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Send Us Your Comments

Oracle welcomes your comments and suggestions on the quality and usefulness of this document. Your input is an important part of the information used for revision.

- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct? Do you need more examples?
- What features did you like most about this document?

If you find any errors or have any other suggestions for improvement, then indicate the title and part number of the document and the chapter, section, and page number (if available). You can contact the Style Guide Review Board in the following ways:

- Oracle Style Guide Users Forum
<http://myforums.oracle.com/jive3/forum.jspa?forumID=2401>
- Email
sgrb_us_grp@oracle.com

Preface

Oracle Style Guide is a complete style guide to documenting Oracle software and hardware.

Audience

This guide is intended for writers, editors, graphic designers, translators, and others responsible for creating technical documentation for external release.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at
<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit
<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit
<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

What's New in This Release

Between releases of *Oracle Style Guide*, you can find updated information at
<https://stbeehive.oracle.com/teamcollab/overview/Style+Guide+Review+Board>.

The following changes and additions were made in this release:

- Updated [Section 3.5.6.2, "Names of Businesses and Organizations"](#)
- Updated [Section 5.6, "Contractions"](#)
- Updated [Chapter 6, "Accessibility"](#)
- Updated [Chapter 8, "Typographic Conventions"](#)
- Added [Chapter 9, "Writing Tasks, Procedures, and Steps"](#)
- Added [Section 12.3, "Buttons and Icons in Procedural and Conceptual Text"](#)
- Added the following terms to this guide ([Section 7.3](#)):
 - blank
 - data guide

- if and whether
 - Internet of Things
 - null
 - throttle
 - toolset
- Added the following abbreviations and acronyms to this guide ([Table 7–4](#)):
 - ARP
 - CMYK
 - HTTPS
 - IB
 - IoT
 - IPoIB
 - NVMe
 - OLL
 - PCIe
 - SSH
- Changed the following terms in this guide ([Section 7.3](#)):
 - corrupt
 - email
 - Infrastructure as a Service
 - JavaDoc
 - on-screen
 - on-site
 - Platform as a Service
 - slider
 - Software as a Service
 - tapemark
 - we
 - x
- Changed the following symbols and special characters in this guide ([Section 7.5](#)):
 - \$
 - #
- Changed the following abbreviations in this guide ([Section 7.6](#)):
 - UI
 - UTC
 - VM
- Deleted the following terms from this guide:

- Assistant, assistant
- public cloud
- ToolTip
- Added the following GUI terms to this guide ([Table 12–4](#)):
 - help drawer
 - icon
 - tooltip

Related Documents

For a list of recommended documentation and resources, see [Chapter 13](#).

Conventions

For a list of suggested conventions, see [Chapter 8](#).

Introduction

Oracle Style Guide is a complete style guide to documenting Oracle products for external release. It provides guidelines that are effective regardless of writing tool or delivery medium. Except where contractual commitments mandate another style, writers, editors, graphic designers, translators, and others responsible for creating Oracle product information should follow the style presented in this guide. If your group must deviate from the recommendations in this guide, then ensure that you maintain a style sheet to record any exceptions.

Oracle Style Guide is designed to:

- Promote a consistent, professional presentation for all Oracle documentation
- Provide guidelines for English grammar, style, and use
- Facilitate online presentation of Oracle documentation
- Reduce the costs of localizing documentation by establishing standards for all published material
- Reduce support costs
- Provide up-to-date information about terminology

Use *Oracle Style Guide* to develop clear, direct, concise documents in a consistent style. Accurate and clear use of English, including spelling and grammar, along with a well-designed format and organization, contribute to product quality and the perception of product quality. Good writing and consistent style help readers to understand even the most complex material.

This guide is based on and supplements accepted authorities on English grammar, style, spelling, and use. If you have a question about style and use, then first check *Oracle Style Guide*. Its guidelines supersede those described in other references. If you cannot find your answer here, or need additional explanation or details, then check the following authorities:

- *Hedges' Harbrace Handbook* (Heinle & Heinle Publishers, 2003).
- *Merriam-Webster's Collegiate Dictionary* (Merriam-Webster, Inc., 2003). To search an online form of this dictionary, go to Merriam-Webster Online at
<http://www.merriam-webster.com>
- *The Chicago Manual of Style* (The University of Chicago Press, 2010).
- *The Elements of Style* (Pearson Higher Education, 2000).

For more information about these authorities, or to view an annotated list of supplementary reading on subjects related to technical writing, see [Chapter 13](#).

2

Guidelines for Writing

This chapter presents general guidelines for organizing and presenting technical information. Many of the topics are presented in more detail in other chapters of this guide, and references are provided in those cases. Use this chapter as a reminder of good writing techniques.

This chapter contains the following sections:

- [Section 2.1, "Organizing Your Information"](#)
- [Section 2.2, "Presenting Information Visually"](#)
- [Section 2.3, "Using Basic Writing Principles"](#)
- [Section 2.4, "Summarizing the Guidelines for Writing"](#)

2.1 Organizing Your Information

Organizing information includes tasks and tools described in the following sections:

- [Section 2.1.1, "Estimating and Planning the Documentation Project"](#)
- [Section 2.1.2, "Outlining Your Information"](#)
- [Section 2.1.3, "Making Information Easy to Find"](#)
- [Section 2.1.4, "Creating Overviews and Introductions"](#)

2.1.1 Estimating and Planning the Documentation Project

To begin a documentation project, create a documentation plan. Include in the documentation plan estimates of the amount of work to be done (that is, the deliverables), by how many people, and in what time period. Also include an assessment of the risks, if any, that might affect the successful completion of the plan.

When creating the estimates, count whatever can be counted. If the project is a graphical user interface (GUI), then count menu commands and windows. If the product is Java-based software, then count methods and parameters. If all you have is a software specification, then count features and classify them by complexity (simple to complicated). This feature information provides a starting point for estimating the documentation effort.

For guidance about how to create accurate estimates for books, online help, tutorials, computer-based learning, and other documentation, see *Managing Your Documentation Projects* by JoAnn Hackos (John Wiley & Sons, 1994).

2.1.2 Outlining Your Information

Create an outline of your information as early as you can. If you have your outline reviewed, then you can identify what pieces are missing or out of order.

Readers expect information to be predictably organized and predictably presented. When writing, organize your information from the general to the specific and from the theoretical to the concrete. At least two subheadings should occur under a higher-level heading. If only one subheading occurs, then consider promoting the subheading or adding another subtopic. If you explain some procedures by way of annotated examples, then explain the rest in that same way. If you use a problem-solution organization to describe some of the benefits of a product, then use it to describe all the benefits.

You usually complete the steps of a task in a certain pattern or order. The information should be similarly arranged. For example, a task with five subtasks suggests six sections of information. If what you do in subtask 5 depends on what was done in subtask 4, then subtask 4 should precede subtask 5.

See [Chapter 3](#) for detailed information about document structure.

2.1.3 Making Information Easy to Find

Readers search for information in various ways, using a table of contents, an index, cross-references, or glossaries.

2.1.3.1 Headings

Good headings produce a good table of contents from which readers can predict the kind of information they will find in each chapter, section, or appendix (task, reference, or concepts) and how that information is organized. Similarly, good row and column headings help to clarify table content.

Task-oriented titles and headings are essential entry points for how-to information. Provide a sufficient number of headings. Each heading should reveal that the text contains information about a task and what the task is.

See [Section 3.1](#) for detailed information about headings.

2.1.3.2 Indexes

In addition to headings, indexes provide a critical access point for readers. Readers use indexes to find information quickly.

See [Chapter 11](#) for detailed information about indexes.

2.1.3.3 Cross-References

Cross-references provide yet another important access point for readers. These links to additional information are useful when related information is essential to understanding the current text, especially if that related text is too long to repeat or is in another document.

See [Section 3.2](#) for detailed information about cross-references.

2.1.3.4 Glossaries

A **glossary** groups terms and their definitions at the end of a document, and a **master glossary** provides terminology for an entire documentation set. Because readers do not typically read Oracle documentation sequentially or entirely, a glossary is a helpful reference for unfamiliar terminology wherever it is encountered.

See [Chapter 10](#) for detailed information about glossaries and the "Sample Glossary" to review the structure and content of glossary entries.

2.1.4 Creating Overviews and Introductions

Overviews tell readers what pieces make up a certain product or area of technology and how those pieces relate to each other. For example, a section called "Overview of Messaging and Directory Services" could include the following brief paragraphs:

Paragraph Number	Function
Paragraph 1	Defines messaging services
Paragraph 2	Defines directory services
Paragraph 3	Defines the Messaging Server, which provides the messaging and directory services
Paragraph 4	Defines the messaging API, which provides access to the functions of the Messaging Server to SDK developers
Paragraph 5	Lists the internet standards that the Messaging Server supports: MIME, MAPI, POP3, and LDAP

Overviews and introductions often begin with a definition of the product, part of the product, or an area of technology. Definitions often follow this pattern:

Name	"Oracle Database 11g . . . "
General category	". . . is a combination database . . . "
Specific differences	". . . that includes both relational and object-oriented capabilities."

When writing overviews and introductions, consider the following guidelines:

- For the sake of modularity, keep overviews and introductions separate from task or other information, and label them with headings that clearly identify the topic as an overview, an introduction, a task, and so forth.

A reader may need to understand a specific concept to make the correct decision in carrying out steps of a task. In this case, explain just enough of that concept to assist the reader in carrying out the steps. Then, include a cross-reference to a concept topic that explains the details.

- Use specific headings for overviews and introductions. For example, instead of "Overview," use "Overview of the Application Server."
- Consider writing overviews and introductions last, because they require knowledge of the whole product and how various pieces relate to each other.
- Consider using tables or lists instead of multiple paragraphs in overviews and introductions. Readers who habitually skip all conceptual information may pause long enough to scan a table or list. A brief introductory section can use a list to indicate subtopics and the order in which they are presented.

2.2 Presenting Information Visually

Visual aids are often better than just text in helping the reader to understand information and relationships between items. You can use the visual techniques described in the following sections:

- [Section 2.2.1, "Lists"](#)
- [Section 2.2.2, "Tables"](#)
- [Section 2.2.3, "Examples"](#)
- [Section 2.2.4, "Illustrations"](#)

2.2.1 Lists

Use lists to organize, clarify, and emphasize information. See [Section 3.3](#) for detailed information about lists.

Use *numbered lists* when the order is significant or when a series is suggested. For detailed information about numbered lists, see [Section 3.3.3.1](#).

Use *unnumbered lists* when order is not significant and when all items are of equal importance. See [Section 3.3.3.2](#) for detailed information about unnumbered lists.

2.2.2 Tables

Use tables to present statistical information or facts that you can categorize. Tables often provide a clearer, more concise picture of the relationships among items than can be described in words alone. The structure of the table itself conveys meaning. Do not use tables for formatting purposes, such as to create the appearance of a multiple-column list. For detailed information about tables, see [Section 3.4](#) and [Section 6.5.6](#).

2.2.3 Examples

Use examples to make conceptual information concrete and usable. Again and again, surveys about documentation reveal that readers want more examples.

The example that you use depends on the kind of document that you are writing. For example:

- User's guides often include screenshots and flowcharts.
- Administration guides often include syntax examples.
- Reference guides often include code examples.

To remove ambiguity and allow readers to confirm their understanding, consider presenting multiple examples of the same information, moving from theoretical to concrete.

Correct	Incorrect
<p>Telephone numbers include several groups of numbers. In the United States, the groups follow this pattern:</p> <p>yyy.zzz.bbbb</p> <p>Each group of numbers represents a specific portion of the entire telephone number:</p> <ul style="list-style-type: none">■ yyy represents the area code■ zzz represents the prefix■ bbbb represents the line number <p>For example, in the telephone number 650.555.0100, 650 is the area code.</p>	<p>In the United States, telephone numbers follow this pattern: x-yyy-zzz-bbbb.</p>

See [Section 3.5](#) for detailed information about examples.

2.2.4 Illustrations

Illustrations include screenshots, icons, diagrams, artwork, and charts. Use illustrations to show complex relationships that may be difficult to describe with just text, such as how Oracle Database can be configured. Screenshots and icons guide readers to the part of a screen that they need to use, such as a particular field. For information about how to make illustrations accessible, see [Section 6.5.1](#).

2.3 Using Basic Writing Principles

By observing the basic principles of technical writing, you make information clearer and you simplify the work of both readers and translators. These basic principles, described in the following sections, include:

- [Section 2.3.1, "Global Writing"](#)
- [Section 2.3.2, "Active Voice"](#)
- [Section 2.3.3, "Present Tense"](#)
- [Section 2.3.4, "Neutral Tone"](#)
- [Section 2.3.5, "Complete Sentences"](#)
- [Section 2.3.6, "Positive Sentences"](#)
- [Section 2.3.7, "Strong Sentences"](#)
- [Section 2.3.8, "Short Sentences"](#)
- [Section 2.3.9, "Short Paragraphs"](#)
- [Section 2.3.10, "Consistency"](#)
- [Section 2.3.11, "Clarity"](#)
- [Section 2.3.12, "Conciseness"](#)
- [Section 2.3.13, "Proper Use of Words or Phrases"](#)
- [Section 2.3.14, "Clearly Defined Terminology"](#)

See *Clear Technical Writing* by John A. Brogan (McGraw-Hill, Inc., 1973) for additional examples of active voice and other writing principles.

2.3.1 Global Writing

Oracle documentation is translated into more than 40 languages and is read by thousands of customers for whom English is not a native language. Develop content with these facts in mind, striving for accuracy, simplicity, clarity, consistency, and cultural neutrality.

