baltic
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Cyrillic
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Eastern Europe/Latin-2
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Greek
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Hebrew
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Japanese
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Thai
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Turkish
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Vietnamese
      </search:translatedValue>
    </search:translation>
    <search:translation>
      <search:translatedValue>
        Windows Western Europe/Latin-1
      </search:translatedValue>
    </search:translation>
  </search:translations>
</search:name>
Element Descriptions

<search:name>
Name of the administration object.

<search:translations>
Contains one or more <search:translation> elements.

<search:translation>
Contains a <search:translatedValue> element.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>language</td>
<td>A code identifying the language of the translated value. The codes are not case sensitive. See Table 2–5, “Query Language Codes”.</td>
</tr>
</tbody>
</table>

<search:translatedValue>
Contains a description of the object in the translation language. This value is displayed in the Search Application.

**Table 2–5 Query Language Codes**

<table>
<thead>
<tr>
<th>Language</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic</td>
<td>ar</td>
</tr>
<tr>
<td>Catalan</td>
<td>ca</td>
</tr>
<tr>
<td>Chinese, Simplified</td>
<td>zh_CN</td>
</tr>
<tr>
<td>Chinese, Traditional</td>
<td>zh_TW</td>
</tr>
<tr>
<td>Czech</td>
<td>cs</td>
</tr>
<tr>
<td>Danish</td>
<td>da</td>
</tr>
<tr>
<td>Dutch</td>
<td>nl</td>
</tr>
<tr>
<td>English</td>
<td>en</td>
</tr>
<tr>
<td>Finnish</td>
<td>fi</td>
</tr>
<tr>
<td>French</td>
<td>fr</td>
</tr>
<tr>
<td>German</td>
<td>de</td>
</tr>
<tr>
<td>Greek</td>
<td>el</td>
</tr>
<tr>
<td>Hebrew</td>
<td>iw</td>
</tr>
<tr>
<td>Hungarian</td>
<td>hu</td>
</tr>
<tr>
<td>Italian</td>
<td>it</td>
</tr>
<tr>
<td>Japanese</td>
<td>ja</td>
</tr>
<tr>
<td>Korean</td>
<td>ko</td>
</tr>
<tr>
<td>Norwegian</td>
<td>no</td>
</tr>
<tr>
<td>Polish</td>
<td>pl</td>
</tr>
<tr>
<td>Portuguese</td>
<td>pt</td>
</tr>
<tr>
<td>Portuguese, Brazilian</td>
<td>pt_BR</td>
</tr>
<tr>
<td>Romanian</td>
<td>ro</td>
</tr>
<tr>
<td>Russian</td>
<td>ru</td>
</tr>
</tbody>
</table>
Encryption

The Administration API provides an encryption system to safeguard sensitive information, such as passwords, contained in the XML description of an object.

When you import an XML document using an operation such as create or update, you can indicate in the XML whether a value is encrypted. In this example, the password is in plain text, which either sets it for the first time or changes it to a new value:

```xml
<search:password encrypted="false">password</search:password>
```

Oracle SES stores the password in an encrypted form. The next example shows an encrypted password, which was exported in an XML document from Oracle SES:

```xml
<search:password encrypted="true">
128b6b43091659ffa1ff06866b8eb6445dab3d61871b6a5b97941f00ee8c842e76bccc1eb3c0806fd0
f6ee2e3ab371efb0cf053255fdd4e46888909cdd553914bfabe99eda51861d7
</search:password>
```

When exporting an XML document containing a password, Oracle SES requires you to provide an encryption key. If you use this document as input to an operation (encrypted="true"), then you must use the same encryption key as the export operation so that Oracle SES can decrypt the password.

XML Description of State Properties

Both universal and creatable objects can have state properties. The `getState`, `getStateList`, and `getAllStates` commands return an XML document describing the current state of one or more objects.

The `<search:state>` element describes the current state of an object.

```xml
<search:state>
  <search:objectStates>
    <search:objectState>
      <search:objectType>
      <!-- For creatable objects -->
      <search:objectKey>
        <search:keyPairs>
          <search:keyPair>
            <search:name>
              <search:value>
            </search:value>
          </search:keyPair>
        </search:keyPairs>
      </search:objectKey>

    <!-- For all objects -->
    <search:stateProperties>
      <search:stateProperty>
        <search:propertyName>
          <search:propertyValue>
            <search:propertyData>
          </search:propertyValue>
        </search:propertyName>
      </search:stateProperty>
    </search:stateProperties>
  </search:objectState>
</search:objectStates>
```

Table 2–5 (Cont.) Query Language Codes

<table>
<thead>
<tr>
<th>Language</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slovak</td>
<td>sk</td>
</tr>
<tr>
<td>Spanish</td>
<td>es</td>
</tr>
<tr>
<td>Swedish</td>
<td>sv</td>
</tr>
<tr>
<td>Thai</td>
<td>th</td>
</tr>
<tr>
<td>Turkish</td>
<td>tr</td>
</tr>
</tbody>
</table>
Element Descriptions

<search:state>
Contains a <search:objectStates> element.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>productVersion</td>
<td>Oracle SES product version</td>
</tr>
<tr>
<td>xmlns:search</td>
<td>Namespace for the Oracle SES Administration API</td>
</tr>
</tbody>
</table>

<search:objectStates>
Contains one or more <search:objectState> elements.

<search:objectState>
Describes the state properties of a particular object, using these child elements:
<search:objectType>
<search:objectKey>
<search:stateProperties>

<search:objectType>
Contains an object type with one or more state properties:
  identityPlugin
  index
  indexOptimizer
  schedule

<search:objectKey>
Contains the object key that identifies a specific instance of a creatable object type. It contains a <search:keyPairs> element.

<search:keyPairs>
Contains one or more <search:keyPair> elements.

<search:keyPair>
Contains these child elements:
  <search:name>
  <search:value>

<search:name>
Contains a key name for this object type.

<search:value>
Contains the key value for this object.

<search:stateProperties>
Contains one or more <search:stateProperty> elements.

<search:stateProperty>
Contains a <search:propertyName> element.

<search:propertyName>
Contains the name of a property.
<search:propertyValues>
Contains one or more <search:propertyValue> elements.

<search:propertyValue>
Contains a <search:value> element.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>key</td>
<td>Provides additional context, such as the name of the data source associated with the property for a schedule that crawls multiple sources.</td>
</tr>
</tbody>
</table>

<search:value>
Contains the current value of the property.

**Partitioning for Parallel Query**

Parallel querying is automatically implemented on Oracle SES when the partitioning option is enabled. You can specify partitioning only during installation.

You can optimize query performance of large document sources by storing the crawler index in partitions distributed across several independent disks. Oracle SES then executes parallel subqueries automatically against the partitions. Both I/O and CPU resources are used in parallel.

The default tablespaces for Oracle SES are SEARCH_DATA, SEARCH_INDEX, and SEARCH_TEMP.

---

**Note:** You must register additional tablespaces before crawling any sources.

---

To enable partitioning:

1. Acquire a license for the Oracle Partitioning option.
2. During installation, answer Yes when the Repository Creation Utility (RCU) asks if you have a partitioning license. Then Oracle Database is installed with partitioning, and Oracle SES automatically supports parallel query.

These administrative objects support parallel query:

- storageArea
- partitionConfig

To add partitioned tablespaces for use by Oracle SES:

1. Create one or more ASSM (Automatic Segment Space Management) tablespaces using a tool such as Enterprise Manager.
2. Open a searchadmin interactive session as described in "Opening an Interactive Session" on page 1-2.
3. Update the storageArea object to register the new tablespaces for use by Oracle SES.
4. Update the partitionConfig object to have appropriate rules and to use the new storageArea objects.
5. Create document sources and schedule them for crawling.
Example: Adding a Tablespace and Using It in a Partition Rule
This example registers a new tablespace for use by Oracle SES:

1. Create a new ASSM tablespace. This example uses SQL to create a tablespace named NEW_ONE:
   ```sql
   CREATE TABLESPACE new_one DATAFILE '/ses_storage/new_one.dbf'
   SIZE 8G REUSE AUTOEXTEND ON NEXT 2G MAXSIZE UNLIMITED
   EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO;
   ```

2. Using `searchadmin`, activate the `partitionConfig` object:
   ```sql
   activate partitionConfig
   ```

3. Export the XML description of the partition configuration to a file named `part.xml`:
   ```sql
   export partitionConfig --OUTPUT_FILE=part.xml
   ```

4. Create an XML file named `search_data.xml` and describe the NEW_ONE tablespace as an Oracle SES storage area, as shown here:
   ```xml
   <?xml version="1.0" encoding="UTF-8"?>
   <search:config xmlns:search="http://xmlns.oracle.com/search"
   productVersion="11.2.1.0.0">
   <search:partitionConfig>
   <search:partitionRules>
   <search:partitionRule>
   <search:partitionValue>EQ_DEFAULT</search:partitionValue>
   <search:valueType>META</search:valueType>
   <search:ruleType>HASH</search:ruleType>
   <search:storageArea>SEARCH_DATA,NEW_ONE</search:storageArea>
   </search:partitionRule>
   </search:partitionRules>
   </search:partitionConfig>
   </search:config>
   ```

5. Open `part.xml` in a text editor and edit the `<search:ruleType>` and `<search:storageArea>` elements as shown here. This example hashes all documents into two partitions: one partition in the SEARCH_DATA tablespace, and the other partition in the NEW_ONE tablespace.
   ```xml
   <?xml version="1.0" encoding="UTF-8"?>
   <search:config xmlns:search="http://xmlns.oracle.com/search"
   productVersion="11.2.1.0.0">
   <search:partitionConfig>
   <search:partitionRules>
   <search:partitionRule>
   <search:partitionValue>EQ_DEFAULT</search:partitionValue>
   <search:valueType>META</search:valueType>
   <search:ruleType>HASH</search:ruleType>
   <search:storageArea>SEARCH_DATA,NEW_ONE</search:storageArea>
   </search:partitionRule>
   </search:partitionRules>
   </search:partitionConfig>
   </search:config>
   ```

6. Using `searchadmin`, register the new storage area:
   ```sql
   create storageArea --NAME=new_one --INPUT_FILE=search_data.xml
   ```

7. Update the partition configuration:
   ```sql
   update partitionConfig --INPUT_FILE=part.xml --UPDATE_METHOD=overwrite
   ```
altWord

Oracle SES uses alternate words to provide suggestions to users or to expand the search results. Alternate words are useful for correcting common typing errors and for including synonyms in a search. You can create up to four alternates for the same word.

Object Type
Creatable

Object Key
keyword altKeyword

Object Key Command Syntax
--KEYWORD=keyword --ALT_KEYWORDE=altKeyword

State Properties
None

Supported Operations
create
createAll
delete
deleteAll
deleteList
export
exportAll
exportList
getAllObjectKeys
update
updateAll

Administration GUI Page
Search - Alternate Words

XML Description
The <search:altWords> element describes alternate word pairs:

<search:altWords>
  <search:altWord>
    <search:keyword>
    <search:altKeyword>
    <search:autoExpand>

Element Descriptions

<search:altWords>
Contains one or more <search:altWord> elements.

<search:altWord>
Contains these elements:
<search:keyword>
<search:altKeyword>
<search:autoExpand>

<search:keyword>
Contains a search word or phrase. Keywords are not case sensitive. Required.

<search:altKeyword>
Contains a word or phrase that is suggested when users enter the keyword. Alternate words are displayed exactly as they appear here. Required.

<search:autoExpand>
Controls the display of alternative words in the search results: Set to true to include the alternative words automatically in the search, or set to false to display alternative word matches in a "do you mean..." message. The default is false.

Example

This XML document defines alternate words for OSES, text, and RAC:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
<search:altWords>
  <search:altWord>
    <search:keyword>oses</search:keyword>
    <search:altKeyword>Oracle Secure Enterprise Search</search:altKeyword>
    <search:autoExpand>true</search:autoExpand>
  </search:altWord>
  <search:altWord>
    <search:keyword>rac</search:keyword>
    <search:altKeyword>Real Application Clusters</search:altKeyword>
    <search:autoExpand>false</search:autoExpand>
  </search:altWord>
  <search:altWord>
    <search:keyword>text</search:keyword>
    <search:altKeyword>Oracle Text</search:altKeyword>
    <search:autoExpand>false</search:autoExpand>
  </search:altWord>
</search:altWords>
</search:config>
```
crawlerSettings

This object configures the global crawler settings that are used by default for new data sources. You can also configure the crawler settings for individual sources, as described in source on page 2-67.

The Oracle SES crawler is a Java process activated by a schedule. When activated, the crawler spawns a configurable number of processor threads that fetch information from various sources and index the documents. This index is used for searching sources.

Object Type
Universal

State Properties
None

Supported Operations
export
update

Administration GUI Page
Global Settings - Crawler Configuration

XML Description
The <search:crawlerSettings> element describes the crawler settings:

```xml
<search:crawlerSettings>
  <search:numThreads>
  <search:numProcessors>
  <search:crawlDepth>
    <search:limit>
  <search:languageDetection>
  <search:defaultLanguage>
  <search:crawlTimeout>
  <search:maxDocumentSize>
  <search:charSetDetection>
  <search:defaultCharset>
  <search:preserveDocumentCache>
  <search:servicePipeline>
    <search:pipelineName>
  <search:verboseLogging>
  <search:logLanguage>
  <search:badTitles>
  <search:badTitle>
```

Element Descriptions

<search:crawlerSettings>
Contains all of the elements for configuring the crawler.
<search:numThreads>
Contains the number of processes the crawler starts to crawl sources.

<search:numProcessors>
Contains the number of CPUs (or cores in a multi-core processor) on the computer
where the crawler runs. This setting determines the optimal number of processes used
for document conversion. A document conversion process converts formatted
documents into HTML documents for indexing.

<search:crawlDepth>
Controls whether crawling is limited to the number of nested links set by
<search:limit>.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>haslimit</td>
<td>Set to true to restrict crawling to the depth limit, or set to false otherwise. Required.</td>
</tr>
</tbody>
</table>

<search:limit>
Contains the number of nested links the crawler follows. Crawling depth starts at 0, so
that the crawler only fetches the starting URL. With a crawling depth of 1, the crawler
also fetches any document that it linked from the starting URL, and so forth.

<search:languageDetection>
Controls whether the crawler attempts to detect the language of documents that do
not specify the language in their metadata.

Language detection involves these steps:

1. The crawler determines the language code by checking the HTTP header
   content-language or the LANGUAGE column of a table source.
2. If the crawler cannot determine the language, then the language recognizer
   attempts to determine a language. The language recognizer operates on the
   Latin-1 alphabet and any language with a deterministic Unicode range of
   characters, such as Chinese, Japanese, and Korean.
3. If the language recognizer cannot identify the language, then the default language
   is used.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to attempt to detect a language, or set to false to use the default language. Required.</td>
</tr>
</tbody>
</table>

<search:defaultLanguage>
Contains the code for the default language. The default language is used when
language detection is disabled or when the crawler and language detector cannot
determine the document language. See Table 2–3, "Crawlable Languages".

<search:crawlTimeout>
Contains the number of seconds allowed for the crawler to access a document.

<search:maxDocumentSize>
Contains the maximum document size in megabytes. Larger documents are not
crawled.
<search:charSetDetection>
Contains a value of true to enable automatic character set detection, or false to disable it. The default value is true.

<search:defaultCharset>
Contains the default character set. The crawler uses this character set for indexing documents when the character set cannot be determined. See Table 2-4, "Crawlable Character Sets".

<search:preserveDocumentCache>
Controls whether the cache is saved after indexing.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to preserve the cache, or set to false to discard it. Required.</td>
</tr>
</tbody>
</table>

<search:servicePipeline>
Controls use of a document service pipeline. A document service pipeline is used for search result clustering. If your installation does not use result clustering for any source, then disable the pipeline.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to enable the pipeline, or set to false to disable it. Required.</td>
</tr>
</tbody>
</table>

<search:pipelineName>
Contains the name of the document service pipeline used when the pipeline is enabled.

<search:verboseLogging>
Controls the level of detail in logging messages.

Logging everything can create very large log files when crawling a large number of documents. However, in certain situations, it can be beneficial to configure the crawler to record detailed activity.

The crawler maintains the last seven versions of its log file. The format of the log file name is ids.MMDDhhmm.log, where i is a system-generated ID, ds is the source ID, MM is the month, DD is the date, hh is the launching hour in 24-hour format, and mm is the minutes. For example, if a schedule for source 23 is launched at 10 pm, July 8th, then the log file name is i3ds23.07082200.log. Each successive schedule launching has a unique log file name. When the total number of log files for a source reaches seven, the oldest log file is deleted.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to record all information, or set to false to record only summary information. Required.</td>
</tr>
</tbody>
</table>

<search:logLanguage>
Contains the language code for messages written to the log file. See Table 2-3, "Crawlable Languages".
<search:badTitles>
Contains one or more <search:badTitle> elements. This parameter can be set at the global level.

<search:badTitle>
Contains an exact character string for a document title that the crawler omits from the index. These bad titles are defined by default:

PowerPoint Presentation
Slide 1

Example

This XML document configures the crawler:

```xml
<?xml version='1.0' encoding='UTF-8'?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:crawlerSettings>
    <search:numThreads>5</search:numThreads>
    <search:numProcessors>3</search:numProcessors>
    <search:crawlDepth haslimit="true">
      <search:limit>2</search:limit>
    </search:crawlDepth>
    <search:languageDetection enabled="true"/>
    <search:defaultLanguage>en</search:defaultLanguage>
    <search:crawlTimeout>30</search:crawlTimeout>
    <search:charSetDetection enabled="true"/>
    <search:defaultCharSet>8859_1</search:defaultCharSet>
    <search:preserveDocumentCache enabled="true"/>
    <search:servicePipeline enabled="true">
      <search:pipelineName>Default pipeline</search:pipelineName>
    </search:servicePipeline>
    <search:verboseLogging enabled="true"/>
    <search:logLanguage>en-US</search:logLanguage>
    <search:badTitles>
      <search:badTitle>PowerPoint Presentation</search:badTitle>
      <search:badTitle>Slide 1</search:badTitle>
    </search:badTitles>
  </search:crawlerSettings>
</search:config>
```
docServiceInstance

A document service instance is a Java class that implements the document service API. It accepts input from documents and performs an operation on it. For example, you could create a document service for auditing or to show custom metatags.

Object Type

Creatable

Object Key

NAME

Object Key Command Syntax

--NAME=object_name
-n object_name

State Properties

None

Supported Operations

create
createAll
delete
deleteAll
deleteList
export
exportAll
exportList
getAllObjectKeys
update
updateAll

Administration GUI Page

Global Settings - Document Services - Create or Edit Document Service Instance

XML Description

The <search:docServiceInstances> element describes the document service instances:

<search:docServiceInstances>
  <search:docServiceInstance>
    <search:name>
    <search:instanceManagerName>
    <search:parameters>
      <search:parameter>
        <search:value>
        <search:description>


**Element Descriptions**

*<search:docServiceInstances>*
Describes all document service instances. It contains one or more
*<search:docServiceInstance>* elements, each defining a document service
instance.

*<search:docServiceInstance>*
Describes a document service instance. It contains these elements:

*<search:name>*
Contains the name of the document service instance.

*<search:instanceManagerName>*
Contains the name of the manager for the document service instance. (Read only)

*<search:parameters>*
Contains one or more *<search:parameter>* elements, each describing a parameter
of the document service instance.

*<search:parameter>*
Describes a parameter. It contains these elements:

*<search:value>*
Contains the value of the parameter.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name of the parameter. (Read only)</td>
</tr>
</tbody>
</table>

*<search:description>*
Contains a description of the parameter. (Read only)

**Example**

This XML document describes the default image service:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
  <search:docServiceInstances>
    <search:docServiceInstance>
      <search:name>Default image service instance</search:name>
      <search:instanceManagerName>Secure Enterprise Search Image Document Service</search:instanceManagerName>
      <search:parameters>
        Attribute          | Value
        name               | Name of the parameter. (Read only)
        encrypted          | Indicates whether the value of <search:value> is encrypted. Set to true if the value is encrypted, or set to false if it is plain text."
```

```xml
      <search:value>
      <search:description>
```

```xml
    </search:docServiceInstance>
  </search:docServiceInstances>
</search:config>
```
<search:parameter name="attributes configuration file">
  <search:value>attr-config.xml</search:value>
</search:parameter>
</search:config>
A document service manager identifies the parameters for one or more document service instances.

**Object Type**
Creatable

**Object Key**
jarFilePath managerClassName

**Object Key Command Syntax**
--JAR_FILE=jarfile_name --MANAGER_CLASS=class

**State Properties**
None

**Supported Operations**
- export
- exportAll
- exportList
- getAllObjectKeys

**Administration GUI Page**
Global Settings - Document Services - Service Managers

**XML Description**
The `<search:docServiceManagers>` element describes all document service managers:

```xml
<search:docServiceManagers>
  <search:docServiceManager>
    <search:managerClassName>
    <search:jarFilePath>
    <search:name>
    <search:description>
    <search:parameterInfos>
      <search:parameterInfo>
        <search:defaultValue>
        <search:encrypted>
        <search:description>
  </search:docServiceManager>
</search:docServiceManagers>
```

**Element Descriptions**

- `<search:docServiceManagers>`
  Describes all document service managers. It contains one or more `<search:docServiceManager>` elements, each defining a document service manager.

- `<search:docServiceManager>`
  Describes a document service manager. It contains these elements:
<search:managerClassName>
Contains the class name of the manager plug-in.
</search:managerClassName>

<search:jarFilePath>
Contains the qualified name of the jar file. Paths can be absolute or relative path to the ORACLE_HOME/search/lib/plugins/doc directory.
</search:jarFilePath>

<search:name>
Contains the name of the document service manager. (Read only)
</search:name>

<search:description>
Contains a description of the object. (Read only)
</search:description>

<search:parameterInfos>
Contains one or more <search:parameterInfo> elements, each describing a parameter of the document service manager. (Read only)
</search:parameterInfos>

<search:parameterInfo>
Describes a parameter. (Read only)
This element contains these child elements:
<search:defaultValue>
<search:encrypted>
<search:description>
</search:description>
</search:encrypted>
</search:defaultValue>
</search:parameterInfo>

Example

This XML document describes the Image Document Service Manager.

```xml
<?xml version="1.0" encoding='UTF-8'?>
<search:config productVersion='11.2.1.0.0'
xmlns:search='http://xmlns.oracle.com/search'
<search:docServiceManager>
  <search:managerClassName>
    oracle.search.plugin.doc.ordim.ImageDocumentServiceManager
  </search:managerClassName>
  <search:jarFilePath>ordim/ordimses.jar</search:jarFilePath>
  <search:name>ImageDocumentService</search:name>
  <search:description>
    document service that processes JPEG, GIF, TIFF, JPEG 2000 and DICOM image metadata for search
  </search:description>
</search:docServiceManager>
```
<search:parameterInfos>
  <search:parameterInfo name="attributes configuration file">
    <search:defaultValue>attr-config.xml</search:defaultValue>
    <search:encrypted>false</search:encrypted>
    <search:description>
      name of the configuration file that defined search attributes for image documents.
      The file must exist at search/lib/plugins/doc/ordim/config.
    </search:description>
  </search:parameterInfo>
</search:parameterInfos>
</search:docServiceManager>
</search:docServiceManagers>
</search:config>
docServicePipeline

A document service pipeline is a list of document service instances that are invoked in the order of the list. The same instance can be assigned to different pipelines, but it cannot be assigned twice in the same pipeline. You can have multiple pipeline definitions; for example, one pipeline could be used globally and another pipeline used for certain sources. An instance does not need to be in a pipeline.

Object Type
Creatable

Object Key
NAME

Object Key Command Syntax
--NAME=object_name
-n object_name

State Properties
None

Supported Operations
create
cREATEAll
delete
deleteAll
deleteList
export
exportAll
exportList
getAllObjectKeys
update
updateAll

Administration GUI Page
Global Settings - Document Services - Create or Edit Document Service Pipeline

XML Description
The <search:docServicePipelines> element describes the document service pipelines:

<search:docServicePipelines>
 <search:docServicePipeline>
  <search:name>
  <search:description>
  <search:assignedSources>
   <search:assignedSource>
  <search:serviceInstances>
   <search:serviceInstance>
Element Descriptions

<search:docServicePipelines>
Describes all document service pipelines. It contains one or more <search:docServicePipeline> elements, each defining a document service pipeline.

<search:docServicePipeline>
Describes a document service pipeline. It contains these elements:

<search:name>
Contains the name of the document service pipeline.

<search:description>
Contains a description of the pipeline.

<search:assignedSources>
Contains one or more <search:assignedSource> element, each describing a source that the document service pipeline is assigned to. (Read only)

<search:assignedSource>
Contains the name of a source crawled using this pipeline. (Read only)

<search:serviceInstances>
Contains one or more <search:serviceInstance> elements, each describing an existing document service instance to be invoked by the document service pipeline.

<search:serviceInstance>
Contains the name of an existing document service instance to be invoked by the document service pipeline.

Example

This XML document describes a document service pipeline:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
  <search:docServicePipelines>
    <search:docServicePipeline>
      <search:name>My pipeline</search:name>
      <search:description>
        My document service pipeline
      </search:description>
      <search:assignedSources>
        <search:assignedSource>
          this_web_source
        </search:assignedSource>
        <search:assignedSource>
          that_web_source
        </search:assignedSource>
      </search:assignedSources>
      <search:serviceInstances>
        <search:serviceInstance>
          My web service instance
        </search:serviceInstance>
      </search:serviceInstances>
    </search:docServicePipeline>
  </search:docServicePipelines>
</search:config>
```
</search:serviceInstance>
</search:serviceInstances>
</search:docServicePipeline>
</search:docServicePipelines>
</search:config>
Facets are a way of labeling data so that it can be navigated in different ways. A facet tree is a hierarchy of facets that narrow the number of matching documents.

**Object Type**
Creatable

**Object Key**
facetName

**Object Key Command Syntax**
--FACETNAME=name

**State Properties**
None

**Supported Operations**
create
createAll
delete
deleteAll
deleteList
export
exportAll
exportList

**Administration GUI Page**
None

**XML Description**
The `<search:facetTrees>` element describes facet trees:

```xml
<search:facetTrees>
  <search:facetTree>
<!-- Properties -->
  <search:facetName>
  <search:facetType>
  <search:mappedSearchAttribute>
  <search:newValuePolicy>
</search:facetTree>
</search:facetTrees>
```

**Element Descriptions**

**<search:facetTrees>**
One or more `<search:facetTree>` elements.

**<search:facetTree>**
Describes a facet tree. It contains these elements:

```xml
<search:facetName>
<search:facetType>
<search:mappedSearchAttribute>
```
<search:newValuePolicy>
<search:translations>

<search:facetName>
Name of the facet. The maximum length is 2000 bytes in UTF-8. Required.

<search:facetType>
Data type of <search:mappedSearchAttribute>. Set to STRING only. Required.

<search:mappedSearchAttribute>
Name of the search attribute whose values are used as the facet values. The data type must be the same as <search:facetType>. The maximum length of a string facet is 2000 bytes in UTF-8.

<search:newValuePolicy>
Controls validation of new values in the facet during a crawl:

- ACCEPT ALL: Adds new values to the facet tree.

**Example**

This XML document describes two facet trees, Country and Variety:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
<search:facetTrees>
<search:facetTree>
<search:facetName>Country</search:facetName>
<search:facetType>STRING</search:facetType>
<search:mappedSearchAttribute>Country</search:mappedSearchAttribute>
<search:newValuePolicy>ACCEPT_ALL</search:newValuePolicy>
<search:translations>
<search:translation language="en">Country</search:translatedValue>
</search:translation>
</search:translations>
</search:facetTree>
<search:facetTree>
<search:facetName>Variety</search:facetName>
<search:facetType>STRING</search:facetType>
<search:mappedSearchAttribute>Variety</search:mappedSearchAttribute>
<search:newValuePolicy>ACCEPT_ALL</search:newValuePolicy>
<search:translations>
<search:translation language="en">Variety</search:translatedValue>
<search:translation language="de">Vielfalt</search:translatedValue>
</search:translations>
</search:facetTree>
</search:facetTrees>
</search:config>
```
The default boundary rules specified in this object are copied to new sources that are created with no other boundary rules. Boundary rules restrict the crawler to those URLs that match the specified rules. Exclusion rules override inclusion rules. The order in which the rules are listed has no impact.

For file sources with no boundary rules, crawling is limited to the underlying file system access privileges. Files accessible from the specified seed file URL are crawled to the default crawling depth.

Object Type
Universal

State Properties
None

Supported Operations
export
update

Administration GUI Page
None

XML Description
The <search:globalBoundaryRules> element describes the rules limiting the scope of the crawler. It contains these elements:

<search:globalBoundaryRules>
  <search:boundaryRule>
    <search:ruleType>
    <search:ruleOperation>
    <search:rulePattern>

Element Descriptions

<search:globalBoundaryRules>
Contains one or more <search:boundaryRule> elements, each describing a boundary rule.

<search:boundaryRules>
Contains one or more <search:boundaryRule> elements.

<search:boundaryRule>
Describes a boundary rule. It contains these child elements:
<search:ruleType>
<search:ruleOperation>
<search:rulePattern>

<search:ruleType>
Type of URL boundary rule:
INCLUSION: The URL matches `<search:rulePattern>`.

EXCLUSION: The URL does not match `<search:rulePattern>`.

**<search:ruleOperation>**
Matching operation for a search rule pattern:
- CONTAINS: The URL contains the rule pattern for a case-insensitive match.
- STARTSWITH: The URL starts with the rule pattern for a case-insensitive match.
- ENDSWITH: The URL ends with the rule pattern for a case-insensitive match.
- REGEX: The URL matches the regular expression in a case-sensitive match.

**<search:rulePattern>**
The pattern of characters in the URL. You can use these special characters:
- Caret (^) denotes the beginning of a URL.
- Dollar sign ($) denotes the end of a URL.
- A period (.) matches any one character.
- Question mark (?) before a character matches 0 or 1 occurrences of that character.
- Asterisk (*) before a pattern matches 0 or more occurrences of that pattern. Enclose the pattern in parentheses (), brackets [], or braces {}.
- A backslash (\) precedes a literal use of a special character, such as \? to match a question mark in a URL.

Files with the following filename extensions are excluded by the default boundary rule patterns:
- **Image**: bmp, png, tif
- **Audio**: wav, wma, mp3
- **Video**: avi, wmv, mpeg, mpg
- **Binary**: bin, cab, dll, dmp, ear, exe, iso, jar, scm, so, tar, war, wmv

**Example**

This XML document defines the default global boundary rules:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
<search:globalBoundaryRules>
<search:boundaryRules>
<search:boundaryRule>
<search:ruleType>EXCLUSION</search:ruleType>
<search:ruleOperation>REGEX</search:ruleOperation>
<search:rulePattern>(?i:(?:.jar)|(?:.bmp)|(?:.war)|(?:.ear)|(?:.mpg)|(?:.wmv)|(?:.mpeg)|(?:.scm)|(?:.iso)|(?:.dmp)|(?:.dll)|(?:.cab)|(?:.so)|(?:.avi)|(?:.wav)|(?:.mp3)|(?:.wma)|(?:.bin)|(?:.exe)|(?:.iso)|(?:.tar)|(?:.png)\)$
</search:rulePattern>
</search:boundaryRule>
<search:boundaryRule>
<search:ruleType>EXCLUSION</search:ruleType>
<search:ruleOperation>REGEX</search:ruleOperation>
<search:rulePattern>\.*\(.*\){3}</search:rulePattern>
</search:boundaryRule>
</search:boundaryRules>
</search:config>
```
<search:boundaryRules>
</search:globalBoundaryRules>
</search:config>
globalDocumentTypes

This object identifies the default document types that are defined for each new source.

Object Type

Universal

Object Key

NAME

Object Key Command Syntax

--NAME=object_name

-n object_name

State Properties

None

Supported Operations

export
update

Administration GUI Page

None

XML Description

The <search:documentTypes> element describes the default document types:

<search:documentTypes>
  <search:documentType>
    <search:mimeType>

Element Descriptions

<search:documentTypes>
Contains one or more <search:documentType> elements.

<search:documentType>
Contains a <search:mimeType> element.

<search:mimeType>
Contains a supported MIME type, as described in Table 2–1, "Document Formats". These MIME types are defined by default:

application/msword
application/pdf
application/x-msexcel
application/x-mspowerpoint
text/html
text/plain
Example

This XML document describes the default global document types:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:globalDocumentTypes>
    <search:documentTypes>
      <search:documentType>
        <search:mimeType>text/html</search:mimeType>
      </search:documentType>
      <search:documentType>
        <search:mimeType>text/plain</search:mimeType>
      </search:documentType>
      <search:documentType>
        <search:mimeType>application/msword</search:mimeType>
      </search:documentType>
      <search:documentType>
        <search:mimeType>application/pdf</search:mimeType>
      </search:documentType>
      <search:documentType>
        <search:mimeType>application/x-msexcel</search:mimeType>
      </search:documentType>
      <search:documentType>
        <search:mimeType>application/x-mspowerpoint</search:mimeType>
      </search:documentType>
    </search:documentTypes>
  </search:globalDocumentTypes>
</search:config>
```
An identity plug-in provides an interface between Oracle Secure Enterprise Search and an identity management system to validate and authenticate users. An identity plug-in is required for secure searches. Secure searches return only the results that the user is allowed to view based on access privileges.

Only one identity plug-in can be active. It is responsible for all authentication and validation activity in Oracle SES. See "activate identityPlugin" on page 3-4.

Object Type
Creatable

Object Key
jarFilePath managerClassName

Object Key Command Syntax
--JAR_FILE=jar_filename --MANAGER_CLASS=class

State Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>status</td>
<td>ACTIVE</td>
</tr>
<tr>
<td></td>
<td>INACTIVE</td>
</tr>
</tbody>
</table>

Supported Operations
activate
deactivate
export
exportAll
exportList
getAllObjectKeys
getAllStates
getState
getStateList

Administration GUI Page
Global Settings - Identity Management Setup

XML Description

The <search:identityPlugins> element describes identity plug-ins:

```xml
<search:identityPlugins>
  <search:identityPlugin>
    <search:managerClassName>
    <search:jarFilePath>
    <search:description>
    <search:version>
    <search:authAttribute>

  <!-- Include parameters for activate operation -->
</search:identityPlugin>
</search:identityPlugins>
```
The implementation of the identity plug-in determines the parameters. You cannot create new parameters in the XML document.

**Element Descriptions**

**<search:identityPlugins>**
Contains one or more `<search:identityPlugin>` elements.

**<search:identityPlugin>**
Describes an identity plug-in. It contains these elements:

- `<search:managerClassName>`
- `<search:jarFilePath>`
- `<search:description>`
- `<search:version>`
- `<search:authAttribute>`
- `<search:parameters>`

**<search:managerClassName>**
Contains the class name of the plug-in.

**<search:jarFilePath>**
Contains the qualified name of the jar file. Paths can be absolute or relative to the `ORACLE_HOME/search/lib/plugins/identity` directory.

**<search:description>**
Contains a description of the plug-in. (Read only)

**<search:version>**
Contains the Oracle SES version of the plug-in. (Read only)

**<search:authAttribute>**
Contains the authentication attribute for the plug-in.

**<search:parameters>**
Contains one or more `<search:parameter>` elements.

**<search:parameter>**
Describes a plug-in parameter. Each plug-in has its own parameters. This element contains these child elements:

- `<search:value>`
- `<search:description>`

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name of the parameter.</td>
</tr>
</tbody>
</table>

**<search:value>**
Value of the parameter.
<search:description>
Description of the parameter.

Example

This XML document describes an Oracle Internet Directory plug-in:

```xml
<?xml version="1.0" encoding="UTF-8" ?>
<search:config productVersion="11.2.1.0.0"
 xmlns:search="http://xmlns.oracle.com/search">
 <search:identityPlugins>
  <search:identityPlugin>
   <search:managerClassName>
    oracle.search.plugin.security.identity.oid.OIDPluginManager
   </search:managerClassName>
   <search:jarFilePath>OIDPlugins.jar</search:jarFilePath>
   <search:description>Oracle Internet Directory identity plug-in manager</search:description>
   <search:version>11.2.1.0.0</search:version>
   <search:authAttribute>nickname</search:authAttribute>
   <search:parameters>
    <search:parameter name="Host name">
     <search:value>my_computer</search:value>
     <search:description>Oracle Internet Directory host on my computer</search:description>
    </search:parameter>
    <search:parameter name="Port">
     <search:value>7789</search:value>
     <search:description>Oracle Internet Directory port</search:description>
    </search:parameter>
    <search:parameter name="Use SSL">
     <search:value>false</search:value>
     <search:description>SSL encryption</search:description>
    </search:parameter>
    <search:parameter name="Realm">
     <search:value>dc=us,dc=example,dc=com</search:value>
     <search:description>Oracle Internet Directory realm</search:description>
    </search:parameter>
    <search:parameter name="User name">
     <search:value>cn=orcladmin</search:value>
     <search:description>Oracle Internet Directory user name</search:description>
    </search:parameter>
    <search:parameter name="Password">
     <search:value encrypted="false">mypassword</search:value>
     <search:description>Password</search:description>
    </search:parameter>
    <search:parameter name="Use User Cache">
     <search:value>false</search:value>
     <search:description> </search:description>
    </search:parameter>
    <search:parameter name="User Cache Source Name">
     <search:description> </search:description>
    </search:parameter>
   </search:parameters>
  </search:identityPlugin>
 </search:identityPlugins>
</search:config>
```

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>encrypted</td>
<td>Indicates whether the value of <a href="">search:value</a> is encrypted. Set to true if the password is encrypted, or set to false if it is plain text. The default value is false.</td>
</tr>
</tbody>
</table>
</search:parameter>
</search:parameters>
</search:identityPlugin>
</search:identityPlugins>
</search:config>
The index is a metadata repository for crawled documents and provides the search results list.

**Object Type**

Universal

**State Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>estimatedFragmentation</td>
<td>Decimal number representing the percent of fragmentation; optimize the index when fragmentation is greater than 50%</td>
</tr>
</tbody>
</table>

**Supported Operations**

- export
- getState
- update

**Administration GUI Page**

Global Settings - Set Indexing Parameters

**XML Description**

The `<search:index>` element describes indexing:

```xml
<search:index>
  <search:indexingBatchSize/>
  <search:indexingMemorySize/>
</search:index>
```

**Element Descriptions**

- `<search:index>`
  Describes the indexing parameters. It contains these elements:

```xml
<search:indexingBatchSize/>
<search:indexingMemorySize/>
```

- `<search:indexingBatchSize>`
  Contains the size in megabytes of the crawled documents before indexing begins. Crawling and indexing run concurrently after the initial batch size is reached. While the index is running, the crawler continues to crawl documents.
  The default size is 250 MB.

- `<search:indexingMemorySize>`
  Contains the number of megabytes of memory used for indexing before swapping to disk. A large amount of memory improves both indexing and query performance.
  The default size is 275 MB.
Example

This XML document configures the indexing properties:

```xml
<?xml version='1.0' encoding='UTF-8'?>
<search:config productVersion='11.2.1.0.0'
xmns:search='http://xmlns.oracle.com/search'>
    <search:index>
        <search:indexingBatchSize>250</search:indexingBatchSize>
        <search:indexingMemorySize>275</search:indexingMemorySize>
    </search:index>
</search:config>
```
indexOptimizer

Optimizing the index reduces fragmentation and may significantly increase the speed of searches. In general, the fragmentation percentage should be less than 50%. A higher percentage indicates that search performance is compromised. If it is over 75%, then you should optimize the index as soon as possible.

