

# **Endeca® Discovery Framework**

## **Migration Guide**





# Contents

- Preface.....7**
  - About this guide.....7
  - Who should use this guide.....7
  - Conventions used in this guide.....7
  - Contacting Endeca Customer Support.....8
- Chapter 1: Upgrading Discovery Framework to Version 1.5.....9**
  - Audience for this guide.....9
  - Required reading.....9
  - Package compatibilities.....10
  - Upgrading from a previous version of the Discovery Framework.....10
    - Updating component preferences.....10
    - Upgrading to the Discovery Framework 1.5.....10
    - Upgrading from Discovery Framework version 1.0.....12
  - LAR file migration.....13
  - Context root changes.....13
- Chapter 2: Required changes.....15**
  - Changes to the Liferay licensing model.....15
  - Changes required by JQuery and endeca-async upgrades.....15
- Chapter 3: Behavioral changes.....19**
  - Changes to the default security manager.....19
  - Using attribute sets in the Guided Navigation and Results Table components.....19





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Version 1.5



# Preface

The Endeca® Information Access Platform is the foundation for building applications that help people understand complex information, fostering discovery and improving daily decision-making. These applications instantly summarize data and content for users—even for unanticipated requests. The Guided Summarization™ experience leads to unexpected insights in millions of everyday decisions, increasing revenue, decreasing costs, and accelerating operations.

The Endeca Information Access Platform is powered by MDEX Engine™ technology, a new class of database designed for exploring information, not managing transactions. The MDEX Engine is supported by:

- An adaptive application component library that enables the rapid development of information access applications that automatically adapt to changes in the data and content.
- A Web-based management suite that empowers managers to highlight the right information at the right time to end users through adaptive presentation rules and dynamic pages.

These essential capabilities are delivered as an enterprise-class platform, with the scalability, reliability, and security that leading organizations demand.

## About this guide

This guide helps you upgrade your Discovery Framework implementation by describing the major changes between version 1.5 of the Discovery Framework software and earlier versions. The guide is separated into these main sections:

- **Upgrading to Version 1.5:** This section contains general upgrade instructions.
- **Required Changes:** You must make the changes specified in this section if they apply to your application.
- **Behavioral Changes:** This section describes changes that do not require action on the developer's part, but will affect how your Endeca application behaves after you upgrade.

## Who should use this guide

This guide is intended for developers who are upgrading the Endeca Discovery Framework, as well as for system administrators managing the Discovery Framework on Windows or Linux.

## 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 Endeca Customer Support

The Endeca Support Center provides registered users with important information regarding Endeca software, implementation questions, product and solution help, training and professional services consultation as well as overall news and updates from Endeca.

You can contact Endeca Standard Customer Support through the Support section of the Endeca Developer Network (EDeN) at <http://eden.endeca.com>.





## Chapter 1

# Upgrading Discovery Framework to Version 1.5

This section describes the steps you need to take to upgrade the Endeca Discovery Framework to version 1.5. It is critical that, after you follow the upgrade procedures in this section, you also review this guide for additional changes that might be required to upgrade your application.

## Audience for this guide

This guide is intended primarily for users whose Discovery Framework applications are built from Endeca standard components.

It does not necessarily apply to Discovery Framework applications built with custom components.

## Required reading

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

### Release Announcement for the Discovery Framework

The Release Announcement provides a brief explanation of the new features that were added in Version 1.5. The Release Announcement is available for download from the Endeca Developer Network (EDeN).

### 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 Knowledge Base section of the Endeca Developer Network (EDeN) at <http://eden.endeca.com>.

### Installation Guide

The *Discovery Framework Installation 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 *Discovery Framework*

*Installation Guide* from the Downloads section of the Endeca Developer Network (EDeN) at <http://eden.endeca.com>.

## Package compatibilities

To determine the compatibility of the Discovery Framework with other Endeca installation packages, see the *Endeca Compatibility Matrix*.

This matrix is available in the Knowledge Base of the [Endeca Developer's Network](#).