If readers find your writing confusing, complicated, or ambiguous, then so too will human translators and machine translators. Inaccurately translated documentation inhibits usability, impedes learning, and reflects negatively on the quality of the product. Writing that is easy to understand and translate therefore provides substantial cost savings to Oracle.

This section is based on principles of technical writing found in various sources, including *The Global English Style Guide*, by John Kohl. For more information about

translation at Oracle, see the Oracle Worldwide Product Translation Group (WPTG) website at <http://my.oracle.com/site/pd/pls/edc/wptg/cnt2008351.htm>.

Write for the broadest possible audience. Use examples that have meaning across many cultures. If you make a reference to sports, then use examples from soccer or Olympic sports. Do not use real event names, such as Olympics, World Cup, or OpenWorld in Oracle documentation. Use generic event names such as Big Game or Software Conference. If you list a city, then provide an example of an easily recognized city, such as Boston, Paris, or Buenos Aires.

Sentence construction is a key component of good global writing. Poorly constructed sentences cause confusion and ambiguity for readers, human translators, and machine translators. Use the following guidelines:

- Rewrite sentences that use phrases made up of a word that ends in *-ing* and is followed by a noun, for example, *running reports*. This composition can be ambiguous because readers might interpret the *-ing* word as being an adjective, a verb, or a noun.

Correct	Incorrect
Running the Scheduler enables you to quickly understand the status of your projects.	Running Scheduler enables you to quickly understand the status of your project.
This tool is used to certify licenses.	This tool is used for certifying licenses.
Before you test procedures, clear any data that is present.	Clear any data that is present before testing procedures.
Exporting the Reports (heading)	Exporting Reports (In this heading, it is not clear whether the word <i>exporting</i> is an adjective or a verb used as a gerund.)

- Rewrite *to be + -ing* sentences to avoid ambiguity. Sometimes it is unclear whether the *-ing* word is an adjective or a noun.

Correct	Incorrect
Compress attachments to reduce email size.	One way to reduce email size is compressing attachments.
You can move large amounts of data more easily by exporting files.	An easier way to move large amounts of data is exporting files.
Formatting tables can be a complicated task.	Formatting tables can be complicated.
One way to avoid last-minute release delays is by addressing issues early.	Addressing issues early avoids last-minute release delays.

- Make clear which word is being modified by the *-ing* word. A dangling *-ing* word can be mistakenly associated with a word other than the one that it is meant to modify, or it can be associated with no word at all. Dangling *-ing* phrases create confusion for readers as well as for human translators and machine translators.

Correct	Incorrect
<i>By dragging</i> content to a selection pane, users with appropriate permissions can use the Dashboard Editor to add content.	<i>Dragging</i> content to a selection pane, the Dashboard Editor can be used to add content by users with appropriate permissions.

Correct	Incorrect
<i>Use</i> the global header to access a new task, search the catalog, or view a different object.	<i>Using</i> the global header, a new task can be initiated, the catalog can be searched, or an object can be viewed.
After <i>you sign in to</i> the Oracle BI EE application, the Oracle BI EE Home page is displayed.	After <i>signing in to</i> the Oracle BI EE application, the Oracle BI EE Home page is displayed.
When <i>you move</i> the Section Slider from one report to another, data for different accounts is displayed.	<i>Moving</i> from one report to another, the Section Slider displays data for different accounts.

- Use parallel construction in your text to clarify relationships when using conjunctions to join words or phrases. Sometimes rewriting the sentence is the best way to clarify the meaning.

Correct	Incorrect
ADDM enables you to improve database performance <i>by</i> identifying problems and <i>by</i> suggesting fixes for those problems.	ADDM enables you to improve database performance by identifying problems and suggesting fixes for those problems.
You can use AWR <i>to</i> analyze transient performance problems, <i>to</i> compare database performance between two periods of time, or to resolve performance degradation.	You can use AWR to analyze transient performance problems, compare database performance between two periods of time, or resolve performance degradation.
An alert indicates <i>that</i> the session use is almost 100%, <i>that</i> the process use is almost 100%, or <i>that</i> a deadlock has occurred.	An alert indicates that the session use is almost 100%, the process use is almost 100%, or a deadlock has occurred.
Dimension member names <i>must be</i> unique and must be fewer than 32 characters in length.	Dimension member names must be unique and be less than 32 characters in length.
The SQL_EXEC_ID parameter, which displays monitoring information for a particular execution of a SQL_ID parameter, applies only when the SQL_ID parameter is specified.	The SQL_EXEC_ID parameter applies only when the SQL_ID parameter is specified and is used to display monitoring information for a particular execution of SQL_ID.

The use and misuse of *that* and *which* can cause problems for nonnative readers of English as well as for translators. Adhering to the following guidelines helps clarify the text:

- Change participial phrases (a verb used to modify another (main) verb or a noun) to clauses that use *that* or *which* followed by a verb.

Correct	Incorrect
Memory heaps <i>that</i> are used to represent the SQL statement in the shared pool are allocated in chunks.	Memory heaps used to represent the SQL statement in the shared pool are allocated in chunks.
The Checklist feature provides a method of cataloging tasks <i>that</i> are performed during routine procedures.	The Checklist feature provides a method of cataloging tasks performed during routine procedures.
This algorithm is the same one <i>that</i> is used by the NETFLOW procedure.	This is the same algorithm used by the NETFLOW procedure.

Correct	Incorrect
The list of the top 50 cities for fall allergens, <i>which</i> was compiled by the Allergy Foundation of America, shows the Raleigh-Durham metropolitan area as number 2.	The list of the top 50 cities for fall allergens, compiled by the Allergy Foundation of America, shows the Raleigh-Durham metropolitan area as number 2.
Attachment points must indicate an occupant, <i>which</i> is a hardware component that can be configured into the system.	Attachment points must indicate an occupant hardware component <i>that</i> can be configured into a system.
The host controller contains the root hub, <i>which</i> is the origin of all USB ports in the system.	The host controller contains the root hub <i>that</i> is the origin of all USB ports in the system.

- Include *that* after the following verbs:
 - Assume
 - Ensure
 - Estimate
 - Mean
 - Require
 - Specify
 - Suppose
 - Verify

Correct	Incorrect
The SAML client security policy ensures <i>that</i> the security credentials are propagated to the Booking_client_ep entry point.	The SAML client security policy ensures the security credentials are propagated to the Booking_client_ep entry point.
For this reason, you should always verify <i>that</i> the information being transferred to Oracle Identity Manager is valid.	For this reason, you should always verify the information being transferred to Oracle Identity Manager is valid.

- Use the relative pronoun *which* to refer to a specific noun or noun phrase rather than to an entire clause.

Correct	Incorrect
The TMPFS file system stores files and their associated information in memory rather than on disk. As a result, access to those files is faster.	The TMPFS file system stores files and their associated information in memory rather than on disk, which speeds access to those files.
The <code>import</code> command ignores symbolic links. This behavior causes a problem because many of the required files are installed as symbolic links.	The <code>import</code> command ignores symbolic links, which is a problem because many of the required files are installed as symbolic links.

Certain pronouns can cause problems. Adhering to the following guidelines helps clarify the text:

- Avoid the ambiguous use of a pronoun to refer to a previous noun, phrase, or clause (often referred to as an antecedent). A pronoun that forces a reader to search

for an antecedent can frustrate or mislead the reader. Pronouns that typically cause this type of confusion are *it*, *they*, *them*, *its*, and *their*.

Correct	Incorrect
You can change the configuration file that is generated by the deployment assistant after <i>the file</i> is created.	You can change the configuration file that is generated by the deployment assistant after <i>it</i> is created.
There are up to five networks for the servers. <i>The networks</i> must be on distinct and separate subnets.	There are up to five networks for the servers. <i>They</i> must be on distinct and separate subnets.
Application administrators perform many administrative security tasks. <i>The tasks</i> consist of adjusting content, adding new content, and registering user accounts.	Many administrative security tasks are performed by application administrators. <i>They</i> consist of adjusting content, adding new content, and registering user accounts
Customers should know that service disruptions might occur while updating the hardware and software. <i>Most disruptions</i> do not cause problems.	Customers should know that service disruptions might occur while updating the hardware and software. <i>Most of them</i> do not cause problems.
Enter the customer names in the fields, and then sort <i>the names</i> using the Sort option.	Enter the customer names in the fields, and then sort <i>them</i> using the Sort option.
The database server sends its certificate to the client in an encrypted message, along with the client's public key.	The database server sends the client an encrypted message, along with the client's public key as its certificate.
The rating fields have text descriptions, check boxes, and text fields, but the browser may truncate <i>the text descriptions</i> .	The rating fields have text descriptions, check boxes, and text fields, but the browser may truncate <i>their text</i> .

- Use the terms *this*, *that*, *these*, and *those* as adjectives followed by nouns. To avoid possible ambiguous references, do not use these terms as pronouns. In addition, using these terms as pronouns can cause problems for human translators and machine translators, because in many languages the terms must match the gender and number of the nouns and verbs. Usually, the text can be rewritten to avoid the use of these pronouns.

Correct	Incorrect
Use the shortcut menu to access the Refresh option. <i>This shortcut</i> menu provides quick access to the Refresh option and additional options.	Use the shortcut menu to access the Refresh option. <i>This</i> provides quick access to the Refresh option and additional options.
If a HALRT-10004 alert is sent during machine operation, <i>then the temperature</i> was not in the acceptable range.	If a HALRT-10004 alert is sent during machine operation, <i>then that</i> means the temperature was not in the acceptable range.
Check the LEDs on the back of the server. <i>These LEDs</i> should all be green.	Check the LEDs on the back of the server. <i>These</i> should all be green.
Better: Ensure that all LEDs on the back of the server are green.	
The cabinets are shipped with grounding-type power cords. Always connect <i>these cords</i> to grounded power outlets.	The cabinets are shipped with grounding-type power cords. Always connect <i>these</i> to grounded power outlets.
The procedure contains required steps and optional steps. <i>Steps</i> marked optional can be performed after the installation of the machine.	The procedure steps are divided into required and optional steps. <i>Those</i> marked optional can be performed after the installation of the machine.

2.3.2 Active Voice

Use active voice unless you have a good reason for using passive voice. Make the person or item performing the action the subject of the sentence. Active voice lets the reader answer the following questions quickly and easily:

- What is happening?
- Who is performing the action?
- What, if anything, do I need to do now?

Here are some possible active subjects of a sentence:

- The name of the product ("Oracle Media Server distinguishes between . . .")
- The name of a part of the product ("The Document Server acts as a . . .")
- Many people
- You

Correct	Incorrect
You can assign transactions to subclasses.	Transactions can be assigned to subclasses.
The system administrator can assign transactions to subclasses.	Transactions can be assigned to subclasses.
AccountManager automatically inserts the total amount of the interest due plus the principal into the database at month-end.	The total amount of the interest due plus the principal is automatically inserted into the database at month-end.
Enter your user name and password.	Your user name and password should be entered here.

Exception: Passive voice is acceptable when no clear performer of the action is known or when naming the performer of the action is not important. It is also acceptable to use imperative sentences, that is, to start sentences with verbs in command form.

2.3.3 Present Tense

Use present tense rather than future tense, except when you are describing a future action.

Correct	Incorrect
Oracle InterOffice automatically files the document in the related folder.	Oracle InterOffice will automatically file the document in the related folder.
The next time that you open the MyMail folder, you will find both the original version of the message and your copy.	The next time that you open the MyMail folder, you find both the original version of the message and your copy.

2.3.4 Neutral Tone

Use a neutral, adult-to-adult tone; avoid patronizing expressions. Convey respect for readers by not speaking down to them or insulting groups to which they may belong.

Consider the following guidelines about neutral tone:

- Avoid any expressions that would offend the reader, such as sexist or racist statements, ethnic slurs, or libelous statements.
- Do not use humor. What may be humorous to you may not be humorous to someone else, and it presents problems for translation.
- Use *who* or *whom* to refer to people, not *that*.
- Do not use *s/he*. Use *he* or *she*. If possible, rewrite the sentence to use a neutral plural subject, such as *developers* or *users*.
- Do not patronize your readers. Do not presume that a task is easy for your reader. Avoid words such as *simply*, *easy*, and *just*.

Correct	Incorrect
To copy public or private templates from one domain to another, use the Export and Import commands.	It is easy to copy public or private templates from one domain to another: Just use the Export and Import commands. (Patronizing)
After entering the server ID, provide a password.	After the user enters the server ID, he or she must provide a password. (Awkward)

2.3.5 Complete Sentences

Use complete sentences that begin with an uppercase character and end with final punctuation. Do not use symbols, such as an ampersand, equal sign, or back slash, instead of words in text. Symbols can present problems for international audiences. Do not break a sentence in the middle to include a code example.

Exception: When you use a sentence to introduce a code example, end the introductory sentence with a colon, place the code example on a separate line, and omit concluding punctuation after the code example because it might lead to confusion.

See [Section 3.5.2](#) for more information about formal and informal code examples.

Correct	Incorrect
To refer to the third user in the list, use the following syntax: <code>\$[users[3]]</code>	<code>\$[users[3]]</code> refers to the third user in the list.
To refer to the owner of the folder, use the following syntax: <code>\$[folder.owner.name]</code>	For example, in <code>\$[folder.owner.name]</code> the reference is to the name of the owner of the folder.

2.3.6 Positive Sentences

Use positive sentences to avoid confusion. Negative sentences can interfere with quick, accurate reader comprehension.

