Oracle Endeca Workbench

Installation Guide

Version 2.1.2 • March 2012

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 contains installation instructions for setting up Oracle Endeca Workbench on Windows, UNIX, and Linux.

This guide assumes that you have read the *Oracle Endeca Guided Search Getting Started Guide* (for Oracle Endeca Guided Search users) or the *Oracle Endeca Experience Manager Getting Started Guide* (for Oracle Endeca Experience Manager users). This guide covers installation procedures for Oracle Endeca Workbench and the Content Assembler API. For information about installing other Endeca components, please refer to the appropriate Installation Guide.

Who should use this guide

This guide is intended for developers who are building applications using Oracle Endeca Guided Search, as well as for system administrators managing 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

Before you install

This section provides an overview of Oracle Endeca Workbench, system requirements, and other information you need to know before installing.

Oracle Endeca Workbench overview

Oracle Endeca Workbench is a suite of tools that brings together best-in-class Web-site management capabilities including merchandising, Content Spotlighting, search configuration, and usage reporting.

In addition to these powerful tools for business users, Workbench provides features for system administrators to configure the resources used by an Endeca implementation, monitor its status, start and stop system processes, and download an implementation's instance configuration for debugging and troubleshooting purposes.

The Oracle Endeca Workbench package contains the following components:

- Endeca Tools Service
- Oracle Endeca Workbench

In addition, the installation includes a version of the Endeca JSP reference application, which serves as the default preview application in Oracle Endeca Workbench.

System requirements

The machine you install your Endeca software on must meet the following operating system and software requirements.

Hardware requirements

The hardware requirements for Oracle Endeca Workbench 2.1 are the same as Endeca MDEX Engine version 6.2.x. For details, see the *Oracle Endeca MDEX Engine Installation Guide*.

Supported operating systems

Oracle Endeca Workbench 2.1 is supported on the same operating systems as Endeca MDEX Engine version 6.2.x. For details, see the *Oracle Endeca MDEX Engine Installation Guide*.

Software requirements

Oracle Endeca Workbench is a Web-based application that supports Internet Explorer versions 6 and 7.

Oracle Endeca Workbench requires Adobe Flash Player 9 or higher.

Supported Languages

Oracle Endeca Workbench input fields do not support international characters. The application is intended for English-only use.

Compatibility with Endeca components

Oracle Endeca Workbench requires Endeca MDEX Engine and Platform Services. You can install the Endeca MDEX Engine and Platform Services either before or after you install Oracle Endeca Workbench.

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.

Configuring Internet Explorer for Adobe Flash

If you have Internet Explorer Enhanced Security Configuration installed on a Windows 2003 Server, you may experience difficulty viewing any Adobe flash-enabled pages due to conflicts between the security configuration and Adobe Flash. Flash-enabled pages include Experience Manager and the CAS Console for Oracle Endeca Workbench.

In particular, the security conflicts may cause the following issues:

- The CAS Console may not display, or display as a blank page, when you click the **Data Sources** link.
- The Workbench logo may display with a white box surrounding the image. This results in odd display behavior when dialog boxes appear in Experience Manager. Instead of Experience Manager appearing dimmed in the background, Experience Manager disappears from the background entirely while the dialog box is present.

To configure Workbench for Adobe Flash extensions:

1. Start Internet Explorer and select **Tools** > **Internet Options**.
2. Click on the **Security** tab.
3. Click **Custom Level**.
4. Under ActiveX controls and plugins, locate the **Binary and script behaviors** setting, and select the **Enable** option.
5. Click **OK**.

Recommended reading

Before installing, Oracle recommends that you read the following documents for important information about the release.

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 (OTN).

Release Notes

Refer to the Endeca release notes for 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`*

Migration Guide

Refer to the *Oracle Endeca Workbench Migration Guide* for information about migrating your implementation from a previous version of Endeca software. You can download the *Oracle Endeca Workbench Migration Guide* from the Oracle Technology Network (OTN).

Installer file names

Endeca installation packages and executables are named according to a common convention.

The installer file names follow the format:

```
componentname_version_arch-OS
```

For example:

```
mdex_622_x86_64pc-linux.sh
```

The *componentname* is the component identifier for the component being installed. In the example installer, `mdex` is the identifier for Endeca MDEX Engine.

The *version* is the release version, without periods. In the example installer, `622` identifies Endeca MDEX Engine version 6.2.2.

The *arch-OS* is the architecture and operating system identifier for the component being installed. In the example installer, `x86_64pc-linux` identifies the file as an installer for the 64-bit Linux platform. The following table lists the *arch-OS* identifiers and their platforms:

arch-OS identifier	Installation platform
x86_64pc-linux	Linux running on 64-bit Intel processors
x86_64pc-win32	Windows running on 64-bit Intel processors

Chapter 2

Installing Oracle Endeca Workbench

This section contains the installation procedure and describes the contents of the installation directory.

Windows installation procedures

This section contains the Oracle Endeca Workbench installation procedures for Windows.

Creating a user for the Endeca services on Windows

You must run the Endeca services as a specified user, for which you can control permissions.

You are asked to provide information about this Endeca services user during the installation process. Oracle recommends that you create a user account called `endeca` that has the proper file and directory permissions to access all necessary files for your application, and that you set up your Endeca Tools Service to run under this account. However, you can use any user that you prefer, as long as it meets these requirements.

To create the user endeca:

1. Ensure that you have administrator privileges on the local machine.
2. From the Windows Control Panel, select **Computer Management** > **Administrative Tools**.
3. In the tree pane of the Computer Management window, select **System Tools** > **Local Users and Groups**.
4. Right-click **Users** and select **New User**.
5. In the **New User** dialog box, do the following:
   a) Enter `endeca` for both the User name and the Full name.
   b) Optionally, enter a description.
   c) Set a password for user `endeca`.

      

      Note: The user must have a non-blank password, because the installer will not accept a blank password for the services user.

   d) Uncheck **User must change password at next logon**.
   e) Select **Password never expires**.
6. Click **Create** to create the new user, and then **Close** to exit the dialog box.
7. Close the Computer Management window, but do not exit Administrative Tools.

8. From Administrative Tools, do the following:
   a) Open **Local Security Policy**.
   b) In the Local Security Settings window, select **Local Policies** > **User Rights Assignments**.
   c) From the list of policies on the right, open **Log on as a Service**.
   d) Add user `endeca` to the list of users that can register a process as a service.
   e) Close the dialog box and exit Administrative Tools.
9. Restart your computer for the changes to take effect.

Installation steps on Windows

This section describes how to install the Endeca software for the first time on a system, or after you have removed a previous version following the upgrade instructions in the *Oracle Endeca Experience Manager Migration Guide*.

Use the following prerequisites before installing:

- Ensure that you have administrator privileges on the local machine.
- The user name that is used to start the Endeca services must exist and have a non-blank password.
- Close all running programs.

During the installation, you are asked to provide the host name and the port of the EAC Central Server in your environment. If you do not have this information, or if you change the EAC host or port after installation, you can update the configuration via the EAC Settings page in Oracle Endeca Workbench. For details, see the *Oracle Endeca Workbench Help*.

