Oracle Endeca Workbench

Workbench Help

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ORACLE®

ENDECA

Contents

Chapter 9: Administering an Endeca application....................................99

Appendix A: Basic Endeca concepts...135

Copyright and disclaimer

Chapter 1
Getting started

This section provides an introduction to Oracle Endeca Workbench and explains how to log into and out of the tool.

Welcome to Oracle Endeca Workbench

Oracle Endeca Workbench is a Web-based tool that provides a way for business users and content administrators to configure portions of their Endeca application and provides system administrators with a means to configure and administer an Endeca implementation.

Business users define business logic such as merchandising and Content Spotlighting, keyword redirects, application search configuration, and the presentation order of dimensions. Business users typically make changes to parts of an Endeca implementation after the implementation's core functionality has been developed. For example, a developer uses Developer Studio to specify which Endeca properties and dimensions are available for search, then a business user uses Oracle Endeca Workbench to specify thesaurus entries that support search functionality.

In addition, Oracle Endeca Workbench provides access to reports that describe how customers are using an Endeca implementation. These reports expose details such as the most popular search terms, the most popular navigation locations, search terms that are most often misspelled, and so on.

System administrators can perform a number of system operations including: provisioning the resources used by an Endeca implementation, monitoring system status, starting and stopping system processes, and managing user permissions.

Logging in to Oracle Endeca Workbench

You need a user name and password to access Oracle Endeca Workbench.

When you log in to Oracle Endeca Workbench as a business user, it displays all rules, thesaurus entries, reporting information, and so on as specified by your user permissions.

When you log in to Oracle Endeca Workbench with administrator permissions, in addition to seeing the same content as a business user, you also have access to the Configuration and Administration tabs.

1. Enter your user name and password and then select the application you want to log in to.
2. Click **Log In.**

Logging out of Oracle Endeca Workbench

You can log out of Oracle Endeca Workbench manually, or else Oracle Endeca Workbench logs you out automatically if you are inactive.

1. Save any changes you made.
2. Click the **logout** link in the upper-right corner.
3. Alternatively, close your Web browser and Oracle Endeca Workbench logs you out automatically after two minutes.

Chapter 2

Overview of the interface

This section provides an overview of the Oracle Endeca Workbench interface, briefly explaining the individual components of the tool.

Parts of the Oracle Endeca Workbench window

Oracle Endeca Workbench consists of several pages that are accessible through the launch page and a navigation menu.

This screenshot shows the Oracle Endeca Workbench window. Depending on your login ID, you may not see all of these items in your Oracle Endeca Workbench. The Oracle Endeca Workbench window consists of the following pages:

- Logout
- Rule Manager
- Keyword Redirects
- Search Configuration
- Dimensions Order
- View Reports
- Application Settings
- EAC Administration

Rule Manager

Keyword Redirects

Search Configuration
- **Thesaurus**
- **Phrases**
- **Stop Words**

Dimension Order

View Reports

Application Settings

EAC Administration

Rule Manager

Create, modify, and test dynamic business rules. These rules implement merchandising and content spotlighting strategies for your application.

Thesaurus

Specify one- or two-way thesaurus entries (alternate forms of a search term).

Daily Reports

View the archive of daily reports that show search and navigation behavior on your site.

Admin Console

View, establish, and modify system provisioning information and start and stop system components and scripts.

The Rule Manager Page

The **Rule Manager** page is where you create and modify rules, activate/deactivate rules, change their priority, and preview rules. However, your user permissions determine which of these actions you can perform.

The upper half of this page is the **Rule List**, which contains summary information about the rules. This includes the status, name, modified date, trigger and target values, state, priority, and so on. Your technical team manages the number of rules that display on each page, and may provide you with options for changing the pagination settings.

Note: If a rule group has a very large number of rules, it is recommended that you avoid viewing all rules in the group at once. Doing so may increase the time it takes the page to load.

The lower half of this page contains the **Preview** pane, which displays your preview application. You can navigate and search in the preview application, and then set your dynamic business rule configuration according to your search and navigation location.

Related Links

Working with dynamic business rules on page 19
> The following sections provide an introduction to dynamic business rules and explain in-depth how to create, edit, and maintain them.

The Keyword Redirects page

The **Keyword Redirects** page is where you create and modify keyword redirects.

The **Keyword Redirects** page is available to users who have the **Rule Manager** role assigned to their user profile. You can test keyword redirects in the preview application on the **Rule Manager** page.

Related Links

Working with keyword redirects on page 57
> This section introduces the concept of a keyword redirect and explains how to create, modify, delete, and view them with the **Keyword Redirect** component of Oracle Endeca Workbench.

The Phrases page

The **Phrases** page is where you add, edit, or remove multi-word search terms that are available for automatic phrasing in your Endeca-enabled application.

This page also displays dimension names, if any, that have been enabled in Developer Studio for automatic phrasing.

Related Links

Working with automatic phrases on page 65
> This section introduces the **Phrases** page of Oracle Endeca Workbench, and explains how to create and manage automatic phrases with the tool.

The Stop Words page

The **Stop Words** page is where you add, edit, or remove words that are excluded from searching.

This page displays the full list of stop words for your Endeca-enabled application.

Related Links

Working with stop words on page 68
> This section introduces the **Stop Words** page of Oracle Endeca Workbench, and explains how to create and manage stop words to improve the search capabilities of your application.

The Dimension Order page

The **Dimension Order** page is where you can change the presentation order of dimension groups, dimensions, and dimension values in your application.

You can reorder the presentation of any level in the hierarchy of your data set. For example, you can modify the order of dimension groups with respect to other sibling dimension groups. You can modify the order of dimensions with respect to other sibling dimensions. You can drill down in to a dimension and reorder the dimension values with respect to other sibling dimension values.

Related Links

Specifying the presentation order of dimensions on page 71
> This section explains how to configure the order in which dimensions and dimensions groups appear to the end-user in your Endeca application.

The Thesaurus page

The **Thesaurus** page is where you add and edit synonyms used for searching.

This page displays the full list of thesaurus entries for your Endeca-enabled application.

Related Links

Working with thesaurus entries on page 61
> This section introduces the **Thesaurus** page of Oracle Endeca Workbench, and details how to create, manage, and troubleshoot thesaurus entries.

The Instance Configuration page

The **Instance Configuration** page displays the list of XML files that describe all the configuration settings of your application.

Each file in an instance configuration, and information about the file, is listed on the **Instance Configuration** page. You can download a zip file of the entire instance configuration. These files can be used for debugging and support purposes.

Related Links

Downloading the instance configuration on page 90

This section provides information about the instance configuration and describes the procedure for downloading the instance configuration files.

The Resource Locks page

On the **Resource Locks** page, an administrator can view or break resource locks that users have acquired during their Oracle Endeca Workbench session.

A resource corresponds to a page in Oracle Endeca Workbench, such as the **Thesaurus** page, **Rule Manager** page, or a rule group on the **Rule Manager** page.

Related Links

Managing resource locks on page 86
> This section contains information about resource locks and describes the procedure for breaking them.

The User Management page

The **User Management** page is where an administrator adds and removes users and modifies their page access and rule group permissions.

An administrator can configure a user manually in Oracle Endeca Workbench or set up a user through LDAP.

Related Links

Managing users on page 75
> This section introduces user management and details how to add and manage users in Oracle Endeca Workbench.

The Rule Group Permissions page

The **Rule Group Permissions** page is where an administrator controls how users access rule groups and the rules contained in the groups.

Rule group permissions also specify which users participate in the workflow of dynamic business rules. An administrator assigns rule group permissions in one of two ways:

- Assign by rule group on the **Rule Group Permissions** page.
- Assign by user or user group name on the **User Management** page.

Related Links

Assigning rule group permissions on page 82
> This section provides basic information about rule group permissions and describes the procedures for assigning permissions, setting default permissions, and filtering rule group permissions by a user name.

The Reporting page

The **Reporting** page is where you view reporting data for your Endeca application.

Reporting information is especially useful for tuning your application based on actual information from user queries. In addition to viewing a current report, you can also browse historic reports, if your system is configured to display them.

If you need to include or exclude particular reporting information, ask your technical team to modify the report settings file.

Related Links

About reports on page 73
> Reports allow you to look at what has happened on your site over the last day or week.

The Preview App Settings page

The **Preview App Settings** page is where you set up communication between Oracle Endeca Workbench and a preview application via URL Mapping values.

The URLs configured on this page contain variable mappings that instruct Oracle Endeca Workbench about how to build search and navigation URLs for your preview application.

By default, the URL Mapping values are filled in with URL settings for the preview application of the JSP reference implementation. If you do not want to display the preview application, you can clear out these settings.

To enable the display of the preview application for your own application, you can replace the URL Mapping settings with the settings specific for your application.

Related Links

Specifying preview application settings on page 91
> This section provides reference material for the preview application and describes the procedures for provisioning, enabling, and disabling the preview application.

The EAC Settings page

The **EAC Settings** page is where you specify the host and port for the EAC Central Server.

These settings control which machine Oracle Endeca Workbench communicates with when making requests to EAC.

Related Links

Performing system operations with Oracle Endeca Workbench on page 125
> This section contains information and instructions for performing basic system operations such as starting and stopping an EAC script, running and stopping a baseline update, and overriding the update process.

The EAC Administration Console page

The **EAC Admin Console** page provides a graphical representation of an Endeca implementation.

On this page, administrators can do any of the following:

- Establish and modify system provisioning
- Start and stop system components

Related Links

Administering an Endeca application on page 99
> The following sections provide system administrators and application developers with information and instructions for provisioning, administrating, monitoring, and managing an Endeca application.

The Logout pane

The Logout pane is located in the upper right hand corner of the Oracle Endeca Workbench window.

In the Logout pane you can do the following:

- Identify the user that you are logged in as (in this case, the user setup).
- Log out of Oracle Endeca Workbench.
- Access the Oracle Endeca Workbench online help.

Related Links

Logging out of Oracle Endeca Workbench on page 10
> You can log out of Oracle Endeca Workbench manually, or else Oracle Endeca Workbench logs you out automatically if you are inactive.

The Navigation menu

The Navigation menu appears in the left column of the Oracle Endeca Workbench window.

Click a tab to navigate to that page. Your login ID controls which tabs you see.

Chapter 3

Working with dynamic business rules

The following sections provide an introduction to dynamic business rules and explain in-depth how to create, edit, and maintain them.

Basics of dynamic business rules and merchandising

This section details basic business rule concepts as they relate to merchandising and application performance.

About dynamic business rules

A dynamic business rule describes the logic of how to promote records for display to application users.

Dynamic business rules implement merchandising and Content Spotlighting features in Oracle Endeca Guided Search. Merchandising and spotlighting records is a process of identifying and promoting contextually relevant records, based on dynamic business rules, to users as they navigate or search within a data set. The dynamic business rule is the core element of merchandising or spotlighting your records.

Each dynamic business rule consists of:

- One or more triggers that specify when to fire the rule
- A target that indicates which records to promote

Once you create and apply a dynamic business rule, the MDEX Engine compares each query a user makes to each rule to determine if the query triggers the rule. If a user's query or profile triggers a business rule, the MDEX Engine returns the following results:

- Standard record results for the query.
- Promoted records specified by the rule. (This includes records specified by target dimension values and any featured result records that may be specified.)
- Any rule properties specified as key/value pairs in the business rule.

About rule zones, styles and groups

A rule requires an associated zone. Zones ensure that merchandising results always appear on screen. If the first rule in a zone does not display results, the MDEX Engine evaluates the second rule in the zone. If the second rule does not return results, the MDEX Engine evaluates the third rule in the zone and so on.

A rule requires an associated style that describes how to display the results of that rule on screen.

A rule belongs to a rule group. Rule groups have these characteristics:

- By default, there is one rule group in your project.
- If additional rule groups are implemented in your project, then before you can create or modify a rule, you must select the rule group to which the rule belongs.
- The **Rule Manager** page displays the rule groups available for an Endeca-enabled application. Each rule group contains dynamic business rules displayed in a **Rule List**. You can edit rules, create new ones, and set their evaluation priority within the group.
- Rules with a higher priority in the **Rule List** are evaluated before rules that appear lower in the **Rule List**.

Your technical team creates zones, styles, and groups for you using Endeca Developer Studio.

Related Links

> Because dynamic business rules are evaluated when a user makes a query, rules have a noticeable impact on the response time of your Endeca-enabled application.

Merchandising in action

To see how merchandising looks in action, consider this example, based on a sample wine application.

We use this example since its wine dataset comes with your Oracle Endeca Guided Search installation. Feel free to follow along by browsing your reference application.

When a user first opens the wine application, no queries have been made against the data. When a user makes a query that triggers a dynamic business rule, the Endeca MDEX Engine evaluates the rule, checking for records to promote as merchandising records.

These merchandising records constitute a supplemental set of results that the MDEX Engine returns in addition to the regular results of the query.

Typically, the merchandising record results are displayed differently than standard results. The initial set of default merchandising results appears in the Featured Wines area (lower right) like this:

The first step to implement additional merchandising is to create a new dynamic business rule with triggers and targets. The merchandising strategy for this new rule assumes that a buyer interested in white wines is also likely to be interested in highly-rated white wines from Sonoma County.

In this case, the business rule has the following configuration:

- A title called "Sonoma Specials."
- A specified zone and style that dictates how the rule's results display.
- A trigger value that causes the rule to fire when a user navigates to the "White Wines" in the data set.
- A target value of Region > Sonoma County with a "Restrict results to the active Navigation State" designation, to display white wines from Sonoma County.
- Merchandising results that are ordered by a wine's score.

The entry in the **Rules** list for the dynamic business rule looks like this:

The new rule appears in the **Rule List** with an asterisk to indicate it has not been applied yet. The priority of the rule relative to other rules in the **Rule List** may now be modified. Once the **Save Changes** button is clicked, the red asterisk disappears from the **Status** column and a message displays above the **Rule List** to indicate updated rules have been committed. At this point, the dynamic business rule has been successfully applied to the preview application.

Now you can test the rule to see if it promotes the intended records. In the **Preview** pane, navigate to White Wines. In addition to the regular navigation results (33,663 matches for white wines), the records for three highly rated white wines from Sonoma County appear in the lower right area reserved for merchandising results, as shown here:

Related Links

The tasks involved in implementing merchandising require coordination between business users and developers.

You configure new dynamic business rules from the **Rule Manager** page in Oracle Endeca Workbench.

About rule triggers

A trigger is a set of conditions that must exist in a query for a rule to fire.

A dynamic business rule typically has one or more triggers and a target. If a user's query contains a condition that triggers a rule, the MDEX Engine fires the rule and returns a set of records to application users. Each trigger may include dimension values and a set of search terms.

- A rule trigger that is based on dimension values:

  A collection of one or more dimension values or a phrase can trigger a rule if a user's query contains the dimension values. For example, in a wine store, you could set up a rule that is triggered when a user clicks the dimension value Red. If the user clicks White, the MDEX Engine does not fire the rule. If the user clicks Red, the MDEX Engine fires the rule and returns any promoted records. You specify dimension value triggers in the **Triggers** tab.

  Note: A phrase represents terms surrounded in quotes.

- A rule trigger that is based on search terms:

  One or more search terms can trigger a rule if a user's query includes the terms. You specify search terms and the match mode for the search terms in the **Triggers** tab. If you want to specify more than one search term as a phrase, these terms should be surrounded in quotes.

You can apply triggers for your rules globally or depending on where in the application the user is located. For example, you can make a trigger for a rule apply everywhere in the application (global trigger), or only if the user is located at the root location of the application.

Triggers that apply everywhere

By default, a new rule has no trigger locations (no dimension values or search terms) until you add them. You can choose not to add any specific locations and instead allow the rule to trigger at every location in the application. Creating a rule whose trigger applies everywhere is a global trigger. This means that any query an application user makes -- with any search term or any navigation location -- triggers the rule and promotes records.

Triggers that apply only at the root location

You can also create a trigger that fires a rule when a user navigates to the root location of an application. Generally speaking, navigating to the root location is navigating to the home page for a search application. Technically speaking, navigating to the root location for an application is the navigation location where N=0. Such a trigger applies to queries made only from the root. For example, if a user searches with a search term or navigates to other locations from the root, the queries do not trigger the rule.

Multiple triggers in a rule

You can add multiple triggers to your business rule: Adding more than one trigger to a rule is very useful if you want to promote the same records from multiple locations in your application, or if you

want to promote the same records from more than one search term. Each trigger can describe a different location where a user's query can trigger a rule; however, the rule promotes records from a single target location. Each trigger that you create appears in its own row in the **Triggers** section.

This example shows two triggers, each containing one search term. A query containing either "pears" or "apricot" matches one of the triggers and therefore fires the rule:

This example shows two triggers, each containing a different location in the data set. A query to either location "Chardonnay" or "Sauvignon Blanc" triggers the rule:

Trigger interaction in multi-trigger rules

Each trigger can be made up of a set of search terms and navigation locations. For a single trigger to fire a rule, search terms and navigation locations must all be present in a user's query. For example suppose Trigger A is made of two search criteria -- a search term and a navigation location. The search term is "mango" and the location is "Wine Type > White > Chardonnay". An application user's query must contain both the term "mango" and the location Chardonnay to trigger the rule.

If you have more than one trigger associated with a rule, a query that satisfies any single trigger is sufficient to fire the rule. For example, if a rule has two triggers, Trigger A and Trigger B, a query that matches either Trigger A or Trigger B fires the rule. In short, a trigger fires if all of its search terms and locations match a query; while the rule fires if any of its triggers fire. Also see the procedures regarding adding triggers for additional examples of these interactions.

Related Links

> *Triggering a rule by allowing any dimension value* on page 32
> > You can trigger a rule to activate for any dimension value.

> *Triggering a rule by adding only the root dimension value* on page 32
> > Rules can be configured to trigger only at the root dimension value.

> *Triggering a rule based on search terms or dimension values* on page 33
> > You add triggers to a rule (such as search term and dimension values) on the **Triggers** tab.

About rule targets

A target is a collection of one or more dimension values and one or more featured results that tells the MDEX engine which records you want to promote when your rule is evaluated for firing.

You specify a target in the **Target** tab of the **Edit Rule** page.

When you create a new dynamic business rule, you can restrict records that are promoted in the target based on the user's navigation location:

- If you select **Restrict results to the active Navigation State**, the rule uses a combination of the specified target and a user's current navigation location to determine which records display. For example, if you want to promote dynamic results for wine Best Sellers, the record results vary if a user's navigation location is Country > France rather than Country > Australia. Records for Best Sellers from France display rather than Best Sellers from Australia.
- If you do not select **Restrict results to the active Navigation State**, the rule uses only the specified target to determine which records to promote. The user's current navigation location is ignored. For example, suppose you are again promoting wine Best Sellers. The results consist of the same set of best seller wines no matter whether the user has searched for a term, navigated to White > Chardonnay, or navigated to 1998 > Italy > Rating 94-90.

Related Links

Setting a rule's targets on page 34
> Setting the rule's targets is part of configuring a rule. You can specify any number of featured records or dimension values for a rule's target.

About rule properties

Rule properties let you associate additional information, such as images or banners with a rule. Rule properties can be based on a template.

Dynamic business rules can have associated rule properties. Rule properties are key/value pairs that are passed back to the application along with query results. They allow you to associate supplementary information, such as images or banners, with a rule. When a user triggers the rule, the application returns these properties in addition to any relevant record pages. You add rule properties on the **Advanced** tab of the **Edit Rule** page.

In some cases, pipeline developers working in Developer Studio create property templates that help ensure consistent property usage on shared projects. A property template establishes a key for the rule property, leaving you to specify the value. Property templates help you avoid common project-sharing mistakes such as misspelling or otherwise modifying existing property keys. For example, a pipeline developer can use Developer Studio to add a property template called WeeklyBannerAd and then make the project available to you in Oracle Endeca Workbench. Once the project is loaded in Oracle Endeca Workbench, a property template with a populated key called WeeklyBannerAd and an empty value appears in the **Rule Properties** list. You only need to type in the property value. Because rule properties and property templates are established on a per-style basis in Developer Studio, your Oracle Endeca Workbench rule property display may vary for different styles in your application.

The images below illustrate the four possible configurations:

- You do not have the ability to add rule properties:

- You can add only template-based properties. That is, the key is already provided, and you add the value:

- You can add only custom properties. In this case, you provide both the key and the value:

- Your can add custom properties, but your application has also provided you with some property templates:

Related Links

Adding rule properties on page 37
> Rule properties are key/value pairs that are passed back to the application along with query results.

Symbols used in the Rule List on page 26
> Icons in the **Rule List** indicate if a rule is valid, not deployed, dynamic, static, has a trigger, has record(s).

Status messages for dynamic business rules on page 41
> When you preview rules, the **Status** column in the **Rule List** displays messages that explain why a particular rule did not fire.

Symbols used in the Rule List

Icons in the **Rule List** indicate if a rule is valid, not deployed, dynamic, static, has a trigger, has record(s).

The following symbols are used to define the status of rules in the **Rule List** on the **Rule Manager** page.

Symbol	Description
	The rule is not valid.
	The rule has not been deployed.
	The rule is evaluated at any state that contains these criteria.
	The rule is only evaluated at this specific location.

Symbol	Description
	The rule has "Restrict results to the active Navigation State" selected.
	The rule does not have "Restrict results to the active Navigation State" selected.
	This rule has an associated time trigger.
	The rule has one or more featured records.

Related Links

Status messages for dynamic business rules on page 41
> When you preview rules, the **Status** column in the **Rule List** displays messages that explain why a particular rule did not fire.

Tips about using dynamic business rules

This topic provides a list of tips to help you tune your dynamic business rules when implementing dynamic merchandising or Content Spotlighting features, including how to incrementally implement dynamic business rules, improve performance, promote a specific record, display editorial content with your rule, and apply relevance ranking to your rules.

In some cases, you may require the assistance of your technical team to implement these tips in your application.

Incremental implementation

Merchandising is a complex feature to implement, and the best approach for developing your dynamic business rules is to adopt an incremental perspective as you and your technical team coordinate tasks. Begin with a single, simple business rule to allow you and your technical team to become familiar with the core components of merchandising. Later, you can add more advanced elements, along with additional rules, rule groups, zones, and styles. As you build the complexity of your merchandising, you will have to coordinate the tasks your technical team performs in Developer Studio (for example, zone and style definitions) with the business rule work that you do in Oracle Endeca Workbench.

It is also helpful to define the purpose of each dynamic business rule in the abstract (before implementing it in Oracle Endeca Workbench) so that everyone knows what to expect when the rule is implemented. If rules are only loosely defined, they may have unexpected side effects when implemented.

Promoting a specific record

To promote a specific record, create a dynamic business rule whose target is a specific featured result. You can add any number of featured results to a rule. Using Developer Studio, your technical team can limit the number of featured results that are promoted and displayed for a style.

Displaying editorial content

To implement dynamic business rules that return editorial content in query results, add key/value properties to a rule's target. Editorial content is supplementary information that accompanies the record results. For example, you may want to display a banner advertisement or an additional text description to a user along with a record. To display a banner ad, you could add a property with a key called "BannerURL" and a value that specifies the URL path to the image file for the banner.

Controlling maximum records returned

To prevent performance problems, you can control the maximum number of records that a dynamic business rule may return by setting a boundary value for the style associated with a rule. Your technical team sets this value when defining a style in Developer Studio. The value should not be an unnecessarily large number to prevent dynamic business rules from returning a large set of matching records, potentially overloading the system. For example, if the style uses a value such as 1000, then up to 1,000 records could be returned with each query, potentially causing significant performance degradation.

Relevance ranking

In some cases, you may want relevance ranking applied to a dynamic business rule's results for keyword searches. Relevance ranking controls the order in which the MDEX Engine returns query results to a user. There are many ways in which you can specify what makes a result more relevant. The MDEX Engine returns results that are evaluated to be more relevant before results that are less relevant. For example, one approach is to rank more relevant results by the number of keywords in a query that match in a record. Records with a higher number of matching keywords display before records with a lower number of matching search keywords.

In a wine example, suppose a user enters a query that contains three keywords "Mondavi reserve merlot." The MDEX Engine ranks results that match all three keywords (Mondavi, reserve, and merlot) at the top of the results list. After those results, the MDEX Engine ranks results that match two of the keywords (Mondavi and merlot). And lastly, the MDEX Engine ranks results that match one of the keywords (merlot).

Relevance ranking is set up by the technical team using Endeca Developer Studio.

How rules affect application performance

Because dynamic business rules are evaluated when a user makes a query, rules have a noticeable impact on the response time of your Endeca-enabled application.

Consider the following actions when evaluating the application performance in relation to dynamic business rules. You may want to:

- Monitor and limit the number of rules that would be evaluated for each query. The larger the number of rules, the longer the evaluation time.
- Edit rules to ensure that all of them have explicit triggers. Dynamic business rules without explicit triggers can adversely affect performance, because they are evaluated for every user query.
- Control the maximum number of records returned for a user query. Rules that return a large number of matching records slow down the response time of your application. When defining a style in Developer Studio, your technical team can set a value that controls the maximum number of records that can be returned.

Dynamic business rules and the Aggregated MDEX Engine

This topic applies only to users of the Aggregated MDEX Engine (Agraph).

If you perform an update for dynamic business rules on Dgraphs in Developer Studio or Oracle Endeca Workbench, and a request comes to the Agraph while the update is in progress, the Agraph will issue a fatal error similar to the following:

```
[Thu Mar 24 16:26:29 2005] [Fatal] (merchbinsorter.cpp::276) - Dgraph 1 has
fewer rules fired.
```

As long as the Agraph is running under the Oracle Endeca Application Controller, the EAC will automatically restart it. No data is lost. However, end-users will not receive a response to requests made during this short time.

This problem has little overall impact on the system, since business rule updates are quick and infrequent. Nonetheless, Oracle recommends that you shut down the Agraph during business rule updates.

Related Links

> *About dynamic business rules* on page 19
>> A dynamic business rule describes the logic of how to promote records for display to application users.