Correct	Incorrect
You can modify the DESCRIPTION parameter of a media instance. You cannot modify any other parameters.	You cannot change any parameters of a media instance except DESCRIPTION.

Correct	Incorrect
To set or change a password, specify only the user ID.	You do not need to enter address information when you set or change a password.

2.3.7 Strong Sentences

Use strong sentences, which means use the subject-verb-object order. This practice makes reading easier and comprehension faster for both native and nonnative English speakers.

Avoid inverted or weak sentences in which the true subject is out of its typical position at the beginning of the sentence. These inverted sentences begin with phrases such as *there is*, *there are*, and *it is*. Such sentences interfere with the clarity of a strong subject-verb combination, and hinder translation.

Correct	Incorrect
Three groups work together to provide training, tools, and information at Oracle: Human Resources, Worldwide Internal Training, and line management.	We partner with a global employee network that includes Human Resources, Worldwide Internal Training, and line management to distribute management training, tools, and information.
When you decide on the sequence of cue cards, analyze how best to use the latest, interface design principles.	There are two complementary interface design principles that are especially important to consider when designing cue card sequence.

2.3.8 Short Sentences

Use short sentences whenever possible. As a guideline, limit sentences to 25 words or fewer. To shorten a sentence that seems too long and complex, break it into two sentences and repeat the subject at the beginning of the second sentence.

Correct	Incorrect
A public template is the electronic equivalent of a printed form. These templates let users request information from others in the company, in a structured way. Public templates reduce turnaround time by prompting the requester for all necessary information.	A public template is the electronic equivalent of a printed form, allowing users to request information from others in the company in a structured way, and reducing turnaround time by prompting the requester for all necessary information.
You must finish testing the process design before you can complete the process narratives.	Finalizing the process narratives is not possible or desirable until after thorough testing of the process design itself has been completed.

2.3.9 Short Paragraphs

Short paragraphs help the reader quickly locate the relevant paragraph, especially when the topic is announced at the beginning. As a guideline, limit paragraph size to three to six sentences.

If a paragraph exceeds six sentences, then ensure that all the material relates directly to the topic of the paragraph.

Correct	Incorrect
Default parameters for each server type have been specified for you. However, you can change the defaults.	Default parameters for each server type have been specified for you. However, you can change the defaults. When you change a default parameter value, the value of that parameter automatically changes for all processes using the default. If you change a default value and do not want a particular process instance to inherit the new value, then you can create an instance-level value for that parameter and instance.
When you change a default parameter value, the value of that parameter automatically changes for all processes using the default. If you change a default value and do not want a particular process instance to inherit the new value, then you can create an instance-level value for that parameter and instance.	Default parameters for each server type have been specified for you. However, you can change the defaults. When you change a default parameter value, the value of that parameter automatically changes for all processes using the default. If you change a default value and do not want a particular process instance to inherit the new value, then you can create an instance-level value for that parameter and instance.

2.3.10 Consistency

Consistency is extremely important in technical documentation. Be consistent with terms and expressions throughout your document to avoid confusion and misunderstanding. For example, if your documentation refers to *IOMGR* in one paragraph, then it must not refer to *the IO Manager utility* elsewhere, or readers will be looking for two separate interfaces. Inconsistent terminology also creates confusion for translators and increases the cost of translation.

If a product has multiple books, or a book has multiple writers, then you will probably need to create a term list. The term list can specify both how a term is spelled and its meaning, so that multiple writers can use the term consistently. A term list is also a useful aid for translation.

Be particularly careful about consistent use of product names, including capitalization, spelling, and spaces within a name. (For example, InterOffice is one word with two capital letters.)

In general, writing style should move from the general to the specific, and from the theoretical to the concrete.

2.3.11 Clarity

Write clearly and avoid ambiguous phrases. For example:

Change Type

This phrase could be read as *change a type* or *a type of change*.

Use parallel construction for clarity and consistency. Parallel construction means using a series of matched grammatical elements, such as parts of speech, kinds of phrases, or sentence types.

Correct (Parallel) List Elements	Incorrect (Not Parallel) List Elements
<ul style="list-style-type: none"> ■ Key users participate in test design. ■ Tests and results are thoroughly documented. ■ Management agrees on business requirements. ■ Process designs are thoroughly integrated. 	<ul style="list-style-type: none"> ■ Key users participate in test design. ■ Thorough documentation of tests and results ■ Management agrees on business requirements. ■ Integrating process designs thoroughly

Avoid jargon, slang, and idioms (especially those that refer to culture, folklore, and sports). For example:

We'll have to *bite the bullet*.

You won't have to design your program *from scratch* (a track and field sports expression).

Humor varies across cultures and may be taken literally. Avoid irony and sarcasm, which can contain hidden linguistic as well as cultural dangers. For example:

Sorry for sending you the wrong doc—*you must think that I can't read* (irony).
Sorry to hear that your disks were stolen. *You must have loved that* (sarcasm).

2.3.12 Conciseness

Concisely written material is easier to read than verbose material. Readers can get to the pertinent information quickly. Conciseness also saves time and money during translation.

Correct	Incorrect
Use the NUMBER data type to ...	You can use the NUMBER data type to ...
This section summarizes ...	This section serves as a summary ...
These examples show how to use the INV utility to ...	The examples that follow show you how to use the INV utility to ...
To add a new user ...	In order to add a new user ...
To add a new community ...	In the event that you need to add a new community ...
Format the document before you index it.	We suggest that you format the document before indexing it.

Exception: Do not omit the use of the transitional *that*. Use *that* to clarify meaning (particularly for translation purposes). For example: *In the event that you need ...* not *In the event that you need ...*

2.3.13 Proper Use of Words or Phrases

Avoid the temptation to turn an existing phrase into a newly invented, or erroneously used but popular, word or phrase.

Correct	Incorrect
To avoid system failure ...	To avoid meltdown ...
Most important, unplug the machine before lifting the safety cover.	Most importantly, unplug the machine before lifting the safety cover.

Avoid creating verbs, for example by arbitrarily adding suffixes such as *-ize* to nouns or by using an adjective such as *obsolete* as a verb. The incorrect or nonexistent verbs might be difficult to translate.

Correct	Incorrect
Minimize the window to an icon.	Iconize the window.

Correct	Incorrect
The parameter was made obsolete in a previous release.	The parameter was obsoleted in a previous release.

2.3.14 Clearly Defined Terminology

Terms new to the reader, including acronyms and other abbreviations, must be defined. Use the following guidelines for defining terms:

- Include definitions in the text or in a glossary or both.
- Include synonymous terms in the glossary and index to help readers locate entries that are listed under unfamiliar names.
- Ensure that new terms are compatible with each other and with existing terms.
- Do not use circular definitions of interrelated terms. See [Section 11.2.3.2](#).

See [Chapter 7](#) for more information about terminology and [Chapter 10](#) for more information about glossaries.

2.3.15 Appropriate Information

Ensure that your information is appropriate for the readers and for the type of document that you are writing. Do not include information about products or features that may be added or removed in future releases because doing so may put Oracle at legal risk.

2.4 Summarizing the Guidelines for Writing

[Table 2–1](#) provides a quick reminder of the writing guidelines.

Table 2–1 Summary of Guidelines for Writing

Section	Topic	Guidelines
Organizing Your Information	Estimating and Planning the Documentation Project Outlining Your Information Making Information Easy to Find Creating Overviews and Introductions	Create a documentation plan. Create an outline of your information. Write headings that clearly identify the types of topics. Write an introduction to provide a preview of the <i>whole and its parts</i> . Write an overview to provide background information on a more specific topic.

Table 2–1 (Cont.) Summary of Guidelines for Writing

Section	Topic	Guidelines
Presenting Information Visually	Lists	Create lists to organize, clarify, and emphasize information. Use numbered lists when order is significant. Use unnumbered lists when order is not significant.
	Tables	Create tables to present statistical information or facts that you can structure uniformly and present clearly and concisely. The structure of the table itself conveys meaning.
	Examples	Provide examples to make concepts more clear and usable.
	Illustrations	Create illustrations to show relationships or concepts.
Using Basic Writing Principles	Global Writing	Write for a global audience.
	Active Voice	Use active voice.
	Present Tense	Use present tense.
	Neutral Tone	Create a neutral tone.
	Complete Sentences	Write complete sentences, not sentence fragments.
	Positive Sentences	Write positive sentences to avoid confusion.
	Strong Sentences	Write sentences in subject-verb-object order.
	Short Sentences	Write short sentences of fewer than 25 words whenever possible.
	Short Paragraphs	Write paragraphs with a maximum of 3 to 6 sentences.
	Consistency	Use product names and terms consistently.
	Clarity	Write clearly and avoid ambiguous phrases.
	Conciseness	Omit unnecessary words.
	Proper Use of Words or Phrases	Avoid creating words or phrases.
	Clearly Defined Terminology	Define all new terms.

3

Components of a Document

Documents (in a more general sense, not just books) are made up of various components.

This chapter contains the following sections:

- [Section 3.1, "Headings"](#)
- [Section 3.2, "Cross-References"](#)
- [Section 3.3, "Lists"](#)
- [Section 3.4, "Tables"](#)
- [Section 3.5, "Examples"](#)
- [Section 3.6, "Notes, Caution Notices, and Warning Notices"](#)

3.1 Headings

Headings are major entry points that help readers find information.

Use consistent heading styles to identify the kind of information that follows. If your document uses special formatting for code or other programmatic elements, then do not change the default font for the heading. [Table 3–1](#) suggests one possible set of heading styles.

Table 3–1 Matching the Topic Type and Heading Style

Topic Type	Heading Style
Concept	Use keywords: <i>About</i> the Novo Manager <i>Overview</i> of Ports and Proxies <i>How</i> the Repository Manages Proxies
Procedure	Use gerunds as verbs: <i>Creating</i> a New Message <i>Sending</i> Attachments Within the topic, begin the actual steps with the infinitive phrase: "To create a message:"
Reference	Use nouns and noun phrases: Message API Classes or AUDIT_TRAIL Parameter

When writing headings, remember the following guidelines:

- Do not follow one heading with another without having intervening text. Provide an explanation of the content that follows.

- Use first-level and second-level headings freely.
- Use third-level headings when essential.
- Avoid fourth-level headings if you can.

Exception: Fourth-level headings may be necessary in reference documentation where a set of fourth-level headings is repeated for each similar topic.

Research shows that readers can hold the relationship between first-level and second-level headings, but third-level headings are too far removed from the associated first-level heading for them to make the connection easily. In online documentation, limitations in screen size can mean that higher-level headings are not visible at the same time as lower-level headings.

A single topic in a chapter or a single second-level heading after a first-level heading can often indicate an organization problem. A chapter that is subdivided should have at least two sections. In some cases, a single first-level heading might be unavoidable. Check the table of contents for single-level headings, and check the text to see whether single sections can be divided or combined with previous subsections.

3.2 Cross-References

A cross-reference points the reader to pertinent information in another place. A typical cross-reference takes the following forms:

"For more information about *subject*, see *reference*."
"See *reference* for more information about *subject*."

By supplying effective cross-references in printed and online documentation, you can:

- Provide quick access to related information in the document
- Reduce unnecessary duplication in the document
- Expand the reader's knowledge beyond a single document
- Identify relationships among products and documents

Although a cross-reference provides information, it also interrupts the flow of communication. Therefore, ensure that each cross-reference is relevant, useful, accurate, and succinct. Do not use a cross-reference to replace information that is critical to the reader's understanding of a topic, is *very brief*, or that provides a caution or warning. Instead, provide the brief or critical information immediately.

Because documents are produced in both printed and online forms, design your cross-references to be effective in both environments. If your authoring tool has an automated cross-referencing capability, then use it to create all cross-references. This capability ensures that these cross-references will be updated automatically as you revise your document and that they will convert correctly for printed and online forms.

In general, there are two types of cross-references: *see* and *see also*. A *see* cross-reference provides links to critical information that is too lengthy to include in the text. A *see also* cross-reference provides links to information that is helpful but not absolutely necessary.

The amount of information that you provide and the format of the cross-reference depend on the type of cross-reference. For guidelines for the types of cross-references, see the following sections:

- [Section 3.2.1, "References Within the Same Document"](#)
- [Section 3.2.2, "References to Another Document"](#)
- [Section 3.2.3, "References to a Website"](#)

3.2.1 References Within the Same Document

A reference to a topic within the same document can be precise. Your cross-reference can include details such as page numbers and the titles or numbers of chapters, section numbers or headings, tables, examples, illustrations, and so forth. When you plan cross-references within the same document, consider the capabilities of your authoring tools, for example:

For more information about logical database structures, see Section 1.3.
 For a list of the manuals in the Oracle Rdb documentation set, see Table 1-1.
 See the section "Logical Database Structures" for more information about tablespaces.

Note: When you use numbered items, create cross-references that use the number, for example, Table 1-1 or Section 5.6.

Omit nonessential information from cross-references. For example, you can usually omit the title in cross-references to *numbered* chapters, sections, illustrations, tables, or examples. In most cases, the extra text slows reading and provides little, if any, navigational help. Before you include information in a cross-reference, consider how it will affect the reader. For example, to explain the organization of a document, you might use the combination of chapter number and title. In this case, both the sequence and the content are important, and the reader is served by the inclusion of both chapter number and chapter title.

3.2.1.1 Referring to Numbered Parts of a Document

If sections are numbered, then make cross-references to text in the same document by chapter number, appendix letter, or section number. Use the most specific section number that applies to the text to which you want to refer. For example:

For information about the AIJ log server, see Section 1.2.3.3.
 Appendix D contains a numeric list of error messages.
 For the database shutdown checklist, see Section B.2.