To install Oracle Endeca Workbench on Windows:

1. In your local environment, locate the Oracle Endeca Workbench installer that you downloaded from the Oracle Software Delivery Cloud.
2. Double-click the installer file. Depending on your product, this file can be any of the following:
   - `Oracle Endeca Workbench_`*`version_arch-OS`*`.exe` for Oracle Endeca Workbench
   - `merchworkbench_`*`version_arch-OS`*`.exe` for Merchandising Workbench
   - `pubworkbench_`*`version_arch-OS`*`.exe` for Publishing Workbench
3. Click **Next** to begin the installation wizard.
4. On the Copyright and Legal screen, click **Next**.
5. In the Destination Folder screen, either accept the default installation location and click **Next** or click **Change** and browse to the directory where you want to install the Endeca software. Oracle recommends that you accept the default location (`C:\Endeca\Workbench`).

   The wizard displays both the required and available disk space for the target directory chosen. Oracle Endeca Workbench requires approximately 208 MB of disk space.

   

   Note: If you do not use the default location, and you are installing more than one Endeca product on the same machine, ensure that you install each product to a separate location.

6. In the first Endeca Tools Service Information screen, do the following:
   a) Enter the user name and password to use when launching the Endeca Tools Service.
   b) Update the user domain if necessary.
   c) Click **Next**.

7. In the second Endeca Tools Service Information screen, confirm or change the default values for the ports Oracle Endeca Workbench uses for HTTP and server shutdown, then click **Next**.
8. In the Oracle Endeca Workbench Information screen, do the following:
   a) Specify the fully qualified domain name of the host on which the EAC Central Server will be installed in the staging environment. This may be either your local machine, or a remote one.

      

      Note: Endeca does not recommend that Oracle Endeca Workbench connects to the EAC Central Server that is being used in the production environment.

   b) Confirm or change the default value for the EAC Central Server port.
   c) Click **Next**.
9. In the Completing the Setup Wizard screen, click **Next**.
10. When the installation is complete, click **Finish**.

The installation wizard installs Oracle Endeca Workbench, sets the `ENDECA_TOOLS_ROOT` and `ENDE¬CA_TOOLS_CONF` environment variables, and starts the Endeca Tools Service.

Related Links

Creating a user for the Endeca services on Windows on page 13
You must run the Endeca services as a specified user, for which you can control permissions.

Silent installation steps on Windows

The silent installer is useful if you want to add the installation of Oracle Endeca Workbench to your own install script, or push out the installation on multiple machines.

Use the following prerequisites before installing:

- Ensure that you have administrator privileges on the local machine.
- The user name that is used to start the Endeca services must exist and have a non-blank password.
- Close all running programs.

During the installation, you are asked to provide the host name and the port of the EAC Central Server in your environment. If you do not have this information, or if you change the EAC host or port after installation, you can update the configuration via the EAC Settings page in Oracle Endeca Workbench. For details, see the *Oracle Endeca Workbench Help*.

The silent installer is not interactive and is available for both Windows and UNIX.

To launch the silent installer on Windows:

1. From a command prompt, navigate to the directory where you downloaded the installer.
2. Issue a command similar to the following:
   `name`workbench_`version_arch-OS`.exe /s USERNAME=endeca PASSWORD=endecapwd CONFIRMPASSWORD=endecapwd EACHOST=localhost

   Replace *name* with the name of the Workbench edition you purchased (`iap`, `merch`, or `pub`). The options that you can pass to the command line installer are as follows:

Option	Description
TARGETDIR	Optional. The absolute path to the directory where you want to install Oracle Endeca Workbench. The default location is `C:\Endeca\Workbench`. **Note:** If you do not use the default location, and you are installing more than one Endeca product on the same machine, ensure that you install each product to a separate location.
USERNAME	Required. The user name to use when launching the Endeca Tools Service. The user must already exist.
PASSWORD	Required. The password for the Endeca Tools Service user.
CONFIRMPASSWORD	Required. Confirm the password for the Endeca Tools Service user.
DOMAINNAME	Optional. The Windows domain for the Endeca Tools Service user. The default is the domain the current user is logged in to.
SERVICEPORT	Optional. The port on which Oracle Endeca Workbench accepts HTTP connections. The default is `8006`.
SHUTDOWNPORT	Optional. The shutdown port for the Endeca Tools Service. The default is `8084`.
EACHOST	Required. The fully qualified name, including domain information, of the host on which the EAC Central Server will be installed in the staging environment. This may be either your local machine, or a remote one. **Note:** Endeca does not recommend that Oracle Endeca Workbench connects to the EAC Central Server that is being used in the production environment.
EACPORT	Optional. The port on which EAC Central Server accepts HTTP connections. The default is `8888`.

The command line call returns immediately, but the installer continues to run for a few minutes in the background as it installs Oracle Endeca Workbench, sets the `ENDECA_TOOLS_ROOT` and `EN¬DECA_TOOLS_CONF` environment variables, and starts the Endeca Tools Service.

Here is a more detailed example of a silent installation command on Windows for Oracle Endeca Workbench:

```
Oracle Endeca Workbench_version_arch-OS.exe /s TARGETDIR=C:\Endeca\Workbench
USERNAME=endeca PASSWORD=endecapwd CONFIRMPASSWORD=endecapwd
DOMAINNAME=MYDOMAIN SERVICEPORT=8006 SHUTDOWNPORT=8084
EACHOST=dataproc.example.com EACPORT=8888
```

UNIX installation procedures

This section contains the Oracle Endeca Workbench installation procedures for UNIX.

Installation steps on UNIX

The Endeca software is distributed as a self-extracting tar file and install script. It can be installed at any location.

During the installation, you are asked to provide the host name and the port of the EAC Central Server in your environment. If you do not have this information, or if you change the EAC host or port after installation, you can update the configuration via the EAC Settings page in Oracle Endeca Workbench. For details, see the *Oracle Endeca Workbench Help*.

To install Oracle Endeca Workbench on UNIX:

1. Determine where you will install the Endeca system. In this procedure, we assume this is the `/usr/local` directory.

   

   Note: Oracle Endeca Workbench unpacks to approximately 208 MB. Because multiple versions may eventually be stored, a destination in a large partition is recommended.

2. Locate the Endeca installation file. This procedure assumes the location is `/downloads`. Depending on your product, this file can be any of the following:
   - `Oracle Endeca Workbench_`*`version_arch-OS`*`.sh` for Oracle Endeca Workbench
   - `merchworkbench_`*`version_arch-OS`*`.sh` for Merchandising Workbench
   - `pubworkbench_`*`version_arch-OS`*`.sh` for Publishing Workbench
3. Assuming the locations used in steps 1 and 2, run the install script with the following command, substituting the appropriate file name from the step above:
   `/downloads/Oracle Endeca Workbench_`*`version_arch-OS`*`.sh --target /usr/local`
4. The copyright and legal information displays. Scroll to the end.
   As the installation is being unpacked, a series of dots serves as a progress monitor. The unpacking may take several minutes. After the unpacking, you are asked a series of configuration questions.

