# Oracle Endeca Workbench

## Migration Guide

## Version 2.1.2 • March 2012

ORACLE

ENDECA

# Contents

# Copyright and disclaimer

# Preface

Oracle Endeca's Web commerce solution enables your company to deliver a personalized, consistent customer buying experience across all channels — online, in-store, mobile, or social. Whenever and wherever customers engage with your business, the Oracle Endeca Web commerce solution delivers, analyzes, and targets just the right content to just the right customer to encourage clicks and drive business results.

Oracle Endeca Guided Search is the most effective way for your customers to dynamically explore your storefront and find relevant and desired items quickly. An industry-leading faceted search and Guided Navigation solution, Oracle Endeca Guided Search enables businesses to help guide and influence customers in each step of their search experience. At the core of Oracle Endeca Guided Search is the MDEX Engine,™ a hybrid search-analytical database specifically designed for high-performance exploration and discovery. The Endeca Content Acquisition System provides a set of extensible mechanisms to bring both structured data and unstructured content into the MDEX Engine from a variety of source systems. Endeca Assembler dynamically assembles content from any resource and seamlessly combines it with results from the MDEX Engine.

Oracle Endeca Experience Manager is a single, flexible solution that enables you to create, deliver, and manage content-rich, cross-channel customer experiences. It also enables non-technical business users to deliver targeted, user-centric online experiences in a scalable way — creating always-relevant customer interactions that increase conversion rates and accelerate cross-channel sales. Non-technical users can control how, where, when, and what type of content is presented in response to any search, category selection, or facet refinement.

These components — along with additional modules for SEO, Social, and Mobile channel support — make up the core of Oracle Endeca Experience Manager, a customer experience management platform focused on delivering the most relevant, targeted, and optimized experience for every customer, at every step, across all customer touch points.

## About this guide

This guide helps you upgrade your Oracle Endeca Guided Search implementation by describing the major changes between Oracle Endeca Workbench 2.0 and Oracle Endeca Workbench 2.1.

The guide is separated into these main sections:

- Upgrading Oracle Endeca Workbench to Version 2.1

  This section contains upgrade instructions.

- Required Changes

  You must make the changes specified in this section, if they apply to your application.

- Recommended Changes

  This section describes changes that are not required for your implementation but are recommended. Oracle strongly recommends that you make the changes specified in this section. Your application will continue to perform correctly if you don’t make these changes. However, these features have been deprecated and will be removed in a future version of Endeca software.

- Behavioral Changes

This section describes changes that do not require action on the developer's part, but will have an effect on how your Endeca application behaves after you upgrade.

# Who should use this guide

This guide is intended for developers who are upgrading Oracle Endeca Guided Search on Windows, UNIX, or Linux.

**Note:** Unless otherwise indicated, whenever this document specifies UNIX, it applies to Linux as well.

# Conventions used in this guide

This guide uses the following typographical conventions:

Code examples, inline references to code elements, file names, and user input are set in `monospace` font. In the case of long lines of code, or when inline monospace text occurs at the end of a line, the following symbol is used to show that the content continues on to the next line: ¬

When copying and pasting such examples, ensure that any occurrences of the symbol and the corresponding line break are deleted and any remaining space is closed up.

# Contacting Oracle Endeca Customer Support

Oracle Endeca Customer Support provides registered users with important information regarding Oracle Endeca software, implementation questions, product and solution help, as well as overall news and updates.

You can contact Oracle Endeca Customer Support through Oracle's Support portal, My Oracle Support at *https://support.oracle.com*.

Chapter 1

# Upgrading Oracle Endeca Workbench to Version 2.1

This section describes the steps you need to take to upgrade Oracle Endeca Workbench to version 2.1.

## Recommended reading

In addition to reading this document, Oracle recommends that you read the following documents for important information about the release.