Note that the preceding section cross-references do not contain chapter number or section title information. When you refer to a numbered section within the same document, do not specify the chapter number or section title in the cross-reference.

Correct	Incorrect
Figure 10-1 and Table 10-1 show and describe window elements and controls.	Figure 10-1, "Window Elements and Controls," and Table 10-1, "Window Elements and Controls," show and describe window elements and controls.
For more information about elephants, see Chapter 2.	For more information about elephants, see Chapter 2, "Really Big Animals."

Correct	Incorrect
For a summary of quarterly sales figures, see Section 4.2.	For a summary of quarterly sales figures, see Section 4.2, "Quarterly Sales Report."
This document is organized as follows:	This document is organized as follows:
<ul style="list-style-type: none"> ▪ Chapter 1, "Reading" ▪ Chapter 2, "Writing" ▪ Chapter 3, "Arithmetic" 	<ul style="list-style-type: none"> ▪ Chapter 1 ▪ Chapter 2 ▪ Chapter 3

When you refer to an appendix, chapter, example, illustration, or table by number, use an initial capital letter for the document component. For example:

For more information about the replication startup procedure, see Chapter 2.
See Table 3-2 for the LRS replication startup functions.
See Example 2-3 for an example of the dump header information.

3.2.1.2 Referring to Unnumbered Parts of a Document

If sections are unnumbered, then refer to the title of the section and to the chapter number, appendix letter, or page number. For example:

See "Server Models" in Chapter 1.
See the "Unsupported Features" section in Appendix A.
See the "Standby Database" section on page 2-8.

A page number for the cross-reference is especially helpful for documents with lengthy chapters or sections.

Note: Remember that page numbers do not appear in an online format.

3.2.1.3 Including Page Numbers

Provide page numbers as part of a cross-reference only when the following conditions are true:

- The document uses unnumbered headings, and the page number is a necessary and helpful aid to navigation.
- The authoring and conversion tools used in document preparation can remove page references from documents converted to an online format.

If you decide to provide a page number as part of your cross-reference, then you must consider the effect of conversion to an online format on your document and write the cross-reference accordingly. For example, although the page number may be removed automatically during conversion to an HTML format, unless you carefully position the page number in the source, the converted document may retain undesirable remnants of it. Avoid the following problems:

- [Stranded Punctuation](#)
- [Page-Only Cross-Reference](#)

3.2.1.4 Stranded Punctuation

Commas and periods belong inside quotation marks. Place your page number references so that their removal during online conversion does not leave improperly placed punctuation. The example in the Incorrect column shows how punctuation can

be left stranded outside the quotation marks following conversion of a document to an HTML format.

Correct	Incorrect
Before conversion: See "Working with Analyses" on page 2-18 for more information.	Before conversion: See "Working with Analyses" on page 2-18.
After conversion: See "Working with Analyses" for more information.	After conversion: See "Working with Analyses".

3.2.1.5 Page-Only Cross-Reference

A **page-only cross-reference** is a cross-reference that consists solely of a page number, as shown in [Table 3-2](#).

Table 3-2 Page-Only Cross-References in Printed Documents (Incorrect)

For More Information About . . .	See . . .
Biology	page 27
Chemistry	page 59
Engineering	page 85

A page-only cross-reference disappears or becomes meaningless when the document is converted to an online format such as HTML, as shown in [Table 3-3](#).

Table 3-3 Page-Only Cross-References in HTML Documents (Incorrect)

For More Information About . . .	See . . .
Biology	
Chemistry	
Engineering	

Do not use page-only cross-references. Instead, use the correct form shown in [Table 3-4](#). In this form, the page numbers supplement other information.

Table 3-4 Page Number Cross-References with Supplementary Information in Printed Documents (Correct)

For More Information About . . .	See . . .
Biology	"Facts on Biology" on page 27
Chemistry	"Facts on Chemistry" on page 59
Engineering	"Facts on Engineering" on page 85

Because the page numbers in [Table 3-4](#) provide only supplementary information, the table remains usable when the page references are removed for the online format, as shown in [Table 3-5](#).

Table 3–5 Page Number Cross-References with Supplementary Information in HTML Documents (Correct)

For More Information About . . .	See . . .
Biology	"Facts on Biology"
Chemistry	"Facts on Chemistry"
Engineering	"Facts on Engineering"

3.2.2 References to Another Document

If your authoring tool can create a deep link (a link that goes directly to a section in another Oracle document), then use a deep link for the cross-reference. However, if your authoring tool cannot create a deep link, then, when you refer to another Oracle document, keep your cross-reference simple. If you must create a cross-reference to another Oracle document or to a document that was produced by another company (an external document), then provide only enough information to move the reader to the correct document. Usually, a document title is sufficient when you provide a cross-reference to another Oracle document. Do not specify chapter titles, section headings, page numbers, part numbers, release numbers, or other such details in a cross-reference to another Oracle or an external document. Instead, rely on the table of contents, index, or other navigation tools of that document to guide the reader. For external documents, provide the title, author, publisher, and year of publication, as shown in the following examples in the Correct column.

Correct	Incorrect
To add a user to the Identity domain, see "Managing Users and Roles" in <i>Getting Started with Oracle Application Security</i> .	To add a user to the Identity domain, see <i>Getting Started with Oracle Application Security</i> .
For guidance on how to prepare accurate estimates, see the information about creating project plans in <i>Managing Your Documentation Projects</i> by JoAnn T. Hackos (John Wiley & Sons, 1994).	For guidance on how to prepare accurate estimates, see Chapter 8, "Creating the Project Plan," in <i>Managing Your Documentation Projects</i> by Dr. JoAnn Hackos.
For more information about installing the Oracle Capacity Planner data cartridges on a host, see <i>Oracle Enterprise Manager Configuration Guide</i> .	For more information about installing the Oracle Capacity Planner data cartridges on a host, see Chapter 4, "Pack Configuration," in <i>Oracle Enterprise Manager Configuration Guide</i> , Release 1.5.5 (Part Number A57696-02).

3.2.3 References to a Website

The contents and setup of a website can change at any time. Thus, keep your cross-reference simple. Provide only the URL and the title of the website. Rely on the navigation tools of the website or the browser to guide the reader. When you provide a cross-reference to a website in printed documentation, include the complete URL. Do not introduce a URL with the word *link*. (See Section 6.7.)

Provide the reader with both the URL and title of the website as shown in the following example.

Correct	Incorrect
<p>For a list of the Oracle documentation available in HTML and PDF formats, visit the Oracle Database Documentation website at http://example.com/11/111/index.htm</p>	<p>For a list of the Oracle documentation available in HTML and PDF formats, visit this link Oracle11g Documentation Website.</p>

3.3 Lists

Lists help organize, clarify, and emphasize information. In technical documentation, lists are used to:

- Identify distinct items of equal importance
- Break up the text visually
- Identify sequential steps
- Compress wording that might become repetitive or confusing
- Help readers check completion or resolution of items
- Group cross-references

For more information about lists, see the following sections:

- [Section 3.3.1, "General Guidelines for Lists"](#)
- [Section 3.3.2, "Choosing Between Embedded and Display Lists"](#)
- [Section 3.3.3, "Choosing Between Numbered and Unnumbered Lists"](#)
- [Section 3.3.4, "Introducing a Display List"](#)
- [Section 3.3.5, "Formatting a Display List"](#)

3.3.1 General Guidelines for Lists

The following general guidelines apply to creating lists:

- Introduce each display list with a sentence fragment, sentence, or paragraph.
- Introduce each embedded list with a complete sentence.
- Include at least two list entries in the display list. Do not use single-entry lists.
- Use parallel construction.
- Make all display list entries either complete sentences or sentence fragments. Do not mix types.
- Make all display list entries of similar length.
- Use imperative statements when describing an action or a task in a display list.
- Use the appropriate punctuation.
- Limit nested display lists to three levels.
- Limit list entries in a list to a number that can be readily viewed and understood. Research suggests limiting display and embedded list size to seven list entries, plus or minus two. Lists that extend over multiple pages can burden a reader's comprehension and patience.

3.3.2 Choosing Between Embedded and Display Lists

You can arrange a list horizontally within the text (an **embedded list**) or separate it from the text in a vertical presentation (a **display list**).

3.3.2.1 Embedded Lists

An embedded list presents a list of items within the body of a paragraph. The embedded list has limited use in technical documentation. It can be numbered or unnumbered. It can be used to group a few long items or a brief series of short, simple items without breaking up the text, as shown in the following examples:

The package includes a printer, a printer cable, an instruction manual, an ink cartridge, and a box of paper.

The care of a clay tennis court involves the following steps: (1) weeding, (2) raking, (3) watering, and (4) rolling.

Embedded lists take up less space than display lists. However, embedded lists are more difficult to read and comprehend than display lists and thus are used less frequently in technical documentation. Punctuate embedded lists according to traditional guidelines for sentence punctuation. See [Section 3.3.5.2](#).

3.3.2.2 Display Lists

A well-constructed, carefully positioned display list speeds comprehension and helps readers to locate, understand, and retain information. These lists also provide visual variety in a document. Compare the following display list to the embedded list in the previous section. Note how the items stand out in the display list.

The care of a clay tennis court involves the following steps:

1. Weeding
2. Raking
3. Watering
4. Rolling

3.3.3 Choosing Between Numbered and Unnumbered Lists

You can choose between a *numbered list* and an *unnumbered list*.

3.3.3.1 Numbered Lists

Use a numbered list when order is significant or when a series is suggested. Numbered lists are also known as *ordered lists*. Use numbered lists for step-by-step instructions.

Correct	Incorrect
To start the race, shout the following commands: <ol style="list-style-type: none">1. Take your mark.2. Get set.3. Go.	Choose one of the following tasks: <ol style="list-style-type: none">1. Print a document.2. Modify a document.3. Delete a document. <p>In the previous example, sequence does not matter. It is not necessary to number each list entry. These entries belong in an unnumbered list.</p>

3.3.3.2 Unnumbered Lists

Use an unnumbered list when order is not significant and when all entries are of equal importance. Unnumbered lists are sometimes called *bulleted lists*, because a bullet is often the symbol used to identify each list entry. However, not all unnumbered lists are bulleted lists. Some very simple display lists do not use any symbols before the list entries. These *simple lists* are often used for keywords or commands. In other cases, such as a checklist, the symbol serves a special purpose. Use special symbols sparingly, to avoid possible print-to-online conversion or translation problems. [Example 3–1](#), [Example 3–2](#), and [Example 3–3](#) show different types of unnumbered lists.

Example 3–1 Display List That Uses Bullets

The classroom setting provides:

- Personal computers
- Printers
- Access to the World Wide Web

Example 3–2 Display Lists Without Markers

The switch positions are:

On
Off
Locked

You cannot use the following statements if a transaction is in process:

ALTER DATABASE
CREATE DATABASE
DROP DATABASE

Example 3–3 List with Special Symbols

Before you begin, ensure that your kit is complete. It should contain the following parts:

- Slotted screws (6)
- Wheel assemblies (2)
- Tube of glue (1)
- Brass fasteners (8)

3.3.4 Introducing a Display List

Introduce each display list with a grammatically independent sentence or fragment. You can also introduce a display list with an infinitive phrase.

In the lead-in text, avoid specifying how many entries are in the list. The number of list entries is obvious to the reader and is likely to change with each revision. The product with "the following three requirements:" at draft time is likely to have five or two requirements by the final product release.

When you precede the list with a complete sentence, you can end the lead-in text with either a colon (:) or a period (.). Choose a colon to end the lead-in text when the list entries are a natural extension of that text. The words *the following* or *as follows* often signal the need for a colon. However, if the sentence that introduces the list does not immediately precede the list entries, then end the final sentence with a period.

When you precede the list with a sentence fragment, always end the lead-in text with a colon.

[Example 3–4](#) shows correct introductions to lists.

Example 3–4 Introductions to Lists

The list of topics has the following characteristics:

- It contains only the topic titles.
- The topic titles are capitalized in title case.

Delimiter options are as follows. Note that the values specified must be unique.

- Prefix=string
Specifies a prefix string that begins any column value in the ASCII input file.
- Separator=string
Specifies a string that separates . . .

3.3.5 Formatting a Display List

Each display list must contain at least two entries but should not contain more items than can be readily viewed and understood. Research suggests limiting list size to seven entries, plus or minus two. If the entries are particularly long or complicated, then even five entries may be too many. Lists that span multiple pages are hard to follow and understand.

All entries in a display list should have parallel construction. For example, if one entry in the list is a sentence, then all other list entries should be sentences.

When the lead-in text to the list is a sentence fragment, each list entry must complete the sentence started by the lead-in text.

Correct	Incorrect
To remove an Oracle product: <ol style="list-style-type: none">1. Stop all Oracle services.2. Start Oracle Installer.3. Select the product that you want to remove.4. Click Remove.	To remove an Oracle product: <ol style="list-style-type: none">1. Stopping all Oracle services2. Starting Oracle Installer3. Selecting the product that you want to remove4. Clicking Remove

Occasionally, a display list entry is followed by explanatory text. Consider using one of the following methods to separate explanatory text from list entries:

- When the list entry is a step, present the explanatory text as a new paragraph following the step. The explanation retains the indentation of the step, but it begins on a new line, as shown in [Example 3–5](#).
- When the list entry is a short phrase or a single word, separate the list entry from the explanation with a period (.) or a colon (:), as shown in [Example 3–6](#).