   

   Note: Where applicable, the default value for each option is shown. However, to accept the default you must manually enter that value in the installer.

5. Enter the fully qualified name, including domain information, of the host on which Oracle Endeca Workbench will be running. The default is the name of the machine you are installing on.
6. Enter the port for the Endeca Tools Service, which is the port on which Oracle Endeca Workbench accepts HTTP connections.
7. Enter the shutdown port for the Endeca Tools Service.
8. Enter the fully qualified name, including domain information, of the host on which the EAC Central Server will be installed in the staging environment. This may be either your local machine, or a remote one.

   

   Note: Endeca does not recommend that Oracle Endeca Workbench connects to the EAC Central Server that is being used in the production environment.

9. Enter the port for the Oracle Endeca Application Controller, which is the port on which EAC Central Server accepts HTTP connections.

When the installation is complete, the screen displays a reminder message about setting the environment variables similar to the following:

```
Please run the following command to set your environment variables:
```

```
Bourne, Bash or Korn:
        source /usr/local/endeca/Workbench/workspace/setup/installer_sh.ini

csh or tcsh:
        source /usr/local/endeca/Workbench/workspace/setup/installer_csh.ini
```

The command referenced in the message sets the `ENDECA_TOOLS_ROOT` and `ENDECA_TOOLS_CONF` environment variables for the current user. Generally this command should be placed in a script run at the startup of the shell so the variables are set for future use.

After running the installer, you also need to start the Endeca Tools Service.

Related Links

Starting and stopping the Endeca Tools Service on UNIX on page 24
The Endeca Tools Service is installed with Oracle Endeca Workbench but the UNIX installation does not automatically start the service.

Silent installation steps on UNIX

The silent installer is useful if you want to add the installation of Oracle Endeca Workbench to your own install script, or push out the installation on multiple machines.

During the installation, you are asked to provide the host name and the port of the EAC Central Server in your environment. If you do not have this information, or if you change the EAC host or port after installation, you can update the configuration via the EAC Settings page in Oracle Endeca Workbench. For details, see the *Oracle Endeca Workbench Help*.

The silent installer is not interactive and is available for both Windows and UNIX.

To launch the silent installer on UNIX:

1. From a command prompt, navigate to the directory where you downloaded the installer.
2. Create a new text file named `workbench_install_config.txt`.
3. In the file, specify the value for each configurable option on its own line, in the order in which they appear in the interactive installer. For example:

   ```
   workbench.example.com
   8006
   8084
   dataproc.example.com
   8888
   ```

   The options are as follows:

Line number	Description
1	The fully qualified name, including domain information, of the host on which Oracle Endeca Workbench will be running. This should be the name of the local machine. In the example, this is specified as `workbench.example.com`.
2	The port on which Oracle Endeca Workbench accepts HTTP connections. In the example, this is specified as `8006`.
3	The shutdown port for the Endeca Tools Service. In the example, this is specified as `8084`.
4	The fully qualified name, including domain information, of the host on which the EAC Central Server will be installed in the staging environment. This may be either your

Line number	Description
	local machine, or a remote one. In the example, this is specified as `dataproc.example.com`. **Note:** Endeca does not recommend that Oracle Endeca Workbench connects to the EAC Central Server that is being used in the production environment.
5	The port on which EAC Central Server accepts HTTP connections. In the example, this is specified as `8888`.

Note: Do not include the line numbers in your configuration file. You must specify a value for each option. Even if you want to use the default, you must specify that value to the installer.

4. Issue the following command:
   `./name`workbench_`version_arch-OS`.sh `--silent --target /usr/local < workbench_install_config.txt`
   Replace *name* with the name of the Workbench edition you purchased (`iap`, `merch`, or `pub`). Replace `/usr/local` with the location to which you want to install.

When the installation is complete, the screen displays a reminder message about setting the environment variables similar to the following:

```
Please run the following command to set your environment variables:

Bourne, Bash or Korn:
        source /usr/local/endeca/Workbench/workspace/setup/installer_sh.ini

csh or tcsh:
        source /usr/local/endeca/Workbench/workspace/setup/installer_csh.ini
```

The command referenced in the message sets the `ENDECA_TOOLS_ROOT` and `ENDECA_TOOLS_CONF` environment variables for the current user. If you are scripting the install, add ths command after the installation to set up the environment variables properly. Additionally, this command should be placed in a script run at the startup of the shell so the variables are set for future use.

After running the installer, you also need to start the Endeca Tools Service.

Related Links

Starting and stopping the Endeca Tools Service on UNIX on page 24
The Endeca Tools Service is installed with Oracle Endeca Workbench but the UNIX installation does not automatically start the service.

Verifying your Oracle Endeca Workbench installation

When you have completed the installation, you can do a simple check to make sure that Oracle Endeca Workbench is installed correctly.

Before you can access Oracle Endeca Workbench, the Endeca Tools Service must be running.

To verify your Workbench installation:

1. Open Internet Explorer and enter the following URL:
   `http://host:8006`

   Replace *host* with the name of your Oracle Endeca Workbench server and `8006` with the Oracle Endeca Workbench port if you specified a different port.

   If Oracle Endeca Workbench has been successfully installed, the Oracle Endeca Workbench login screen displays.
2. Optionally, log in with the default **Username**: admin and **Password**: admin.

Note: If you have not yet provisioned an application, you only have access to the EAC Admin Console and EAC Settings within Oracle Endeca Workbench. For information about configuring a sample application, see the *Oracle Endeca Guided Search Getting Started Guide*.

Package contents and directory structure

This topic describes in detail the directories that are created in the Oracle Endeca Workbench installation.

The `Workbench` directory is the top-level directory for Oracle Endeca Workbench. Its sub-directories are described below.

Root directory

The `Workbench/version` directory is the root directory for Oracle Endeca Workbench. This is the `ENDECA_TOOLS_ROOT` directory, which contains the release notes (`README.txt`) and the following directories:

Directory	Contents
`/conf/dtd`	The document type definitions (DTDs) for Endeca XML configuration files.
`/conf/schema`	The Experience Manager editor and content schema files (XSDs).
`/doc`	The *Endeca Third-Party Software Usage and Licenses*. Additional documentation is available from the Oracle Technology Network (OTN).
`/j2sdk`	Version 6 of the Java Platform Standard Edition Development Kit (JDK).
`/reference`	The `pagebuilderEditorSDK.zip` archive, which includes the Experience Manager Editor SDK as well as sample editor files and generated ActionScript documentation. The contents are described in detail in the *Experience Manager Developer's Guide*.
`/server`	The Web applications that run inside the Endeca Tools Service, including Oracle Endeca Workbench, the Workbench Help Infocenter, and the Endeca JSP reference application.
`/workspace-template`	A set of files that you can use to create another copy of the workspace on UNIX (using `$ENDECA_TOOLS_ROOT/set¬`

Directory	Contents
	up/create_workbench_workspace.sh) or to restore the default settings to your current workspace.