Creating dynamic business rules

This section describes the procedures for configuring and implementing dynamic business rules.

Related Links

> *Working with dynamic business rules* on page 19
>> The following sections provide an introduction to dynamic business rules and explain in-depth how to create, edit, and maintain them.

> *Basics of dynamic business rules and merchandising* on page 19
>> This section details basic business rule concepts as they relate to merchandising and application performance.

> *Configuring a new dynamic business rule* on page 30
>> You configure new dynamic business rules from the **Rule Manager** page in Oracle Endeca Workbench.

> *Implementing merchandising with business rules* on page 31
>> The tasks involved in implementing merchandising require coordination between business users and developers.

> *About adding triggers to a rule* on page 32
>> You can use the **Triggers** tab to add triggers (such as search terms and dimension values) to a rule.

> *Setting a rule's targets* on page 34
>> Setting the rule's targets is part of configuring a rule. You can specify any number of featured records or dimension values for a rule's target.

> *Specifying a time to trigger a rule* on page 35
>> You can specify a time to associate with a dynamic business rule to control the point in time at which a rule can fire and the point in time after which it cannot fire.

> *Specifying who sees the results of a rule* on page 36
>> You can specify who sees the results of a rule by associating a previously created application-user profile with your rule.

> *Specifying how promoted results are ordered* on page 36
>> In the **How are promoted results ordered?** section of the **Advanced** tab, you can tell the MDEX Engine to order the results for display.

> *Adding rule properties* on page 37
>> Rule properties are key/value pairs that are passed back to the application along with query results.

Configuring a new dynamic business rule

You configure new dynamic business rules from the **Rule Manager** page in Oracle Endeca Workbench.

To create a new business rule:

1. On the **Rule Manager** page, do one of the following:

   - If your application uses multiple rule groups, select the rule group in which you want to place the new rule.
   - If your application uses the single default rule group, skip to step 2.

2. In the **Rule List**, do one of the following:

   - Click **Add Rule** to create a new rule.
   - Click the **Copy** icon associated with an existing rule that you want to copy and modify. Copying a rule provides a convenient starting point to create a similar rule.

3. On the **General** tab, do the following:

   a) Type a name for the new rule.
   b) Select a zone and a style from the respective drop-down lists. Zones and styles are defined in Developer Studio. Contact your pipeline developer for information about the zones and styles available to your application.

4. Set the triggers for your rule. Click the **Triggers** tab to add search terms and dimension values that will trigger your rule.

5. Set the targets for your rule. Click the **Target** tab to add the targets for your rule.

6. Specify the time when you want your rule to be triggered. Click the **When** tab.

7. Specify who sees the results of the rule. Click the **Who** tab.

8. On the **Advanced** tab, modify the result order and add rule properties.

9. Click **OK** to add the rule to the **Rule List**.

10. To activate the rule, click the **Active** checkbox for the rule.

11. Click **Save Changes**.

> **Note:** You must activate a rule for it to fire in the preview application. (Optionally, you can create and save changes to a rule without activating it. In that case, the rule is inactive and will not fire in response to user queries.)

Related Links

Implementing merchandising with business rules on page 31
> The tasks involved in implementing merchandising require coordination between business users and developers.

About dynamic business rules on page 19
> A dynamic business rule describes the logic of how to promote records for display to application users.

Tips about using dynamic business rules on page 27
> This topic provides a list of tips to help you tune your dynamic business rules when implementing dynamic merchandising or Content Spotlighting features, including how to incrementally implement dynamic business rules, improve performance, promote a specific record, display editorial content with your rule, and apply relevance ranking to your rules.

Implementing merchandising with business rules

The tasks involved in implementing merchandising require coordination between business users and developers.

Before you implement merchandising, coordinate between you and your technical team:

- Do you need different groups of rules? Decide how many types of rules you need, for example, based on product categories. The technical team creates groups of rules.
- Where do you want to display the rules? The technical team defines the rule zones.
- What styles for rules will you be using? Decide which styles will be used for rules and coordinate this with the technical team.
- Plan to implement merchandising incrementally, in steps.

To implement merchandising with business rules:

1. Create zones, styles and rule groups with Endeca Developer Studio (performed by the technical team).
2. Create dynamic business rules with Oracle Endeca Workbench (performed by business users).
3. Apply and test the rules in your preview application with Oracle Endeca Workbench (performed by business users).

Example of how a business rule works

This example shows how a dynamic business rule works. This rule promotes the best-selling jeans when a user searches for or navigates to "jeans." Note that the following steps happen simultaneously in the application:

- A user makes a query for the term "jeans." The MDEX Engine returns the standard record results for jeans.
- Because the "Best Selling" business rule has a trigger of "jeans," the user's query triggers the rule. Therefore, in addition to the standard record results, the MDEX Engine also returns merchandising records for best-selling jeans.
- As part of the target results for the rule, there is also a rule property that displays a banner advertisement for ABC Jeans Company. If there is a large number of merchandising records, there may have a link reading "see all," "see more," or "see more ABC jeans."
- Clicking the "see all" link takes the user from seeing a subset of the best-selling jeans (and the standard jeans results), to seeing all the best-selling jeans.

After you implement one rule, test it, evaluate and proceed to implement other rules.

Related Links

Configuring a new dynamic business rule on page 30
> You configure new dynamic business rules from the **Rule Manager** page in Oracle Endeca Workbench.

About dynamic business rules on page 19
> A dynamic business rule describes the logic of how to promote records for display to application users.

Tips about using dynamic business rules on page 27
> This topic provides a list of tips to help you tune your dynamic business rules when implementing dynamic merchandising or Content Spotlighting features, including how to incrementally implement dynamic business rules, improve performance, promote a specific record, display editorial content with your rule, and apply relevance ranking to your rules.

Configuring a new dynamic business rule on page 30

You configure new dynamic business rules from the **Rule Manager** page in Oracle Endeca Workbench.

About dynamic business rules on page 19
A dynamic business rule describes the logic of how to promote records for display to application users.

About adding triggers to a rule

You can use the **Triggers** tab to add triggers (such as search terms and dimension values) to a rule.

Adding search terms to a trigger is optional. You can create a trigger to fire a rule at any of the following locations:

- Any dimension value (no location specified) — This is useful for a generic rule that you want to trigger if no rules with more specific triggers apply.
- Root dimension value — This is typically useful for the home page of your site.
- Any combination of search terms and dimension values — This type of trigger is used for rules that you want to show on specific pages.

If desired, you can set a time to trigger a rule, or select a user profile to control who sees the results of a rule. These steps typically occur after you specify the rule's targets.

Triggering a rule by allowing any dimension value

You can trigger a rule to activate for any dimension value.

To configure a rule to trigger at any dimension value:

1. Select the **Triggers** tab.
2. Leave the default settings in place under **Search Term** and **Navigation State**. In other words, do not specify any search terms or navigation states.
3. In the **Triggers** box on the right side of the page, make sure that "Applies only at this exact location" is not selected.
4. To proceed, specify the rule's targets.

Related Links

About rule triggers on page 23
A trigger is a set of conditions that must exist in a query for a rule to fire.

Triggering a rule by adding only the root dimension value

Rules can be configured to trigger only at the root dimension value.

To configure a rule to trigger only at the root dimension value:

1. Select the **Triggers** tab.
2. Leave the default settings in place under **Search Term** and **Navigation State**. In other words, do not specify any search terms or navigation states.
3. In the **Triggers** box on the right side of the page, select "Applies only at this exact location."
4. To proceed, specify the rule's targets.

Related Links

About rule triggers on page 23

A trigger is a set of conditions that must exist in a query for a rule to fire.

Triggering a rule based on search terms or dimension values

You add triggers to a rule (such as search term and dimension values) on the **Triggers** tab.

Search terms and dimension values interact when they trigger rules. If a trigger is comprised of a set of search terms and navigation locations, the search terms and the navigation locations must all be present in a query for it to fire.

For example, suppose Trigger A is made up of two search criteria: a search term, and a navigation location. The search term is "mango" and the location is "Wine Type > White > Chardonnay". To trigger this rule, a user query must contain both the term "mango" and the location Chardonnay.

To configure a rule to trigger based on a combination of search terms and dimension values:

1. Select the **Triggers** tab.
2. Type a search term in the **Search Term** box.
3. Select a match mode from the list to indicate how a search trigger must be matched from a user's record search query:

   • In **Match Phrase** mode (the default), all of the words of the trigger must match in the same order in the user's query for the rule to fire.
   • In **Match All** mode, all of the words of the trigger must match (without regard for order in the user's query) for the rule to fire.
   • In **Match Exact** mode, all the words of the trigger must exactly match a user's query for the rule to fire. Unlike the other two modes, a user's query must exactly match the trigger in the number of words and cannot be a super set of the triggers.
   • If you do not specify any search terms, the rule does not need any specific terms to qualify the rule for evaluation, but is still limited by other parameters of the rule.

4. Click **Add.**
   A search term is added to the rule's trigger.
5. To add dimension values to a trigger, use the dimension tree, under **Navigation State**, to locate a dimension value.

   If the dimension tree contains more than 100 dimension values, click "next 100" to scroll through the dimensions. Note that visible dimensions are shown in black, while hidden dimensions are shown in grey.
6. Click **Add.**
   A dimension value is added to a rule's trigger.
7. Click **Add Trigger**.
   Oracle Endeca Workbench appends any combination of search terms and dimension values together to create a trigger.
8. Select a location option for where the trigger applies:

   • Select **Applies only at this exact location** to trigger a rule only at the exact location you specified. If a user submits a query from any other location, the trigger does not fire the rule.
   • De-select this option to trigger the rule at any location in the data set that matches the trigger.

9. To add any number of additional triggers, repeat steps 2-8.
10. To proceed, specify the rule's targets.

Related Links

On the **Triggers** tab, you can specify different match modes for matching the search term that will be used to trigger your business rule.

A trigger is a set of conditions that must exist in a query for a rule to fire.

About match mode for search terms that trigger rules

On the **Triggers** tab, you can specify different match modes for matching the search term that will be used to trigger your business rule.

A trigger can be made up of any combination of dimension values and keywords or phrases that identify when the MDEX Engine fires a dynamic business rule.

Note: A phrase represents terms surrounded in quotes.

There are three match modes:

- In **Match Phrase** mode (the default), all of the words of the trigger must match in the same order in the user's query for the rule to fire.
- In **Match All** mode, all of the words of the trigger must match (without regard for order in the user's query) for the rule to fire.
- In **Match Exact** mode, all the words of the trigger must exactly match a user's query for the redirect to fire. Unlike the other two modes, a user's query must exactly match the trigger in the number of words and cannot be a super set of the keywords.

Note: All modes allow the rule to fire if the spelling auto-correction and auto-phrasing, and/or stemming corrections of a user's query match the keywords or the phrase.

Related Links

You add triggers to a rule (such as search term and dimension values) on the **Triggers** tab.

Setting a rule's targets

Setting the rule's targets is part of configuring a rule. You can specify any number of featured records or dimension values for a rule's target.

You set a rule's targets on the **Target** tab of the **Edit Rule** page.

However, unlike a trigger, a target cannot contain multiple targets in the same way a trigger can have multiple triggers. This means if you click **Set Target** twice, you overwrite the first target with the value of the second target.

To set the target for a rule:

1. Click the **Target** tab of the **Edit Rule** page.
2. To add a featured record, either type in the record's ID and click **Add** or navigate to the desired record page in the preview application, and then click **Set from Preview App**.
3. To add dimension values to a target, use the dimension tree, under **Navigation State**, to locate a dimension value.
4. Click **Add**.
5. To include additional dimension values, repeat steps 3-4. The rule's target is the combination of these featured records and dimension values.

6. Click **Set Target**.

7. On the right side of the **Target** tab, enable or disable whether the rule restricts the promoted results based on the active navigation state:

    *   If you select **Restrict results to the active Navigation State**, the rule uses a combination of the specified target values and a user's current navigation state to determine which record pages display. For example, if you run a wine shop Web site and are promoting wine Best Sellers of 2003 (the target), the record page results vary if a user's navigation state is Country > France rather than Country > Australia. In the former case, record pages of Best Sellers from France display; in the latter, Best Sellers from Australia.

    *   If you do not select **Restrict results to the active Navigation State**, the rule uses only the specified target values to determine which items display. The user's current navigation state is ignored. To continue the wine site example, suppose you are promoting Best Sellers of 2003, the record page results display the same set of bestseller wines no matter what the user's navigation state is.

8. To proceed, select the **When** tab.

Related Links

> *Configuring a new dynamic business rule* on page 30
>> You configure new dynamic business rules from the **Rule Manager** page in Oracle Endeca Workbench.

> *About rule targets* on page 24
>> A target is a collection of one or more dimension values and one or more featured results that tells the MDEX engine which records you want to promote when your rule is evaluated for firing.

Specifying a time to trigger a rule

You can specify a time to associate with a dynamic business rule to control the point in time at which a rule can fire and the point in time after which it cannot fire.

You specify time values to associate with a rule in the **When** tab of the **Edit Rule** page. You can configure a rule to trigger within a specified range of dates.

To specify a time trigger for a rule:

1. Select the **When** tab.

2. In the **Activate this rule only during a specific time period?** line, click **Yes.**

3. In the **When should this rule start being active?** section, select a start date and start time for the rule.

4. In the right pane, in the **Does this rule expire?** line, click **Yes** or **No**. If you click **No**, the rule never expires; it can be active during an indefinite period of time.

5. If you chose **Yes**, select an expiration date and time.

6. To proceed with configuring your business rule, select the **Who** tab.

> **Example**
>
> For example, if a wine store wanted to promote the release of Beaujolais Nouveau on November 18, you could create a rule that would start being active after that date and then expire on January 1st.

Related Links

> A trigger is a set of conditions that must exist in a query for a rule to fire.

> When you preview rules, the **Status** column in the **Rule List** displays messages that explain why a particular rule did not fire.

Specifying who sees the results of a rule

You can specify who sees the results of a rule by associating a previously created application-user profile with your rule.

Before you can do specify who sees the results of a rule, your technical team must create application-user profiles in Developer Studio and add the supporting code to your Web application. In Oracle Endeca Workbench, you select the application-user profile and associate it with the rule.

Specifying or restricting who sees the results of your rule is part of creating a new dynamic business rule, or editing an existing rule.

You can restrict who sees the results of a rule by associating a previously created application-user profile with your dynamic business rule. Application-user profiles enable Endeca applications to display content to an end user based on that user's identity. An application-user profile is essentially a type of trigger for a rule.

To associate a rule with an application-user profile:

1. Select the **Who** tab of the **Edit Rule** page.
2. Select a user profile to associate with the dynamic business rule. Each business rule is allowed to have only one user profile associated with it.
3. To continue configuring your dynamic business rule, select the **Advanced** tab.

> For example, red_wine_fan and premium_wine_buyer are possible user profiles. If a user with the profile premium_wine_buyer submits a query, the profile triggers a rule that promotes records for expensive vintage Bordeaux wines.

Related Links

> A dynamic business rule describes the logic of how to promote records for display to application users.

> Icons in the **Rule List** indicate if a rule is valid, not deployed, dynamic, static, has a trigger, has record(s).

> When you preview rules, the **Status** column in the **Rule List** displays messages that explain why a particular rule did not fire.

Specifying how promoted results are ordered

In the **How are promoted results ordered?** section of the **Advanced** tab, you can tell the MDEX Engine to order the results for display.

For example, the promoted results can be displayed in a descending or ascending order, based on one of the properties or dimension values that you select. If you do not specify the order for displaying results in this section, the results will be displayed in the default order that is set in the Endeca Developer Studio.

Specifying how the promoted results are ordered is part of configuring a dynamic business rule.

1. Select the **Advanced** tab of the **Edit Rule** page.
2. In the **How are promoted results ordered?** section, choose a property or dimension value from the **Sort By** list. For example, you may want to sort results by the Name property.
3. Check whether you want the results sorted in an ascending order. If unchecked, the result set is sorted in a descending order.
4. Click **OK** if you are finished configuring the dynamic business rule.
5. Click **Save Changes** on the **Rule List** page.
6. Click **Save.**

Related Links

> *About dynamic business rules* on page 19
>> A dynamic business rule describes the logic of how to promote records for display to application users.

> *Symbols used in the Rule List* on page 26
>> Icons in the **Rule List** indicate if a rule is valid, not deployed, dynamic, static, has a trigger, has record(s).

> *Status messages for dynamic business rules* on page 41
>> When you preview rules, the **Status** column in the **Rule List** displays messages that explain why a particular rule did not fire.

Adding rule properties

Rule properties are key/value pairs that are passed back to the application along with query results.

Dynamic business rules can have associated rule properties. They allow you to associate supplementary information, such as images or banners, with a rule. When a user triggers the rule, the application returns these properties in addition to any relevant record pages. You can associate template-based or custom properties with a rule. For example, you can associate an image or a banner with your rule.

Rule properties and property templates are established on a per-style basis in Developer Studio, therefore your Oracle Endeca Workbench rule property display may vary for different styles in your application. Your view of the **Rule Properties** pane depends upon the configuration of style you have selected for the rule. For each style, the technical team at your site specified the set of template-based properties you can associate with that rule, as well as whether you can add your own custom properties.

To add properties for a rule:

1. In the **Rule Manager** page, select **Rule List** and select a rule for which you want to add properties.
2. Click the **Advanced** tab.
   The **Rule Properties** pane displays.
3. Depending on how the style is configured for this rule, do the following to add properties to the rule:

Option	Description
If all the fields are grayed out	You cannot add rule properties to this rule, as its properties are specified by the technical team.

Option	Description
If the Key field is grayed out, but the URL value and Banner text value fields are enabled	Add the template-based properties to the **URL** and **Banner** text windows, based on the key that is configured in Developer Studio by the technical team.
If the Key field is enabled, and the URL value and Banner text value fields are enabled	Add custom properties to your rule, by providing both the key and its values for the URL and the banner text.
If the Key field is enabled for some values, and grayed out for other values	Add either custom properties to your rule by providing both the key and its values, or, optionally, add the **URL** value and the **Banner** text to your rule based on a template (key) specified by the technical team.

4. Click **OK.**
5. Click **Save Changes** on the **Rule List** page.

Related Links

About rule properties on page 25
> Rule properties let you associate additional information, such as images or banners with a rule. Rule properties can be based on a template.

Symbols used in the Rule List on page 26
> Icons in the **Rule List** indicate if a rule is valid, not deployed, dynamic, static, has a trigger, has record(s).

Status messages for dynamic business rules on page 41
> When you preview rules, the **Status** column in the **Rule List** displays messages that explain why a particular rule did not fire.

Previewing dynamic business rules

This section introduces the preview application and auditing features to be used for testing, debugging, and previewing rules.

Related Links

Working with dynamic business rules on page 19
> The following sections provide an introduction to dynamic business rules and explain in-depth how to create, edit, and maintain them.

Basics of dynamic business rules and merchandising on page 19
> This section details basic business rule concepts as they relate to merchandising and application performance.

About the preview application on page 39
> The Endeca-enabled application that appears in the **Preview** pane of the **Rule Manager** page is called the preview application.

Testing dynamic business rules by using a preview application on page 39
> Oracle Endeca Workbench lets you preview each dynamic business rule in a rule group.

Previewing rules on page 40
> Users who have Approve, Edit, or View permissions can preview rules.

Status messages for dynamic business rules on page 41

When you preview rules, the **Status** column in the **Rule List** displays messages that explain why a particular rule did not fire.

About the preview application

The Endeca-enabled application that appears in the **Preview** pane of the **Rule Manager** page is called the preview application.

You use the preview application to navigate to or search for specific locations in your data that then become the basis for dynamic business rules.

The preview application for the reference implementation appears in the **Preview** pane by default, when you first open your application in Oracle Endeca Workbench. If you do not want the preview application to display, for example in cases when you did not set up the preview application for your own application, you can delete the entries for the **URL Mapping** fields in the **Preview App Settings** page. In this case, the preview application will not display, and all options that let you preview your rules will not display. To enable the display of the preview application, first set up your preview application and then enter the new **URL Mapping** values in the **Preview App Settings** page.

Related Links

Testing dynamic business rules by using a preview application on page 39
  Oracle Endeca Workbench lets you preview each dynamic business rule in a rule group.

Previewing rules on page 40
  Users who have Approve, Edit, or View permissions can preview rules.

Testing dynamic business rules by using a preview application

Oracle Endeca Workbench lets you preview each dynamic business rule in a rule group.

A rule preview tells you why each rule fires or does not fire when you either click a trigger link or search and navigate in the preview application. Use a rule preview to test rules in your application and to better understand how rules behave.

Querying a location in the data set is made simple by the link in the **Trigger** column. This link provides a testing convenience to trigger the rule. Clicking the link displays the trigger's navigation state in the preview application.

To test dynamic business rules with the preview application:

1. Ensure that the preview application has all four **URL Mapping** values specified in order for it to display. By default, Oracle Endeca Workbench contains these values and displays the preview application. However, if you remove the values for **URL Mapping** in the **Preview App Settings** page, the preview application does not interact with the **Rule Manager** page.
2. For each rule, ask an administrator to assign permission settings to the rule group (Approve, Edit or View).
3. Select **Preview** for each rule for each rule that you want to preview.
4. Specify the preview time. You can accept the current time, or you can specify a time in the future. Specifying a preview time lets you preview the results of the rules as if it were the preview time, rather than the time indicated by the system clock for the MDEX Engine.
5. To view the preview results, in the **Rule List** table, click the rule trigger and then click the **Preview** button.

A preview example

To illustrate previewing, here is an example that uses the sample wine application. If you want to know which rules fire when you navigate to Wine Type > Red and why the others do not fire, in the **Rule List** table, click the trigger Wine Type > Red and click **Preview**. The preview results display as shown:

DELETE	STATUS	NAME	MODIFIED	TRIGGER	TARGET
☒	Fired	Recommended Merlots	6/3/2008	Wine Type > Red	Wine Type > Red > Merlot, Designation > Highly Recommended
☒	Zone full	Recommended Pinot Noirs	6/3/2008	Wine Type > Red	Wine Type > Red > Pinot Noir, Designation > Highly Recommended
☒	Not considered	Recommended Chardonnays	5/28/2008	Wine Type > White	Wine Type > White > Chardonnay, Designation > Highly Recommended
☒	Fired	Best Buys	5/28/2008	(No location specified - this rule applies everywhere)	Designation > Best Buy
☒	Fired	Highly Recommended	5/28/2008	(No location specified - this rule applies everywhere)	Designation > Highly Recommended

The **Status** column indicates that three rules fired. Two rules fired because they apply everywhere. The "Recommended Merlots" rule fired because the user clicked the trigger Wine Type > Red. Note however that the "Recommended Pinot Noirs" rule did not fire with the trigger Wine Type > Red. The zone configuration allows a maximum of three rules to produce merchandising results; therefore, the "Recommended Pinot Noirs" rule indicates that the zone is full. Rules with a trigger that is not in the navigation state, such as "Wine Type > White," do not fire.

Examine the rows in the **Preview** and the **Status** column. The **Status** indicates why a rule does or does not fire.

Related Links

> *About the preview application* on page 39
> > The Endeca-enabled application that appears in the **Preview** pane of the **Rule Manager** page is called the preview application.

> *Previewing rules* on page 40
> > Users who have Approve, Edit, or View permissions can preview rules.

Previewing rules

Users who have Approve, Edit, or View permissions can preview rules.

While you are developing dynamic business rules against your preview application, it is important to test the rules to ensure they perform the task you intended. You can test rules using the preview feature available on either the **Rules** tab or the **Requests** tab of the **Rule Manager**.

Oracle Endeca Workbench previews all rules from the application's home page. The rules on the **Rules** tab and the **Requests** tab display with color coding and additional status information (fired, not fired, etc.) as you search and navigate in the preview application.

1. On the **Rule Manager** page, select a rule group if you have not already.
2. Check **Preview** for each rule you want to preview.
3. Click the **Preview** button.
   Oracle Endeca Workbench is now in preview mode.
4. Specify a preview time by doing one of the following:

- Accept the current time of the MDEX Engine as the preview time. (The current time is defined by the system clock of the host running the MDEX Engine for the preview application.)
- Click the **Specify date** checkbox to enable the date/time selector and then specify date and time values. Using the calendar populates the date value.

5. To preview a specific rule, click a trigger value for a rule in the **Trigger** column. You can also search or navigate to any location in the application in order to preview which rules trigger.

6. Check the portion of your preview application reserved for promoted results to see if the intended target records appear. (Oracle Endeca Workbench immediately refreshes the promoted results as you search and navigate in the preview application.)

7. After you are finished viewing the preview application, click **Stop Preview**.

8. Edit the rule if necessary, and repeat the steps above to achieve the intended results. In some cases, you may need to have your technical team modify zones, styles, or rule groups in Developer Studio.

✏️ **Note:**

- In some cases, the status information from previewing your rules may not match the merchandising results in your preview application. This apparent mismatch typically occurs when your technical team sets up your application to modify the merchandising results from the MDEX Engine before the results are displayed in the preview application. For more information, contact your technical team.
- Although you see previewing results for only the rule group you select, Oracle Endeca Workbench previews all rules in the application. This means that other rule groups being previewed may affect the results of rules in the rule group you are viewing. You can minimize any confusion that may result from this interaction by previewing all rule groups at once and examining the results for the whole application. You do this by selecting **All Groups** on the **Rule Manager** page, choosing the appropriate navigation state, and then selecting **Preview**. Even in the **All Groups** page, you can only see groups if you have at least View permissions.

Related Links

About the preview application on page 39
> The Endeca-enabled application that appears in the **Preview** pane of the **Rule Manager** page is called the preview application.

Testing dynamic business rules by using a preview application on page 39
> Oracle Endeca Workbench lets you preview each dynamic business rule in a rule group.

Status messages for dynamic business rules

When you preview rules, the **Status** column in the **Rule List** displays messages that explain why a particular rule did not fire.