Optimization of a very large index may take several hours. Schedule optimization during hours of low usage to ensure minimal disruption to users.

Object Type

Universal

State Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>endTime</td>
<td>The date and time that the last optimization ended, in the form Day, DD Mon YYYY, HH:MM:SS GMT</td>
</tr>
<tr>
<td>startTime</td>
<td>The date and time that the last optimization started, in the same form as endTime</td>
</tr>
<tr>
<td>status</td>
<td>BLOCKED: Oracle Enterprise Scheduler attempted to start index optimization, but its execution was blocked. For example, a blackout date might prevent the job from executing. The job starts as soon as the blocking condition ends. DISABLED: Index optimization is currently disabled. EXECUTING: The index is currently being optimized. FAILED: Index optimization stopped with an error. HOLD: The Oracle Enterprise Scheduler administrator explicitly held execution of the index optimization. LAUNCHING: Index optimization has started. SCHEDULED: Index optimization is scheduled. STOPPED: Index optimization has stopped.</td>
</tr>
</tbody>
</table>

Supported Operations

activate
deactivate
export
getState
start
update

Administration GUI Page

Global Settings - Index Optimization

XML Description

The <search:indexOptimizer> element describes index optimization:

```xml
<search:indexOptimizer>
  <search:frequency>
  </search:frequency>
</search:indexOptimizer>
```
<!-- For hourly optimization -->
<search:hourly>
  <search:hoursBtwnLaunches>
</search:hourly>

<!-- For daily optimization -->
<search:daily>
  <search:daysBtwnLaunches>
  <search:startHour>
</search:daily>

<!-- For weekly optimization -->
<search:weekly>
  <search:weeksBtwnLaunches>
  <search:startDayOfWeek>
  <search:startHour>
</search:weekly>

<!-- For monthly optimization -->
<search:monthly>
  <search:monthsBtwnLaunches>
  <search:startDayOfMonth>
  <search:startHour>
</search:monthly>

<!-- For all frequencies -->
<search:duration>
  <search:maxHours>
</search:duration>

Element Descriptions

<search:indexOptimizer>
Describes index optimization schedule. It contains these elements:
<search:frequency>
<search:duration>

<search:frequency>
Describes the optimization schedule. It contains one of these elements:
<search:hourly>
<search:daily>
<search:weekly>
<search:monthly>

<search:hourly>
Describes an hourly schedule. It contains a <search:hoursBtwnLaunches> element.

<search:hoursBtwnLaunches>
The number of hours between optimizations.

<search:daily>
Describes a daily schedule. It contains these elements:
<search:daysBtwnLaunches>
<search:startHour>

<search:daysBtwnLaunches>
The number of days between optimizations.
<search:startHour>
The time the crawl begins using a 24-hour clock, such as 9 for 9:00 a.m. or 23 for 11:00 p.m. The default value is 1.
</search:startHour>

<search:weekly>
Describes a weekly schedule (default). It contains these elements:
<search:weeksBtwnLaunches>
<search:startDayOfWeek>
<search:startHour>
</search:weekly>
</search:weekly>

<search:weeksBtwnLaunches>
The number of weeks between optimizations.
</search:weeksBtwnLaunches>

<search:startDayOfWeek>
The day of the week that the crawl begins, such as MONDAY or TUESDAY. The default is SATURDAY.
</search:startDayOfWeek>

<search:monthly>
Describes a monthly schedule. It contains these elements:
<search:monthsBtwnLaunches>
<search:startDayOfMonth>
<search:startHour>
</search:monthly>
</search:monthly>

<search:monthsBtwnLaunches>
The number of time periods between starting a crawl.
</search:monthsBtwnLaunches>

<search:startDayOfMonth>
An integer value for the day of the month that the crawl begins, such as 1 or 15.
</search:startDayOfMonth>

<search:duration>
Controls the duration of the optimization process. It contains a <search:maxhours> element.
</search:duration>

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>haslimit</td>
<td>Set to true to enforce the time limit, or set to false to allow the process to finish. Required.</td>
</tr>
</tbody>
</table>

<search:maxHours>
The number of hours the optimization process is allowed to continue. For best results, allow the optimization to finish.
</search:maxHours>

Example
This XML document describes the index optimizer settings:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
  <search:indexOptimizer>
    <search:frequency>
      <search:weekly>
        <search:weeksBtwnLaunches>3</search:weeksBtwnLaunches>
        <search:startDayOfWeek>MONDAY</search:startDayOfWeek>
        <search:startHour>23</search:startHour>
      </search:weekly>
    </search:frequency>
    <search:duration haslimit="true">
      ...
    </search:duration>
  </search:indexOptimizer>
</search:config>
```
<search:maxHours>8</search:maxHours>
</search:duration>
</search:indexOptimizer>
</search:config>
Partitioning is used to improve the query performance of large data sets. You can use multiple partitions to distribute the document index across physical storage devices. I/O is then performed in parallel to gain the best query performance.

See Also: "Partitioning for Parallel Query" on page 2-10

Object Type

Universal

State Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>status</td>
<td>ACTIVE</td>
</tr>
<tr>
<td></td>
<td>INACTIVE</td>
</tr>
</tbody>
</table>

Supported Operations

activate
export *
getState
update

* The partitionConfig object must be activated before you can export it.

Administration GUI Page

None

XML Description

The <search:partitionConfig> element describes partitioning:

```xml
<search:partitionConfig>
  <search:partitionAttrs>
    <search:partitionAttr>
      <search:name>
      <search:partitionRules>
        <search:partitionRule>
          <search:partitionValue>
            <search:valueType>
            <search:ruleType>
            <search:storageArea>
  <search:partitionAttrs>
</search:partitionConfig>
```

Element Descriptions

<search:partitionConfig>
Describes the partition configuration rules. It contains these elements:

<search:partitionAttrs>
<search:partitionRules>

<search:partitionAttrs>
Contains a <search:partitionAttr> element.
<search:partitionAttr>
Describes an attribute on which partitioning is based. It contains a <search:name>
element.

<search:name>
Contains the name of any String-type search attribute, or one of these values:
-EQ_SOURCE_NAME: The name of the data source.
-EQ_SOURCE_TYPE: The source type, which must exactly match a defined source
type name. For a list of source types, export the sourceType object.

<search:partitionRules>
Contains one or more <search:partitionRule> elements.

<search:partitionRule>
Describes a partition rule for the expected values of the partitioning attribute. It
contains these elements:
<search:partitionValue>
<search:valueType>
<search:ruleType>
<search:storageArea>

<search:partitionValue>
Contains the partition value. It can contain an expected value of the partitioning
attribute or one of these values:
- EQ_OTHER: Identifies the partition rule when none of the other defined values of
<search:partitionValue> match the attribute value of the document.
- EQ_DEFAULT: Identifies the partition rule when no partitioning attribute is
defined.

<search:valueType>
Contains the type of partitionValue: ATTR is it is an attribute value, or META if it is
EQ_OTHER or EQ_DEFAULT. Required.

<search:ruleType>
Contains the type of partition rule. Required.
- HASH: Evenly distributes the index values for a large set of documents across the
list of storage areas. Each partition is located in one storage area.
- VALUE: Maps the specified partition value to one partition. Oracle SES assigns this
rule initially when partitioning is enabled and only one storage area is defined out
of the box. Do not use this value when you plan to use multiple storage areas for
parallel query. Specify HASH instead.

<search:storageArea>
For a VALUE rule, the name of a single storageArea object.
For a HASH rule, a comma-delimited list of storageArea objects used by this
partition rule. Repeat the name of a storageArea to create multiple partitions within
a single tablespace. Remember that a storageArea object is a tablespace in Oracle
Database that is registered for use with Oracle SES.

For example, this list creates one partition in each tablespace:
sa1, sa2, sa3

The next list creates three partitions in sa1 and two partitions in sa2:
Examples

This XML document describes partitioning of the document index across six storage areas named sa1 to sa6:

```xml
<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
  <search:partitionConfig>
    <search:partitionRules>
      <search:partitionRule>
        <search:partitionValue>EQ_DEFAULT</search:partitionValue>
        <search:valueType>META</search:valueType>
        <search:ruleType>HASH</search:ruleType>
        <search:storageArea>sa1, sa2, sa3, sa4, sa5, sa6</search:storageArea>
      </search:partitionRule>
    </search:partitionRules>
  </search:partitionConfig>
</search:config>
```

This example creates a partitioning rule based on the Language attribute. Documents with a value of en (English) or ja (Japanese) for the Language attribute are indexed in the sa1 storage area. All other documents are hashed into the sa2 and sa3 storage areas.

```xml
<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
  <search:partitionConfig>
    <search:partitionAttrs>
      <search:partitionAttr>
        <search:name>Language</search:name>
      </search:partitionAttr>
    </search:partitionAttrs>
    <search:partitionRules>
      <search:partitionRule>
        <search:partitionValue>en,ja</search:partitionValue>
        <search:valueType>ATTR</search:valueType>
        <search:ruleType>VALUE</search:ruleType>
        <search:storageArea>sa1</search:storageArea>
      </search:partitionRule>
      <search:partitionRule>
        <search:partitionValue>EQ_DEFAULT</search:partitionValue>
        <search:valueType>META</search:valueType>
        <search:ruleType>HASH</search:ruleType>
        <search:ruleSetting></search:ruleSetting>
        <search:storageArea>sa2,sa3</search:storageArea>
      </search:partitionRule>
    </search:partitionRules>
  </search:partitionConfig>
</search:config>
```

The next example stores the document index from the Doc Library source in sa1, from My Web Site in sa2, and from all other sources in sa3:

```xml
<search:config xmlns:search="http://xmlns.oracle.com/search" productVersion="11.2.1.0.0">
  <search:partitionConfig>
    <search:partitionAttrs>
      <search:partitionAttr>
        <search:name>EQ_SOURCE_NAME</search:name>
      </search:partitionAttr>
    </search:partitionAttrs>
  </search:partitionConfig>
</search:config>
```
</search:partitionAttr>
</search:partitionAttrs>
<search:partitionRules>
  <search:partitionRule>
    <search:partitionValue>Doc Library</search:partitionValue>
    <search:valueType>ATTR</search:valueType>
    <search:ruleType>VALUE</search:ruleType>
    <search:storageArea>sa1</search:storageArea>
  </search:partitionRule>
  <search:partitionRule>
    <search:partitionValue>My Web Site</search:partitionValue>
    <search:valueType>ATTR</search:valueType>
    <search:ruleType>VALUE</search:ruleType>
    <search:storageArea>sa2</search:storageArea>
  </search:partitionRule>
  <search:partitionRule>
    <search:partitionValue>EQ_OTHER</search:partitionValue>
    <search:valueType>META</search:valueType>
    <search:ruleType>VALUE</search:ruleType>
    <search:storageArea>sa3</search:storageArea>
  </search:partitionRule>
</search:partitionRules>
</search:partitionConfig>
</search:config>
When performing a secure search on a federation endpoint, the federation broker must transmit the identity of the user to the federation endpoint. If the endpoint instance trusts the broker instance, then the broker instance can proxy as the end user. To establish this trust relationship, Oracle SES instances exchange a secret. This secret is exchanged in the form of a trusted entity.

A trusted entity consists of two values: an entity name and an entity password. Each Oracle SES instance can have one or more trusted entities that it can use to participate in secure federated search. A federated trusted entity is also referred to as a proxy user or a proxy log-in.

**Object Type**
Creatable

**Object Key**
name

**Object Key Command Syntax**

```
--NAME=object_name
-n object_name
```

**State Properties**
None

**Supported Operations**
create
createAll
delete
deleteAll
deleteList
export
exportAll
exportList
getAllObjectKeys
update
updateAll

**Administration GUI Page**
Global Settings - Federation Trusted Entities

**XML Description**
The `<search:proxyLogins>` element describes proxy log-ins:

```
<search:proxyLogins>
  <search:proxyLogin>
    <search:name>
    <search:password>
    <search:useIdentityPlugin>
```

---

2-48 Oracle Secure Enterprise Search Administration API Guide
Element Descriptions

<search:proxyLogins>
Describes proxy log-ins. It contains one or more <search:proxyLogin> elements.

<search:proxyLogin>
Describes a proxy log-in. It contains these elements:
<search:name>
<search:password>
<search:useIdentityPlugin>

<search:name>
Name of the proxy. Required.

<search:password>
Password for the proxy server. Required when <search:useIdentityPlugin> is false.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>encrypted</td>
<td>Indicates whether the value of <a href="">search:password</a> is encrypted. Set to true if the password is encrypted, or set to false if it is plain text.</td>
</tr>
</tbody>
</table>

<search:useIdentityPlugin>
Controls use of an identity plug-in. Set to true to use the active identity plug-in for authentication, or set to false otherwise. Required.

Example

This XML document describes two proxy log-ins:

```xml
<?xml version='1.0' encoding='UTF-8' ?>
<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
  <search:proxyLogins>
    <search:proxyLogin>
      <search:name>this_proxy</search:name>
      <search:useIdentityPlugin>true</search:useIdentityPlugin>
    </search:proxyLogin>
    <search:proxyLogin>
      <search:name>that_proxy</search:name>
      <search:password encrypted="false">password</search:password>
      <search:useIdentityPlugin>false</search:useIdentityPlugin>
    </search:proxyLogin>
  </search:proxyLogins>
</search:config>
```
queryConfig

Query configuration enables you to customize the query results and tune the search engine.

Object Type
Universal

State Properties
None

Supported Operations
export
update

Administration GUI Page
Global Settings - Query Configuration

XML Description
The `<search:queryConfig>` element sets the query configuration parameters:

```xml
<search:queryConfig>
  <search:maxNumResults/>
  <search:lastCrawlDatesMergeRange/>
  <search:searchTimeout/>
  <search:enableWildcardQueries/>
  <search:displayUrls>
    <search:tableDisplayUrl/>
    <search:fileDisplayUrl/>
    <search:mailingListDisplayUrl/>
    <search:emailDisplayUrl/>
  </search:displayUrls>
  <search:relevancyBoosting/>
  <search:spellingCorrection/>
  <search:useLanguageDictionary/>
  <search:useIndexedDocsAndQueryLog/>
  <search:hitCount>
    <search:countMethod/>
    <search:maxExactHitCount/>
  </search:hitCount>
  <search:queryStatistics/>
  <search:loggingPeriod/>
  <search:urlSubmission>
    <search:sourceName/>
    <search:checkUrlBoundaryRules/>
  </search:urlSubmission>
  <search:federation/>
  <search:timeout/>
  <search:minNumThreads/>
  <search:maxNumThreads/>
  <search:queryTimeAuthorization/>
  <search:timeout/>
  <search:minNumThreads/>
  <search:maxNumThreads/>
  <search:logFilteredDocs/>
  <search:secureSearch/>
  <search:loginRequirement/>
</search:queryConfig>
```
**Element Descriptions**

**<search:queryConfig>**
Describes query configuration parameters. It contains these elements:

- `<search:maxNumResults>`
- `<search:lastCrawlDatesMergeRange>`
- `<search:timeout>`
- `<search:enableWildcardQueries>`
- `<search:displayUrls>`
- `<search:relevancyBoosting>`
- `<search:parallelQuery>`
- `<search:spellingCorrection>`
- `<search:hitCount>`
- `<search:queryStatistics>`
- `<search:urlSubmission>`
- `<search:federation>`
- `<search:queryTimeAuthorization>`
- `<search:secureSearch>`

**<search:maxNumResults>**
Maximum number of search results returned by a query.

**<search:lastCrawlDatesMergeRange>**
Threshold for merging last crawl dates from different data sources. The default value is 86,400,000.

**<search:searchTimeout>**
Number of milliseconds allowed for processing each parallel query phase. The default value is 1,200,000.

**<search:enableWildcardQueries>**
Controls whether question marks (?) and asterisks (*) in queries are used as wildcards or literal characters for matching documents.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to <code>true</code> to enable wildcards, or set to <code>false</code> otherwise. True is the default for Oracle Fusion Applications. Required.</td>
</tr>
</tbody>
</table>

**<search:displayUrls>**
Describes the display URLs. It contains these elements:

- `<search:tableDisplayUrl>`
- `<search:fileDisplayUrl>`
- `<search:mailingListDisplayUrl>`
- `<search:emailDisplayUrl>`

**<search:tableDisplayUrl>**
URL used to display the retrieved data for a table source.
<search:fileDisplayUrl>
URL used to display the retrieved data for a file source.

<search:mailingListDisplayUrl>
URL used to display the retrieved data for a mailing list source.

<search:emailDisplayUrl>
URL used to display the retrieved data for an e-mail source.

<search:relevancyBoosting>
Controls relevancy boosting.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to enable relevancy boosting, or set to false otherwise. Required.</td>
</tr>
</tbody>
</table>

<search:spellingCorrection>
Controls spelling correction. When enabled, this element contains these child elements:

<search:useLanguageDictionary>
<search:useIndexedDocsAndQueryLog>

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to enable spelling correction, or set to false otherwise. Required.</td>
</tr>
</tbody>
</table>

<search:useLanguageDictionary>
Controls use of an English dictionary for spelling suggestions. Set to true to use an English dictionary, or set to false to derive spelling suggestions only from terms in indexed documents and the query log. Consider false if users typically search for non-English terms.

<search:useIndexedDocsAndQueryLog>
Contains a value of true or false to control use of terms from indexed documents and the query log for spelling suggestions. Terms that occur frequently are extracted to the Oracle SES dictionary. Set to true to use terms from these sources, or set to false to use only the English dictionary for suggestions. Consider false if suggestions from crawled documents to all search users may breach security.

<search:hitCount>
Contains a <search:countMethod> element.

<search:countMethod>
A hit count method:

- APPROX_COUNT: Displays an estimated number of matching documents. This method supports better performance than EXACT_COUNT. (Default)
- EXACT_COUNT: Displays the exact number of matching documents.
- EXACT_COUNT_QTA: Displays the exact number of matching documents adjusted for query-time filtering.
<search:maxExactHitCount>
The maximum number of exact results. An estimated number is returned for a higher number of results.

<search:queryStatistics>
Controls the collection of search statistics. Set to true to collect statistics, or set to false otherwise. This operation degrades search performance, so you should disable it during peak hours.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to enable collection or set to false otherwise. Required.</td>
</tr>
</tbody>
</table>

<search:loggingPeriod>
Number of days the data is saved. Statistics are compiled for this number of days.

<search:urlSubmission>
Controls the submission of URLs. When enabled, this element contains these child elements:

<search:sourceName>
<search:checkUrlBoundaryRules>

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to enable URL submission, or set to false otherwise. Required.</td>
</tr>
</tbody>
</table>

<search:sourceName>
A Web source to which user-suggested URLs are added.

<search:checkUrlBoundaryRules>
Controls the enforcement of boundary rules for URLs submitted by users. Set to true to accept only URLs that match the rules, or set to false to ignore the boundary rules.

<search:federation>
Describes the querying parameters of federated sources. It contains these child elements:

<search:timeout>
<search:minNumThreads>
<search:maxNumThreads>

<search:timeout>
Contains the number of milliseconds for search results to be returned.

<search:minNumThreads>
Contains the minimum number of processes to use for searching when demand is low.

<search:maxNumThreads>
Contains the maximum number of processes to use for searching when demand is high.

<search:queryTimeAuthorization>
Describes authorization. It contains these optional child elements:

<search:timeout>
<search:minNumThreads/>
<search:maxNumThreads/>
<search:logFilteredDocs/>

**<search:logFilteredDocs>**
Controls document logging. Set to true to record all filtered documents in the query application log file, or set to false otherwise.

Query-time filtering errors are always logged.

**<search:secureSearch>**
Describes secure search. It contains these child elements:

- **<search:loginRequirement>** A log-in method:
  - ALL_CONTENT: Users must log in to view any content, whether public or secure.
  - SECURE_CONTENT: Users must log in to view secure content.

- **<search:securityFilterLifespan>** Number of minutes a stored security filter is retained. Set to a value between 0 (no cache) and 526500 (one-year cache retention).

- **<search:securityFilterRefreshWaitTimeout>** Number of milliseconds to block a query for a security filter refresh before returning no results or using an expired security filter, depending on the value of <search:preserveStaleSecurityFilterOnError>. The default value is 1000 ms.

- **<search:authenticationTimeout>** Number of milliseconds for authentication.

- **<search:authorizationTimeout>** Number of milliseconds for authorization.

- **<search:preserveStaleSecurityFilterOnError>** Controls the response to queries when an expired security filter is being refreshed. Set to true to use the expired security filter, or set to false to return no results. The default value is false.

  When the security filter is expired, Oracle SES triggers a security filter refresh. During the refresh, if there is any error from any data source, then the user's existing security filter is preserved or overwritten, depending on this setting.

**Example**

This XML document describes the query parameters:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config xmlns:search="http://xmlns.oracle.com/search"
  productVersion="11.2.1.0.0">
  <search:queryConfig>
    <search:maxNumResults>200</search:maxNumResults>
  </search:queryConfig>
</search:config>
```
<search:lastCrawlDatesMergeRange>8640000</search:lastCrawlDatesMergeRange>
<search:searchTimeout>120000</search:searchTimeout>
<search:enableWildcardQueries enabled="false"/>
<search:displayUrls>
    <search:tableDisplayUrl>
        /search/query/display.jsp?type=table</search:tableDisplayUrl>
    <search:fileDisplayUrl>
        /search/query/display.jsp?type=file</search:fileDisplayUrl>
    <search:mailingListDisplayUrl>
        /search/query/mail.jsp</search:mailingListDisplayUrl>
    <search:emailDisplayUrl>
        /search/query/pmail.jsp</search:emailDisplayUrl>
</search:displayUrls>
<search:relevancyBoosting enabled="true"/>
<search:spellingCorrection enabled="false"/>
<search:hitCount>
    <search:countMethod>APPROX_COUNT</search:countMethod>
</search:hitCount>
<search:queryStatistics enabled="true">
    <search:loggingPeriod>7</search:loggingPeriod>
</search:queryStatistics>
<search:urlSubmission enabled="false"/>
<search:federation>
    <search:timeout>30000</search:timeout>
    <search:minNumThreads>5</search:minNumThreads>
    <search:maxNumThreads>20</search:maxNumThreads>
</search:federation>
<search:queryTimeAuthorization>
    <search:timeout>30000</search:timeout>
    <search:minNumThreads>5</search:minNumThreads>
    <search:maxNumThreads>20</search:maxNumThreads>
    <search:logFilteredDocs>false</search:logFilteredDocs>
</search:queryTimeAuthorization>
<search:secureSearch>
    <search:loginRequirement>SECURE_CONTENT</search:loginRequirement>
    <search:securityFilterLifespan>60</search:securityFilterLifespan>
    <search:authenticationTimeout>10000</search:authenticationTimeout>
    <search:authorizationTimeout>10000</search:authorizationTimeout>
    <search:minNumThreads>5</search:minNumThreads>
    <search:maxNumThreads>20</search:maxNumThreads>
    <search:securityFilterRefreshWaitTimeout>1000</search:securityFilterRefreshWaitTimeout>
</search:secureSearch>
</search:queryConfig>
</search:config>
relevanceRanking

Relevance ranking controls the importance given to various document attributes when ordering the search results. By customizing the ranking rules, you can produce more relevant search results for your enterprise.

In Oracle SES 11.1.2 and earlier releases, these parameters were stored in a file named ranking.xml.

Object Type
Universal

State Properties
None

Supported Operations
export
update

Administration GUI Page
None

XML Description
The <search:relevanceRanking> element describes the relevance ranking of search attributes:

```
<search:relevanceRanking>
  <search:defaultFactors>
    <search:defaultFactor>
      <search:name>
        <search:weight>
      </search:name>
      <search:weight>
    </search:defaultFactor>
  </search:defaultFactors>
  <search:customFactors>
    <search:customFactor>
      <search:attributeName>
        <search:attributeType>
          <search:factorType>
            <search:queryFactor>
              <search:weight>
            </search:queryFactor>
            <search:staticFactor>
              <search:matches>
                <search:match>
                  <search:value>
                    <search:weight>
                </search:match>
              </search:matches>
            </search:staticFactor>
          </search:factorType>
        </search:attributeType>
      </search:attributeName>
      <search:weight>
    </search:customFactor>
  </search:customFactors>
</search:relevanceRanking>
```

Element Descriptions

<search:relevanceRanking>
Contains these elements:

<search:defaultFactors>
<search:customFactors>
<search:defaultFactors>
Sets the weights for the default attributes used for ranking. It contains one or more
<search:defaultFactor> elements.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to enable default factors (default), or set to false otherwise. Required.</td>
</tr>
</tbody>
</table>

<search:defaultFactor>
Identifies a default search attribute and its weight. It contains these elements:
<search:name>
<search:weight>

The following table lists the default attributes and weights:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>High</td>
</tr>
<tr>
<td>Description</td>
<td>Medium</td>
</tr>
<tr>
<td>Reftext</td>
<td>High</td>
</tr>
<tr>
<td>Keywords</td>
<td>Medium</td>
</tr>
<tr>
<td>Subject</td>
<td>Low</td>
</tr>
<tr>
<td>Author</td>
<td>Medium</td>
</tr>
<tr>
<td>H1headline</td>
<td>Low</td>
</tr>
<tr>
<td>H2headline</td>
<td>Very low</td>
</tr>
<tr>
<td>Url</td>
<td>Low</td>
</tr>
<tr>
<td>Urldepth</td>
<td>High</td>
</tr>
<tr>
<td>Language Match</td>
<td>High</td>
</tr>
<tr>
<td>Linkscore</td>
<td>High</td>
</tr>
</tbody>
</table>

<search:name>
Name of the attribute, such as Title or Description.

<search:weight>
Contains the weight assigned to an attribute: very high, high, medium, low, very low, and none. If the weight is not specified, the default weight for the attribute is used.

<search:customFactors>
Adds other attributes for ranking. It contains one or more <search:customFactor> elements.

<search:customFactor>
Describes an attribute used for ranking. Any indexed search attribute can be a custom ranking attribute. This element contains these child elements:
<search:attributeName>
<search:attributeType>
<search:factorType>
<search:attributeName>
The exact name of a search attribute defined in Oracle SES. This name is case-insensitive.

<search:attributeType>
The data type of the attribute. Only String is supported.

<search:factorType>
Identifies the type of ranking. It contains one of these elements:

<search:queryFactor>
Matches the attribute value against query terms. For example, if a custom attribute has the value "Terry Francona," then a query for "Terry Francona" is given the relevancy ranking of the attribute.

This element contains a <search:weight> element.

<search:staticFactor>
Matches the attribute value against an attribute of the documents. For example, assume a company identifies its documents as good or poor and defines a custom search attribute for quality. If a custom attribute for quality ranks good documents very high and poor documents low, then a good document appears higher than a poor document in the list of search results.

This element contains a <search:matches> element.

<search:matches>
Contains one or more <search:match> elements.

<search:match>
Identifies a matching search attribute and value. It contains these elements:

<search:value>
<search:weight>

<search:value>
The value of the search attribute specified in <search:name> being given a weight.

Example

This XML document describes relevance ranking:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:relevanceRanking>
    <search:defaultFactors enabled="true">
      <search:defaultFactor>
        <search:name>TITLE</search:name>
        <search:weight>MEDIUM</search:weight>
      </search:defaultFactor>
    </search:defaultFactors>
  </search:relevanceRanking>
</search:config>
```
schedule

Schedules define the frequency of updating the index with information about each source.

The Oracle SES middle tier time zone is used to execute the schedule.

Object Type
Creatable

Object Key
name

Object Key Command Syntax
--NAME=object_name
-n object_name

State Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>lastCrawled</td>
<td>The date of the last scheduled crawl in the format Day, DD MMM YYYY HH:MM:SS GMT</td>
</tr>
<tr>
<td>logFilePath</td>
<td>The full path to the crawler log files</td>
</tr>
<tr>
<td>nextCrawl</td>
<td>The date of the next scheduled crawl in the same format as lastCrawled</td>
</tr>
<tr>
<td>scheduleError</td>
<td>The text of the last error message</td>
</tr>
<tr>
<td>status</td>
<td>BLOCKED: Oracle Enterprise Scheduler attempted to start the job, but its execution was blocked. For example, a blackout date might prevent the job from executing. The job starts as soon as the blocking condition ends.</td>
</tr>
<tr>
<td></td>
<td>DISABLED: The job is currently disabled.</td>
</tr>
<tr>
<td></td>
<td>EXECUTING: The job is currently running.</td>
</tr>
<tr>
<td></td>
<td>FAILED: The job stopped with an error. Oracle Enterprise Scheduler will attempt to restart the crawl at the next scheduled time.</td>
</tr>
<tr>
<td></td>
<td>HOLD: The Oracle Enterprise Scheduler administrator explicitly held execution of the job.</td>
</tr>
<tr>
<td></td>
<td>LAUNCHING: The crawler has started.</td>
</tr>
<tr>
<td></td>
<td>SCHEDULED: The crawler is scheduled.</td>
</tr>
<tr>
<td></td>
<td>STOPPED: The crawler has stopped.</td>
</tr>
</tbody>
</table>

Supported Operations
activate
create
createAll
deactivate
delete
deleteAll
deleteList
export
elexportAll
elexportList
getAllObjectKeys
getAllStates
getState
getStateList
start
stop
update
updateAll

Administration GUI Page
Home - Schedules - Create or Edit Schedule

XML Description
A <search:schedules> element describes the schedules for crawling sources:

```xml
<search:schedules>
  <search:schedule>
    <search:name>
    <search:crawlingMode>
    <search:recrawlPolicy>
    <search:frequency>

<!-- For hourly crawls: -->
  <search:hourly>
    <search:hoursBtwnLaunches>

<!-- For daily crawls: -->
  <search:daily>
    <search:daysBtwnLaunches>
    <search:startHour>

<!-- For weekly crawls: -->
  <search:weekly>
    <search:weeksBtwnLaunches>
    <search:startDayOfWeek>
    <search:startHour>

<!-- For monthly crawls: -->
  <search:monthly>
    <search:monthsBtwnLaunches>
    <search:startDayOfMonth>
    <search:startHour>

<!-- For manual crawls: -->
  <search:manual>

<!-- For all crawls: -->
  <search:assignedSources>
  <search:assignedSource>
```

Element Descriptions

`<search:schedules>`
Contains one or more `<search:schedule>` elements, one for each schedule.
<search:schedule>
Describes a schedule for crawling sources. It contains these elements:

<search:name>
<search:crawlingMode>
<search:recrawlPolicy>
<search:frequency>
<search:assignedSources>

<search:name>
The name of the schedule. Required.

<search:crawlingMode>
A crawling mode:

■ ACCEPT_ALL: Crawls and indexes all URLs in the source, and extracts and indexes any links found in the URLs of Web sources. If the URL has been crawled before, then it is reindexed only after it changes.

■ EXAMINE_URLS: Crawls but does not index any URLs in the source. It also crawls any links found in those URLs. Use this mode when first crawling a new source, so that you can examine the documents and refine the crawling parameters if necessary before indexing.

■ INDEX_ONLY: Crawls and indexes all URLs in the source. It does not extract any links from those URLs. In general, select this option for a source that has been crawled previously using EXAMINE_URLS.

<search:recrawlPolicy>
Specifies the recrawl policy:

■ PROCESS_ALL: Recrawls all documents in the source.

■ PROCESS_CHANGED: Crawls only documents that changed after the last crawl.

For file sources, documents are also crawled if the parent directory changed.

<search:frequency>
Controls the intervals between starting a schedule. It contains one of these elements:

<search:hourly>
<search:daily>
<search:weekly>
<search:monthly>
<search:manual>

<search:hourly>
Describes an hourly schedule. It contains a <search:hoursBtwnLaunches> element.

<search:hoursBtwnLaunches>
Number of hours between starting crawls, in the range of 1 to 23.

<search:daily>
Describes a daily schedule. It contains these elements:

<search:daysBtwnLaunches>
<search:startHour>

<search:daysBtwnLaunches>
Number of days between starting crawls, in the range of 1 to 99.
<search:startHour>
The time the crawl begins using a 24-hour clock, such as 9 for 9:00 a.m. or 23 for 11:00 p.m.
</search:startHour>

<search:weekly>
Describes a weekly schedule. It contains these elements:
<search:weeksBtwnLaunches>
<search:startDayOfWeek>
<search:startHour>
</search:weekly>

<search:weeksBtwnLaunches>
Number of weeks between starting crawls, in the range of 1 to 12.
</search:weeksBtwnLaunches>

<search:startDayOfWeek>
The day of the week that the crawl begins, such as MONDAY or TUESDAY.
</search:startDayOfWeek>

<search:monthly>
Describes a monthly schedule. It contains these elements:
<search:monthsBtwnLaunches>
<search:startDayOfMonth>
<search:startHour>
</search:monthly>

<search:monthsBtwnLaunches>
Number of months between starting crawls, in the range of 1 to 12.
</search:monthsBtwnLaunches>

<search:startDayOfMonth>
An integer value for the day of the month that the crawl begins, such as 1 or 15.
</search:startDayOfMonth>

<search:manual>
Describes a manual search.
</search:manual>

<search:assignedSources>
Contains one or more <search:assignedSource> elements, one for each source that is crawled using this schedule.
</search:assignedSources>

<search:assignedSource>
The name of a source crawled using this schedule. The source cannot be a mailing-list source or a federated source.
</search:assignedSource>

Example

This XML document describes a schedule for mySource that runs every third Monday at 11:00 p.m.:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
<search:schedules>
  <search:schedule>
    <search:name>schedule1</search:name>
    <search:crawlingMode>INDEX_ONLY</search:crawlingMode>
    <search:recrawlPolicy>PROCESS_ALL</search:recrawlPolicy>
    <search:frequency>
      <search:weekly>
        <search:weeksBtwnLaunches>3</search:weeksBtwnLaunches>
        <search:startDayOfWeek>MONDAY</search:startDayOfWeek>
        <search:startHour>23</search:startHour>
      </search:weekly>
    </search:frequency>
  </search:schedule>
</search:schedules>
</search:config>
```
<search:frequency>
<search:assignedSources>
  <search:assignedSource>mySource</search:assignedSource>
</search:assignedSources>
</search:schedule>
</search:schedules>
</search:config>
Search attributes are attributes exposed to the search user. Oracle Secure Enterprise Search (SES) provides system-defined attributes, such as author and description, and enables administrators to create custom attributes.

When the indexed documents contain metadata, such as author and date information, you can let users refine their searches based on this information. For example, users can search for all documents by a particular author, that is, where the author attribute has a particular value.

Oracle Secure Enterprise Search has several default search attributes. They can be incorporated in search applications for a more detailed search and richer presentation. If an attribute List of Values (LOV) is available, then the crawler registers the LOV definition, which includes attribute value, attribute value display name, and its translation.

You can create, delete, and update custom attributes, and update the default attributes.

**Object Type**

Creatable

**Object Key**

name

**Object Key Command Syntax**

--NAME=object_name

-n object_name

**State Properties**

None

**Supported Operations**

create
createAll
delete
deleteAll
deleteList
export
exportAll
exportList
getAllObjectKeys
update
updateAll

**Administration GUI Pages**

Global Settings - Search Attributes
Global Settings - Search Attributes - Manage LOVs for Attribute
Global Settings - Translate Search Attribute Name
Global Settings - Translate LOV Display Name
XML Description

The <search:Attrs> element describes search attributes:

```xml
<search:searchAttrs>
  <search:searchAttr>
    <search:name>
    </search:name>
    <search:type>
    </search:type>
    <search:translations>
    </search:translations>
    <search:lovEntries>
      <search:lovEntry>
      </search:lovEntry>
    </search:lovEntries>
  </search:searchAttr>
</search:searchAttrs>
```

Element Descriptions

<search:searchAttrs>
Contains one or more <search:searchAttr> elements.

<search:searchAttr>
Describes a search attribute. It contains these elements:

<search:name>
Name of the search attribute. (Required)

<search:type>
Data type of the attribute values. Set to STRING, NUMBER, or DATE. (Required)

<search:translations>
Contains translations of the object name for display. See "Providing Translations of Object Names" on page 2-6.

<search:lovEntries>
Contains one or more <search:lovEntry> elements, each describing a list of values (LOV).