### Release Notes

The Release Notes for each package provide information about new features, changed features, and bug fixes for this release. You can download the release notes (`README.txt`) from the Oracle Technology Network (OTN). After installation, release notes are also available in the following location:

- Windows: `C:\Endeca\Workbench\`*`version`*
- UNIX: *`installation_directory`*`/endeca/Workbench/`*`version`*

You can find the Release Notes for the other core installation packages in:

- The `MDEX/`*`version`* directory of your MDEX Engine installation.
- The `PlatformServices/`*`version`* of your Endeca Platform Services installation.

### Additional Migration Guides

This guide covers only the changes applicable to the Oracle Endeca Workbench installation package and the Content Assembler API (for use with the Experience Manager component of some Workbench editions). For additional information, consult the following guides:

- The *Oracle Endeca MDEX Engine Migration Guide* for version 6.1.x contains information about changes applicable to the MDEX Engine installation package.

### Getting Started Guide

The *Oracle Endeca Guided Search Getting Started Guide* gives an overview of Endeca components and includes information about configuration scenarios. After installing all the components in your Endeca deployment, read this guide for information on verifying your installation. You can download the *Oracle Endeca Guided Search Getting Started Guide* from the Oracle Technology Network.

**Important:** If you have purchased Oracle Endeca Experience Manager, please read the *Oracle Endeca Experience Manager Getting Started Guide*.

# Identifying your upgrade scenario

This guide assumes that your upgrade scenario is one in which you were using MDEX Engine 6.1.x, Platform Services 6.0.1, and Workbench 2.0 on a 64-bit machine. It also assumes that you were also using the Oracle Endeca Application Controller environment.

The following table lists versions and environments you can have, and provides information about upgrading from your current version to Oracle Endeca Workbench 2.1.

| Your current version and environment | To upgrade to Oracle Endeca Guided Search 2.1.2 with Oracle Endeca Workbench |
|---|---|
| MDEX Engine 6.1.x, Platform Services 6.0.x, and Oracle Endeca Workbench 2.0 with EAC<br>*or*<br>IAP 6 with Workbench 1.x | See *Upgrading an IAP 6.0 platform* on page 10.<br>If you are not running version 6.1.3 or later of the Oracle Endeca MDEX Engine, see the *Oracle Endeca MDEX Engine Migration Guide* for the required upgrade steps. See the *Oracle Endeca Platform Services Migration Guide* for the required upgrade steps for Platform Services 6.1 and other required upgrades. |
| Oracle Endeca Guided Search prior to 6.0 | Upgrade incrementally, one version at a time.<br>For upgrade instructions, see the corresponding version of the Endeca Installation Guide. For example, if you are upgrading from version 5.0, see the Installation Guide for version 5.1. If you are upgrading from version 5.1, see the corresponding Installation Guides for version 6.0. In addition, you must read the *Oracle Endeca Experience Manager Migration Guide* for each corresponding software version to which you are upgrading, and make the required changes for each version. |

# Package compatibilities

To determine the compatibility of Workbench with other Endeca installation packages, see the *Oracle Endeca Guided Search Compatibility Matrix* available on the Oracle Technology Network.

# Upgrading an IAP 6.0 platform

This procedure provides high-level steps needed to upgrade your Oracle Endeca Workbench installation to version 2.1.

After you back up your configuration and source data, uninstall the older versions of the Endeca components, then install Workbench 2.1 and the compatible components.

When installing, ensure that you point Oracle Endeca Workbench to the machine on which you are installing the EAC Central Server. Also, you need to run your existing scripts (the provisioning script that you used for your application and the baseline update script) in Oracle Endeca Workbench 2.1. Ensure that your baseline update script can communicate with the EAC Central Server in this version. Oracle recommends using the Deployment Template, which is available on the Oracle Software Delivery Cloud.