You use a rule preview to test your rules, and see if they fired or not. This table lists the **Status** messages and their descriptions.

Status Message	Status Description
Fired	The rule fired based on the user's navigation location or search term.
Trigger not met	The rule did not fire based on the user's navigation location or search term.
Navigation trigger not satisfied	This message is similar to "Trigger not met" but it is more specific: the trigger is a navigation location in the data set.

Status Message	Status Description
Search trigger not satisfied	This message is similar to "Trigger not met" but it is more specific: the trigger is a search term.
Not considered	The message is a generic description for any rule whose trigger does not apply. This message also describes rules that do not have "Preview" selected.
Zone full	The rule was evaluated but did not fire because the zone's rule suppression threshold was met by other rules that fired first. For example, if there are ten rules assigned to a zone and the zone's rule suppression threshold is set to two, only the first two rules that fire can promote results. When the remaining rules are considered, the zone is full. In such situations, a rule's priority rank in the rule list is important. Your technical team can modify a zone's threshold value using Developer Studio.
Rule not valid for search	The rule is not valid because its zone, and all the rules in the zone, are not enabled for search. Your technical team can modify this setting using Developer Studio.
Invalid navigation state	The combination of the rule's trigger and target values did not produce any spotlighting results.
Empty navigation state	This message is similar to "Invalid navigation state." The combination of the rule's trigger and target values did not produce any spotlighting results.
Insufficient records	The rule did not fire because it does not produce the minimum number of records necessary for display as defined for the rule's style. Your technical team can modify this setting using Developer Studio.
Insufficient unique records	This message is similar to "Insufficient records". The rule did not fire because it does not produce the minimum number of unique records necessary for display as defined for the zone. Your technical team can modify this setting using Developer Studio.
Empty results	The rule did not produce spotlighting results. This can occur when the zone for a rule requires unique records and those records have already been promoted as part of another zone's spotlighting results.

Related Links

> Icons in the **Rule List** indicate if a rule is valid, not deployed, dynamic, static, has a trigger, has record(s).

> A user with Approve permissions can activate or deactivate a rule.

Managing the workflow of dynamic business rules

This sections defines the user permission levels, describes their respective responsibilities, and details the procedures for each permission level for activating and deactivating rules.

Related Links

The following sections provide an introduction to dynamic business rules and explain in-depth how to create, edit, and maintain them.

Activating or deactivating a business rule

A user with Approve permissions can activate or deactivate a rule.

You activate a rule in order for it to fire in the preview application. You deactivate a rule that should no longer fire in the preview application.

To activate or deactivate a business rule:

1. On the **Rule Manager** page, select the rule group that contains a rule you want to activate or deactivate. (If you do not use rule groups, see step 2 or step 3).
   The **Rule List** page displays.
2. To activate a rule, on the **Rule List** page, check the **Active** checkbox for a rule.
   The rule **State** changes to Active.
3. To deactivate a rule, on the **Rule List** page, uncheck the **Active** checkbox for a rule.
   The rule **State** changes to Inactive.
4. Click **Save Changes**. Rules with a **State** marked Active do not trigger until you save changes.

Related Links

>   When you preview rules, the **Status** column in the **Rule List** displays messages that explain why a particular rule did not fire.

Requesting the activation of a rule

You need to request a rule activation if you have Edit permissions but not Approve permissions for the rule group.

A user who has Edit permissions, but not Approve permissions, has to request the activation of a rule before the rule can fire in the preview application. A rule with an open request for activation has a state of Inactive: Requested for Activation. A user who has Approve permissions evaluates the request and decides whether to activate the rule.

To request activation of a rule:

1. On the **Rule Manager** page, do one of the following:

   - If your application uses multiple rule groups, select the rule group that contains a rule you want to activate.
   - If your application uses the single default rule group, skip to step 2.

2. On the **Rule List** page, click the **Request Activation** checkbox for a rule.
3. Click **Save Changes**.

The rule for which you requested activation changes its state to Inactive: Requested for Activation.

Related Links

> *Requesting the deactivation of a rule* on page 44
> > You need to request a rule deactivation if you have Edit permissions but not Approve permissions for the rule group.
>
> *Adding a note to a business rule and emailing change notification* on page 45
> > You can add a note when you change a rule's workflow state. Adding a note, or an email notification for a note is optional.

Requesting the deactivation of a rule

You need to request a rule deactivation if you have Edit permissions but not Approve permissions for the rule group.

A user who has Edit permissions, but not Approve permissions, has to request the deactivation of a rule before the rule is no longer available in the preview application. A rule with an open request for deactivation has a state of Active: Requested for Deactivation. Next, a user who has Approve permissions evaluates the request and decides whether to deactivate the rule.

To request deactivation of a rule:

1. On the **Rule Manager** page, do one of the following:

   - If your application uses multiple rule groups, select the rule group that contains a rule you want to deactivate.
   - If your application uses the single default rule group, skip to step 2.

2. On the **Rule List** page, click the **Request Deactivation** checkbox for a rule.
3. Click **Save Changes**.

The rule for which you requested the deactivation changes its state to Active: Requested for Deactivation.

Related Links

You can add a note when you change a rule's workflow state. Adding a note, or an email
notification for a note is optional.

You need to request a rule activation if you have Edit permissions but not Approve permissions
for the rule group.

Adding a note to a business rule and emailing change notification

You can add a note when you change a rule's workflow state. Adding a note, or an email notification
for a note is optional.

The **Add a note** page appears after you change a rule's workflow state and click **Save Changes**. A
state change occurs when you do any of the following to a rule: activate, deactivate, request activation,
request deactivation, cancel a request, or reject a request. A note provides a simple way to describe
changes you make while changing workflow states.

For example, a user with Edit permissions might modify a rule, make a request to activate the rule,
and add a note to indicate "This rule now promotes Chardonnay wines for the July 4th weekend." This
information is useful for a user with Approve permissions to understand what has changed before
activating a rule. If either an Approver or editor makes changes to multiple rules, Oracle Endeca
Workbench saves the note information for all rules that were modified. After you type a note and click
Add, the note displays under **Rule History** on the **General** tab. There is no history tracking for note
information. Previous notes are not stored.

Optionally, you can also email a note along with change notification information for any rule that has
been modified. In this case, you click **Add and Email** on the **Add a note** page. Oracle Endeca
Workbench creates an email addressed to all Approvers associated with a modified rule group. Oracle
Endeca Workbench also addresses the email to the most recent editor of a rule if the rule has a pending
request. The change notification information includes the new workflow state for a rule and the name
of the rule that has been modified.

Note: Oracle Endeca Workbench cannot send emails to users who do not have an email address
available. Oracle Endeca Workbench uses the email address listed for the user in the **User
Management** page (for Workbench users) or the email address listed in LDAP (for LDAP users
or groups). For more details about workflow in Oracle Endeca Workbench with LDAP, see the
Oracle Endeca Workbench Administrator's Guide.

To add a note:

1. Change a rule's workflow state (by activating, deactivating, requesting activation, requesting
   deactivation, canceling a request, or rejecting a request).
2. Click **Save Changes**.
   The **Add a note** page displays.
3. Do one of the following:

Action	Result
Leave the text box empty and click Add.	Your state change is recorded without an associated note.
Type a note in the text box and click Add.	The note you provide is saved and displayed on the **General** tab for the rule.

Action	Result
Type a note in the text box and click Add and Email.	The email window displays. You can modify the list of recipients as needed before sending the email. The note you provide is saved and displayed on the **General** tab for the rule.

Note: The Oracle Endeca Workbench mail-to form uses the standard comma delimiter to separate multiple email addresses. If you are using a mail client such as Microsoft Outlook, you may need to change the default delimiter in Outlook from semicolons to commas. See the Microsoft Outlook documentation for details.

Related Links

Requesting the deactivation of a rule on page 44
> You need to request a rule deactivation if you have Edit permissions but not Approve permissions for the rule group.

Requesting the activation of a rule on page 44
> You need to request a rule activation if you have Edit permissions but not Approve permissions for the rule group.

Managing requests for rule activation

The actions available on the **Requests** tab depend on the type of permissions you have.

To approve, reject, or pend requests for rule activation, you must have Approve permissions to the rule group. An administrator assigns these permissions on the **User Management** page of Oracle Endeca Workbench.

- Users with Approve permissions (Approvers) can approve, reject, or pend requests for rule activation. These actions have the following meaning:

Approving a request for activation	Changes the rule's state to Active and makes it available in the preview application.
Rejecting a request for activation	Changes the rule's state to Inactive: Request Not Approved. The rule is not available in the preview application.
Pending a request for activation	Lets you address the request later. Pending a request for activation has no effect on the rule's state or availability in the preview application.

- Users with Edit permissions (editors) for a rule group can view and cancel requests for rule activation. Cancelling a request removes the request from the system, and the rule reverts to its previous state. For example, suppose an editor creates a new rule with a state of Inactive: Draft. The editor wants to activate the rule and clicks **Request Activation**. The rule's state becomes Inactive: Requested For Activation. The rule now appears on the **Requests** tab under **Requested for Activation**. Suppose for some reason, the editor no longer wants to activate this rule. On the **Requests** tab, the editor clicks **Cancel**, and the request is removed from the system and the state reverts to Inactive: Draft.
- Users with View permissions see the same **Cancel** and **Status** controls as users with Edit permissions; however, the cancel checkbox is unavailable. Users with View permissions can only view pending requests for activation.

To manage requests for rule activation:

1. On the **Rule Manager** page, do one of the following:

    • If your application uses multiple rule groups, select the rule group that contains a rule with an open request for activation.
    • If your application uses the single default rule group, skip to step 2.

2. On the **Rule List** page, click the **Requests** tab.

3. Choose the rule you want to modify and select either **Approve**, **Reject**, or **Pending** as described above.

4. Click **Save Changes**.

Related Links

> *Managing requests for rule deactivation* on page 47
>> The actions available on the **Requests** tab depend on the type of permissions you have.

> *Adding a note to a business rule and emailing change notification* on page 45
>> You can add a note when you change a rule's workflow state. Adding a note, or an email notification for a note is optional.

Managing requests for rule deactivation

The actions available on the **Requests** tab depend on the type of permissions you have.

To approve, reject or pend requests for rule deactivation, you must have Approve permissions to the rule group. An administrator assigns these permissions on the **User Management** page of Oracle Endeca Workbench.

• Users with Approve permissions (Approvers) can approve, reject, or pend requests for rule deactivation. These actions have the following meaning:

Approving a request for deactivation	Changes the rule's state to Inactive and makes it unavailable in the preview application.
Rejecting a request for deactivation	Changes the rule's state from Active to Active: Request Not Approved. The rule is still available in the preview application.
Pending a request for deactivation	Lets you address the request later. Pending a request for deactivation has no effect on the rule's state or availability in the preview application.

• Users with Edit permissions (editors) for a rule group can view and cancel requests for rule deactivation. Cancelling a request removes the request from the system, and the rule reverts to its previous state.
• Users with View permissions see the same **Cancel** and **Status** controls as users with Edit permissions; however, the cancel checkbox is unavailable. Users with View permissions can only view pending requests for deactivation.

To manage requests for rule deactivation:

1. On the **Rule Manager** page, do one of the following:

    • If your application uses multiple rule groups, select the rule group that contains a rule with an open request for deactivation.
    • If your application uses the single default rule group, skip to step 2.

2. On the **Rule List** page, click the **Requests** tab.

3. Choose the rule you want to modify and select either **Approve**, **Reject**, or **Pending** as described above.
4. Click **Save Changes**.

Related Links

> *Managing requests for rule activation* on page 46
>> The actions available on the **Requests** tab depend on the type of permissions you have.
>
> *Adding a note to a business rule and emailing change notification* on page 45
>> You can add a note when you change a rule's workflow state. Adding a note, or an email notification for a note is optional.

Canceling requests to activate or deactivate a rule

A user who has Edit permission for a rule group can cancel requests to activate or deactivate a rule.

To cancel a request to activate or deactivate a rule:

1. On the **Rule Manager** page, do one of the following:

   - If your application uses multiple rule groups, select the rule group that contains a rule with an open request for activation/deactivation.
   - If your application uses the single default rule group, skip to step 2.

2. On the **Rule List** page, click the **Requests** tab.
3. Identify the request you want to cancel and click **Cancel.**
4. Click **Save Changes**.

Managing dynamic business rules

This section describes procedures related to editing, deleting, and managing rules.

Related Links

> *Working with dynamic business rules* on page 19
>> The following sections provide an introduction to dynamic business rules and explain in-depth how to create, edit, and maintain them.
>
> *Basics of dynamic business rules and merchandising* on page 19
>> This section details basic business rule concepts as they relate to merchandising and application performance.
>
> *Copying a rule* on page 49
>> You can copy a rule in order to create a new rule based on it.
>
> *Editing a rule* on page 50
>> By editing a rule, you can change its triggers, targets, permissions, the time when the rule is planned to be fired, and other parameters.
>
> *Deleting a rule* on page 50
>> You can delete a rule in Oracle Endeca Workbench if it is no longer needed.
>
> *Restoring a rule* on page 51
>> If a dynamic business rule has been marked for deletion, you can cancel your changes and restore it to the Rules List.

Copying a rule

You can copy a rule in order to create a new rule based on it.

The procedure for copying a rule varies slightly depending on whether you have Approve or Edit permissions. The differences are mentioned below. Users with View or None permissions for a rule group cannot copy rules.

To make a copy of a rule:

1. On the **Rule Manager** page, select the rule group that contains the rule you want to copy.
2. Click the **Copy** icon associated with the rule.

   - If you have Approve permissions, Oracle Endeca Workbench makes a copy of the rule in Draft state.
   - If you have Edit permissions and want to copy an active rule that has no open requests, choose either **Copy** or **Modify**.

   Choosing **Copy** makes a copy of the rule in Draft state (for users with Edit and Approve permissions). Choosing **Modify** makes a replacement for the original rule and initiates the workflow requests to the Approver to replace the original with the duplicate.
3. On the **General** tab of the **Edit Rule** page, reconfigure the copied rule as necessary.
4. Click **OK**.
5. Click **Save Changes**.

Related Links

A dynamic business rule describes the logic of how to promote records for display to application users.

Editing a rule

By editing a rule, you can change its triggers, targets, permissions, the time when the rule is planned to be fired, and other parameters.

You must have Edit or Approve permissions for a rule group to edit a rule in the group.

To edit a business rule:

1. On the **Rule Manager** page, select the rule group that contains the rule.
2. In the **Rule List**, click the rule title. (Do not click the rule's trigger or target links: those links display the trigger or targets in the preview application.)
3. Modify the rule as necessary. See "Creating a new rule" for details about how to modify specific elements of a rule. To edit a trigger value, select the **Triggers** tab and click the underlined trigger link. This loads the trigger in the **Create New Trigger** box.
4. Click **OK** to return to the **Rule List**.
   The **Status** column of the **Rule List** indicates the rule has been modified. Changes do not take effect in the application until you click **Save Changes**.
5. Click **Save Changes**.

Related Links

Copying a rule on page 49
    You can copy a rule in order to create a new rule based on it.

Deleting a rule on page 50
    You can delete a rule in Oracle Endeca Workbench if it is no longer needed.

About dynamic business rules on page 19
    A dynamic business rule describes the logic of how to promote records for display to application users.

Deleting a rule on page 50
    You can delete a rule in Oracle Endeca Workbench if it is no longer needed.

Reverting to applied rules on page 53
    Reverting to applied rules cancels changes that have not yet been applied (saved), and loads the last set of rules applied to the MDEX Engine.

Deleting a rule

You can delete a rule in Oracle Endeca Workbench if it is no longer needed.

To delete a business rule:

1. In the **Rule List**, click the **Delete** icon for the rule you want to delete.
   The rule is marked for deletion.
2. Click **Save Changes**.

   Note: A rule is not deleted from the application until you save changes.

Related Links

> You can copy a rule in order to create a new rule based on it.

> By editing a rule, you can change its triggers, targets, permissions, the time when the rule is planned to be fired, and other parameters.

> A dynamic business rule describes the logic of how to promote records for display to application users.

> By editing a rule, you can change its triggers, targets, permissions, the time when the rule is planned to be fired, and other parameters.

> Reverting to applied rules cancels changes that have not yet been applied (saved), and loads the last set of rules applied to the MDEX Engine.

Restoring a rule

If a dynamic business rule has been marked for deletion, you can cancel your changes and restore it to the Rules List.

You can restore a rule only if you have not yet clicked Apply Changes.

Click Reset Changes on the Rule Manager page.
Any rule previously marked for deletion reappears in the Rules List and may be modified.

Related Links

> You can delete a rule in Oracle Endeca Workbench if it is no longer needed.

Filtering rules

You can filter dynamic business rules to locate a particular rule or a subset of rules based on its trigger, name, group name, zone, or on whether it is active or inactive.

Filtering is useful if you have a long list of business rules and want to find a rule based on its trigger, target, name, group name, zone name, or active/inactive availability in your application. Oracle Endeca Workbench uses an implied wildcard to filter. For example, filtering by "us" is equivalent to filtering by "*us*".

Oracle Endeca Workbench checks all words in a rule's configuration when filtering. This means that if a rule has several dimension values or keywords in a trigger or target, Oracle Endeca Workbench filters against each word in the trigger or target. The default view of the **Rule List** is not filtered.

Filtering applies only to the rules contained in the rule group you selected. In other words, a filter does not display rules that are contained in other rule groups.

To apply a filter to the rule list:

1. On the **Rule Manager** page, do one of the following:

   - If your application uses multiple rule groups, select the rule group that you want to filter within.
   - If your application uses the single default rule group, skip to step 2.

2. Select a state filter from the list:

State filter	Description
All States	Filters both Active and Inactive rules
Inactive	Filters rules that cannot be triggered by a user's query
Active	Filters rules that can be triggered by a user's query

3. Type a word, partial word, or letter by which you want to filter your rules.
4. Click **Filter**.
5. To restore the unfiltered view of the **Rule List**, click **Clear Filter**.

Example

For example, in the sample wine application, filtering for "rec" returns "Recommended Merlots", "Highly Recommended" and any other rules with "rec" in the rule's configuration. You could also select Active from the list and filter for "rec" to return only active rules that have "rec" in the rule's configuration.

Related Links

Sorting data in the Rules table on page 55
>   Links at the top of most columns in the **Rules** table on the **Rule List** page allow you to sort data.

Changing the priority of a rule in a group on page 52
>   Prioritizing rules affects the order in which the MDEX Engine evaluates the business rules.

About dynamic business rules on page 19
>   A dynamic business rule describes the logic of how to promote records for display to application users.

About sorting data in the Rule Summary table on page 53
>   Once you create your business rules, you can sort most of the data displayed in the **Rule Summary** table.

Changing the priority of a rule in a group

Prioritizing rules affects the order in which the MDEX Engine evaluates the business rules.

The **Priority** column of the **Rule List** allows you to increase or decrease the priority of a dynamic business rule. Moving a rule toward the top of the **Rule List** causes the MDEX Engine to evaluate that rule before others lower in the list. Increasing a rule's priority in the list increases the likelihood that a rule is triggered before another.

> **Note:** You can prioritize rules in Oracle Endeca Workbench relative to other rules in the same rule group. Your technical team can use Developer Studio to change the priority of a rule group with respect to other rule groups. The **Rule Manager** tab of Oracle Endeca Workbench displays the groups in their relative order of priority.

To change the priority of a rule within a rule group:

1. In the **Rule List**, select the group containing the rule whose priority you want to change (if your technical team created one or more rule groups).
   The group of rules is highlighted.
2. Select the rule from the rule group.

The rule is highlighted.

3. In the **Priority** column for the rule you want to change, highlight the number in the text box and replace it with the new priority number. For example, if you want the rule to have the highest priority, type 1.

4. Click the **Priority** link to sort the column. (Sorting by **Priority** reorders the rules according to your changes.)
   The rules are reordered according to your new priorities.

5. Click **Save Changes**.

Example

For example, a zone is configured to display results from a maximum of two rules. If you have ten possible rules available for the zone, the MDEX Engine evaluates the rules in the order they appear in the list, and then returns results from only the first two rules that have valid merchandising results.

Related Links

Sorting data in the Rules table on page 55
> Links at the top of most columns in the **Rules** table on the **Rule List** page allow you to sort data.

Filtering rules on page 51
> You can filter dynamic business rules to locate a particular rule or a subset of rules based on its trigger, name, group name, zone, or on whether it is active or inactive.

About dynamic business rules on page 19
> A dynamic business rule describes the logic of how to promote records for display to application users.

About sorting data in the Rule Summary table on page 53
> Once you create your business rules, you can sort most of the data displayed in the **Rule Summary** table.

Reverting to applied rules

Reverting to applied rules cancels changes that have not yet been applied (saved), and loads the last set of rules applied to the MDEX Engine.

To revert to applied rules:

1. On the **Rule Manager** page, click **Reset Changes**.

2. Click **OK** to acknowledge the cancellation.
   Your modifications to the rule are not applied and the previously saved set of rules is loaded to the MDEX Engine.

About sorting data in the Rule Summary table

Once you create your business rules, you can sort most of the data displayed in the **Rule Summary** table.

To check if a column is sortable, in the **Rule Summary** table, move your cursor over the column heading. If the rule is sortable, the heading becomes a link and a mouse-over tip displays to explain the sort order. You can sort columns in both ascending and descending order. Any ties in a sort are broken by the priority value of a rule.

For example:

- To order rules alphabetically, sort them by the **Name** column.
- To see the most recent rule changes, sort them by the **Modified** column.

Columns are sorted in the following way:

Column title	Column description
Delete	Sorts the rules by whether a rule is pending deletion.
Status	Sorts the rules by whether a rule is pending deletion, and then performs a secondary sort by whether there are unsaved changes.
	If you are in Preview mode, the rules sort in the following order: Fired, Not Fired, Not Considered.
Name	Sorts the rules alphabetically by name.
Modified column	Sorts the rules by date.
	Rules that have no last modified date appear at the end of the sort.
Trigger	Sorts rules alphabetically by the first trigger value.
	All other trigger values are ignored for sorting.
	Rules with no location specified appear at the end of the sort.
Target	Sorts rules alphabetically by the first target value.
Zone	Sorts rules alphabetically by zone name.
State	Sorts rules alphabetically by state name.
Active	Sorts by whether a rule is active or not.
Request Activation	Sorts rules by whether the request is enabled or not.
Request Deactivation	Sorts rules by whether the request is enabled or not.
Preview	Sorts rules that are enabled for preview or not.
Copy	Not sortable.

Related Links

A dynamic business rule describes the logic of how to promote records for display to application users.

Sorting data in the Rules table on page 55

Links at the top of most columns in the **Rules** table on the **Rule List** page allow you to sort data.

Filtering rules on page 51

You can filter dynamic business rules to locate a particular rule or a subset of rules based on its trigger, name, group name, zone, or on whether it is active or inactive.

Changing the priority of a rule in a group on page 52

Prioritizing rules affects the order in which the MDEX Engine evaluates the business rules.

Sorting data in the Rules table

Links at the top of most columns in the **Rules** table on the **Rule List** page allow you to sort data.

To sort business rules in Oracle Endeca Workbench:

1. In the **Rules** table, choose one of the sortable columns.
2. Click the column heading. The data sorts, and a sort indicator (the arrow) appears indicating the sort order.

   Note: If you continue clicking the column heading, it toggles the sort order between ascending and descending.

Related Links

Filtering rules on page 51

You can filter dynamic business rules to locate a particular rule or a subset of rules based on its trigger, name, group name, zone, or on whether it is active or inactive.

Changing the priority of a rule in a group on page 52

Prioritizing rules affects the order in which the MDEX Engine evaluates the business rules.

About dynamic business rules on page 19

A dynamic business rule describes the logic of how to promote records for display to application users.

About sorting data in the Rule Summary table on page 53

Once you create your business rules, you can sort most of the data displayed in the **Rule Summary** table.

Uploading post-Forge dimensions to Oracle Endeca Workbench

In some cases, accessing the Rule Manager or Dimension Order pages of Oracle Endeca Workbench may display an error about missing dimensions, such as: `Could not find post-Forge dimensions in your instance configuration.`

This error occurs when Oracle Endeca Workbench refers to automatically generated dimension values that are not stored with the instance configuration in Oracle Endeca Workbench. To resolve this error, upload the post-Forge dimensions file to Oracle Endeca Workbench.

To upload the post-Forge dimensions file to Oracle Endeca Workbench, use either of the following approaches:

- Run the BaselineUpdate script from the Deployment Template (
  appdir/`control/baseline_update.bat` or `baseline_update.sh`). If Workbench integration
  is enabled for the Deployment Template, the default BaselineUpdate script updates the Oracle
  Endeca Workbench with the post-Forge dimensions generated by the update. For more information
  about using the Deployment Template or about its handling of post-Forge dimensions, see the
  Oracle Endeca Deployment Template Usage Guide.
- Run `emgr_update` with an `--action` of `set_post_forge_dims`. Specify the following values
  for parameters:

Parameter	What to specify
--host	The machine name and port for the machine running Oracle Endeca Workbench
--app_name	The application name whose instance configuration you want to transfer the dimensions file to
--post_forge_file	The path and name of the file that contains the post-Forge dimensions

For additional information about using `emgr_update`, see the *Oracle Endeca Workbench Administrator's Guide*.

Chapter 4

Working with keyword redirects

This section introduces the concept of a keyword redirect and explains how to create, modify, delete, and view them with the **Keyword Redirect** component of Oracle Endeca Workbench.

About keyword redirects

Keyword redirects are used to redirect a user's search to a Web page (that is, a URL).

Your technical team must modify your application code to display the Web page you specify in a keyword redirect. This is described in the *Endeca Advanced Development Guide*. Contact your technical team for details.

