

Oracle® Universal Content Management
Oracle Database Case Insensitive Search Component
Administration Guide
Release 10gR3

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Preface

The Oracle Database Case Insensitive Search component enables case-insensitive search queries against an Oracle database.

Audience

This document is intended for system administrators who are responsible for installing the Oracle Database Case Insensitive Search component as well as administering the component and creating the recommended function-based indexes for use with Oracle database queries. This document assumes that the component has been installed correctly and that you are familiar with Oracle products and the architecture of Oracle Content Server.

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Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.
Forward slashes (/)	Forward slashes are used to separate the directory levels in a path to a UNIX server, directory, or file. Forward slashes are also used to separate parts of an Internet address. A forward slash will always be included at the end of a UNIX directory name and might or might not be included at the end of an Internet address.
Backward slashes (\)	Backward slashes are used to separate the levels in a path to a Windows server, directory, or file. A backward slash will always be included at the end of a Windows server, directory, or file path.
<install_dir>/	This notation refers to the location on your system of the main product installation directory.

Introduction

This chapter covers the following topics:

- ["Component Overview"](#) on page 1-1
- ["Compatibility with Content Server"](#) on page 1-1

1.1 Component Overview

The Oracle Database Case Insensitive Search component enables you to run a search query against an Oracle database that is case insensitive when matching records. This ensures that more entries will match the query selection criteria regardless of how the data was stored (for example, TEST, Test, or test). Furthermore, these searches can be made more efficient by creating and using function-based indexes (see ["About Function-Based Indexes"](#) on page 3-1).

1.2 Compatibility with Content Server

Currently, the Oracle Database Case Insensitive Search component is supported only on Oracle Content Server 10gR3.

This chapter covers the following topics:

- ["Installing the Oracle Database Case Insensitive Search Component"](#) on page 2-1
- ["Uninstalling the Oracle Database Case Insensitive Search Component"](#) on page 2-2

2.1 Installing the Oracle Database Case Insensitive Search Component

You can install the Oracle Database Case Insensitive Search component using either Component Manager or Component Wizard.

2.1.1 Installing using Component Manager

To install the Oracle Database Case Insensitive Search component using Component Manager:

1. Log in to Content Server as an administrator.
2. Select Admin Server from the Administration menu.
The Content Admin Server page is displayed.
3. Click the name of the Content Server instance where the component will be installed.
The Content Admin Server <instance_name> page is displayed.
4. Click the Component Manager link.
The Component Manager page is displayed.
5. Click Browse, navigate to the OracleCaseInsensitiveSearch.zip file, select it, and click Open.
The path is displayed in the Install New Component field.
6. Click Install.
A list of component items that will be installed is displayed.
7. Click Continue.
Component Manager asks if you want to immediately enable the Oracle Database Case Insensitive Search component or return to the Component Manager. Click the link to enable the component.
8. Restart the Content Server instance to apply the updated installation parameters.

2.1.2 Installing using Component Wizard

To install the Oracle Database Case Insensitive Search component using Component Wizard:

1. Log in to Oracle Content Server as an administrator.
2. Start the Component Wizard by selecting Start, All Programs, Oracle Content Server, <instance_name>, Utilities, Component Wizard (Windows) or by running the ComponentWizard script in the /bin directory (UNIX).

The Component Wizard main screen and the Component List screen are displayed.

3. On the Component List screen, click Install.

The Install screen is displayed.

4. Click Select.

The Zip File Path screen is displayed.

5. Navigate to the OracleCaseInsensitiveSearch.zip file, select it, and click Open.

The zip file contents that will be installed are added to the Install screen list.

6. Click OK.

Component Wizard asks if you want to enable the Oracle Database Case Insensitive Search component.

7. Click Yes.

The Oracle Database Case Insensitive Search component is listed as enabled on the Component Wizard's Resource Definition tab.

8. Exit the Component Wizard.

9. Restart the Content Server instance to apply the updated installation parameters.

2.2 Uninstalling the Oracle Database Case Insensitive Search Component

You can uninstall the Oracle Database Case Insensitive Search component using either Component Manager or Component Wizard.

2.2.1 Uninstalling using Component Manager

To uninstall the Oracle Database Case Insensitive Search component using Component Manager:

1. Log in to Oracle Content Server as an administrator.
2. Select Admin Server from the Administration menu.

The Content Admin Server page is displayed.

3. Click the name of the Content Server instance where the component will be uninstalled.

The Content Admin Server <instance_name> page is displayed.

4. Click the Component Manager link.

The Component Manager page is displayed.