Example 3–5 Explanatory Text After List Entries

The trademark approval process includes:

1. Choosing the name

- The name should be . . .
2. Securing preliminary approval from the Legal Department
- Approval is required . . .

Example 3-6 Explanatory Text Within List Entries

The types of dashes were named according to their length:

- Em: The linear measure of the point size of the type. A 10-point em dash is 10 points wide.
- En: Half the measure of an em dash.

Note: Although em dashes are sometimes used to separate a list entry from its explanation, *Oracle Style Guide* does not recommend their use. Em dashes may present problems for online conversion or usability.

Often, ordered lists are used for procedures. If a procedure has an optional step, then place the word *Optional* within parentheses before the text of the step, as shown in the following example:

1. (Optional) Log in to the system as the system administrator.
2. Stop all Oracle services.
3. Start Oracle Installer.
4. Select the product that you want to remove.
5. Click **Remove**.

3.3.5.1 Capitalization

Begin the first word of each display list entry with a capital letter, as shown in [Example 3-7](#).

Example 3-7 Capitalization in Lists

Use the following questions to gather information:

- Who?
- What?
- When?
- Where?
- Why?

However, if a list contains cross-references to section titles, then the list entries will retain the title capitalization style. In this case, use the list introduction to indicate that what follows is a list of sections. For example:

This chapter contains the following sections:

- Title of First Section
- Title of Second Section

3.3.5.2 Punctuation

Treat each list entry as a distinct element; do not connect display list entries with one another using conjunctions or punctuation.

Correct	Incorrect
Resources for this course include: ■ The user's manual ■ A quick reference card ■ The instructor	Resources for this course include ■ The user's manual, ■ a quick reference card, and ■ the instructor.

Final punctuation is not required unless at least one list entry is a complete sentence, in which case, use final punctuation for all entries. In the following table, because the list entries in the first example in the Correct column are imperative sentences, they require final punctuation.

Correct	Incorrect
If your client applications cannot recover dynamically, then you must: 1. Reconnect manually. 2. Resubmit any transactions that were rolled back. Server node failures affect only those users and applications: ■ That are directly connected to the failed node ■ Whose transactions were being handled when the node failed	If your client applications cannot recover dynamically, then you must: 1. Reconnect manually 2. Resubmit any transactions that were rolled back Server node failures affect only those users and applications: ■ That are directly connected to the failed node. ■ Whose transactions were being handled when the node failed.

3.3.5.3 Nested Lists

If your list contains another list (a **nested list**), then follow the guidelines for numbered and unnumbered lists to determine the most appropriate style for the nested list. A nested list does not automatically assume the style of the list that contains it. In [Example 3–8](#), although the entries in the main list are sequential (and therefore numbered), the entries in the nested list are not sequential (and are therefore unnumbered). In [Example 3–9](#), both the main list and the nested list contain sequential information and require the ordered list type.

Example 3–8 Nested Numbered and Unnumbered Lists

To estimate the trade-in value of your car:

1. Record the average trade-in value for the year and make of your car.
2. Increase the trade-in value to reflect additional equipment found on your car.
3. Adjust the trade-in value for mileage that is greater than or less than average.
 - If the mileage of your car is greater than average, then subtract 14 cents for every mile above the range.
 - If the mileage of your car is less than average, then add 14 cents for every mile below the range.
 - If the mileage falls within the average range, then make no adjustment.

Example 3–9 Nested Ordered Lists

The trademark approval process includes:

1. Choosing the name
2. Securing preliminary approval from the Legal Department
 - a. You provide justification and background to the Legal Department.
 - b. The Legal Department searches the database for registered and pending trademarks.
 - c. The Legal Department issues preliminary approval.
3. Securing approval from your Senior Vice President and forwarding it to the Legal Department
4. Securing final approval from the Legal Department

Do not nest lists more than three levels deep. Usually, your authoring tools and templates provide the appropriate list entry symbols. One typical progression in printed copy is bullet, en dash, asterisk. However, the symbols that you see on the printed copy are likely to be different in online (HTML) output. In fact, the online output varies according to the browser and the operating system.

[Table 3–6](#) shows how a three-level, unnumbered, nested list might appear in different viewing formats.

Table 3–6 Display of a Three-Level Nested List

Displayed in . . .	Level 1	Level 2	Level 3
Printed copy	Square solid bullet	En dash	Asterisk
HTML viewed with Browser A	Round solid bullet	Round hollow bullet	Square solid bullet
HTML viewed with Browser B	Round solid bullet	Round solid bullet	Round solid bullet

3.4 Tables

Tables are an effective method for presenting statistical information or facts that you can structure in rows and columns. For more information about tables, see the following sections:

- [Section 3.4.1, "Using Tables"](#)
- [Section 3.4.2, "Choosing Between Formal and Informal Tables"](#)
- [Section 3.4.3, "Designing a Table"](#)
- [Section 3.4.4, "Cross-Referencing a Table"](#)
- [Section 3.4.5, "Capitalizing and Punctuating Table Elements"](#)
- [Section 3.4.6, "Naming a Formal Table"](#)
- [Section 3.4.7, "Including Other Elements in Tables"](#)
- [Section 3.4.8, "Reviewing Your Table"](#)

3.4.1 Using Tables

By using a table, you can present a lot of information in a structured form. Tables can provide a clearer, more concise picture of the relationships among items than can be

described in words alone. The structure of the table itself conveys meaning. Data is arranged in two or more columns so that the information in the first column relates specifically to the information in the other columns. Contrast the tables in this section with a multicolumn list, such as the one provided in [Section 5.8](#) to show measurements and time. In the multicolumn list, no relationship exists among the data in the columns.

Note: Do not confuse authoring tool formatting with function. In some authoring tools, such as FrameMaker, you can create table-like material using a simple table structure instead of tab stops. For example, a multicolumn list might be created as an informal table in FrameMaker, but it still functions as a multicolumn list.

When you create a table, think of the information that it will contain from the reader's point of view. Structure your table so readers can easily find the information that they need. If a table seems too complex or difficult to follow, then break it into two tables. You may also want to present the same information in different tables for different readers.

Do not use a table for formatting purposes. If a table cannot be read from left to right, top to bottom, then it is being used for formatting purposes. Make the relationship between table rows and columns clear.

3.4.2 Choosing Between Formal and Informal Tables

Not every table requires a table number and title. If you refer to a table more than once in text or if you want the table to appear in the table of contents, then use a formal table. A **formal table** is labeled with a number and a title. You can use the number of the table to refer to it in text. If you place a table immediately following the text where you refer to it and you do not refer to that table again, then you may want to use an **informal table**. An informal table has a columnar structure but no number or title. **Formal** (titled) and **informal** (untitled) tables serve different functions for the reader, as shown in [Table 3-7](#) and [Table 3-8](#). [Table 3-7](#) explains when to use a formal table rather than an informal table.

Formal tables are considered to be more accessible than informal tables, because formal tables have associated titles. (See [Section 6.5.6](#).)

Table 3-7 When to Make a Table Formal

If . . .	Then . . .
You refer to the table from elsewhere in the text	Use a formal table. Provide a cross-reference from the text. (See Section 3.2 for more information.)
Information in the table should be indexed	Use a formal table and provide one or more appropriate index entries.
An entry for the table should appear in the table of contents	Use a formal table and list it in the table of contents.
The table is large and could exceed one page in a printed document	Use a formal table. Indicate that the table is continued on or from another page.
The table needs a title	In general, use a formal table. Although you can provide a title for an informal table, most authoring tools do not keep the title and table together when the table exceeds one page in length in printed documentation.

Use [Table 3–8](#) to compare the different attributes of formal and informal tables. [Table 3–8](#) is a formal table. [Section 3.2.3](#) contains a wide, informal table.

Table 3–8 Characteristics of Formal and Informal Tables

A Formal Table	An Informal Table
Is clearly separated from the text	Is not necessarily clearly separated from the text
Is numbered and titled (labeled)	Is unnumbered and untitled
Is listed in the table of contents	Is not listed in the table of contents
Is likely to be referred to from other sections of the document	Is generally not referred to from other sections of the document
Typically contains specific, factual, concrete information	Typically contains background, parenthetical, or illustrative information
Is introduced by a formal cross-reference	Is introduced by informal lead-in text, without a cross-reference
Is allowed to span multiple pages if continuations are labeled	Should not span multiple pages

3.4.3 Designing a Table

Consider the following factors when you design your table:

- What table design will you use to display your data?
- How will you structure the table?
- How will you manage a wide table or a long table?
- How will you format information within the table?
- How will you present column headings?
- Does your table require a table legend or footnotes?

3.4.3.1 Choosing a Table Design

Tables are intended to present a lot of information that can be easily scanned and understood. When you design a table, you decide how to arrange the table elements and how to display them. For example, a simple table, shown here, has no title, horizontal rules, or headings. White space is the only separator between rows and columns in a simple table.

[Example 3–10](#) shows a simple table, which lists some elements available in the DARB SGML templates.

Example 3–10 Simple Table

Text+	XRef+
Emphasis+	IndexTerm#

White space is an effective separator in many tables. Most tables in *Oracle Style Guide* use horizontal rules only at the top and bottom of the table; white space is used for all

other separations. For very complex tables, however, horizontal or vertical rules, or both, may provide the most effective presentation of data. According to *The Chicago Manual of Style* (The University of Chicago Press, 2010), vertical rules should not be used unless they are required for clarity. If you are uncertain about the need for additional rules, then omit them.

You can choose from a variety of table designs. Use the information in [Table 3–9](#) to make informed choices.

Table 3–9 Table Design Choices

Design Features	Benefits	For Example
Unruled. No title. No column headings.	Provides a tabbed appearance without tabs. Note: This type of table formatting is not recommended because of accessibility issues.	See Example 3–10 .
Horizontal rules above and below the column headings and below the last table row separate the table from surrounding text. No rules between rows.	Provides a simple, uncluttered look and efficient use of space. Good for tables with rows of single-line text.	See Table 3–11 .
Horizontal rules above and below the column headings and below the last row separate the table from surrounding text. Horizontal rules separate each row.	Provides clear separation in tables with multiline rows. Use for complex information, cells containing lists, and where some table cells are empty.	See Table 3–9 (this table).
Horizontal rules above and below the column headings and below the last row separate the table from surrounding text. Horizontal rules and vertical rules separate each row and each column.	Provides distinct table cell separation. Use for very complex information, where tables have many columns and rows have many text lines.	See Table 3–12 .

3.4.3.2 Structuring a Table

Tables must have at least two columns. Headings are used to clearly and concisely label the rows or columns, or both. When headings are used to label columns, they are called **column headings**, and they occupy the topmost row of the table. When headings are used to label rows, they are called **row headings** and they occupy the leftmost column of the table. Tables in English are read from left to right and from top to bottom. Put the best-known or most-used information in the leftmost column.

Generally, tables are easier to read when you can see all column headings at one time. If you have many columns across and fewer rows down, then you might have created a poor table design. Remember to keep together in rows (not columns) the information that the reader must see or use together. For example, consider [Table 3–10](#). Its many columns make it difficult to scan. Note also that the first column heading is missing. In fact, it is difficult to accurately describe the contents of the first column in [Table 3–10](#). Noting these difficulties, review the design and reconstruct the table as shown in [Table 3–11](#).

Table 3–10 Poor Table Design

Food Item						
	Biscuits	Bread	Brownies	Cake	Cookies	Tarts
Oven temperature (degrees F)	450	400	350	350	375	375
Cooking time (minutes)	12	45	25	60	10	40

Table 3–11 is faster for readers to scan because it has fewer columns than **Table 3–10**. In addition, note that the new design makes it easy for you to provide headings for all columns. Further, **Table 3–10** is not considered accessible to visually impaired readers who are using assistive technologies. For more information about accessibility and tables, see [Section 6.5.6](#).

Table 3–11 Improved Table Design

Food Item	Oven Temperature (Degrees F)	Cooking Time (Minutes)
Biscuits	450	12
Bread	400	45
Brownies	350	25
Cake	350	60
Cookies	375	10
Tarts	375	40

3.4.3.3 Managing a Wide Table in Printed Documentation

With most authoring tools, you can create tables that are wider than the usual printed text area. If you must create a wide table, then you must also position the table title to the new width on formal tables.

Tables with many columns seldom fit on a printed page unless they are turned sideways. Such *turnpage*, *landscape*, or *broadside* tables cause serious difficulties in traditional publishing. They are not allowed in Oracle documentation, because they do not convert to HTML format and they cause problems for authoring tools and publishing systems worldwide.

3.4.3.4 Managing a Long Table

If a table is long, complex, or difficult to follow, then break it into two or more tables. Long tables are difficult to understand. As readers move through a long table, they can lose context and forget content.

Sometimes, however, you must include a long table. If so, then you can take some of the following measures to help your readers:

- Use a formal table, with number and title.
- Use continuation notices whenever the table spans multiple printed pages.
- Keep the table on one page whenever possible.
- If your authoring tool allows it, then repeat the table number, table title, and column headings on tables that span more than one page. Indicate on the first page that the table is continued on following pages, and indicate on subsequent pages that the table is continued from preceding pages.

- If a legend, note, or footnote applies to more than one printed page of a multiple-page table, then repeat the relevant information on each page of the table whenever possible.