Multiple keyword entries

If a keyword redirect has more than one keyword entry, then all the keywords must be present in a user's query for the redirect to fire. The search terms do not all need to match a keyword, that is, the search terms can be a superset of the keywords. Each keyword entry has a match mode to indicate how the search terms in a user's query must match your specified keyword(s) in order for the redirect to fire. The match modes are described in the procedure to create redirects.

Keyword redirect groups

A keyword redirect belongs to a keyword redirect group. If you are familiar with dynamic business rule groups, it helps to compare those to keyword redirect groups. Both types of groups work the same way and serve the same two functions. Groups provide a means to logically organize keyword redirects, and groups allow multiple business users to access the **Keyword Redirects** page simultaneously.

A keyword redirect group provides a means to organize a large number of keyword redirects into smaller logical categories which usually affect distinct (non-overlapping) parts of a Web site. For example, a retail application might organize keyword redirects that affect the shipping and customer service portions of a Web site into a group for Shipping and Service and organize another group for Weekly Promotions. If you were to select Shipping and Service on the **Keyword Redirects** page, you would access all the keyword redirects in that group but none of the Weekly Promotions redirects.

A keyword redirect group also enables multiple business users to access the **Keyword Redirects** page simultaneously. From the **Keyword Redirects** page, you can access a single group at a time. Once you select a group that contains the redirects you want to modify, Oracle Endeca Workbench prevents other users from editing that group until you return to the selection list or close your browser.

Keyword redirects in a single group appear on the **Keyword Redirects** page as a single list.

Your technical team creates keyword redirect groups for you using Developer Studio.

Creating keyword redirects

The **Keyword Redirects** page allows you to create, modify, and delete keyword redirects in your application.

A keyword redirect may have one or more keywords. If a keyword redirect has more than one keyword, then all of the keywords must be present in a user's query for the trigger to fire.

To create a keyword redirect:

1. If your technical team created more than one keyword redirect group for your project, select the group in which you want to create a new keyword redirect.
2. On the **Keyword Redirects** page, click **Add Keyword Redirect**.
3. Specify a **Redirect Link**. This is the URL that loads in a user's browser if a user searches for the associated keyword(s).
4. In the **Keyword** field, type one or more keywords.
5. Select a **Match Mode** from the list to indicate how keywords must be matched from a user's record search query in order to fire the redirect.

   - In **Match Phrase** mode (the default), all of the keywords must match in the same order in the user's query for the redirect to fire.
   - In **Match All** mode, all of the keywords must match (without regard for order in the user's query) for the redirect to fire.
   - In **Match Exact** mode, all of the keywords must exactly match a user's query for the redirect to fire. Unlike the other two modes, a user's query must exactly match the keyword in the number of words and cannot be a super set of the keywords.

6. Click **Add**. If more than one keyword is necessary, repeat steps 4- 6.
7. Click **OK**.
   Oracle Endeca Workbench returns to the **Keyword Redirects** page.
8. Click **Save Changes**.

The changes immediately take effect in your application.

Modifying keyword redirects

The **Keyword Redirects** page allows you to create, modify, and delete keyword redirects in your application.

A keyword redirect may have one or more keywords. If a keyword redirect has more than one keyword, then all of the keywords must be present in a user's query for the trigger to fire.

To modify a keyword redirect:

1. If your technical team created more than one keyword redirect group for your project, select the group that contains the keyword redirect that you want to modify.
2. On the **Keyword Redirects** page, click an underlined keyword or set of keywords.

3. On the **Keyword Redirect Entry** page, modify the keyword(s) or associated redirect link as necessary.
4. Click **OK**.
    Oracle Endeca Workbench returns to the **Keyword Redirects** page.
5. Click **Save Changes**.

The changes immediately take effect in your application.

Deleting keyword redirects

You can delete a keyword redirect if it is no longer needed or desired.

To delete a keyword redirect:

1. On the **Keyword Redirects** page, click the delete icon for the keyword redirect you want to remove.
2. Click **Save Changes**.

The changes immediately take effect in your application.

Filtering your view of keyword redirects

Filtering your view of keyword redirects provides a way to simplify the view of a large list. You can filter by keyword, partial word, or letter.

The filter examines the first word of multi-word redirects. You cannot filter by the redirect URL. Workbench uses an implied wildcard when filtering. For example, filtering by "t" is equivalent to filtering by "t*". All keywords beginning with t display. Workbench stores keyword redirects in lower case regardless of how you added them. For example, if you type the keyword "JEANS" Workbench stores it as "jeans". Consequently, you must provide filtering terms or characters in lower case. If you want to filter for the phrase "jeans", you might enter "j" or "je". Filtering for "J" or "JE" would not return the keyword redirect.

1. Enter a filtering keyword or character in the **Filter** field.
2. Click **Filter**.
3. To restore the full list of keyword redirects, click **Clear Filter**.

Chapter 5

Specifying search configuration

This section introduces the **Thesaurus**, **Phrases**, and **Stop Words** sections of Oracle Endeca Workbench, and details their use in an application for search configuration purposes.

Working with thesaurus entries

This section introduces the **Thesaurus** page of Oracle Endeca Workbench, and details how to create, manage, and troubleshoot thesaurus entries.

Related Links

About the thesaurus

Thesaurus entries provide a means to account for alternate forms of a user's query.

On the **Thesaurus** page, you create the synonyms that capture other ways of expressing queries relevant to your application. These entries provide concept-level mappings between words and phrases. For example, if users enter the search term "cab" to search for "cabernet sauvignon," you could create a thesaurus entry to equate "cab" with "cabernet sauvignon."

You can add two kinds of entries to your Endeca thesaurus:

- One-way thesaurus entries establish an equivalence between words or phrases that applies in a single direction only. For example, you could define a one-way mapping so that all queries for "Red Wine" would also return matches containing "Zinfandel," but queries for "Zinfandel" would not return results for the more general "Red Wine." You can add an unlimited number of synonyms to a one-way entry, and the application expands the query to search for each search term with the same one-way relationship. For example, you could add additional synonyms to the "Red Wine" entry to expand the search to "Merlot," "Shiraz," and "Bordeaux."
- Two-way thesaurus entries establish a mutual equivalence relationship between words or phrases. For example, an equivalence might specify that the phrase "rose" is interchangeable with the phrase "blush."

You may find it useful to examine reporting data for your application when creating thesaurus entries. If you find that users frequently search for a term you had not expected, you can create a form equivalence mapping in your thesaurus.

Related Links

Creating one-way thesaurus entries on page 62
> You create one-way thesaurus entries on the **Thesaurus** page of Oracle Endeca Workbench.

Creating two-way thesaurus entries on page 63
> You create two-way thesaurus entries on the **Thesaurus** page of Oracle Endeca Workbench.

Filtering your view of thesaurus entries on page 64
> Filtering your thesaurus entries provides a way to simplify the view of a large list of entries or locate a particular entry.

Creating one-way thesaurus entries

You create one-way thesaurus entries on the **Thesaurus** page of Oracle Endeca Workbench.

To create a one-way thesaurus entry:

1. On **Thesaurus** page, click **Add One-Way Entry**.
2. In the **Source Phrase** text box, type the source term in the first field.
3. Enter a synonym for the source term in the **Synonyms** text box.
4. Click **Add**.
5. Repeat these steps to create additional synonym mappings. You can create multiple synonyms for a single thesaurus entry.
6. Click **OK**.
7. Click **Save Changes**.

Related Links

About the thesaurus on page 61
> Thesaurus entries provide a means to account for alternate forms of a user's query.

Creating two-way thesaurus entries on page 63
> You create two-way thesaurus entries on the **Thesaurus** page of Oracle Endeca Workbench.

Deleting thesaurus entries on page 64

You can delete a thesaurus if it is no longer needed or desired.

Editing thesaurus entries on page 63

You can revise your thesaurus entries as you gain a better understanding of what search terms users are searching for.

Creating two-way thesaurus entries

You create two-way thesaurus entries on the **Thesaurus** page of Oracle Endeca Workbench.

To create a two-way thesaurus entry:

1. On **Thesaurus** page, click **Add Two-Way Entry**.
2. Type a word or phrase in the **Synonyms** text box.
3. Click **Add**.
4. Type a synonymous word or phrase in the **Synonyms** text box.
5. Click **Add**.
6. Repeat steps 4 and 5 to create additional synonym mappings. You can create an unlimited number of synonyms for a single thesaurus entry.
7. Click **OK**.
8. Click **Save Changes**.

Related Links

About the thesaurus on page 61

Thesaurus entries provide a means to account for alternate forms of a user's query.

Creating one-way thesaurus entries on page 62

You create one-way thesaurus entries on the **Thesaurus** page of Oracle Endeca Workbench.

Deleting thesaurus entries on page 64

You can delete a thesaurus if it is no longer needed or desired.

Editing thesaurus entries on page 63

You can revise your thesaurus entries as you gain a better understanding of what search terms users are searching for.

Editing thesaurus entries

You can revise your thesaurus entries as you gain a better understanding of what search terms users are searching for.

To edit an entry:

1. On the **Thesaurus** page, click the entry you want to modify.
2. Add, remove, or change terms as desired.
3. Click **OK**.

Related Links

Creating one-way thesaurus entries on page 62

You create one-way thesaurus entries on the **Thesaurus** page of Oracle Endeca Workbench.

Creating two-way thesaurus entries on page 63

You create two-way thesaurus entries on the **Thesaurus** page of Oracle Endeca Workbench.

You can delete a thesaurus if it is no longer needed or desired.

Filtering your view of thesaurus entries

Filtering your thesaurus entries provides a way to simplify the view of a large list of entries or locate a particular entry.

For example, suppose you want to locate synonyms you previously associated with "US." You filter for "us" and see an entry with the synonyms "american, united states, us." You can filter by word, partial word, or letter. Oracle Endeca Workbench uses an implied wildcard to filter entries. For example, filtering by "u" is equivalent to filtering by "u*". All entries beginning with u display. Oracle Endeca Workbench is case insensitive when filtering thesaurus entries.

To filter thesaurus entries:

1. On the **Thesaurus** page, enter a filtering term or character in the **Filter** field.
2. Click **Filter**.
3. To clear the filter, click **Clear Filter** on the **Thesaurus** page.

Related Links

Thesaurus entries provide a means to account for alternate forms of a user's query.

Deleting thesaurus entries

You can delete a thesaurus if it is no longer needed or desired.

To delete a thesaurus entry:

1. Click on the **Thesaurus** page.
2. Click the **Delete** icon for the entry you want to remove.
3. Click **Save Changes**.

Related Links

You create one-way thesaurus entries on the **Thesaurus** page of Oracle Endeca Workbench.

You create two-way thesaurus entries on the **Thesaurus** page of Oracle Endeca Workbench.

You can revise your thesaurus entries as you gain a better understanding of what search terms users are searching for.

Thesaurus tips

The thesaurus feature is very powerful, and poorly-conceived entries can be expensive and not useful.

To maximize the potential of this feature, keep the following suggestions in mind:

*   Do not create a two-way thesaurus entry for a word with multiple meanings. For example, khaki can refer to a color as well as to a style of pants. If you create a two-way thesaurus entry for khaki = pants, then a user's search for khaki towels could return irrelevant results for pants.

- Do not create a two-way thesaurus entry between a general and several more specific terms, such as top = shirt = sweater = vest. This increases the number of results the user has to go through while reducing the overall accuracy of the items returned. In this instance, better results are attained by creating individual one-way thesaurus entries between the general term top and each of the more-specific terms.
- A thesaurus entry should never include a term that is a substring of another term in the entry. For example, consider a two-way equivalency between Adam and Eve and Eve. If users type Eve, they get results for Eve or (Adam and Eve) (that is, the same results they would have gotten for Eve without the thesaurus). If users type Adam and Eve, they get results for (Adam and Eve) or Eve, causing the Adam and part of the query to be ignored.
- Stop words such as "and" or "the" should not be used in single-word thesaurus forms. For example, if the has been configured as a stop word, an equivalency between thee and the is not useful. You can use stop words in multi-word thesaurus forms, because multi-word thesaurus forms are handled as phrases. In phrases, a stop word is treated as a literal word and not a stop word.
- Avoid multi-word thesaurus forms where single-word forms are appropriate. In particular, avoid multi-word forms that are not phrases that users are likely to type, or to which phrase expansion is likely to provide relevant additional results. For example, the two-way thesaurus entry Aethelstan, King Of England (D. 939) = Athelstan, King Of England (D. 939) should be replaced with the single-word form Aethelstan= Athelstan.
- Thesaurus forms should not use non-searchable characters. For example, the two-way thesaurus entry Pikes Peak = Pike's Peak should only be used if apostrophe (') is enabled as a search character. (To add a search character, contact an Endeca Developer Studio user at your site.)

Working with automatic phrases

This section introduces the **Phrases** page of Oracle Endeca Workbench, and explains how to create and manage automatic phrases with the tool.

Related Links

Specifying search configuration on page 61
> This section introduces the **Thesaurus**, **Phrases**, and **Stop Words** sections of Oracle Endeca Workbench, and details their use in an application for search configuration purposes.

About automatic phrases on page 66
> When an application user provides several search terms in a query, the automatic phrasing feature groups certain terms into a search phrase and returns query results for the phrase.

Creating automatic phrases on page 66
> The **Phrases** page allows you to create, modify, or remove phrases from your application.

Modifying automatic phrases on page 67
> The **Phrases** page allows you to create, modify, or remove phrases from your application.

Deleting automatic phrases on page 67
> The **Phrases** page allows you to create, modify, or remove phrases from your application.

Filtering your view of automatic phrases on page 67
> Filtering your automatic phrases provides a way to simplify the view of a large list of phrases or locate a particular phrase.

About automatic phrases

When an application user provides several search terms in a query, the automatic phrasing feature groups certain terms into a search phrase and returns query results for the phrase.

Automatic phrasing is similar to placing quotes around search terms before submitting them in a query, for example "my search terms" is the phrased version of the query my search terms. However, automatic phrasing removes the need for application users to place quotes around search phrases to get phrased results.

In Oracle Endeca Workbench, business users can create, modify, and remove phrases. In addition, business users can view dimensions that have been enabled for phrasing in Developer Studio.

A front-end developer must add presentation API code to support automatic phrasing in an Endeca application. Coordinate with your technical team to ensure that all the required aspects of the feature are implemented in your Endeca application. For more information, see the *Endeca Advanced Development Guide.*

Automatic phrases based on dimension values

In Developer Studio, your pipeline developer can select dimensions to enable the dimension values as automatic phrases. For example, if a pipeline developer selects the Wine Type dimension for automatic phrasing, dimension values such as "Pinot Noir" and "Cabernet Sauvignon" become automatic phrases. On the **Phrases** page of Oracle Endeca Workbench, you can view the dimensions that a pipeline developer selected for automatic phrasing. However, you cannot use Oracle Endeca Workbench to add or modify the dimensions selected for automatic phrasing, and you cannot view the list of dimension values that are automatic phrases.

Related Links

Creating automatic phrases on page 66
> The **Phrases** page allows you to create, modify, or remove phrases from your application.

Filtering your view of automatic phrases on page 67
> Filtering your automatic phrases provides a way to simplify the view of a large list of phrases or locate a particular phrase.

Creating automatic phrases

The **Phrases** page allows you to create, modify, or remove phrases from your application.

To add a new automatic phrase:

1. On the **Phrases** page, click **Add Phrase**.
2. Type a phrase in the **Phrase** field.
3. Click **OK**.
4. Click **Save Changes**.

The phrase is committed to your application immediately. No baseline update is required.

Related Links

About automatic phrases on page 66
> When an application user provides several search terms in a query, the automatic phrasing feature groups certain terms into a search phrase and returns query results for the phrase.

Deleting automatic phrases on page 67
> The **Phrases** page allows you to create, modify, or remove phrases from your application.

>   The **Phrases** page allows you to create, modify, or remove phrases from your application.

Modifying automatic phrases

The **Phrases** page allows you to create, modify, or remove phrases from your application.

To modify a phrase:

1. On the **Phrases** page, click an underlined phrase.
2. Modify the phrase as necessary.
3. Click **OK**.
4. Click **Save Changes**.

The modified phrase is committed to your application immediately. No baseline update is required.

Related Links

>   The **Phrases** page allows you to create, modify, or remove phrases from your application.

>   The **Phrases** page allows you to create, modify, or remove phrases from your application.

Deleting automatic phrases

The **Phrases** page allows you to create, modify, or remove phrases from your application.

To delete an automatic phrase:

1. On the **Phrases** page, click the delete icon for the phrase you want to remove.
2. Click **Save Changes**.

Related Links

>   The **Phrases** page allows you to create, modify, or remove phrases from your application.

>   The **Phrases** page allows you to create, modify, or remove phrases from your application.

Filtering your view of automatic phrases

Filtering your automatic phrases provides a way to simplify the view of a large list of phrases or locate a particular phrase.

You can filter by word, partial word, or letter. Oracle Endeca Workbench uses an implied wildcard to filter entries. For example, filtering by "t" is equivalent to filtering by "t*". All phrases beginning with t display. Oracle Endeca Workbench stores automatic phrase in lower case regardless of how you added them. For example, if you type the phrase "BLUE JEANS". Oracle Endeca Workbench stores it as "blue jeans". Consequently, you must provide filtering terms or characters in lower case. If you want to filter for the phrase "blue jeans", you might enter "b" or "bl". Filtering for "B" or "BL" would not return the phrase.

To filter phrases:

1. On the **Phrases** page, enter a filtering term or character in the **Filter** field.
2. Click **Filter**.
3. To clear the filter, click **Clear Filter** on the **Phrases** page.

Related Links

> *About automatic phrases* on page 66
> > When an application user provides several search terms in a query, the automatic phrasing
> > feature groups certain terms into a search phrase and returns query results for the phrase.

Working with stop words

This section introduces the **Stop Words** page of Oracle Endeca Workbench, and explains how to
create and manage stop words to improve the search capabilities of your application.

Related Links

> *Specifying search configuration* on page 61
> > This section introduces the **Thesaurus**, **Phrases**, and **Stop Words** sections of Oracle Endeca
> > Workbench, and details their use in an application for search configuration purposes.
>
> *About stop words* on page 68
> > Stop words are words that are ignored if an application user includes them as part of search.
>
> *Creating stop words* on page 69
> > The **Stop Words** page allows you to create, modify, or remove stop words from your
> > application.
>
> *Modifying stop words* on page 69
> > The **Stop Words** page allows you to create, modify, or remove stop words from your
> > application.
>
> *Deleting stop words* on page 70
> > The **Stop Words** page allows you to create, modify, or remove stop words from your
> > application.
>
> *Filtering your view of stop words* on page 70
> > Filtering your view of stop words provides a way to simplify the view of a large list of stop
> > words.

About stop words

Stop words are words that are ignored if an application user includes them as part of search.

Typically, common words like "the", "and", "a" and so on are included in the stop word list. For example,
if a user searches for the phrase "the Gutenberg Bible", the application ignores "the" and searches
for "Gutenberg Bible".

When adding stop words to your application, you want to add terms that are common in your data set.
For example, if your data consists of lists of books, you might want to add the word "book" to the stop
word list, because a search on that word would return an impracticably large set of records.

Words added to the stop word list are not expanded by other Endeca features like stemming and
thesaurus. That means that if you set the word "item" as a stop word, its plural form "items" will not
be marked automatically as a stop word. If you want both forms to be on the stop word list, you must
add them individually. An administrator must run a baseline update for stop word changes to take

affect in an application. Running a baseline update requires a user role that has access to the Administration page.

Stop words must be single words only, and cannot contain any non-searchable characters. If more than one word is entered as a stop word, neither the individual words nor the combined phrase will act as a stop word. Non-searchable characters within a stop word will also cause this behavior. Entering "full-bodied" as a stop word acts just as if you had entered "full bodied", and does not have any effect on searches.

Related Links

Creating stop words on page 69
> The **Stop Words** page allows you to create, modify, or remove stop words from your application.

Filtering your view of stop words on page 70
> Filtering your view of stop words provides a way to simplify the view of a large list of stop words.

Creating stop words

The **Stop Words** page allows you to create, modify, or remove stop words from your application.

See the *Endeca Advanced Development Guide* for a list of recommended stop words.

To add a new stop word:

1. On the **Stop Words** page, click **Add Stop Word**.
2. Type a stop word.
3. Click **OK**.
4. Click **Save Changes**.

An administrator must run a baseline update for stop word changes to take effect in an application.

Related Links

About stop words on page 68
> Stop words are words that are ignored if an application user includes them as part of search.

Modifying stop words

The **Stop Words** page allows you to create, modify, or remove stop words from your application.

See the *Endeca Advanced Development Guide* for a list of recommended stop words.

To modify a stop word:

1. On the **Stop Words** page, click an underlined word.
2. Modify the word as necessary.
3. Click **OK**.
   Oracle Endeca Workbench returns to the **Stop Word** page.
4. Click **Save Changes**.

An administrator must run a baseline update for stop word changes to take effect in an application.

Deleting stop words

The **Stop Words** page allows you to create, modify, or remove stop words from your application.

See the *Endeca Advanced Development Guide* for a list of recommended stop words.

To delete a stop word:

1. On the **Stop Words** page, click the delete icon for the stop word you want to remove. The changes immediately take effect in your application.
2. Click **Save Changes**.

Related Links

Filtering your view of stop words

Filtering your view of stop words provides a way to simplify the view of a large list of stop words.

You can filter by word, partial word, or letter. Oracle Endeca Workbench uses an implied wildcard to filter stop words that contain the filter criteria. For example, filtering by "t" is equivalent to filtering by "*t*". All stop words that contain "t" display.

To filter stop words:

1. On the **Stop Words** page, enter a filtering term or character in the Filter field.
2. Click **Filter**.
3. To clear the filter, click **Clear Filter** on the **Stop Words** page.

Related Links

Stop words are words that are ignored if an application user includes them as part of search.

Chapter 6

Specifying the presentation order of dimensions

This section explains how to configure the order in which dimensions and dimensions groups appear to the end-user in your Endeca application.

About dimension reordering

On the **Dimension Order** page, you can modify the order in which dimension groups, dimensions, and dimension values are presented in your application.

The order in which a dimension or dimension group appears in the **Dimension List** controls the order in which the dimension or dimension group appears in your Endeca application. In addition to reordering items on the **Dimension Order** page, you can select any underlined item and drill down to reorder its child dimensions and dimension values.

Before you can select and reorder dimensions, an administrator must run an initial baseline update.

Note that if an update is running while you are reordering dimensions, the dimensions may be changed before you save your reordering changes. (Recall that an update can add, remove, or modify dimensions and dimension values.) The **Dimension Order** page and its subpages automatically update with the current dimensions and dimension values when you load or reload the page.

Optionally, you can preview your reordering changes.

To commit reordering changes in your application, save your changes and run a baseline update.

Dimension groups and dimensions

In applications that use a combination of dimension groups and dimensions, all dimensions within a group have the same presentation order as the group itself. For example, if dimension group A is ordered before dimension D, and dimension E, the dimensions in group A are ordered before dimensions D and E.

Reordering the presentation of dimension groups, dimensions, and dimension values

You can reorder the presentation of any underlined dimension group, dimension, or dimension value.

To reorder the presentation order of dimension groups, dimension, or dimension values:

1. Select the **Dimension Order** page.
2. You can click **Edit Order** to reorder the top level of your data hierarchy, or you can select any underlined item on the page to modify its presentation order.
3. Navigate to the level in your data set that you want to modify and click **Edit Order**.
4. In the **Order** column, provide new values indicating the order in which you want the items to appear. Items appear in your application in descending order.
5. Optional. Click **Preview Order** to view the new presentation order before saving changes. Previewing does not save changes.
6. Click **Save Changes**.
7. To reorder other levels in the data set, navigate the data set using the bread crumbs at the top of the page and repeat steps 2-6.

For changes to take effect in your application, an administrator must run a baseline update.

Chapter 7

Working with Endeca reports

This section introduces Oracle Endeca Workbench reporting capabilities and explains how to configure and view them.

About reports

Reports allow you to look at what has happened on your site over the last day or week.

Depending on how you configure your reports, you can answer questions like these:

- How much traffic is my site getting?
- How are visitors searching and browsing the site?
- How effective are their searching and browsing techniques?

Depending upon how it is configured, the Oracle Endeca Workbench **View Reports** page can display a single daily or weekly report or allow you to browse and view historical report archives.

To get valid and useful end-user data, your Endeca reports should be run using the production version of your Endeca application. Your technical staff may either provide you with a separate login to view production reports, or they may copy these reports to your Oracle Endeca Workbench machine.

Related Links

Configuring report generation on page 89
> In order to enable Oracle Endeca Workbench to display reports on the **View Reports** page, you must configure report generation.

Accessing production reports on page 89
> Most business users work on a staging implementation of Oracle Endeca Workbench, but want to see reports based on the production system.

Logging and reporting in Oracle Endeca Workbench on page 88
> You can control the Log Server and Report Generator from Oracle Endeca Workbench to provide your business users with Endeca reports.

Viewing reports

The reports that are visible to you depend upon how Oracle Endeca Workbench is configured. If you need to include or exclude different reports or reporting information, or if reporting information does not appear, contact your technical team.

You need user permissions to access the **View Reports** page.

To view reports in Oracle Endeca Workbench:

1. In the navigation menu, click **View Reports**.
2. In the submenu that appears below **View Reports**, click one of the following:

   - Current (daily) displays the latest report with a daily timeframe.
   - Current (weekly) displays the latest report with a weekly timeframe.
   - Daily displays a list of archived daily reports by date in the main page. Click on any date in the list to display the corresponding report.
   - Weekly displays a list of archived weekly reports by date in the main page. Click on any date in the list to display the corresponding report.

Chapter 8

Specifying application settings

The following sections introduce Oracle Endeca Workbench application settings and explain in detail how to specify and configure each setting.

Managing users

This section introduces user management and details how to add and manage users in Oracle Endeca Workbench.

Related Links

Filtering on the **User Management** page provides a way to locate rule group permissions that are assigned to a particular user or user group.