5. Select the Oracle Database Case Insensitive Search component in the Enabled Components list and click Disable.

- The component is moved to the Disabled Components list.
6. Click Start/Stop Content Server.
The Content Server <instance_name> page is displayed.
 7. Restart the Content Server instance.
 8. Click Component Manager.
The Component Manager page is displayed.
 9. Select the Oracle Database Case Insensitive Search component in the Uninstall Component drop-down list
 10. Click Uninstall.
Component Manager asks if you want to uninstall the component.
 11. Click OK.
Component Manager displays a message that the Oracle Database Case Insensitive Search component was uninstalled successfully.
 12. Click the link to return to the Component Manager.
The Component Manager page is displayed.
 13. Click Start/Stop Content Server.
The Content Server <instance_name> page is displayed.
 14. Restart the Content Server instance to apply the changes.

2.2.2 Uninstalling using Component Wizard

To uninstall the Oracle Database Case Insensitive Search component using Component Wizard:

1. Log in to Oracle Content Server as an administrator.
2. Start the Component Wizard by selecting Start, All Programs, Oracle Content Server, <instance_name>, Utilities, Component Wizard (Windows) or by running the ComponentWizard script in the /bin directory (UNIX).
The Component Wizard main screen and the Component List screen are displayed.
3. On the Component List screen, select the Oracle Database Case Insensitive Search component and click Disable.
4. Restart the Content Server instance.
5. On the Component List screen, select the Oracle Database Case Insensitive Search component and click Uninstall.
Component Wizard asks if you want to uninstall the Oracle Database Case Insensitive Search component.
6. Click Yes.
The Uninstall screen is displayed and lists the zip file contents that will be uninstalled.
7. Click OK.
The Oracle Database Case Insensitive Search component is removed from the Component List screen.

8. Exit the Component Wizard.
9. Restart the Content Server instance to apply the changes.

Using the Oracle Database Case Insensitive Search Component

This chapter covers the following topics:

- ["About Oracle Database Indexes"](#) on page 3-1
- ["Creating a Function-Based Index"](#) on page 3-1

3.1 About Oracle Database Indexes

Indexes are optional structures associated with tables and are created to improve query performance. Oracle database indexes provide a quick access path to the table data and help to promptly locate specific information. Indexes can make queries against one or more columns of a table and are intended to improve the performance of the database.

After an index is created, it is automatically maintained and used by the Oracle database. Changes to the structure of a table or data in a table, such as adding new rows, updating rows, or deleting rows, are automatically incorporated into all relevant indexes.

3.1.1 About Function-Based Indexes

Typically, an index entry is based on the values found in the columns of a table (column index). Alternatively, you can create a function-based index in which the indexed value is derived from the table data. These indexes are based on the result of a SQL function, rather than just on the value of one or more columns. Thus, a function-based index precalculates the result which speeds up queries that use the function for searching or sorting.

3.1.2 About the UPPER Function

The UPPER function is one of a set of Oracle database character functions that can be used to customize the character values in SQL statements. Specifically, the UPPER function converts all letters in a specified string to uppercase. As a result, the query searches for values as if they were all in uppercase characters which makes it possible to find character data that is written in mixed case. If there are characters in the string that are not letters, they are unaffected by this function.

3.2 Creating a Function-Based Index

After the Oracle Database Case Insensitive Search component is installed, you can improve its search performance and efficiency by creating a function-based index on

the most frequently used table columns. This section describes the necessary syntax to create the index. The examples show how to implement a function-based index and leverage the UPPER character function.

3.2.1 Syntax for Function-Based Index Statement

The basic syntax for a function-based index statement using the UPPER function is as follows:

```
CREATE INDEX <index_name> ON <table_name> (UPPER(<column_name>));
```

The `column_name` value in this statement is the character string whose letters are converted to uppercase. As shown below, the function-based index can be created for use against one or more columns.

3.2.2 Functional Index Examples

The following examples show how to use the UPPER character function to customize table column data. When these operations are performed, the characters in the returned values are changed and displayed in an uppercase format.

Example 3-1 Function-Based Index for Single Column

```
CREATE INDEX emp_info ON employees (UPPER(last_name));
```

This example shows a functional index that is created on a single column to make search queries faster on that column. In this case, the letters in employee surnames are converted to uppercase characters.

Example 3-2 Function-Based Index for Multiple Columns

```
CREATE INDEX emp_info ON employees (UPPER(last_name), UPPER(dept_name));
```

This example shows a functional index that is created on multiple columns to make search queries faster on the first or both columns. In this case, the letters in the employees' first and last names are converted to uppercase characters.

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