3.4.3.5 Formatting Information in a Table

When you create tables, remember to do the following:

- Use parallel text construction for phrasing the initial text entries in each column.
- Use sentence fragments to keep entries brief.
- Punctuate and capitalize entries consistently. See [Section 3.4.5](#).
- Align numbers in columns for ease of reading. Align whole numbers flush right. For decimal values, align the decimal points.
- Align multiple-line column headings at the bottom of the column heading, as shown in [Table 3-11](#).
- Align multiple lines of text within each column at the top of the row, as shown in [Table 3-7](#).
- Provide only enough horizontal or vertical rules to present information clearly.
- Avoid using all uppercase text for tables. Words are difficult to read when in all uppercase.

Note: Because the numbers in [Table 3-12](#) are not aligned, they are difficult to compare. The writer should have used the decimal point to align the numbers in this table.

Table 3-12 US Dollar Exchange Rate (Incorrect Table Format)

Country	Foreign Currency in Dollars on Monday	Foreign Currency in Dollars on Friday	Dollar in Foreign Currency on Monday	Dollar in Foreign Currency on Friday
Argentina	1.0001	1.0001	.9999	.9999
Australia	.5665	.5668	1.7652	1.7643
Denmark	.1799	.1800	5.5575	5.5551
Norway	.1736	.1739	5.7590	5.7575

3.4.3.6 Table Headings

The table headings (column headings and row headings) clearly and concisely describe the information in the column or row. Keep table headings brief, no more than a few words. Avoid empty table headings like the missing column heading in [Table 3-10](#). Follow the rules for title capitalization in your column headings and row headings. Good table headings are especially important to visually impaired readers. For more information about tables and accessibility, see [Section 6.5.6](#).

Move any text common to all columns or rows into the column headings or row headings. Include all relevant text in the table title, column headings, or row headings so readers are not required to skim adjacent paragraphs of text to find this information.

3.4.3.7 Table Footnotes and Table Legends

Readers must understand special symbols or abbreviations used in a table.

Traditionally, you provide this information in a boxed key or legend that is contained in the table. Provide the legend before the table, as opposed to after it, because visually impaired readers who use assistive technologies cannot scan ahead to see the legend.

Similarly, you can use superscript numbers to flag additional information for readers. These numbers within the table correspond to footnotes that follow the table. The footnotes provide the explanations that are unwieldy within the confines of the table.

3.4.4 Cross-Referencing a Table

Introduce each formal table with a complete sentence that ends in a period. Include the table number (the cross-reference) in the introduction. For more information about cross-references, see [Section 3.2](#).

Correct	Incorrect
Table 5-12 lists system requirements for different types of computers.	System requirements for different computers: The following table lists system requirements for different types of computers.

For informal tables, the most appropriate introduction style depends on the table size and degree of integration with the surrounding text. Small, simple informal tables may not need an introduction.

3.4.5 Capitalizing and Punctuating Table Elements

Use consistent capitalization and punctuation in the titles, headings, and text of your table, as explained in the following subsections.

3.4.5.1 Titles

Use title capitalization rules for table titles. Do not use final punctuation for table titles. For more information, see [Section 5.3.3](#).

3.4.5.2 Table Headings

Follow the rules for title capitalization in your column headings. Do not use final punctuation for column headings.

Use sentence capitalization for row headings. Do not use final punctuation in row headings.

3.4.5.3 Row and Column Contents

Use sentence capitalization for the row contents even if the contents are not complete sentences.

Try to present items in a column in a consistent style: either all fragments or all sentences. Then punctuate accordingly, ending sentences with periods and omitting final punctuation after fragments. When presenting all fragments or all sentences is not possible, use the following guidelines:

- When a column in a table contains rows of sentence fragments and rows of complete sentences, do not include periods after the fragments, but do include periods after the sentences.

- When the text in the table begins with a sentence fragment and continues with one or more complete sentences, do either of the following:
 - Place the complete sentences within parentheses and punctuate within the parentheses.
 - Use sentence punctuation for all sentences and fragments, as shown in [Table 3-9](#).

3.4.6 Naming a Formal Table

A formal table requires a title and a number. Place the table title above the table and align it with the leftmost edge of the table. By positioning the title before the table, you prepare readers for the information in the table.

3.4.6.1 Creating Table Titles

The title should identify the table briefly and uniquely. Avoid starting table titles with articles. Use precise wording to clearly indicate what information the table contains. Do not include background information or announce conclusions in the table title.

Correct	Incorrect
Failure Rate of Systems (by Year)	High Failure Rate Found in Pre-1990 Systems

Use heading-style capitalization rules for table titles, with no final punctuation. For more information, see [Section 5.3.3](#).

Ensure that the title is unique within the document. Eliminate duplicate titles. Although the titles sometimes make sense within the context of a chapter or section, duplicate titles make it difficult for readers to locate the desired information from the table of contents. For more information, see [Section 3.1](#).

Correct	Incorrect
Table 2-1 Default Settings for Dispatcher Object Attributes	Table 2-1 Default Settings for Object Attributes
Table 3-4 Default Settings for Server Object Attributes	Table 3-4 Default Settings for Object Attributes

For chapter-oriented documents, structure table titles in the form *Table N-n Title* where *N* is the chapter number, *n* is the next consecutive number of the table within the chapter, and *Title* is the title of the table. (In single-chapter documents, *n* replaces *N-n* in the example.) Use heading-style capitalization with no final punctuation for table titles.

Correct	Incorrect
Table 1-1 Software Requirements	Table 1-1 List of requirements for the Oracle Financial Analyzer decision support software.

3.4.7 Including Other Elements in Tables

You can include lists, illustrations, notes, and other elements in tables, as explained in the following sections. However, simplicity and clarity are keys to a useful table. Do not complicate your table with too many visual elements.

3.4.7.1 Numbered and Unnumbered Lists

Numbered and unnumbered lists can be used in tables and are formatted the same way that they are in regular text. Do not create lists with more than one level within tables.

3.4.7.2 Illustrations

When you place an illustration in a table, pay particular attention to the size of the illustration. Find a compromise between sizing the illustration for optimal legibility and its relationship to the text elements of the table.

3.4.7.3 Cross-References

Do not use page-only links when you include cross-references in tables. For more information, see [Section 3.2.1.5](#).

3.4.7.4 Empty Table Cells

Do not leave table **cells** (intersection of a column and a row) empty. Empty table cells can cause problems for users of screen readers. For more information about creating accessible tables, see [Section 6.5.6](#).

If there is no data for a particular cell, then insert the words *Not applicable* or the letters *NA*.

If the quantity in a cell is zero, then insert the numeral 0.

In a comparison table, if a feature or item is not present, then insert the letter *N* or the word *No*.

3.4.7.5 Latin Abbreviations

Although *Oracle Style Guide* recommends avoiding Latin abbreviations, these abbreviations can be used in tables if space is very limited. Keep in mind that Latin abbreviations can be difficult to translate. For more information, see [Table 7–3](#).

3.4.7.6 Notes

When a note appears within a table cell and applies only to that particular cell, place the note in a separate paragraph in the cell. The label for these paragraphs generally consists of one word (for example, *Note* or *Result*). Present the label in boldface type and follow it with a colon.

If a note applies to the entire table, then place that item before or after the table. Do not span rows to include a note in a table.

3.4.8 Reviewing Your Table

After you have completed your table, examine it from the reader's point of view. When you review the table, ask yourself the following questions:

- Is the table designed for the appropriate audience?
- Can the table be shortened or broken into multiple tables?
- Should these column headings be row headings instead?
- Are column headings or row headings needed for clarity?
- Are table notes, footnotes, and legends clear and helpful?
- Does the table title accurately describe the content of the table?

- Should the table title be listed in the table of contents?
- Should the table subject be listed in the index?
- Are column headings short enough?
- Are numbers aligned by the decimal point?
- Are all horizontal and vertical rules necessary?
- Are capitalization and punctuation consistent throughout?
- Is the table visually balanced?
- Is the table structure consistent with the structure of other tables in the document that serve similar functions or contain similar information?
- Is the table introduced appropriately?
- Is the table accessible? For more information about making tables accessible, see [Section 6.5.6](#).

3.5 Examples

Examples make the theoretical concrete. Examples let readers compare their understanding of general descriptions or instructions to a real instance of what was described or explained.

For more information about examples, see the following sections:

- [Section 3.5.1, "When to Use Examples"](#)
- [Section 3.5.2, "Formal and Informal Examples"](#)
- [Section 3.5.3, "Introducing Examples"](#)
- [Section 3.5.4, "Values and Variables in Examples"](#)
- [Section 3.5.5, "Culturally Neutral Examples"](#)
- [Section 3.5.6, "Confidential Information"](#)
- [Section 3.5.7, "Code Examples"](#)

3.5.1 When to Use Examples

The following items might benefit from an example:

- Commands with many parameters
- A command with computer response
- Use of a graphical user interface (screenshots)
- Situations in which the use of a certain feature is beneficial
- Code (See [Section 3.5.7](#).)

3.5.2 Formal and Informal Examples

Examples can be formal or informal. That is, examples can have titles and be listed in the table of contents (formal examples), or they can be without titles or entries in the table of contents and be even more closely integrated into the text (informal examples).

3.5.2.1 Formal Examples

Use formal examples if the examples are long, or you give the reader cross-references to the example from various parts of the document. When you create formal examples with titles, the examples are easy to find, through both the List of Examples in the table of contents and cross-references within the document.

Be consistent in your choices. Within a single document, make all examples of over a certain length formal, and set them apart with titles. Make the titles concise and informative. Include a reference to the example before the appearance of the example, rather than after. When you refer to a formal example, use its number or title, as shown in the following table:

Correct	Incorrect
To see how an X.500 name looks, see Example 4-1.	To see how an X.500 name looks, see the following example:

Although ideally the example follows its reference closely, there might be some situations in which it is better to place it slightly farther away. For example, if the example consists of a long piece of code, then it might be better to place the example at the end of the section so that it can be read in one piece, rather than inserting it in the middle of the explanatory text.

3.5.2.2 Informal Examples

An informal example is more closely integrated with the text. If the example includes a line or more of commands or code, however, then separate it from the text that introduces it, as shown in [Example 3-11](#). Do not insert it into a sentence that continues beyond it, as shown in [Example 3-12](#).

Example 3-11 Correct Introduction for an Informal Example

For example, the following command determines the amount of time in seconds that the listener waits for a valid connection request after a connection is started:

```
LSNRCTL set connect_timeout 20
```

Example 3-12 Incorrect Introduction for an Informal Example

For example, in the following command,

```
LSNRCTL set connect_timeout 20
```

the arguments set the amount of time in seconds that the listener will wait for a valid connection request after a connection has been started.

3.5.3 Introducing Examples

Introduce each *formal* example with a complete sentence that ends in a period. Include the example number in the introduction. For more information, see [Section 3.2](#).

Informal examples are usually integrated with the surrounding text and may need no introduction other than a simple, "For example, . . ." If you refer to an example that is not immediately adjacent to the reference, then use the words *previous*, *preceding*, or *prior* rather than *above*, and use *following* or *subsequent* rather than *below*.

3.5.4 Values and Variables in Examples

Be careful to differentiate between values and variables in your examples. It is preferable to use values in an example. After all, it is the concreteness of the example that makes it meaningful. If you use variables in your examples, then avoid using a *where* clause when defining them. Instead, write something similar to the following:

In the preceding example, *listener_name* is the name of a listener.

Typically, you present information in general terms, followed by a specific example.

[Example 3-13](#) is an excerpt from a networking document in which the syntax of a command is presented first, followed by an example of its use.

Example 3-13 Differentiating Between Values and Variables

The Listener Control Utility, LSNRCTL, is a tool that you run from the operating system prompt to start and to control the listener. The general form of the Listener Control Utility is:

```
LSNRCTL command [listener_name] [args]
```

For example, the following command determines the amount of time in seconds that the listener will wait for a valid connection request after a connection has been started:

```
LSNRCTL set connect_timeout 20
```

In [Example 3-13](#), it would be less useful to mix variables and values, as in:

```
LSNRCTL set [arg]
```

Do not require the reader to make great leaps from the concrete to the abstract or from the specific to the general. That is, do not use examples as a way of avoiding an explanation of general principles. It is best to provide general guidelines or explanations, and then provide specific examples.

3.5.5 Culturally Neutral Examples

The examples that you create might be read by people around the world. See the list of resources in [Section 13.1.5](#) for more information about writing culturally neutral examples. In addition, if your examples include people, then use a mix of genders and ethnically diverse names. However, do not use information about real people in your examples (see [Section 3.5.6](#)) or use real event names, such as Olympics, World Cup, or OpenWorld in Oracle documentation. Use generic event names such as Big Game or Software Conference.

3.5.6 Confidential Information

Do not use examples that include the names, addresses, telephone numbers, social security numbers, or credit card numbers of real people or other resources at Oracle. Do not provide code examples from real software code that is Oracle property. The following sections describe how to present examples in Oracle documentation without compromising confidential information.

See Also: "Oracle Secure Coding Standards" by Oracle Global Product Security at
<https://confluence.oraclecorp.com/confluence/display/SecureCodingStandards/Sensitive+Information+Protection>

3.5.6.1 User Names

Use fictional names for user names to avoid choosing names that could pose a security or legal risk for Oracle and its employees, customers, and partners. Use the following guidelines when choosing a fictional user name:

- Use commonly used names, such as Smith or Jones. To find the most commonly used surnames, visit https://www.census.gov/topics/population/genealogy/data/2010_surnames.html. This list is from the 2010 US Census.
- Use names that are recognizable by a global audience.
- Do not use the names of famous people or groups (such as musical groups), living or dead.
- Do not use the names of well-known fictional characters, such as Darth Vader or Mickey Mouse.