About user management

An administrator must create users with a user name, password, identity information, and set of roles (permissions) to log in to Oracle Endeca Workbench. A user can be configured manually in Oracle Endeca Workbench or set up through LDAP.

Each business user profile is associated with a specific application and a business user profile cannot span applications. If necessary, an administrator can create a number of identical business user profiles for any number of applications. Administrators, on the other hand, span applications across Oracle Endeca Workbench.

Each role an administrator selects allows a business user access to a specific page in Oracle Endeca Workbench. For example, selecting the **rules** role allows a user to access the **Rule Manager** page. After adding a new user to Oracle Endeca Workbench, an administrator can modify user name, password, identity information, and roles as necessary. The user can also modify his or her own password as necessary.

See the *Oracle Endeca Workbench Administrator's Guide* for information about the default admin user and available user roles.

Related Links

Adding business users to Oracle Endeca Workbench on page 76
> Administrators and users with the settings role can configure users on the **User Management** page.

Adding administrators to Oracle Endeca Workbench on page 78
> Administrators can configure other administrators on the **User Management** page.

Modifying a user's profile on page 80
> Administrators and users with the settings role can modify aspects of a user profile including password, identity information, roles, and rule group permissions.

Modifying your password on page 80
> A business user can modify his or her password as necessary by accessing the **User Settings** page.

Filtering rule group permissions by rule group name on page 81
> Filtering on the **User Management** page provides a way to locate rule group permissions that are assigned to a particular user or user group.

Adding business users to Oracle Endeca Workbench

Administrators and users with the settings role can configure users on the **User Management** page.

You can add a user in one of three ways:

- Add a user manually in Oracle Endeca Workbench.
- Add a user that is stored in LDAP.
- Add a group that is stored in LDAP and assign roles and permissions to the group as a whole.

The second two options are only available if you have configured Oracle Endeca Workbench to use LDAP for user authentication. For more information about using Oracle Endeca Workbench with LDAP, see the *Oracle Endeca Workbench Administrator's Guide*.

To add a user to Oracle Endeca Workbench:

1. On the **Application Settings** > **User Management** page, click **Add User**.
2. Select a **Login Type**.

If you want	Select this Login Type
to add a user manually in Oracle Endeca Workbench	Workbench User
to add a user that is stored in LDAP	LDAP User
to add a group that is stored in LDAP	LDAP Group

3. Provide login and identity information for the type of user you are adding.

Login Type	Required information
For a Workbench User	1. Provide a **Username**. 2. Provide a **Password** and confirm it. 3. Provide **First Name**, **Last Name**, and an **Email Address** for the user.
For an LDAP User	1. Provide a **Username**. This is the id of the user in the LDAP directory. 2. Optionally, click **Check Name** to look up the user in the LDAP directory and confirm that the name is correct. 3. By default, the user inherits roles and permissions from any LDAP groups that have a profile defined in Oracle Endeca Workbench of which the user is a member. Any roles and permissions you select for this user are assigned in addition to the inherited roles and permissions. If you want the user to have only the roles and permissions you select (that is, the user will not inherit any roles or permissions from LDAP groups), select **Override LDAP Group Permissions**.
For an LDAP Group	1. Provide a **Group Name**. This is the name of the group as defined in the LDAP directory. 2. Optionally, click **Check Name** to look up the group in the LDAP directory and confirm that the name is correct.

4. In the **Page Access** section, select each page that you want to allow the user or group to access.
5. Filter the rule group permissions, if necessary, to locate a rule group.
6. For a rule group, select one of the following options:

- **Approve** - The user or group has permission to view, edit, and approve rules in the group.
- **Edit** - The user or group has permission to view and edit rules but no permission to approve rules in the group.
- **View** - The user or group has permission to view rules but no permission to edit or approve rules in the group.
- **None** - The user or group has no permission to view, edit, or approve rules in the group.

7. Repeat the above step as necessary to assign additional permissions.
8. Click **OK**.
9. Click **Save Changes**.

The new user or group profile displays on the **User Management** page for the application in which it was created.

Related Links

About user management on page 76

> An administrator must create users with a user name, password, identity information, and set of roles (permissions) to log in to Oracle Endeca Workbench. A user can be configured manually in Oracle Endeca Workbench or set up through LDAP.

About checking user and group names in LDAP on page 79

> If you have LDAP authentication enabled, you can look up users and groups in the LDAP directory by clicking **Check Name** before you add them to Oracle Endeca Workbench.

Adding administrators to Oracle Endeca Workbench

Administrators can configure other administrators on the **User Management** page.

You can add an administrator in one of three ways:

- Add an administrator manually through Oracle Endeca Workbench.
- Add a user that is stored in LDAP as an administrator.
- Add a group that is stored in LDAP as an administrator.

To add an administrator to Oracle Endeca Workbench:

1. Log in to Oracle Endeca Workbench as an administrator. Only administrators can create other administrators.
2. On the **Application Settings** > **User Management** page, click **Add Administrator**.
3. Select a **Login Type**.

If you want	Select this Login Type
to add an administrator manually in Oracle Endeca Workbench	**Workbench User**
to add a user that is stored in LDAP as an administrator	**LDAP User**
to add a group that is stored in LDAP as an administrator	**LDAP Group**

4. Provide login and identity information for the type of user you are adding.

Login Type	Required information
For a Workbench User	1. Provide a **Username**. 2. Provide a **Password** and confirm it. 3. Provide **First Name**, **Last Name**, and an **Email Address** for the administrator.
For an LDAP User	1. Provide a **Username**. This is the id of the user in the LDAP directory. 2. Optionally, click **Check Name** to look up the user in the LDAP directory and confirm that the name is correct.
For an LDAP Group	1. Provide a **Group Name**. This is the name of the group as defined in the LDAP directory.

Login Type	Required information
	2. Optionally, click **Check Name** to look up the group in the LDAP directory and confirm that the name is correct.

5. Click **OK**.

6. Click **Save Changes**.

The new administrator's profile displays on the **User Management** page and is available in every application in Oracle Endeca Workbench.

Related Links

About user management on page 76
> An administrator must create users with a user name, password, identity information, and set of roles (permissions) to log in to Oracle Endeca Workbench. A user can be configured manually in Oracle Endeca Workbench or set up through LDAP.

About checking user and group names in LDAP on page 79
> If you have LDAP authentication enabled, you can look up users and groups in the LDAP directory by clicking **Check Name** before you add them to Oracle Endeca Workbench.

About checking user and group names in LDAP

If you have LDAP authentication enabled, you can look up users and groups in the LDAP directory by clicking **Check Name** before you add them to Oracle Endeca Workbench.

After entering the name of an LDAP user or group in the **Add User** page, you can click **Check Name** to look up the user or group in the LDAP directory and confirm that the name is correct. If the user or group is found, any identity information such as name and email address that Oracle Endeca Workbench can retrieve from LDAP is filled in on the **Add User** page.

In addition, clicking **Check Name** retrieves the exact (case-sensitive) name of the user or group as specified in the LDAP directory and corrects the case in the user or group name field if necessary, so that the user name specified in Oracle Endeca Workbench matches the user name in the LDAP directory.

Note that if you do not use **Check Name**, it is possible to add a profile in Oracle Endeca Workbench for an LDAP user or LDAP group that does not exist in the LDAP directory.

When you edit the profile for an existing LDAP user or group, Oracle Endeca Workbench looks up the user or group to confirm that it still exists in the LDAP directory and fills in the identity fields if the information is found. However, the user or group name field is read-only and cannot be changed.

Related Links

Adding business users to Oracle Endeca Workbench on page 76
> Administrators and users with the settings role can configure users on the **User Management** page.

Adding administrators to Oracle Endeca Workbench on page 78
> Administrators can configure other administrators on the **User Management** page.

Modifying a user's profile

Administrators and users with the settings role can modify aspects of a user profile including password, identity information, roles, and rule group permissions.

You must have the settings role to modify the profile of a user or group. Only administrators can modify the profiles of other administrators.

> **Note:** You cannot change the user or group name once the profile has been created. To change a user or group name, create a new profile with the new name and the same roles and rule group permissions, then delete the existing user or group profile.

To modify a user or group profile:

1. On the **User Management** page, click the **User / Group Name** of the user or group whose profile you want to modify.
2. Modify the password as necessary.

   > **Note:** You cannot modify the password of an LDAP user in Oracle Endeca Workbench.

3. Modify the identity information as necessary. Oracle Endeca Workbench user cannot have a blank name.

   > **Note:** You cannot change the name or email information for an LDAP user or group in Oracle Endeca Workbench.

4. Select or deselect each role as necessary.

   > **Note:** Administrators are automatically assigned all roles.

5. In the **Rule Group Permissions** section, select the permissions you want to associate with the user or group.

   > **Note:** Administrators are automatically assigned the Approve permission for all rule groups.

6. Click **OK**.
7. Click **Save Changes**.

Related Links

> *About user management* on page 76
> > An administrator must create users with a user name, password, identity information, and set of roles (permissions) to log in to Oracle Endeca Workbench. A user can be configured manually in Oracle Endeca Workbench or set up through LDAP.

Modifying your password

A business user can modify his or her password as necessary by accessing the **User Settings** page.

You can only modify your password if your user profile was added manually in Oracle Endeca Workbench. If the **User Settings** option does not display in the navigation menu, check with your Oracle Endeca Workbench administrator.

If you have the settings role, you can modify your profile in the **User Management** page.

To modify your password as a non-admin user:

1. On the **User Settings** page, modify the password as necessary. You cannot have a blank password.
2. Click **OK**.
3. Click **Save Changes**.

Related Links

> *About user management* on page 76
>> An administrator must create users with a user name, password, identity information, and set of roles (permissions) to log in to Oracle Endeca Workbench. A user can be configured manually in Oracle Endeca Workbench or set up through LDAP.

Deleting users from Oracle Endeca Workbench

An administrator can delete users and groups from Oracle Endeca Workbench.

There are two restrictions on deleting users:

- You cannot delete yourself.
- There must be at least one administrator in the system who is . Oracle Endeca Workbench user. If you attempt to delete the last existing Oracle Endeca Workbench administrator, an error message will display.

To delete a user from Oracle Endeca Workbench:

1. On the **Application Settings** > **User Management** page, click the **Delete** icon for the user or group that you want to remove.
2. Click **Save Changes**.

Filtering rule group permissions by rule group name

Filtering on the **User Management** page provides a way to locate rule group permissions that are assigned to a particular user or user group.

Filtering is useful if you have a long list of Oracle Endeca Workbench rule groups, and you want to find a particular rule group permission to modify. The feature identifies rule groups by filtering against information stored in the **Rule Group** value. The default view of the **Rule Group Permissions** pane is not filtered. Oracle Endeca Workbench uses an implied wildcard to filter the Rule Group value. For example, this means that filtering for the characters "se" is equivalent to filtering for "*se*".

To filter rule group permissions by rule group name:

1. On the **User Management** page, select the name of the user or user group whose rule group permissions you want to examine.
2. In the **Rule Group Permissions** pane, select a permission filter from the list:

Option	Description
All Permissions	Filters for users who have any permissions including Approve, Edit, View, and None.
Approve	Filters for users who have only the Approve permission.
Edit	Filters for users who have only the Edit permission.

Option	Description
View	Filters for users who have only the View permission.
None	Filters for users who have no permissions assigned.

As soon as you select an option from the list, the permissions get filtered based on your choice.

3. Type a rule group name, partial rule group name, or letter within a rule group name to filter for.
4. Click **Filter**.
5. To restore the unfiltered view of the **Rule Group Permissions** pane, click **Clear Filter**.

Related Links

About user management on page 76

An administrator must create users with a user name, password, identity information, and set of roles (permissions) to log in to Oracle Endeca Workbench. A user can be configured manually in Oracle Endeca Workbench or set up through LDAP.

Assigning rule group permissions

This section provides basic information about rule group permissions and describes the procedures for assigning permissions, setting default permissions, and filtering rule group permissions by a user name.

Related Links

Specifying application settings on page 75

The following sections introduce Oracle Endeca Workbench application settings and explain in detail how to specify and configure each setting.

About rule group permissions on page 82

Rule group permissions control how users access rule groups and the rules contained in the groups.

Assigning rule group permissions by rule group on page 84

Once you create different rule groups, you may want to assign permissions to them for approving, editing and viewing rules.

Setting default permissions for new users and rule groups on page 85

On the **Rule Group Permissions** pane on the **User Management** page, an administrator specifies the default permission that controls how users may access rule groups. This is a system-wide default that affects new users, existing users, new rule groups, and existing rule groups.

Filtering rule group permissions by user name on page 85

Filtering on the **Rules Group Permissions** page lets you identify users and user groups that have rule group permissions.

About rule group permissions

Rule group permissions control how users access rule groups and the rules contained in the groups.

Rule group permissions also specify which users participate in the workflow of dynamic business rules. An administrator assigns rule group permissions in one of two ways:

- Assign by rule group on the **Rule Group Permissions** page.

- Assign by user or user group name on the **User Management** page.

There are four user permissions available as part of managing the workflow of dynamic business rules -- Approve, Edit, View, and None. You assign permissions for each rule group. A user may have one of the following permissions, for each rule group:

Approve

The Approve permission can also be assigned to all users in cases where workflow is not necessary. The typical role of a user with Approve permissions is to approve or reject activation requests made by a user with Edit permissions. If you have Approve permissions for a rule group, you can do any of the following:

- Create new rules (new rules begin with a state of Inactive: Draft).
- Copy rules.
- Edit both inactive and active rules.
- Activate and deactivate rules.

Edit

If you have Edit permissions for a rule group, you can do any of the following:

- Create new rules (new rules begin with a state of Inactive: Draft).
- Copy rules.
- Edit inactive rules.
- Make requests to activate and deactivate a rule.

An editor cannot edit an active rule, activate a rule, or make an active rule inactive.

View

If you have View permissions for a rule group, you can view but not modify or activate/deactivate rules.

None

If you have None permissions for a rule group, you cannot approve, edit, or view rules in a group. Users who have this permission for a rule group do not see the rule group displayed in Oracle Endeca Workbench.

New rule groups created with Developer Studio get the same default value that you specify in Oracle Endeca Workbench. Oracle Endeca Workbench applies the default permissions after you **Set Instance Configuration** from Developer Studio. If you happen to be using Developer Studio in stand-alone mode, Developer Studio does not create permissions for rule groups. Also, renaming a rule group preserves its associated permissions. In other words, if Rule Group A has Approve permissions and you rename it to Rule Group B, then Rule Group B has Approve permissions.

Note:

> Any user assigned a rules role (with the exception of the None permission) can view a list of dynamic pages in the Rule Manager. However, from the Rule Manager you cannot edit, copy, delete, prioritize, activate, deactivate, request activation, or request deactivation for dynamic pages. The pages are read-only and only display in the Rule List.

Related Links

Once you create different rule groups, you may want to assign permissions to them for approving, editing and viewing rules.

Setting default permissions for new users and rule groups on page 85

On the **Rule Group Permissions** pane on the **User Management** page, an administrator specifies the default permission that controls how users may access rule groups. This is a system-wide default that affects new users, existing users, new rule groups, and existing rule groups.

Filtering rule group permissions by user name on page 85

Filtering on the **Rules Group Permissions** page lets you identify users and user groups that have rule group permissions.

Assigning rule group permissions by rule group

Once you create different rule groups, you may want to assign permissions to them for approving, editing and viewing rules.

To assign rule group permissions to a rule group:

1. On the **Rule Group Permission** page, do one of the following:

   - If your application uses a single rule group, skip to step 2.
   - If your application uses multiple rule groups, select a rule group whose permissions you want to modify.

2. On the **Rule Group** page, filter the list, if necessary to locate a user name.
3. For a user and rule group combination (a row), select one of the following options:

Permission	Description
Approve	The user has permission to view, edit, and approve rules in the group.
Edit	The user has permission to view and edit rules but no permission to approve rules in the group.
View	The user has permission to view rules but no permission to edit or approve rules in the group.
None	The user has no permission to view, edit, or approve rules in the group. Users with this permission will not see the rule group displayed in Oracle Endeca Workbench.

4. Repeat the above step as necessary to assign additional permissions.
5. Click **Save Changes**.
6. Click **Save**.

Related Links

Setting default permissions for new users and rule groups on page 85

On the **Rule Group Permissions** pane on the **User Management** page, an administrator specifies the default permission that controls how users may access rule groups. This is a system-wide default that affects new users, existing users, new rule groups, and existing rule groups.

Filtering rule group permissions by user name on page 85

Filtering on the **Rules Group Permissions** page lets you identify users and user groups that have rule group permissions.

> Rule group permissions control how users access rule groups and the rules contained in the groups.

Setting default permissions for new users and rule groups

On the **Rule Group Permissions** pane on the **User Management** page, an administrator specifies the default permission that controls how users may access rule groups. This is a system-wide default that affects new users, existing users, new rule groups, and existing rule groups.

To set default rule group permissions:

1. Select the **User Management** page.
2. Under the **Rule Group Permissions** pane, select one of the options:

Permission	Description
Approve	New users and user groups have permission to view, edit, and approve rules.
Edit	New users and user groups have permission to view and edit rules but no permission to approve rules.
View	New users and user groups have permission to view rules but no permission to edit or approve rules.
None	New users and user groups have no permissions to view, edit, or approve rules. Users with this permission will not see the rule group displayed in Oracle Endeca Workbench.

3. Click **Save Changes**.

An administrator assigns more granular permissions for any particular rule group on the **Rule Group Permissions** page.

Related Links

> Once you create different rule groups, you may want to assign permissions to them for approving, editing and viewing rules.

> Filtering on the **Rules Group Permissions** page lets you identify users and user groups that have rule group permissions.

> Rule group permissions control how users access rule groups and the rules contained in the groups.

Filtering rule group permissions by user name

Filtering on the **Rules Group Permissions** page lets you identify users and user groups that have rule group permissions.

Filtering is useful if you have a long list of users, and you want to find a particular user and his or her associated rule group permissions. You can find different types of rule users by filtering against information stored in the **Username**, **First Name**, and **Last Name** values. Oracle Endeca Workbench

uses an implied wildcard to filter the **Username**, **First Name**, and **Last Name** values. This means that filtering for the characters "se" is equivalent to filtering for "*se*".

The default view of **Rule Group Permissions** is not filtered. Also, filtering applies only to the users who have permissions for the rule group you selected.

1. On the **Rule Group Permissions** page, select **All Groups** or the rule group within which you want to perform the filtering by user name.
2. Select a permission filter from the list:

Option	Description
All Permissions	Filters for users who have any permissions including Approve, Edit, View, and None.
Approve	Filters for users who have only the Approve permission.
Edit	Filters for users who have only the Edit permission.
View	Filters for users who have only the View permission.
None	Filters for users who have no permissions assigned.

As soon as you select an option from the list, the permissions get filtered, based on your choice.
3. Type a name, partial name, or letter within a name to filter for.
4. Click **Filter**.
5. To restore the unfiltered view of the **Rule Group Permission** page, click **Clear Filter**.

Related Links

Assigning rule group permissions by rule group on page 84
> Once you create different rule groups, you may want to assign permissions to them for approving, editing and viewing rules.

Setting default permissions for new users and rule groups on page 85
> On the **Rule Group Permissions** pane on the **User Management** page, an administrator specifies the default permission that controls how users may access rule groups. This is a system-wide default that affects new users, existing users, new rule groups, and existing rule groups.

About rule group permissions on page 82
> Rule group permissions control how users access rule groups and the rules contained in the groups.

Managing resource locks

This section contains information about resource locks and describes the procedure for breaking them.

Related Links

Specifying application settings on page 75
> The following sections introduce Oracle Endeca Workbench application settings and explain in detail how to specify and configure each setting.

About resource locks on page 87
> A resource corresponds to a page in Oracle Endeca Workbench, such as the **Thesaurus** page, **Rule Manager** page, or a rule group on the **Rule Manager** page. A user acquires a

resource lock by selecting a page, rule group, or redirect group that the user has permission to access.

An administrator can break the resource locks of any user logged in to Oracle Endeca Workbench. After breaking a lock, the resources (Oracle Endeca Workbench pages or groups) will be available to other users. Note that breaking a user's lock causes that user to lose any unsaved changes.

About resource locks

A resource corresponds to a page in Oracle Endeca Workbench, such as the **Thesaurus** page, **Rule Manager** page, or a rule group on the **Rule Manager** page. A user acquires a resource lock by selecting a page, rule group, or redirect group that the user has permission to access.

On the **Resource Locks** page, an administrator can view or break resource locks that users have acquired during their Oracle Endeca Workbench session. There is no limit to the number of page locks a user may lock during a session. A user can lock only one rule group or keyword redirect group at a time.

While one user has a resource locked, no other user can select the resource without getting an error such as "This component is currently in use by another application or user". Resource locking protects a project from multiple users making conflicting changes at the same time.

Not all pages (resources) in the navigation pane of Oracle Endeca Workbench can be locked. Oracle Endeca Workbench locks the following pages when a user selects them:

- **Thesaurus**
- **Rule Manager**
- **Phrases**
- **Stop Words**
- **Dimension Order**

In addition, if an application uses rule groups on the **Rule Manager** page or redirect groups on the **Redirect List** page, then Oracle Endeca Workbench treats each group as a separate resource and locks the group when a user selects it. The **Preview App Settings** and **View Reports** pages are not locked if a user selects them.

Oracle Endeca Workbench releases a resource lock in the following cases:

- When a user logs out by clicking the **Logout** link.
- When a user closes his or her Web browser. Oracle Endeca Workbench logs the user out approximately one minute after the browser closes.

  Note: If multiple browser windows are open with the same user log in, the lock is released only after the last window is closed.

- When Oracle Endeca Workbench ends a user's session by timing out. Oracle Endeca Workbench ends a session after 20 minutes of inactivity.
- When an administrator breaks a resource lock on the **Resource Locks** page.
- When a user clicks a rule group on the **Rule Manager** page or clicks a keyword redirect group on the **Redirect List** page. Each rule group or redirect group is locked individually and the lock is broken individually when a user selects a different group.

Related Links

An administrator can break the resource locks of any user logged in to Oracle Endeca Workbench. After breaking a lock, the resources (Oracle Endeca Workbench pages or groups) will be available to other users. Note that breaking a user's lock causes that user to lose any unsaved changes.

Breaking a resource lock

An administrator can break the resource locks of any user logged in to Oracle Endeca Workbench. After breaking a lock, the resources (Oracle Endeca Workbench pages or groups) will be available to other users. Note that breaking a user's lock causes that user to lose any unsaved changes.

To break a lock:

1. On the **Resource Locks** page, click the delete icon associated with the lock you want to release.
2. Click **Break lock**.

Related Links

> *About resource locks* on page 87
> > A resource corresponds to a page in Oracle Endeca Workbench, such as the **Thesaurus** page, **Rule Manager** page, or a rule group on the **Rule Manager** page. A user acquires a resource lock by selecting a page, rule group, or redirect group that the user has permission to access.

Report configuration

This section contains information about logging and reporting in Oracle Endeca Workbench.

Related Links

> *Specifying application settings* on page 75
> > The following sections introduce Oracle Endeca Workbench application settings and explain in detail how to specify and configure each setting.
>
> *Logging and reporting in Oracle Endeca Workbench* on page 88
> > You can control the Log Server and Report Generator from Oracle Endeca Workbench to provide your business users with Endeca reports.
>
> *Configuring report generation* on page 89
> > In order to enable Oracle Endeca Workbench to display reports on the **View Reports** page, you must configure report generation.
>
> *Accessing production reports* on page 89
> > Most business users work on a staging implementation of Oracle Endeca Workbench, but want to see reports based on the production system.

Logging and reporting in Oracle Endeca Workbench

You can control the Log Server and Report Generator from Oracle Endeca Workbench to provide your business users with Endeca reports.

For an overview of Endeca logging and reporting, see the *Endeca Log Server and Report Generator Guide*.

- On the **EAC Administration** > **EAC Admin Console** page, you can add a Log Server and a Report Generator to your system.
- On the **Application Settings** > **Report Generation** page, you specify the kind of reports you want to generate as well as their size.
- On the **EAC Administration** > **EAC Administration Console** page, you can start and stop the Log Server, as well as check the status of reporting components.

Configuring report generation

In order to enable Oracle Endeca Workbench to display reports on the **View Reports** page, you must configure report generation.

Before you configure report generation, ensure that you have already provisioned the Log Server and the Report Generator.

Daily reports run from 12 a.m. to 11:59:59 p.m. Weekly reports also begin at 12 a.m. and you can specify the day that begins a weekly report. For example, your weekly report can run from 12 am on Monday to 11:59:59 p.m. on the following Sunday. Reports are automatically written to the EAC directory `/workspace/working/reports/application_name` on UNIX and `\workspace\working\reports\application_name` on Windows. You cannot specify an alternate reports directory.

To enable Oracle Endeca Workbench to display reports on the **View Reports** page:

1. Under **Application Settings**, select the **Report Generation** page.
2. Check one or both of the following:

   - Check **Daily Reports** if you want reports generated once a day.
   - Check **Weekly Reports** if you want reports generated weekly. Then select the day of the week from the drop-down list, to indicate on which day of the week you want your reports to be generated.

3. Click **OK**.

Accessing production reports

Most business users work on a staging implementation of Oracle Endeca Workbench, but want to see reports based on the production system.

To access production reports in Oracle Endeca Workbench:

You may choose to do one of the following:

- Provide them with two Oracle Endeca Workbench logins: one with read/write privileges on several tabs for the Oracle Endeca Workbench instance that is running the preview application, and one with read-only privileges on the **View Reports** page for the instance that is running the production application. That way, business users cannot inadvertently destabilize the production application with inappropriate changes.
- Copy reports generated on the production system into the appropriate daily or weekly subdirectories in the reports directory created by the Report Generator in its working directory.

Downloading the instance configuration

This section provides information about the instance configuration and describes the procedure for downloading the instance configuration files.

Related Links

Specifying application settings on page 75
> The following sections introduce Oracle Endeca Workbench application settings and explain in detail how to specify and configure each setting.