## Upgrading from a previous version of the Discovery Framework

This section describes how to upgrade your Discovery Framework application from a previous version.



**Note:** You can only have one version of the Discovery Framework installed on your machine at a time.

## Updating component preferences

When upgrading versions of the Discovery Framework, previously saved component preferences may not be carried over automatically. Power users may be required to update the configuration of components to match previously-set preferences.

## Upgrading to the Discovery Framework 1.5

Data migration is supported between Discovery Framework 1.1 to 1.4 and Discovery Framework 1.5.

### Backing up your Discovery Framework files

The first step in migrating to Discovery Framework 1.5 is backing up your 1.1, 1.2, 1.3, or 1.4 files. After backing up your files, you can uninstall the older version of the Discovery Framework.

To back up your Discovery Framework 1.1, 1.2, 1.3, or 1.4 files and uninstall:

1. Stop your Discovery Framework server.
2. Back up your database as follows:
  - If you are using HSQL, skip this step. Your database will be backed up as part of step 4 below.
  - If you are using MYSQL, DB2, or some other RDBMS, follow the backup procedures from your vendor.
3. Back up any Discovery Framework customizations you have made, such as database connectivity options in `portal-ext.properties`, Corda PCXML files, or Xcelsius (SAP Crystal Dashboard Design) visualizations.
4. Back up the entire `endeca-portal/data` directory to a safe backup location.

If you have changed the location of anything normally kept in `endeca-portal/data`, such as your Endeca data source definitions, JCR repository, or Lucene search indexes, back up your custom location(s) as well.



**Note:** Alternatively, you might choose to export your page to a Liferay Archive (LAR) file. For more information about LAR files, see the [Liferay Portal Administrator's Guide](#). For important information about limitations on backing up using LAR files, see the topic "LAR file migration," later in this section.

5. Back up your license, at `endeca-portal/ee/license`.
6. Uninstall Discovery Framework.  
Uninstalling consists of removing the packages and directories created in your installation.

## Updating your database schema

Next, you need to update your database schema.

Use the appropriate tools for your database vendor. If you are using the HSQL database (which is not recommended for production), you must use a tool such as Squirrel SQL to modify your database.

To update your database schema:

Make the following changes:

- Change `endeca_bookmarks_portlets.portletId` to `varchar(500)`.
- Change `endeca_metadata.key` to `varchar(250)`.
- Change `endeca_metadata_property.key` to `varchar(250)`.

For example, in MySQL, using the MySQL Workbench or Administrator and assuming a schema named `df`, you would enter the following:

```
ALTER TABLE df.endeca_bookmarks_portlets MODIFY COLUMN portletId var-
char(500);
ALTER TABLE df.endeca_metadata MODIFY COLUMN key_ varchar(250);
ALTER TABLE df.endeca_metadata_property MODIFY COLUMN key_ varchar(250);
```

## Making additional database schema changes for Discovery Framework 1.1

In addition, if you are upgrading from Discovery Framework 1.1 *only*, you need to update your database schema with post-1.1 changes.

To update your database schema:

Using the appropriate tools for your database vendor, make the following changes:

- Change `endeca_metadata.description` to `varchar(250)`.
- Change `endeca_metadata_property.description` to `varchar(250)`.
- Add `endeca_bookmarks_datasources.serializedRequestState` as CLOB.

## Removing previous versions of .jar files

Discovery Framework 1.5 has replaced two dependency .jar files with newer versions. You must remove the previous versions.

For version 1.4 of the Discovery Framework, the `lib/ext` directory included the following .jar files:

- `jackson-core-lgpl-1.6.2.jar`
- `jackson-mapper-lgpl-1.6.2.jar`

In 1.5, these files are being replaced by:

- `jackson-core-lgpl-1.7.2.jar`
- `jackson-mapper-lgpl-1.7.2.jar`

Before installing Discovery Framework 1.5, you must remove the 1.6.2 .jar files.