Workspace directory

The Workbench/workspace directory is the ENDECA_TOOLS_CONF directory and contains the following directories:

Directory	Contents
/conf	Configuration files for Oracle Endeca Workbench and the Endeca Tools Service.
/logs	Logs for Oracle Endeca Workbench and the Endeca Tools Service.
/reports	The default directory for reports to be viewed in Oracle Endeca Workbench.
/state	Storage for the instance configuration for Endeca applications being managed by Oracle Endeca Workbench, as well as the Oracle Endeca Workbench database.
/temp	Temporary storage for Oracle Endeca Workbench and the Endeca Tools Service.
/work	The Endeca Tools Service cache. This is not part of the Oracle Endeca Workbench installation but is created when you first run the Endeca Tools Service.

Chapter 3

After you install

After installing Oracle Endeca Workbench, you may need to run or configure the Endeca Tools Service.

About the Endeca Tools Service

The Endeca Tools Service is a Servlet container that runs Oracle Endeca Workbench, the Workbench Help Infocenter, and a version of the Endeca JSP reference application, which serves as the default preview application in Oracle Endeca Workbench.

About starting the Endeca Tools Service from inittab

In a UNIX development environment, the Endeca Tools Service can be started from the command line. In a UNIX production environment, however, Oracle recommends that it be started by `init` from `inittab`.

The UNIX version of Oracle Endeca Workbench contains a file named `endeca_run.sh` that is in the `$ENDECA_TOOLS_ROOT/server/bin` directory. This is a version of `startup.sh` that calls `run` instead of `start` and redirects `stdout` and `stderr` to `$ENDECA_TOOLS_CONF/logs/catalina.out`.

You can write a script that is referenced in `inittab`. The script sets environment variables and then calls `endeca_run.sh`. When writing your script, it is recommended as a best practice that you run the Endeca Tools Service as a user other than root. When running the service as a non-root user, you can set a `USER` environment variable that will be inherited by other scripts.

This sample script (named `start_endeca_tools_service.sh`) sets the `ENDECA_USER` variable to the "endeca" user, sets the `INSTALLER_SH` variable to the path of the environment variables script and sources it, and then does an `su` to change to the "endeca" user:

```
#!/bin/sh
ENDECA_USER=endeca
INSTALLER_SH=/usr/local/endeca/Workbench/workspace/setup/installer_sh.ini
# We want to use installer_sh.ini variables in this script,
# so we source it here
source $INSTALLER_SH
# change to user endeca
su $ENDECA_USER -c "/bin/sh -c \"source $INSTALLER_SH; \
cd $ENDECA_TOOLS_CONF/work; exec env USER=$ENDECA_USER \
$ENDECA_TOOLS_ROOT/server/bin/endeca_run.sh\""
```

On Solaris platforms, replace "source" with "." because `source` is not a command in the Bourne shell. The `start_endeca_tools_service.sh` script is then referenced in `inittab` with an entry similar to this example.

```
et:2345:respawn:/usr/local/endeca/Workbench/workspace/setup/start_ende¬
ca_tools_service.sh
```

When writing your startup script, keep in mind that it is server-specific, and therefore its details (such as paths and user names) depend on the configuration of your server.

Starting and stopping the Endeca Tools Service on Windows

The Endeca Tools Service is installed with Oracle Endeca Workbench and automatically started on Windows when installation is complete.

The service is also set to start up automatically when the computer boots up.

To manage the Endeca Tools Service after installation:

1. Go to **Start** > **Control Panel** > **Administrative Tools** > **Services**.
2. In the **Windows Services** editor, select the **Endeca Tools Service**.
3. Click **Stop** or **Restart**.

Starting and stopping the Endeca Tools Service on UNIX

The Endeca Tools Service is installed with Oracle Endeca Workbench but the UNIX installation does not automatically start the service.

To manage the Endeca Tools Service after installation:

- Start the Endeca Tools Service with the following command:
  `$ENDECA_TOOLS_ROOT/server/bin/startup.sh`
- Stop the Endeca Tools Service with the following command:
  `$ENDECA_TOOLS_ROOT/server/bin/shutdown.sh`

Chapter 4

Additional installation tasks

If your installation of Oracle Endeca Workbench includes the Experience Manager tool, you also need to install the Content Assembler API.

Content Assembler API

The Content Assembler API provides a simple interface to access template-driven content for rendering in Web-based applications.

The Content Assembler API enables a Web application to query the MDEX Engine and retrieve the appropriate dynamic content based on a user's navigation state or other triggers. The Content Assembler returns both Endeca query results familiar from the Presentation API or RAD API as well as a content item object that encapsulates the page configuration specified by the content administrator. All the content for a page, including the results of any additional queries needed for spotlighting or merchandising, are wrapped in the content item object, simplifying the logic in the front-end application by reducing the need to manage sub-queries in the application layer.

Related Links

Installation procedures for the Content Assembler for Java on page 25
To determine the appropriate Content Assembler version to install, see the *Oracle Endeca Guided Search Compatibility Matrix* available on the Oracle Technology Network.

Installation procedures for the Content Assembler for the RAD Toolkit for ASP.NET on page 26
To determine the appropriate Content Assembler version to install, see the *Oracle Endeca Guided Search Compatibility Matrix* available on the Oracle Technology Network.

Installation package contents on page 28
This topic describes in detail the directories that are created in the Content Assembler API installation.

Installation procedures for the Content Assembler for Java

To determine the appropriate Content Assembler version to install, see the *Oracle Endeca Guided Search Compatibility Matrix* available on the Oracle Technology Network.

Prerequisites for installing the Content Assembler API

Before you install the Content Assembler API and reference application for Java, ensure that you have the following requirements in place.

The Content Assembler API requires that you have the following components installed:

- Endeca Presentation API for Java
- Endeca Workbench, if you wish to run the Content Assembler reference application in the Endeca Tools service

The Content Assembler API for Java is supported for all hardware and operating system platforms that are supported by Endeca Workbench.

The Content Assembler API requires Java 1.4 or later.

Installing the Content Assembler API for Java

The Content Assembler API and reference application for Java are distributed in a ZIP package.

Before you install the Content Assembler API, you should first ensure that Oracle Endeca Experience Manager is installed, including the Presentation API for Java. For details about installing Oracle Endeca Experience Manager and running the Content Assembler reference application, see the *Oracle Endeca Experience Manager Getting Started Guide*.

To install the Content Assembler API:

1. In your local environment, locate the Content Assembler API package that you downloaded from the Oracle Software Delivery Cloud.

   The Content Assembler API package is named `ContentAssemblerAPIJava-`*`version`*`.zip`, where *version* is the version number of the Content Assembler API.
2. Extract the ZIP file. Oracle recommends that you extract the file into the Endeca directory. In a default installation, this is `C:\Endeca` (on Windows) or `/usr/local/endeca` (on UNIX).

Before writing applications using the Content Assembler API, you must place the `endeca-content-`*`version`*`.jar` file in your application's classpath.