<search:lovEntry>
Describes a list of values. It contains these child elements:

<search:lovValue>
Name of the list of values. (Required)

<search:sourceName>
Name of the source for a source-specific list of values.
Example

This XML document describes a search attribute named Copyright:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:searchAttrs>
    <search:searchAttr>
      <search:name>Copyright</search:name>
      <search:type>DATE</search:type>
    </search:searchAttr>
  </search:searchAttrs>
</search:config>
```
source

Sources are collections of data to be searched, such as Web sites, database tables, content management repositories, collaboration repositories, and applications.

Note: The current release of the Oracle SES Administration API supports these source types:
- File
- Federated
- User Defined
- Web

Object Type
Creatable

Object Key
name

Object Key Command Syntax
--NAME=object_name
-n object_name

State Properties
None

Supported Operations
create
createAll
delete
deleteAll
deleteList
export
exportAll
exportList
getAllObjectKeys
update
updateAll

Administration GUI Page
Home - Sources - Create or Edit Source
Home - Sources - Customize Federated Source

XML Descriptions
Each supported source type has a unique XML description:
- XML Description: Federated Sources
- XML Description: File Sources
- XML Description: User-Defined Sources
- XML Description: Web Sources

**XML Description: Federated Sources**

For a federated source, the `<search:sources>` element contains a `<search:federatedSource>` element:

```xml
<search:sources>
  <search:federatedSource>
    <search:name>
    <search:url>
    <search:security>
      <search:entityName>
      <search:entityPassword>
      <search:authAttribute>
      <search:queryRouting>
      <search:filterRule>
      <search:searchRestrictions>
        <search:groupRestrictedEnabled>
        <search:searchedGroups>
        <search:fedSourceGroup>
        <search:attributeRetrieval>
        <search:retrievedAttrs>
        <search:fedSearchAttr>
        <search:attributeMappings>
          <search:attributeMapping>
            <search:localAttribute>
            <search:remoteAttribute>
          </search:attributeMapping>
        </search:attributeMappings>
      </search:searchRestrictions>
      </search:searchedGroups>
      </search:fedSourceGroup>
    </search:searchRestrictions>
    </search:security>
    </search:federatedSource>
  </search:sources>
</search:sources>
```

**Element Descriptions**

- `<search:sources>`
  Contains one or more source descriptions.

- `<search:federatedSource>`
  Describes a federated source. It contains these elements:

  ```xml
  <search:name>
  <search:url>
  <search:security>
  <search:queryRouting>
  <search:searchRestrictions>
  <search:attributeRetrieval>
  <search:retrievedAttrs>
  <search:fedSearchAttr>
  <search:attributeMappings>
    <search:attributeMapping>
      <search:localAttribute>
      <search:remoteAttribute>
    </search:attributeMapping>
  </search:attributeMappings>
  </search:searchRestrictions>
  </search:security>
  </search:federatedSource>
  </search:sources>
  ```

- `<search:name>`
  Contains the name of the source. (Required)

- `<search:url>`
  Contains the Web service URL.

- `<search:security>`
  Describes security for connecting to the federated source. It contains these child elements:

  ```xml
  <search:entityName>
  <search:entityPassword>
  <search:authAttribute>
  ```
<search:entityName>
Contains the name of the federation trusted entity on the federation endpoint. Contact the administrator of the federated endpoint for this information.

<search:entityPassword>
Contains the password for the entity name.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>encrypted</td>
<td>Indicates whether the value of <a href="">search:entityPassword</a> is encrypted. Set to true if the password is encrypted, or set to false if it is plain text.</td>
</tr>
</tbody>
</table>

<search:authAttribute>
Contains the name of an attribute that identifies and can authenticate a user on the federation endpoint.

<search:queryRouting>
Describes the rules for routing queries to the federated source. Without any rules, Oracle SES routes all queries to the federated source. This element is optional, but can improve scalability. It contains a <search:filterRule> element.

<search:filterRule>
Contains the rules within a CDATA element. Rules consist of an attribute, a colon (:), and an expression. Attributes can be DATE, STRING, or NUMBER. DATE and NUMBER attributes can include these operators: -, =, >, >=, <, <=. The AND or OR operators separate multiple rules.

<search:searchRestrictions>
Restricts searches to a list of source groups. It contains these child elements:

- <search:groupRestrictedEnabled>
- <search:searchedGroups>

<search:groupRestrictedEnabled>
Controls whether source groups are restricted during searches. Set to true to restrict searches, or set to false otherwise. The default value is false. (Optional)

<search:searchedGroups>
Describes the source groups to be searched on the federated source. It contains one or more <search:fedSourceGroup> elements.

<search:fedSourceGroup>
Empty element that uses parameters to identify source group. (Read only)

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>isAvailable</td>
<td>Identifies whether the source group is currently available in the federated source.</td>
</tr>
<tr>
<td>name</td>
<td>Name of a federated source group. (Required)</td>
</tr>
</tbody>
</table>

<search:attributeRetrieval>
Describes the attributes to be retrieved from the federated source. It contains a <search:retrieveAttrs> element.

<search:retrieveAttrs>
Contains one or more <search:fedSearchAttr> elements.
<search:fedSearchAttr>
Empty element that uses parameters to identify a search attribute.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name of a search attribute. (Required)</td>
</tr>
<tr>
<td>type</td>
<td>Data type of the attribute: STRING, NUMBER, or DATE. (Required)</td>
</tr>
<tr>
<td>isAvailable</td>
<td>Identifies whether the attribute is currently available in the federated source: true if it is available, or false otherwise.</td>
</tr>
<tr>
<td>isMandatory</td>
<td>Identifies whether retrieval of the attribute is mandatory: true if it must be listed in the <a href="">search:retrievedAttrs</a> element, or false if it can be omitted without causing an error.</td>
</tr>
</tbody>
</table>

<search:attributeMappings>
Contains one or more <search:attributeMapping> elements.

<search:attributeMapping>
Maps a local attribute to a remote attribute. It contains one of each of these elements:

<search:localAttribute>
<search:remoteAttribute>

<search:localAttribute>
Identifies the local attribute being mapped.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name of the local attribute. (Required)</td>
</tr>
<tr>
<td>type</td>
<td>Data type of the local attribute: STRING, NUMBER, or DATE. (Required)</td>
</tr>
</tbody>
</table>

<search:remoteAttribute>
Identifies the remote attribute being mapped.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name of the remote attribute. (Required)</td>
</tr>
<tr>
<td>type</td>
<td>Data type of the remote attribute: STRING, NUMBER, or DATE. (Required)</td>
</tr>
<tr>
<td>isAvailable</td>
<td>Identifies whether the remote attribute is currently available in the federated source: true if it is available, or false otherwise.</td>
</tr>
</tbody>
</table>

Example 2–1  Federated Source Description
This XML document describes a federated source:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:sources>
    <search:federatedSource>
      <search:name>fed1</search:name>
      <search:security>
        <search:entityName>entity2</search:entityName>
        <search:entityPassword encrypted="false">password</search:entityPassword>
        <search:authAttribute>nickname</search:authAttribute>
```
XML Description: File Sources

For a file source, the <search:sources> element contains a <search:fileSource> element:

<search:sources>
  <search:fileSource>
    <search:name>
      <search:fileDisplayUrl>
        <search:fileUrlPrefix>
        </search:fileDisplayUrl>
      </search:fileUrlPrefix>
    </search:name>
  </search:fileSource>
</search:sources>
<search:displayUrlPrefix>
<search:startingUrls>
<search:startingUrl>
<search:url>
<search:aclPolicy>
<search:authorizationPlugin>
<search:boundaryRules>
<search:attributeMappings>
<search:attributeMapping>
<search:documentAttr>
<search:searchAttr>
<search:crawlerSettings>
<search:documentTypes>
<search:documentType>
<search:mimeType>

Element Descriptions

<search:sources>
Contains one or more source descriptions.

<search:fileSource>
Describes a file source. It contains these elements:

<search:name>
<search:fileDisplayUrl>
<search:startingUrls>
<search:aclPolicy>
<search:boundaryRules>
<search:attributeMappings>
<search:crawlerSettings>
<search:documentTypes>

<search:name>
Contains the name of the file source.

<search:fileDisplayUrl>
Identifies a physical path that is replaced by a display URL for security reasons when the file is retrieved during a search.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Controls whether the display URL prefix is used for security reasons. Set to true to use the display URL, or set to false to display the physical location of the file. (Required)</td>
</tr>
</tbody>
</table>

<search:fileUrlPrefix>
Contains the physical file URL to be replaced by the display URL.

<search:displayUrlPrefix>
Contains a URL prefix displayed instead of the file URL.

<search:startingUrls>
Identifies the file path where the crawler begins. It consists of one or more of these child elements:

<search:startingUrl>
Contains a <search:url> element.
<search:url>
Contains an entry point for starting to crawl files. The URL must be in its original form as an unencoded file path.

<search:aclPolicy>
Describes an authorization policy for the source. See “XML Description: Web Sources” on page 2-79.

<search:authorizationPlugin>
Describes the authorization plug-in. See "XML Description: User-Defined Sources" on page 2-76.

<search:boundaryRules>
Describes the boundary rules for the source. See "XML Description: Web Sources" on page 2-79.

<search:attributeMappings>
Maps the document attributes to search attributes. It contains one or more <search:attributeMapping> elements.

<search:attributeMapping>
Contains a document attribute and a search attribute for mapping. It contains one of each of these child elements:
<search:documentAttr>
<search:searchAttr>

<search:documentAttr>
Identifies a document attribute by its name and data type.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name of a document attribute</td>
</tr>
<tr>
<td>type</td>
<td>Data type of the attribute: DATE, NUMBER, or STRING</td>
</tr>
</tbody>
</table>

<search:searchAttr>
Identifies a search attribute by its name and data type. Search attributes are displayed to users in the Oracle SES Search interface.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name of a search attribute</td>
</tr>
<tr>
<td>type</td>
<td>Data type of the attribute: DATE, NUMBER, or STRING</td>
</tr>
</tbody>
</table>

<search:crawlerSettings>
Configures the crawler. It contains these child elements:
<search:numThreads>
<search:languageDetection>
<search:defaultLanguage>
<search:crawlTimeout>
<search:maxDocumentSize>
<search:preserveDocumentCache>
<search:charSetDetection>
<search:defaultCharSet>
<search:servicePipeline>
<search:indexProfileName>
See the `<search:crawlerSettings>` for Web sources on page 2-83 for descriptions, except for `<search:followSymlinks>`:

`<search:followSymlinks>`
Contains `true` to prevent the crawler from following links to the absolute path, or `false` otherwise. The default value is `true`.

Applies only to file sources on Linux and UNIX systems.

`<search:documentTypes>`
Identifies the types of documents to be crawled. It contains one or more `<search:documentType>` elements.

`<search:documentType>`
Contains one or more `<search:mimeType>` elements.

`<search:mimeType>`
Contains the Internet media type of the content in the form `type/subtype`. See Table 2–1, "Document Formats" for supported MIME types.

**Example 2–2  **File Source Description**

This XML document describes a file source:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:sources>
    <search:fileSource>
      <search:name>Document Library</search:name>
      <search:fileDisplayUrl enabled="false"/>
      <search:startingUrls>
        <search:startingUrl>
          <search:url>file://localhost/startingDirectory/</search:url>
        </search:startingUrl>
      </search:startingUrls>
      <search:aclPolicy>
        <search:noACL/>
      </search:aclPolicy>
      <search:attributeMappings>
        <search:attributeMapping>
          <search:documentAttr name="AUTHOR" type="STRING"/>
        </search:attributeMapping>
        <search:attributeMapping>
          <search:documentAttr name="CREATOR" type="STRING"/>
        </search:attributeMapping>
        <search:attributeMapping>
          <search:documentAttr name="DESCRIPTION" type="STRING"/>
        </search:attributeMapping>
        <search:attributeMapping>
          <search:documentAttr name="HOST" type="STRING"/>
        </search:attributeMapping>
      </search:attributeMappings>
    </search:fileSource>
  </search:sources>
</search:config>
```
<search:attributeMappings>
  <search:attributeMapping>
    <search:documentAttr name="INFO SOURCE" type="STRING"/>
    <search:searchAttr name="Infosource" type="STRING"/>
  </search:attributeMapping>
  <search:attributeMapping>
    <search:documentAttr name="KEYWORD" type="STRING"/>
    <search:searchAttr name="Keywords" type="STRING"/>
  </search:attributeMapping>
  <search:attributeMapping>
    <search:documentAttr name="KEYWORDS" type="STRING"/>
    <search:searchAttr name="Keywords" type="STRING"/>
  </search:attributeMapping>
  <search:attributeMapping>
    <search:documentAttr name="LANGUAGE" type="STRING"/>
    <search:searchAttr name="Language" type="STRING"/>
  </search:attributeMapping>
  <search:attributeMapping>
    <search:documentAttr name="LAST MODIFIED DATE" type="DATE"/>
    <search:searchAttr name="LastModifiedDate" type="DATE"/>
  </search:attributeMapping>
  <search:attributeMapping>
    <search:documentAttr name="MIME TYPE" type="STRING"/>
    <search:searchAttr name="Mimetype" type="STRING"/>
  </search:attributeMapping>
  <search:attributeMapping>
    <search:documentAttr name="SUBJECT" type="STRING"/>
    <search:searchAttr name="Subject" type="STRING"/>
  </search:attributeMapping>
  <search:attributeMapping>
    <search:documentAttr name="SUBJECTS" type="STRING"/>
    <search:searchAttr name="Subject" type="STRING"/>
  </search:attributeMapping>
  <search:attributeMapping>
    <search:documentAttr name="TITLE" type="STRING"/>
    <search:searchAttr name="Title" type="STRING"/>
  </search:attributeMapping>
</search:attributeMappings>
<search:crawlerSettings>
  <search:numThreads>5</search:numThreads>
  <search:languageDetection enabled="false"/>
  <search:defaultLanguage>en</search:defaultLanguage>
  <search:crawlTimeout>30</search:crawlTimeout>
  <search:preserveDocumentCache enabled="true"/>
  <search:defaultCharSet>8859_1</search:defaultCharSet>
  <search:servicePipeline enabled="true">
    <search:pipelineName>Default pipeline</search:pipelineName>
  </search:servicePipeline>
</search:crawlerSettings>
<search:documentTypes>
  <search:documentType>
    <search:mimeType>text/html</search:mimeType>
  </search:documentType>
  <search:documentType>
    <search:mimeType>text/plain</search:mimeType>
  </search:documentType>
  <search:documentType>
    <search:mimeType>text/xml</search:mimeType>
  </search:documentType>
</search:documentTypes>
XML Description: User-Defined Sources

For a user-defined source, a `<search:sources>` element contains a `<search:userDefinedSource>` element:

```xml
<search:sources>
  <search:userDefinedSource>
    <search:name>
    </search:name>
    <search:sourceTypeName>
    </search:sourceTypeName>
    <search:boundaryRules>
    </search:boundaryRules>
    <search:aclPolicy>
    </search:aclPolicy>
    <search:attributeMappings>
    </search:attributeMappings>
    <search:documentTypes>
      <search:documentType>
      </search:documentType>
    </search:documentTypes>
    <search:parameters>
    </search:parameters>
  </search:userDefinedSource>
</search:sources>
```

Element Descriptions

**<search:sources>**
Describes one or more sources.

**<search:userDefinedSource>**
Describes a user-defined source. It contains these child elements:

- `<search:name>`
- `<search:sourceTypeName>`
- `<search:boundaryRules>`
- `<search:aclPolicy>`
- `<search:attributeMappings>`
- `<search:documentTypes>`
- `<search:parameters>`

**<search:name>**
Name of the user-defined source.

**<search:sourceTypeName>**
Type of user-defined source. For a definitive list of user-defined source types, issue an `exportAll sourceType` command. Set to the source type exactly as shown.

- Database
- EMC Documentum Content Server
- EMC Documentum eRoom
- Federated User Authorization Cache
- Lotus Notes
- Microsoft Exchange}
Microsoft NTFS
Microsoft SharePoint 2007
Oracle Calendar
Oracle Collaboration Suite E-Mail
Oracle Content Database
Oracle Content Database (JDBC)
Oracle Content Server
Oracle E-Business Suite
Oracle Fusion
Oracle WebCenter
Siebel 7.8
Siebel 7.8 (Public)
Siebel 8
User Authorization Cache

<search:aclPolicy>
See "XML Description: Web Sources" on page 2-79.

<search:authorizationPlugin>
Describes an authorization plug-in. It contains these elements:
<search:managerClassName>
<search:jarFilePath>
<search:parameters>

<search:managerClassName>
Contains the name of the plug-in manager Java class.

<search:jarFilePath>
Contains the qualified name of the jar file. Paths can be absolute or relative to the
ORACLE_HOME/search/lib/plugins/identity directory.

<search:parameters>
Contains one or more <search:parameter> elements, each one setting a parameter.
This element appears in a <search:userDefinedSource> element to define
parameters supported by the source. It also appears in a
<search:authorizationPlugin> to define parameters supported by the plug-in.

<search:parameter>
Describes a parameter. It contains the following elements:
<search:value>
<search:description>

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name of a parameter.</td>
</tr>
</tbody>
</table>

<search:value>
Contains the value of the parameter.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>encrypted</td>
<td>Indicates whether the value of <a href="">search:value</a> is encrypted. Set to true if the value is encrypted, or set to false if it is plain text.</td>
</tr>
</tbody>
</table>

<search:description>
Contains a description of the parameter.
<search:securityAttrs>
Contains one or more <search:securityAttr> elements.
</search:securityAttrs>

<search:securityAttr>
Contains a user or a group that is granted or denies access to the data source, depending on the value of the type attribute. (Read only)
</search:securityAttr>

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>Set to GRANT if the user or group has access to the source, or set to DENY otherwise.</td>
</tr>
</tbody>
</table>

<search:boundaryRules>
Describes the boundary rules. See "XML Description: Web Sources" on page 2-79.
</search:boundaryRules>

<search:attributeMappings>
Maps the document attributes to search attributes.
</search:attributeMappings>

<search:crawlerSettings>
Configures the crawler. It contains these child elements:
<search:numThreads>
<search:languageDetection>
<search:defaultLanguage>
<search:crawlTimeout>
<search:maxDocumentSize>
<search:preserveDocumentCache>
<search:charSetDetection>
<search:defaultCharSet>
<search:servicePipeline>
<search:indexNullTitleFallback>
<search:badTitles>
<search:logLevel>
<search:useInMemoryQueue>

See <search:crawlerSettings> for Web sources on page 2-83 for descriptions of these elements, except for <search:useInMemoryQueue>.

<search:useInMemoryQueue>
Contains true to put the queue in memory, or false otherwise. The default value is false. This setting is used only by connectors associated with Oracle Database.
</search:useInMemoryQueue>

<search:documentTypes>
Identifies the types of documents to be crawled. It contains one or more <search:documentType> elements.
</search:documentTypes>

<search:documentType>
Contains a <search:mimeType> element.
</search:documentType>

<search:mimeType>
Contains the Internet media type of the content in the form type/subtype. See Table 2–1, "Document Formats".
</search:mimeType>

Example 2–3  User-Defined Source Description
This XML document describes an Oracle Content Database source.

```xml
<?xml version="1.0"?>
<search:config productVersion="11.2.1.0.0"
```
XML Description: Web Sources

For a Web source, the <search:source> element contains a <search:webSource> element:

<search:sources>
  <search:webSource>
    <search:name>
      <search:selfService>
    </search:name>
    <search:startingUrls>
      <search:startingUrl>
        <search:url>
        </search:url>
      </search:startingUrl>
    </search:startingUrls>
    <search:sourceLevelACL>
      <search:accessControlEntries>
      </search:accessControlEntries>
    </search:sourceLevelACL>
    <search:documentLevelACL>
      <search:accessControlEntries>
      </search:accessControlEntries>
    </search:documentLevelACL>
    <search:noACL/>
    <!-- No ACL policy -->
  </search:webSource>
</search:sources>
<search:formUrl>
<search:action>
<search:successUrl>
<search:formControls>
<search:formControl>
<search:name>
<search:value>
<search:isPasswordField>
<search:ssoAuthentication>
<search:username>
<search:password>
<search:userAgent>

Element Descriptions

<search:sources>
Contains one or more source descriptions.

<search:webSource>
Describes a Web source. It contains these child elements:

<search:name>
<search:selfService
<search:startingUrls>
<search:aclPolicy>
<search:boundaryRules>
<search:metatagMappings>
<search:crawlerSettings>
<search:documentTypes>
<search:httpAuthentications>
<search:htmlForms>
<search:ssoAuthentications>

<search:name>
Name of the Web source.

<search:selfService>
Contains a value of true to enable self-service authentication, or a value of false to
disable it. Self-service authentication lets users enter authentication credentials at run
time, instead of the administrator entering credentials at the time the source is created.

<search:startingUrls>
Contains one or more <search:startingUrl> elements.

<search:startingUrl>
Contains a <search:url> element.

<search:url>
Contains the URL-encoded Web address that is an entry point for starting to crawl
Web pages.

<search:aclPolicy>
Describes an ACL policy for the source. It contains one of these child elements:

<search:noACL>
<search:documentLevelACL>
<search:sourceLevelACL>
<search:noACL>
Indicates no ACL policy. All documents are visible and searchable.

<search:documentLevelACL>
Describes a document-level ACL policy.

<search:sourceLevelACL>
Describes an Oracle SES ACL policy used when crawling private content. It preserves authorizations specified in OracleAS Portal.

For user-defined sources, crawler plug-ins (or connectors) can supply ACL information with documents for indexing, which provides finer control document protection. That is, each document within one source may be viewed by a different set of users or groups.

This element contains a <search:accessControlEntries> element.

<search:accessControlEntries>
Contains one or more <search:accessControlEntry> elements.

<search:accessControlEntry>
Provides a list of users and groups that have access to the source or are restricted from access. It contains these child elements:
<search:name>
<search:privilege>

<search:name>
Contains the name or a user or group that is valid for the currently active identity plug-in.

<search:privilege>
Set to GRANTED to allow access to the source, or set to DENIED to restrict access.

<search:boundaryRules>
Contains one or more <search:boundaryRule> elements, each describing a boundary rule.

<search:boundaryRule>
Describes a boundary rule. It contains these child elements:
<search:ruleType>
<search:ruleOperation>
<search:rulePattern>

<search:ruleType>
Type of URL boundary rule:
- INCLUSION: The URL matches <search:rulePattern>.
- EXCLUSION: The URL does not match <search:rulePattern>.

<search:ruleOperation>
Matching operation for a search rule pattern:
- CONTAINS: The URL contains the rule pattern for a case-insensitive match.
- STARTSWITH: The URL starts with the rule pattern for a case-insensitive match.
- ENDSWITH: The URL ends with the rule pattern for a case-insensitive match.
- REGEX: The URL contains the regular expression in a case-sensitive match.
<search:rulePattern>
The pattern of characters in the URL. You can use these special characters:

- Caret (^) denotes the beginning of a URL.
- Dollar sign ($) denotes the end of a URL.
- A period (.) matches any one character.
- Question mark (?) before a character matches 0 or 1 occurrences of that character.
- Asterisk (*) before a pattern matches 0 or more occurrences of that pattern. Enclose the pattern in parentheses (), brackets [], or braces {}.
- A backslash (\) precedes a literal use of a special character, such as \? to match a question mark in a URL.
</search:rulePattern>

<search:metatagMappings>
Contains one or more <search:metatagMapping> elements.
</search:metatagMappings>

<search:metatagMapping>
Contains a mapped pair of attributes in these child elements:
<search:documentAttr>
<search:searchAttr>
</search:metatagMapping>
</search:metatagMappings>

<search:documentAttr>
Identifies a document attribute by its name and data type. Document attributes are among the properties of a document.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name of a document attribute. (Required)</td>
</tr>
<tr>
<td>type</td>
<td>Data type of the attribute: DATE, NUMBER, or STRING.</td>
</tr>
</tbody>
</table>
</search:documentAttr>

<search:searchAttr>
Identifies a search attribute by its name and data type. Search attributes are displayed to users in the Oracle SES Search interface.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Name of a search attribute. (Required)</td>
</tr>
<tr>
<td>type</td>
<td>Data type of the attribute: DATE, NUMBER, or STRING.</td>
</tr>
</tbody>
</table>
</search:searchAttr>

<search:crawlerSettings>
Configures the crawler. It contains these child elements:
<search:numThreads>
<search:languageDetection>
<search:defaultLanguage>
<search:crawlDepth>
<search:crawlTimeout>
<search:maxDocumentSize>
<search:preserveDocumentCache>
<search:charSetDetection>
<search:defaultCharSet>
<search:servicePipeline>
<search:indexNullTitleFallback>
<search:badTitles>
<search:honorRobotsExclusion>
<search:indexDynamicPages>
<search:httpCharSetOverride>
<search:cookies>
<search:agentString>
<search:duplicateDetection>
<search:connections>
<search:logLevel>

<search:numThreads>
Number of processes to use for crawling the source.

<search:languageDetection>
Controls the use of a language detector when the metadata for a document does not identify the language.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Controls use of language detection when a source document does not indicate the language in the header. Set to true to enable language detection, or set to false otherwise. (Required)</td>
</tr>
</tbody>
</table>

<search:defaultLanguage>
Default language used by the crawler when the document language cannot be detected.

<search:crawlDepth>
Controls use of a limit on crawling nested links. It contains a <search:limit> element.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>haslimit</td>
<td>Controls whether the search limit is enforced. Set to true to impose the limit, or set to false otherwise. (Required)</td>
</tr>
</tbody>
</table>

<search:limit>
Contains the maximum number of nested links to be crawled.

<search:crawlTimeout>
Number of milliseconds for search results to be returned.

<search:maxDocumentSize>
Maximum document size in megabytes. Larger documents are not crawled.

<search:preserveDocumentCache>
Controls retention of the document cache after indexing.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to retain the cache, or set to false otherwise. (Required)</td>
</tr>
</tbody>
</table>

<search:charsetDetection>
Contains a value of true to enable automatic character set detection, or false to disable it. The default value is true. This parameter can be set at the global level.

<search:defaultCharSet>
Code for the default character set, which is used when a source document does not identify its character set in the header. See Table 2-4, "Crawlable Character Sets".
<search:servicePipeline>
Controls use of a document service pipeline.

| Attribute         | Value                                                                 |
|-------------------|                                                                      |
| enabled           | Set to true to use the pipeline, or set to false otherwise. When true, <search:servicePipeline> contains a <search:pipelineName> element. |

<search:pipelineName>
Contains the name of a pipeline.

<search:indexNullTitleFallback>
Controls whether the default title is included in the index for documents with null titles:

- indexForAll: Includes the default title in the index. (Default)
- noIndex: Does not include the default title in the index.

<search:badTitles>
Contains one or more <search:badTitle> elements. This parameter can be set at the global level.

<search:badTitle>
Contains an exact character string for a document title that the crawler omits from the index. These bad titles are defined by default:

PowerPoint Presentation
Slide 1

<search:honorRobotsExclusion>
Controls visits by robots to the Web site.

| Attribute         | Value                                                                 |
|-------------------|                                                                      |
| enabled           | Set to true to exclude robots, or set to false otherwise. |

<search:indexDynamicPages>
Controls whether dynamic pages are crawled and indexed.

| Attribute         | Value                                                                 |
|-------------------|                                                                      |
| enabled           | Set to true to crawl dynamic pages, or set to false otherwise.     |

<search:httpCharSetOverride>
Controls the character set used for a Web page.

| Attribute         | Value                                                                 |
|-------------------|                                                                      |
| enabled           | Set to true to exclude robots, or set to false otherwise. |

<search:cookies>
Controls whether cookies are used to remember context. It contains these child elements:

<search:cookiecontentInLog>
<search:maxCookieSize>
<search:maxCookies>
<search:maxCookiesPerHost>

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to enable cookies (default), or false otherwise.</td>
</tr>
</tbody>
</table>

<search:cookieContentInLog>
Controls whether information about cookies appears in the log file.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>Set to true to log cookie messages, or set to false otherwise (default).</td>
</tr>
</tbody>
</table>

<search:maxCookieSize>
Contains the maximum size in bytes of a cookie.

<search:maxCookies>
Contains the total number of cookies allowed in a crawl.

<search:maxCookiesPerHost>
Contains the maximum number of cookies permitted for a Web site.

<search:agentString>
Contains the browser agent string presented to the Web server. The default value is "Oracle Secure Enterprise Search". Applies only to Web and Portal sources.

<search:duplicateDetection>
Contains a value of true to enable duplicate detection during a Web crawl, or false to disable it. The default value is true.

<search:connections>
Sets limits on a connection to Web and Portal sources. It contains these elements:

- <search:timeout>
- <search:retries>
- <search:retryInterval>

<search:timeout>
Contains the maximum number of milliseconds to make a connection to a data source. The default value is 10.

<search:retries>
Contains the maximum number of connection attempts to a data source. The default value is 10.

<search:retryInterval>
Contains the number of milliseconds between connection retry attempts. The default value is 5.

<search:crawlConnectionSettingsType>

<search:logLevel>
Contains a logging level for the crawler:
<search:documentTypes>
Identifies the types of documents to be crawled. It contains one or more <search:documentType> elements.

<search:documentType>
Contains one or more <search:mimeType> elements.

<search:mimeType>
Contains the Internet media type of the content in the form type/subtype. See Table 2–1, "Document Formats".

<search:httpAuthentications>
Contains one or more <search:httpAuthentication> elements.

<search:httpAuthentication>
Describes HTTP authentication. For proxy authentication, it contains these elements:
<search:host>
<search:realm>
<search:username>
<search:password>

<search:host>
Contains the address of the target computer.

<search:realm>
Contains a name associated with the protected area of a Web site.

<search:username>
Contains the name of the log-in user.

<search:password>
Contains the password associated with the user name.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>encrypted</td>
<td>Indicates whether the value of <a href="">search:password</a> is encrypted. Set to true if the password is encrypted, or set to false if it is plain text.</td>
</tr>
</tbody>
</table>

<search:htmlForms>
Contains one or more <search:htmlForm> elements, each one describing an HTML form.

<search:htmlForm>
Describes an HTML form. It contains these elements:
<search:name>
<search:formUrl>
Contains the name of the HTML form object.

<search:formUrl>
Contains the Web address of the HTML form.

<search:action>
Contains the address where the browser sends the form.

<search:successUrl>
Contains the URL displayed after the user successfully submits the form.

<search:formControls>
Contains one or more <search:formControl> elements.

<search:formControl>
Describes a form control. It contains these elements:

<search:name>
Contains the name of the form control.

<search:value>
Contains the value of the form control.

<search:isPasswordField>
Identifies whether the field contains a password. Set to true for a password field, or false otherwise.

<search:ssoAuthentication>
Describes OracleAS Single Sign-On authentication. It contains these elements:

<search:username>
Contains a user name for OracleAS Single Sign-On.

<search:password>
Contains the password for the OracleAS Single Sign-On user.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>encrypted</td>
<td>Indicates whether the value of <a href="">search:value</a> is encrypted. Set to true if the value is encrypted, or set to false if it is plain text.</td>
</tr>
<tr>
<td>enabled</td>
<td>Controls use of OracleAS Single Sign-On for authentication. Set to true to enable Single Sign-On, or false otherwise.</td>
</tr>
</tbody>
</table>
**<search:userAgent>**

Contains an authentication value that overrides the default User Agent value for OracleAS Single Sign-On. The default value is null.

**Example 2–4  Web Source Description**

This XML document describes a Web source.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
<search:sources>
<search:webSource>
<search:name>this_websource</search:name>
<search:startingUrls>
<search:startingUrl>
<search:url>http://www.example.com/</search:url>
</search:startingUrl>
</search:startingUrls>
<search:aclPolicy>
<search:noACL/>
</search:aclPolicy>
<search:boundaryRules>
<search:boundaryRule>
<search:ruleType>EXCLUSION</search:ruleType>
<search:ruleOperation>STARTSWITH</search:ruleOperation>
<search:rulePattern>
<![CDATA[http://www.example.com?test=test val3]]>
</search:rulePattern>
</search:boundaryRule>
<search:boundaryRule>
<search:ruleType>INCLUSION</search:ruleType>
<search:ruleOperation>CONTAINS</search:ruleOperation>
<search:rulePattern>
<![CDATA[http://www.example.com?test=test val]]>
</search:rulePattern>
</search:boundaryRule>
<search:boundaryRule>
<search:ruleType>INCLUSION</search:ruleType>
<search:ruleOperation>REGEX</search:ruleOperation>
<search:rulePattern>
<![CDATA[https://www.example.com(?:\\d(1,5))?\?\$]]>
</search:rulePattern>
</search:boundaryRule>
</search:boundaryRules>
<search:metatagMappings>
<search:metatagMapping>
<search:documentAttr name="AUTHOR" type="STRING"/>
<search:searchAttr name="Author" type="STRING"/>
</search:metatagMapping>
<search:metatagMapping>
<search:documentAttr name="CREATOR" type="STRING"/>
<search:searchAttr name="Author" type="STRING"/>
</search:metatagMapping>
</search:metatagMappings>
</search:webSource>
</search:sources>
</search:config>
```

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>encrypted</td>
<td>Indicates whether the value of <code>&lt;search:password&gt;</code> is encrypted.</td>
</tr>
<tr>
<td></td>
<td>Set to true if the password is encrypted, or set to false if it is</td>
</tr>
<tr>
<td></td>
<td>plain text.</td>
</tr>
</tbody>
</table>
sourceGroup

A source group consists of one or more sources. When entering a search, users can select the source groups to search instead of searching all available sources. A source can belong to multiple source groups.

Object Type
Creatable

Object Key
name

Object Key Command Syntax

--NAME=object_name
-n object_name

State Properties
None

Supported Operations
create
createAll
delete
deleteAll
deleteList
export
exportAll
exportList
getAllObjectKeys
update
updateAll

Administration GUI Page
Global Settings - Translate Source Group Name
Search - Source Groups - Create or Edit Source Group

XML Description
The <search:sourceGroups> element describes source groups:

<search:sourceGroups>
  <search:sourceGroup>
    <search:name>
    <search:translations>
    <search:assignedSources>
      <search:assignedSource>

Schema Descriptions

<search:sourceGroups>
Contains one or more <search:sourceGroup> elements, each defining a source group.

<search:sourceGroup>
Describes a source group. It contains these elements:

<search:name>
Contains the name of the source group. (Required)

<search:translations>
Contains translations of the object name for display. See "Providing Translations of Object Names" on page 2-6.

<search:assignedSources>
Contains one or more <search:assignedSource> elements, each identifying a source assigned to this source group.

<search:assignedSource>
Contains the name of a source in this source group.

Example

This XML document describes two source groups, Web and Calendar:

<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
<search:sourceGroups>
  <search:sourceGroup>
    <search:name>Web</search:name>
  </search:sourceGroup>
  <search:sourceGroup>
    <search:name>Calendar</search:name>
    <search:translations>
      <search:translation language="de">
        <search:translatedValue>Kalender</search:translatedValue>
      </search:translation>
      <search:translation language="fi">
        <search:translatedValue>kalenteri</search:translatedValue>
      </search:translation>
      <search:translation language="es">
        <search:translatedValue>calendario</search:translatedValue>
      </search:translation>
      <search:translation language="pt-br">
        <search:translatedValue>calendario</search:translatedValue>
      </search:translation>
    </search:translations>
  </search:sourceGroup>
</search:sourceGroups>
</search:config>
sourceType

A source type identifies where the information for a source is stored, such as on a Web site or in a database table. Oracle SES provides several built-in source types.

Object Type
Creatable

Object Key
name

Object Key Command Syntax
  --NAME=object_name
  -n object_name

State Properties
None

Supported Operations
  export
  exportAll
  exportList
  getAllObjectKeys

Administration GUI Page
  Global Settings - Source Types - Create or Update Source Type

XML Description
The <search:sourceTypes> element describes the source types:

<search:sourceTypes>
  <search:sourceType>
    <search:name>
    </search:name>
    <search:managerClassName>
    </search:managerClassName>
    <search:jarFilePath>
    </search:jarFilePath>
    <search:description>
    </search:description>
    <search:securityCapability>
    </search:securityCapability>
    <search:parameterInfos>
      <search:parameterInfo>
        <search:defaultValue>
        </search:defaultValue>
        <search:encrypted>
        </search:encrypted>
        <search:description>
      </search:parameterInfo>
    </search:parameterInfos>
  </search:sourceType>
</search:sourceTypes>

Element Descriptions
<search:sourceTypes>
Describes all source types. It contains one or more <search:sourceType> elements, each defining a source type.
<search:sourceType>
Describes a source type. It contains these elements:

<search:name>
<search:managerClassName>
<search:jarFilePath>
<search:description>
<search:securityCapability>
<search:parameterInfos>

<search:name>
Contains the name of the source type.

<search:managerClassName>
Contains the name of the plug-in manager Java class.

<search:jarFilePath>
Contains the qualified name of the jar file. Paths can be absolute or relative to the ORACLE_HOME/search/lib/plugins directory.

<search:description>
Contains a description of the source type.

<search:securityCapability>
Contains a value for the plug-in: IDENTITY_BASED, USER_DEFINED, or UNKNOWN. (Read only)

<search:parameterInfos>
Contains one or more <search:parameterInfo> elements, each describing a parameter of the source type.

<search:parameterInfo>
Describes a parameter. It contains these elements:

<search:defaultValue>
<search:encrypted>
<search:description>

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name of the parameter. (Required)</td>
</tr>
</tbody>
</table>

<search:defaultValue>
Default value of the parameter.

<search:encrypted>
Indicates whether the parameter represents a value that should be encrypted. Set to true to encrypt the value, or set to false otherwise. The default value is false. (Optional)

Example

This XML document describes the Oracle Content Database source type:

```xml
<?xml version='1.0' encoding='UTF-8'?>
<search:config productVersion='11.2.1.0.0'
xmlns:search='http://xmlns.oracle.com/search'>
  <search:sourceTypes>
```

Administration Object Types  2-95
<search:sourceType>
  <search:name>Oracle Content Database</search:name>
  <search:managerClassName>
    oracle.search.plugin.ocs.cservices.OCSCSPluginMgr
  </search:managerClassName>
  <search:jarFilePath>cservices/ocscsrvV2.jar</search:jarFilePath>
  <search:description>
    Oracle Content Database crawler plug-in
  </search:description>
  <search:securityCapability>USER_DEFINED</search:securityCapability>
  <search:parameterInfos>
    <search:parameterInfo name="CDB Server public key alias">
      <search:encrypted>false</search:encrypted>
      <search:description>
        Oracle Content Database Server public key alias
      </search:description>
    </search:parameterInfo>
    <search:parameterInfo name="Crawl only">
      <search:defaultValue>false</search:defaultValue>
      <search:encrypted>false</search:encrypted>
      <search:description>
        True will perform a crawl without indexing the documents
      </search:description>
    </search:parameterInfo>
    <search:parameterInfo name="Depth">
      <search:defaultValue>-1</search:defaultValue>
      <search:encrypted>false</search:encrypted>
      <search:description>
        Depth from starting paths ('-1' for no limit)
      </search:description>
    </search:parameterInfo>
    <search:parameterInfo name="Entity name">
      <search:encrypted>false</search:encrypted>
      <search:description>
        Name of the trusted entity in Oracle Internet Directory
      </search:description>
    </search:parameterInfo>
    <search:parameterInfo name="Entity password">
      <search:encrypted>true</search:encrypted>
      <search:description>
        Password of the trusted entity in Oracle Internet Directory
      </search:description>
    </search:parameterInfo>
    <search:parameterInfo name="Oracle Content Database URL">
      <search:encrypted>false</search:encrypted>
      <search:description>
        Oracle Content Database Web services endpoint; for example, "http://contentserver:7777/content"
      </search:description>
    </search:parameterInfo>
    <search:parameterInfo name="Oracle Content Database Version">
      <search:defaultValue>10.1.2.3.0</search:defaultValue>
      <search:encrypted>false</search:encrypted>
      <search:description>
        Oracle Content Database version; for example, "10.1.2.3.0"
      </search:description>
    </search:parameterInfo>
    <search:parameterInfo name="Oracle Content Database admin user">
      <search:encrypted>false</search:encrypted>
      <search:description>
        Name of administrator user for Oracle Content Database; for example, orcladmin
      </search:description>
    </search:parameterInfo>
    <search:parameterInfo name="SES keystore location">
      <search:encrypted>false</search:encrypted>
      <search:description>
        Location of the key store for securing Oracle Secure Enterprise Search
      </search:description>
    </search:parameterInfo>
  </search:parameterInfos>
</search:sourceType>
<search:encrypted>false</search:encrypted>
<search:description>
SES keystore location for WS security
</search:description>
</search:parameterInfo>
<search:parameterInfo name="SES keystore password">
<search:encrypted>true</search:encrypted>
<search:description>SES keystore password</search:description>
</search:parameterInfo>
<search:parameterInfo name="SES keystore type">
<search:encrypted>false</search:encrypted>
<search:description>SES keystore type</search:description>
</search:parameterInfo>
<search:parameterInfo name="SES private key alias">
<search:encrypted>false</search:encrypted>
<search:description>
SES client private key alias
</search:description>
</search:parameterInfo>
<search:parameterInfo name="SES private key password">
<search:encrypted>true</search:encrypted>
<search:description>SES client private key password</search:description>
</search:parameterInfo>
<search:parameterInfo name="Starting paths">
<search:defaultValue/> </search:defaultValue>
<search:encrypted>false</search:encrypted>
<search:description>Paths (not encoded) to start crawling (separated by ";" )</search:description>
</search:parameterInfo>
<search:parameterInfo name="Use e-mail for authorization">
<search:defaultValue>false</search:defaultValue>
<search:encrypted>false</search:encrypted>
<search:description>Use e-mail to resolve the user privilege. Set this to true if the Oracle Internet Directory has been configured to use "mail" as the nickname attribute.</search:description>
</search:parameterInfo>
</search:parameterInfos>
</search:sourceType>
</search:sourceTypes>
</search:config>
storageArea

A storage area is a physical structure, such as a data file, that Oracle SES uses to store data and metadata. The structure must already exist; the storageArea object just registers the structure with Oracle SES.

See Also:

- "Partitioning for Parallel Query" on page 2-10

Object Type

Creatable

Object Key

name

Object Key Command Syntax

- --NAME=object_name
  
- -n object_name

State Properties

None

Supported Operations

create
createAll
delete
deleteAll
deleteList
export
exportAll
exportList
getAllObjectKeys
update
updateAll

Administration GUI Page

None

XML Description

A <search:storageAreas> element describes a storage area:

<search:storageAreas>
  <search:storageArea>
    <search:name>
    <search:description>
    <search:usage>

2-98  Oracle Secure Enterprise Search Administration API Guide
Element Contents:

<search:storageAreas>
Contains one or more <search:storageArea> elements, each defining a storage area for use by Oracle SES.

<search:storageArea>
Describes a storage area. It contains these elements:

<search:name>
<search:description>
<search:usage>
<search:locations>

<search:name>
Name of an existing storage area. (Required)
Enter the name of an existing ASSM tablespace and specify PARTITION for the usage type. An ASSM (Automatic Segment Space Management) tablespace is created with the SQL CREATE TABLESPACE clause EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO.