## Installing the Discovery Framework 1.5 and restoring backups

To install the Discovery Framework 1.5 and restore files backed up from version 1.1, 1.2, 1.3, or 1.4:

1. Install Discovery Framework 1.5, following the steps in the *Discovery Framework Installation Guide*. Do not start the server.
2. Restore the entire `endeca-portal/data` directory from your safe backup location. Overwrite the `endeca-portal/data` files that were installed with the Discovery Framework 1.5.  
If you have changed the location of anything normally kept in `endeca-portal/data`, such as your Endeca data source definitions, JCR repository, or Lucene search indexes, restore and re-verify your custom locations as well.
3. Restore your database, as follows:
  - If you are using HSQL, skip this step, since your database was restored as part of step 2.
  - If you are using MYSQL, DB2, or some other RDBMS, your database should still be intact. If it is not, follow the restore procedures from your vendor.
4. Configure the Discovery Framework to connect to your database. If you are not using HSQL, you should have created a backup of your database connection strings in the previous procedure.
5. Restore any Discovery Framework 1.1, 1.2, 1.3, or 1.4 customizations you have made.



**Note:** These customizations may not be supported in Discovery Framework 1.5.

6. Restore your license at `endeca-portal/ee/license`.
7. Start the Discovery Framework.

## Upgrading from Discovery Framework version 1.0

Data migration is not supported between Discovery Framework 1.0 and 1.5.

To upgrade from Discovery Framework 1.0 to Discovery Framework 1.5:

1. Uninstall Discovery Framework 1.0.  
Uninstalling consists of removing the packages and directories created in your installation.



**Note:** If your 1.0 deployment was installed in an existing application server, follow the appropriate steps to stop and uninstall the DF 1.0 application from the application server before installing DF 1.5.

2. Install Discovery Framework 1.5, following the instructions in the next chapter.
3. Rebuild your application.

## LAR file migration

Liferay Archive (LAR) files are not portable across versions of the Liferay Portal. You cannot import a LAR file created in an earlier version of Liferay into a newer version.

LAR files allow you to export all of your Discovery Framework application pages to a single file. This file can be exported from one server running Liferay and imported into another running the same version of Liferay. This feature is very useful when you want to back up an application or move it from a development to a production environment.

However, LAR files are not portable across versions of the Liferay Portal. As a result, you cannot import a LAR file exported from a pre-1.5 version of the Discovery Framework into Discovery Framework 1.5.

The recommended approach to maintain your configuration across upgrades is to use the same underlying database.

## Context root changes

Changing the context root is not supported as an upgrade.





## Chapter 2

# Required changes

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

## Changes to the Liferay licensing model

Prior to version 1.5, the first time you started the Discovery Framework, you were prompted to enter the Liferay license key.

For version 1.5, you must install the Liferay license before you start the Discovery Framework. Instead of entering a license key, you place the license file in the `endeca-portal/deploy` directory.

To install the license:

1. Download the license file (Discovery Framework License) from the Discovery Framework section of EDeN (<http://eden.endeca.com>).
2. Save the file to the `endeca-portal/deploy` directory of your Discovery Framework installation.

When you start the Discovery Framework, the license is installed.

## Changes required by JQuery and endeca-async upgrades

Prior to version 1.4, the Discovery Framework used JQuery 1.2.6, which is the version of JQuery supplied by Liferay. JQuery was available in the `jQuery` variable.

Starting with version 1.4, the Discovery Framework accesses two versions of JQuery: 1.2.6 and 1.4.4.

- JQuery 1.2.6 remains available in the `jQuery` variable.
- JQuery 1.4.4, which is used by the `endeca-async` library, is available in the `jq14` variable.

### Required component changes

1. Any component that has a `postRender` override must ensure that all variables used by that `postRender` override are initialized in a `jq14.ready()` block instead of a `jQuery.ready()` block. Because JQuery 1.4.4 is faster than, and loaded earlier than, JQuery 1.2.6, the `jq14.ready()` block will fire before the `jQuery.ready()` block. Therefore, by the time the component's `postRender` override executes, it is likely that `jQuery.ready()` has not even begun. If the `postRender` override depends on variables that are only initialized in `jQuery.ready()`, those variables will not exist yet and the override will fail.