After you have installed the Content Assembler API, you can deploy the reference application. For details regarding this process, see the *Oracle Endeca Experience Manager Getting Started Guide*.

Installation procedures for the Content Assembler for the RAD Toolkit for ASP.NET

To determine the appropriate Content Assembler version to install, see the *Oracle Endeca Guided Search Compatibility Matrix* available on the Oracle Technology Network.

Prerequisites for installing the Content Assembler API

This topic provides system requirements for installing the Content Assembler API and reference application for the RAD Toolkit for ASP.NET.

The Content Assembler API is supported for Windows Server 2003 and Windows Server 2008 R2.

The following software must be installed before you install the Content Assembler API for the RAD Toolkit for ASP.NET:

- Microsoft .NET Framework. The following versions are supported: 2.0 with SP1, 3.0, and 3.5 (including the 32-bit and 64-bit versions).
- Microsoft Visual Studio 2005 with Service Pack 1 (any edition) or Visual Studio 2008.
- On machines running the Content Assembler reference application, you need Internet Information Services (IIS) 5.1 or later.

Installing the Content Assembler API for the RAD Toolkit for ASP.NET

This section describes how to install the Content Assembler API for the RAD Toolkit for ASP.NET.

Note: The RAD Toolkit for ASP.NET and the Endeca Presentation and Logging APIs for .NET version assemblies are part of the Content Assembler API installation. When building applications using the Content Assembler API, you must use the assemblies that are included in the Content Assembler API installation.

To install the Content Assembler API for the RAD Toolkit for ASP.NET:

1. In your local environment, locate the Content Assembler API package that you downloaded from the Oracle Software Delivery Cloud.

   The Content Assembler API package is named `ContentAssemblerRADNET-`*`version`*`.msi`, where *version* is the version number of the Content Assembler API.
2. Double click the installation file, and on the **Welcome** screen, click **Next**.
3. On the **Select Installation Folder** screen, either accept the default installation location, or click **Browse...** and browse to the directory where you want to install. Oracle recommends that you accept the default installation path of `C:\Endeca\ContentAssemblerAPIs\RAD Toolkit for ASP.NET\`*`version`* .
4. On the **Ready to Install** screen, click **Install**.
5. Click **Finish**.

To complete setup of your development environment for the Content Assembler API, add the Endeca server controls and assemblies to Visual Studio.

After you have installed the Content Assembler API, you can deploy the reference application. For details regarding this process, see the *Oracle Endeca Experience Manager Getting Started Guide*.

Adding the Content Assembler API for the RAD Toolkit for ASP.NET to Visual Studio

This procedure adds the Endeca data source controls and Endeca user interface controls to the Toolbox window of Visual Studio and also adds references from your Web site project to Endeca assemblies.

This procedure describes how to add the RAD Toolkit and Content Assembler API to Visual Studio 2005. The procedure may be slightly different in Visual Studio 2008.

To add the RAD Toolkit for ASP.NET and the Content Assembler API to Visual Studio:

1. Start Visual Studio and open your Web site.
2. In the **Toolbox** window, right-click and select **Add Tab**.
3. Type `Endeca Content Assembler API`.
4. Right-click in the grey box under the entry for the Content Assembler API.

   The grey box contains the text "There are no usable controls in this group..."
5. Select **Choose Items...**
   After a short delay, the **Choose Toolbox Items** dialog box displays.
6. On the **.NET Framework Components** tab of the **Choose Toolbox Items** dialog box, click **Browse...**.
7. Browse to the `bin` directory of your Content Assembler API installation. In a typical installation, this is `C:\Endeca\ContentAssemblerAPIs\RAD Toolkit for ASP.NET\`*`version`*`\bin\`
8. Select `Endeca.Web.Content.dll` and click **Open**.

9. Repeat the previous step for `Endeca.Web.dll` and `Endeca.Web.UI.WebControls.dll`.
10. Click **OK**.
    The Endeca data source controls, user interface controls, and Content Assembler controls display in the **Toolbox** under Endeca Content Assembler.
11. In the **Solution Explorer** window, right-click your Web site.
12. Select **Add Reference...**.
13. In the **Add Reference** dialog, select the **Browse** tab.
14. Browse to the `bin` directory of your Content Assembler API installation.
15. Select `Endeca.Data.Content.dll`, `Endeca.Data.dll`, `Endeca.Logging.dll`, `Endeca.Navigation.AccessControl.dll`, and `Endeca.Navigation.dll`. You do not need to select `Endeca.Web.Content.dll`, `Endeca.Web.dll` or `Endeca.Web.UI.WebControls.dll`.
    Visual Studio copies the selected files into the Web site project.

Installation package contents

This topic describes in detail the directories that are created in the Content Assembler API installation.

Java

The `ContentAssemblerAPIs/Java/`*`version`* directory contains the release notes for the Content Assembler API for Java (`README_CAJ.txt`) and the following directories:

Directory	Contents
`/doc`	The *Oracle Endeca Guided Search Third-Party Software Usage and Licenses*, Content Assembler API reference documentation, and the XML schema documents for templates and for the page configurations generated by the Experience Manager (in the `schemas` subdirectory). Additional documentation is available from the Oracle Technology Network.
`/lib`	The Content Assembler API, distributed as a Jar file.
`/reference`	The sample context file (`ContentAssemblerRefApp.xml`) and the `thumbnails.xml` file for the Content Assembler reference application.
`/reference/ContentAssemblerRefApp`	The Content Assembler reference application.
`/reference/pagebuilder_wine_app`	The Content Assembler reference application data.
`reference/tag_handlers`	The sampler tag handler package `endeca-content-2.1.0-samples.jar` and an associated sample template.
`/reference/thumbnails`	Thumbnail images for use with the sample templates included in the Content Assembler reference application.

.NET

The `\ContentAssemblerAPIs\RAD Toolkit for ASP.NET\`*`version`* directory contains the release notes for the RAD Toolkit for ASP.NET (`README_RAD.txt`) and the Content Assembler API (`README_CARN.txt`) as well as the following directories:

Directory	Contents
`\bin`	The assemblies for the Content Assembler API for the RAD Toolkit for ASP.NET.
`\doc`	The *Oracle Endeca Guided Search Third-Party Software Usage and Licenses*, Content Assembler API reference documentation, and the XML schema documents for templates and for the page configurations generated by the Experience Manager (in the `schemas` subdirectory). Additional documentation is available from the Oracle Technology Network.
`\reference\ContentAssemblerRefApp`	The Content Assembler reference application for the RAD Toolkit for ASP.NET.
`\reference\context_files`	The `thumbnails.xml` file for the Content Assembler reference application.
`\reference\pagebuilder_wine_app`	The Content Assembler reference application data.
`reference\tag_handlers`	The sample tag handler package `Endeca.Data.Content.Sample.dll` along with the source code for the tag handler and an associated sample template.
`\reference\thumbnails`	Thumbnail images for use with the sample templates included in the Content Assembler reference application.

Chapter 5

Uninstalling Oracle Endeca Workbench

This section contains the procedures for uninstalling the package on Windows and UNIX.