About the instance configuration on page 90
> An instance configuration is the set of XML files that describe all the configuration settings of your application.

Downloading the instance configuration on page 90
> You download the instance configuration files in a single archive called instconfig.zip.

About the instance configuration

An instance configuration is the set of XML files that describe all the configuration settings of your application.

Each file in an instance configuration, and information about the file, is listed on the **Instance Configuration** page. You can download a zip file of the entire instance configuration. These files can be used for debugging and support purposes.

Related Links

Downloading the instance configuration on page 90
> You download the instance configuration files in a single archive called instconfig.zip.

Downloading the instance configuration

You download the instance configuration files in a single archive called instconfig.zip.

The project file (.esp extension) used by Developer Studio is not included in instconfig.zip.

To download the instance configuration:

1. In the **Instance Configuration** page, click **Download**.
2. In the file download dialog box, choose **Save**.
3. In the **Save As** dialog box, browse to the location where you want to save instconfig.zip.
4. Click **Save**.

Related Links

About the instance configuration on page 90
> An instance configuration is the set of XML files that describe all the configuration settings of your application.

Specifying preview application settings

This section provides reference material for the preview application and describes the procedures for provisioning, enabling, and disabling the preview application.

Related Links

> The following sections introduce Oracle Endeca Workbench application settings and explain in detail how to specify and configure each setting.

> The **Preview App Settings** page allows you to specify parameters that enable the display of the preview application.

> Once you first open your application in Oracle Endeca Workbench, the **URL Mapping** values are filled in by default in Oracle Endeca Workbench. This enables Oracle Endeca Workbench to display the preview application for the reference implementation.

> The **URL Mapping** fields allow you to define a generic syntax that describes to Oracle Endeca Workbench how to build URLs.

> To enable communication between Oracle Endeca Workbench and a preview application, you must specify **URL Mapping** values on the **Preview App Settings** page. The URLs contain variable mappings that describe to Oracle Endeca Workbench how to build search and navigation URLs for your preview application.

> In general, the preview application displays by default in the **Preview** pane. You can tell Oracle Endeca Workbench not to display the preview application in the **Preview** pane.

> The preview application displays by default in the **Preview** pane. However, if the preview application has been disabled from display, you cannot preview your rules.

Specifying general preview application settings

The **Preview App Settings** page allows you to specify parameters that enable the display of the preview application.

On the **Preview App Settings** page you specify the following:

- the JavaScript domain
- the encoding for the preview application
- the URL Mapping settings for your preview application

In general, Oracle Endeca Workbench communicates with and controls the embedded preview application via JavaScript:

- If Oracle Endeca Workbench and the preview application are running on *different machines,* you must specify a JavaScript domain. Oracle Endeca Workbench and the preview application that are running on different machines must have the same JavaScript domain property. The JavaScript domain property provides security for JavaScript applications that need to communicate with one another but that run in different browser windows, or in this case, run in different frames of a browser.

• If Oracle Endeca Workbench and the preview application are running on *the same machine,* a JavaScript domain property is not necessary.

To specify general preview application settings:

1. In the **General** section of the **Preview App Settings** page, do one of the following:

If the preview application and Oracle Endeca Workbench are installed on different machines	Enter a JavaScript domain in the **Javascript Domain** field. (This is equivalent to declaring the domain in your JavaScript headers.) If the Web server is not using port 8006, enter a JavaScript domain consisting of `Domain name:Web server port.`
If the applications are installed on the same machine and the Web server is using port 8006	Leave the **Javascript Domain** field empty.

2. In the **Encoding** field, enter the name of a character set. This character set will be used primarily in the **Rules Manager** page to encode some of the keywords within a URL. If the Encoding field is not modified, it defaults to UTF-8.
    Some examples of encodings are:

    • ISO8859-1 (Latin-1)
    • ISO8859-15 (Latin-9)
    • CP1252 (WINDOWS-1252)
    • ASCII
    • UTF-8

Example: when to specify the JavaScript domain

Suppose hostA.endeca.com is running Oracle Endeca Workbench and hostB.endeca.com is running the preview application. The JavaScript domain is endeca.com. In addition, if a business user wants to create rules in the **Rule Manager**, and that user's Web server is using a port other than 8006, you must add the port number to the JavaScript domain.

Related Links

Providing or confirming preview application URLs on page 94
> To enable communication between Oracle Endeca Workbench and a preview application, you must specify **URL Mapping** values on the **Preview App Settings** page. The URLs contain variable mappings that describe to Oracle Endeca Workbench how to build search and navigation URLs for your preview application.

Disabling the display of the preview application on page 96
> In general, the preview application displays by default in the **Preview** pane. You can tell Oracle Endeca Workbench not to display the preview application in the **Preview** pane.

Enabling the display of the preview application on page 97
> The preview application displays by default in the **Preview** pane. However, if the preview application has been disabled from display, you cannot preview your rules.

Default values for the preview application URLs on page 93
> Once you first open your application in Oracle Endeca Workbench, the **URL Mapping** values are filled in by default in Oracle Endeca Workbench. This enables Oracle Endeca Workbench to display the preview application for the reference implementation.

Syntax of URL mapping in the preview application on page 94

The **URL Mapping** fields allow you to define a generic syntax that describes to Oracle Endeca Workbench how to build URLs.

Default values for the preview application URLs

Once you first open your application in Oracle Endeca Workbench, the **URL Mapping** values are filled in by default in Oracle Endeca Workbench. This enables Oracle Endeca Workbench to display the preview application for the reference implementation.

You can either provide your own URL values or disable the display of the preview application. If you prefer that Oracle Endeca Workbench does not display the preview application, you can clear out the default values. If you delete the default URL values, the preview application does not display and the options for previewing rules do not display.

If you delete the default URL values and later on decide that you want to display the preview application, you will need to add the URL values. Use the examples below when adding your own URL values to these fields. The default values for the URLs point to the reference application, as follows:

- The host points by default to the host of Oracle Endeca Workbench.
- The port points by default to the Oracle Endeca Workbench port.
- The eneHost value in the query string points by default to the host of the first MDEX Engine found on the Central Server.
- The enePort value in the query string points by default to the port of the first MDEX Engine found on the Central Server.
- The values for the URLs point by default to the JSP reference application.

Here is an example of values that display in the URL Mapping panel by default:

Search URL	`http://localhost:8006/endeca_jspref/controller.jsp?ene¬`
	`Host=local¬`
	`host&enePort=8000&N=0&Ntk=${key}&Ntt=${terms}&Nty=1&D=${terms}&Dx=mode+matchall&Dxmode+matchall&Nmpt=${pre¬`
	`viewtime}&Nmrf=${rulefilter}`

Navigation URL	`http://localhost:8006/endeca_jspref/controller.jsp?ene¬`
	`Host=localhost&enePort=8000&N=${nav}&Nmpt=${preview¬`
	`time}&Nmrf=${rulefilter}`

Search and Navigation URL	`http://localhost:8006/endeca_jspref/controller.jsp?ene¬`
	`Host=local¬`
	`host&enePort=8000&N=${nav}&Ntk=${key}&Ntt=${terms}&Ntx=mode+matchall&Nmpt=${pre¬`
	`viewtime}&Nmrf=${rulefilter}`

Record URL	`http://localhost:8006/endeca_jspref/controller.jsp?ene¬` `Host=localhost&enePort=8000&R=${record}`

Related Links

> The **Preview App Settings** page allows you to specify parameters that enable the display of the preview application.

> To enable communication between Oracle Endeca Workbench and a preview application, you must specify **URL Mapping** values on the **Preview App Settings** page. The URLs contain variable mappings that describe to Oracle Endeca Workbench how to build search and navigation URLs for your preview application.

Disabling the display of the preview application on page 96
> In general, the preview application displays by default in the **Preview** pane. You can tell Oracle Endeca Workbench not to display the preview application in the **Preview** pane.

Enabling the display of the preview application on page 97
> The preview application displays by default in the **Preview** pane. However, if the preview application has been disabled from display, you cannot preview your rules.

Syntax of URL mapping in the preview application

The **URL Mapping** fields allow you to define a generic syntax that describes to Oracle Endeca Workbench how to build URLs.

For example: `http://mycompany.com:8006/myapp/controller.jsp?eneHost=local¬ host&enePort=8000&N=${nav}&Ntk=${key}&Ntt=${terms}&Nmpt=${previewtime}&Nm¬ rf=${rulefilter}&R=${record}`. The generic syntax uses several variables:

Variable	Description
${terms}	Denotes the search term
${key}	Denotes the search key (property or dimension name)
${nav}	Denotes the navigation parameter
${previewtime}	Denotes the merchandising preview time parameter
${rulefilter}	Denotes the merchandising rule filter parameter
${record}	Denotes the record for a featured result

Related Links

Specifying general preview application settings on page 91
> The **Preview App Settings** page allows you to specify parameters that enable the display of the preview application.

Providing or confirming preview application URLs on page 94
> To enable communication between Oracle Endeca Workbench and a preview application, you must specify **URL Mapping** values on the **Preview App Settings** page. The URLs contain variable mappings that describe to Oracle Endeca Workbench how to build search and navigation URLs for your preview application.

Disabling the display of the preview application on page 96
> In general, the preview application displays by default in the **Preview** pane. You can tell Oracle Endeca Workbench not to display the preview application in the **Preview** pane.

Enabling the display of the preview application on page 97
> The preview application displays by default in the **Preview** pane. However, if the preview application has been disabled from display, you cannot preview your rules.

Providing or confirming preview application URLs

To enable communication between Oracle Endeca Workbench and a preview application, you must specify **URL Mapping** values on the **Preview App Settings** page. The URLs contain variable mappings that describe to Oracle Endeca Workbench how to build search and navigation URLs for your preview application.

1. Under the **Application Settings** section of Oracle Endeca Workbench, select the **Preview App Settings** page.

2. In the **Search URL** field, enter or confirm that there is a URL for search-only parameters. This URL must contain the preview application's server name, port number, URL path, preview application's primary navigation parameter, search parameters, and the Nmpt and Nmrf parameters for rule filtering.
   For example, the JSP reference implementation uses the following: `http://`*`hostname:port`*`/en¬`
   `deca_jspref/controller.jsp?eneHost=local¬`
   `host&enePort=8000&N=0&Ntk=${key}&Ntt=${terms}&Nmpt=${previewtime}&Nm¬`
   `rf=${rulefilter}&[Other search parameters such as nty, ntx, and so on]`

3. In the **Navigation URL** field, enter or confirm a URL for navigation-only parameters. This URL must contain the N navigation parameter for the preview application and the Nmpt and Nmrf parameters for rule filtering.
   For example, the JSP reference implementation uses the following: `http://`*`hostname:port`*`/en¬`
   `deca_jspref/controller.jsp?eneHost=local¬`
   `host&enePort=8000&N=${nav}&Nmpt=${previewtime}&Nmrf=${rulefilter}`

4. In the **Search and Navigation URL** field, enter or confirm a URL for both search and navigation parameters. This URL must contain both the N navigation parameter and search parameters for the preview application and the Nmpt and Nmrf parameters for rule filtering.
   For example, the JSP reference implementation uses the following: `http://`*`hostname:port`*`/en¬`
   `deca_jspref/controller.jsp?eneHost=local¬`
   `host&enePort=8000&N=${nav}&Ntk=${key}&Ntt=${terms}&Nmpt=${previewtime}&Nm¬`
   `rf=${rulefilter}[Other search parameters such as nty, ntx, and so on]`

5. In the **Record URL** field, enter or confirm a URL for the featured results parameter. This URL must contain the N navigation parameter, the R record parameter, and the Nmpt and Nmrf parameters for rule filtering.
   For example, the JSP reference implementation uses the following: `http://`*`hostname:port`*`/en¬`
   `deca_jspref/controller.jsp?eneHost=local¬`
   `host&enePort=8000&N=${nav}&Ntk=${key}&Ntt=${terms}&Nmpt=${previewtime}&Nm¬`
   `rf=${rulefilter}&R=${record}[Other search parameters such as nty, ntx,`
   `and so on]`

6. Specify a **Default Search Key**. This search key affects how Oracle Endeca Workbench builds the preview application URLs when communicating between the **Rule List** portion of Oracle Endeca Workbench and the preview application itself. Typically, the default search key corresponds to your global search interface (specified in Developer Studio).
   For example, in the sample wine application the global search interface is named "all".

7. If necessary, de-select **Application Instrumented**. This option is selected by default. Selecting the **Application Instrumented** option means that the preview application is instrumented and available to set triggers and targets using the preview application. Business users can search and navigate in the preview application within the **Rule Manager** page and set triggers, display triggers, and preview rule results. These actions are reflected in the **Rule Manager** list. De-selecting the **Application Instrumented** option disconnects the preview application from interacting with features on the **Rule Manager** page. In other words, searching and navigating in the preview application does not affect the **Rule List** in any way. However, de-selecting this option still allows business users to click triggers and view the preview status in the **Rule List**.

8. Click **OK** to apply your changes.

Related Links

> The **Preview App Settings** page allows you to specify parameters that enable the display of the preview application.

Disabling the display of the preview application on page 96

> In general, the preview application displays by default in the **Preview** pane. You can tell Oracle Endeca Workbench not to display the preview application in the **Preview** pane.

Enabling the display of the preview application on page 97

> The preview application displays by default in the **Preview** pane. However, if the preview application has been disabled from display, you cannot preview your rules.

Default values for the preview application URLs on page 93

> Once you first open your application in Oracle Endeca Workbench, the **URL Mapping** values are filled in by default in Oracle Endeca Workbench. This enables Oracle Endeca Workbench to display the preview application for the reference implementation.

Syntax of URL mapping in the preview application on page 94

> The **URL Mapping** fields allow you to define a generic syntax that describes to Oracle Endeca Workbench how to build URLs.

Disabling the display of the preview application

In general, the preview application displays by default in the **Preview** pane. You can tell Oracle Endeca Workbench not to display the preview application in the **Preview** pane.

Only Oracle Endeca Workbench administrators can enable or disable display of the preview application.

It can be useful to disable this feature when you choose not to set up a preview application. For example, if you need to perform quick configuration changes to your real application in a staging environment, you may not need to see any application previews. In this case, you can tell Oracle Endeca Workbench not to display the preview application for your current application. At a later stage, you can set up your preview application and decide to display it as well. When you first open your application in Oracle Endeca Workbench, the **Application Settings** > **Preview App Settings** page contains URL mapping values for the reference implementation. This enables the display of the preview application for the reference implementation. If you clear out the values in the URL fields, the preview application will not display.

To disable the display of a preview application in Oracle Endeca Workbench:

1. Log in to Oracle Endeca Workbench as an administrator.
2. Select **Application Settings** > **Preview App Settings**.
3. In the **URL Mapping** panel, clear the entries for all four fields: **Search URL**, **Navigation URL**, **Search and Navigation URL** and **Record URL**.
4. Click **OK**.

The preview for the application does not display in the **Preview** pane of the **Rule Manager**.

Related Links

Specifying general preview application settings on page 91

> The **Preview App Settings** page allows you to specify parameters that enable the display of the preview application.

Providing or confirming preview application URLs on page 94

> To enable communication between Oracle Endeca Workbench and a preview application, you must specify **URL Mapping** values on the **Preview App Settings** page. The URLs contain variable mappings that describe to Oracle Endeca Workbench how to build search and navigation URLs for your preview application.

Enabling the display of the preview application on page 97

The preview application displays by default in the **Preview** pane. However, if the preview application has been disabled from display, you cannot preview your rules.

Default values for the preview application URLs on page 93
>   Once you first open your application in Oracle Endeca Workbench, the **URL Mapping** values are filled in by default in Oracle Endeca Workbench. This enables Oracle Endeca Workbench to display the preview application for the reference implementation.

Syntax of URL mapping in the preview application on page 94
>   The **URL Mapping** fields allow you to define a generic syntax that describes to Oracle Endeca Workbench how to build URLs.

Enabling the display of the preview application

The preview application displays by default in the **Preview** pane. However, if the preview application has been disabled from display, you cannot preview your rules.

Only Oracle Endeca Workbench administrators can enable or disable display of the preview application.

To enable the display of a preview application in Oracle Endeca Workbench:

1. Log in to Oracle Endeca Workbench as an administrator.
2. Select **Application Settings** > **Preview App Settings**.
3. In the **URL Mapping** panel, fill in the entries for all four fields: **Search URL**, **Navigation URL**, **Search and Navigation URL** and **Record URL**.
4. If your preview application is instrumented, select **Application Instrumented**.
5. Click **OK**.

The preview for the application displays in the **Preview** pane of the **Rule Manager**.

Related Links

Specifying general preview application settings on page 91
>   The **Preview App Settings** page allows you to specify parameters that enable the display of the preview application.

Providing or confirming preview application URLs on page 94
>   To enable communication between Oracle Endeca Workbench and a preview application, you must specify **URL Mapping** values on the **Preview App Settings** page. The URLs contain variable mappings that describe to Oracle Endeca Workbench how to build search and navigation URLs for your preview application.

Disabling the display of the preview application on page 96
>   In general, the preview application displays by default in the **Preview** pane. You can tell Oracle Endeca Workbench not to display the preview application in the **Preview** pane.

Default values for the preview application URLs on page 93
>   Once you first open your application in Oracle Endeca Workbench, the **URL Mapping** values are filled in by default in Oracle Endeca Workbench. This enables Oracle Endeca Workbench to display the preview application for the reference implementation.

Syntax of URL mapping in the preview application on page 94
>   The **URL Mapping** fields allow you to define a generic syntax that describes to Oracle Endeca Workbench how to build URLs.

Chapter 9

Administering an Endeca application

The following sections provide system administrators and application developers with information and instructions for provisioning, administrating, monitoring, and managing an Endeca application.

About administration tasks

The tasks described in "Administering an Endeca application" are intended for system administrators.

Users who do not have administrator privileges do not have access to the functionality described in this section. Additional information can be found in the *Oracle Endeca Workbench Administrator's Guide*.

You can use Oracle Endeca Workbench to perform the following system administration tasks:

- System provisioning
- System operations

System provisioning describes the operations necessary to assign resources available to a new Endeca application, and it describes modifying the resources in an existing application. You provision an application on the **EAC Admin Console** page. Typically, you provision an application in the following order:

1. Create or delete an Endeca application.
2. Add or remove hosts from the application.
3. Add, remove, or configure Endeca components on one or more hosts. Endeca components include Forge, the Indexer, Aggregated Indexer, MDEX Engine, Aggregated MDEX Engine, Log Server, and Report Generator.
4. Add or remove an EAC script.

System operations describe how to run the Endeca components and the EAC scripts involved in an Endeca application. On the **EAC Admin Console** page, you can do the following:

- Start and stop the Endeca components you provision.
- Start and stop the EAC scripts you provision. These scripts perform typically baseline updates.
- Monitor the status of Endeca components.

Related Links

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Starting an Endeca component in Oracle Endeca Workbench on page 129
> After you provision an Endeca component (i.e. Forge, the Indexer, MDEX Engine and so on), it is available to start or stop.

Stopping an Endeca component in Oracle Endeca Workbench on page 129
> After you provision an Endeca component (i.e. Forge, the Indexer, MDEX Engine and so on), it is available to start or stop.

About Endeca components

On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

These components include:

- **Forge** - processes your source data into Endeca records.

- The **Indexer** (or Dgidx) - indexes the Endeca records.
- The **MDEX Engine** (or Dgraph) - processes user queries.
- The **Aggregated MDEX Engine** (or Agraph) - coordinates the activities of multiple instances of Dgidx and the MDEX Engine running on distributed processors.
- The **Log Server** - captures application logging requests and translates them into a format that the Report Generator can process.
- The **Report Generator** - processes the log files generated by the Log Server into XML reports that you can view in Oracle Endeca Workbench.

Related Links

Endeca MDEX Engine on page 112
> The Endeca MDEX Engine is the search engine that powers Endeca-enabled applications.

Adding Forge to an application on page 105
> You add a Forge component to an application using Oracle Endeca Workbench, as part of provisioning.

Adding an Indexer to an application on page 107
> An Indexer component (Dgidx) takes the data prepared by Forge and generates the proprietary indices for an MDEX Engine.

Adding an MDEX Engine to an application on page 112
> An MDEX Engine component launches the Dgraph (MDEX Engine) software and processes queries against the indexed Endeca records.

Provisioning an application

This section contains detailed instructions for each of the tasks involved in provisioning an application.

Related Links

Administering an Endeca application on page 99
> The following sections provide system administrators and application developers with information and instructions for provisioning, administrating, monitoring, and managing an Endeca application.

About administration tasks on page 99

The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Specifying EAC settings on page 130
> This section provides detailed instructions for specifying the EAC Central Server.

Adding an application to the Central Server on page 103
> Adding an application to the Central Server adds the provisioning information for an application to the Central Server.

Deleting an application from the Central Server on page 103
> Deleting an application from the Central Server removes the provisioning information for an application from the Central Server.

Adding a host to an application on page 104
> Adding a host to an application informs Oracle Endeca Workbench that the machine is available for any task in an Endeca implementation.

Editing a host in an application on page 105
> You can change the properties of a host that you provision using Oracle Endeca Workbench.

Deleting a host from an application on page 105
> If you are no longer using a machine in your Endeca implementation, you can remove its information from Oracle Endeca Workbench.

Adding Forge to an application on page 105
> You add a Forge component to an application using Oracle Endeca Workbench, as part of provisioning.

Editing Forge in an application on page 107
> You edit a Forge component in an application using Oracle Endeca Workbench.

Deleting Forge from an application on page 107
> You can remove a Forge component from an application in Oracle Endeca Workbench.

Adding an Indexer to an application on page 107
> An Indexer component (Dgidx) takes the data prepared by Forge and generates the proprietary indices for an MDEX Engine.

Editing an Indexer for an application on page 109
> An Indexer component (Dgidx) takes the data prepared by Forge and generates the proprietary indices for an MDEX Engine.

Deleting an Indexer from an application on page 109
> An Indexer component (Dgidx) takes the data prepared by Forge and generates the proprietary indices for an MDEX Engine.

Adding an Aggregated Indexer to an application on page 109
> An Aggregated Indexer component runs Agidx on a machine, creating a set of Agidx indices that support the Agraph program in a distributed environment.

Editing an Aggregated Indexer in an application on page 110
> An Aggregated Indexer component runs Agidx on a machine, creating a set of Agidx indices that support the Agraph program in a distributed environment.

Deleting an Aggregated Indexer from an application on page 111
> An Aggregated Indexer component runs Agidx on a machine, creating a set of Agidx indices that support the Agraph program in a distributed environment.

Endeca MDEX Engine on page 112
>   The Endeca MDEX Engine is the search engine that powers Endeca-enabled applications.

Adding an MDEX Engine to an application on page 112
>   An MDEX Engine component launches the Dgraph (MDEX Engine) software and processes queries against the indexed Endeca records.

Editing an MDEX Engine in an application on page 114
>   An MDEX Engine component launches the Dgraph (MDEX Engine) software and processes queries against the indexed Endeca records.

Deleting an MDEX Engine from an application on page 114
>   An MDEX Engine component launches the Dgraph (MDEX Engine) software and processes queries against the indexed Endeca records.

Adding an Aggregated MDEX Engine to an application on page 115
>   An Aggregated MDEX Engine (Agraph) runs the Agraph program, which defines and coordinates the activities of multiple, distributed MDEX Engines (Dgraphs).

Editing an Aggregated MDEX Engine on page 116
>   An Aggregated MDEX Engine (Agraph) runs the Agraph program, which defines and coordinates the activities of multiple, distributed MDEX Engines (Dgraphs).

Deleting an Aggregated MDEX Engine from an application on page 117
>   An Aggregated MDEX Engine (Agraph) runs the Agraph program, which defines and coordinates the activities of multiple, distributed MDEX Engines (Dgraphs).

Adding a Log Server to an application on page 117
>   The Log Server component runs the Log server, which translates application logging requests into log files that the Report Generator can process.

Editing a Log Server in an application on page 118
>   You can change the properties of a Log Server that you provision using Oracle Endeca Workbench.

Deleting a Log Server from an application on page 119
>   You can delete a Log Server from an application using Oracle Endeca Workbench.

Adding a Report Generator to an application on page 119
>   The Report Generator component runs the Report Generator, which processes Log Server files into HTML-based reports that you can view in your Web browser and XML reports that you can view in Oracle Endeca Workbench.

Editing a Report Generator on page 121
>   You can change properties of the Report Generator in Oracle Endeca Workbench.

Deleting a Report Generator on page 121
>   You can delete a Report Generator from an application in Oracle Endeca Workbench.

About custom properties on page 122
>   Adding name/value properties is useful when you need to store custom data with your provisioning information and make that custom data available to your EAC script.

Adding a custom property to a component or host on page 122
>   You can add properties, consisting of a required name and an optional value, to any component or host.

Adding a custom directory to a host on page 123
>   You can add custom directories, consisting of a descriptive alias and full path, to a host.

Adding an EAC script shortcut on page 124
>   Adding an EAC script creates a shortcut within Oracle Endeca Workbench which points to a specific EAC script.

Editing an EAC script shortcut on page 124
> Adding an EAC script creates a shortcut within Oracle Endeca Workbench which points to a specific EAC script.

Deleting an EAC script shortcut on page 125
> Adding an EAC script creates a shortcut within Oracle Endeca Workbench which points to a specific EAC script.

Adding an application to the Central Server

Adding an application to the Central Server adds the provisioning information for an application to the Central Server.

You can add more than one application to the Central Server in Oracle Endeca Workbench, and administer each of them separately, by logging in to a particular application. In addition to provisioning your application in Oracle Endeca Workbench, you can also write your own provisioning file and use it to create an application. For information on this type of provisioning, see the *Oracle Endeca Application Controller Guide*. For each application that you provision in Oracle Endeca Workbench, you can also add: hosts, Endeca components (such as Forge, Indexer, MDEX Engine Log Server, and Report Generator), and EAC scripts.