The high-level procedure of upgrading Workbench to version 2.1 is:

1. Back up your existing configurations.
2. Uninstall any outdated versions of Endeca components.
3. Install and configure current versions of the MDEX Engine, Platform Services, Developer Studio, and the Deployment Template.
4. Install Oracle Endeca Workbench 2.1.
5. Restore your configurations.
6. Start the Endeca processes.

For detailed information on each of the steps, see the corresponding sections below.

## Backing up your existing configurations

The backup process allows you to take a snapshot of your project including its users, rule groups, and permissions data.

To back up your Oracle Endeca Guided Search configuration, back up the following pieces:

- Instance configuration — this consists of your pipeline components, Endeca properties and dimensions, precedence rules, dynamic business rules, and user profiles.
- Web Studio store — a directory that contains a database of users, rule groups, and associated permission information.
- Configuration files — XML and properties files that customize the behavior of a Workbench installation.
- EAC store — a directory that contains a database of your provisioning information.

### Backing up your instance configuration

Obtain and back up your project's most recent configuration information, either from your local version of the configuration files, or from Oracle Endeca Workbench.

To back up the instance configuration:

1. If the local version of your project's configuration files reflects the most recent baseline update changes, skip to step 6.
2. On your Windows machine, open the 6.0.1 version of Developer Studio.
3. Open the project that you want to upgrade.
4. From the **Tools** > **Workbench** menu, click **Get Instance Configuration**. This step retrieves the latest instance configuration information from Workbench.
5. Save the project and close Developer Studio.
6. Back up your project directory. This is the directory that contains the project (.esp) file, the pipeline (.epx) file, the dimension hierarchy, and the index configuration files.

## Backing up the Web Studio store

The Web Studio store contains information such as users and permissions, as well as preview application settings used in Workbench.

To back up the Web Studio store:

1. Stop the Endeca Tools Service.
2. Copy the `webstudiostore` directory, including all its subdirectories, from `%ENDECA_TOOLS_CONF%\state` (on Windows) or `$ENDECA_TOOLS_CONF/state` (on UNIX) to another location.

   Recall that the default location of `ENDECA_TOOLS_CONF` in Workbench is `C:\Endeca\Workbench\workspace` (Windows) and `endeca/workbench/workspace` (UNIX).

## Backing up the Workbench configuration files

Workbench uses several configuration files that customize the behavior of various aspects of Workbench.

In general, you only need to back up these files if you have made customizations to your Workbench instance.

To back up the Workbench configuration files:

1. Navigate to the directory where the configuration files are located: `%ENDECA_TOOLS_CONF%\conf` (on Windows) or `$ENDECA_TOOLS_CONF/conf` (on UNIX).

   Recall that the default location of `ENDECA_TOOLS_CONF` is `C:\Endeca\Workbench\workspace` (Windows) and `endeca/workbench/workspace` (UNIX).
2. To preserve the settings controlled by each of the following files, copy them to another location.

| File name | Description |
|---|---|
| **Login.conf** | Configuration for user authentication using LDAP. |
| **ws-extensions.xml** | Definitions of Workbench extensions. |
| **ws-mainMenu.xml** | Definitions of the Workbench navigation menu and launch page. |
| **ws-roles.xml** | Definitions of custom Workbench user roles. |

**Note:** There are some configurations that cannot be migrated. For example, if you have configured Workbench for SSL, hidden the application drop-down menu in the UI, or made the EAC Admin Console read-only, you must make these configuration changes in the new environment.

## Backing up the EAC store

The EAC store contains application configuration.

**Note:** This step is only necessary if you are using EAC scripts to provision your application. Implementations relying on the Deployment Template do not need to back up the EAC store because the information is stored in the Deployment Template's `AppConfig.xml` file.

To back up the EAC store:

1. Stop the Endeca HTTP service if it is running.
2. Copy the `eacstore` directory from `%ENDECA_CONF%\state` (on Windows) or `$ENDECA_CONF/state/` (on UNIX) to another location.