The default tablespaces for Oracle SES are SEARCH_DATA, SEARCH_INDEX, and SEARCH_TEMP.

<search:description>
Description of the storage area. (Required)

<search:usage>
A usage type. You can create only the PARTITION storage type. (Required)

- PARTITION: Stores the document index.
- CRAWLER: Stores tokens for the index.
- SYSTEM: Stores index data.

Example

This XML document describes the default SEARCH_DATA tablespace:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
<search:storageAreas>
<search:storageArea>
<search:name>SEARCH_DATA</search:name>
<search:description>Default storage area</search:description>
<search:usage>PARTITION</search:usage>
</search:storageArea>
</search:storageAreas>
</search:config>
```
Suggested links direct users to a designated Web site for particular query keywords. For example, a suggested link might be http://www.oracle.com/technetwork/indexes/documentation/index.html for 'Oracle Secure Enterprise Search documentation', 'Enterprise Search documentation', and 'Search documentation'.

**Object Type**
Creatable

**Object Key**
keyword linkUrl

**Object Key Command Syntax**
--KEYWORD=keyword --LINK_URL=url

**State Properties**
None

**Supported Operations**
create
createAll
delete
deleteAll
deleteList
export
exportAll
exportList
getAllObjectKeys
update
updateAll

**Administration GUI Page**
Search - Suggested Links

**XML Description**
The `<search:suggLinks>` element describes suggested links:

```
<search:suggLinks>
  <search:suggLink>
    <search:keyword>
    <search:linkUrl>
    <search:linkText>
    </search:linkText>
  </search:suggLink>
</search:suggLinks>
```

**Element Descriptions**

`<search:suggLinks>`
Contains one or more `<search:suggLink>` elements, each describing a suggested link.
<search:suggLink>
Describes a suggested link. It contains one of each of these child elements:

<search:keyword>
<search:linkUrl>
<search:linkText>

<search:keyword>
A word or phrase with optional operators that identifies which search queries display this suggested link. (Required)
Do not enter special characters, such as #, $, =, &). You can include the following operators:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Syntax</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>about</td>
<td>ABOUT(term)</td>
<td>about(dogs)</td>
</tr>
<tr>
<td>and</td>
<td>term AND term</td>
<td>dog and cat</td>
</tr>
<tr>
<td>near</td>
<td>term;term</td>
<td>dog; cat</td>
</tr>
<tr>
<td>or</td>
<td>term OR term</td>
<td>dog or cat</td>
</tr>
<tr>
<td>phrase</td>
<td>phrase</td>
<td>dog sled</td>
</tr>
<tr>
<td>stem</td>
<td>$term</td>
<td>$dog</td>
</tr>
<tr>
<td>thesaurus</td>
<td>(BT</td>
<td>NT</td>
</tr>
<tr>
<td>within</td>
<td>term WITHIN term</td>
<td>dog within title</td>
</tr>
</tbody>
</table>

<search:linkUrl>
A link to the suggested page, which appears in the result list, such as http://www.example.com. (Required)

<search:linkText>
The linked text that appears in the result list, such as Example Corp. (Required)

Example

This XML document describes a suggested link for a query on the term "oracle":

```xml
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
<search:suggLinks>
  <search:suggLink>
    <search:keyword>oracle</search:keyword>
    <search:linkUrl>http://www.oracle.com</search:linkUrl>
    <search:linkText>Oracle</search:linkText>
  </search:suggLink>
</search:suggLinks>
</search:config>
```
A thesaurus is a list of terms or phrases with relationships specified among them, such as a synonym, a broader term, and a narrower term. When a user issues a search query, Oracle SES can expand the search results to include matches for the related terms.

A thesaurus contains domain-specific knowledge. You can build a thesaurus, buy an industrial-specific thesaurus, or use utilities to extract a thesaurus from a specific corpus of documents. The thesaurus must be compliant with both the ISO-2788 and ANSI Z39.19(1993) standards.

A thesaurus must be loaded in Oracle SES for thesaurus-based query expansion. If no thesaurus is loaded or if the specified term or phrase cannot be found in the loaded thesaurus, then query expansion is not possible. Oracle SES only returns documents containing the original term or phrase. The default expansion level is one.

The proper encoding of an XML document for thesaurus configuration is UTF-8, which is the Oracle SES default language setting. Ensure that the NLS_LANG environment variable setting is consistent with the XML document encoding.

**Object Type**

Creatable

**Object Key**

name

**Object Key Command Syntax**

```
--NAME=object_name
-n object_name
```

**State Properties**

None

**Supported Operations**

create
delete
export
getAllObjectKeys
update

**Administration GUI Page**

None

**XML Description**

The `<search:thesauruses>` element defines a thesaurus:

```
<search:thesauruses>
  <search:thesaurus>
    <search:name>
    <search:thesaurusContent>
```
Element Descriptions

<search:thesauruses>
Contains a <search:thesaurus> element, which describes a thesaurus.

<search:thesaurus>
Describes a thesaurus. It contains these child elements:
<search:name>
<search:thesaurusContent>

<search:name>
The name of the thesaurus. This name must be DEFAULT. (Required)

<search:thesaurusContent>
The thesaurus content. (Required)

Enter each term on a separate line within a CDATA element. You can identify broader terms (BT), narrower terms (NT) and synonyms (SYN). Note the one-space indentation of the related terms:

dog
  BT mammal
  NT domestic dog
  NT wild dog
  SYN canine

Example

This XML document describes a default thesaurus:

```xml
<?xml version='1.0' encoding='UTF-8'?>
<search:config productVersion='11.2.1.0.0'
xmlns:search='http://xmlns.oracle.com/search'>
  <search:thesauruses>
    <search:thesaurus>
      <search:name>DEFAULT</search:name>
      <search:thesaurusContent>
        <![CDATA[
cat
  SYN feline
  NT domestic cat
  NT wild cat
  BT mammal
mammal
  BT animal
domestic cat
  NT Persian cat
  NT Siamese cat
wild cat
  NT tiger
tiger
  NT Bengal tiger
dog
  BT mammal
  NT domestic dog
  NT wild dog
  SYN canine
domestic dog
  NT German Shepard
wild dog
      ]]>}
    </search:thesaurusContent>
  </search:thesaurus>
</search:thesauruses>
```
NT Dingo
]]>
</search:thesaurusContent>
</search:thesaurus>
</search:thesauruses>
</search:config>
This chapter describes the `searchadmin` commands. It contains these topics:

- Alphabetic List of `searchadmin` Commands
- Entering Special Characters

### Alphabetic List of `searchadmin` Commands

**A C D E G S U**

**A**
- `activate identityPlugin`
- `activate indexOptimizer`
- `activate partitionConfig`
- `activate schedule`

**C**
- `create altWord`
- `create docServiceInstance`
- `create docServicePipeline`
- `create facetTree`
- `create proxyLogin`
- `create schedule`
- `create searchAttr`
- `create source`
- `create sourceGroup`
- `create storageArea`
- `create suggLink`
- `create thesaurus`
- `createAll altWord`
- `createAll docServiceInstance`
- `createAll docServicePipeline`
- `createAll facetTree`
- `createAll proxyLogin`
- `createAll schedule`
- `createAll searchAttr`
- `createAll source`
- `createAll sourceGroup`
- `createAll storageArea`
- `createAll suggLink`

**D**
- `deactivate identityPlugin`
- `deactivate indexOptimizer`
deactivate schedule
delete creatable_type
deleteAll creatable_type
deleteList creatable_type

E
export creatable_type
export universal_type
exportAll creatable_type
exportList creatable_type

G
getAllObjectKeys
getAPIVersion
getAllStates identityPlugin
getAllStates schedule
getState identityPlugin
getState index
getState indexOptimizer
getState partitionConfig
getState schedule
getStateList identityPlugin
getStateList schedule

S
start indexOptimizer
start schedule
stop schedule

U
update altWord
update crawlerSettings
update docServiceInstance
update docServicePipeline
update globalBoundaryRules
update globalDocumentTypes
update index
update indexOptimizer
update partitionConfig
update proxyLogin
update queryConfig
update relevanceRanking
update schedule
update searchAttr
update source
update sourceGroup
update storageArea
update suggLink
update thesaurus
updateAll altWord
updateAll docServiceInstance
updateAll docServicePipeline
updateAll proxyLogin
updateAll schedule
updateAll searchAttr
updateAll source
updateAll sourceGroup
updateAll storageArea
Entering Special Characters

To enter special characters as part of a command, you may have to enclose the value in quotes, or precede the character with backslashes as an escape, or both.

- Enclose values containing spaces in quotes, such as `--NAME="Special Collection"`.

- To use the percent (`%`) and underscore (`_`) wildcard characters as literals for key patterns in operations such as `createAll` and `deleteAll`, escape the character with two backslashes, such as `--NAME=web\_source` for an object named `web_source`. In single job mode, also enclose the values containing these characters in quotes, such as `--NAME="web\_source"`. Otherwise, the underscore matches any single character.

- Because a backslash is an escape character, you must use two backslashes to enter one backslash as a literal. For example, enter a Windows file path such as `C:\\templates\\query.ftl`.

- When using the short form for arguments, escape literal values starting with a dash with two backslashes in single job mode, such as `-n \-mysource`. In session mode, enclose the values in quotes or escape the dash with one backslash. For example, `-n "-mysource"` or `-n "-mysource"`. Alternatively, use the long form for arguments, such as `--NAME=-mysource`.

See "Command Interface" on page 1-1 for a discussion of session mode and single job mode.
activate identityPlugin

Activates an identity plug-in.

Only one identity plug-in can be active at a time. To change identity plug-ins, deactivate the current one before activating a different identity plug-in. Otherwise, an error results. An identity plug-in is inactive when it is created.

Syntax

activate identityPlugin --JAR_FILE=jar_filename --MANAGER_CLASS=class [--INPUT_FILE=xml_filename --ENCRYPT_KEY=key]

or

activate identityPlugin --JAR_FILE=jar_filename --MANAGER_CLASS=class [-i xml_filename -e key]

Parameters

jar_filename
Content of a <search:jarFilePath> element in the XML document.

class
Content of a <search:managerClassName> element in the XML document.

xml_filename
Path to an XML document that contains parameter settings for the object. See identityPlugin on page 2-34.

key
Decryption key for passwords in xml_filename. If the plug-in description has been exported from Oracle SES, use the same key.

The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example

This example activates an identity plug-in with the configuration settings in identity.xml:

```
SES>activate identityPlugin --JAR_FILE=OIDPlugins.jar --MANAGER_CLASS=oracle.search.plugin.security.identity.oid.OIDPluginManager --INPUT_FILE=identity.xml --ENCRYPT_KEY=key2decrypt
```

The object "[jarFilePath=OIDPlugins.jar, managerClassName=oracle.search.plugin.security.identity.oid.OIDPluginManager]" was successfully activated.
activate indexOptimizer

Activates the index optimizer schedule.

See Also

start indexOptimizer

Syntax

activate indexOptimizer

Example

This example activates the index optimizer:

SES> activate indexOptimizer

The object 'indexOptimizer' was successfully activated.
activate partitionConfig

Activates partitioning. You can activate partitioning only on a new, empty instance. After documents are crawled, you cannot activate partitioning. You cannot deactivate partitioning after activating it.

Syntax

activate partitionConfig

Example

This example activates partitioning:

SBS>activate partitionConfig

The object 'partitionConfig' was successfully activated.
activate schedule

Activates a schedule.

See Also

start schedule

Syntax

activate schedule --NAME=object_name [--INPUT_FILE=xml_filename]

or

activate schedule -n object_name [-i xml_filename]

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that describes the object. See schedule on page 2-59.

Example

This example activates a schedule named Mailing List Schedule:

SES>activate schedule --NAME="Mailing List Schedule"

The object '{name=Mailing List Schedule}' was successfully activated.
create altWord

Creates an alternate word pair from an XML description.

See Also

createAll altWord

Syntax

create altWord --KEYWORD=keyword --ALT.Keyword=alt_keyword --INPUT_FILE=xml_filename

or

create altWord --KEYWORD=keyword --ALT_KEYWORD=alt_keyword -i xml_filename

Parameters

**keyword**
Content of a `<search:keyword>` element in the XML document.

**alt_keyword**
Content of a `<search:altKeyword>` element in the XML document.

**xml_filename**
Path to the XML document that defines the object. See altWord on page 2-12.

Example

This example creates an alternate word for RAC. No other objects in the XML document are created.

```bash
SES> create altWord --KEYWORD=rac --ALT_KEYWORD="Real Application Clusters" --INPUT_FILE=altwords.xml
```

The object "[keyword=rac, altKeyword=Real Application Clusters]" was successfully created.
create docServiceInstance

Creates a document service instance from an XML description.

See Also

cREATEAll docServiceInstance

Syntax

create docServiceInstance --NAME=object_name --INPUT_FILE=xml_filename [--ENCRYPT_ KEY=key]

or

create docServiceInstance -n object_name -i xml_filename [-e key]

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that defines the object. See docServiceInstance on page 2-18.

key
Encryption key for passwords in xml_filename. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example

This example creates a service instance from the description in docserviceinstance.xml:

SES> create docServiceInstance --NAME="Default summarizer service instance" --INPUT_FILE=docserviceinstance.xml --ENCRYPT_KEY=key2encrypt

The object '[name=Default summarizer service instance]' was successfully created.
create docServicePipeline

Creates a document service pipeline from an XML description.

See Also

createAll docServicePipeline

Syntax

create docServicePipeline --NAME=object_name --INPUT_FILE=xml_filename

or

create docServicePipeline -n object_name -i xml_filename

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that defines the object. See docServicePipeline on page 2-24.

Example

This example creates a document service pipeline:

SBS>create docServicePipeline --NAME=Default pipeline --INPUT_FILE=docservicepipeline.xml

The object "[name=Default pipeline]" was successfully created.
create facetTree

Creates a facet tree from an XML description.

See Also

createAll facetTree

Syntax

create facetTree --NAME=object_name --INPUT_FILE=xml_filename

or

create facetTree -n object_name -i xml_filename

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that defines the object. See facetTree on page 2-27.

Example

This example creates a facet tree named Country:

SES> create facetTree --FACETNAME=Country --INPUT_FILE=facettree.xml

The object '[facetName=Country]' was successfully created.
create proxyLogin

Creates a proxy log-in (federation trusted entity) from an XML description.

See Also

createAll proxyLogin

Syntax

create_proxyLogin --NAME=object_name --INPUT_FILE=xml_filename [--ENCRYPT_KEY=key]
or
create proxyLogin -n object_name -i xml_filename [-e key]

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that defines the object. See proxyLogin on page 2-48.

key
Encryption key for passwords in xml_filename. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example

This example creates this_proxy as defined in proxy.xml. The user is prompted for a password after omitting the --ENCRYPT_KEY option.

SES>create proxyLogin --NAME=this_proxy --INPUT_FILE=proxy.xml
Enter encryption key:

The object *[name=this_proxy]* was successfully created.
create schedule

Creates a schedule from an XML description. You must create the source before creating the schedule. See create source on page 3-15.

See Also

createAll schedule

Syntax

create schedule --NAME=object_name --INPUT_FILE=xml_filename

or

create schedule -n object_name -i xml_filename

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that defines the object. See schedule on page 2-59.

Example

This example creates the Doc Library schedule as defined in schedule.xml:

SES>create schedule --NAME="Doc Library" --INPUT_FILE=schedule.xml

The object '}[name=Doc Library]' was successfully created.
create searchAttr

Creates a custom search attribute from an XML description.

See Also

createAll searchAttr

Syntax

create searchAttr --NAME=object_name --INPUT_FILE=xml_filename

or

create searchAttr -n object_name -i xml_filename

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that defines the object. See searchAttr on page 2-64.

Example

This example creates the Copyright search attribute:

SES>create searchAttr --NAME=Copyright --INPUT_FILE=searchattrs.xml

The object "[name=Copyright]" was successfully created.
create source

Creates a source from an XML description.

See Also

cREATEAll source

Syntax

create source --NAME=object_name --INPUT_FILE=xml_filename [--ENCRYPT_KEY=key]

or

create source -n object_name -i xml_filename [-e key]

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that defines the object. See source on page 2-67.

key
Encryption key for passwords in xml_filename. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example

This example creates the Doc Library source defined in sources.xml:

    SES>create source --NAME="Doc Library" --INPUT_FILE=sources.xml --ENCRYPT_KEY=key2encrypt

The object '{name=Doc Library}' was successfully created.
create sourceGroup

Creates a source group from an XML description.

See Also

createAll sourceGroup

Syntax

create sourceGroup --NAME=object_name --INPUT_FILE=xml_filename

or

create sourceGroup -n object_name -i xml_filename

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that defines the object. See sourceGroup on page 2-92.

Example

This example creates the Mail source group defined in sourcegroups.xml:

```
SES> create sourceGroup --NAME=Mail --INPUT_FILE=sourcegroups.xml
```

The object "[name=Mail]" was successfully created.
create storageArea

Creates a storage area from an XML description.

See Also

cREATEAll storageArea

Syntax

create storageArea --NAME=object_name --INPUT_FILE=xml_filename

or

create storageArea -n object_name -i xml_filename

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that defines the object. See storageArea on page 2-98.

Example

This example creates a storage area named Prosperity:

SES>create storageArea --NAME=Prosperity --INPUT_FILE=storage.xml

The object '{name=Prosperity}' was successfully created.
create suggLink

Creates a suggested link from an XML description.

See Also
createAll suggLink

Syntax
create suggLink --KEYWORD=keyword --LINK_URL=url --INPUT_FILE=xml_filename

or
create suggLink --KEYWORD=keyword --LINK_URL=url -i xml_filename

Parameters

**keyword**
Content of the `<search:keyword>` element in the XML document.

**url**
Content of the `<search:linkUrl>` element in the XML document.

**xml_filename**
Path to the XML document that defines the suggested link. See suggLink on page 2-100.

Example

This example creates a suggested link for the oracle keyword from the description in sugglinks.xml:

```
SES>create suggLink --KEYWORD=oracle --LINK_URL=http://www.oracle.com --INPUT_FILE=sugglinks.xml
```

The object "[keyword=oracle, linkUrl=http://www.oracle.com]" was successfully created.
create thesaurus

Creates a thesaurus from an XML description.

Syntax

create thesaurus --NAME=object_name --INPUT_FILE=xml_filename

or

create thesaurus -n object_name -i xml_filename

Parameters

**object_name**
Content of a `<search:name>` element in the XML document.

**xml_filename**
Path to the XML document that defines the object. See thesaurus on page 2-102.

Example

This example creates the DEFAULT thesaurus defined in thesaurus.xml:

```
SES>create thesaurus --NAME=DEFAULT --INPUT_FILE=thesaurus.xml
```

The object `'(name=DEFAULT)'` was successfully created.
createAll altWord

Creates all alternate words described in an XML file.

See Also

create altWord

Syntax

```bash
createAll altWord --INPUT_FILE=xml_filename [--DUPE_METHOD=action]
```

or

```bash
createAll altWord -i xml_filename [-d action]
```

Parameters

**xml_filename**
Path to the XML document that contains the object descriptions. See altWord on page 2-12.

**action**
Action to take when an object already exists:

- **error**: The `createAll` command fails with an error. (Default)
- **ignore**: The existing object description is kept.
- **overwrite**: The new description replaces the existing object description.

Example

This example creates the three `altWord` objects defined in `altwords.xml`.

```bash
SES> createAll altWord --INPUT_FILE=altwords.xml
```

createAll operation succeeded for type 'altWord'.

3 object(s) with status CREATE_SUCCEEDED

The next example shows use of the `--DUPE_METHOD` option:

```bash
SES> createAll altWord --INPUT_FILE=altwords.xml
```

The object with key '{keyword=text, altKeyword=Oracle Text}' and type 'altWord' already exists.

```bash
SES> createAll altWord --INPUT_FILE=altwords.xml --DUPE_METHOD=overwrite
```

createAll operation succeeded for type 'altWord'.

2 object(s) with status CREATE_SUCCEEDED
1 object(s) with status DUPLICATE_OVERWRITTEN
createAll docServiceInstance

Creates all document service instances described in an XML file.

See Also

create docServiceInstance

Syntax

createAll docServiceInstance --INPUT_FILE=xml_filename [--DUPE_METHOD=action]

or

createAll docServiceInstance -i xml_filename [-d action]

Parameters

xml_filename
Path to the XML document that contains the object descriptions. See docServiceInstance on page 2-18.

action
Action to take when an object already exists:

- error: The createAll command fails with an error. (Default)
- ignore: The existing object description is kept.
- overwrite: The new description replaces the existing object description.

Example

This example creates one new document service instance and overwrites an exiting one:

SES>createAll docServiceInstance --INPUT_FILE=docserviceinstance.xml --DUPE_METHOD=overwrite --ENCRYPT_KEY=key2encrypt

createAll operation succeeded for type "docServiceInstance".

1 object(s) with status CREATE_SUCCEEDED
1 object(s) with status DUPLICATE_OVERWRITTEN
createAll docServicePipeline

Creates all document service pipelines described in an XML document.

See Also

create docServicePipeline

Syntax

createAll docServicePipeline --INPUT_FILE=xml_filename [--DUPE_METHOD=action]

or

cREATE docServicePipeline -i xml_filename [-d action]

Parameters

xml_filename
Path to the XML document that contains the object descriptions. See docServicePipeline on page 2-24.

action
Action to take when an object already exists:

- **error**: The createAll command fails with an error. (Default)
- **ignore**: The existing object description is kept.
- **overwrite**: The new description replaces the existing object description.

Example

This example creates a new document service pipeline and replaces an existing one:

SES>createAll docServicePipeline --INPUT_FILE=docservicepipeline.xml --DUPE_ METHOD=overwrite

createAll operation succeeded for type "docServicePipeline".

1 object(s) with status CREATE_SUCCEEDED
1 object(s) with status DUPLICATE_OVERWRITTEN
createAll facetTree

Creates all facet trees described in an XML document.

See Also

create facetTree

Syntax

createAll facetTree --INPUT_FILE=xml_filename [--DUPE_METHOD=action]

or

createAll facetTree -i xml_filename [-d action]

Parameters

xml_filename
Path to the XML document that contains the object descriptions. See facetTree on page 2-27.

action
Action to take when an object already exists:

■ error: The createAll command fails with an error. (Default)
■ ignore: The existing object description is kept.

Example

This example attempts to create two facet trees. One facet tree is created successfully, and the other attempt is ignored because the object already exists.

SES>createAll facetTree --INPUT_FILE=facettree.xml --DUPE_METHOD=ignore

createAll operation succeeded for type "facetTree".

1 object(s) with status CREATE_SUCCEEDED
1 object(s) with status DUPLICATE_IGNORED
createAll proxyLogin

Creates all proxy log-ins described in an XML file.

See Also

create proxyLogin

Syntax

createAll proxyLogin --INPUT_FILE=xml_filename [--DUPE_METHOD=action] [--ENCRIPT_KEY=key]

or

createAll proxyLogin -i xml_filename [-d action] [-e key]

Parameters

xml_filename
Path to the XML document that contains the object descriptions. See proxyLogin on page 2-48.

action
Action to take when an object already exists:

- error: The createAll command fails with an error. (Default)
- ignore: The existing object description is kept.
- overwrite: The new description replaces the existing object description.

key
Encryption key for passwords in xml_filename. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example

This example creates all proxy log-ins described in proxy.xml. The status message shows that one already exists.

```
SES>createAll proxyLogin --INPUT_FILE=proxy.xml --DUPE_METHOD=ignore --ENCRIPT_KEY=key2decrypt
createAll operation succeeded for type 'proxyLogin'.

2 object(s) with status CREATE_SUCCEEDED
1 object(s) with status DUPLICATE_IGNORED
```
createAll schedule

Creates all schedules described in an XML file.

See Also

create schedule

Syntax

createAll schedule --INPUT_FILE=xml_filename [--DUPE_METHOD=action [--IGNORE_INVALID_STATE=state]]

or

createAll schedule -i xml_filename [-d action [-s state]]

Parameters

xml_filename
Path to the XML document that contains the object descriptions. See schedule on page 2-59.

action
Action to take when an object already exists:

- error: The createAll command fails with an error. (Default)
- ignore: The existing object description is kept.
- overwrite: The new description replaces the existing object description.

state
Controls whether processing continues when an object cannot be overwritten because it is in an invalid state. This option is used only when --DUPE_METHOD=overwrite.

- true: Continue processing with the next object.
- false: Stop processing with an error and roll back all changes. (Default)

Example

This example creates three schedules described in schedule.xml. Two of the schedules already exist.

SES>createAll schedule --INPUT_FILE=schedule.xml --DUPE_METHOD=ignore

createAll operation succeeded for type "schedule".

3 object(s) with status CREATE_SUCCEEDED
2 object(s) with status DUPLICATE_IGNORED
createAll searchAttr

Creates all custom search attributes described in an XML file.

See Also

create searchAttr

Syntax

createAll searchAttr --INPUT_FILE=xml_filename [--DUPE_METHOD=action]

or

createAll searchAttr -i xml_filename [-d action]

Parameters

xml_filename
Path to the XML document that contains the object descriptions. See searchAttr on page 2-64.

action
Action to take when an object already exists:
- **error**: The createAll command fails with an error. (Default)
- **ignore**: The existing object description is kept.
- **overwrite**: The new description replaces the existing object description.

Example

This example creates three objects described in searchattrs.xml. A fourth object already exists.

```
SES>createAll searchAttr --INPUT_FILE=searchattrs.xml --DUPE_METHOD=ignore
createAll operation succeeded for type ‘searchAttr’.

3 object(s) with status CREATE_SUCCEEDED
1 object(s) with status DUPLICATE_IGNORED
```
createAll source

Creates all sources described in an XML file.

See Also
create source

Syntax
createAll source --INPUT_FILE=xml_filename [--DUPE_METHOD=action] [--ENCRYPT_KEY=key]

or
createAll source -i xml_filename [-d action] [-e key]

Parameters
xml_filename
Path to the XML document that contains the object descriptions. See source on page 2-67.

action
Action to take when an object already exists:
- error: The createAll command fails with an error. (Default)
- ignore: The existing object description is kept.
- overwrite: The new description replaces the existing object description.

key
Encryption key for passwords in xml_filename. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example
This example creates one source defined in sources.xml. The second source already exists.

SES>createAll source --INPUT_FILE=sources.xml --DUPE_METHOD=ignore --ENCRYPT_KEY=key2encrypt

createAll operation succeeded for type 'source'.

  1 object(s) with status CREATE_SUCCEEDED
  1 object(s) with status DUPLICATE_IGNORED
createAll sourceGroup

Creates all source groups described in an XML file.

See Also

create sourceGroup

Syntax

createAll sourceGroup --INPUT_FILE=xml_filename [--DUPE_METHOD=action]
or
createAll creatable_type -i xml_filename [-d action]

Parameters

xml_filename
Path to the XML document that contains the object descriptions. See sourceGroup on page 2-92.

action
Action to take when an object already exists:

■ error: The createAll command fails with an error. (Default)
■ ignore: The existing object description is kept.
■ overwrite: The new description replaces the existing object description.

Example

This example creates a source groups described in sourcegroups.xml. A second source group already existed.

SES>createAll sourceGroup --INPUT_FILE=sourcegroups.xml --DUPE_METHOD=ignore

createAll operation succeeded for type 'sourceGroup'.

1 object(s) with status CREATE_SUCCEEDED
1 object(s) with status DUPLICATE_IGNORED
createAll storageArea

Creates all of the storage areas described in an XML document.

See Also

create storageArea

Syntax

createAll storageArea --INPUT_FILE=xml_filename [--DUPE_METHOD=action] [--IGNORE_INVALID_STATE=state]

or

createAll storageArea -i xml_filename [-d action] [-s state]

Parameters

xml_filename
Path to the XML document that contains the object descriptions. See storageArea on page 2-98.

action
Action to take when an object already exists:
- error: The createAll command fails with an error. (Default)
- ignore: The existing object description is kept.
- overwrite: The new description replaces the existing object description.

state
Controls whether processing continues when an object cannot be overwritten because it is in an invalid state. This option is used only when --DUPE_METHOD=overwrite.
- true: Continue processing with the next object.
- false: Stop processing with an error and roll back all changes. (Default)

Example

This example creates a storage area defined in a file named storage.xml:

SES>createAll storageArea --INPUT_FILE=storage.xml

createAll operation succeeded for type "storageArea".

1 object(s) with status CREATE_SUCCEEDED
createAll suggLink

Creates all suggested links described in an XML file.

See Also

create suggLink

Syntax

createAll suggLink --INPUT_FILE=xml_filename [--DUPE_METHOD=action]

or

createAll suggLink -i xml_filename [-d action]

Parameters

xml_filename
Path to the XML document that contains the object descriptions. See suggLink on page 2-100.

action
Action to take when an object already exists:

- error: The createAll command fails with an error. (Default)
- ignore: The existing object description is kept.
- overwrite: The new description replaces the existing object description.

Example

This example creates two suggested links from the descriptions in sugglinks.xml. A third object already exists.

SESCreateAll suggLink --INPUT_FILE=sugglinks.xml --DUPE_METHOD=overwrite

createAll operation succeeded for type 'suggLink'.

2 object(s) with status CREATE_SUCCEEDED
1 object(s) with status DUPLICATE_OVERWRITTEN
deactivate identityPlugin

Deactivates an identity plug-in.

Syntax

deactivate identityPlugin --JAR_FILE=jar_filename --MANAGER_CLASS=class

Parameters

jar_filename
Content of a <search:jarFilePath> element in the XML document.

class
Content of a <search:managerClassName> element in the XML document.

Example

This example deactivates an identity plug-in:

```
SES>deactivate identityPlugin --JAR_FILE=OIDPlugins.jar --MANAGER_CLASS=oracle.search.plugin.security.identity.oid.OIDPluginManager
```

The object '{jarFilePath=OIDPlugins.jar, managerClassName=oracle.search.plugin.security.identity.oid.OIDPluginManager}' was successfully deactivated.
**deactivate indexOptimizer**

Deactivates index optimization.

**Syntax**

`deactivate indexOptimizer`

**Example**

This example deactivates index optimization:

```
SES> deactivate indexOptimizer
```

The object 'indexOptimizer' was successfully deactivated.
**deactivate schedule**

Deactivates a schedule.

**Syntax**

```
deactivate schedule --NAME=object_name
```

or

```
deactivate schedule -n object_name
```

**Parameters**

`object_name`
Content of a `<search:name>` element in the XML document.

**Example**

This example fails to deactivate a schedule because it is executing:

```
SES>deactivate schedule --NAME="Doc Library"
```

Operation 'deactivate' cannot be performed on an object with type "schedule" in state 'EXECUTING'.
delete creatable_type

Deletes a creatable object.

See Also

deleteAll creatable_type
deleteList creatable_type

Syntax

delete creatable_type object_key

Parameters

creatable_type
A creatable type:

altWord
docServiceInstance
docServicePipeline
facetTree
proxyLogin
schedule
searchAttr
source
sourceGroup
storageArea
suggLink
thesaurus

object_key
Unique identifier of the object. See the object descriptions in Chapter 2, "Administration Object Types."

Example

This example deletes the Doc Library schedule.

SES>delete schedule --NAME="Doc Library"

The object *[name=Doc Library]* was successfully deleted.
deleteAll `creatable_type`

Deletes all objects of a specified type.

---

**Caution:** This operation deletes all objects, including those supplied with Oracle SES. Use a `key_pattern` to limit the operation to those objects you want to delete, especially when deleting `identityPlugin`, `sourceType`, and `storageArea` objects.

---

**See Also**

- `delete creatable_type`
- `deleteList creatable_type`

**Syntax**

```plaintext
deleteAll creatable_type [--IGNORE_INVALID_STATE=state] [key_pattern]
```

or

```plaintext
deleteAll creatable_type [-s state] [key_pattern]
```

**Parameters**

- **creatable_type**
  A creatable type:
  
  - `altWord`
  - `docServiceInstance`
  - `docServicePipeline`
  - `facetTree`
  - `proxyLogin`
  - `schedule`
  - `searchAttr`
  - `source`
  - `sourceGroup`
  - `storageArea`
  - `suggLink`

- **state**
  Controls whether `clusterTree`, `identityPlugin`, `schedule`, or `skinBundle` objects are skipped because they are in an invalid state.
  
  - **true**: Objects are deleted regardless of their state.
  - **false**: Invalid objects are not deleted. (Default)

- **key_pattern**
  Object key that specifies a subset of objects to process in the format `key=value`. The value can include wildcard characters:
  
  - A percent sign (%) matches zero or more characters. In a multibyte character set, it matches zero or more bytes.
  - An underscore (_) matches exactly one character. In a multibyte character set, it matches one byte.
**Examples**

This example deletes all `clusterTree` objects:

**Note:** The `clusterTree` object used in this example is disabled in Oracle Fusion Applications.

```
SES> deleteAll clusterTree
```

deleteAll operation succeeded for type 'clusterTree'.

1 object(s) with status DELETE_SUCCEEDED

The next example deletes two `sourceType` objects with the string `Documentum` in the name:

```
SES> deleteAll sourceType --NAME=%Documentum%
```

deleteAll operation succeeded for type 'sourceType'.

2 object(s) with status DELETE_SUCCEEDED
deleteList creatable_type

Deletes objects of a specified type that are listed in a text file.

See Also
   delete creatable_type
   deleteAll creatable_type

Syntax
   deleteList creatable_type
       --KEYS_FILE=key_filename [--IGNORE_NOT_FOUND=action]
       [--IGNORE_INVALID_STATE=state]

   or
   deleteList creatable_type
       -k key_filename [--f action] [-s state]

Parameters

creatable_type
   A creatable type:
   - altWord
   - docServiceInstance
   - docServicePipeline
   - facetTree
   - proxyLogin
   - schedule
   - searchAttr
   - source
   - sourceGroup
   - storageArea
   - suggLink

key_filename
   Path to a text file that identifies the objects to be deleted. Each line of the file contains
   an object key. For example:
       --NAME=this_proxy
       --NAME=that_proxy

action
   Controls the resulting action when an object in the list does not exist.
   - true: The object is skipped and processing continues.
   - false: Processing stops with an error. (Default)

state
   Controls whether clusterTree, identityPlugin, schedule, or skinBundle
   objects are skipped because they are in an invalid state.
   - true: Objects are deleted regardless of their state.
   - false: Invalid objects are not deleted. (Default)

Example
   This example deletes the identity plug-ins listed in identity.lst:
```
SES> deleteList identityPlugin --KEYS_FILE=identity.lst --IGNORE_NOT_FOUND=true

deleteList operation succeeded for type "identityPlugin".

2 object(s) with status DELETE_SUCCEEDED
```
export creatable_type

Returns the XML description of an object.

See Also

export universal_type
exportAll creatable_type
exportList creatable_type

Syntax

export creatable_type object_key [--OUTPUT_FILE=output_file] [--ENCRYPT_KEY=key]

or

export creatable_type object_key [-o output_file] [-e key]

Parameters

creatable_type
A creatable type, as described in "Creatable Types" on page 1-8.

object_key
Unique identifier of the object. See the object description in Chapter 2, "Administration Object Types."

output_file
Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the export command creates a separate file for each one and appends the host name and port number to the base name.

key
Encryption key for passwords in the XML description of identityPlugin, proxyLogin, and source objects. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example

This example displays the XML for the rac alternative word.

```bash
SES>export altWord --KEYWORD=rac --ALT_KEYWORD="Real Application Clusters"

```
The next example creates a file named acme.xml containing the XML document for the acme skin bundle.

**Note:** The skinBundle object used in this example is disabled in Oracle Fusion Applications.

```
SES> export skinBundle --NAME=acme --OUTPUT_FILE=acme.xml
```

The object *[name=acme]* was successfully exported.

4 attachment(s) written to file.
**export universal_type**

Returns the XML description of an object.

**See Also**

- `export creatable_type`

**Syntax**

```
export universal_type [--OUTPUT_FILE=output_file]
```

or

```
export universal_type [-o output_file]
```

**Parameters**

- **universal_type**
  A universal type, as described in "Universal Objects" on page 1-7.

- **output_file**
  Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the export command creates a separate file for each one and appends the host name and port number to the base name.

**Example**

This example displays an XML document for a `crawlerSettings` object:

```
SES> export crawlerSettings

<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
  <search:crawlerSettings>
    <search:numThreads>5</search:numThreads>
    <search:numProcessors>3</search:numProcessors>
    <search:crawlDepth haslimit="">
      <search:limit>2</search:limit>
    </search:crawlDepth>
    <search:languageDetection enabled=""/>
    <search:defaultLanguage>en</search:defaultLanguage>
    <search:crawlTimeout>30</search:crawlTimeout>
    <search:defaultCharSet>8859_1</search:defaultCharSet>
    <search:cacheDirectory>/home/oracle/dbs/ses111/cache/
    <search:preserveDocumentCache enabled=""/>
    <search:servicePipeline enabled="">
      <search:pipelineName>Default pipeline</search:pipelineName>
    </search:servicePipeline>
    <search:verboseLogging enabled=""/>
    <search:logDirectory>/home/oracle/dbs/ses111/log/
    <search:logLanguage>en-US</search:logLanguage>
  </search:crawlerSettings>
</search:config>
```
exportAll creatable_type

Returns the XML descriptions of all objects of a specific type.

See Also

export creatable_type
exportList creatable_type

Syntax

exportAll creatable_type [key_pattern] [--OUTPUT_FILE=output_file] [--ENCRYPT_KEY=key]

or

exportAll creatable_type [key_pattern] [-o output_file] [-e key]

Parameters

creatable_type
One of these creatable object types:

altWord
docServiceInstance
docServiceManager
docServicePipeline
identityPlugin
proxyLogin
schedule
searchAttr
source
sourceGroup
sourceType
storageArea
suggLink

output_file
The name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the export command creates a separate file for each one and appends the host name and port number to the base name.

key_pattern
An object key that specifies a subset of objects to process in the format key=value. The value can include wildcard characters:

- A percent sign (%) matches zero or more characters. In a multibyte character set, it matches zero or more bytes.

- An underscore (_) matches one character. In a multibyte character set, it matches one byte.

key
The encryption key for passwords in the XML description of identityPlugin, proxyLogin, and source objects. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.
Example

This example displays all suggested links:

SET> **exportAll suggLink**

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:suggLinks>
    <search:suggLink>
      <search:keyword>database</search:keyword>
      <search:linkText>Oracle 11g</search:linkText>
    </search:suggLink>
    <search:suggLink>
      <search:keyword>oracle</search:keyword>
      <search:linkUrl>http://www.oracle.com</search:linkUrl>
      <search:linkText>Oracle</search:linkText>
    </search:suggLink>
    <search:suggLink>
      <search:keyword>ses</search:keyword>
      <search:linkText>Oracle SES</search:linkText>
    </search:suggLink>
  </search:suggLinks>
</search:config>
```

The next example uses a key pattern to find the suggested link for Oracle.