To add an application to the system:

1. Under the **EAC Administration** section of Oracle Endeca Workbench, select the **EAC Admin Console** page.
2. Click **New**.
3. Type the name of the application.
4. Click **Create New Application**.
5. Proceed with adding hosts, components, and scripts to your application.

After adding an application, you must log out of Oracle Endeca Workbench and back in again (selecting the new application), in order to configure or administer any aspects of the application other than its EAC provisioning.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Deleting an application from the Central Server

Deleting an application from the Central Server removes the provisioning information for an application from the Central Server.

To delete an application from the Central Server:

1. Under the **EAC Administration** section of Oracle Endeca Workbench, select the **EAC Admin Console** page.
2. In the **Application** field, select the application you want to delete.

3. Click **Delete**.
   The Oracle Endeca Workbench message displays: "Are you sure you want to delete the application named *application-name*?"

4. Click **Delete**.
   The application's provisioning information is removed from the Central Server.

To completely remove an application from Oracle Endeca Guided Search, first use the above procedure to delete the application's provisioning information from the Central Server. Second, run the emgr_update utility with the remove_all_settings parameter to delete the instance configuration files. For details, see "Removing instance configuration files from Endeca Workbench" in the *Oracle Endeca Workbench Administrator's Guide*. If you do not perform both steps, you may store unnecessary or duplicate sets of files for an application.

Related Links

> *About administration tasks* on page 99
> > The tasks described in "Administering an Endeca application" are intended for system administrators.

> *About Endeca components* on page 100
> > On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Adding a host to an application

Adding a host to an application informs Oracle Endeca Workbench that the machine is available for any task in an Endeca implementation.

You add a host by specifying basic information that allows the EAC Central Server to communicate with the host. After you add the host, you then provision the host by assigning it a particular task in the implementation, such as running Forge, the Indexer, the MDEX Engine, a Log Server, and so on.

To add a host to an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Click **Add New Host**.
3. Specify a **New Host Alias**.
   A host alias allows you to switch staging and production machines easily, by changing the name and port associated with an alias. It makes it possible to reference a single physical host through different aliases.
4. Specify a **Host Name**. This can be the name or IP address of the machine.
5. Specify an **Agent Port**. The port is the HTTP port through which the EAC Central Server communicates with its Agents, for example 8888.
6. Click **Create Host**.
7. If desired, add a custom property.
8. If desired, add a custom directory.

Related Links

> *About administration tasks* on page 99
> > The tasks described in "Administering an Endeca application" are intended for system administrators.

> *About Endeca components* on page 100

On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Editing a host in an application

You can change the properties of a host that you provision using Oracle Endeca Workbench.

To edit a host in an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host you want to edit and click **Edit Host**.
3. As necessary, edit the host name, port, properties, or directory values.
4. When you are finished, click **Update**.

Related Links

About administration tasks on page 99
The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Deleting a host from an application

If you are no longer using a machine in your Endeca implementation, you can remove its information from Oracle Endeca Workbench.

To delete a host from an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host you want to remove, click **Edit Host**, and click **Delete**.

Related Links

About administration tasks on page 99
The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Adding Forge to an application

You add a Forge component to an application using Oracle Endeca Workbench, as part of provisioning.

Before you can add Forge to your application, you must add at least one host.

To add Forge to an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host where you want to add Forge.
3. Click the plus sign to expand the host's provisioning information.

4. From the **New Component** list, select **Forge**.
5. Specify the following options:

Working Directory	Working directory for Forge. If you specify the directory, it must be an absolute path. If you do not specify a path, Oracle Endeca Workbench creates a default in `%ENDECA_CONF%\work\`*`appName`*`\`*`componentName`* (on Windows) or `$ENDECA_CONF/work/`*`appName`*`/`*`componentName`* (on UNIX).
Log File	Name of the Forge log file. If you do not specify a log file, Oracle Endeca Workbench creates a default with a name of the working directory plus component name plus `.log`.
Input Directory	The path to the instance configuration files (not the path to Forge's source data). This path can be relative to the working directory.
Output Directory	The path to where Forge stores its output. This path can be relative to the working directory.
Pipeline File	Name of the Pipeline.epx file for Forge. This path can be relative to the working directory.
State Directory	The path to where Forge stores several files during processing (typically autogen dimension files). This path can be relative to the working directory.
Num Partitions (under Advanced Options)	The number of source data partitions.
Output Prefix Name	The implementation-specific prefix name, without any associated path information.
Temporary Directory	The path to a temporary directory.
Arguments	A list of command line arguments to pass to Forge. Specify arguments here exactly as you would on the command line.

6. If desired, add custom properties.
7. Click **Create**.

Related Links

About administration tasks on page 99
    The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
    On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

About Endeca components on page 100
    On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Endeca MDEX Engine on page 112
    The Endeca MDEX Engine is the search engine that powers Endeca-enabled applications.

Editing Forge in an application

You edit a Forge component in an application using Oracle Endeca Workbench.

Before you can add or edit Forge in your application, you must add at least one host.

To edit Forge in an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host that is running the instance of Forge you want to edit.
3. Click the plus sign to expand the host's provisioning information.
4. Locate the instance of Forge you want to edit, and make sure that it is not running. If it is running, wait for the process to stop or click **Stop**.
5. Click **Edit**.
6. As necessary, edit the values inline.
7. When you are finished, click **Update**.
8. If you stopped Forge before editing its configuration, click **Start** to run Forge.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Deleting Forge from an application

You can remove a Forge component from an application in Oracle Endeca Workbench.

To remove a Forge component from an application:

1. On the **EAC Admin Console** page, select the **Components** tab.
2. Locate the Forge you want to remove, expand it, and click **Delete**.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Adding an Indexer to an application

An Indexer component (Dgidx) takes the data prepared by Forge and generates the proprietary indices for an MDEX Engine.

Before you can add an Indexer to your application, you must add at least one host.

To add an Indexer to an application in Oracle Endeca Workbench:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host where you want to add an Indexer.
3. Click the plus sign to expand the host's provisioning information.
4. From the **New Component** list, select **Indexer**.
5. Specify the following options:

Working Directory	Working directory for the Indexer. If you specify the directory, it must be an absolute path. If you do not specify a path, Oracle Endeca Workbench creates a default in `%ENDECA_CONF%\work\`*appName*`\`*componentName* (on Windows) or `$ENDECA_CONF/work/`*appName*`/`*componentName* (on UNIX).
Log File	Name of the Indexer log file. If you do not specify a log file, Oracle Endeca Workbench creates a default with a name of the working directory plus component name plus `.log`.
Output Prefix Name	The implementation-specific prefix name, without any associated path information.
Input Prefix	The path and prefix name for the Forge output that Dgidx indexes. The input prefix typically corresponds to the value of the Output Prefix Name for the Forge component
App Config Prefix	The path and file prefix that specify the input for the Indexer.
Run Aspell	Specifies Aspell as the spelling correction mode for the implementation. This causes the Indexer component to run dgwordlist and to copy the Aspell files to its output directory, where the Dgraph component can access them. The default is true. For Aspell details, see the *Endeca Advanced Development Guide*.
Temporary Directory	The path to a temporary directory.
Arguments	A list of command line arguments to pass to the Indexer. Specify arguments here exactly as you would on the command line.

6. If desired, add custom properties.
7. Click **Create**.

Related Links

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Endeca MDEX Engine on page 112
> The Endeca MDEX Engine is the search engine that powers Endeca-enabled applications.

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Editing an Indexer for an application

An Indexer component (Dgidx) takes the data prepared by Forge and generates the proprietary indices for an MDEX Engine.

Before you can add an Indexer to your application, you must add at least one host.

To edit an Indexer in Oracle Endeca Workbench:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host that is running the Indexer you want to edit.
3. Click the plus sign to expand the host's provisioning information.
4. Locate the Indexer you want to edit, and make sure that it is not running. If it is running, wait for the process to stop or click **Stop**.
5. Click **Edit**.
6. As necessary, edit the values inline.
7. When you are finished, click **Update**.
8. If you stopped the Indexer before editing its configuration, click **Start** to run the Indexer.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Deleting an Indexer from an application

An Indexer component (Dgidx) takes the data prepared by Forge and generates the proprietary indices for an MDEX Engine.

To remove an Indexer from an application in Oracle Endeca Workbench:

1. On the **EAC Admin Console** page, select the **Components** tab.
2. Locate the Indexer you want to remove, click **Edit**, and click **Delete**.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Adding an Aggregated Indexer to an application

An Aggregated Indexer component runs Agidx on a machine, creating a set of Agidx indices that support the Agraph program in a distributed environment.

Before you can add an Aggregated Indexer to your application, you must add at least one host.

The Agidx component is used only in distributed environments and is run sequentially on multiple machines. On the first machine, the Agidx component takes the Dgidx output from that machine as its input. On the next machine, the output from the first Agidx run is copied over, using the Copy utility. It, along with the Dgidx output from that machine, is used as Agidx input.

To add an Aggregated Indexer to an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host where you want to add an Aggregated Indexer.
3. Click the plus sign to expand the host's provisioning information.
4. From the **New Component** list, select **Aggregated Indexer**.
5. Specify the following options:

Working Directory	Working directory for aggregated Indexer. If you specify the directory, it must be an absolute path. If you do not specify a path, Oracle Endeca Workbench creates a default in `%ENDECA_CONF%\work\`*appName*`\`*componentName* (on Windows) or `$ENDECA_CONF/work/`*appName*`/`*componentName* (on UNIX).
Log File	Name of the aggregated Indexer log file. If you do not specify a log file, Oracle Endeca Workbench creates a default with a name of the working directory plus component name plus `.log`.
Output Prefix Name	The implementation-specific prefix name, without any associated path information.
Input Prefixes	The path and prefix names to the output of various Dgidxes, which Agidx uses as input. The input prefixes typically correspond to the value of the Output Prefix Name for the Indexer components.
Previous Output Prefix	The file prefix of the Agidx data from the previous run, which has been copied to this machine by a Copy operation. This parameter should not be used when running the Agidx component on the first data subset.
Arguments	A list of command line arguments to pass to the Aggregated Indexer. Specify arguments here exactly as you would on the command line.

6. If desired, add custom properties.
7. Click **Create**.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Editing an Aggregated Indexer in an application

An Aggregated Indexer component runs Agidx on a machine, creating a set of Agidx indices that support the Agraph program in a distributed environment.

Before you can add or edit an Aggregated Indexer in your application, you must add at least one host.

The Agidx component is used only in distributed environments and is run sequentially on multiple machines. On the first machine, the Agidx component takes the Dgidx output from that machine as its input. On the next machine, the output from the first Agidx run is copied over, using the Copy utility. It, along with the Dgidx output from that machine, is used as Agidx input.

To edit an Aggregated Indexer in an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host that is running the Aggregated Indexer you want to edit.
3. Click the plus sign to expand the host's provisioning information.
4. Locate the Aggregated Indexer you want to edit, and make sure that it is not running. If it is running, wait for the process to stop or click **Stop**.
5. Click **Edit**.
6. As necessary, edit the values inline.
7. When you are finished, click **Update**.
8. If you stopped the Aggregated Indexer before editing its configuration, click **Start** to run the Aggregated Indexer.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Deleting an Aggregated Indexer from an application

An Aggregated Indexer component runs Agidx on a machine, creating a set of Agidx indices that support the Agraph program in a distributed environment.

The Agidx component is used only in distributed environments and is run sequentially on multiple machines. On the first machine, the Agidx component takes the Dgidx output from that machine as its input. On the next machine, the output from the first Agidx run is copied over, using the Copy utility. It, along with the Dgidx output from that machine, is used as Agidx input.

To remove an Aggregated Indexer from an application:

1. On the **EAC Admin Console** page, select the **Components** tab.
2. Locate the Aggregated Indexer you want to remove, click **Edit**, and click **Delete**.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Endeca MDEX Engine

The Endeca MDEX Engine is the search engine that powers Endeca-enabled applications.

The MDEX Engine works behind the scenes in your application by accessing Endeca records, which are based on your source data, and then replying to user queries with appropriate record results. Your application displays the records returned from the MDEX Engine in a user's web browser.

Related Links

> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

> You add a Forge component to an application using Oracle Endeca Workbench, as part of provisioning.

> An Indexer component (Dgidx) takes the data prepared by Forge and generates the proprietary indices for an MDEX Engine.

> An MDEX Engine component launches the Dgraph (MDEX Engine) software and processes queries against the indexed Endeca records.

Adding an MDEX Engine to an application

An MDEX Engine component launches the Dgraph (MDEX Engine) software and processes queries against the indexed Endeca records.

Before you can add an MDEX Engine to your application, you must add at least one host.

To add an MDEX Engine to an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host where you want to add an MDEX Engine.
3. Click the plus sign to expand the host's provisioning information.
4. From the **New Component** list, select **MDEX Engine**.
5. Specify the following options:

Working Directory	Working directory for MDEX Engine. If you specify the directory, it must be an absolute path. If you do not specify a path, Oracle Endeca Workbench creates a default in `%ENDECA_CONF%\work\`*appName*`\`*componentName* (on Windows) or `$ENDECA_CONF/work/`*appName*`/`*componentName* (on UNIX).
Log File	Name of the MDEX Engine log file. If you do not specify a log file, Oracle Endeca Workbench creates a default with a name of the working directory plus component name plus `.log`.
Port	The port on which the MDEX Engine listens for queries. The default is 8000.
Input Prefix	The path and prefix name for the Indexer output that MDEX Engine uses. The input prefix typically corresponds to the value of the Output Prefix for the Indexer component.

Request Log File	The path and name of the MDEX Engine request log. This log tracks user queries.
App Config Prefix	The path and file prefix that specify the input for the MDEX Engine.
Startup Timeout	Specifies the amount of time in seconds that the Application Controller waits while starting the MDEX Engine. If EAC cannot determine that the MDEX Engine is running in this time frame, the MDEX Engine times out. The default is 120 seconds.
Spell Directory	Specifies the directory in which the MDEX Engine looks for Aspell files. If it is not specified, the MDEX Engine looks for Aspell files in the MDEX Engine's input directory.
Update Directory	Specifies the directory from which the MDEX Engine reads the partial update file. For more information, see the *Endeca Partial Updates Guide*.
Update Log File	Specifies the file for update-related log messages.
Temporary Directory	The path to a temporary directory.
SSL Cert File	The cert-file specifies the path of the eneCert.pem certificate file that the MDEX Engine presents to any client. This is also the certificate that the Application Controller Agent should present to the MDEX Engine when trying to communicate with the MDEX Engine. You can use the version that came with your Endeca installation, or generate your own file for additional security. The file name can be a path relative to the component's working directory.
SSL CA File	The ca-file specifies the path of the eneCA.pem Certificate Authority file that the MDEX Engine uses to authenticate communications with other Endeca components. You can use the version that came with your Endeca installation, or generate your own file for additional security. The file name can be a path relative to the component's working directory.
SSL Cipher	The cipher is an optional cipher string (such as RC4-SHA) that specifies the minimum cryptographic algorithm that the MDEX Engine uses during the SSL negotiation. If you omit this setting, the SSL software tries an internal list of ciphers, beginning with AES256-SHA. See the *Endeca Security Guide* for more information.
Arguments	A list of command line arguments to pass to the MDEX Engine. Specify arguments here exactly as you would on the command line. The defaults for a new MDEX component are --threads 2 --spl --dym.

6. If desired , add custom properties.
7. Click **Create**.

Related Links

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Endeca MDEX Engine on page 112
> The Endeca MDEX Engine is the search engine that powers Endeca-enabled applications.

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Editing an MDEX Engine in an application

An MDEX Engine component launches the Dgraph (MDEX Engine) software and processes queries against the indexed Endeca records.

Before you can add or edit an MDEX Engine for your application, you must add at least one host.

To edit an MDEX Engine in an application in Oracle Endeca Workbench:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host that is running the MDEX Engine you want to edit.
3. Click the plus sign to expand the host's provisioning information.
4. Locate the MDEX Engine you want to edit. If it is running, click **Stop**.
5. Click **Edit**.
6. As necessary, edit the values inline.
7. When you are finished, click **Update**.
8. If you stopped the MDEX Engine before editing its configuration, click **Start** to run the MDEX Engine.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Deleting an MDEX Engine from an application

An MDEX Engine component launches the Dgraph (MDEX Engine) software and processes queries against the indexed Endeca records.

To remove an MDEX Engine from an application in Oracle Endeca Workbench:

1. On the **EAC Admin Console** page, select the **Components** tab.
2. Locate the MDEX Engine you want to remove, click **Edit**, and click **Delete**.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Adding an Aggregated MDEX Engine to an application

An Aggregated MDEX Engine (Agraph) runs the Agraph program, which defines and coordinates the activities of multiple, distributed MDEX Engines (Dgraphs).

Before you can add an Aggregated MDEX Engine to your application, you must add at least one host.

To add an Aggregated MDEX Engine:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host where you want to add an Aggregated MDEX Engine.
3. Click the plus sign to expand the host's provisioning information.
4. From the **New Component** list, select **Aggregated MDEX Engine**.
5. Specify the following options:

Working Directory	Working directory for Aggregated MDEX Engine. If you specify the directory, it must be an absolute path. If you do not specify a path, Oracle Endeca Workbench creates a default in `%ENDECA_CONF%\work\`*appName*`\`*componentName* (on Windows) or `$ENDECA_CONF/work/`*appName*`/`*componentName* (on UNIX).
Log File	Name of the Aggregated MDEX Engine log file. If you do not specify a log file, Oracle Endeca Workbench creates a default with a name of the working directory plus component name plus `.log`.
Children	Select each MDEX Engine component in the application that you want to associate with this Aggregated MDEX Engine.
	🖉 **Note:** If you added a <host-port> element to your provisioning using either the eaccmd utility or via a web service, Oracle Endeca Workbench displays that <host-port> element as an Agraph child and indicates which Agraph you associated it with. However, Oracle Endeca Workbench does not allow you to create a <host-port> element as a component in Oracle Endeca Workbench or re-associate a <host-port> element with a different Agraph.
Port	The port on which the Aggregated MDEX Engine listens for queries. The default is 8000.
Input Prefix	The path and prefix name for the Aggregated Indexer output that Aggregated MDEX Engine uses. The input prefix typically corresponds to the value of the Output Prefix for the Aggregated Indexer component.
Request Log File	The path and name of the Aggregated MDEX Engine request log. This log tracks user queries.
App Config Prefix	The path and file prefix that specify the input for the Aggregated MDEX Engine.
Startup Timeout	Specifies the amount of time in seconds that the Application Controller waits while starting the Aggregated MDEX Engine. If EAC cannot determine that the Aggregated MDEX Engine is running in this timeframe, the Aggregated MDEX Engine times out. The default is 120 seconds.
SSL Cert File	The cert-file specifies the path of the eneCert.pem certificate file that the Aggregated MDEX Engine presents to any client. This is also the certificate that the Application Controller Agent should present to the MDEX Engine when

trying to communicate with the MDEX Engine. You can use the version that came with your Endeca installation, or generate your own file for additional security. The file name can be a path relative to the component's working directory.

SSL CA File   The ca-file specifies the path of the eneCA.pem Certificate Authority file that the Aggregated MDEX Engines uses to authenticate communications with other Endeca components. You can use the version that came with your Endeca installation, or generate your own file for additional security. The file name can be a path relative to the component's working directory.

SSL Cipher   The cipher is an optional cipher string (such as RC4-SHA) that specifies the minimum cryptographic algorithm that the Aggregated MDEX Engine uses during the SSL negotiation. If you omit this setting, the SSL software tries an internal list of ciphers, beginning with AES256-SHA. See the *Endeca Security Guide* for more information.

Arguments   A list of command line arguments to pass to the Aggregated MDEX Engine. Specify arguments here exactly as you would on the command line.

6. If desired, add custom properties.
7. Click **Create**.

Related Links

> *About administration tasks* on page 99
> > The tasks described in "Administering an Endeca application" are intended for system administrators.

> *About Endeca components* on page 100
> > On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Editing an Aggregated MDEX Engine

An Aggregated MDEX Engine (Agraph) runs the Agraph program, which defines and coordinates the activities of multiple, distributed MDEX Engines (Dgraphs).

Before you can add or edit an Aggregated MDEX Engine in your application, you must add at least one host.

To edit an Aggregated MDEX Engine in an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host that is running the Aggregated MDEX Engine you want to edit.
3. Click the plus sign to expand the host's provisioning information.
4. Locate the Aggregated MDEX Engine you want to edit. If it is running, click **Stop**.
5. Click **Edit**.
6. As necessary, edit the values inline.
7. When you are finished, click **Update**.
8. If you stopped the Aggregated MDEX Engine before editing its configuration, click **Start** to run the Aggregated MDEX Engine.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Deleting an Aggregated MDEX Engine from an application

An Aggregated MDEX Engine (Agraph) runs the Agraph program, which defines and coordinates the activities of multiple, distributed MDEX Engines (Dgraphs).

To remove an Aggregated MDEX Engine from an application in Oracle Endeca Workbench:

1. On the **EAC Admin Console** page, select the **Components** tab.
2. Locate the Aggregated MDEX Engine you want to remove, click **Edit**, and click **Delete**.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Adding a Log Server to an application

The Log Server component runs the Log server, which translates application logging requests into log files that the Report Generator can process.

Before you can add a Log Server to your application, you must add at least one host.

To add a Log Server to an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host where you want to add a Log Server.
3. Click the plus sign to expand the host's provisioning information.
4. From the **New Component** list, select **Log Server**.
5. Specify the following options:

Option	Description
Working Directory	Working directory for Log Server. If you specify the directory, it must be an absolute path. If you do not specify a path, Oracle Endeca Workbench creates a default in `%ENDECA_CONF%\work\`*appName*`\`*componentName* (on Windows) or `$ENDECA_CONF/work/`*appName*`/`*componentName* (on UNIX).
Log File	Name of the Log Server log file. If you do not specify a log file, Oracle Endeca Workbench creates a default with a name of the working directory plus component name plus `.log`.

Option	Description
Port	The port on which the Log Server listens. The recommended port number is the Dgraph port plus two. If you use the default Dgraph port of 8000, your Log Server should run on port 8002. In any case, the Log Server port number should not be greater than 32767.
Output Prefix Name	The implementation-specific prefix name, without any associated path information.
Gzip	Specifies whether raw logs should be compressed. If you set this to true, the Log Server writes logging data to a compressed file. The default is false.
Startup Timeout	Specifies the amount of time in seconds that the Application Controller waits while starting the Log Server. If EAC cannot determine that the Log Server is running in this time frame, the Log Server times out. The default is 120 seconds.

6. If desired, add custom properties.
7. Click **Create**.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Editing a Log Server in an application

You can change the properties of a Log Server that you provision using Oracle Endeca Workbench.

To edit a Log Server in an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host that is running the Log Server you want to edit.
3. Click the plus sign to expand the host's provisioning information.
4. Locate the Log Server you want to edit. If it is running, click **Stop**.
5. Click **Edit**.
6. As necessary, edit the values inline.
7. When you are finished, click **Update**.
8. If you stopped the Log Server before editing its configuration, click **Start** to run the Log Server.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Deleting a Log Server from an application

You can delete a Log Server from an application using Oracle Endeca Workbench.

To delete a Log Server from an application:

1. On the **EAC Admin Console** page, select the **Components** tab.
2. Locate the Log Server you want to remove, click **Edit**, and click **Delete**.

Related Links

> *About administration tasks* on page 99
>> The tasks described in "Administering an Endeca application" are intended for system administrators.

> *About Endeca components* on page 100
>> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Adding a Report Generator to an application

The Report Generator component runs the Report Generator, which processes Log Server files into HTML-based reports that you can view in your Web browser and XML reports that you can view in Oracle Endeca Workbench.

You cannot provision a Report Generator unless you have first provisioned a Log Server.

To add a Report Generator to an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host where you want to add a Report Generator.
3. Click the plus sign to expand the host's provisioning information.
4. From the **New Component** list, select **Report Generator**.
5. Specify the following options:

Working Directory	Working directory for the Report Generator. If you specify the directory, it must be an absolute path. If you do not specify a path, Oracle Endeca Workbench creates a default in `%ENDECA_CONF%\work\`*appName*`\`*componentName* (on Windows) or `$ENDECA_CONF/work/`*appName*`/`*componentName* (on UNIX).
Log File	Name of the Report Generator log file. If you do not specify a log file, Oracle Endeca Workbench creates a default with a name of the working directory plus component name plus `.log`.
Input Directory or File	Path to the file or directory containing the logs to report on. If it is a directory, then all log files in that directory are read. If it is a file, then just that file is read.
Output File	Name of the generated report file and path to where it is stored. For example: `C:\Endeca\reports\myreport.html` on Windows. This path can be relative to the working directory.
Stylesheet File	Filename and path of the XSL stylesheet used to format the generated report. For example:`%ENDECA_CONF%\etc\ report_stylesheet.xsl` (on Windows) or `$ENDECA_CONF/etc/report_stylesheet.xsl` (on UNIX).

Settings File	Path to the `report_settings.xml` file used to define which report sections are excluded from the reports. For example: `%ENDECA_CONF%\etc\report_settings.xml` (on Windows) or `$ENDECA_CONF/etc/report_settings.xml` (on UNIX).
Start Date	Sets the time to begin creating reports. This and **Stop Date** set the report window to the given date and time. The date format should be either yyyy_mm_dd or yyyy_mm_dd.hh_mm_ss. For example, 2007_01_25.19_30_57 expresses Jan 25, 2007 at 7:30:57 in the evening.
Stop Date	Sets the time to stop creating reports.
Charts	Specifies whether the component should generate report charts. The default is true.
Java Binary	Indicates a JDK 1.5.x or later. Defaults to the JDK that Endeca installs.
Java Options	Command-line options for the `java_binary` setting. This command is primarily used to adjust the Report Generator memory, which defaults to 1GB and to adjust the language code for reports, which defaults to English. To set the memory, use the following: `java_options = -Xmx[MemoryInMb]m -Xms[MemoryInMb]m`. To set the language code for reporting output, include one of the following options: `-Duser.language = fr` (generates reports in French) or `-Duser.language = de` (generates reports in German).
Arguments	A list of command line arguments to pass to the Report Generator. Specify arguments here exactly as you would on the command line.