Uninstalling Oracle Endeca Workbench on Windows

Follow these steps to uninstall Oracle Endeca Workbench from your Windows machine.

The uninstall process creates a backup of the `ENDECA_TOOLS_CONF` (`workspace`) directory then removes Oracle Endeca Workbench and the Endeca Tools Service from the machine. If you have any files that you want to retain from the Oracle Endeca Workbench directory that are not in this directory, copy them to a safe location before you begin the uninstall process.

To uninstall Oracle Endeca Workbench from your Windows machine:

1. From the Windows Control Panel, select **Add or Remove Programs**.
2. Select **Oracle Endeca Workbench** from the list of installed software.
3. Click **Remove**.
   The installation wizard displays.
4. Confirm that **Uninstall** is selected, then click **Next** twice.
5. When uninstallation has completed, click **Finish** to exit the wizard.

Uninstalling Oracle Endeca Workbench on UNIX

Follow these steps to uninstall Oracle Endeca Workbench from your UNIX machine.

Before you begin the uninstall process, back up any files that you want to retain from the Oracle Endeca Workbench directory. In particular, it is recommended that you preserve the contents of the `ENDE¬CA_TOOLS_CONF` (`workspace`) directory.

Make sure that you stop all Endeca processes (including the Endeca Tools Service) before uninstalling the Endeca software.

To uninstall Oracle Endeca Workbench from your UNIX machine:

1. Issue an `rm` command as in this example:
   `rm -rf endeca/Workbench/`*`version`*
2. Unset any environment variables (such as `ENDECA_TOOLS_ROOT` and `ENDECA_TOOLS_CONF`) that reference directories that no longer exist.

Chapter 6

Uninstalling the Content Assembler API

This section contains the procedures for uninstalling the Content Assembler API for both Java and the RAD Toolkit for ASP.NET.

Uninstalling the Content Assembler API for Java

You can uninstall the Content Assember API for Java from your system by deleting the installed directories.

To uninstall the Content Assembler API:

1. Locate the `ContentAssemblerAPIs/Java` directory. In a typical installation this is in your Endeca directory, that is, `C:\Endeca\ContentAssemblerAPIs\Java` (on Windows) or `/usr/local/endeca/ContentAssemblerAPIs/Java` (on UNIX).
2. Delete the `ContentAssemblerAPIs\Java` directory along with its contents.

Note: Deleting this directory will also remove the Content Assembler reference application for Java unless you have moved the `ContentAssemblerAPIs\Java\`*`version`*`\reference` directory to another location.

Uninstalling the Content Assembler API for the RAD Toolkit for ASP.NET

This section describes how to uninstall the Content Assembler for the RAD Toolkit for ASP.NET from a system.

To uninstall the Content Assembler API for the RAD Toolkit for ASP.NET:

1. From the Windows Control Panel, select **Add or Remove Programs**.
2. Select **Endeca Content Assembler API for RAD .NET** from the list of installed software.
3. Click **Remove** and click **Yes** to confirm the removal.
4. Start Visual Studio and open your Web site.
5. In the Toolbox window, right-click the **Endeca Content Assembler API** tab and select **Delete Tab**.

Chapter 7

Uninstalling the Content Assembler reference application

This section contains the procedures for uninstalling the Content Assembler reference application for both Java and the RAD Toolkit for ASP.NET.

Uninstalling the Content Assembler reference application for Java

The following steps assume that you installed the reference application in the Endeca Tools service.

To uninstall the Content Assembler reference application:

1. Stop the Endeca Tools service.
2. Navigate to `%ENDECA_TOOLS_CONF%\conf\Standalone\localhost` (on Windows) or `$ENDECA_TOOLS_CONF/conf/Standalone/localhost` (on UNIX).
3. Locate and delete the `ContentAssemblerRefApp.xml` file.
4. Locate and delete the Content Assembler reference application directory along with its contents. In a typical installation this is `C:\Endeca\ContentAssemblerAPIs\Java\`*`version`*`\reference\ContentAssemblerRefApp` (on Windows) or `/usr/local/endeca/ContentAssemblerAPIs/Java/`*`version`*`/reference/ContentAssemblerRefApp` (on UNIX).
5. Start the Endeca Tools service.

Uninstalling the Content Assembler reference application for the RAD Toolkit for ASP.NET

If you wish to uninstall the Content Assembler reference application, remove the virtual directories in IIS.

To uninstall the Content Assembler reference application for the RAD Toolkit for ASP.NET:

1. From the Windows Control Panel, select **Administrative Tools** > **Internet Information Services Manager**.

2. In the IIS tree pane, expand the machine icon for the local machine, then expand the **Web Sites** directory.
3. Select **Default Web Site**.
4. In the right pane, right-click **ContentAssemblerRefApp**, or the name of your application's site, click **Delete**, and click **Yes** to confirm the deletion.
5. Close the Internet Information Services window.

Appendix A

Full List of Documentation Resources

This section describes the documentation related to each platform component. Only essential documentation is included with the product installation, but all Endeca documentation is available on the Oracle Technology Network for browsing or download, either individually or as part of an overall Documentation package.

General Endeca documentation

The following table lists the documentation that applies across multiple Endeca packages.

Title	Description
Oracle Endeca Guided Search Getting Started Guide	Overview of Endeca components including information about configuration scenarios.
Oracle Endeca Guided Search Compatibility Matrix	Summary of version compatibility information for Endeca components.
Oracle Endeca Guided Search Concepts Guide	Introduction to Oracle Endeca Guided Search. Covers the key concepts underlying Endeca applications.
Oracle Endeca Guided Search Administrator's Guide	Describes tasks involved in administering and maintaining applications built upon the Oracle Endeca Guided Search. It bridges the gap between the work performed by the Endeca Services team and the issues that system administrators encounter when maintaining the system.
Oracle Endeca Glossary	A reference for Endeca terms and definitions.
Oracle Endeca Guided Search Third-Party Software Usage and Licenses	Provides copyright, license agreement, and/or disclaimer of warranty information for the third-party software packages that Endeca incorporates.

MDEX Engine documentation

The following table lists the documentation related to the MDEX Engine package.

Title	Description
Analytics Guide	Provides an overview of Endeca Analytics and describes the Analytics and Charting APIs, date and time properties, and key properties.
Basic Development Guide	Provides information about working with records, dimensions, and basic search features.
Advanced Development Guide	Covers such topics as Endeca Query Language (EQL), record filters, bulk export, spelling correction, phrasing, relevance ranking, and dynamic business rules.
Oracle Endeca MDEX Engine Installation Guide	Provides a brief overview of the Endeca MDEX Engine, details installation procedures, and describes how to configure the licensing keys for the Language Pack. Covers both Windows and Linux/UNIX system requirements and installation procedures.
Oracle Endeca MDEX Engine Migration Guide	Provides information on migrating from previous versions of Endeca software.
Partial Updates Guide	A guide to preparing and running partial updates in your Endeca application.
Performance Tuning Guide	Provides guidelines on monitoring and tuning the performance of the Endeca MDEX Engine. Contains tips on resolving associated operational issues.
Web Services and XQuery Developer's Guide	Describes how to use Web services and XQuery for Endeca. Web services and XQuery for Endeca provides Endeca application developers with a flexible, extensible, and standards-compliant query processing solution.
Oracle Endeca MDEX Engine Release Notes	Details the changes specific to this release, including bug fixes and new features.