SET> **exportAll suggLink --KEYWORD=ora%**

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:suggLinks>
    <search:suggLink>
      <search:keyword>oracle</search:keyword>
      <search:linkUrl>http://www.oracle.com</search:linkUrl>
      <search:linkText>Oracle</search:linkText>
    </search:suggLink>
  </search:suggLinks>
</search:config>
```
exportList **creatable_type**

Returns the XML descriptions of a list of objects of the same type.

**See Also**

export creatable_type
exportAll creatable_type

**Syntax**

```bash
exportList creatable_type --KEYS_FILE=key_filename [--IGNORE_NOT_FOUND=action] [--ENCRYPT_KEY=key]
```

or

```bash
exportList creatable_type -k key_filename [-f action] [-e key]
```

**Parameters**

**creatable_type**
A creatable object type:

- altWord
- docServiceInstance
- docServiceManager
- docServicePipeline
- identityPlugin
- proxyLogin
- schedule
- searchAttr
- source
- sourceGroup
- sourceType
- storageArea
- suggLink

**key_filename**
Path to a text file that containing the keys that identify the objects to be deleted. The objects must be the same object type. Each line of the file identifies an object using this format:

```
key=value [key=value]
```

For example, these keys identify altWord objects:

```bash
--KEYWORD=oses --ALT_KEYWORd="Oracle Secure Enterprise Search"
--KEYWORD=rac --ALT_KEYWORd="Real Application Clusters"
--KEYWORD=oem --ALT_KEYWORd="Oracle Enterprise Manager"
```

**action**
Controls the resulting action when an object in the list does not exist:

- **true**: The object is skipped and processing continues.
- **false**: Processing stops with an error. (Default)

**key**
Encryption key for passwords in the XML description of identityPlugin, proxyLogin, and source objects. The key must be at least eight ASCII characters
long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Examples

This example exports the XML descriptions of the alternate words listed in altwords.lst:

```
SES> exportList altWord --KEYS_FILE=altwords.lst
```

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:altWords>
    <search:altWord>
      <search:keyword>oses</search:keyword>
      <search:altKeyword>Oracle Secure Enterprise Search</search:altKeyword>
      <search:autoExpand></search:autoExpand>
    </search:altWord>
    <search:altWord>
      <search:keyword>rac</search:keyword>
      <search:altKeyword>Real Application Clusters</search:altKeyword>
      <search:autoExpand>false</search:autoExpand>
    </search:altWord>
  </search:altWords>
</search:config>
```

The next example shows use of the --IGNORE_NOT_FOUND option:

```
SES> exportList altWord --KEYS_FILE=altwords.lst --IGNORE_NOT_FOUND=true
```

```xml
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
  <search:altWords>
    <search:altWord>
      <search:keyword>oses</search:keyword>
      <search:altKeyword>Oracle Secure Enterprise Search</search:altKeyword>
      <search:autoExpand></search:autoExpand>
    </search:altWord>
    <search:altWord>
      <search:keyword>rac</search:keyword>
      <search:altKeyword>Real Application Clusters</search:altKeyword>
      <search:autoExpand>false</search:autoExpand>
    </search:altWord>
  </search:altWords>
</search:config>
```
getAllObjectKeys

Returns the object keys for the specified object type.

Syntax

ggetAllObjectKeys creatable_type --OUTPUT_FILE=output_file [key_pattern...]

or

ggetAllObjectKeys creatable_type -o output_file [key_pattern...]

Parameters

creatable_type
One of these creatable object types:
altWord
docServiceInstance
docServiceManager
docServicePipeline
identityPlugin
proxyLogin
schedule
searchAttr
source
sourceGroup
sourceType
storageArea
suggLink
thesaurus

output_file
Name of a file in which the exported object keys stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the `getAllObjectKeys` command creates a separate file for each one and appends the host name and port number to the base name. You can use this file as input to the deleteList, exportList, and getStateList operations.

key_pattern
Object key that specifies a subset of objects to process in the format `key=value`. The value can include wildcard characters:

- A percent sign (%) matches zero or more characters. In a multibyte character set, it matches zero or more bytes.
- An underscore (_) matches one character. In a multibyte character set, it matches one byte.

Examples

This example returns all suggested links:

```
SES> getAllObjectKeys suggLink
--KEYWORD=oracle --LINK_URL=http://www.oracle.com
```
The next example returns only the suggested links with a keyword that begins with `data`:

```
SES> getAllObjectKeys suggLink --KEYWORD=data%
```

[.URL=http://www.oracle.com/technetwork/search/oses/overview/index.html]
getAPIVersion

Displays the version number of the Oracle SES Administration API.

**Syntax**

getAPIVersion

**Example**

This example displays the current version of the Administration API.

SES> getAPIVersion

11.2.1.0.0
getAllStates identityPlugin

Returns the current state of all identity plug-ins as an XML document.

See Also

ggetState identityPlugin
getStateList identityPlugin

Syntax

ggetAllStates identityPlugin [--OUTPUT_FILE=output_file] [--PROPERTY_LIST=status] [key_pattern...] 

or

ggetAllStates identityPlugin [-o output_file] [-l status] [key_pattern...] 

Parameters

output_file
Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the getAllStates command creates a separate file for each one and appends the host name and port number to the base name.

key_pattern
Object key that specifies a subset of objects to process in the format key=value. The value can include wildcard characters:

- A percent sign (%) matches zero or more characters. In a multibyte character set, it matches zero or more bytes.
- An underscore (_) matches one character. In a multibyte character set, it matches one byte.

Example

This example returns the current state of all identity plug-ins:

```
SES>getAllStates identityPlugin

```
<search:keyPair/>
</search:objectKey>
</search:states>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPairs>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPair>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPair>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPair>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPair>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPair>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPair>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPair>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPair>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPair>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

</search:keyPair>
</search:objectKey>
</search:objectStates>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>
getAllStates schedule

Returns the current state of all schedules as an XML document.

See Also

ggetState schedule
ggetStateList schedule

Syntax

ggetAllStates schedule [--OUTPUT_FILE=output_file] [--PROPERTY_LIST=state_property] [key_pattern...]

or
ggetAllStates schedule [-o output_file] [-l state_property] [key_pattern...]

Parameters

output_file
Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the getAllStates command creates a separate file for each one and appends the host name and port number to the base name.

state_properties
List of one or more state properties: lastCrawled, logFilePath, nextCrawl, scheduleError, or status. Separate multiple properties with commas. All state properties are returned by default.

key_pattern
Object key that specifies a subset of objects to process in the format key=value. The value can include wildcard characters:

- A percent sign (%) matches zero or more characters. In a multibyte character set, it matches zero or more bytes.
- An underscore (_) matches one character. In a multibyte character set, it matches one byte.

Example

This example uses the percent (%) wildcard character to find the Doc Library schedule and requests two status properties. The status is currently SCHEDULED and the next crawl is MANUAL.

```bash
SES>getAllStates schedule --NAME=Doc% --PROPERTY_LIST=status,nextCrawl

<?xml version="1.0" encoding="UTF-8"?>
<search:state productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search"
> <search:objectStates>
  <search:objectState>
    <search:objectType>schedule</search:objectType>
    <search:objectKey>
      <search:keyPairs>
        <search:keyPair>
          <search:key>lastCrawled</search:key><search:value>2023-01-01T00:00:00Z</search:value>
        </search:keyPair>
        <search:keyPair>
          <search:key>logFilePath</search:key><search:value>/var/log/search-doc_library.log</search:value>
        </search:keyPair>
        <search:keyPair>
          <search:key>nextCrawl</search:key><search:value>MANUAL</search:value>
        </search:keyPair>
        <search:keyPair>
          <search:key>scheduleError</search:key><search:value>OK</search:value>
        </search:keyPair>
        <search:keyPair>
          <search:key>status</search:key><search:value>SCHEDULED</search:value>
        </search:keyPair>
      </search:keyPairs>
    </search:objectKey>
  </search:objectState>
</search:objectStates>
</search:state>
```
<search:name>name</search:name>
<search:value>Doc Library</search:value>
</search:keyPair>
</search:objectKey>
<search:stateProperties>
<search:stateProperty>
<search:propertyName>status</search:propertyName>
<search:propertyValues>
<search:propertyValue>
<search:value>SCHEDULED</search:value>
</search:propertyValue>
</search:propertyValues>
</search:stateProperty>
<search:stateProperty>
<search:propertyName>nextCrawl</search:propertyName>
<search:propertyValues>
<search:propertyValue>
<search:value>MANUAL</search:value>
</search:propertyValue>
</search:propertyValues>
</search:stateProperty>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>
getState identityPlugin

Returns the current state of an identity plug-in as an XML document.

See Also

getAllStates identityPlugin
getStateList identityPlugin

Syntax

ggetState identityPlugin --JAR_FILE=jar_filename --MANAGER_CLASS=class [--OUTPUT_FILE=output_file] [--PROPERTY_LIST=status]

or

ggetState identityPlugin --JAR_FILE=jar_filename --MANAGER_CLASS=class [-o output_file] [-l status]

Parameters

jar_filename
Content of a search:jarFilePath element in the XML document.

class
Content of a search:managerClassName element in the XML document.

output_file
Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the getState command creates a separate file for each one and appends the host name and port number to the base name.

Example

This example gets the current state of a particular identity plug-in:

```
SES> getState identityPlugin --JAR_FILE=OIDPlugins.jar --MANAGER_CLASS=oracle.search.plugin.security.identity.oid.OIDPluginManager

<?xml version="1.0" encoding="UTF-8"?>
<search:state productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
<search:objectStates>
  <search:objectState>
    <search:objectType>identityPlugin</search:objectType>
    <search:objectKey>
      <search:keyPairs>
        <search:keyPair>
          <search:name>jarFilePath</search:name>
          <search:value>OIDPlugins.jar</search:value>
        </search:keyPair>
        <search:keyPair>
          <search:name>managerClassName</search:name>
          <search:value>oracle.search.plugin.security.identity.oid.OIDPluginManager</search:value>
        </search:keyPair>
      </search:keyPairs>
    </search:objectKey>
  </search:objectState>
</search:objectStates>
```
<search:keyPairs/>
</search:objectKey>
<search:stateProperties>
 <search:stateProperty>
  <search:propertyName>status</search:propertyName>
  <search:propertyValues>
   <search:propertyValue>
    <search:value>ACTIVE</search:value>
   </search:propertyValue>
  </search:propertyValues>
 </search:stateProperty>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>
getState index

Returns the percent of fragmentation of the index as an XML document.

Syntax

getState index [--OUTPUT_FILE=output_file] [--PROPERTY_LIST=estimatedFragmentation]

or

ggetState index [-o output_file] [-l estimatedFragmentation]

Parameters

output_file
Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the getState command creates a separate file for each one and appends the host name and port number to the base name.

Example

This example shows that the index has a current estimated fragmentation level of 52.98% and should be optimized:

SES> getState index

<?xml version="1.0" encoding="UTF-8"?>
<search:state productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
 <search:objectStates>
   <search:objectState>
     <search:objectType>index</search:objectType>
     <search:stateProperties>
       <search:stateProperty>
         <search:propertyName>estimatedFragmentation</search:propertyName>
         <search:propertyValues>
           <search:propertyValue>
             <search:value>52.98</search:value>
           </search:propertyValue>
         </search:propertyValues>
       </search:stateProperty>
     </search:stateProperties>
   </search:objectState>
 </search:objectStates>
</search:state>
getState indexOptimizer

Returns the current state of index optimization as an XML document.

Syntax

getState indexOptimizer [--OUTPUT_FILE=output_file] [--PROPERTY_LIST=state_properties]

or

gState indexOptimizer [-o output_file] [-l state_properties]

Parameters

output_file
Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the getState command creates a separate file for each one and appends the host name and port number to the base name.

state_properties
One or more of the indexOptimizer state properties. Separate multiple properties with commas. All state properties are returned by default. See indexOptimizer on page 2-40 for the list of state properties.

Example

This example shows that the index optimizer started at 5:44 PM GMT and is still executing:

SES>getState indexOptimizer

<?xml version="1.0" encoding="UTF-8"?>
<search:state productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
  <search:objectStates>
    <search:objectState>
      <search:objectType>indexOptimizer</search:objectType>
      <search:stateProperties>
        <search:stateProperty>
          <search:propertyName>status</search:propertyName>
          <search:propertyValues>
            <search:propertyValue>
              <search:value>EXECUTING</search:value>
            </search:propertyValue>
          </search:propertyValues>
        </search:stateProperty>
        <search:stateProperty>
          <search:propertyName>startTime</search:propertyName>
          <search:propertyValues>
            <search:propertyValue>
              <search:value>Thu, 09 Jul 2009 17:44:43 GMT</search:value>
            </search:propertyValue>
          </search:propertyValues>
        </search:stateProperty>
      </search:stateProperties>
    </search:objectState>
  </search:objectStates>
</search:state>
</search:objectStates>
</search:state>
getState partitionConfig

Returns the current state of partitioning.

Syntax

getState partitionConfig [--OUTPUT_FILE=output_file] [--PROPERTY_LIST=status]

or

gState partitionConfig [-o output_file] [-l status]

Parameters

output_file
Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the `getState` command creates a separate file for each one and appends the host name and port number to the base name.

Example

This example shows that partitionConfig is active:

```
SES>getState partitionConfig

<?xml version="1.0" encoding="UTF-8"?>
<search:state xmlns:search="http://xmlns.oracle.com/search"
productVersion="11.2.1.0.0">
  <search:objectStates>
    <search:objectState>
      <search:objectType>partitionConfig</search:objectType>
      <search:stateProperties>
        <search:stateProperty>
          <search:propertyName>status</search:propertyName>
          <search:propertyValues>
            <search:propertyValue>
              <search:value>ACTIVE</search:value>
            </search:propertyValue>
          </search:propertyValues>
        </search:stateProperty>
      </search:stateProperties>
    </search:objectState>
  </search:objectStates>
</search:state>
```
getState schedule

Returns the current state of a schedule as an XML document.

See Also

getAddress schedule
getStateList schedule

Syntax

getState schedule --NAME=object_name [--OUTPUT_FILE=output_file] [--PROPERTY_LIST=state_properties]

or

getAddress schedule -n object_name [-o output_file] [-l state_properties]

Parameters

object_name
Content of a <search:name> element in the XML document.

output_file
Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the getAddress command creates a separate file for each one and appends the host name and port number to the base name.

state_properties
One or more of these state properties: lastCrawled, logFilePath, nextCrawl, scheduleError, and status. Separate multiple properties with commas. All state properties are returned by default.

Example

This example directs a schedule to a file named mailing_schedule.xml. The XML shows that the current status of the schedule is disabled.

SES>getAddress schedule --NAME="Mailing List Schedule" --OUTPUT_FILE=mailing_schedule.xml

The getAddress operation succeeded.

$ more mailing_schedule.xml
<?xml version="1.0" encoding="UTF-8"?>
<search:state productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">
  <search:objectStates>
    <search:objectState>
      <search:objectType>schedule</search:objectType>
      <search:objectKey>
        <search:keyPairs>
          <search:keyPair>
            <search:name>name</search:name>
            <search:value>Mailing list Schedule</search:value>
          </search:keyPair>
        </search:keyPairs>
      </search:objectKey>
    </search:objectState>
  </search:objectStates>
</search:state>
</search:objectKey>
<search:stateProperties>
  <search:stateProperty>
    <search:propertyName>status</search:propertyName>
    <search:propertyValues>
      <search:propertyValue>
        <search:value>DISABLED</search:value>
      </search:propertyValue>
    </search:propertyValues>
  </search:stateProperty>
</search:stateProperties>
</search:objectStates>
getStateList identityPlugin

Returns the current state of a list of objects of the same type.

See Also

getAllStates identityPlugin
getState identityPlugin

Syntax

ggetStateList object_type --KEYS_FILE=key_filename [--OUTPUT_FILE=output_file]

or

ggetStateList object_type -k key_filename [-o output_file]

Parameters

key_filename
Path to a text file that identifies the objects. Each line of the file contains an object key. For example:

--JAR_FILE=OIDPlugins.jar --MANAGER_CLASS=oracle.search.plugin.security.identity.oid.OIDPluginManager
--JAR_FILE=../oracleapplications/Siebel8Crawler.jar --MANAGER_CLASS=oracle.search.plugin.security.identity.siebel.SiebelIdentityPluginMgr

output_file
Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the getStateList command creates a separate file for each one and appends the host name and port number to the base name.

Example

This example displays the last crawl and next crawl dates for the schedules listed in identity.lst:

SES>getStateList identityPlugin --KEYS_FILE=identity.lst

<?xml version="1.0" encoding="UTF-8"?>
<search:state productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
<search:objectStates>
<search:objectState>
<search:objectType>identityPlugin</search:objectType>
<search:objectKey>
<search:keyPairs>
<search:keyPair>
<search:name>jarFilePath</search:name>
<search:value>OIDPlugins.jar</search:value>
</search:keyPair>
<search:keyPair>
<search:name>managerClassName</search:name>
<search:value>oracle.search.plugin.security.identity.oid.OIDPluginManager</search:value>
</search:keyPair>
</search:objectState>
</search:objectStates>
</search:state>
getStateList identityPlugin

<search:objectType>identityPlugin</search:objectType>
<search:objectKey>
<search:keyPairs>
<search:keyPair>
<search:name>jarFilePath</search:name>
<search:value>../oracleapplications/Siebel8Crawler.jar</search:value>
</search:keyPair>
<search:keyPair>
<search:name>managerClassName</search:name>
<search:value>oracle.search.plugin.security.identity.siebel.SiebelIdentityPluginMgr</search:value>
</search:keyPair>
</search:keyPairs>
<search:stateProperties>
<search:stateProperty>
<search:propertyName>status</search:propertyName>
<search:propertyValues>
<search:propertyValue>
<search:value>ACTIVE</search:value>
</search:propertyValue>
</search:propertyValues>
</search:stateProperty>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>

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getStateList schedule

Returns the current state of a list of schedules

See Also

getAllStates schedule
getState schedule

Syntax

getStateList schedule --KEYS_FILE=key_filename [--OUTPUT_FILE=output_file]
[--PROPERTY_LIST=state_properties]

or

getStateList schedule -k key_filename [-o output_file] [-l state_properties]

Parameters

key_filename
Path to a text file that identifies the objects. Each line of the file contains an object key. For example:

--NAME="Doc Library"
--NAME="SQL Script Library"

output_file
Name of a file in which the exported XML document is stored. You can specify a simple file name, a relative path, or a fully qualified path. When executing on multiple instances, the getStateList command creates a separate file for each one and appends the host name and port number to the base name.

state_properties
One or more state properties: lastCrawled, logFilePath, nextCrawl, scheduleError, and status. Separate multiple properties with commas. All state properties are returned by default.

Example

This example displays the last crawl and next crawl dates for the schedules listed in schedules.lst:

SES>getStateList schedule --KEYS_FILE=schedules.lst --PROPERTY_LIST=lastCrawled,nextCrawl

<?xml version="1.0" encoding='UTF-8'>
<search:state productVersion="11.2.1.0.0"
xmlns:search="http://xmlns.oracle.com/search">
<search:objectStates>
<search:objectState>
<search:objectType>schedule</search:objectType>
<search:objectKey>
<search:keyPairs>
<search:keyPair>
<search:name>name</search:name>
<search:value>Doc Library</search:value>
</search:keyPair>
</search:objectKey>
</search:objectState>
</search:objectStates>
</search:state>
getStateList schedule

<search:keyPairs>
</search:keyPairs>
<search:stateProperties>
<search:objectKey>
<search:keyPairs>
<search:keyPair>
<search:name>name</search:name>
<search:value>SQL Script Library</search:value>
</search:keyPair>
</search:keyPairs>
<search:stateProperty>
<search:propertyName>nextCrawl</search:propertyName>
<search:propertyValues>
<search:propertyValue>
<search:value>MANUAL</search:value>
</search:propertyValue>
</search:propertyValues>
</search:stateProperty>
<search:stateProperty>
<search:propertyName>lastCrawled</search:propertyName>
<search:propertyValues>
<search:propertyValue key="Doc Library">
<search:value>Thu, 21 May 2009 16:54:17 GMT</search:value>
</search:propertyValue>
</search:propertyValues>
</search:stateProperty>
</search:stateProperties>
</search:objectState>
<search:objectState>
<search:objectType>schedule</search:objectType>
<search:objectKey>
<search:keyPairs>
<search:keyPair>
<search:name>name</search:name>
<search:value>SQL Script Library</search:value>
</search:keyPair>
</search:keyPairs>
<search:stateProperties>
<search:stateProperty>
<search:propertyName>nextCrawl</search:propertyName>
<search:propertyValues>
<search:propertyValue>
<search:value>MANUAL</search:value>
</search:propertyValue>
</search:propertyValues>
</search:stateProperty>
<search:stateProperty>
<search:propertyName>lastCrawled</search:propertyName>
<search:propertyValues>
<search:propertyValue key="SQL Script Library">
<search:value>Thu, 21 May 2009 16:57:18 GMT</search:value>
</search:propertyValue>
</search:propertyValues>
</search:stateProperty>
</search:stateProperties>
</search:objectState>
</search:objectStates>
</search:state>
start indexOptimizer

Starts index optimization

Syntax

    start indexOptimizer]

Example

This example starts the index optimizer:

    SES>start indexOptimizer

    The "start" operation succeeded for 'indexOptimizer'.
start schedule

Starts a schedule.

Syntax

start schedule --NAME=object_name

or

start schedule -n object_name

Parameters

object_name
Content of a <search:name> element in the XML document.

Example

This example starts a schedule named SQL Script Library:

SES> start schedule --NAME='SQL Script Library'

The 'start' operation succeeded for "[name=SQL Script Library]".
stop schedule

Stops a schedule from initiating a crawl, or stops the crawler if it has already started.

Syntax

```
stop schedule --NAME=object_name

or

stop schedule -n object_name
```

Parameters

object_name
Content of a `<search:name>` element in the XML document.

Example

This example stops a schedule named My File Source:

```
SES>stop schedule --NAME="My File Source"
```

The "stop" operation succeeded for '{name=My File Source}'.


update altWord

Changes the properties of an alternate word from an XML file.

See Also

updateAll altWord

Syntax

update altWord --KEYWORD=keyword --ALT_KEYWORD=alt_keyword object_key --INPUT_FILE=xml_filename --UPDATE_METHOD=method

or

update altWord --KEYWORD=keyword --ALT_KEYWORD=alt_keyword -i xml_filename -a method

Parameters

keyword
Content of a <search:keyword> element in the XML document.

alt_keyword
Content of a <search:altKeyword> element in the XML document.

xml_filename
Path to the XML document that configures the object. See altWord on page 2-12.

method
Method to use when updating the properties of an object:
- overwrite: Replaces the existing property values with the new values.

Example

This example overwrites the parameter settings for RAC:

```
SES> update altWord --KEYWORD=rac --ALT_KEYWORD="Real Application Clusters" --INPUT_FILE=altwords.xml --UPDATE_METHOD=overwrite
```

The object "[keyword=rac, altKeyword=Real Application Clusters]" was successfully updated.
update crawlerSettings

Sets one or more global crawler parameters from an XML description.

Syntax

update crawlerSettings --UPDATE_METHOD=method --INPUT_FILE=xml_filename

or

update crawlerSettings -a method -i xml_filename

Parameters

method
Method to use when updating the properties of an object:
  ■ overwrite: Replaces the existing property values with the new values.

xml_filename
Path to the XML document that configures the object. See crawlerSettings on page 2-14.

Example

This example updates the crawler settings:

SES>update crawlerSettings --INPUT_FILE=crawler.xml --UPDATE_METHOD=overwrite

The object "crawlerSettings" was successfully updated.
update docServiceInstance

Sets one or more parameters of a document service instance from an XML description.

See Also

updateAll docServiceInstance

Syntax

update docServiceInstance --NAME=object_name --INPUT_FILE=xml_filename --UPDATE_METHOD=method [--ENCRYPT_KEY=key]

or

update docServiceInstance -n object_name -i xml_filename -a method [-e key]

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that configures the object. See docServiceInstance on page 2-18.

method
Method to use when updating the properties of an object:

■ overwrite: Replaces the existing property values with the new values.

key
Encryption key for passwords in xml_filename. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example

This example updates the default summarizer document service instance:

SES>update docServiceInstance --NAME="Default summarizer service instance" --UPDATE_METHOD=overwrite --INPUT_FILE=docserviceinstance.xml --ENCRYPT_KEY=key2encrypt

The object '{name=Default summarizer service instance}' was successfully updated.
update docServicePipeline

Sets one or more parameters of a document service pipeline from an XML description.

See Also

updateAll docServicePipeline

Syntax

update docServicePipeline --UPDATE_METHOD=method --INPUT_FILE=xml_filename

or

update docServicePipeline -a method -i xml_filename

Parameters

method
Method to use when updating the properties of an object:

■ add: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file.

■ remove: Removes existing properties that are defined in the XML file.

■ overwrite: Replaces the existing property values with the new values.

xml_filename
Path to the XML document that configures the object. See docServicePipeline on page 2-24.

Example

This example updates the default document service pipeline:

SES> update docServicePipeline --NAME=Default pipeline --UPDATE_METHOD=add --INPUT_FILE=docservicepipeline.xml

The object "[name=Default pipeline]" was successfully updated.
update globalBoundaryRules

Sets one or more global boundary rules from an XML document.

Syntax

update globalBoundaryRules --UPDATE_METHOD=method --INPUT_FILE=xml_filename

or

update globalBoundaryRules -a method -i xml_filename

Parameters

method
Method to use when updating the properties of an object:

- overwrite: Replaces the existing property values with the new values.

xml_filename
Path to the XML document that configures the object. See `globalBoundaryRules` on page 2-29.

Example

This example updates the global boundary rules:

SES> update globalBoundaryRules -a overwrite --INPUT_FILE=globalboundaryrules.xml

The object 'globalBoundaryRules' was successfully updated.
**update globalDocumentTypes**

Sets one or more parameters of a global document type from an XML document.

**Syntax**

```
update globalDocumentTypes --UPDATE_METHOD=method --INPUT_FILE=xml_filename
```

or

```
update globalDocumentTypes -a method -i xml_filename
```

**Parameters**

- **method**
  Method to use when updating the properties of an object:
  - overwrite: Replaces the existing property values with the new values.

- **xml_filename**
  Path to the XML document that configures the object. See [globalDocumentTypes](#) on page 2-32.

**Example**

This example updates the global document types:

```
SES> update globalDocumentTypes -a overwrite --INPUT_FILE=globaldocumenttypes.xml
```

The object "globalDocumentTypes" was successfully updated.
update index

Sets one or more index properties from an XML description.

Syntax

update index --UPDATE_METHOD=method --INPUT_FILE=xml_filename

or

update index -a method -i xml_filename

Parameters

method
Method to use when updating the properties of an object:

- overwrite: Replaces the existing property values with the new values.

xml_filename
Path to the XML document that configures the object. See index on page 2-38.

Example

This example updates the indexing settings:

SES> update index --INPUT_FILE=index.xml --UPDATE_METHOD=overwrite

The object 'index' was successfully updated.
**update indexOptimizer**

Sets one or more index optimizer properties from an XML description.

**Syntax**

```bash
update indexOptimizer --UPDATE_METHOD=method --INPUT_FILE=xml_filename
```

or

```bash
update indexOptimizer -a method -i xml_filename
```

**Parameters**

- **method**
  Method to use when updating the properties of an object:
  - **overwrite**: Replaces the existing property values with the new values.

- **xml_filename**
  Path to the XML document that configures the object. See `indexOptimizer` on page 2-40.

**Example**

This example updates the index optimization settings:

```bash
SES> update indexOptimizer --INPUT_FILE=indexoptimizer.xml --UPDATE_METHOD=overwrite
```

The object "indexOptimizer" was successfully updated.
**update partitionConfig**

Changes the settings of the partition configuration parameters from an XML description. You can update the configuration only under these conditions:

- Immediately after installing Oracle SES.
- Before crawling any data source.
- After dropping all data sources.

When a partition rule is in use, you cannot modify it.

**Syntax**

```bash
update partitionConfig --UPDATE_METHOD=method --INPUT_FILE=xml_filename
```

```bash
update partitionConfig -a method -i xml_filename
```

**Parameters**

- **method**
  Method to use when updating the properties of an object:
  - *add*: Adds new properties.
  - *remove*: Removes existing properties that are defined in the XML file.
  - *overwrite*: Replaces the existing property values with the new values.

- **xml_filename**
  Path to the XML document that configures the object. See `partitionConfig` on page 2-44.

**Example**

The following example updates the partitioning configuration:

```bash
SES> update partitionConfig --INPUT_FILE=part.xml --UPDATE_METHOD=overwrite
```

The object 'partitionConfig' was successfully updated.
update proxyLogin

Changes the properties of a proxy log-in (federation entrusted entity) from an XML description.

See Also

updateAll proxyLogin

Syntax

update proxyLogin --NAME=object_name --INPUT_FILE=xml_filename --UPDATE_METHOD=method [--ENCRYPT_KEY=key]

or

update proxyLogin -n object_name -i xml_filename -a method [-e key]

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that configures the object. See proxyLogin on page 2-48.

method
Method to use when updating the properties of an object:

- overwrite: Replaces the existing property values with the new values.

key
Encryption key for passwords in xml_filename. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example

This example overwrites the parameter settings for a proxy:

SES> update proxyLogin --NAME=this_proxy --INPUT_FILE=proxy.xml --UPDATE_METHOD=overwrite --ENCRYPT_KEY=key2encrypt

The object "[name=this_proxy]" was successfully updated.
update queryConfig

Sets one or more query configuration parameters from an XML description.

Syntax

update queryConfig --UPDATE_METHOD=method --INPUT_FILE=xml_filename

or

update queryConfig -a method -i xml_filename

Parameters

method
Method to use when updating the properties of an object:
- overwrite: Replaces the existing property values with the new values.

xml_filename
Path to the XML document that configures the object. See queryConfig on page 2-50.

Example

This example updates the query settings:

SES>update queryConfig --INPUT_FILE=query.xml

The object "queryConfig" was successfully updated.
update relevanceRanking

Sets one or more relevance ranking parameters from an XML description.

Syntax

update relevanceRanking --UPDATE_METHOD=method --INPUT_FILE=xml_filename

or

update relevanceRanking -a method -i xml_filename

Parameters

method
Method to use when updating the properties of an object:

- add: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file.
- remove: Removes existing properties that are defined in the XML file.
- overwrite: Replaces the existing property values with the new values.

xml_filename
Path to the XML document that configures the object. See relevanceRanking on page 2-56.

Example

This example updates the ranking attributes:

SES> update relevanceRanking -a remove --INPUT_FILE=relevance.xml

The object "relevanceRanking" was successfully updated.
update schedule

Changes the properties of a schedule from an XML file.

See Also

updateAll schedule

Syntax

update schedule --NAME=object_name --INPUT_FILE=xml_filename --UPDATE_METHOD=method

or

update creatable_type -n object_name -i xml_filename -a method

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that configures the object. See schedule on page 2-59.

method
Method to use when updating the properties of an object:

- add: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file.
- remove: Removes existing properties that are defined in the XML file.
- overwrite: Replaces the existing property values with the new values.

Example

This example adds a source to the Doc Library schedule:

SES>update schedule --NAME="Doc Library" --UPDATE_METHOD=add --INPUT_FILE=schedule.xml

The object '{name=Doc Library}' was successfully updated.
update searchAttr

Changes the properties of a search attribute from an XML file. You can add translations of search attribute names and LOVs to the default search attributes.

See Also

updateAll searchAttr

Syntax

update searchAttr --NAME=object_name --INPUT_FILE=xml_filename --UPDATE_METHOD=method

or

update searchAttr -n object_name -i xml_filename -a method

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that configures the object. See searchAttr on page 2-64.

method
Method to use when updating the properties of an object:

- add: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file.
- remove: Removes existing properties that are defined in the XML file.
- overwrite: Replaces the existing property values with the new values.

Example

This example overwrites the parameter settings for the Owner search attribute:

```bash
SES> update searchAttr --NAME=Owner --UPDATE_METHOD=overwrite --INPUT_FILE=searchattrs.xml
```

The object "[name=Owner]" was successfully updated.
update source

Changes the properties of a source from an XML file.

See Also

updateAll source

Syntax

update source --NAME=object_name --INPUT_FILE=xml_filename --UPDATE_METHOD=method
[--ENCRYPT_KEY=key]

or

update source -n object_name -i xml_filename -a method [-e key]

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that configures the object. See source on page 2-67.

method
Method to use when updating the properties of an object:

- add: Adds new properties and overwrites existing properties, but does not delete
  existing properties that are omitted in the XML file.
- remove: Removes existing properties that are defined in the XML file.
- overwrite: Replaces the existing property values with the new values.

key
Encryption key for passwords in xml_filename. The key must be at least eight
ASCII characters long and include at least one letter and one number. Multibyte
characters are invalid. If you omit this option, you are prompted for the key.

Example

This example updates the Doc Library source with the changes in sources.xml:

SES>update source --NAME="Doc Library" --UPDATE_METHOD=overwrite --INPUT_  
FILE=sources.xml --ENCRYPT_KEY=key2encrypt

The object "[name=Doc Library]" was successfully updated.
**update sourceGroup**

Changes the properties of a source group from an XML file.

**See Also**

`updateAll sourceGroup`

**Syntax**

```bash
update sourceGroup --NAME=object_name --INPUT_FILE=xml_filename --UPDATE_METHOD=method
```

or

```bash
update sourceGroup -n object_name -i xml_filename -a method
```

**Parameters**

- **object_name**
  Content of a `<search:name>` element in the XML document.

- **xml_filename**
  Path to the XML document that configures the object. See `sourceGroup` on page 2-92.

- **method**
  Method to use when updating the properties of an object:
  - `add`: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file.
  - `remove`: Removes existing properties that are defined in the XML file.
  - `overwrite`: Replaces the existing property values with the new values.

**Example**

This example updates the Libraries source group:

```bash
SES> update sourceGroup --NAME=Libraries --UPDATE_METHOD=overwrite --INPUT_FILE=sourcegroups.xml
```

The object `*[name=Libraries]*` was successfully updated.
update storageArea

Changes the properties of a storage area from an XML file.

See Also

updateAll storageArea

Syntax

update storageArea --NAME=object_name --INPUT_FILE=xml_filename --UPDATE_METHOD=method

or

update storageArea -n object_name -i xml_filename -a method

Parameters

object_name
Content of a <search:name> element in the XML document.

xml_filename
Path to the XML document that configures the object. See storageArea on page 2-98.

method
Method to use when updating the properties of an object:

- overwrite: Replaces the existing property values with the new values.

Example

This example updates the parameter settings for the OES_ASSM2 storage area:

```
SES> update storageArea --NAME=OES_ASSM2 --UPDATE_METHOD=overwrite --INPUT_FILE=storage.xml
```

The object '{name=OES_ASSM2}' was successfully updated.
**update suggLink**

Changes the properties of a suggested link from an XML file.

**See Also**

updateAll suggLink

**Syntax**

```
update suggLink --KEYWORD=keyword --LINK_URL=url --INPUT_FILE=xml_filename
--UPDATE_METHOD=method
```

or

```
update suggLink --KEYWORD=keyword --LINK_URL=url -i xml_filename -a method
```

**Parameters**

- **keyword**
  
  Content of the `search:keyword` element in the XML document.

- **url**
  
  Content of the `search:linkUrl` element in the XML document.

- **xml_filename**
  
  Path to the XML document that configures the object. See `suggLink` on page 2-100.

- **method**
  
  Method to use when updating the properties of an object:

  - **overwrite**: Replaces the existing property values with the new values.

**Example**

This example updates the suggested link for `oracle`:

```
SES> update suggLink --KEYWORD=oracle --LINK_URL=http://www.oracle.com --UPDATE_METHOD=overwrite --INPUT_FILE=sugglinks.xml
```

The object "[keyword=oracle, linkUrl=http://www.oracle.com]" was successfully updated.
update thesaurus

Changes the properties of a thesaurus from an XML file.

Syntax

update thesaurus --NAME=DEFAULT --INPUT_FILE=xml_filename --UPDATE_METHOD=method

or

update thesaurus -n DEFAULT -i xml_filename -a method

Parameters

xml_filename
Path to the XML document that configures the object. See thesaurus on page 2-102.

method
Method to use when updating the properties of an object:

- overwrite: Replaces the existing property values with the new values.

Example

This example updates the default thesaurus:

SES>update thesaurus --NAME=DEFAULT --UPDATE_METHOD=overwrite --INPUT_FILE=thesaurus_update.xml

The object ':[name=DEFAULT]' was successfully updated.
**updateAll altWord**

Sets one or more parameters of all alternate words described in an XML document.

**See Also**

`update altWord`

**Syntax**

```
updateAll altWord --INPUT_FILE=xml_filename --UPDATE_METHOD=method [--NOT_FOUND_METHOD=action]
```

or

```
updateAll altWord -i xml_filename -a method [-t action]
```

**Parameters**

- **xml_filename**
  Path to the XML document that configures the object. See `altWord` on page 2-12.

- **method**
  Method to use when updating the properties of an object:
  - `overwrite`: Replaces the existing property values with the new values.

- **action**
  Action to take when an object does not exist:
  - `create`: A new object is created from the XML description and processing continues.
  - `error`: The command fails with an error. (Default)
  - `ignore`: The new description is ignored and processing continues.

**Example**

This example updates the alternate word list by adding a new `altWord` object in `altword2.xml`:

```
SES>updateAll altWord --INPUT_FILE=altword2.xml --UPDATE_METHOD=overwrite --NOT_FOUND_METHOD=create
```

updateAll operation succeeded for type 'altWord'.

1 object(s) with status NOT_FOUND_CREATED
updateAll docServiceInstance

Sets one or more parameters of all document service instances described in an XML document.

See Also

update docServiceInstance

Syntax

updateAll docServiceInstance --INPUT_FILE=xml_filename --UPDATE_METHOD=method
[--NOT_FOUND_METHOD=action] [--ENCRIPT_KEY=key]

or

updateAll docServiceInstance -i xml_filename -a method [-t action] [-e key]

Parameters

xml_filename
Path to the XML document that configures the object. See docServiceInstance on page 2-18.

method
Method to use when updating the properties of an object:
  ■ overwrite: Replaces the existing property values with the new values.

action
Action to take when an object does not exist:
  ■ create: A new object is created from the XML description and processing continues.
  ■ error: The command fails with an error. (Default)
  ■ ignore: The new description is ignored and processing continues

key
Encryption key for passwords in xml_filename. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example

This example updates two document service instances:

SES> updateAll docServiceInstance --UPDATE_METHOD=overwrite --NOT_FOUND_METHOD=create --INPUT_FILE=docserviceinstance.xml --ENCRIPT_KEY=key2encrypt

updateAll operation succeeded for type "docServiceInstance".

2 object(s) with status UPDATE_SUCCEEDED
updateAll docServicePipeline

Sets one or more parameters of all document services pipelines described in an XML document.

See Also

update docServicePipeline

Syntax

updateAll docServicePipeline --INPUT_FILE=xml_filename --UPDATE_METHOD=method
[--NOT_FOUND_METHOD=action]

or

updateAll docServicePipeline -i xml_filename -a method [-t action]

Parameters

xml_filename  
Path to the XML document that configures the object. See docServicePipeline on page 2-24.

method  
Method to use when updating the properties of an object:

- add: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file. It also appends new service instances described in the XML to the end of the execution list, so that the new instances are executed last.

- remove: Removes existing properties that are defined in the XML file.

- overwrite: Replaces the existing property values with the new values.

action  
Action to take when an object does not exist:

- create: A new object is created from the XML description and processing continues.

- error: The command fails with an error. (Default)

- ignore: The new description is ignored and processing continues.

Example

This example updates two document service pipelines:

updateAll docServicePipeline --UPDATE_METHOD=remove --NOT_FOUND_METHOD=create
--INPUT_FILE=docServicePipeline.xml

updateAll operation succeeded for type "docServicePipeline".

2 object(s) with status UPDATE_SUCCEEDED
updateAll proxyLogin

Sets one or more parameters for all proxy log-ins (federated trusted entities) described in an XML document.