6. If desired, add custom properties.

7. Click **Create**.

After you add a Report Generator to your application, you need to configure the report generation process. This will enable Oracle Endeca Workbench to display your reports on the **View Reports** page.

Related Links

Editing a Report Generator on page 121
> You can change properties of the Report Generator in Oracle Endeca Workbench.

Deleting a Report Generator on page 121
> You can delete a Report Generator from an application in Oracle Endeca Workbench.

The Reporting page on page 16
> The **Reporting** page is where you view reporting data for your Endeca application.

About reports on page 73
> Reports allow you to look at what has happened on your site over the last day or week.

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Editing a Report Generator on page 121
> You can change properties of the Report Generator in Oracle Endeca Workbench.

Deleting a Report Generator on page 121

You can delete a Report Generator from an application in Oracle Endeca Workbench.

Editing a Report Generator

You can change properties of the Report Generator in Oracle Endeca Workbench.

The Report Generator component runs the Report Generator, which processes Log Server files into HTML-based reports that you can view in your Web browser, and XML reports that you can view in Oracle Endeca Workbench. You cannot provision a Report Generator unless you have first provisioned a Log Server.

To edit a Report Generator in an application:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Locate the host that is running the Report Generator you want to edit.
3. Click the plus sign to expand the host's provisioning information.
4. Locate the Report Generator you want to edit, and make sure that it is not running. If it is running, wait for the process to stop.
5. Click **Edit**.
6. As necessary, edit the values inline.
7. When you are finished, click **Update**.

Related Links

> The Report Generator component runs the Report Generator, which processes Log Server files into HTML-based reports that you can view in your Web browser and XML reports that you can view in Oracle Endeca Workbench.

> You can delete a Report Generator from an application in Oracle Endeca Workbench.

> The **Reporting** page is where you view reporting data for your Endeca application.

> Reports allow you to look at what has happened on your site over the last day or week.

> The Report Generator component runs the Report Generator, which processes Log Server files into HTML-based reports that you can view in your Web browser and XML reports that you can view in Oracle Endeca Workbench.

> You can delete a Report Generator from an application in Oracle Endeca Workbench.

Deleting a Report Generator

You can delete a Report Generator from an application in Oracle Endeca Workbench.

The Report Generator component runs the Report Generator, which processes Log Server files into HTML-based reports that you can view in your Web browser, and XML reports that you can view in Oracle Endeca Workbench. You cannot provision a Report Generator unless you have first provisioned a Log Server.

To remove an Report Generator from an application:

1. On the **EAC Admin Console** page, select the **Components** tab.
2. Locate the Report Generator you want to remove, click **Edit**, and click **Delete**.

Related Links

Adding a Report Generator to an application on page 119
> The Report Generator component runs the Report Generator, which processes Log Server files into HTML-based reports that you can view in your Web browser and XML reports that you can view in Oracle Endeca Workbench.

Editing a Report Generator on page 121
> You can change properties of the Report Generator in Oracle Endeca Workbench.

The Reporting page on page 16
> The **Reporting** page is where you view reporting data for your Endeca application.

About reports on page 73
> Reports allow you to look at what has happened on your site over the last day or week.

Adding a Report Generator to an application on page 119
> The Report Generator component runs the Report Generator, which processes Log Server files into HTML-based reports that you can view in your Web browser and XML reports that you can view in Oracle Endeca Workbench.

Editing a Report Generator on page 121
> You can change properties of the Report Generator in Oracle Endeca Workbench.

About custom properties

Adding name/value properties is useful when you need to store custom data with your provisioning information and make that custom data available to your EAC script.

For example:

- An application may have 10 production MDEX Engines that are clustered to ensure that, during updates, five of them are taken offline and updated. When those five have finished, the other five are updated. You can specify a custom property for each to identify the cluster to which each Engine belongs. This allows provisioning information to specify an arbitrary Engine cluster for the EAC script to consume.
- An application archives logs for a component or EAC script. To make the archive configurable, a property can specify the maximum number of archives to maintain.

Related Links

Adding a custom property to a component or host on page 122
> You can add properties, consisting of a required name and an optional value, to any component or host.

Adding a custom directory to a host on page 123
> You can add custom directories, consisting of a descriptive alias and full path, to a host.

Adding a custom property to a component or host

You can add properties, consisting of a required name and an optional value, to any component or host.

After your application is provisioned, any properties that you defined are included in the application definition. You can retrieve the application definition using the describe-app command of eaccmd. See the *Oracle Endeca Application Controller Guide* for details about using eaccmd.

To add a custom property to a component or host:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Select the component or host where you want to add a property. Click **Edit Host**.
3. Provide a name and value.
4. Click the **Add** icon.
5. Click **Update**.

Related Links

About custom properties on page 122
> Adding name/value properties is useful when you need to store custom data with your provisioning information and make that custom data available to your EAC script.

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Adding a custom directory to a host

You can add custom directories, consisting of a descriptive alias and full path, to a host.

The EAC Agent on that host creates the directories you specify. After your application is provisioned, any directories that you defined are included in the application definition. You can retrieve the application definition using the describe-app command of eaccmd. See the *Oracle Endeca Application Controller Guide* for details about using eaccmd.

To add a custom directory to a host:

1. On the **EAC Admin Console** page, select the **Hosts** tab.
2. Select the component or host where you want to add a property Click **Edit Host**.
3. Provide an alias for the directory and the full path including the directory name itself.
4. Click the **Add** icon.
5. Click **Update**.

Related Links

About custom properties on page 122
> Adding name/value properties is useful when you need to store custom data with your provisioning information and make that custom data available to your EAC script.

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Adding an EAC script shortcut

Adding an EAC script creates a shortcut within Oracle Endeca Workbench which points to a specific EAC script.

After you have added a script, users are able to start and stop it from the **Scripts** tab of the **EAC Admin Console** page. For more information on EAC scripts, see "Defining scripts in your provisioning file" in the *Oracle Endeca Application Controller Guide.*

To add an EAC script shortcut to an application:

1. On the **EAC Admin Console** page, select the **Scripts** tab.
2. Click **Add New Script**.
3. Specify the following options:

Option	Description
New Script Alias	A descriptive alias for the script.
Command	The command to be run. This is typically the name of an EAC script, followed by any arguments to be passed to the script.
Working Directory	The working directory for the script. If you specify the directory, it must be an absolute path. If you do not specify a path, Oracle Endeca Workbench creates a default in `%ENDECA_CONF%\working\`*`app_id`*`\` (on Windows) or `$ENDECA_CONF/working/`*`app_id`*`/` (on UNIX)
Log File	The path to where any log files from your scripts will be written. If you specify the directory, it must be an absolute path. If you do not specify a path, Oracle Endeca Workbench creates a default in `%ENDECA_CONF%\logs\script\`*`app_id.script_id`*`.log` (on Windows) or `$ENDECA_CONF/logs/script/`*`app_id.script_id`*`.log` (on UNIX)

4. Click **Create Script**.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Editing an EAC script shortcut

Adding an EAC script creates a shortcut within Oracle Endeca Workbench which points to a specific EAC script.

After you have added the script, users are able to start and stop it from the Scripts tab of the EAC Admin Console page. For more information on EAC scripts, see "Defining scripts in your provisioning file" in the *Oracle Endeca Application Controller Guide.*

To edit an EAC script shortcut in an application:

1. On the **EAC Admin Console** page, select the **Scripts** tab.

2. Locate the script you want to edit, and make sure that it is not running. If it is running, wait for the process to stop.

3. Click **Edit**.

4. Make any necessary changes in the **Command** field.

5. Make any necessary changes in the **Working Directory** field.

6. Make any necessary changes in the **Log File** field.

7. Click **Update**.

Related Links

> *About administration tasks* on page 99
>> The tasks described in "Administering an Endeca application" are intended for system administrators.

> *About Endeca components* on page 100
>> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Deleting an EAC script shortcut

Adding an EAC script creates a shortcut within Oracle Endeca Workbench which points to a specific EAC script.

After you have added the script, users are able to start and stop it from the Scripts tab of the EAC Admin Console page. For more information on EAC scripts, see "Defining scripts in your provisioning file" in the *Oracle Endeca Application Controller Guide*.

To remove an EAC script shortcut from an application:

1. On the **EAC Admin Console** page, select the **Scripts** tab.

2. Click **Edit** for the script you want to delete.

3. Click **Delete**.

Related Links

> *About administration tasks* on page 99
>> The tasks described in "Administering an Endeca application" are intended for system administrators.

> *About Endeca components* on page 100
>> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Performing system operations with Oracle Endeca Workbench

This section contains information and instructions for performing basic system operations such as starting and stopping an EAC script, running and stopping a baseline update, and overriding the update process.

Related Links

> *Administering an Endeca application* on page 99

The following sections provide system administrators and application developers with information and instructions for provisioning, administrating, monitoring, and managing an Endeca application.

Starting an EAC script in Oracle Endeca Workbench

After you have added an EAC script, it is available to start or stop from the **Scripts** tab of the **EAC Admin Console** page.

To start an EAC script in Oracle Endeca Workbench:

1. On the **EAC Admin Console** page, select the **Scripts** tab.
2. Click **Start** to the right of the script you want to run.
   The script status text changes to "Running."

Related Links

> After you have added an EAC script, it is available to start or stop from the **Scripts** tab of the **EAC Admin Console** page.

> You can get information about the status of a script that is running or the most recent time the script was run.

> This topic should not be used as a default recommended procedure. In most cases, there is no need to override the MDEX Engine update process.

> The tasks described in "Administering an Endeca application" are intended for system administrators.

Stopping an EAC script in Oracle Endeca Workbench

After you have added an EAC script, it is available to start or stop from the **Scripts** tab of the **EAC Admin Console** page.

To stop an EAC script in Oracle Endeca Workbench:

1. On the **EAC Admin Console** page, select the **Scripts** tab.
2. Click **Stop** to the right of the script you want to run.
   The script status text changes from "Running" to "Failed."

Related Links

> After you have added an EAC script, it is available to start or stop from the **Scripts** tab of the **EAC Admin Console** page.

> You can get information about the status of a script that is running or the most recent time the script was run.

> This topic should not be used as a default recommended procedure. In most cases, there is no need to override the MDEX Engine update process.

> The tasks described in "Administering an Endeca application" are intended for system administrators.

Getting the status of an EAC script

You can get information about the status of a script that is running or the most recent time the script was run.

To get the status of an EAC script:

1. On the **EAC Admin Console** page, select the **Scripts** tab.
   The status of each script is located immediately to the right of the script alias, and is limited to "Running", "Not Running", or "Failed".
2. Click the script status link.
   A dialog box displays more information about the script.

Related Links

Starting an EAC script in Oracle Endeca Workbench on page 126
>After you have added an EAC script, it is available to start or stop from the **Scripts** tab of the **EAC Admin Console** page.

Stopping an EAC script in Oracle Endeca Workbench on page 127
>After you have added an EAC script, it is available to start or stop from the **Scripts** tab of the **EAC Admin Console** page.

Overriding the MDEX Engine update process with your own script on page 129
>This topic should not be used as a default recommended procedure. In most cases, there is no need to override the MDEX Engine update process.

About administration tasks on page 99
>The tasks described in "Administering an Endeca application" are intended for system administrators.

Running a baseline update in Oracle Endeca Workbench

A baseline update completely rebuilds your Endeca application, including a complete data upload, and then restarts the MDEX Engine. You should run a baseline update whenever your project's source data has changed, as well as when you have changed your system provisioning.

You may need to provision a baseline update script if you have not done so already.

To run a baseline update:

1. On the **EAC Admin Console** page, select the **Scripts** tab.
2. Locate the script you want to run.
3. Click **Run**.

If the update fails for any reason, Oracle Endeca Workbench displays a system status message at the top of the page. The amount of time it takes to complete the update depends on the size and complexity of your application. Click **Auto Refresh Status** to monitor the update's progress.

Related Links

About administration tasks on page 99
>The tasks described in "Administering an Endeca application" are intended for system administrators.

Stopping a baseline update in Oracle Endeca Workbench

This topic describes how to stop a baseline update.

To stop a baseline update:

1. On the **EAC Admin Console** page, select the **Scripts** tab.
2. Locate script you want to stop.
3. Click **Stop**.

Related Links

About administration tasks on page 99
>The tasks described in "Administering an Endeca application" are intended for system administrators.

Starting an Endeca component in Oracle Endeca Workbench

After you provision an Endeca component (i.e. Forge, the Indexer, MDEX Engine and so on), it is available to start or stop.

To start a component:

1. On the **EAC Admin Console** page, select the **Components** tab.
2. Expand the host where you provisioned the component.
3. Locate the component you want to start.
4. Click **Start**.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Stopping an Endeca component in Oracle Endeca Workbench

After you provision an Endeca component (i.e. Forge, the Indexer, MDEX Engine and so on), it is available to start or stop.

To stop a component:

1. On the **EAC Admin Console** page, select the **Components** tab.
2. Expand the host where you provisioned the component.
3. Locate the component you want to stop.
4. Click **Stop**.

Related Links

About administration tasks on page 99
> The tasks described in "Administering an Endeca application" are intended for system administrators.

About Endeca components on page 100
> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

Overriding the MDEX Engine update process with your own script

This topic should not be used as a default recommended procedure. In most cases, there is no need to override the MDEX Engine update process.

Typically, when you make changes to the dynamic business rules, or other changes that you save but that do not require a baseline update, Oracle Endeca Workbench updates the MDEX Engine with the changes using the default update process. The default update process updates all MDEX Engines that are provisioned for the specific EAC application with the changes that do not require a baseline update.

In some cases, you may choose to override the default update process by using your own script for updates to the MDEX Engine. For example, assume that you have two MDEX Engines running on the same machine, both administered via Oracle Endeca Workbench. One of the MDEX Engines is used for the staging environment, and the other is used for the production environment. In this case, when you make changes to rules, you may choose to push them to the staging MDEX Engine, but not to the production MDEX Engine. To do this, you must use your own update script.

To summarize, you can override the default MDEX Engine update process that Oracle Endeca Workbench uses with your own script that will update the MDEX Engine with changes.

To override the default MDEX Engine update process:

1. Create your own script that will update the MDEX Engine.
2. Provision your script using the **EAC Admin Console** page.
3. Ensure that the script name you specify is EndecaMDEXUpdateScript. Oracle Endeca Workbench uses this script instead of the default update process to update the MDEX Engine with changes that do not require a baseline update.

If the scripts that you write invoke Web Services in the EAC without using the eaccmd utility, they must point to the correct EAC central server host and port. You can use the EAC_HOST and EAC_PORT environment variables to pass data to your scripts. For information about using scripts in the EAC environment, see the *Oracle Endeca Application Controller Guide*.

Related Links

> *About administration tasks* on page 99
>> The tasks described in "Administering an Endeca application" are intended for system administrators.

> *About Endeca components* on page 100
>> On the **Components** tab of the **EAC Admin Console** page, you add the Endeca components that run on each host you provisioned on the **Hosts** tab.

> *About administration tasks* on page 99
>> The tasks described in "Administering an Endeca application" are intended for system administrators.

Specifying EAC settings

This section provides detailed instructions for specifying the EAC Central Server.

Specifying the EAC Central Server

On the **EAC Settings** page, you specify the host and port for the EAC Central Server. These settings control which machine Oracle Endeca Workbench communicates with when making requests to the Central Server.

To specify the EAC Central Server:

1. Provide the name or IP address of the machine on which the EAC Central Server is running.
2. Provide the port on which the EAC Central Server is listening.
3. Select **Use HTTPS** if you want Oracle Endeca Workbench to use HTTPS to connect to the EAC Central Server.

> 📝 **Note:** Selecting this option requires that the port you specified in the previous step is an SSL port. If this option is not selected, it is still possible for Oracle Endeca Workbench to establish an SSL connection with the EAC Central Server by using an internal redirect. For more information about configuring SSL for the Application Controller and Oracle Endeca Workbench, see the *Endeca Security Guide*.

4. Click **Save Changes**.

Monitoring system status

This section provides information about viewing system logs and updating system status.

Related Links

Updating system status manually

You can manually refresh the display of Oracle Endeca Workbench's status.

To update the status of Oracle Endeca Workbench:

In the **EAC Administration Console** page, click **Refresh Status**.

Related Links

Web server troubleshooting on page 133

Oracle Endeca Workbench uses cookies to maintain a session. If your application is running on an application server on the same host as Oracle Endeca Workbench, the cookie names used by each might collide. In this situation, user sessions may be terminated unexpectedly.

Updating system status automatically

You can set Oracle Endeca Workbench to automatically update its status messages.

In the **EAC Administration Console** page, click **Auto Refresh Status**.

Related Links

Web server troubleshooting on page 133

Oracle Endeca Workbench uses cookies to maintain a session. If your application is running on an application server on the same host as Oracle Endeca Workbench, the cookie names used by each might collide. In this situation, user sessions may be terminated unexpectedly.

Viewing component status

Oracle Endeca Workbench displays a summary of a component's status in the collapsed view of the **Hosts** tab and **Components** tab.

You can access details about each component via the status link.

Click the status link.
A dialog box displays showing start time, duration (how long the component has been running), and the last time Oracle Endeca Workbench checked the component's status.

Related Links

Viewing component logs on page 132

You can view a detailed log for any Endeca component except the Log Server, which does not log its own actions.

Viewing system logs on page 133

In addition to viewing component logs, you can also check the Oracle Endeca Application Controller and Oracle Endeca Workbench logs that are located in the `workspace/logs` directory.

Viewing component logs

You can view a detailed log for any Endeca component except the Log Server, which does not log its own actions.

1. In the **EAC Administration Console** page, select the **Components** tab.

2. Locate the component you want to examine and click the plus sign to expand it.
3. Click **Edit** to see the component's configuration options.
4. Note the path for **Log File**.
5. Browse to the directory indicated by **Log File** and open the log file on the specified host.

Related Links

> *Viewing component status* on page 132
>> Oracle Endeca Workbench displays a summary of a component's status in the collapsed view of the **Hosts** tab and **Components** tab.

> *Viewing system logs* on page 133
>> In addition to viewing component logs, you can also check the Oracle Endeca Application Controller and Oracle Endeca Workbench logs that are located in the `workspace/logs` directory.

Viewing system logs

In addition to viewing component logs, you can also check the Oracle Endeca Application Controller and Oracle Endeca Workbench logs that are located in the `workspace/logs` directory.

The Oracle Endeca Workbench log (`webstudio.`*number*`.log`) logs activity such as user logins, dynamic business rule changes, automatic phrase creation and modification, and so on. Business rule logging records when a rule was modified, who modified the rule (according to user name), and the name of the rule. Business rule logging does not record specific changes to the rule's configuration such as changes to its trigger values, target values, rule properties, and so on. The Oracle Endeca Workbench log, like other Endeca system logs, has a 1G size limit and is part of a two-log rotation. When `webstudio.0.log` reaches 1G in size, the system begins writing to `webstudio.1.log`. When `webstudio.1.log` reaches the 1G size limit, the system begins writing to `webstudio.0.log` once again, overwriting the previous content.

1. Navigate to the `workspace/logs` directory.
2. Open `webstudio.`*number*`.log`.

Related Links

> *Viewing component status* on page 132
>> Oracle Endeca Workbench displays a summary of a component's status in the collapsed view of the **Hosts** tab and **Components** tab.

> *Viewing component logs* on page 132
>> You can view a detailed log for any Endeca component except the Log Server, which does not log its own actions.

Web server troubleshooting

Oracle Endeca Workbench uses cookies to maintain a session. If your application is running on an application server on the same host as Oracle Endeca Workbench, the cookie names used by each might collide. In this situation, user sessions may be terminated unexpectedly.

To resolve this issue, you can either run the application and Oracle Endeca Workbench on different hosts, or customize your application server to use a different cookie name than ESESSIONID through custom directives on your specific application server.

For more information, see the section "Setting Up the Preview Application for Endeca Workbench" in the *Oracle Endeca Workbench Administrator's Guide*.

Related Links

> *Updating system status manually* on page 132
>> You can manually refresh the display of Oracle Endeca Workbench's status.

> *Updating system status automatically* on page 132
>> You can set Oracle Endeca Workbench to automatically update its status messages.

Appendix A

Basic Endeca concepts

This section provides an overview of the basic Endeca concepts that are used throughout this guide.

About dimensions and dimension values

Dimension values are tags or labels associated with records in your data set that classify and organize those records into navigable categories.

For example, dimension values can either be discrete values (as in a year, a flavor, or a price), or dimension values can include ranges with an upper and lower bound (the years 1990-1999, or all prices under $10).

A dimension is a collection of related dimension values. Dimensions provide the logical structure for organizing the records in your data set. Your Endeca-enabled application can have many dimensions, for example, Wine Type, Price Range, Rating, and so on. Also, dimensions can be hierarchical, for example, the Merlot and Chablis dimension values could be children of the Wine Type dimension. Here is the relationship of sample wine dimensions and dimension values:
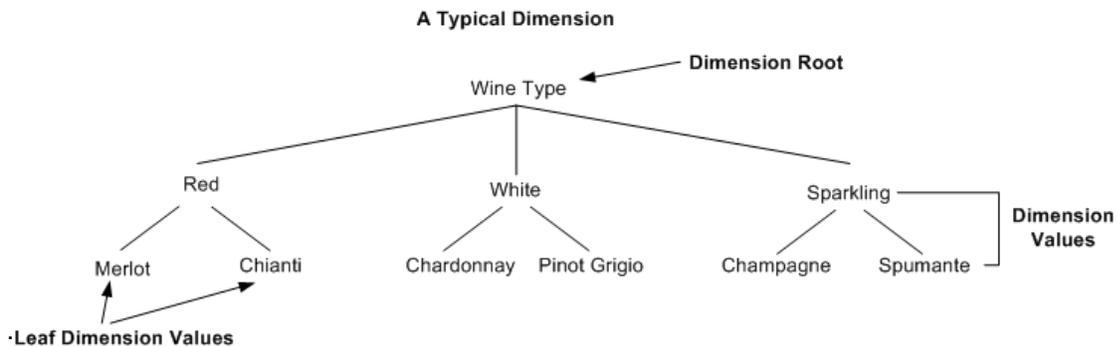
About Endeca records

Endeca records are the entities in your data set that you are trying to search for or navigate to.

Customer records in a customer relationship management (CRM) application, mutual funds in a fund evaluator, and bottles of wine in a wine store are all examples of items represented by Endeca records.

About featured records

A featured result is a specific record that is returned as part of the query results for a business rule's target.

When a user triggers a rule that specifies a featured result, the record for that result is returned along with any other records for the dynamically generated results. You can add any number of featured results to a business rule's target.

About properties

Properties are key/value pairs associated with Endeca records that are displayed once a user has searched for, or navigated to a record list or an individual record page.

Properties contain descriptive information about a record. For example, common properties for an e-commerce application might be "price", "product description", and "model/part number". When a user locates a particular record, the values of the properties are displayed, for example, "$8.00", "striped fleece scarf", and "123-4567".

About user queries

When users of your application click on a link or type in a search term, they are making a query to the Endeca MDEX Engine.

The MDEX Engine can return results for a variety of queries. The two most important types, however, are navigation queries and record search queries.

- Navigation queries return a set of records based on user-selected record characteristics, plus any follow-on query information. These characteristics take the form of dimensions and dimension values in your application. For example, a navigation query for white wines with a price between $10 and $15 and a rating between 85 and 90 would return all wines that match those characteristics. White wines is a dimension value of the wine types dimension. A price between $10 and $15 is a dimension value of the price range dimension.
- Record search queries return a set of records based on a user-defined search term, plus any follow-on query information. For example, a record search query for "Sonoma" would return all wines with Sonoma in their name or description.

Navigation queries and record search queries are complementary. Users can make a combination of navigation queries and record search queries to navigate to their desired record set in the way that works best for them.

Index

A

accessing
    production reports 89
adding
    administrators 78
    Aggregated Indexer 109
    Aggregated MDEX Engine 115
    an application to EAC 103
    business users 76
    custom directories 123
    dimension values to rules 33
    Forge 105
    hosts 104
    Log Server 117
    MDEX Engine 112
    properties to components 123
    properties to hosts 123
    Report Generator 119
    rule properties 37
    script shortcuts 124
    search terms to rules 33
administration tasks 99
Aggregated MDEX Engine
    introduced 100
application
    deleting 103
assigning
    rule group permissions 84
automatic phrases 66
    creating 66
    deleting 67
    filtering 67
    modifying 67

B

baseline update
    running 128
    stopping 128
breaking
    resource locks 88

C

canceling rule requests 48
Central Server
    specifying 130
changing rule priority 52
component status
    viewing 132
configuring
    Report Generator 89

creating
    automatic phrases 66
    keyword redirects 58
    stop words 69
    thesaurus entries 62
custom directories
    adding 123
custom properties
    introduced 122

D

deleting
    Aggregated Indexer 111
    Aggregated MDEX Engine 117
    application 103
    automatic phrases 67
    dynamic business rules 50
    Forge 107
    hosts 105
    keyword redirects 59
    Log Server 119
    MDEX Engine 114
    Report Generator 121
    script shortcuts 125
    stop words 70
    users 81
dimension reordering 71
dimensions
    defined 135
disabling
    preview application 96
downloading
    instance configuration 90
dynamic business rule
    Agraph error 28
    trigger on any dimension value 32
dynamic business rules 19
    activating 43
    approving 46, 47
    configuration overview 30
    configuring 30
    copying 49
    deactivating 43
    deleting 50
    editing 50
    filtering 51
    notes 45
    performance issues 28
    previewing 40
    priority 52
    properties 25
    rejecting 47