   Recall that the default location of `ENDECA_CONF` is `C:\Endeca\PlatformServices\workspace` (Windows) or `endeca/platformservices/workspace` (UNIX).

## Uninstalling the earlier version

After backing up the required configuration files, you can uninstall Workbench 2.0 or 1.x.

For information about uninstalling Oracle Endeca Workbench the *Oracle Endeca Workbench Installation Guide*.

## Installing Oracle Endeca Workbench 2.1

The next step is to install the new version of Oracle Endeca Workbench.

Before installing upgraded versions of Endeca components, check the appropriate Installation Guide for the version that you are uninstalling for a list of environment variables used by all Endeca components, and ensure that any environment variables from previous installations are removed from your servers. (The environment variables from the previous installations are not removed automatically on UNIX.)

To install the upgrade components:

1. Install the Endeca MDEX Engine.

   For installation details, see the *Oracle Endeca MDEX Engine Installation Guide*.
2. Install Platform Services.

   For installation details, see the *Oracle Endeca Platform Services Installation Guide*.
3. Install Oracle Endeca Workbench, Merchandising Workbench, or Publishing Workbench.

   For installation details, see the *Oracle Endeca Workbench Installation Guide*.
4. Install Endeca Developer Studio on a Windows machine.

   For installation details, see the *Oracle Endeca Developer Studio Installation Guide*.
5. Install the Endeca Deployment Template.

   For installation details, see the *Oracle Endeca Deployment Template Usage Guide*.

## Restoring your configurations

To restore your project settings, copy the files that you backed up earlier into the appropriate locations in your upgraded implementation.

### Restoring a backup of the Web Studio store

You can restore backups of the Web Studio store to an installation of Oracle Endeca Workbench.

To restore a backup of the Web Studio store into Oracle Endeca Workbench:

1. Stop the Endeca Tools Service if it is running.

2. If there is a `webstudiostore` directory in `%ENDECA_TOOLS_CONF%\state\` (on Windows) or `$ENDECA_TOOLS_CONF/state/` (on UNIX), delete the directory.
3. Copy the `webstudiostore` directory that you backed up earlier from `%ENDECA_TOOLS_CONF%\state\` (on Windows) or `$ENDECA_TOOLS_CONF/state/` (on UNIX).
4. Paste the `webstudiostore` directory into `%ENDECA_TOOLS_CONF%\state\` (on Windows) or `$ENDECA_TOOLS_CONF/state/` (on UNIX).
5. If you have no further customizations to restore to Oracle Endeca Workbench, start the Endeca Tools Service.

### Restoring a backup of the Oracle Endeca Workbench configuration files

You can now restore the configuration files that you backed up earlier.

**Note:** If you have made customizations to `ws-mainMenu.xml` in Oracle Endeca Workbench that you wish to preserve and you are upgrading to Merchandising Workbench or Publishing Workbench, you must manually merge the original file that you backed up with the default version in your new Workbench installation.

To restore a backup of the Oracle Endeca Workbench configuration files:

1. Stop the Endeca Tools Service if it is running.
2. Copy the files that you backed up earlier from `%ENDECA_TOOLS_CONF%\conf` (on Windows) or `$ENDECA_TOOLS_CONF/conf` (on UNIX).
3. Paste the backup versions into `%ENDECA_TOOLS_CONF%\conf` (on Windows) or `$ENDECA_TOOLS_CONF/conf` (on UNIX).
4. Start the Endeca Tools Service.

### Restoring a backup of the EAC store

You can now restore the EAC store that you backed up earlier.

This step is only necessary if you used EAC scripts to provision your application. Implementations relying on the Deployment Template do not need to back up or restore the EAC store.

To restore a backup of the EAC store:

1. Stop the Endeca HTTP service if it is running.
2. If there is an `eacstore` directory in `%ENDECA_CONF%\state` (on Windows) or `$ENDECA_CONF/state/` (on UNIX), delete the directory.
3. Copy the backup `eacstore` directory into `%ENDECA_CONF%\state` (on Windows) or `$ENDECA_CONF/state/` (on UNIX).
4. Start the Endeca HTTP service.