3.5.6.2 Names of Businesses and Organizations

Use fictional names of businesses and organizations. The following names can be used:

- Big Computers
- Blue Semiconductor
- Fantastic Laptops
- First Software
- Green Corp.
- Large and Associates
- PennyPack Systems
- Seven Corporation
- Small, Inc.
- Spruce Street Foods
- Tall Manufacturing
- Vision Corporation

3.5.6.3 Postal Addresses

Use real Oracle postal addresses for examples in Oracle documentation, replacing the company name *Oracle* with *Example*, or replace the company name with one from [Section 3.5.6.2](#). Addresses are available from the map at

<http://my.oracle.com/site/ref/index.htm>

To find an address, click a region on the map, and then select a city.

[Example 3–14](#) shows postal addresses for different regions.

Example 3–14 Postal Address Standards for Documentation

Example Inc.
401 Island Parkway
Redwood Shores, CA 94065

Example Corporation, Ltd.
2-4-27 Dojima, Kita-ku

Osaka 530-0003
Japan

Example Co.
Avenida Vitacura 2939 Piso 6
Las Condes, Santiago, Chile
Cod Postal 7550011

3.5.6.4 Domain Names and IP Addresses

Do not use Oracle domain names and IP addresses in Oracle documentation because to do so makes Oracle vulnerable to outside attacks. Change all Oracle domain names and IP addresses to reserved domain names and reserved IP addresses. These reserved names and addresses are set by the Internet Assigned Numbers Authority (IANA), and they are shown in [Table 3–13](#).

Table 3–13 Reserved Domain Names and IP Addresses

Category	Reserved for Use in Documentation
Domain names	<ul style="list-style-type: none"> ▪ .example ▪ example.com ▪ example.net ▪ example.org
IP addresses version 4 (IPv4)	<ul style="list-style-type: none"> ▪ 192.0.2.1 through 192.0.2.254 ▪ 198.51.100.1 through 198.51.100.254 ▪ 203.0.113.1 through 203.0.113.254
IP addresses version 6 (IPv6)	<ul style="list-style-type: none"> ▪ 2001:db8:<i>n:n:n:n:n:n</i> <p><i>n</i> is a group of 4 hexadecimal digits.</p>

[Example 3–15](#) shows source code that was modified. In the code, the host name and alias were changed to example.com.

Example 3–15 Modified Source Code Using a Reserved Domain Name

```
oproxy.ias1.hostname=myhost.us.example.com
oproxy.ias1.port=7777
oproxy.ias1.alias=www.example.com
```

[Example 3–16](#) shows IP addresses that were modified with the reserved IPv6 addresses.

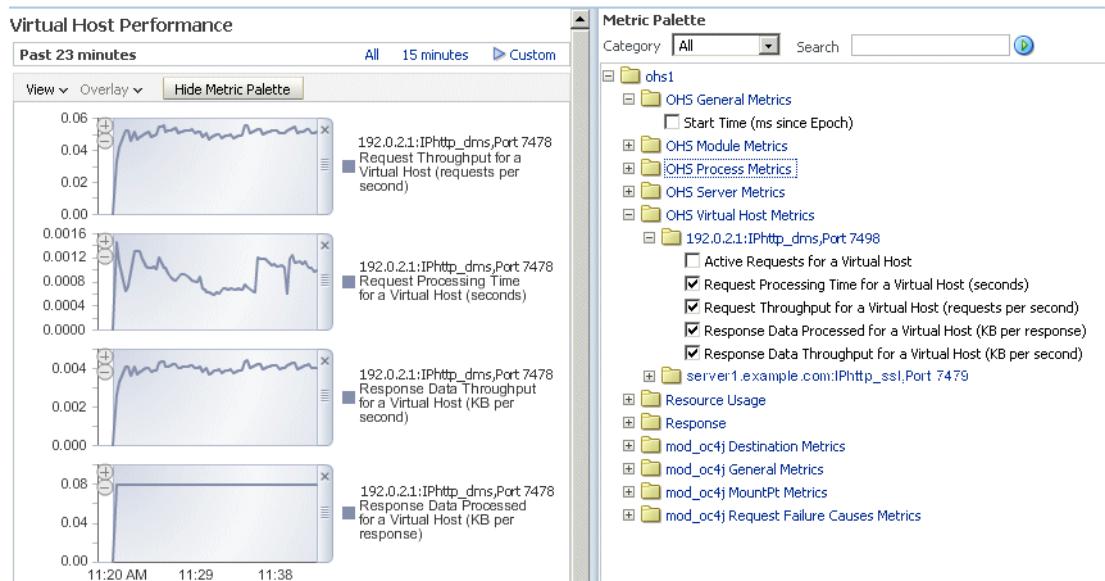
Example 3–16 Modified IP Addresses Using Reserved IPv6 Addresses

Connected to:
Oracle Fusion Middleware Administration Server Release 11.1.1.0.0

Name	Dps ID	Port	IP Address	Port Status
http_range	/Farm1_Root/Farm1/asinst_web/ohs1/http_range	6503	2001:db8::1:11	Active
http_main	/Farm1_Root/Farm1/asinst_web/ohs1/http_main	6502	2001:db8::1:11	Active
http_dms	/Farm1_Root/Farm2/asinst_web/ohs1/http_dms	6501	2001:db8::1:a	Active
http_ssl	/Farm1_Root/Farm2/asinst_web/ohs1/http_ssl	6500	2001:db8::1:a	Active

Figure 3–1 shows an image that was modified to replace the domain names and Oracle IP addresses. The domain names were changed to example.com, and the IP addresses were changed to 192.0.2.1.

Figure 3–1 Modified Image Using Reserved Domain Names and IP Addresses



3.5.6.5 Passwords

To indicate a password in Oracle documentation, use the word *password* in italic. Do not show actual or example passwords. If the program can prompt for a password, then only show usage with the prompt in examples.

Correct	Incorrect
sqlplus system	sqlplus system/manager
Enter password: <i>password</i>	CONNECT sysadmin/fussy2all
CONNECT sysadmin	
Enter password: <i>password</i>	
Enter SYS password: <i>sys_password</i>	
Enter owner password: <i>owner_password</i>	

3.5.6.6 US Telephone Numbers

If you include examples of telephone numbers in Oracle documentation, then you can use any valid geographic area code and telephone numbers in the range of 5550100 through 5550199. These telephone numbers are reserved for use as examples. For other, nongeographic area codes such as 800, these numbers are not reserved. Do not include nongeographic area codes that charge rates or connect to nonbusiness numbers.

Correct	Incorrect
+1.603.555.0100	603-555-0100
+1.650.555.0185	650 555 0200

3.5.6.7 US Social Security Numbers

If you include examples of social security numbers in Oracle documentation, then use numbers in the range of 987-65-4320 through 987-65-4329. The social security numbers in this range are reserved by the Social Security Administration for use as examples.

3.5.6.8 Credit Card Numbers

If you include examples of credit card numbers in Oracle documentation, then you must use the following reserved numbers:

Credit Card Company	Credit Card Numbers
MasterCard	5105 1051 0510 5100
	5111 1111 1111 1118
	5454 5454 5454 5454
	5500 0000 0000 0004
	5555 5555 5555 1111
	5555 5555 5555 4444
Visa	4111 1111 1111 1111
	4007 0000 0002 7
	4222 2222 22222
	4012 8888 8888 1881
American Express	3782 8224 6310 005
	3111 1111 1111 1117
	3434 3434 3434 343
	3700 0000 0000 002
	3400 0000 0000 009
	3714 4963 5398 431
	3787 3449 3671 000
Diner's Club	3852 0000 0232 37
	3000 0000 0000 04
	3056 9309 0259 04
Discover	6011 1111 1111 1117
	6011 0000 0000 0004
	6011 0009 9013 9424
	6011 6011 6011 6611
	6111 1111 1111 1116
	3530 1113 3330 0000
JCB	3088 0000 0000 0009
	3566 0020 2036 0505

3.5.7 Code Examples

Include code examples in your document to demonstrate the coding principles that you are describing or to illustrate code that the reader might expect to see in a given situation. Separate code examples from text paragraphs, and in most cases, use a monospace font.

A lengthy code example can be shortened by replacing irrelevant lines with vertical ellipsis points. Include enough context to make the purpose of the code example obvious.

Provide titles for lengthy code examples to help the reader quickly find them and know their purpose.

Code examples must be precise. Proofread them carefully. If you are using code examples provided by a developer and you are not familiar with the coding language, then find someone who knows the language to help you check the examples for accuracy.

See Also: The Oracle Secure Coding Standards site by Oracle Global Product Security at
<https://confluence.oraclecorp.com/confluence/display/SecureCodingStandards/Home>

[Example 3–17](#) provides a short code example.

Example 3–17 Using the Random Number Generator Package

```
DECLARE
  i BINARY_INTEGER;
BEGIN
  DBMS_RANDOM.INITIALIZE(19254);
  i :=DBMS_RANDOM.RANDOM;
  INSERT INTO some_table VALUES(i);
  DBMS_RANDOM.TERMINATE;
END;
```

If possible, keep your code examples simple enough to fit on a single page of a printed document. Extra wide and extra long code examples are particularly difficult to read online.

If you want to present very lengthy code examples, then consider including them in an appendix rather than breaking up the flow of text within a chapter.

Note: Some screen readers may not always correctly read code examples. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, screen readers may not always read a line of text that consists solely of a bracket or brace.

3.6 Notes, Caution Notices, and Warning Notices

Use *Note*, *Caution*, and *Warning* notices with discretion. If these notices are overused, then they lose their significance.

3.6.1 Notes

Use *Note* to call attention to points that might be easily overlooked. A note includes important hints, tips, guidance, or advice on using a program. It also includes information that is essential to the proper operation of a program or system, provided that the information does not belong in a *Caution* or *Warning* notice. For example:

Note: The installation stops and the system returns an error if the prerequisite software is not installed.

Note to UNIX Users: This feature is not available for the UNIX operating system in the Beta software. Install the current release before using this feature.

3.6.2 Caution Notices

Use a *Caution* notice to indicate the possibility of damage to a program, system, or data. The caution notice should always precede the step where the risk occurs. For example:

Caution: Always use Oracle Fail Safe Manager to bring databases online and offline. Using other tools can result in unintended server failover or jeopardize the integrity of your database.

3.6.3 Warning Notices

Use a *Warning* notice to call attention to a situation that is potentially hazardous to people. The warning notice should always precede the step where the risk occurs, and the text should always be in boldface font. For example:

Warning: To reduce risk of electrocution, unplug the machine before you begin repairs.

4

Types of Documents

Oracle documentation is written and produced in various forms. This chapter describes some of these forms of documentation.

This chapter contains the following sections:

- [Section 4.1, "Documentation"](#)
- [Section 4.2, "Help Information"](#)

4.1 Documentation

This guide uses the term *documentation* to include formats that are:

- Released as PDF files
- Released as HTML files
- Released as mobile formats
- Printed and released as physical documents

The different types of printed documentation at Oracle include:

- [Books](#)
- [Release Notes and Other Letter-Style Documents](#)

4.1.1 Books

[Table 4–1](#) lists the order and types of sections in a book, and describes the nature of their content. Note that some sections are required.

Table 4–1 Book Structure

Section Type	Description	Required or Optional
Title page	Includes product name, book title, volume number (optional), release number, platform (optional), part number, and release date (optional). Starts on page i. The page number should not be visible. You can create and archive a cover/spine file (optional). The information on the title page must match the information in the cover/spine file.	Required

Table 4–1 (Cont.) Book Structure

Section Type	Description	Required or Optional
Copyright page	<p>Provides mandatory legal notices and disclaimers. Repeats identifying book title, volume number, release number, and part number information from the title page.</p>	Required
	<p>If you choose to list contributors to your book, then arrange the names in each category in alphabetic order. The possible categories are:</p>	
	<ul style="list-style-type: none"> ■ Primary Author ■ Contributing Authors ■ Contributors (including reviewers and others) 	
	<p>Starts on page ii. The page number should not be visible.</p>	
Table of Contents	<p>Lists the contents of the book, including:</p> <ul style="list-style-type: none"> ■ Preface ■ Part pages ■ Chapters ■ Sections (up to three levels of headings) ■ Appendixes ■ Glossary ■ Index ■ Lists of examples, figures (illustrations), and tables 	Required
	<p>Usually starts on page iii. If the copyright page is more than one page in length, then the table of contents starts on page v. The page numbers should be visible.</p>	
List of Examples	<p>Provides a list of the examples in your book. See Section 3.5 for detailed information about examples.</p>	Optional
	<p>Page numbers (Roman numerals) continue from the table of contents. The page numbers should be visible. The List of Examples starts immediately after the table of contents; no blank page at the end is required if the table of contents ends on an odd-numbered page.</p>	
List of Figures	<p>Provides a list of the illustrations in your book.</p>	Optional
	<p>Page numbers (Roman numerals) continue from the List of Examples. The page numbers should be visible. The List of Figures starts immediately after the List of Examples; no blank page at the end is required if the List of Examples ends on an odd-numbered page.</p>	
List of Tables	<p>Provides a list of the tables in your book. See Section 3.4 for detailed information about tables.</p>	Optional
	<p>Page numbers (Roman numerals) continue from the List of Figures. The page numbers should be visible. The List of Tables starts immediately after the List of Figures; no blank page at the end is required if the List of Figures ends on an odd-numbered page.</p>	