See Also

update proxyLogin

Syntax

updateAll proxyLogin --INPUT_FILE=xml_filename --UPDATE_METHOD=method [--NOT_FOUND_METHOD=action] [--ENCRYPT_KEY=key]

or

updateAll proxyLogin -i xml_filename -a method [-t action] [-e key]

Parameters

xml_filename
Path to the XML document that configures the object. See proxyLogin on page 2-48.

method
Method to use when updating the properties of an object:

- **add**: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file.
- **remove**: Removes existing properties that are defined in the XML file.
- **overwrite**: Replaces the existing property values with the new values.

action
Action to take when an object does not exist:

- **create**: A new object is created from the XML description and processing continues.
- **error**: The command fails with an error. (Default)
- **ignore**: The new description is ignored and processing continues

key
Encryption key for passwords in xml_filename. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

Example

This example updates all proxy log-ins described in proxy.xml:

```
SES> updateAll proxyLogin --INPUT_FILE=proxy.xml --UPDATE_METHOD=overwrite --ENCRYPT_KEY=key2encrypt
updateAll operation succeeded for type "proxyLogin".
3 object(s) with status UPDATE_SUCCEEDED
```
updateAll schedule

Sets one or more parameters of all schedules described in an XML document.

See Also

update schedule

Syntax

updateAll schedule --INPUT_FILE=xml_filename --UPDATE_METHOD=method [--NOT_FOUND_METHOD=action]

or

updateAll schedule -i xml_filename -a method [-t action]

Parameters

xml_filename
Path to the XML document that configures the object. See schedule on page 2-59.

method
Method to use when updating the properties of an object:

- add: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file.
- remove: Removes existing properties that are defined in the XML file.
- overwrite: Replaces the existing property values with the new values.

action
Action to take when an object does not exist:

- create: A new object is created from the XML description and processing continues.
- error: The command fails with an error. (Default)
- ignore: The new description is ignored and processing continues

Example

This example updates the schedules with the XML document in schedule_rev1.xml:

SES>updateAll schedule --UPDATE_METHOD=add --NOT_FOUND_METHOD=create --INPUT_FILE=schedule_rev1.xml

updateAll operation succeeded for type 'schedule'.

1 object(s) with status UPDATE_SUCCEEDED
updateAll searchAttr

Sets one or more parameters of all search attributes described in an XML document. You can add LOVs to the default search attributes.

See Also

distributed searchAttr

Syntax

updateAll searchAttr --INPUT_FILE=xml_filename --UPDATE_METHOD=method [--NOT_FOUND_METHOD=action]

or

updateAll searchAttr -i xml_filename -a method [-e key] [-t action]

Parameters

xml_filename
Path to the XML document that configures the object. See searchAttr on page 2-64.

method
Method to use when updating the properties of an object:

- **add**: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file.
- **remove**: Removes existing properties that are defined in the XML file.
- **overwrite**: Replaces the existing property values with the new values.

action
Action to take when an object does not exist:

- **create**: A new object is created from the XML description and processing continues.
- **error**: The command fails with an error. (Default)
- **ignore**: The new description is ignored and processing continues

Example

This example updates a search attribute using the description in searchattrs_update.xml:

```bash
SES> updateAll searchAttr --UPDATE_METHOD=add --NOT_FOUND_METHOD=create --INPUT_FILE=searchattrs_update.xml

updateAll operation succeeded for type "searchAttr".

1 object(s) with status UPDATE_SUCCEEDED```

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updateAll source

Sets one or more parameters of all sources described in an XML document.

See Also

update source

Syntax

updateAll source --INPUT_FILE=xml_filename --UPDATE_METHOD=method [--NOT_FOUND_METHOD=action] [--ENCRYPT_KEY=key]

or

updateAll source -i xml_filename -a method [-t action] [-e key]

Parameters

xml_filename
Path to the XML document that configures the object. See source on page 2-67.

method
Method to use when updating the properties of an object:
- add: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file.
- remove: Removes existing properties that are defined in the XML file.
- overwrite: Replaces the existing property values with the new values.

key
Encryption key for passwords in xml_filename. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid. If you omit this option, you are prompted for the key.

action
Action to take when an object does not exist:
- create: A new object is created from the XML description and processing continues.
- error: The command fails with an error. (Default)
- ignore: The new description is ignored and processing continues.

Example

This example creates a new source described in sources_update.xml:

```
SES>updateAll source --UPDATE_METHOD=add --NOT_FOUND_METHOD=create --INPUT_FILE=sources_update.xml --ENCRYPT_KEY=key2encrypt

updateAll operation succeeded for type "source".

1 object(s) with status NOT_FOUND_CREATED
```
updateAll sourceGroup

Sets one or more parameters of all source groups described in an XML document.

See Also

update sourceGroup

Syntax

updateAll sourceGroup --INPUT_FILE=xml_filename --UPDATE_METHOD=method [--NOT_FOUND_METHOD=action]

or

updateAll sourceGroup -i xml_filename -a method [-t action]

Parameters

xml_filename
Path to the XML document that configures the object. See sourceGroup on page 2-92.

method
Method to use when updating the properties of an object:

- add: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted in the XML file.
- remove: Removes existing properties that are defined in the XML file.
- overwrite: Replaces the existing property values with the new values.

action
Action to take when an object does not exist:

- create: A new object is created from the XML description and processing continues.
- error: The command fails with an error. (Default)
- ignore: The new description is ignored and processing continues

Example

This example updates two source groups:

SES>updateAll sourceGroup --UPDATE_METHOD=add --NOT_FOUND_METHOD=ignore --INPUT_FILE=sourcegroups_update.xml

updateAll operation succeeded for type "sourceGroup".

2 object(s) with status UPDATE_SUCCEEDED
2 object(s) with status NOT_FOUND_IGNORED
updateAll storageArea

Sets one or more properties of all storage areas described in an XML document.

Syntax

updateAll storageArea --INPUT_FILE=xml_filename --UPDATE_METHOD=method [--NOT_FOUND_METHOD=action]

or

updateAll storageArea -n object_name -i xml_filename -a method [-t action]

Parameters

xml_filename
Path to the XML document that configures the object. See storageArea on page 2-98.

method
Method to use when updating the properties of an object:

■ overwrite: Replaces the existing property values with the new values.

action
Action to take when an object does not exist:

■ create: A new object is created from the XML description and processing continues.
■ error: The command fails with an error. (Default)
■ ignore: The new description is ignored and processing continues

Example

This example creates a storage area and updates the parameter settings of another:

SES> updateAll storageArea --UPDATE_METHOD=remove --NOT_FOUND_METHOD=create --INPUT_FILE=storage.xml

updateAll operation succeeded for type "storageArea".

1 object(s) with status UPDATE_SUCCEEDED
1 object(s) with status NOT_FOUND_CREATED
updateAll suggLink

Sets one or more parameters all suggested links described in an XML document.

See Also

update suggLink

Syntax

updateAll suggLink --INPUT_FILE=xml_filename --UPDATE_METHOD=method [--NOT_FOUND_METHOD=action]

or

updateAll suggLink -i xml_filename -a method [-t action]

Parameters

xml_filename
Path to the XML document that configures the object. See suggLink on page 2-100.

method
Method to use when updating the properties of an object:

■ overwrite: Replaces the existing property values with the new values.

action
Action to take when an object does not exist:

■ create: A new object is created from the XML description and processing continues.

■ error: The command fails with an error. (Default)

■ ignore: The new description is ignored and processing continues

Example

This example updates one suggested link and creates two more:

SES> updateAll suggLink --UPDATE_METHOD=overwrite --NOT_FOUND_METHOD=create
--INPUT_FILE=sugglinks_update.xml

updateAll operation succeeded for type 'suggLink'.

1 object(s) with status UPDATE_SUCCEEDED
2 object(s) with status NOT_FOUND_CREATED
This chapter describes the SOAP messages for the Oracle SES Web service. It contains this topic:

- **Alphabetic List of Web Service Operations**

### Alphabetic List of Web Service Operations

**A C D E G S U**

**A**
- activate

**C**
- create
- createAll

**D**
- deactivate
- delete
- deleteAll
- deleteList

**E**
- export
- exportAll
- exportList

**G**
- getAllObjectKeys
- getAPIVersion
- getAllStates
- getState
- getStateList

**S**
- start
- stop

**U**
- update
- updateAll
activate

Activates an administrative object. Objects that control the periodic execution of an activity must also be started: indexOptimizer and schedule.

See Also

start

SOAP Message

<activate xmlns="http://search.oracle.com/Admin">
  <objectType xmlns=""></objectType>
  <objectKey xmlns=""></objectKey>
  <adminKeyPairs>
    <keyName>
    <keyValue>
    <objectXML xmlns=""></objectXML>
    <decryptionKey xmlns=""></decryptionKey>
    <credentials xmlns=""></credentials>
    <password>
    <userName>
    <locale xmlns=""></locale>
  </adminKeyPairs>
</activate>

Element Descriptions

<activate xmlns="http://search.oracle.com/Admin">
Describes activation of an administrative object. It contains these elements:

<objectType>
<objectKey>
<objectXML>
<decryptionKey>
<credentials>
<locale>

<objectType xmlns=""></objectType>
Contains one of these object types:

identityPlugin
indexOptimizer
schedule

<objectKey xmlns=""></objectKey>
Describes the object key for a creatable object type:

identityPlugin
schedule

This element contains one or more <adminKeyPairs> elements.

<adminKeyPairs>
Contains these elements:

<keyName>
<keyValue>

<keyName>
Contains the case-sensitive key name of the object type, such as name.
<keyValue>
Contains the value that uniquely describes the object, such as Web Site Schedule.

<objectXML xmlns=""">
Contains an XML document that describes the object. See Chapter 2, "Administration Object Types."

Use escape codes for these symbols in the embedded XML:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Escape Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>&gt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>'</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

<decryptionKey xmlns="">
Contains a decryption key for identityPlugin objects.

<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:

<password>
Contains the password for <userName>.

<userName>
Contains the user name of the Oracle SES administrator.

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults

AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateException

Example

This example activates clustering.

Note: The clustering object used in the example is disabled in Oracle Fusion Applications.

<activate xmlns="http://search.oracle.com/Admin">
   <objectType xmlns="">clustering</objectType>
</activate>

This is the service response for a successful operation:
<ns2:activateResponse xmlns:ns2="http://search.oracle.com/Admin" />
create

Creates an administrative object from an XML description.

See Also

createAll

SOAP Message

```xml
<create xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">
    <objectKey xmlns="">
      <adminKeyPairs>
        <keyName>
        <keyValue>
      <objectXML xmlns="">
      <decryptionKey xmlns="">
      <credentials xmlns="">
        <password>
        <userName>
      <locale xmlns="">
```

Element Descriptions

```xml
<create xmlns="http://search.oracle.com/Admin">
Describes creation of an administrative object. It contains these elements:

<creatableType>
<objectKey>
<objectXML>
<decryptionKey>
<credentials>
<attachments>
<locale>

<creatableType xmlns=""
Contains a creatable type:

altWord
boostedUrl
docServiceInstance
docServicePipeline
facetTree
proxyLogin
schedule
searchAttr
source
sourceGroup
storageArea
suggLink
thesaurus

<objectKey xmlns=""
Describes the object key for the object. This element contains an <adminKeyPairs> element.
<adminKeyPairs>
Contains these elements:
  <keyName>
  <keyValue>

<keyName>
Contains the case-sensitive key name of the object type, such as name.

<keyValue>
Contains the value that uniquely describes the object, such as Web Site Schedule.

<objectXML xmlns="">
Contains an XML document that describes the object. See Chapter 2, "Administration Object Types."

Use escape codes for these symbols in the embedded XML:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Escape Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>&gt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>&quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

<decryptionKey xmlns="">
Contains a decryption key for these object types:

docServiceInstance
identityPlugin
proxyLogin
source

<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See “Providing Credentials” on page 1-5.

This element contains these child elements:
  <password>
  <userName>

<password>
Contains the password for <userName>.

<userName>
Contains the user name of the Oracle SES administrator.

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults

AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
Example

This example creates an alternate word pair.

```xml
<create xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="" altWord</creatableType>
  <objectKey xmlns="">
    <adminKeyPairs>
      <keyName>keyword</keyName>
      <keyValue>oses</keyValue>
    </adminKeyPairs>
    <adminKeyPairs>
      <keyName>altKeyword</keyName>
      <keyValue>Oracle Secure Enterprise Search</keyValue>
    </adminKeyPairs>
  </objectKey>
  <objectXML xmlns="">
    <!-- XML object description appears here-->
  </objectXML>
</create>
```

This is the service response for a successful operation:

```xml
<ns2:createResponse xmlns:ns2="http://search.oracle.com/Admin" />```
createAll

Creates all of the administrative objects of a specified type in an XML description.

See Also

create

SOAP Message

```
<createAll xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns=""/>
  <objectXML xmlns=""/>
  <decryptionKey xmlns=""/>
  <credentials xmlns="">
    <password/>
    <userName/>
    <controls xmlns="">
      <controlName/>
      <controlValue/>
    </controls>
    <locale xmlns=""/>
  </credentials>
</createAll>
```

Element Descriptions

```
<createAll xmlns="http://search.oracle.com/Admin">
Describes creation of one or more administrative objects. It contains these elements:

<creatableType>
<objectXML>
<decryptionKey>
<credentials>
<attachments>
<controls>
<locale>

<creatableType xmlns="">
Contains a creatable type:

altWord
boostedUrl
docServiceInstance
docServicePipeline
facetTree
proxyLogin
schedule
searchAttr
source
sourceGroup
storageArea
suggLink

<objectXML xmlns="">
Contains an XML document that describes the objects. See Chapter 2, "Administration Object Types."

Use escape codes for these symbols in the embedded XML:
contains a decryption key for these object types:

- identityPlugin
- proxyLogin
- source

Contains the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:

- <password>
- <userName>

Contains the password for <userName>.

Contains the user name of the Oracle SES administrator.

Specifies an operation control. It contains these elements:

- <controlName>
- <controlValue>

Specifies an action for an error condition:

- DUPE_METHOD: Controls the action to take when an object already exists. For all creatable types.
- IGNORE_INVALID_STATE: Controls whether processing continues when an object cannot be overwritten because it is in an invalid state. This control is used only when DUPE_METHOD is set to overwrite. For clusterFree, identityPlugin, and schedule only.

For DUPE_METHOD:

- error: The operation fails with an error. (Default)
- ignore: The existing object description is kept.
- overwrite: The new description replaces the existing object description

For IGNORE_INVALID_STATE:

- true: Continue processing with the next object.
- false: Stop processing with an error and roll back all changes. (Default)
<locale xmlns=""">
Sets the language for error messages. See Table 2–2, “Product Languages” for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults

AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Example

This example creates all of the alternate word pairs defined in the object XML (omitted):

```xml
<createAll xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">altWord</creatableType>
  <objectXML xmlns="">
    <!-- XML object descriptions appear here-->
  </objectXML>
  <controls xmlns="">
    <controlName>DUPE_METHOD</controlName>
    <controlValue>overwrite</controlValue>
  </controls>
  <credentials xmlns="">
    <password>password</password>
    <userName>admin username</userName>
  </credentials>
</createAll>
```

The response shows that three alternate word pairs were created successfully.

```xml
<ns2:createAllResponse xmlns:ns2="http://search.oracle.com/Admin">
  <statusList>
    <objectKey>
      <adminKeyPairs>
        <keyName>keyword</keyName>
        <keyValue>oses</keyValue>
      </adminKeyPairs>
      <adminKeyPairs>
        <keyName>altKeyword</keyName>
        <keyValue>Oracle Secure Enterprise Search</keyValue>
      </adminKeyPairs>
    </objectKey>
    <objectType>altWord</objectType>
    <statusCode>CREATE_SUCCEEDED</statusCode>
  </statusList>
  <statusList>
    <objectKey>
      <adminKeyPairs>
        <keyName>keyword</keyName>
        <keyValue>text</keyValue>
      </adminKeyPairs>
    </objectKey>
    <objectType>altWord</objectType>
    <statusCode>CREATE_SUCCEEDED</statusCode>
  </statusList>
</ns2:createAllResponse>
```
<keyName>altKeyword</keyName>
  <keyValue>Oracle Text</keyValue>
</adminKeyPairs>
</objectKey>
</objectType>altWord</objectType>
<statusCode>CREATE_SUCCEEDED</statusCode>
</statusList>
</statusList>
<objectKey>
<adminKeyPairs>
  <keyName>keyword</keyName>
  <keyValue>rac</keyValue>
</adminKeyPairs>
<adminKeyPairs>
  <keyName>altKeyword</keyName>
  <keyValue>Real Application Clusters</keyValue>
</adminKeyPairs>
</objectKey>
<objectType>altWord</objectType>
<statusCode>CREATE_SUCCEEDED</statusCode>
</statusList>
</ns2:createAllResponse>
deactivate

Deactivates an administrative object.

SOAP Message

```xml
<deactivate xmlns="http://search.oracle.com/Admin">
  <objectType xmlns="">
    <objectKey xmlns="">
      <adminKeyPairs>
        <keyName>
          <keyValue>
            <credentials xmlns="">
              <password>
                <userName>
                  <locale xmlns="">
                    <deactivate xmlns="http://search.oracle.com/Admin">
                      Describes activation of an administrative object. It contains these elements:
                      <objectType>
                      <objectKey>
                      <credentials>
                      <locale>
                      <objectType xmlns="">
                        Contains one of these object types:
                        identityPlugin
                        indexOptimizer
                        schedule
                      <objectKey xmlns="">
                        Describes the object key for a creatable object type. See Chapter 2, “Administration Object Types,” for format of the object keys for these object types:
                        identityPlugin
                        schedule
                        This element contains one or more <adminKeyPairs> elements.
                      <adminKeyPairs>
                        Contains these elements:
                        <keyName>
                        <keyValue>
                        <keyName>
                          Contains the case-sensitive key name of the object type, such as name.
                        <keyValue>
                          Contains the value of <keyName>, such as Web Site Schedule for the name of a schedule.
                      <credentials xmlns="">
                        Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials” on page 1-5.
```
This element contains these child elements:

```xml
<password>
<userName>

<password>
Contains the password for <userName>.

<userName>
Contains the user name of the Oracle SES administrator.

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults
AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateException

Example

This example deactivates the Oracle Doc Library schedule. Any error messages are returned in Italian.

```xml
<deactivate xmlns="http://search.oracle.com/Admin">
  <objectType xmlns="">schedule</objectType>
  <objectKey xmlns="">
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>Oracle Doc Library</keyValue>
    </adminKeyPairs>
  </objectKey>
  <locale xmlns="">it</locale>
</deactivate>

This is the service response for a successful operation:

```xml
<ns2:deactivateResponse xmlns:ns2="http://search.oracle.com/Admin" />
```
delete

Deletes an administrative object.

See Also
deleteAll, deleteList

SOAP Message

```xml
<delete xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">
    <objectKey xmlns="">
      <adminKeyPairs>
        <keyName>
        <keyValue>
      <credentials xmlns="">
        <password>
        <userName>
      <locale xmlns="">
</delete
```

Element Descriptions

**<delete xmlns="http://search.oracle.com/Admin">**
Describes deletion of an administrative object. It contains these elements:

- creatableType
- objectKey
- credentials
- locale

**<creatableType xmlns="">**
Contains one of these creatable types:

- altWord
- boostedUrl
- docServiceInstance
- docServicePipeline
- facetTree
- proxyLogin
- schedule
- searchAttr
- source
- sourceGroup
- storageArea
- suggLink
- thesaurus

**<objectKey xmlns="">**
Describes the object key for the object. This element contains one or more <adminKeyPairs> elements.

**<adminKeyPairs>**
Contains these elements:

- <keyName>
- <keyValue>
<keyName>
Contains the case-sensitive key name of the object type, such as name.

<keyValue>
Contains the value that uniquely describes the object, such as Web Site Schedule.

<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:
<password>
<userName>

<password>
Contains the password for <userName>.

<userName>
Contains the user name of the Oracle SES administrator.

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults
AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Example
This example deletes a proxy log-in named this_proxy:

<delete xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">proxyLogin</creatableType>
  <objectKey xmlns="">
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>this_proxy</keyValue>
    </adminKeyPairs>
  </objectKey>
</delete>

This is the service response for a successful operation:

<ns2:deleteResponse xmlns:ns2="http://search.oracle.com/Admin" />
deleteAll

Deletes all of the administrative objects of a specified type.

See Also

delete, deleteList

SOAP Message

```
<deleteAll xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">
    <objectKeyPattern xmlns="">
      <adminKeyPairs>
        <keyName>
          <keyValue>
        
        <credentials xmlns="">
          <password>
            <userName>
          
        <controls xmlns="">
          <controlName>
            <controlValue>
          
        <locale xmlns="">
      
  <adminKeyPairs>
  
  <locale xmlns="">
```

Element Descriptions

```
<deleteAll xmlns="http://search.oracle.com/Admin">
  
  <creatableType>
  
  <objectKeyPattern>
  
  <credentials>
  
  <locale>

  <creatableType xmlns="">
  Contains one of these creatable types:
  
  altWord
  boostedUrl
  docServiceInstance
  docServicePipeline
  facetTree
  proxyLogin
  schedule
  searchAttr
  source
  sourceGroup
  storageArea
  suggLink

  <objectKeyPattern xmlns="">
  An object key that matches the objects to process. It contains one or more
  <adminKeyPairs> elements.

  <adminKeyPairs>
  Contains these elements:
  
  <KeyName>
```
<keyValue>

<keyName>
Contains the case-sensitive key name of the object type, such as name.

<keyValue>
Contains a case-sensitive value that matches the object key of one or more objects. It can include wildcard characters:

- A percent sign (%) matches zero or more characters. In a multibyte character set, it matches zero or more bytes.
- An underscore (_) matches exactly one character. In a multibyte character set, it matches one byte.

<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:

<password>
Contains the password for <userName>.

<userName>
Contains the user name of the Oracle SES administrator.

<controls xmlns="">
Describes an operation control. It contains these elements:

<controlName>
<controlValue>

<controlName>
Contains these control:

IGNORE_INVALID_STATE: Controls whether processing continues when an object cannot be deleted because it is in an invalid state. For clusterTree, identityPlugin, and schedule only.

<controlValue>
For IGNORE_INVALID_STATE:

- true: Continue processing with the next object.
- false: Stop processing with an error and roll back all changes. (Default)

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults

AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
Example

This example deletes all schedules that match the string `My%`.

```xml
<deleteAll xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">schedule</creatableType>
  <objectKeyPattern xmlns="">
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>My%</keyValue>
    </adminKeyPairs>
  </objectKeyPattern>
</deleteAll>
```

This response confirms that the schedule named My Mail was successfully deleted:

```xml
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
  <S:Body>
    <ns2:deleteAllResponse xmlns:ns2="http://search.oracle.com/Admin">
      <statusList>
        <objectKey>
          <adminKeyPairs>
            <keyName>name</keyName>
            <keyValue>My Mail</keyValue>
          </adminKeyPairs>
        </objectKey>
        <objectType>schedule</objectType>
        <statusCode>DELETE_SUCCEEDED</statusCode>
      </statusList>
    </ns2:deleteAllResponse>
  </S:Body>
</S:Envelope>
```
deleteList

Deletes a list of administrative objects of a specified type.

See Also
delete, deleteAll

SOAP Message

```xml
<deleteList xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">
    <objectKeys xmlns="">
      <adminKeyPairs>
        <keyName>
        <keyValue>
      <credentials xmlns="">
        <password>
        <userName>
      <controls xmlns="">
        <controlName>
        <controlValue>
      <locale xmlns="">
```

Element Descriptions

```xml
<deleteList xmlns="http://search.oracle.com/Admin">
Describes the deletion of one or more objects. It contains these elements:
<creatableType>
<objectKeys>
<credentials>
<controls>
<locale>
<creatableType xmlns="">
Contains one of these creatable types:
altWord
boostedUrl
docServiceInstance
docServicePipeline
facetTree
proxyLogin
schedule
searchAttr
source
sourceGroup
storageArea
suggLink
<objectKeys xmlns="">
Describes the key for an object. One or more <objectKeys> elements compose the list of objects to delete. This element contains one or more <adminKeyPairs> elements.
<adminKeyPairs>
Contains these elements:
<keyName>
```
<keyValue>
  <keyName>
  Contains the case-sensitive key name of the object type, such as name.
  </keyName>
  <keyValue>
  Contains the value that uniquely describes the object, such as Web Site Schedule.
  </keyValue>
</KeyValue>

<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.
This element contains these child elements:
  <password>
  Contains the password for <userName>.
  </password>
  <userName>
  Contains the user name of the Oracle SES administrator.
  </userName>
</credentials>

<controls xmlns="">
Describes an operation control. It contains these elements:
  <controlName>
  <controlValue>
  <controlName>
  IGNORE_NOT_FOUND: Controls the resulting action when an object in the list does not exist.
  IGNORE_INVALID_STATE: Controls whether processing continues when an object cannot be deleted because it is in an invalid state. For identityPlugin and schedule only.
  <controlValue>
  For IGNORE_NOT_FOUND:
  ■ true: The object is skipped and processing continues.
  ■ false: Processing stops with an error. (Default)
  For IGNORE_INVALID_STATE:
  ■ true: Continue processing with the next object.
  ■ false: Stop processing with an error and roll back all changes. (Default)
</controls>

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.
If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults

AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault
Example

This example deletes a list of three proxy log-ins:

```
<deleteList xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="" proxyLogin</creatableType>
  <objectKeys>
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>this_proxy</keyValue>
    </adminKeyPairs>
  </objectKeys>
  <objectKeys>
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>some_proxy</keyValue>
    </adminKeyPairs>
  </objectKeys>
  <objectKeys>
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>that_proxy</keyValue>
    </adminKeyPairs>
  </objectKeys>
  <controls xmlns="">
    <controlName>IGNORE_NOT_FOUND</controlName>
    <controlValue>true</controlValue>
  </controls>
</deleteList>
```

The service response indicates that this_proxy and that_proxy were deleted successfully. Processing continued after some_proxy was not found.

```
<ns2:deleteListResponse xmlns:ns2="http://search.oracle.com/Admin">
  <statusList>
    <objectKey>
      <adminKeyPairs>
        <keyName>name</keyName>
        <keyValue>this_proxy</keyValue>
      </adminKeyPairs>
    </objectKey>
    <objectType>proxyLogin</objectType>
    <statusCode>DELETE_SUCCEEDED</statusCode>
  </statusList>
  <statusList>
    <objectKey>
      <adminKeyPairs>
        <keyName>name</keyName>
        <keyValue>some_proxy</keyValue>
      </adminKeyPairs>
    </objectKey>
    <objectType>proxyLogin</objectType>
    <statusCode>NOT_FOUND_IGNORED</statusCode>
  </statusList>
  <statusList>
    <objectKey>
      <adminKeyPairs>
        <keyName>name</keyName>
        <keyValue>that_proxy</keyValue>
      </adminKeyPairs>
    </objectKey>
  </statusList>
</ns2:deleteListResponse>
```
<objectType>proxyLogin</objectType>
<statusCode>DELETE_SUCCEEDED</statusCode>
</statusList>
</ns2:deleteListResponse>
export

Returns the XML description of an object.

See Also
exportAll, exportList

SOAP Message

```xml
<export xmlns="http://search.oracle.com/Admin"
<objectType xmlns=""/>
<objectKey xmlns=""/>
<adminKeyPairs>
  <keyName>
  <keyValue>
  <encryptionKey xmlns=""/>
  <credentials xmlns=""/>
    <password>
    <userName>
  <locale xmlns=""/>
</export
```

Element Descriptions

```xml
<export xmlns="http://search.oracle.com/Admin"
Describes the export of an administrative object. See Table 1–2, "Universal Objects" and Table 1–3, "Creatable Object Types". This element contains these child elements:

<objectType>
<objectKey>
<encryptionKey>
<credentials>
<locale>

<objectType xmlns=""/>
Contains an administration object type. See Table 1–2, "Universal Objects" and Table 1–3, "Creatable Object Types".

<objectKey xmlns=""/>
Describes the object key for the object. This element contains one or more <adminKeyPairs> elements.

<adminKeyPairs>
Contains these elements:

<keyName>
<keyValue>

<keyName>
Contains the case-sensitive key name of the object type, such as name.

<keyValue>
Contains the value that uniquely describes the object, such as Web Site Schedule.

<encryptionKey xmlns=""/>
The encryption key for passwords in the XML description of identityPlugin, proxyLogin, and source objects. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid.
<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:
<pASSWORD>
Contains the password for <userName>.

<userName>
Contains the user name of the Oracle SES administrator.

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults

AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Example

This example exports the XML description of this_proxy proxy log-in:

<export xmlns="http://search.oracle.com/Admin">
<objectType xmlns="" proxyLogin</objectType>
<objectKey xmlns="">
<adminKeyPairs>
  <keyName>name</keyName>
  <keyValue>this_proxy</keyValue>
</adminKeyPairs>
</objectKey>
<encryptionKey xmlns="" key2encrypt</encryptionKey>
<credentials xmlns="">
  <password>password</password>
  <userName>admin username</userName>
</credentials>
</export>

The service response contains the XML definition:

<ns2:exportResponse xmlns:ns2="http://search.oracle.com/Admin">
<objectOutput>
<objectXML>
<?xml version="1.0" encoding="UTF-8"?>
<search:config productVersion="11.2.2.0.0"
 xmlns:search="http://xmlns.oracle.com/search">
<search:proxyLogins>
<search:proxyLogin>
  <search:name>this_proxy</search:name>
  <search:password encrypted="true">128b6b430...</search:password>
</search:proxyLogin>
</search:proxyLogins>
</search:config>
</objectXML>
<objectOutput>
</exportResponse>
<search:useIdentityPlugin>false</search:useIdentityPlugin>
</search:proxyLogin>
</search:proxyLogins>
</search:config>

</objectXML>
</objectOutput>
</ns2:exportResponse>
exportAll

Returns the XML descriptions of all objects of a specified type.

See Also

export, exportList

SOAP Message

```xml
<exportAll xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns=""/>
  <objectKeyPattern xmlns=""/>
  <adminKeyPairs>
    <keyName>
    <keyValue>
    <encryptionKey xmlns=""/>
    <credentials xmlns=""/>
    <password>
    <userName>
    <locale xmlns=""/>
  </adminKeyPairs>
</exportAll>
```

Element Descriptions

```xml
<exportAll xmlns="http://search.oracle.com/Admin">
Contains these elements:
<creatableType>
<objectKeyPattern>
<encryptionKey>
<credentials>
<locale>

<creatableType xmlns=""/>
Contains one of these creatable types:
altWord
boostedUrl
docServiceInstance
docServiceManager
docServicePipeline
docServicePipeline facetTree
identityPlugin
proxyLogin
schedule
searchAttr
source
sourceGroup
sourceType
storageArea
suggLink

<objectKeyPattern xmlns=""/>
An object key that matches the objects to process. It contains one or more
<adminKeyPairs> elements.

<adminKeyPairs>
Contains these elements:
<keyName>
Contains the case-sensitive key name of the object type, such as name.
</keyName>

<keyValue>
Contains a value that matches the object key of one or more objects. It can include wildcard characters:

- A percent sign (%) matches zero or more characters. In a multibyte character set, it matches zero or more bytes.
- An underscore (_) matches exactly one character. In a multibyte character set, it matches one byte.
</keyValue>

<encryptionKey xmlns="">
The encryption key for passwords in the XML description of identityPlugin, proxyLogin, and source objects. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid.
</encryptionKey>

.credentials xmlns=""
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:

.password
Contains the password for <userName>.

.userName
Contains the user name of the Oracle SES administrator.

.locale xmlns=""
Sets the language for error messages. See Table 2-2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults

AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Example

This example exports the XML descriptions of all alternate word pairs:

<exportAll xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">altWord</creatableType>
  <credentials xmlns="">
    <password>password</password>
    <userName>admin username</userName>
  </credentials>
</exportAll>
The service response contains the XML definitions of three alternate word pairs.

```xml
<ns2:exportAllResponse xmlns:ns2="http://search.oracle.com/Admin"
    <objectOutput>
    <objectXML>

    <?xml version="1.0" encoding="UTF-8"?>
    <search:config productVersion="11.2.2.0.0"
        xmlns:search="http://xmlns.oracle.com/search">
        <search:altWords>
            <search:altWord>
                <search:keyword>oses</search:keyword>
                <search:altKeyword>Oracle Secure Enterprise Search</search:altKeyword>
                <search:autoExpand>true</search:autoExpand>
            </search:altWord>
            <search:altWord>
                <search:keyword>rac</search:keyword>
                <search:altKeyword>Real Application Clusters</search:altKeyword>
                <search:autoExpand>false</search:autoExpand>
            </search:altWord>
            <search:altWord>
                <search:keyword>text</search:keyword>
                <search:altKeyword>Oracle Text</search:altKeyword>
                <search:autoExpand>false</search:autoExpand>
            </search:altWord>
        </search:altWords>
    </search:config>

    </objectXML>
    </objectOutput>
</ns2:exportAllResponse>
```
exportList

Returns the XML descriptions of a list of objects of a specified type.

See Also

export, exportAll

SOAP Message

```xml
<exportList xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">
    <objectKeys xmlns="">
      <adminKeyPairs>
        <keyName>
        <keyValue>
        <encryptionKey xmlns="">
        <credentials xmlns="">
          <password>
          <userName>
        <controls xmlns="">
          <controlName>
          <controlValue>
        <locale xmlns="">
  </exportList>
```

Element Descriptions

```xml
<exportList xmlns="http://search.oracle.com/Admin">
Describes a list of objects for export. It contains these elements:

<creatableType>
<objectKeys>
<encryptionKey>
<credentials>
<controls>
<locale>

<creatableType xmlns="">
Contains a creatable object type:

altWord
boostedUrl
docServiceInstance
docServiceManager
docServicePipeline
facetTree
identityPlugin
proxyLogin
schedule
searchAttr
source
sourceGroup
sourceType
storageArea
suggLink
```
<objectKeys xmlns="">
Describes the key for an object. One or more <objectKeys> elements compose the list of objects to export. This element contains one or more <adminKeyPairs> elements.

<adminKeyPairs>
Contains these elements:

<keyName>
<keyValue>
</keyName>
</keyValue>

<keyName>
Contains the case-sensitive key name of the object type, such as name.
</keyName>

<keyValue>
Contains the value that uniquely describes the object, such as Web Site Schedule.
</keyValue>

<encryptionKey xmlns="">
The encryption key for passwords in the XML description of identityPlugin, proxyLogin, and source objects. The key must be at least eight ASCII characters long and include at least one letter and one number. Multibyte characters are invalid.
</encryptionKey>

<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.
This element contains these child elements:

<password>
<userName>
</password>
</userName>

<password>
Contains the password for <userName>.
</password>

<userName>
Contains the user name of the Oracle SES administrator.
</userName>

<controls xmlns="">
Describes an operation control. It contains these elements:

<controlName>
<controlValue>
</controlName>
</controlValue>

<controlName>
IGNORE_NOT_FOUND: Controls the resulting action when an object in the list does not exist.
</controlName>

<controlValue>
For IGNORE_NOT_FOUND:

true: The object is skipped and processing continues.
false: Processing stops with an error. (Default)
</controlValue>

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.
If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.
</locale>
SOAP Faults

AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Example

This example requests the XML descriptions of three proxy log-ins: this_proxy, some_proxy, and that_proxy.

```xml
<exportList xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns=""proxyLogin"" creatableType>
    <objectKeys xmlns="">
      <adminKeyPairs>
        <keyName>name</keyName>
        <keyValue>this_proxy</keyValue>
      </adminKeyPairs>
    </objectKeys>
  </creatableType>
  <encryptionKey xmlns="">key2encrypt</encryptionKey>
  <controls xmlns="">
    <controlName>IGNORE_NOT_FOUND</controlName>
    <controlValue>true</controlValue>
  </controls>
</exportList>
```

The following response provides the XML descriptions of this_proxy and that_proxy. It ignored the request for some_proxy, which did not exist.

```xml
<ns2:exportListResponse xmlns:ns2="http://search.oracle.com/Admin">
  <objectOutput>
    <objectXML><?xml version="1.0" encoding="UTF-8"?>
    <search:config productVersion="11.2.2.0.0"
      xmlns:search="http://xmlns.oracle.com/search">
      <search:proxyLogins>
        <search:proxyLogin>
          <search:name>this_proxy</search:name>
          <search:password encrypted="true">128b6b43...</search:password>
          <search:useIdentityPlugin>false</search:useIdentityPlugin>
        </search:proxyLogin>
        <search:proxyLogin>
          <search:name>that_proxy</search:name>
          <search:password encrypted="true">a625ca28...</search:password>
          <search:useIdentityPlugin>false</search:useIdentityPlugin>
        </search:proxyLogin>
      </search:proxyLogins>
    </search:config>
  </objectOutput>
</ns2:exportListResponse>
```
</objectXML>
</objectOutput>
</ns2:exportListResponse>
getAllObjectKeys

Returns the object keys for a specified object type.

**SOAP Message**

```
<getAllObjectKeys xmlns="http://search.oracle.com/Admin"/>
<creatableType xmlns=""
<objectKeyPattern xmlns=""
<adminKeyPairs>
    <keyName>
    <keyValue>
<credentials xmlns=""
    <password>
    <userName>
    <locale xmlns=""
```

**Element Descriptions**

```
<getAllObjectKeys xmlns="http://search.oracle.com/Admin"/>
Contains these elements:
<creatableType>
<objectKeyPattern>
<credentials>
<locale>
<creatableType xmlns=""
Contains a creatable object type. See Table 1–3, "Creatable Object Types".
<objectKeyPattern xmlns=""
An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.
<adminKeyPairs>
Contains these elements:
<keyName>
<keyValue>
<keyName>
Contains the case-sensitive key name of the object type, such as name.
<keyValue>
Contains a value that matches the object key of one or more objects. It can include wildcard characters:
- A percent sign (%) matches zero or more characters. In a multibyte character set, it matches zero or more bytes.
- An underscore (_) matches exactly one character. In a multibyte character set, it matches one byte.
<credentials xmlns=""
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.
This element contains these child elements:
getAllObjectKeys

&lt;password&gt;
&lt;userName&gt;

&lt;password&gt;
Contains the password for &lt;userName&gt;.

&lt;userName&gt;
Contains the user name of the Oracle SES administrator.

&lt;locale xmlns=""&gt;
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

Example

This example requests all suggested links with a keyword that begins with data:

&lt;getAllObjectKeys xmlns="http://search.oracle.com/Admin"&gt;
  &lt;creatableType xmlns=""&gt;suggLink&lt;/creatableType&gt;
  &lt;objectKeyPattern xmlns=""&gt;
    &lt;adminKeyPairs&gt;
      &lt;keyName&gt;keyword&lt;/keyName&gt;
      &lt;keyValue&gt;data%&lt;/keyValue&gt;
    &lt;/adminKeyPairs&gt;
  &lt;/objectKeyPattern&gt;
&lt;/getAllObjectKeys&gt;

The service response provides the object keys for the suggested link with the keyword database:

&lt;ns2:getAllObjectKeysResponse xmlns:ns2="http://search.oracle.com/Admin"&gt;
  &lt;objectKeyList&gt;
    &lt;adminKeyPairs&gt;
      &lt;keyName&gt;keyword&lt;/keyName&gt;
      &lt;keyValue&gt;database&lt;/keyValue&gt;
    &lt;/adminKeyPairs&gt;
    &lt;adminKeyPairs&gt;
      &lt;keyName&gt;linkUrl&lt;/keyName&gt;
      &lt;keyValue&gt;
      &lt;/keyValue&gt;
    &lt;/adminKeyPairs&gt;
  &lt;/objectKeyList&gt;
&lt;/ns2:getAllObjectKeysResponse&gt;
getAPIVersion

Returns the version number of the Oracle SES Administration API.

SOAP Message

```xml
<getAPIVersion xmlns="http://search.oracle.com/Admin">
  <credentials xmlns="">
    <password>
      <userName>
        <locale xmlns="">
          ...<credentials xmlns="">

Element Descriptions

```

Contains these elements:
<credentials>
<locale>

```

<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:
$password
$userName

$password
Contains the password for $userName$.