## Starting the processes

For UNIX, you need to start the Endeca HTTP service that was installed as part of the Platform Services setup, and the Endeca Tools Service that was installed as part of the Oracle Endeca Workbench setup.

To start the processes on UNIX:

1. Before starting the processes, follow the installation steps in each installation guide and set the appropriate environment variables.

2. Start the Endeca HTTP service at the command line with:
   ```
   $ENDECA_ROOT/tools/server/bin/startup.sh
   ```
3. Start the Endeca Tools Service at the command line with:
   ```
   $ENDECA_TOOLS_ROOT/server/bin/startup.sh
   ```

On Windows, the services are started automatically after you complete the installation procedures (including restarting the system after the Platform Services installation).

# Upgrading an Endeca project

This section provides instructions for the basic tasks involved in upgrading an Endeca project.

However, because Endeca projects are highly configurable, some implementations may require further migration changes. Please review this guide for additional changes required to upgrade your specific Endeca implementation.

## Provisioning your system

To provision your application, Oracle recommends using the Deployment Template. However, you can also provision your system using EAC scripts.

To provision your system:

Run the provisioning script from your existing application. (This step assumes that you already have an EAC script that you used for your application's provisioning).

For Deployment Template information, see the *Oracle Endeca Deployment Template Usage Guide*. For information about the Oracle Endeca Application Controller, see the *Oracle Endeca Application Controller Guide*. For detailed information about provisioning hosts, components, and scripts in Oracle Endeca Workbench, see the *Oracle Endeca Workbench Help*.

**Note:** For implementations upgrading from an earlier version of the Deployment Template, customizations to scripts and components must be migrated to the new version and tested with Oracle Endeca Guided Search.

## Running a baseline update

Run a baseline update to start the Dgraphs.

To run a baseline update:

1. You can run a baseline update in the same manner as in your previous implementation. Oracle recommends using the Deployment Template to perform updates.
2. Optionally, start any other Endeca components required by your application, such as the Log Server component (if your baseline update script does not start it for you).

## Updating the APIs on the application server

After upgrading, ensure that the server or servers running your front-end application are using the latest versions of the Presentation API and Logging API.

The Presentation and Logging APIs are shipped separately and available on the Oracle Software Delivery Cloud.

## Refreshing cached Workbench resources

Workbench pages reference a number of assets such as images, CSS files, and JavaScript files. These assets are relatively static and are typically cached by the browser.

After an upgrade of Oracle Endeca Workbench, assets from the prior version may remain in the browser cache for a short period of time (up to six hours). To avoid a situation in which a user's browser reuses cached versions of JavaScript resources that may be incompatible with the new Workbench release, take either of the following steps:

- Instruct all users to clear their browser cache before logging in to Oracle Endeca Workbench for the first time after the upgrade.
- Schedule the upgrade during a period of at least six hours during which no users are logged in to Oracle Endeca Workbench.

# After you upgrade

It is recommended that you test the upgrade before adding new features.

After you have provisioned your system and converted your 6.0 Developer Studio project to a version 6.1 Developer Studio project, it is critical that you read the appropriate *Migration Guides* and complete all required migration changes that may affect your implementation. Before you add any new features, test your Endeca implementation with the Oracle Endeca Guided Search version 6 software to make sure that it runs properly with the migration changes you have made.

When you are satisfied that your implementation is running as expected, you can start adding any new features that you require.

Chapter 2

# Required Changes

You must make the changes specified in this section, if they apply to your application.

## Changes to the behavior of record list properties

The Content Assembler API has been updated to enable support for aggregated records. This affects the behavior of the `ERecListProperty` (Java) and the `IRecordListProperty` (RAD Toolkit for ASP.NET).