Presentation API documentation

The following table lists the documentation for the Presentation API package.

Title	Description
Presentation API for Java Reference (Javadoc)	The Java reference documentation for the Endeca Presentation, Analytics, and Charting APIs.
Presentation API for .NET Reference	The .NET reference documentation for the Endeca Presentation, Analytics, and Charting APIs.
Logging API for Java Reference (Javadoc)	The Java reference documentation for the Endeca Logging API.
Logging API for .NET Reference	The .NET reference documentation for the Endeca Logging API.

Platform Services documentation

The following table lists the documentation related to the Platform Services package.

Title	Description
Content Adapter Developer's Guide	Describes how to write Java manipulators and content adapters using the Endeca Content Adapter Development Kit.
Control System Guide	Provides information on using the Endeca Control System, including communicating with the JCD service and running control scripts.
Oracle Endeca Application Controller Guide	Describes the tasks involved in managing implementations using the Endeca Application Controller.
Forge Guide	The essential reference for developers of the back-end of Endeca applications (the instance configuration), including Forge pipeline-related tasks.
Log Server and Report Generator Guide	Describes how to configure and run the Endeca Log Server and the Report Generator.
Platform Services Installation Guide	Describes how to install the Endeca Platform Services software and the Endeca Document Conversion Module. Covers both Windows and Linux/UNIX system requirements and installation procedures.
Platform Services Migration Guide	Provides information on migrating from previous versions of Endeca software.
Relationship Discovery Guide	Describes the tasks involved in creating an Endeca Relationship Discovery application. Relationship Discovery is a separately licensed module.
Security Guide	Describes how to implement user authentication and how to structure your data to limit access to only those users with the correct permissions.
Data Foundry Expression Reference	Describes the Data Foundry expression language, used in record manipulators in Developer Studio.
Oracle Endeca Developer Studio Help	Help (including context-sensitive help) for using Endeca Developer Studio to define all aspects of your instance configuration, including properties, dimensions, and pipelines.
Forge API Guide for Perl	Describes the classes and methods you can incorporate into Perl manipulators in Developer Studio. You can use Perl manipulators in pipelines to manipulate records.
XML Reference	Describes the XML elements contained in the XML and DTD files of the Endeca Information Transformation Layer.
API reference documentation (Javadoc and .NET API reference)	The reference documentation for the Endeca Presentation, Logging, Analytics, and Charting APIs.

Oracle Endeca Workbench documentation

The following table lists the documentation related to the Endeca Workbench package.

Title	Description
Oracle Endeca Workbench Administrator's Guide	The essential guide for administrators of Endeca implementations and application developers who maintain and customize Workbench instances.
Oracle Endeca Workbench User's Guide	The essential guide for business users of Endeca Workbench. Describes enhancements business users can make to Endeca implementations with a focus on working with dynamic business rules, search configuration, and reports.
Oracle Endeca Workbench Installation Guide	Describes how to install the Endeca Workbench software. Covers both Windows and Linux/UNIX system requirements and installation procedures.
Oracle Endeca Workbench Migration Guide	Provides information on migrating from previous versions of Endeca software.
Oracle Endeca Workbench Help	Help (including context-sensitive help) for using Endeca Workbench to perform business-user tasks and administer an Endeca implementation. There are versions for each Workbench edition.
Oracle Endeca Workbench Release Notes	Details the changes specific to this release, including bug fixes and new features.

Content Assembler API documentation

The following table lists the documentation related to the Content Assembler API, used in conjunction with the Experience Manager component of Endeca Workbench.

Title	Description
Experience Manager Developer's Guide	Describes the process of developing templates and other supporting tasks to enable content administrators to configure dynamic landing pages using the Endeca Experience Manager. Also describes extending Experience Manager functionality with community editors.
Content Assembler API Developer's Guide	Describes the process of developing applications with cartridges (for use with the Endeca Experience Manager), including usage of the Content Assembler API and an overview of the reference applications. Also describes extending Content Assembler functionality with community tag handlers. There are versions for Java and .NET.
API reference documentation (Javadoc and .NET API reference)	The reference documentation for the Endeca Content Assembler APIs.
Experience Manager Editor API reference	The reference documentation for the Experience Manager Editor API, part of the Experience Manager Editor SDK.

Title	Description
Content Assembler Release Notes	Details the changes specific to this release, including bug fixes and new features.

Content Acquisition System (CAS) documentation

The following table lists the documentation related to the Content Acquisition System (CAS) package.

Title	Description
CAS Quick Start Guide	Describes the basics of the Endeca Content Acquisition System (CAS) and then walks you through the high-level process of installing Endeca with CAS, adding manipulators, crawling data sources, and processing the Endeca records in a Forge pipeline.
CAS Console Help	Describes the tasks involved in managing various data sources including file systems, Documentum repositories, and other CMS repositories using the CAS Console for Endeca Workbench.
CAS Developer's Guide	Provides an overview of the Endeca Content Acquisition System, including the Endeca CAS Server, the Component Instance Manager, and the Record Store. The guide also explains how to create a Forge pipeline that utilizes the source data gathered from file system and CMS crawls.
CAS Extension API Guide	Describes how to implement, test, and package CAS extensions using the CAS Extension API.
CAS Installation Guide	Describes how to install the Endeca CAS software. Covers both Windows and Linux/UNIX system requirements and installation procedures.
CAS Migration Guide	Describes the major migration tasks for the suite of CAS components.
CAS API Guide	Provides reference information about the Endeca CAS Server API, the Component Instance Manager API, and the Record Store API.
CMS Connector Guides	Describe the tasks involved in enabling and configuring the various CMS connectors for use with the CAS Server.
Web Crawler Guide	Describes the major tasks involved in configuring the Endeca Web Crawler and using it to run crawls that gather source data from Web sites.
CAS Release Announcement	Describes the major new features in this release.
CAS Release Notes	Details the changes specific to this release, including bug fixes and new features.

Rapid Application Development (RAD) Toolkit documentation

The following table lists the documentation related to the Rapid Application Development (RAD) Toolkit for ASP.NET.

Title	Description
RAD Toolkit Developer's Guide	The essential guide for developers of the front-end of Endeca applications (primarily API-related tasks). Also includes information about installation tasks.
RAD Toolkit Release Announcement	Describes the major new features in this release.
RAD Toolkit Release Notes	Details the changes specific to this release, including bug fixes and new features.
API reference documentation (.NET API reference)	The reference documentation for the Endeca RAD API. See also the Input Types and Output Types diagrams for additional information about the API.

Documentation for other packages

The following table lists the documentation related to other Endeca packages.