$username
Contains the user name of the Oracle SES administrator.

<locale xmlns="">
Sets the language for error messages. See Table 2-2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults

AdminAPIRuntimeFault
InvalidInputFault

Example

This example requests the version number of the API:

```xml
<getAPIVersion xmlns="http://search.oracle.com/Admin"/>
```

The service response contains the version number:

```xml
<ns2:getAPIVersionResponse xmlns:ns2="http://search.oracle.com/Admin">
  <return>11.2.2.0.0</return>
</ns2:getAPIVersionResponse>
```
<version>11.2.2.0.0</version>
</ns2:getAPIVersionResponse>
getAllStates

Returns the current state of all objects of a specified type as an XML document.

See Also

ggetState, getStateList

SOAP Message

```xml
<getAllStates xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">
    <stateProperties xmlns="">
      <objectKeyPattern xmlns="">
        <adminKeyPairs>
          <keyName>
            <keyValue>
              <credentials xmlns="">
                <password>
                  <userName>
                    <locale xmlns="">
                      <creatableType xmlns="">
                        Contains one of these creatable types:
                        identityPlugin
                        schedule

                      </creatableType>
                      <stateProperties xmlns="">
                        Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                      </stateProperties>
                      <objectKeyPattern xmlns="">
                        An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                      </objectKeyPattern>
                      <adminKeyPairs>
                        Contains these elements:
                        <keyName>
                        <keyValue>

                      </adminKeyPairs>
                      <userName>
                        <locale xmlns="">
                          <creatableType xmlns="">
                            Contains the case-sensitive key name of the object type, such as name.

                          </creatableType>
                          <stateProperties xmlns="">
                            Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                            </stateProperties>
                            <objectKeyPattern xmlns="">
                              An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                              </objectKeyPattern>
                              <adminKeyPairs>
                                Contains these elements:
                                <keyName>
                                <keyValue>

                              </adminKeyPairs>
                              <userName>
                                <locale xmlns="">
                                  <creatableType xmlns="">
                                    Contains the case-sensitive key name of the object type, such as name.

                                  </creatableType>
                                  <stateProperties xmlns="">
                                    Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                                    </stateProperties>
                                    <objectKeyPattern xmlns="">
                                      An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                                      </objectKeyPattern>
                                      <adminKeyPairs>
                                        Contains these elements:
                                        <keyName>
                                        <keyValue>

                                      </adminKeyPairs>
                                      <userName>
                                        <locale xmlns="">
                                          <creatableType xmlns="">
                                            Contains the case-sensitive key name of the object type, such as name.

                                          </creatableType>
                                          <stateProperties xmlns="">
                                            Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                                            </stateProperties>
                                            <objectKeyPattern xmlns="">
                                              An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                                              </objectKeyPattern>
                                              <adminKeyPairs>
                                                Contains these elements:
                                                <keyName>
                                                <keyValue>

                                              </adminKeyPairs>
                                              <userName>
                                                <locale xmlns="">
                                                  <creatableType xmlns="">
                                                    Contains the case-sensitive key name of the object type, such as name.

                                                  </creatableType>
                                                  <stateProperties xmlns="">
                                                    Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                                                    </stateProperties>
                                                    <objectKeyPattern xmlns="">
                                                      An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                                                      </objectKeyPattern>
                                                      <adminKeyPairs>
                                                        Contains these elements:
                                                        <keyName>
                                                        <keyValue>

                                                      </adminKeyPairs>
                                                      <userName>
                                                        <locale xmlns="">
                                                          <creatableType xmlns="">
                                                            Contains the case-sensitive key name of the object type, such as name.

                                                          </creatableType>
                                                          <stateProperties xmlns="">
                                                            Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                                                            </stateProperties>
                                                            <objectKeyPattern xmlns="">
                                                              An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                                                              </objectKeyPattern>
                                                              <adminKeyPairs>
                                                                Contains these elements:
                                                                <keyName>
                                                                <keyValue>

                                                              </adminKeyPairs>
                                                              <userName>
                                                                <locale xmlns="">
                                                                  <creatableType xmlns="">
                                                                    Contains the case-sensitive key name of the object type, such as name.

                                                                  </creatableType>
                                                                  <stateProperties xmlns="">
                                                                    Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                                                                    </stateProperties>
                                                                    <objectKeyPattern xmlns="">
                                                                      An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                                                                      </objectKeyPattern>
                                                                      <adminKeyPairs>
                                                                        Contains these elements:
                                                                        <keyName>
                                                                        <keyValue>

                                                                      </adminKeyPairs>
                                                                      <userName>
                                                                        <locale xmlns="">
                                                                          <creatableType xmlns="">
                                                                            Contains the case-sensitive key name of the object type, such as name.

                                                                          </creatableType>
                                                                          <stateProperties xmlns="">
                                                                            Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                                                                            </stateProperties>
                                                                            <objectKeyPattern xmlns="">
                                                                              An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                                                                              </objectKeyPattern>
                                                                              <adminKeyPairs>
                                                                                Contains these elements:
                                                                                <keyName>
                                                                                <keyValue>

                                                                              </adminKeyPairs>
                                                                              <userName>
                                                                                <locale xmlns="">
                                                                                  <creatableType xmlns="">
                                                                                    Contains the case-sensitive key name of the object type, such as name.

                                                                                  </creatableType>
                                                                                  <stateProperties xmlns="">
                                                                                    Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                                                                                    </stateProperties>
                                                                                    <objectKeyPattern xmlns="">
                                                                                      An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                                                                                      </objectKeyPattern>
                                                                                      <adminKeyPairs>
                                                                                        Contains these elements:
                                                                                        <keyName>
                                                                                        <keyValue>

                                                                                      </adminKeyPairs>
                                                                                      <userName>
                                                                                        <locale xmlns="">
                                                                                          <creatableType xmlns="">
                                                                                           Contains the case-sensitive key name of the object type, such as name.

                                                                                           </creatableType>
                                                                                           <stateProperties xmlns="">
                                                                                           Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                                                                                           </stateProperties>
                                                                                           <objectKeyPattern xmlns="">
                                                                                             An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                                                                                             </objectKeyPattern>
                                                                                             <adminKeyPairs>
                                                                                               Contains these elements:
                                                                                               <keyName>
                                                                                               <keyValue>

                                                                                             </adminKeyPairs>
                                                                                             <userName>
                                                                                               <locale xmlns="">
                                                                                                 <creatableType xmlns="">
                                                                                                  Contains the case-sensitive key name of the object type, such as name.

                                                                                                  </creatableType>
                                                                                                  <stateProperties xmlns="">
                                                                                                  Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                                                                                                  </stateProperties>
                                                                                                  <objectKeyPattern xmlns="">
                                                                                                    An object key that matches the objects to process. It contains one or more <adminKeyPairs> elements.

                                                                                                    </objectKeyPattern>
                                                                                                    <adminKeyPairs>
                                                                                                      Contains these elements:
                                                                                                      <keyName>
                                                                                                      <keyValue>

                                                                                                    </adminKeyPairs>
                                                                                                    <userName>
                                                                                                      <locale xmlns="">
                                                                                                          <creatableType xmlns="">
                                                                                                            Contains the case-sensitive key name of the object type, such as name.

                                                                                                            </creatableType>
                                                                                                            <stateProperties xmlns="">
                                                                                                            Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1-4, "Administrative Objects With State Properties".

                                                                                                            </stateProperties>
                                            </adminKeyPairs>
                                          </getLocale>
                                        </adminKeyPairs>
                                      </getLocale>
                                    </adminKeyPairs>
                                  </getLocale>
                                </adminKeyPairs>
                              </getLocale>
                            </adminKeyPairs>
                          </getLocale>
                        </adminKeyPairs>
                      </getLocale>
                    </adminKeyPairs>
                  </getLocale>
                </adminKeyPairs>
              </getLocale>
            </adminKeyPairs>
          </getLocale>
        </adminKeyPairs>
      </getLocale>
    </adminKeyPairs>
  </getLocale>
</getAllStates>
```
<keyValue>
Contains a value that matches the object key of one or more objects. It can include wildcard characters:

- A percent sign (%) matches zero or more characters. In a multibyte character set, it matches zero or more bytes.
- An underscore (_) matches exactly one character. In a multibyte character set, it matches one byte.

<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:

- <password>
- <userName>

<password>
Contains the password for <userName>.

<userName>
Contains the user name of the Oracle SES administrator.

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults

- AdminAPIRuntimeFault
- CreatableObjectFault
- DependentObjectFault
- InvalidInputFault
- InvalidStateFault

Example

This example requests the status and next crawl time for schedules with a name beginning with Ora. Any error messages are returned in Spanish.

```
<getAllStates xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">schedule</creatableType>
  <stateProperties xmlns="">status</stateProperties>
  <stateProperties xmlns="">nextCrawl</stateProperties>
  <objectKeyPattern xmlns="">
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>Ora%</keyValue>
    </adminKeyPairs>
  </objectKeyPattern>
  <locale xmlns="">es</locale>
</getAllStates>
```

The service response describes a schedule named Oracle Doc Library. Its status is SCHEDULED, and the next crawl is Thu, 15 Oct 2009 08:00:00 GMT.
<objectStateXML>
  <objectXML>
    <?xml version="1.0" encoding="UTF-8"?>
    <search:state xmlns:search="http://xmlns.oracle.com/search">
      <search:objectStates>
        <search:objectState>
          <search:objectType>schedule</search:objectType>
          <search:objectKey>
            <search:keyPairs>
              <search:keyPair>
                <search:name>name</search:name>
                <search:value>Oracle Doc Library</search:value>
              </search:keyPair>
            </search:keyPairs>
          </search:objectKey>
          <search:stateProperties>
            <search:stateProperty>
              <search:propertyName>status</search:propertyName>
              <search:propertyValues>
                <search:propertyValue>
                  <search:value>SCHEDULED</search:value>
                </search:propertyValue>
              </search:propertyValues>
            </search:stateProperty>
            <search:stateProperty>
              <search:propertyName>nextCrawl</search:propertyName>
              <search:propertyValues>
                <search:propertyValue>
                  <search:value>Thu, 15 Oct 2009 08:00:00 GMT</search:value>
                </search:propertyValue>
              </search:propertyValues>
            </search:stateProperty>
          </search:stateProperties>
        </search:objectState>
      </search:objectStates>
    </search:state>
  </objectXML>
</objectStateXML>
</ns2:getAllStatesResponse>
getState

Returns the current state of an object as an XML document.

See Also

getAllStates, getStateList

SOAP Message

```xml
<getState xmlns="http://search.oracle.com/Admin">
  <objectType xmlns=""></objectType>
  <objectKey xmlns=""></objectKey>
  <adminKeyPairs>
    <keyName>
      <keyValue>
        <stateProperties xmlns=""></stateProperties>
        <credentials xmlns=""></credentials>
        <password>
          <userName>
            <locale xmlns=""></locale>
          </userName>
        </password>
      </keyValue>
    </keyName>
  </adminKeyPairs>
</getState>
```

Element Descriptions

**<getState xmlns="http://search.oracle.com/Admin">**
Contains these elements:

- `<objectType>`
- `<objectKey>`
- `<stateProperties>`
- `<credentials>`
- `<locale>`

**<objectType xmlns=""></objectType>**
Contains one of these object types:

- identityPlugin
- index
- indexOptimizer
- partitionConfig
- schedule

**<objectKey xmlns=""></objectKey>**
Describes the object key for a creatable object. This element contains one or more `<adminKeyPairs>` elements.

**<adminKeyPairs>**
Contains these elements:

- `<keyName>`
- `<keyValue>`

**<keyName>**
Contains the case-sensitive key name of the object type, such as `name`.

**<keyValue>**
Contains the value that uniquely describes the object, such as `Web Site Schedule`. 
<stateProperties xmlns="">
Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1–4, "Administrative Objects With State Properties".
</stateProperties>

<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:
  <password>
  <userName>
</credentials>

<password>
Contains the password for <userName>.
</password>

<userName>
Contains the user name of the Oracle SES administrator.
</userName>

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.
</locale>

SOAP Faults

AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Example

This example requests the current state of the index:

<getState xmlns="http://search.oracle.com/Admin">
  <objectType xmlns="">index</objectType>
</getState>

The service response shows that the index has an estimated fragmentation of 1.5%.

<ns2:getStateResponse xmlns:ns2="http://search.oracle.com/Admin">
  <objectStateXML>
    <objectXML>
<?xml version="1.0" encoding="UTF-8"?>
<search:objectStates>
  <search:objectState>
    <search:objectType>index</search:objectType>
    <search:stateProperties>
      <search:stateProperty>
        <search:propertyName>estimatedFragmentation</search:propertyName>
        <search:propertyValues>
          <search:propertyValue>
            <search:value>1.5</search:value>
          </search:propertyValue>
        </search:propertyValues>
      </search:stateProperty>
    </search:stateProperties>
  </search:objectState>
</search:objectStates>
</objectXML>
</objectStateXML>
</ns2:getStateResponse>
getStateList

Returns the current state of a list of objects of the same type.

See Also

getAllStates, getState

SOAP Message

```xml
<getStateList xmlns="http://search.oracle.com/Admin">
  <creatableType>
    <objectKeys>
      <adminKeyPairs>
        <keyName>
        <keyValue>
    <stateProperties>
    <credentials>
      <password>
      <userName>
    <locale xmlns="">
</getStateList>
```

Element Descriptions

```xml
<getStateList xmlns="http://search.oracle.com/Admin">
Contains these elements:

<creatableType>
Contains one of these creatable types:

identityPlugin
schedule

<objectKeys>
Describes the key for an object. One or more<objectKeys> elements compose the list of objects. This element contains one or more<adminKeyPairs> elements.

<adminKeyPairs>
Contains these elements:

<keyName>
Contains the case-sensitive key name of the object type, such as name.

<keyValue>
Contains the value that uniquely describes the object, such as Web Site Schedule.
<stateProperties>
Contains a state property of the object. The response is limited to the properties listed in the <stateProperties> elements. By default, the response contains the current state of all properties. See Table 1–4, "Administrative Objects With State Properties".
</stateProperties>

.credentials
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:

.password
Contains the password for <userName>.

.userName
Contains the user name of the Oracle SES administrator.

.locale xmlns=""
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults
AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Example
This example requests the next crawl time for the Oracle Doc Library and SQL Script Library schedules:

<getStateList xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">schedule</creatableType>
  <stateProperties xmlns="">nextCrawl</stateProperties>
  <objectKeys xmlns="">
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>Oracle Doc Library</keyValue>
    </adminKeyPairs>
  </objectKeys>
  <objectKeys xmlns="">
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>SQL Script Library</keyValue>
    </adminKeyPairs>
  </objectKeys>
  <credentials xmlns="">
    <password>password</password>
    <userName>admin username</userName>
  </credentials>
</getStateList>
The service response provides the next scheduled crawl times:

```xml
<ns2:getStateListResponse xmlns:ns2="http://search.oracle.com/Admin">
  <objectStateXML>
    <objectXML>
      <?xml version='1.0' encoding='UTF-8'?>
      <search:state productVersion='11.2.2.0.0'
        xmlns:search='http://xmlns.oracle.com/search'>
        <search:objectStates>
          <search:objectState>
            <search:objectType>schedule</search:objectType>
            <search:objectKey>
              <search:keyPairs>
                <search:keyPair>
                  <search:name>name</search:name>
                  <search:value>Oracle Doc Library</search:value>
                </search:keyPair>
              </search:keyPairs>
            </search:objectKey>
            <search:stateProperties>
              <search:stateProperty>
                <search:propertyName>nextCrawl</search:propertyName>
                <search:propertyValues>
                  <search:propertyValue>
                    <search:value>Thu, 15 Oct 2009 08:00:00 GMT</search:value>
                  </search:propertyValue>
                </search:propertyValues>
              </search:stateProperty>
            </search:stateProperties>
          </search:objectState>
          <search:objectState>
            <search:objectType>schedule</search:objectType>
            <search:objectKey>
              <search:keyPairs>
                <search:keyPair>
                  <search:name>name</search:name>
                  <search:value>SQL Script Library</search:value>
                </search:keyPair>
              </search:keyPairs>
            </search:objectKey>
            <search:stateProperties>
              <search:stateProperty>
                <search:propertyName>nextCrawl</search:propertyName>
                <search:propertyValues>
                  <search:propertyValue>
                    <search:value>Wed, 07 Oct 2009 06:00:00 GMT</search:value>
                  </search:propertyValue>
                </search:propertyValues>
              </search:stateProperty>
            </search:stateProperties>
          </search:objectState>
        </search:objectStates>
      </search:state>
    </objectXML>
  </objectStateXML>
</ns2:getStateListResponse>
```
Starts an administrative object.

**SOAP Message**

```xml
<start xmlns="http://search.oracle.com/Admin">
   <objectType xmlns="">
      <objectKey xmlns="">
         <adminKeyPairs>
            <keyName>
            <keyValue>
            <credentials xmlns="">
               <password>
               <userName>
               <locale xmlns="">

   <start xmlns="http://search.oracle.com/Admin">

**Element Descriptions**

```xml
<start xmlns="http://search.oracle.com/Admin">

Describes creation of an administrative object. It contains these elements:

- `<objectType>`
- `<objectKey>`
- `<objectXML>`
- `<credentials>`
- `<locale>`

```xml
<objectType xmlns="">

Contains one of these types:

- `indexOptimizer`
- `schedule`

```xml
<objectKey xmlns="">

Describes the object key for the object. This element contains one or more `<adminKeyPairs>` elements.

```xml
<adminKeyPairs>

Contains these elements:

- `<keyName>`
- `<keyValue>`

```xml
<keyName>

Contains the case-sensitive key name of the object type, such as `name`.

```xml
<keyValue>

Contains the value that uniquely describes the object, such as `Web Site Schedule`.

```xml
<credentials xmlns="">

Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:

- `<password>`
- `<userName>`
<password>
Contains the password for <userName>.

<userName>
Contains the user name of the Oracle SES administrator.

<locale xmlns="">
Sets the language for error messages. See Table 2-2, "Product Languages" for a list of valid codes.
If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults
AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Example
This example starts the index optimizer:

```xml
<start xmlns="http://search.oracle.com/Admin">
  <objectType xmlns="">indexOptimizer</objectType>
</start>
```

This is the service response for a successful operation:

```
<ns2:startResponse xmlns:ns2="http://search.oracle.com/Admin" />
```

The next example starts the Oracle Doc Library schedule:

```xml
<start xmlns="http://search.oracle.com/Admin">
  <objectType xmlns="">schedule</objectType>
  <objectKey xmlns="">
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>Oracle Doc Library</keyValue>
    </adminKeyPairs>
  </objectKey>
</start>
```
Stops an administrative object.

**SOAP Message**

```xml
<stop xmlns="http://search.oracle.com/Admin">
  <objectType xmlns="">
    <objectKey xmlns="">
      <adminKeyPairs>
        <keyName>
        </keyName>
        <keyValue>
        </keyValue>
      </adminKeyPairs>
      <credentials xmlns="">
        <password>
        </password>
        <userName>
        </userName>
      </credentials>
    </objectKey>
  </objectType>
</stop>
```

**Element Descriptions**

```xml
<stop xmlns="http://search.oracle.com/Admin">
  Describes creation of an administrative object. It contains these elements:
  <objectType>
  <objectKey>
  <objectXML>
  <credentials>
  <locale>

  <objectType xmlns="">
  Contains this object type:
  schedule

  <objectKey xmlns="">
  Describes the object key for the object. This element contains one or more <adminKeyPairs> elements.

  <adminKeyPairs>
  Contains these elements:
  <keyName>
  <keyValue>

  <keyName>
  Contains the case-sensitive key name of the object type, such as name.

  <keyValue>
  Contains the value that uniquely describes the object, such as Web Site Schedule.

  <credentials xmlns="">
  Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.
  This element contains these child elements:
  <password>
  <userName>
```
<password>
Contains the password for <userName>.

<userName>
Contains the user name of the Oracle SES administrator.

<locale xmlns="">
Sets the language for error messages. See Table 2–2, "Product Languages" for a list of valid codes.

If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults

AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Example

This example stops the Oracle Doc Library schedule:

```
<stop xmlns="http://search.oracle.com/Admin">
  <objectType xmlns="">schedule</objectType>
  <objectKey xmlns="">
    <adminKeyPairs>
      <keyName>name</keyName>
      <keyValue>Oracle Doc Library</keyValue>
    </adminKeyPairs>
  </objectKey>
</stop>
```

This is the service response for a successful operation:

```
<ns2:stopResponse xmlns:ns2="http://search.oracle.com/Admin" />
```
update

Sets the properties of an administrative object.

See Also

updateAll

SOAP Message

```xml
<update xmlns="http://search.oracle.com/Admin">
  <objectType xmlns="">
    <objectKey xmlns="">
      <adminKeyPairs>
        <keyName>
          <keyValue>
            <objectXML xmlns="">
              <decryptionKey xmlns="">
                <credentials xmlns="">
                  <password>
                    <userName>
                      <controls xmlns="">
                        <controlName>
                          <controlValue>
                            <locale xmlns="">
                            </locale>
                        </controlValue>
                      </controls>
                    </userName>
                  </credentials>
                </decryptionKey>
              </objectXML>
            </objectXML>
          </keyValue>
        </keyName>
      </adminKeyPairs>
    </objectKey>
  </objectType>
</update>
```

Element Descriptions

Describes the update of an administrative object. It contains these elements:

- `<objectType>`
- `<objectKey>`
- `<objectXML>`
- `<objectXML>`
- `<decryptionKey>`
- `<credentials>`
- `<attachments>`
- `<controls>`
- `<locale>`

`<objectType xmlns="">`

Contains one of these types:

- `altWord`
- `boostedUrl`
- `crawlerSettings`
- `docServiceInstance`
- `docServicePipeline`
- `facetTree`
- `globalBoundaryRules`
- `globalDocumentTypes`
- `index`
- `indexOptimizer`
- `partitionConfig`
- `proxyLogin`
- `queryConfig`
- `relevanceConfig`
- `relevanceRanking`
- `schedule`
<objectKey xmlns="">
Describes the object key for a creatable object. This element contains one or more
<adminKeyPairs> elements.

<adminKeyPairs>
Contains these elements:

<keyName>
Contains the case-sensitive key name of the object type, such as name.

<keyValue>
Contains the value that uniquely describes the object, such as Web Site Schedule.

<objectXML xmlns="">
Contains an XML document that describes the object. See Chapter 2, "Administration
Object Types."

Use escape codes for these symbols in the embedded XML:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Escape Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;</td>
<td>&lt;</td>
</tr>
<tr>
<td>&gt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>'</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

<decryptionKey xmlns="">
Contains a decryption key for proxyLogin and source objects.

<credentials xmlns="">
Provides the credentials for the Oracle SES administrator. Credentials are required
only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:

<password>
<userName>

<password>
Contains the password for <userName>.

<userName>
Contains the user name of the Oracle SES administrator.

<controls xmlns="">
Specifies an operation control. It contains these elements:

<controlName>
<controlValue>
<controlName>UPDATE_METHOD</controlName>
UPDATE_METHOD: Controls the method used to update the properties of an object.
(Required)

<controlValue>
For UPDATE_METHOD:

- overwrite: Replaces the existing property values with the new values.
- add: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted from the XML document. For clusterTree, resultList, schedule, searchAttr, source, sourceGroup, and sourceType.
- remove: Removes existing properties. For clusterTree, resultList, schedule, searchAttr, source, sourceGroup, and sourceType.

<locale xmlns=""">
Sets the language for error messages. See Table 2–2, ”Product Languages” for a list of valid codes.
If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults
AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Notes
After updating a skin bundle, restart the middle tier.

Example
This example updates the crawler settings. The input XML document is omitted from the example.

<update xmlns="http://search.oracle.com/Admin">
<objectType xmlns=""crawlerSettings</objectType>
<objectXML xmlns="">

<!-- XML object description appears here-->

</objectXML>
<controls xmlns="">
<controlName>UPDATE_METHOD</controlName>
<controlValue>overwrite</controlValue>
</controls>
</update>

The following is the service response to a successful update:

<ns2:updateResponse xmlns:ns2="http://search.oracle.com/Admin" />
updateAll

Updates all objects of a given type that are described in the XML.

See Also
update

SOAP Message

```xml
<updateAll xmlns="http://search.oracle.com/Admin">
  <creatableType>
    <objectXML xmlns="">
      <decryptionKey xmlns="">
        <credentials xmlns="">
          <password>
            <userName>
              <controls xmlns="">
                <controlName>
                  <controlValue>
                    <locale xmlns="">

        Element Descriptions

Describes creation of an administrative object. It contains these elements:

```xml
<updateAll xmlns="http://search.oracle.com/Admin">
  <creatableType>
    <objectKey>
    <objectXML>
    <decryptionKey>
    <credentials>
    <attachments>
    <controls>
    <locale>

<creatableType>
Contains one of these types:

altWord
boostedUrl
docServiceInstance
docServicePipeline
facetTree
proxyLogin
schedule
searchAttr
source
sourceGroup
suggLink

<objectXML xmlns="">
Contains an XML document that describes the object. See Chapter 2, "Administration Object Types."

Use escape codes for these symbols in the embedded XML:
**decryptionKey xmlns=""**
Contains a decryption key for proxyLogin and source objects.

**credentials xmlns=""**
Provides the credentials for the Oracle SES administrator. Credentials are required only when the session is stateless. See "Providing Credentials" on page 1-5.

This element contains these child elements:

- `<password>`
- `<userName>`

**password**
Contains the password for `<userName>`.

**userName**
Contains the user name of the Oracle SES administrator.

**controls xmlns=""**
Specifies an operation control. It contains these elements:

- `<controlName>`
- `<controlValue>`

**controlName**

- **UPDATE_METHOD**: Controls the method used to update the properties of an object.
- **NOT_FOUND_METHOD**: Controls the action to take when an object does not exist.
- **IGNORE_INVALID_STATE**: Controls whether processing continues when an object cannot be overwritten because it is in an invalid state. For clusterTree, schedule, and storageArea objects. This option is used only when **UPDATE_METHOD** is **OVERWRITE**.

**controlValue**

For **UPDATE_METHOD**:

- **overwrite**: Replaces the existing property values with the new values.
- **add**: Adds new properties and overwrites existing properties, but does not delete existing properties that are omitted from the XML document. For clusterTree, schedule, searchAttr, source, sourceGroup, sourceType, and storageArea.
- **remove**: Removes existing properties. For clusterTree, resultList, schedule, searchAttr, source, sourceGroup, sourceType, and storageArea.

For **NOT_FOUND_METHOD**:

- **create**: Creates a new object from the XML description and continue processing.
- **error**: Processing stops with an error. (Default)
- **ignore**: Ignore the new description and continue processing.

For **IGNORE_INVALID_STATE**:

- **true**: Continue processing with the next object.
false: Stop processing with an error and roll back all changes. (Default)

<locale xmlns="">
Sets the language for error messages. See Table 2-2, "Product Languages" for a list of valid codes.
If you omit this element or enter an invalid code, then Oracle SES uses the default locale of the system where it is running.

SOAP Faults
AdminAPIRuntimeFault
CreatableAdminObjectFault
DependentObjectFault
InvalidInputFault
InvalidStateFault

Notes
After updating a skin bundle, restart the middle tier.

Example
This example updates all of the altWord objects described in the <objectXML> element. The content of this element is not shown.

<updateAll xmlns="http://search.oracle.com/Admin">
  <creatableType xmlns="">altWord</creatableType>
  <objectXML xmlns="">
    <!-- XML object descriptions appear here-->
  </objectXML>
  <controls xmlns="">
    <controlName>UPDATE_METHOD</controlName><controlValue>OVERWRITE</controlValue>
  </controls>
  <controls xmlns="">
    <controlName>NOT_FOUND_METHOD</controlName><controlValue>CREATE</controlValue>
  </controls>
</updateAll>

The service response shows that two alternate keywords were updated and one was created.

<ns2:updateAllResponse xmlns:ns2="http://search.oracle.com/Admin">
  <statusList>
    <objectKey>
      <adminKeyPairs>
        <KeyName>keyword</KeyName><KeyValue>oses</KeyValue>
      </adminKeyPairs>
      <adminKeyPairs>
        <KeyName>altKeyword</KeyName><KeyValue>Oracle Secure Enterprise Search</KeyValue>
      </adminKeyPairs>
    </objectKey>
    <objectType>altWord</objectType>
    <statusCode>UPDATE_SUCCEEDED</statusCode>
  </statusList>
</ns2:updateAllResponse>
<statusList>
  <objectKey>
    <adminKeyPairs>
      <keyName>keyword</keyName>
      <keyValue>rac</keyValue>
    </adminKeyPairs>
    <adminKeyPairs>
      <keyName>altKeyword</keyName>
      <keyValue>Real Application Clusters</keyValue>
    </adminKeyPairs>
  </objectKey>
  <objectType>altWord</objectType>
  <statusCode>NOT_FOUND_CREATED</statusCode>
</statusList>

<statusList>
  <objectKey>
    <adminKeyPairs>
      <keyName>keyword</keyName>
      <keyValue>text</keyValue>
    </adminKeyPairs>
    <adminKeyPairs>
      <keyName>altKeyword</keyName>
      <keyValue>Oracle Text</keyValue>
    </adminKeyPairs>
  </objectKey>
  <objectType>altWord</objectType>
  <statusCode>UPDATE_SUCCEEDED</statusCode>
</statusList>
</ns2:updateAllResponse>
This appendix contains a programming example of the Web Services Java client. It contains these topics:

- Java Source Code Example
- Shell Script Example

See Also:

- "Using the Web Services Java Client" on page 1-5
- Oracle Secure Enterprise Search Java API Reference

Java Source Code Example

The following source code is an example named CreateWebSource.java. If you want, you can copy and paste this example into a file on your Oracle SES host.

This example uses a stateless Administration API client to do the following:

1. Create a Web source named `web1`.
2. Export `web1` to show the full definition.
3. Create a source group named `Web` containing `web1`.
4. Create and start a schedule named `schedule1` for `web1`.
5. Print the status of `schedule1` after 30 seconds.

CreateWebSource.java obtains values for these variables from the command-line arguments:

- `webServiceURL`
- `userName`
- `password`
- `webSourceURL`

For more information about these arguments, see "Shell Script Example" on page A-5.

```java
import oracle.search.admin.api.ws.client.AdminAPIRuntimeFault;
import oracle.search.admin.api.ws.client.AdminAPIRuntimeFault_Exception;
import oracle.search.admin.api.ws.client.AdminKeyPair;
import oracle.search.admin.api.ws.client.AdminPortType;
import oracle.search.admin.api.ws.client.Credentials;
import oracle.search.admin.api.ws.client.ObjectKey;
import oracle.search.admin.api.ws.client.ObjectOutput;
```
import java.util.List;
import java.net.URL;
import javax.xml.ws.BindingProvider;
import javax.xml.namespace.QName;

public class AdminWebServiceExample2
{
    public static void main(String[] args) throws Exception
    {
        System.out.println( "");
        try
        {
            if ( args == null || args.length != 4 )
            {
                System.out.println(
                        "Usage:
                        AdminWebServiceExample <webServiceURL> <userName> <password>
                        <webSourceURL>"
                   );
            }
            else
            {
                // Get web service URL from command line arguments
                String webServiceURL = args[0];
                System.out.println( "Using web service URL "+ webServiceURL + "\n");

                // Get username and password
                String userName = args[1];
                String password = args[2];

                // Get stateless web service client
                AdminPortType adminPort =
                        getStatelessWebServiceClient( webServiceURL );

                // Create Credentials object for operations
                Credentials credentials = new Credentials();
                credentials.setUserName( userName );
                credentials.setPassword( password );

                // 1. Create a simple web source
                String webSourceURL = args[3];
                String webSourceXML =
                        "<?xml version="1.0" encoding="UTF-8"?>" +
                        "<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">" +
                        "<search:sources>" +
                        "<search:webSource>" +
                        "<search:name>web1</search:name>" +
                        "<search:startingUrls>" +
                        "<search:startingUrl>" +
                        "<search:url>" + webSourceURL + "</search:url>" +
                        "</search:startingUrl>" +
                        "</search:webSource>" +
                        "</search:sources>" +
                        "</search:config>";

                adminPort.createAll(}
"source",
webSourceXML,
"password",
credentials,
null,
null,
"en";
);

// 2. Export all sources to show the full definition
ObjectOutput oo = adminPort.exportAll(
    "source",
    null,
    "password",
    credentials,
    null,
    "en"
);
System.out.println("Web Source XML = 
" + oo.getObjectXML() );

// 3. Create a source group for the source
String sourceGroupXML =
    "<?xml version="1.0" encoding="UTF-8"?>" +
    "<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">" +
    "  <search:sourceGroups>" +
        "    <search:sourceGroup>" +
            "      <search:name>Web</search:name>" +
            "      <search:assignedSources>" +
                "        <search:assignedSource>web1</search:assignedSource>" +
            "      </search:assignedSources>" +
        "    </search:sourceGroup>" +
    "  </search:sourceGroups>" +
"</search:config>");

adminPort.createAll(
    "sourceGroup",
    sourceGroupXML,
    null,
    credentials,
    null,
    null,
    "en"
);
System.out.println("Created source group...");

// 4. Create a schedule for the web source
String scheduleXML =
    "<?xml version="1.0" encoding="UTF-8"?>" +
    "<search:config productVersion="11.2.1.0.0" xmlns:search="http://xmlns.oracle.com/search">" +
    "   <search:schedules>" +
        "      <search:schedule>" +
            "         <search:name>schedule1</search:name>" +
            "         <search:crawlingMode>ACCEPT_ALL</search:crawlingMode>" +
            "         <search:recrawlPolicy>PROCESS_CHANGED</search:recrawlPolicy>" +
            "         <search:frequency>" +
                "             <search:manual/>" +
            "         </search:frequency>" +
        "      </search:schedule>" +
    "   </search:schedules>" +
"</search:config>";
adminPort.createAll(  
    'schedule',  
    scheduleXML,  
    null,  
    credentials,  
    null,  
    null,  
    "en"  
);  

System.out.println("Created schedule...");

// 5. Start the schedule

// Create object key for schedule name  
ObjectKey objectKey = new ObjectKey();  
AdminKeyPair keyPair = new AdminKeyPair();  
keyPair.setKeyName( 'name' );  // schedules identified by name  
keyPair.setKeyValue( 'schedule1' );  // schedule name  
objectKey.getAdminKeyPairs().add( keyPair );

adminPort.start(  
    'schedule',  
    objectKey,  
    null,  
    null,  
    credentials,  
    null,  
    null,  
    "en"  
);

System.out.println("Started schedule...");  
System.out.println("Waiting 30 seconds to get status...");  
Thread.sleep( 30000 );

// 6. Use object key above to get schedule state  
oo = adminPort.getState(  
    'schedule',  
    objectKey,  
    null, // request all state properties  
    credentials,  
    null,  
    "en"  
);

System.out.println("Schedule state XML = " + oo.getObjectXML());

}  

}  
catch (AdminAPIRuntimeFault_Exception e)  
{
    AdminAPIRuntimeFault runtimeFault = e.getFaultInfo();  
    System.out.println("Caught AdminAPIRuntimeFault");
System.out.println("  message = " + runtimeFault.getMessage() );
System.out.println("  errorCode = " + runtimeFault.getErrorCode() );
System.out.println("  causeMessage = " + runtimeFault.getCauseMessage() );
System.out.println("  stackTrace = " );
e.printStackTrace( System.out );
System.out.println("  causeStackTrace = 
" + runtimeFault.getCauseStackTrace() );
}
catch (Throwable t)
{
    System.out.println("Caught unexpected run-time exception");
    System.out.println("  message = " + t.getMessage() );
    System.out.println("  stackTrace = " );
t.printStackTrace( System.out );
}
/**
 * Initializes and returns a stateless admin web service client.
 */
private static AdminPortType getStatelessWebServiceClient(String webServiceURL) throws Exception
{
    AdminService adminService = new AdminService(
        new URL( webServiceURL ),
        new QName("http://search.oracle.com/Admin",
            "AdminService")
    );

    return adminService.getAdmin();
}

Shell Script Example

This example uses a shell script (command file) named compileAndRun.sh to compile and run CreateWebSource.java. You can use JRockit, as shown here, or any JDK 6 that contains a JAX-WS 2.1 implementation.

#!/bin/sh

CLASSPATH=.:ORACLE_HOME/search/lib/search_adminapi_wsclient.jar:MW_HOME/JROCKIT_HOME/jre/lib/rt.jar

# Compile
MW_HOME/JROCKIT_HOME/bin/javac -cp $CLASSPATH CreateWebSource.java

# Run
MW_HOME/JROCKIT_HOME/jre/bin/java -cp $CLASSPATH CreateWebSource $@

To run the script, include these arguments on the command line:

- **webServiceURL**: The Web Service URL for the Administration API in the following format. Replace host:port with the appropriate values.
  
  http://host:port/search/api/admin/AdminService

- **userName**: The administrative user (searchsys).
- **password**: The password for the administrative user.
- **webSourceURL**: The starting URL for crawling the Web source.

This command creates a source from the example.com Web site:

```bash
```
This appendix describes the various ways of specifying search strings for Oracle SES. Text in square brackets represents characters entered into the search.

**Single term search**

Entering one term finds documents that contain that term.

For example, `[Washington]` matches all documents that contain the word Washington anywhere in that document.

You can enter any two searchable items (including term, phrase, attribute shortcut, and proximity search) in a query with a white space separating them and the AND operator applies. The `&` operator also explicitly denotes an AND relationship.

For example, `[muddy water]` and `[muddy & water]` both return documents containing muddy and water.

**Phrase search ["..."]**

Put quotes around a set of words to find documents that contain that exact phrase.

Oracle SES does not apply implicit stemming expansion to a query phrase, but it can apply explicit term expansion to terms in a phrase. All operators except term expansion operators in a phrase are treated not as valid operators but as normal special characters.

For example, `[metropolitan "dance performance"]` returns documents containing metropolitan and the phrase "dance performance". Documents containing the stemming form "dance performances" are not returned. There is no implicit stemming expansion on either term. The query `["sec*re search"]` returns documents with the phrase "secure search". The query `["sec^re search"]` returns documents with the phrase "sec re search".

**Attribute shortcut search [attribute_name:attribute_value]**

Search on attributes with an attribute name, a colon (:), and then the value to be searched. Implicit stemming is applied to the attribute value term. You can specify operators as options. When no operator is specified, Oracle SES uses Contains for STRING attributes and Equals for NUMBER and DATE attributes.

For example, `[DocVersion:>1]` returns documents that have number attribute Docversion with a value larger than 1. The query `[title:"oracle text"]` returns documents with the phrase "Oracle Text" in the title attribute. The query `[oracle | title:S*S]` returns documents with the term Oracle or SES in the title attribute. The query `[title:^oracle]` has the same effect as `[title:oracle]`. The contains operator `[^]` applies only to the STRING attribute.
- Equals [=] returns documents with an attribute equaling the query with case-insensitivity. For example, [title:="oracle text"] returns documents whose title equals "Oracle Text". It applies to all three attributes.

- Less-than and narrower terms (<) return documents with an attribute value less than or earlier than the query value. For example, [DocVersion:<2] returns documents that have number attribute Docversion with a value less than 2. They apply to all three attributes.

- Less-than-or-equals (<=) applies to NUMBER and DATE attributes.

- Greater-than and broader terms (>) return documents with an attribute value greater than or later than the query value. They apply to all three attributes.

- Greater-than-or-equals (>=) applies to NUMBER and DATE attributes. For example, [price:>=10] returns documents whose price attribute value is larger than or equal to 10. The query [lastmodifieddate:>=12/23/2010] returns documents whose lastmodifieddate attribute value is on or after December 23, 2010.

Proximity search ["..."~]
A proximity search specifies the maximum distance within which multiple terms occur. A proximity search must have the search terms in double quotes. When the maximum spanning distance is not specified, Oracle SES applies a default window of 100 terms. The maximum number is 100. Entering a larger value is the same as entering 100.

For example, ["ses performance"~10] returns documents with the terms SES and performance within any 10 terms spanning windows. The query ["ses performance"~] returns documents containing the terms SES and performance within any 100 terms spanning windows.

Implicit stemming expansion is applied to each term in proximity search. Term expansion operators can be applied to terms in proximity search.

Fuzzy search [...~]
Put the fuzzy operator (~) after a single term to return documents that contain terms similar to the query term.

For example, [hallo~] returns documents containing term hello. The query [spacifi*~] returns documents containing the term specification.

Note: If a single term enclosed in double quotes is followed by ~, then the query is not a proximity search but a fuzzy search. The query ["performance"~] returns documents containing the term performance.

Thesaurus-based searches: synonym [~...], narrower term [<], broader term [>]
Thesaurus-based operators require that a thesaurus be loaded into Oracle SES.

Put the - operator at the beginning of a term to return documents that contain the original query term or a synonym for it. For example, [title:="RAC"] returns documents with RAC or the synonym Real Application Clusters in the title. A synonym relationship is symmetric: Real Application Clusters is a synonym of RAC, and RAC is a synonym of Real Application Clusters. In attribute search, it applies only to the STRING attribute.

The query [<"Northern California"] returns documents with the thesaurus-defined narrower term San Francisco or the original phrase Northern California. The query [product:>:chair] returns documents whose product attributes contain the broader
term furniture or the original term chair. Broader and narrower terms are symmetric. Specifying that furniture is a broader term of chair also implicitly specifies that chair is a narrower term of furniture.

OR [ | ] search
Use the OR (|) operator to connect any two searchable items.
For example, [metropolitan | *dance performance*] returns documents with the term metropolitan or with the terms dance and performance in any 100 terms spanning windows. The query [oracle | title:ses] returns documents with the term Oracle or SES in the title attribute.

Grouping ( ) search
Use parentheses () to group query components to change precedence of the binary logical operators AND and OR. The grouped query components must form a valid query. If the query string inside parentheses is not a valid query, then Oracle SES implicitly rewrites it to the closest valid query.
For example, [oracle | database] sales] returns documents containing sales and containing either Oracle or database. The query [oracle | sales] returns documents containing Oracle and sales. This is because [oracle |] is not a valid query.

Wildcard matching [*] for multiple characters
Put the * operator in the middle or end of a term for wildcard matching. It can be applied multiple times in one term.
For example, [ora*] finds documents that contain words beginning with ora, such as Oracle and orator. The query [title:a*e] returns documents with the title containing words such as apple or ape.
Multiple character wildcard expansion could result in too many results. For example, [a*] could find too many results. Oracle SES throws an error to refine the queries.
The wildcard operator [*] is ineffective with the escape character [\] just before it. For example [Pro\*c].
Wildcard matching cannot be used with Chinese or Japanese native characters.

Wildcard matching [?] for single characters
Put the ? operator in middle or end of a term for wildcard matching for a single character. It can be applied multiple times in one term.
For example, both [orac?e] and [or?cl?] return documents containing terms that replace ? with a single character, such as Oracle.
The wildcard operator [?] is ineffective with the escape character [\] just before it.
Wildcard matching cannot be used with Chinese or Japanese native characters.

Compulsory inclusion [+ ] search
Put the + operator at the beginning of any searchable item (including term, phrase, attribute, and proximity search) to require the word in all matching documents. Do not put a space between the [+] and the search term.
For example, searching for [Oracle +Applications] only matches documents that contain the words Oracle and Applications.
When compulsory inclusion search is used with the OR (|) operator, the compulsory inclusion operator does not have any effect. For example, searching for [text | +database] returns documents containing the term text or database.

**Compulsory exclusion [-] search**

Put the - operator at the beginning of any searchable item (including term, phrase, attribute, and proximity search) to match only those documents that do not contain the term. It can be a single word or a phrase, but there cannot be a space between the [-] and the term.

For example, [oracle -applications] returns documents that contain Oracle but not applications. The query [oracle -"application server"] returns documents that contain Oracle but not the phrase "application server". The query [oracle -title:oracle] returns documents containing Oracle in the body but not in the title. The query [oracle -"application server"-] returns documents containing Oracle but not containing application and server in any 100 terms spanning window.

The compulsory exclusion query cannot be the only query. For example, the query [-oracle] raises an error. Also, the compulsory exclusion query cannot be connected with the OR [||] operator. For example, [oracle | -database] raises an error.

**Filetype search [filetype:filetype]**

Use [filetype:filetype] after the search term to limit results to that particular file type. A search can have only one file type. No operator is allowed in file type shortcut search.

For example, [documentation filetype:pdf] returns PDF format documents for the term documentation. The filetype shortcut must be lower case, but the file type name is case-insensitive; that is, [documentation filetype:PDF] returns the same documents.

The following file types are supported, with their corresponding MIME type:

- ps: application/postscript
- ppt: application/vnd.ms-powerpoint, application/x-mspowerpoint
- doc: application/msword
- xls: application/vnd.ms-excel, application/x-msexcel, application/ms-excel
- txt: text/plain
- html: text/html
- htm: text/html
- pdf: application/pdf
- xml: text/xml
- rtf: application/rtf

**Site search [site:host]**

Use [site:host] after the search term to limit results to that particular site.

For example, [site:www.oracle.com filetype:pdf] returns documents from www.oracle.com in PDF format. The site shortcut must be lowercase, but the host name is case-insensitive; that is, [site:www.Oracle.com filetype:pdf] returns the same documents.

Oracle SES only supports exact host matching. The query [site:*.oracle.com] does not work.

**Group search [sg:source group]**

Use [sg:source group] to limit results to that particular source group. All other search restrictions are valid in a group search.
For example, \([sg:intranet]\) returns documents in the intranet source group. The \(sg\) shortcut must be lower case, but the source group name is case-insensitive; that is, \([sg:IntraNet]\) returns the same documents.

In federated searches, the source group names are the source groups in the local (broker) node. If the local source groups contain federated sources, then Oracle SES translates the local source group name to the federated source group name by changing the query, which is then sent to federated source for results.
This appendix describes general error messages from the Administration API. The messages are grouped into these categories:

- Invalid Input Errors
- Creatable Administration Object Errors
- Invalid State Errors
- Administration API Run-Time Errors
- Dependent Object Errors

Note: A propertyName in a message uses XPath notation to identify the location of the property in the input XML.

See Also: "Using the Message Logs" on page 1-11

Invalid Input Errors

In the Web services API, these errors are InvalidInputFault SOAP faults. They are general input errors.

EQA-10000: An object type must be specified for operation operationName.
  Cause: The operation did not contain an object type.
  Action: Specify an object type.

EQA-10001: The operation operationName is not supported for object type objectType.
  Cause: An invalid operation was specified for the object type.
  Action: Use a valid operation, such as export instead of exportAll.

EQA-10002: The value inputValue is not a supported object type.
  Cause: The operation specified an object type that is not supported by the Administration API.
  Action: Verify that you entered the object type correctly.

EQA-10003: An object key must be specified for operation operationName.
  Cause: The operation did not include an object key.
  Action: Include the object key for a creatable object.

EQA-10004: Invalid object key objectKey. Specify keyName1, keyName2 . . .
  Cause: An invalid or incomplete object key was specified.
Action: Specify the required key names and values.

EQA-10005: The object type objectType is not supported with the product version version that was specified in the input XML.

Cause: The object type specified in the input XML is not supported in the product version that was provided in the input XML. For example, an object type may not have been available in release 11.1.2, but is available in release 11.2.1. The product version is specified using the productVersion attribute of the <search:config> XML element.

Action: Specify the correct product version for the object.

EQA-10006: Specify at least one object key for operation operationName.

Cause: The operation required a list of object keys representing the objects to process, but no object keys were specified.

Action: Specify at least one object key.

EQA-10007: The input XML must be specified for operation operationName.

Cause: The operation did not include the input XML.

Action: Specify the input XML.

EQA-10008: An unexpected error occurred while reading the input XML.

Cause: An unexpected error occurred while reading the XML.

Action: Inspect the underlying exception message, the log files, or both.

EQA-10009: The input XML is not a valid XML document.

Cause: The input XML was not a well-formed XML document.

Action: Inspect the underlying exception message and correct the syntax errors in the input XML.

EQA-10010: The input XML does not conform to the XML schema.

Cause: The input XML did not conform to the XML schema.

Action: Inspect the underlying exception message and correct the input XML to conform to the schema.

EQA-10011: The object with type universalType was not found in the input XML.

Cause: The input XML did not contain the specified object type.

Action: Ensure that the input XML contains an object description for the universal type specified in the operation.

EQA-10012: The object with key objectKey and type creatableType was not found in the input XML.

Cause: The input XML did not contain the specified creatable object.

Action: Ensure that the input XML contains an object description for the creatable object specified in the operation.

EQA-10015: The duplicate method duplicateMethod is not supported for object type objectType.

Cause: A duplicate method was specified that is not supported for this object type.

Action: Specify a different duplicate method, or omit the duplicate method to use the default.
EQA-10016: The value `inputValue` is not a supported duplicate method.

**Cause:** A duplicate method was specified that is not supported for any object type.

**Action:** Specify a supported duplicate method, or omit the duplicate method to use the default.

EQA-10017: The update method must be specified for operation `operationName`.

**Cause:** The operation did not contain an update method.

**Action:** Specify an update method for the operation.

EQA-10018: The update method `method` is not supported for object type `objectType`.

**Cause:** An update method was specified that is not supported for this object type.

**Action:** Specify a supported update method.

EQA-10019: The value `inputValue` is not a supported update method.

**Cause:** A value was specified that is not a valid update method for any object type.

**Action:** Specify a supported update method.

EQA-10021: The "not found method" `notFoundMethod` is not supported for object type `objectType`.

**Cause:** A "not found method" was specified that is not supported for this object type.

**Action:** Specify a supported "not found method" for the object type.

EQA-10022: The value `inputValue` is not a supported "not found method."

**Cause:** A value was specified that is not a valid "not found method" for any object type.

**Action:** Specify a supported "not found method."

EQA-10024: The property `propertyName` for object type `objectType` must be specified.

**Cause:** The object definition did not contain a required property.

**Action:** Specify the property.

EQA-10025: The property `propertyName` for object type `objectType` cannot be empty.

**Cause:** The object definition omitted a value for a required property.

**Action:** Enter a value for the property in the object definition.

EQA-10026: The property `propertyName` for object type `objectType` is malformed.

**Cause:** A property value in the object description was not well-formed according to the expected format. For example, if the property represents a URL, the property value must be a well-formed URL.

**Action:** Specify a well-formed property value. Inspect the underlying exception message, the log files, or both for more information.

EQA-10027: The property `propertyName` for object type `objectType` must be between value1 and value2.

**Cause:** The specified value of a property was outside the valid range.

**Action:** Specify a value within the valid range.
Invalid Input Errors

EQA-10028: The value `inputValue` is not supported for property `propertyName` and object type `objectType`.
- **Cause:** The specified value of a property was not a supported value.
- **Action:** Specify a valid value.

EQA-10029: The property `propertyName` for object type `objectType` must be an absolute path.
- **Cause:** A file path was specified that is not an absolute path. The specified value cannot be a relative path.
- **Action:** Specify an absolute path.

EQA-10030: The property `propertyName` for object type `objectType` cannot contain: `inputValue`.
- **Cause:** The property prohibited the use of the input value.
- **Action:** Specify a valid value.

EQA-10031: The property `propertyName` for object type `objectType` can only contain ASCII characters.
- **Cause:** The object definition contained invalid characters, such as multibyte characters, in a property value.
- **Action:** Specify an ASCII value.

EQA-10032: The resource specified in property `propertyName` for object type `objectType` was not found.
- **Cause:** A property value identified an external resource, such as a file, that was not found.
- **Action:** Ensure that the specified resource exists.

EQA-10033: The property `propertyName` for object type `objectType` must not be empty for operation `operationName`.
- **Cause:** The object definition omitted the value of a property that is required for this operation and object type.
- **Action:** Specify a value for the property.

EQA-10034: The value `inputValue1` for property `propertyName1` of object type `objectType` is not valid for value `inputValue2` of property `propertyName2`.
- **Cause:** The object definition specified a value for `propertyName1` that is invalid when `propertyName2` has a value of `inputValue2`.
- **Action:** Specify a valid combination of values for the two properties.

EQA-10035: The properties `propertyName1` and `propertyName2` for object type `objectType` must have different values.
- **Cause:** The object definition specified the same value for the two properties.
- **Action:** Change one of the property values.

EQA-10036: The property `propertyName` for object type `objectType` must not start with `someWord`.
- **Cause:** A property value began with an invalid string.
- **Action:** Specify a valid property value.

EQA-10037: The value `inputValue` for property `propertyName` of object type `objectType` is a reserved value.
Invalid Input Errors

**Cause:** A value was specified for the property and object type that is reserved for internal use by Oracle SES.

**Action:** Specify a valid property value.

EQA-10038: The property `propertyName` for object type `objectType` must start with `value`.

**Cause:** A property name began with one or more invalid characters.

**Action:** Correct the name so that it begins with the specified value.

EQA-10039: The property `propertyName` for object type `objectType` must end with `value`.

**Cause:** A property name ended with one or more invalid characters.

**Action:** Correct the name so that it ends with the specified value.

EQA-10040: The property `propertyName` for object type `objectType` must not end with `inputValue`.

**Cause:** A property name ended with one or more invalid characters.

**Action:** Correct the name so that it does not end with the specified value.

EQA-10041: The property `propertyName` for object type `objectType` must be specified when property `propertyName` is specified.

**Cause:** The object definition did not contain a required property.

**Action:** Specify both properties or neither of them.

EQA-10042: The value `inputValue` for property `propertyName` of object type `objectType` is already in use.

**Cause:** A property value was in use by another object of the same type, and only one object of this type can have this value.

**Action:** Specify a different value for the property, or remove the value from the other object that is using it.

EQA-10043: The value `inputValue` for property `propertyName` of object type `objectType` contains an invalid protocol.

**Cause:** A property value contained an invalid protocol. For example, the protocol for a Web source starting URL must be `http` or `https`.

**Action:** Specify a valid protocol for the property value.

EQA-10044: The value `inputValue` for property `propertyName` of object type `objectType` contains an invalid separator.

**Cause:** A file URL prefix contained an invalid character for the separator.

**Action:** Use a slash (`/`) instead of a backslash (`\`) as the separator in a URL.

EQA-10045: At least one of the properties `propertyName1` or `propertyName2` for object type `objectType` must have the value `inputValue`.

**Cause:** The object definition did not contain a property with the required value.

**Action:** Change one of the specified properties to the required value.

EQA-10046: The value `inputValue` of property `propertyName` for object type `objectType` is not supported. The supported values are: `value1, value2 . . .`.

**Cause:** A property contained an unsupported value.

**Action:** Change the property value to a supported values.
**EQA-10047**: The value of property `propertyName1` for object type `objectType` must be greater than or equal to the value of property `propertyName2`.

*Cause:* A property value was too small.

*Action:* Increase the property value so that it is as least as large as the other property value.

**EQA-10048**: The property `propertyName` for object type `objectType` must start with an alphabetic character and may only contain alphanumeric characters and \_, $, and #.

*Cause:* A property contained one or more invalid characters.

*Action:* Use only valid characters for the property value.

**EQA-10049**: The property `propertyName` for object type `objectType` must be in the format of `format`.

*Cause:* A property value had an invalid format.

*Action:* Specify the value in the specified format.

**EQA-10050**: The property `propertyName1` for object type `objectType` can only contain one value when property `propertyName2` has value `inputValue`.

*Cause:* A property contained multiple values, whereas only one value is allowed.

*Action:* Specify only one value for the property.

**EQA-10051**: Key patterns are not supported for operation `operationName` and object type `objectType`.

*Cause:* An invalid option was specified for this operation and object type. The operation can support key patterns for some object types, but not for the specified object type.

*Action:* Do not specify a key pattern for this object type.

**EQA-10052**: The values of properties `propertyName1` and `propertyName2` for object type `objectType` must be the same.

*Cause:* The object description contained two properties with different values, when they must have the same value.

*Action:* Change one of the property values to be the same as the other one.

**EQA-10053**: The value `inputValue` of property `propertyName` for object type `objectType` must be writable.

*Cause:* The property value was not a writable location. For example, the property may represent a file system path, such as the crawler log file directory for a `crawlerSettings` object.

*Action:* Ensure that you are connected to the Administration API as a user with write privileges to the specified location.

**EQA-10054**: The value for property `propertyName1` of object type `objectType` is not valid for value `inputValue` of property `propertyName2`.

*Cause:* The value for `propertyName1` is invalid when `propertyName2` has a value of `inputValue`.

*Action:* Specify a valid combination of values for the two properties.

**EQA-10055**: The value for property `propertyName` of object type `objectType` is not a directory path.

*Cause:* A property contained an invalid directory path.
Action: Change the property value to an existing directory path.

EQA-10056: The value of property propertyName for object type objectType cannot be changed.

Cause: A property contained a new value, but it cannot be changed after the object is created.

Action: Specify the current value of the property or omit the property from the object description.

EQA-10057: The value inputValue of property propertyName for object type objectType does not match the expected value expectedValue.

Cause: A property contained a value that did not match the expected value. This error may occur when the property must have a specific value. For example, a property containing the version number of an identity plug-in must match the version of the Java plug-in implementation.

Action: Specify the expected value for the property.

EQA-10058: The value of property propertyName for object type objectType does not match the expected value.

Cause: The property contained a list of values that did not match the expected list. For example, a property containing the security attributes for a source must match the plug-in for that source type.

Action: Correct the property value.

EQA-10059: The parameters for object type objectType were rejected.

Cause: The parameters for the object type were invalid. An underlying cause was included with the message.

Action: Act according to the underlying cause message.

EQA-10060: The value propertyValue of property propertyName for object type objectType is too long.

Cause: The property value specified for the property name was too long.

Action: Specify a shorter property value.

EQA-10062: The value of property propertyName for object type objectType cannot be: propertyValue

Cause: The value of the property was set to "propertyValue".

Action: Specify a different property value.

EQA-10064: The value propertyValue for property propertyName of object type objectType must be an existing tablespace name.

Cause: The value of the property was not the name of an existing database tablespace.

Action: Ensure that the tablespace exists before performing the API operation.

EQA-10065: The property propertyName for object type objectType is not supported with the product version productVersion.

Cause: A property was specified that is not supported in this release of Oracle SES, but it is supported in other releases.

Action: Remove the property from the input XML.

EQA-10066: The value propertyValue of property propertyName for object type objectType is not a valid regular expression.
Invalid Input Errors

Cause: The value of the property must be a regular expression, but an invalid regular expression was specified.
Action: Correct the value so it is a valid regular expression.

EQA-10067: The object type objectType is not supported with the product version productVersion.
Cause: The object type is not supported in the release of SES that was used.
Action: Remove the object type from the input XML.

EQA-10200: The class inputValue does not implement the plug-in manager interface managerInterface.
Cause: A Java class was specified that did not implement the plug-in manager interface.
Action: Specify a Java class that implements the plug-in manager interface.

EQA-10201: The class inputValue implements the plug-in interface instead of the plug-in manager interface. Use the manager class name.
Cause: A Java class was specified that implements the plug-in interface instead of the plug-in manager interface.
Action: Specify a Java class that implements the plug-in manager interface.

EQA-10202: The plug-in parameters were rejected by the plug-in manager. See the log file for more information.
Cause: A plug-in manager validated the plug-in parameters, and it rejected the input values.
Action: Inspect the log file for more information.

EQA-10203: Unable to instantiate the plug-in manager class inputValue. Ensure that the class contains an empty constructor.
Cause: A problem occurred while loading the plug-in manager class.
Action: Ensure the class contains an empty constructor. Inspect the log file for more information.

EQA-10204: The input XML must be specified for operation operationName and type objectType.
Cause: The operation did not include the input XML, which it requires for this object type. For example, the activate operation requires input XML for identity plug-ins, but not for clustering.
Action: Include the input XML in the operation.

EQA-10206: The key name keyName is not valid for object type objectType.
Cause: A key name was specified that is not valid for this object type.
Action: Specify a valid key name for the object type.

EQA-10207: A value must be specified for key name keyName.
Cause: A key name was specified without a key value.
Action: Specify a value for the key name.

EQA-10208: The manager class inputValue does not provide plug-ins that implement the interface interfaceName.
Cause: The specified manager class did not provide plug-in instances that implement the correct interface.
Action: Correct the manager class to return plug-in instances that implement the specified interface.

EQA-10209: The security attributes were rejected by the plug-in manager inputValue. See the log file for more information.
Cause: The plug-in manager rejected the security attributes.
Action: Inspect the log file for more information.

EQA-10210: The object with key objectKey and type creatableType occurs more than once in the input to operation operationName.
Cause: An object was specified multiple times for the operation, but only one version of an object can be used as input to an operation.
Action: Remove all but one reference to the object.

EQA-10211: The object key objectKey occurs more than once in the key list for operation operationName.
Cause: An object key was specified multiple times in the key list for the operation.
Action: Remove all but one reference to the object.

EQA-10212: The value of property propertyName in the object with key objectKey and type creatableType could not be encrypted. See the log file for more information.
Cause: A value was specified that could not be encrypted.
Action: Inspect the log file for more information.

EQA-10213: The value of property propertyName in the object with type universalType could not be encrypted. See the log file for more information.
Cause: A value was specified that could not be encrypted.
Action: Inspect the log file for more information.

EQA-10214: The value of property propertyName in the object with key objectKey and type creatableType could not be decrypted. Ensure that the encryption key is correct and that the property contains an encrypted value.
Cause: A property value could not be decrypted.
Action: Ensure that the property contains a value encrypted by Oracle SES, and the decryption key is the same as the original encryption key.

EQA-10215: The value of property propertyName in the object with type universalType could not be decrypted. Ensure that the encryption key is correct and that the property contains an encrypted value.
Cause: The specified value could not be decrypted.
Action: Ensure that the property contains a value encrypted by Oracle SES, and the decryption key is the same as the original encryption key.

EQA-10216: An encryption key must be specified for operation operationName.
Cause: The operation did not include an encryption key.
Action: Include an encryption key in the operation.

EQA-10217: The encryption key must be at least value characters.
Cause: The encryption key was too short.
Action: Enter an encryption key with at least the minimum number of characters.
EQA-10218: The encryption key must contain both letters and numbers.  
  **Cause:** The encryption key contained letters or numbers, but not both as required.  
  **Action:** Enter an encryption key that contains both letters and numbers.

EQA-10219: The object type for operation `operationName` must be a stateful type.  
  **Cause:** The operation specified an object type that does not have state properties.  
  **Action:** Specify a valid operation for the object type.

EQA-10220: The value `inputValue` is not a supported state property name for object type `objectType`.  
  **Cause:** A state property was specified that is invalid for the object type.  
  **Action:** Specify a supported state property for the object type.

EQA-10221: The value `inputValue` is not a supported operation control name.  
  **Cause:** The specified control name was invalid.  
  **Action:** Specify a valid setting for the operation control.

EQA-10222: The operation control `inputValue` is not supported for operation `operationName`.  
  **Cause:** A control name was specified that is invalid for this operation.  
  **Action:** Use either valid operation control or none.

EQA-10223: The value `inputValue` is not supported for operation control `controlName`. The supported values are: `value1`, `value2` . . . .  
  **Cause:** The value of the operation control was invalid.  
  **Action:** Specify one of the listed values.

EQA-10224: An object key cannot be specified for the universal object type `universalType`.  
  **Cause:** An object key was specified for a universal object type.  
  **Action:** Omit the object key from the operation, or specify the correct object type for the key.

EQA-10225: The attachment with resource name `resourceName` for the object with key `objectKey` and type `creatableType` was not found.  
  **Cause:** The specified attachment was not found.  
  **Action:** Ensure that the resource name is correct.

EQA-10226: The attachment with resource name `resourceName` for the object with type `universalType` was not found.  
  **Cause:** The specified attachment was not found.  
  **Action:** Ensure that the resource name is correct.

EQA-10227: The attachment with resource name `resourceName` occurs more than once in the attachment list for operation `operationName`.  
  **Cause:** The attachment list referenced a resource name multiple times.  
  **Action:** Remove the duplicate entry from the attachment list.

EQA-10228: A resource name must be specified for all attachments in operation `operationName`.  
  **Cause:** An attachment was specified without a resource name.
**Creatable Administration Object Errors**

In the Web services API, these errors are CreatableAdminObjectFault SOAP faults. They apply only to creatable object types.

**EQA-11000:** The object with key `objectKey` and type `creatableType` was not found.
- **Cause:** An object with the given key and type did not exist.
- **Action:** Ensure that the object key and type are correct and the object actually exists.

**EQA-11001:** The object with key `objectKey` and type `creatableType` already exists.
- **Cause:** An object with the given key and type was previously defined.
- **Action:** Perform an update operation instead of create to revise the definition of an existing object. Or, in a createAll operation, specify overwrite or ignore for the duplicate method.

**EQA-11002:** The operation `operationName` is not supported for the object with key `objectKey` and type `creatableType`.
Invalid State Errors

Cause: The specified operation cannot be performed on the object.

Action: If possible, use a related, supported operation for the object, such as delete instead of deleteList. Otherwise, none. The operation is not supported.

EQA-11003: The maximum number of objects allowed with type creatableType and value keyValue for key keyName is maxObjects.

Cause: The object was not created, because the maximum number of objects with the specified name and value already existed. For example, an altWord object can have a maximum of four alternate words with the same keyword.

Action: Delete one or more existing objects before trying to create new ones with the specified name and value.

EQA-11004: The object with key objectKey and type creatableType is not an instance of type creatableType that is currently supported.

Cause: The specified key and object type were valid, but the object cannot be managed through the Administration API. For example, the Administration API can manage sources but cannot manage all source types.

Action: Use a method of managing the object that is currently supported, such as the Administration GUI.

Invalid State Errors

In the Web services API, these errors are InvalidStateFault SOAP faults. They are caused by the current state of the object, such as failing to delete a schedule because it is currently executing.

EQA-13000: Operation operationName cannot be performed on an object with type objectType in state objectStatus.

Cause: An operation was specified that could not be performed on the object while it was in its current state.

Action: Correct the state of the object before proceeding.

EQA-13001: The object with key objectKey and type creatableType is already active.

Cause: The activate operation was attempted on a creatable object that was already active.

Action: None. The object is active.

EQA-13002: The object with type universalType is already active.

Cause: The activate operation was attempted on a universal object that was already active.

Action: None. The object is active.

EQA-13003: The object with key objectKey and type creatableType is already inactive.

Cause: The deactivate operation was attempted on a creatable object that was already inactive.

Action: None. The object is inactive.

EQA-13004: The object with type universalType is already inactive.

Cause: The deactivate operation was attempted on a universal object that was already inactive.

Action: None. The object is inactive.
EQA-13005: The object with key objectKey and type creatableType cannot be activated because another object with the same type is already active.

Cause: The activate operation was attempted on a creatable object, but another object of the same type was already active. Only one object of this type can be active at a time, such as an identity plug-in.

Action: Deactivate the other object of this type, then try again.

EQA-13006: The object with key objectKey and type creatableType is already starting.

Cause: The start operation was attempted on a creatable object that was already starting.

Action: To restart the object, first stop it or wait for it to stop.

EQA-13007: The object with type universalType is already starting.

Cause: The start operation was attempted on a universal object that was already starting.

Action: To restart the object, first stop it or wait for it to stop.

EQA-13008: The object with key objectKey and type creatableType is already stopping.

Cause: The stop operation was attempted on a creatable object that was already stopping.

Action: None. Wait for it to stop.

EQA-13009: The object with type universalType is already stopping.

Cause: The stop operation was attempted on a universal object that was already stopping.

Action: None. Wait for it to stop.

Administration API Run-Time Errors

In the Web services API, these errors are AdminRuntimeFault SOAP faults. They are unexpected or result from conditions encountered at run-time, such as an invalid user name or an unavailable database. In the Java client, these are unchecked exceptions.

EQA-15000: An unexpected error occurred during operation operationName.

Cause: An unexpected error occurred during an API operation.

Action: Inspect the underlying error message, the log files, or both.

EQA-15001: A connection to the database could not be established.

Cause: An attempt to connect to the database failed.

Action: Inspect the underlying exception in the log file.

EQA-15002: A connection to the Web Service URL wsURL could not be established.

Cause: An attempt to connect to the Web service URL failed.

Action: Verify that the Web service endpoint is running by opening http://host:port/search/api/admin/AdminService?WSDL in a browser. If it is running and the problem remains, then inspect the underlying exception in the log file.

EQA-15003: Invalid login credentials. Check your user name and password and try again.
Cause: An invalid user name, password, or both were provided.
Action: Enter the correct user name and password, and try again.

EQA-15004: The operation *operationName* can only be performed by logged in users.
Cause: A Web services operation was attempted without previously logging in for stateful mode or providing credentials for stateless mode. This error also occurs after an interactive searchadmin session times out.
Action: For stateful mode, call login first. For stateless mode, provide the Credentials argument for the operation. For an interactive session, exit and open a new session.

EQA-15005: An unexpected error occurred while marshalling the XML document.
Cause: An error occurred while constructing the output XML.
Action: Inspect the underlying exception message, the log files, or both.

EQA-15006: An unexpected error occurred while unmarshalling the XML document.
Cause: An error occurred while processing the input XML.
Action: Inspect the underlying exception message, the log files, or both.

EQA-15007: The XML schema *xsdName* was not found.
Cause: A required XML schema was not found.
Action: Inspect the underlying exception message, the log files, or both.

EQA-15008: An unexpected error occurred while reading the XML schema.
Cause: An error occurred while reading a required XML schema.
Action: Inspect the underlying exception message, the log files, or both.

EQA-15009: An unexpected error occurred while reading from the database.
Cause: An error occurred while reading from the database.
Action: Inspect the underlying exception message, the log files, or both.

EQA-15010: The plug-in manager raised an error while validating the plug-in parameters.
Cause: A plug-in manager class raised an error during validation of the plug-in parameters in the input XML.
Action: Inspect the underlying exception message, the log files, or both.

EQA-15011: The plug-in manager raised an unexpected error.
Cause: A plug-in manager raised an unexpected error.
Action: Inspect the underlying exception message, the log files, or both.

EQA-15014: Operation *operationName* cannot proceed because the remote resource located at *resourceURI* cannot be contacted.
Cause: An operation was unable to contact a remote resource (such as a federated source), which was needed to continue.
Action: Ensure that the remote resource is available and try again.

EQA-15015: The external tool *externalToolName* raised an error.
Cause: The API invoked an external executable tool, which raised an error.
Action: Inspect the underlying error message, the log files, or both.
EQA-15016: The system property propertyName was not set properly.
   Cause: A system property required by SES was missing or set incorrectly.
   Action: Contact the system administrator.

EQA-15017: The privileged user required to perform the operation was not found.
   See the log file for more information.
   Cause: Some operations in Oracle SES required the existence of a privileged user
   in LDAP. If the user is not found, then the operation cannot be performed.
   Action: Contact the system administrator.

EQA-15018: More than one active Oracle Enterprise Scheduler Job Request was
found when only one was expected to exist. Contact the System Administrator
 to correct the problem.
   Cause: When processing an Oracle SES schedule, more than one Oracle Enterprise
Scheduler job request was found. When more than one exists, Oracle SES cannot
process the schedule correctly.
   Action: Correct the problem in Oracle Enterprise Scheduler, such as removing the
extra job request.

EQA-15019: The schedule frequency configured in Oracle Enterprise Scheduler for
the schedule with name scheduleName is not a supported frequency in Oracle
Secure Enterprise Search. Contact the System Administrator to correct the
problem.
   Cause: A schedule was configured with an unsupported frequency.
   Action: Contact the System Administrator. Oracle SES supports hourly, daily,
weekly, and monthly schedules.

EQA-15020: Crawler execution failed due to an error executing the Oracle Enterprise
Scheduler (ESS) Job Request. Check the ESS logs for more information.
   Cause: An error occurred in processing the job request.
   Action: Check the Oracle Enterprise Scheduler logs.

Dependent Object Errors

In the Web services API, these errors are DependentObjectFault SOAP faults. They are
related to dependent objects of the object being processed. For example, an operation
on a schedule might fail because of the current state of a source.

EQA-16000: The dependent object dependentObjectName referenced in object with
type universalType was not found.
   Cause: A universal administrative object referenced another object that did not
exist, such as a resultList with rendering attributes that were not created
previously.
   Action: Create the dependent object first.

EQA-16001: The dependent object dependentObjectName referenced in object with
key objectKey and type creatableType was not found.
   Cause: A creatable administrative object referenced another object that did not
exist, such as a schedule with an assigned source that was not created previously.
   Action: Create the dependent object first.

EQA-16002: A duplicate dependent object dependentObjectName was found in
object with type universalType.
Dependent Object Errors

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**Cause:** A universal administrative object referenced a list of dependent objects that contained duplicates, such as a resultList that listed the same rendering attributes twice.

**Action:** Remove the duplicates in the dependent object list.

**EQA-16003:** A duplicate dependent object dependentObjectName was found in object with key objectKey and type creatableType.

**Cause:** A creatable administrative object referenced a list of dependent objects that contained duplicates, such as a schedule that listed the same assigned source twice.

**Action:** Remove the duplicates in the dependent object list.

**EQA-16004:** The dependent object dependentObjectName referenced in object with type universalType is in use.

**Cause:** A universal administrative object referenced a dependent object that was already being referenced. Only one object can reference the dependent object.

**Action:** Remove the reference to the dependent object from the other administrative object. For example, remove the rendering attribute from the other resultList.

**EQA-16005:** The dependent object dependentObjectName referenced in object with key objectKey and type creatableType is in use.

**Cause:** A creatable administrative object referenced a dependent object that was already being referenced. For example, a schedule cannot be created with an assigned source that is assigned to another schedule. Only one object can reference the dependent object.

**Action:** Remove the reference to the dependent object from the other administrative object. For example, remove the assigned source from the other schedule.

**EQA-16006:** The object with type universalType is in use by dependent object dependentObjectName.

**Cause:** The universal administrative object was in use by a dependent object.

**Action:** Eliminate the dependency before attempting this operation again.

**EQA-16007:** The object with key objectKey and type creatableType is in use by dependent object dependentObjectName.

**Cause:** The creatable administrative object was in use by the dependent object. For example, a search attribute cannot be deleted while a source attribute mapping is using it.

**Action:** Eliminate the dependency. For example, first remove the source with the attribute mapping or remove the attribute mapping from the source, then delete the search attribute.

**EQA-16008:** The dependent object dependentObjectName referenced in object with type universalType was found but is not valid for this object.

**Cause:** A universal administrative object referenced a dependent object that was invalid for this reference, such as a Date attribute where only String attributes are valid.

**Action:** Reference a dependent object with valid characteristics. You may modify the characteristics of the specified dependent object or reference a different dependent object.
EQA-16009: The dependent object \textit{dependentObjectName} referenced in object with key \textit{objectKey} and type \textit{creatableType} was found but is not valid for this object.
\textbf{Cause:} A creatable administrative object referenced a dependent object that was invalid for this reference, such as a Date attribute where only String attributes are valid.
\textbf{Action:} Reference a dependent object with valid characteristics. You may modify the characteristics of the specified dependent object or reference a different dependent object.

EQA-16010: Operation \textit{operationName} cannot be performed on object with type \textit{universalType} because of the state of a dependent object with type \textit{dependentObjectType}.
\textbf{Cause:} The universal administrative object depends on an object that was in an invalid state for the operation.
\textbf{Action:} Correct the state of the dependent object.

EQA-16011: Operation \textit{operationName} cannot be performed on object with key \textit{objectKey} and type \textit{creatableType} because of the state of a dependent object with type \textit{dependentObjectType}.
\textbf{Cause:} The creatable administrative object depends on an object that was in an invalid state for the operation. For example, a source cannot be deleted while assigned to a schedule that is executing.
\textbf{Action:} Correct the state of the dependent object.

EQA-16012: The property \textit{propertyName} for object with type \textit{universalType} must contain the following dependent objects: \textit{dependentObjectName1}, \textit{dependentObjectName2} . . .
\textbf{Cause:} A property in the universal administrative object did not contain the required dependent objects.
\textbf{Action:} Modify the property to contain the listed dependent objects.

EQA-16013: The property \textit{propertyName} for object with key \textit{objectKey} and type \textit{creatableType} must contain the following dependent objects: \textit{dependentObjectName1}, \textit{dependentNameObject2} . . .
\textbf{Cause:} A property in the creatable administrative object did not contain the required dependent objects, such as the mandatory attribute names for a federated source.
\textbf{Action:} Modify the property to contain the listed dependent objects.

EQA-16014: The property \textit{propertyName} for object with type \textit{universalType} requires a dependent object with type \textit{dependentObjectType} to be active.
\textbf{Cause:} A dependent object was not active, as required by the universal administrative object.
\textbf{Action:} Activate an appropriate dependent object with the specified type.

EQA-16015: The property \textit{propertyName} for object with key \textit{objectKey} and type \textit{creatableType} requires a dependent object with type \textit{dependentObjectType} to be active.
\textbf{Cause:} A dependent object was not active, as required by the creatable administrative object. For example, an active identity plug-in is needed for using a source-level ACL policy in a source.
\textbf{Action:} Activate an appropriate dependent object with the specified type.
EQA-16016: The dependent object dependentObjectName referenced in object with type universalType was not found as specified. The specified value specifiedValue for property propertyName differs from the actual value actualValue.

**Cause:** A universal administrative object referenced the properties of a dependent object, but the specified values did not match the actual values. For example, the data type of a search attribute might be specified incorrectly.

**Action:** Correct the specification of the dependent object.

EQA-16017: The dependent object dependentObjectName referenced in object with key objectKey and type objectType was not found as specified. The specified value specifiedValue for property propertyName differs from the actual value actualValue.

**Cause:** A creatable administrative object referenced the properties of a dependent object, but the specified values did not match the actual values. For example, the data type of a search attribute might be specified incorrectly.

**Action:** Correct the specification of the dependent object.

EQA-16019: Usage of the value propertyName requires that the parent object with key objectKey and type creatableType has not been crawled.

**Cause:** The source description contained a property value that cannot be used after the source has been crawled.

**Action:** Either delete and re-create the source with this property value, or specify a different value for the property.

EQA-16020: The operation operationName for object with type universalType requires a dependent object with type dependentObjectType to be active.

**Cause:** A dependent object was not active, as required for the operation on the specified universal administrative object.

**Action:** Activate the specified dependent object.

EQA-16021: The operation operationName for object with key objectKey and type creatableType requires a dependent object with type dependentObjectType to be active.

**Cause:** A dependent object was not active, as required for the operation on the specified creatable administrative object. For example, an identity plug-in must be active when exporting a source that uses source-level ACL and access control entries.

**Action:** Activate the specified dependent object.
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