This change affects your application if it meets both of the following conditions:

1. It includes a rollup key for aggregated records in the primary navigation query (that is, the query that triggers a landing page).
2. It includes cartridges with a `<RecordList>` element (for merchandising or Content Spotlighting) that is populated with a navigation query, either through a `<NavQuery>` tag specified in the cartridge template or through user configuration in the **Select Dynamic Records** portion of the record selector).

If this applies to your application, you must update the rendering code for any record spotlight cartridges containing a record list property.

### Details about the changes for Java

When the `ENEQuery` that triggers a landing page has the `NavRollupKey` property set, any record list property on that page that uses a `ENEQuery` now returns a value of type `AggrERecList` rather than `ERecList`. Any record list properties that are configured to display specific featured records continue to return an `ERecList`.

For further details about handling record list properties, see the *Content Assembler API for Java Developer's Guide*.

In addition, the `ERecListProperty` has been deprecated. See the "Recommended Changes" chapter for more details.

### Details about the changes for the RAD Toolkit for ASP.NET

When the `NavigationCommand` that triggers a landing page has the `AggregationKey` property set, any record list property on that page that uses a `NavigationCommand` now returns a value of type `ReadOnlyCollection<AggregateRecord>` rather than `ReadOnlyCollection<Record>`.

Any record list properties that are configured to display specific featured records continue to return a `ReadOnlyCollection<Record>`.

For further details about handling record list properties, see the *Content Assembler API for the RAD Toolkit for ASP.NET Developer's Guide*.

# Changes to the silent installation on UNIX

In release 2.1.1, the silent installer on UNIX no longer prompts for acceptance of the License Agreement. In the text file that you create for the silent installation, remove the line that contains "Y" to accept the agreement.

Chapter 3

# Recommended Changes

This section describes changes that are strongly recommended by Endeca, but that are not required for your implementation. Your application will continue to perform correctly if you do not make these changes.

## Deprecation of the ERecListProperty in the Content Assembler API for Java

Starting in version 2.1, the `ERecListProperty` interface is deprecated in the Content Assembler API for Java. In its place, you should use the `RecordListProperty` interface.

**Note:** The behavior of the `ERecListProperty` has also changed. See the "Required Changes" chapter for more details.

Chapter 4

# Behavioral Changes

This section describes changes that do not require action on the developer's part, but will have an effect on how your Endeca application behaves after you upgrade.

## Changes to foreign language support

Version 2.1 of Oracle Endeca Workbench is available in the English language only.

Oracle Endeca Workbench input fields do not support international characters.

## Experience Manager-related changes

These changes only apply if you are upgrading to a version of Oracle Endeca Workbench featuring the Endeca Experience Manager. If you are not planning to use the Experience Manager, you can disregard this section.

### Changes to content upgrade

When the content administrator is using Experience Manager in read-only mode, and loads a landing page that requires a content upgrade, a warning message is displayed.

When Experience Manager populates the **Content Detail Panel** for a landing page or cartridge, it checks the content XML of the loaded page against the template XML. If the template has been changed such that it is no longer compatible with the content, Experience Manager displays a warning and updates existing content to fit the current editor definition.

Previously, Experience Manager would execute this content upgrade regardless of whether the landing page was in read-only mode. It then prevented the content administrator from saving changes. This behavior has been changed to display a warning and skip the content upgrade process entirely.

#### Content upgrade and custom XML

Custom and pass-through XML were formerly updated when a template was changed. Now, they are treated in the same way as default values, that is: if custom or pass-through XML is changed, it is only applied to new pages or cartridges based on the updated template. In existing pages, the previously saved value is preserved.

Chapter 5

# Previously Deprecated Features

This section describes features that were deprecated in previous versions and are still deprecated in this release.

## Status of the editable attribute on StringEditor

The `editable` attribute on the `<StringEditor>` element in Experience Manager templates, which was deprecated in Workbench 2.0, is still deprecated.

# Index