The following example shows the Discovery Framework 1.3 syntax, with the relevant line highlighted:

```
<script type="text/javascript">
jQuery.ready(function(){
    myVar = "hello world!";
})

// postRender override function
function postRender<portlet:namespace/>(asyncObject) {

    asyncObject.initAsync();

    var detailLinks = jQuery('#<portlet:namespace/>async a .my-special-
links');
    detailLinks.expire();
    detailLinks.livequery('click',
        function(e) {
            alert(myVar);
        });
}
</script>
```

The following example shows the Discovery Framework 1.4 (and later) syntax, with the relevant line highlighted:

```
<script type="text/javascript">
jq14.ready(function(){
    myVar = "hello world!";
})

// postRender override function
function postRender<portlet:namespace/>(asyncObject) {

    asyncObject.initAsync();

    var detailLinks = jq14('#<portlet:namespace/>async a .my-special-links');

    detailLinks.click(
        function(e) {
            alert(myVar);
        });
}
</script>
```

- Any component that manually adds a form to its DOM after its initial render (that is, without re-executing `postRender.jspf` must add code to rewrite the new forms.

The following example shows the form code required in Discovery Framework 1.4 and later:

```
<script type="text/javascript">

function myCustomFunction(asyncObject) {
    jq14('#myElement').append(myNewForm); // adds a new form to the document

    asyncObject.rewriteForms(); // after adding, must trigger rewriteForms
}
</script>
```



### Recommended component changes

Although it is not required, Endeca recommends that you update your components' JavaScript code to use jQuery 1.4.4 through the `jq14` variable instead of jQuery 1.2.6 through the `jQuery` variable, in order to gain the newer version's performance and functionality enhancements.



**Note:** The version of `livequery` used in Liferay is not compatible with jQuery 1.4.4. The best approach is to replace `livequery` with `jQuery.live()`.





## Chapter 3

# Behavioral changes

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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 the default security manager

This topic describes how the default security manager changed in the 1.4 release.

Prior to the Discovery Framework 1.4, the default security manager had the following features:

- It applied filters for any role to which the user was directly assigned.
- It checked the user's directly-assigned roles on every request. If the roles were changed, the security manager would use the new roles.

Starting with version 1.4, the default security manager has the following changes:

- It applies filters for any role to which the user is directly assigned, as well as any role assigned to a user group to which the user is assigned. In other words, the Discovery Framework now supports both `user:role` and `user:group:role`.
- For performance reasons, it no longer checks roles on every request. The user must log out and log in, or the server must be restarted, in order for role changes to take effect.

## Using attribute sets in the Guided Navigation and Results Table components

When using attribute sets in the **Guided Navigation** or **Results Table** components, there are some conditions where the "Other" set will appear to have nothing in it.

In this case, go to the **Attribute Settings** component in the Control Panel, load the affected data source from the MDEX Engine, and expand the "Other" set.



# Index

## A

attribute sets, using with Guided Navigation or Results Table 19

## B

backing up your files 10

## D

Discovery Framework  
    migrating 10  
    package compatibilities 10  
    updating your database schema 11

## E

endeca-asynch  
    changes required by 15

## J

jar files, removing previous versions 11  
jQuery  
    changes required by 15

## L

Liferay licensing, changes to 15

## M

migrating  
    from version 1.1, 1.2, 1.3, or 1.4 12  
migrating from an earlier version 10

## P

package compatibilities 10  
previous version of Discovery Framework 12

## R

rebuilding your application 12  
required changes  
    jQuery and endeca-asynch 15  
    Liferay licensing 15

## U

updating your database schema from 1.1 11  
upgrading Discovery Framework 10  
upgrading from a previous version 12  
upgrading the Discovery Framework 10  
upgrading your installation 12