Deployment Template

Title	Description
Oracle Endeca Deployment Template Usage Guide	Describes the Deployment Template directories and script functionality, and identifies touch-points where developers may need to configure or extend the template for their projects.
Release Notes (README)	Details the changes specific to this release, including bug fixes and new features.

Developer Studio

Title	Description
Oracle Endeca Developer Studio Installation Guide	Provides an overview of Developer Studio and describes system requirements and installation procedures.
Oracle Endeca Developer Studio Help	Help (including context-sensitive help) for using Endeca Developer Studio to define all aspects of your instance configuration, including properties, dimensions, and pipelines.
Data Foundry Expression Reference	Describes the Data Foundry expression language, used in record manipulators in Developer Studio.
Forge API Guide for Perl	Describes the classes and methods you can incorporate into Perl manipulators in Developer Studio. You can use Perl manipulators in pipelines to manipulate records.

Title	Description
XML Reference	Describes the XML elements contained in the XML and DTD files of the Endeca Information Transformation Layer.

Search Engine Optimization Module

Title	Description
Sitemap Generator Developer's Guide	Describes the Endeca Sitemap Generator and provides instructions for using it to generate sitemaps for an Endeca application.
URL Optimization API Developer's Guide	Describes the major tasks involved in developing an application that utilizes the Endeca URL Optimization API. There are versions for Java, the Presentation API for ASP.NET, and the RAD Toolkit for ASP.NET.
API reference documentation (Javadoc and .NET API reference)	The reference documentation for the URL Optimization APIs.

Appendix B

Endeca Environment Variables and Port Usage

This section lists all the environment variables and ports used by the Endeca software. Depending on which components you have installed, not all of them may apply to your implementation.

Endeca environment variables

The Endeca installation programs create several environment variables.

For each variable, the first value listed is the path if you accept the default installation path on Windows (under `C:\Endeca\`*`product`*) and use a per-machine installation. The default paths for a per-user installation will be rooted in the `%USERPROFILE%` directory.

The second value is the path within your installation directory on UNIX. For example, if you install Endeca to `/usr/local/`, the full path of `ENDECA_ROOT` would be `/usr/local/endeca/Platform¬ Services/`*`version`* in your environment.

In addition to creating the variables below, the installation may add Endeca directories to the `PATH` variable.

Note: For the MDEX Engine installation, environment and `PATH` variables are set by running the `mdex_setup` scripts provided by the installation. See the *Oracle Endeca MDEX Engine Installation Guide* for more information.

MDEX Engine variables

The following variable is used by the MDEX Engine:

Variable	Description	Default value
`ENDECA_MDEX_ROOT`	Specifies the path of the MDEX Engine root directory.	• `C:\Endeca\MDEX\`*`version`* • `endeca/MDEX/`*`version`*

Platform Services variables

The following variables are used by the Platform Services:

Variable	Description	Default value
ENDECA_ROOT	Specifies the path of the Platform Services root directory.	• C:\Endeca\PlatformSer¬ vices*version* • endeca/PlatformServices/*ver¬ sion*
ENDECA_REFERENCE_DIR	Specifies the path of the directory that contains the Endeca reference implementations, such as the sample wine project and the JSP and .NET UI references.	• C:\Endeca\PlatformSer¬ vices\reference • endeca/PlatformServices/ref¬ erence
ENDECA_CONF	Specifies the path of the workspace directory for the Endeca HTTP service, which contains configuration files, logs, and temporary storage directories.	• C:\Endeca\PlatformSer¬ vices\workspace • endeca/PlatformSer¬ vices/workspace
PERLLIB	Specifies the path of the perl root directory and its directory of libraries.	• %ENDECA_ROOT%\perl and %ENDE¬ CA_ROOT%\perl\5.8.3\lib • $ENDECA_ROOT/lib/perl:$ENDE¬ CA_ROOT/lib/perl/Control:$EN¬ DECA_ROOT/perl/lib:$ENDE¬ CA_ROOT/perl/lib/site_perl
PERL5LIB	Same as the PERLLIB variable.	Same as the PERLLIB variable.
UnixUtils	Specifies the path of the utilities directory, which contains Windows versions of some UNIX common utilities.	• %ENDECA_ROOT%\utilities • not available on UNIX

Endeca Workbench variables

The following variables are used by the Endeca Workbench:

Variable	Description	Default value
ENDE¬ CA_TOOLS_ROOT	Specifies the path of the Endeca Workbench root directory.	• C:\Endeca\Workbench*version* • endeca/Workbench/*version*
ENDE¬ CA_TOOLS_CONF	Specifies the path of the workspace directory for the Endeca Tools Service, which	• C:\Endeca\Workbench\workspace • endeca/Workbench/workspace

Variable	Description	Default value
	contains configuration files, logs, and temporary storage directories.	

Other variables

Other variables used by Endeca include the following:

Variable	Description	Default value
`ENDECA_PROJECT_DIR`	Specifies the path of the deployed application. This variable is set and used by the Endeca Deployment Template.	Value is taken from user input at installation time.
`ENDECA_PROJECT_NAME`	Specifies the project name that is used, for example, as the JCD job prefix for jobs defined in the project's Job Control Daemon. This variable is set and used by the Endeca Deployment Template.	Value is taken from user input at installation time.

Endeca ports

This topic describes the ports used by the Endeca packages and their default port numbers.

You can replace any of the default port numbers with numbers of your own, as long as they do not conflict with an existing port on your machine. Port numbers can be no larger than `32767`.

Service ports

Port	Default
Endeca Tools Service port	`8006`
Endeca Tools Service SSL port	`8446`
Endeca Tools Service shutdown port	`8084`
CAS Service port	`8500`
CAS Service shutdown port	`8506`
Endeca HTTP Service port	`8888`
Endeca HTTP Service SSL port	`8443`
Endeca HTTP Service shutdown port	`8090`
Endeca Control System JCD port	`8088`

Port	Default
Note: The JCD is deprecated.	

Deployment Template ports

These are the port numbers suggested by the Deployment Template installation, but you can specify any other port when you deploy your application.

Port	Default
Dgraph1 user query port	`15000`
Dgraph2 user query port	`15001`
Agraph1 user query port (Agraph deployments only)	`14000`
Agraph2 user query port (Agraph deployments only)	`14001`
Forge server (Agraph deployments with Parallel Forge only)	`14099`
Endeca Logging and Reporting Server port **Note:** The Logging Server port number can be no larger than `32767`.	`15010`

Reference implementation ports

These port numbers are used in the configuration files that ship with the reference implementation (`sample_wine_data`).

Port	Default
Endeca MDEX Engine user query port	`8000`
Endeca Logging and Reporting Server port **Note:** The Logging Server port number can be no larger than `32767`. In the JSP reference implementation, the default Logging server port number is larger by 2 than the corresponding Dgraph port number. For example, for the Dgraph port 15000, the default port for the Logging Server in the reference implementation is 15002. For the Dgraph port 15001, the default port for the Logging Server in the reference implementation is 15003. (This assumes that the Logging Server is running on the same host as the MDEX Engine.)	`8002`

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