Table 4-1 (Cont.) Book Structure

Section Type	Description	Required or Optional
Send Us Your Comments form	Gives the reader an opportunity to provide comments and suggestions on the quality and usefulness of the book.	Optional
Preface	Page numbers (Roman numerals) continue from either the table of contents or the last list (of examples, figures, or tables if your book contains one or more of these lists). The page number should be visible. The Send Us Your Comments form should start on an odd-numbered page. If your Send Us Your Comments form is a single page, then add a blank page at the end to ensure that the page numbering is correct.	Required
Introduction	<p>Provides information about the book itself, including:</p> <ul style="list-style-type: none"> ■ Audience ■ Documentation Accessibility ■ Related Documents ■ Conventions <p>Page numbers (Roman numerals) continue from the Send Us Your Comments form or from the last page of the table of contents. The page number should be visible. The preface should start on an odd-numbered page. If you have an uneven number of pages in the preface, then add a blank page at the end to ensure that the page numbering is correct.</p>	Optional
Part page	<p>Provides material that is relevant to the book's content and that should be read before the rest of the book.</p> <p>Page numbers (Roman numerals) continue from the preface. The page numbers should be visible. The introduction should start on an odd-numbered page. If you have an uneven number of pages in the introduction, then add a blank page at the end to ensure that the page numbering is correct.</p>	Optional
Chapter	<p>Divides the book into an identified part that introduces the contents of that part and provides a list of the chapters or appendixes in that part.</p> <p>Part pages do not have page numbers, and they start on an odd-numbered page. Add a blank page after the part page to ensure that the page numbering is correct.</p>	Optional
	<p>Forms the body of the book. Each chapter should open with a description about what the chapter covers and may include a list of sections in that chapter.</p> <p>Page numbers are visible. Chapters start on an odd-numbered page, in the format $n-1$, where n is the chapter number. If you have an uneven number of pages in any of the chapters, then add a blank page at the end to ensure that the page numbering is correct.</p>	Required

Table 4–1 (Cont.) Book Structure

Section Type	Description	Required or Optional
Appendix	<p>Provides information that is helpful, though not essential, to a reader.</p> <p>Page numbers are visible. Appendixes start on odd-numbered pages, in the format x-1, where x is the appendix letter, for example A-1. If you have an uneven number of pages in any of the appendixes, then add a blank page at the end to ensure that the page numbering is correct.</p>	Optional
Glossary	<p>Provides a list of product terms and their definitions.</p> <p>Page numbers are visible. The glossary starts on an odd-numbered page, in the format Glossary-1. If you have an uneven number of pages in the glossary, then add a blank page at the end to ensure that the page numbering is correct.</p>	Optional
Index	<p>Provides another way for readers to find information. See Chapter 11 for detailed information about indexes.</p> <p>Page numbers are visible. The index starts on an odd-numbered page, in the format Index-1. If you have an uneven number of pages in the index, then add a blank page at the end to ensure that the page numbering is correct.</p>	Optional

4.1.2 Release Notes and Other Letter-Style Documents

Release notes include information that is relevant to a specific software release. There should be little, if any, overlap with the user documentation. The most common sections in release notes are the following:

Title	Description
New Features	Provides information about new and changed features in a particular software release. This information is sometimes in a "Getting Started" guide instead.
Fixes in This Release	Provides information about problems that were fixed in a particular software release.
Known Problems	Provides information about known issues, problems, and workarounds.

Other sections that you might want to include are the following:

Title	Description
Documentation Updates	Provides updated documentation, sometimes including actual documentation pages
Product Software Scripts	Provides updated product software scripts

4.2 Help Information

This guide uses the term *help* to include online help information, cue cards, and quick tours that are released on:

- Product CD-ROMs (with the software)
- Websites

5

Grammar

This chapter contains the following sections:

- [Section 5.1, "Punctuation"](#)
- [Section 5.2, "Alphabetization"](#)
- [Section 5.3, "Capitalization"](#)
- [Section 5.4, "Compound Words"](#)
- [Section 5.5, "Prepositions and Articles"](#)
- [Section 5.6, "Contractions"](#)
- [Section 5.7, "Hyphens"](#)
- [Section 5.8, "Numbers"](#)
- [Section 5.9, "Plurals"](#)
- [Section 5.10, "Possessives"](#)
- [Section 5.11, "Prefixes"](#)

5.1 Punctuation

There are Oracle style standards for some of the more problematic punctuation conventions in technical documentation. See *The Chicago Manual of Style* (The University of Chicago Press, 2010), for instructions about when to use the different types of punctuation. For information about the Oracle punctuation guidelines, see the following sections:

- [Section 5.1.1, "Periods \(.\)"](#)
- [Section 5.1.2, "Commas \(,\)"](#)
- [Section 5.1.3, "Colons \(:\)"](#)
- [Section 5.1.4, "Semicolons \(;\)"](#)
- [Section 5.1.5, "Quotation Marks \(" "\)"](#)
- [Section 5.1.6, "Apostrophes \('\)"](#)
- [Section 5.1.7, "Ellipsis Points \(. . . \)"](#)
- [Section 5.1.8, "Dashes \(-, -, —\)"](#)
- [Section 5.1.9, "Angle Brackets \(<>\)"](#)
- [Section 5.1.10, "Formatting Punctuation"](#)

5.1.1 Periods (.)

Use one space following a period at the end of a sentence. Authoring tools such as FrameMaker use proportional spacing when you use one space after a period.

Do not use periods in acronyms.

5.1.2 Commas (,)

In Oracle documentation, the use of serial commas is standard. In a list of three or more items, separate the items with commas, including a comma before the conjunction. The following is an example of what can happen if the serial comma is omitted:

Correct	Incorrect
Dedicated to my parents, Ayn Rand, and God	Dedicated to my parents, Ayn Rand and God

5.1.3 Colons (:)

A colon follows a word, phrase, or sentence to introduce material such as an example, an amplification of a preceding statement, a list, or a question or quotation. A colon can replace words or phrases such as *that is* or *for example* but should not be used after the words *such as*, *namely*, or *for instance* unless a complete sentence follows these words.

- A colon is required when you include the word *following* in an introduction to any kind of list if that introduction immediately precedes that list.
- If you do not use the word *following* as an introduction to information, then either a colon or a period can end the introduction. Be consistent with your choice throughout the document.
- Do not use more than one colon in a sentence.
- Do not use colons to express ratios.

Correct	Incorrect
A probability of seven to one.	7:1 odds.

- Use only one space after a colon. This rule is consistent with using one space after a period.

5.1.4 Semicolons (;)

Use semicolons sparingly because they can be confusing to readers whose native language is not English because many languages have no equivalent to this punctuation.

5.1.5 Quotation Marks (" ")

Follow these guidelines for using quotation marks:

- Put periods and commas inside quotation marks:

Correct	Incorrect
For more information, see "Default and Repeat Installations."	For more information, see "Default and Repeat Installations".

- Put colons and semicolons outside quotation marks.
- Put a dash, an exclamation point, or a question mark inside quotation marks if the punctuation is part of the quotation, and outside quotation marks if it applies to the entire sentence.
- Double quotation marks are considered standard. Do not use single quotation marks except in the rare case where there is a quotation within a quotation or when required in samples of software code.
- Do not use quotation marks for emphasis; use italic text instead.
- Avoid using quotation marks to express irony. Using quotation marks to express irony is specific to one's culture and often leads to confusion for readers whose native language is not English, for example:
The "banquet" was small.
- In general, try to minimize the use of quotation marks because they may be distracting to the reader in a printed document and difficult to see in online output.

5.1.6 Apostrophes (')

Do not use apostrophes when the possessor is inanimate.

Correct	Incorrect
Check the lights on the system console.	Check the system's console lights.

5.1.7 Ellipsis Points (. . .)

Ellipsis points are used in text, examples, and syntax to indicate an omission. For example, in syntax, ellipsis points represent multiple variables. In text, ellipsis points replace words, sentences, and paragraphs of omitted material.

In syntax and in text, ellipsis points appear as three points, with one space between each point and a space before and after the set of points. Use a hard (nonbreaking) space to ensure that a screen reader will correctly read the repeated characters.

Correct	Incorrect
Do you want the . . . settings now?	Do you want the. . .settings now?
CHKVAL fieldname value1 value2 . . . valueN.	CHKVAL fieldname value1 value2 ... valueN.

The spacing of ellipsis points in code examples varies.

Terminal punctuation is retained with ellipsis points. Thus, you would use four points to mark the omission of one or more full sentences, one or more full paragraphs, or the end of a sentence that ends with a period. Similarly, you would retain the final question mark if you truncated a question.

Correct	Incorrect
If an index join is used, then no table access is needed. . . . An index join cannot be used to eliminate a sort operation.	If an index join is used, then no table access is needed . . . An index join cannot be used to eliminate a sort operation.
Are Tom, Dick, Sally, and Joan members? . . . The group is already too large.	Are Tom, Dick, Sally, and Joan members. . . . The group is already too large.

5.1.8 Dashes (-, -, —)

Three types of dashes are commonly used: the hyphen (-), the en dash (-), and the em dash (—).

Hyphens are used in compound words.

En dashes are used to indicate a range of numbers (for example, 1969–1999). For greater clarity, it is better to use the words *to* or *through* instead of the en dash to indicate a range of numbers. If you use an en dash, then do not put spaces before and after the en dash

Correct	Incorrect
Correct: pages 1 through 5	pages 1–5

Em dashes indicate a break in a sentence or are used in place of *that is*. A colon can often be used instead of an em dash for this purpose. Use a colon whenever possible.

Note: Some HTML conversions may not preserve the distinction between hyphens, en dashes, and em dashes. In addition, some web browsers may not be able to interpret or display the en and em dashes. For these reasons, limit the use of en and em dashes to tables, illustrations, indexes, and other places where space is limited.

Do not put spaces before and after an em dash.

Correct	Incorrect
All the options—Create, Modify, and Save—enable you to customize the software features.	All the options — Create, Modify, and Save — enable you to customize the software features.

Note: For a further discussion of dashes, see [Section 5.4, "Compound Words,"](#) [Section 5.7, "Hyphens,"](#) and [Section 5.11, "Prefixes."](#)

5.1.9 Angle Brackets (< >)

Avoid using right-angle brackets (>) as a shorthand notation to explain menu navigation. Screen reader users might have difficulty following this information. However, experienced screen reader users will become familiar with this notation, just as with *see*, *click*, or *press*. For example, a screen reader might read **File > Import > File** as the following:

file greater import greater file

Instead of using the shorthand notation, consider using the following:

From the **File** menu, select **Import**, and then select **File**.

This construction makes the document clearer for all users.

Although italic is recommended as the convention for variables, angle brackets can be used if your authoring tool cannot have both monospace font and italic used at the same time, for example:

```
httpd-<server1>/
```

5.1.10 Formatting Punctuation

When the word immediately preceding the punctuation mark has a font or format other than the standard style (for example, boldface, italicized, or monospace font), the format of the punctuation must match the format of the word that precedes it. The exception to this rule is for paired punctuation marks (parentheses or quotation marks). In this instance, both marks must use the format or font of the first mark in the sentence.

5.2 Alphabetization

For information about alphabetization, see the following sections:

- [Section 5.2.1, "Methods of Alphabetization"](#)
- [Section 5.2.2, "Sorting Nonalphabetic Characters"](#)
- [Section 5.2.3, "Alphabetization in Translated Documents"](#)
- [Section 5.2.4, "Alphabetization in Glossaries"](#)
- [Section 5.2.5, "Alphabetization in Indexes"](#)
- [Section 5.2.6, "Alphabetization with Acronyms and Abbreviations"](#)

5.2.1 Methods of Alphabetization

Although most authoring tools automatically control the order of index entries, you may need to manually sort the entries in your glossary or other sections of your document. Typically, you sort entries that begin with symbols, then numbers, followed by alphabetic entries. The alphabetic sort order can be based on either the word-by-word method or the letter-by-letter method. *Oracle Style Guide* recommends a specific word-by-word sort method, which is described in [Section 10.3](#).

The key difference between letter-by-letter and word-by-word alphabetization is the effect of the space when sorting. With the letter-by-letter method, the space character is ignored, whereas with the word-by-word method, alphabetization continues up to the space and stops. Subsequent words are evaluated only when additional entries begin with the same word.

Both methods have advantages and disadvantages, and exist in a variety of implementations, each with its own set of rules. Within both types of alphabetic lists, you must consider the sort value of nonletter characters such as numbers, punctuation, symbols, and spaces.

[Table 5–1](#) provides a comparison of letter-by-letter and word-by-word alphabetic lists.

Table 5–1 Comparison of Letter-by-Letter and Word-by-Word Alphabetic Sorting

Letter-by-Letter Method	Word-by-Word Method (Preferred)
ADA	ad hoc

Table 5–1 (Cont.) Comparison of Letter-by-Letter and Word-by-Word Alphabetic Sorting

Letter-by-Letter Method	Word-by-Word Method (Preferred)
ADA-compliant	ADA
adapter	ADA-compliant
ad hoc	adapter
allows you to	all right
all right	allows you to
binary sorting	binary sorting
bind variable	bind variable
bitmap	bit vector
bit vector	bitmap
B-tree index	B-tree index
buffer	buffer
buffer cache	buffer cache
buffered queue	buffer pool
buffer pool	buffered queue
builder server	build settings
build settings	builder server
checklist	check mark
check mark	check out
checkout	checklist
check out	checkout
checksum	checksum
data	data
database	data file
data file	data mart
data mart	database

The National Information Standards Organization (NISO) provides clear and complete guidelines for word-by-word sorting. *Oracle Style Guide* recommends these guidelines for alphabetizing glossary and master glossary entries and other similar content, and provides the relevant details in [Section 10.3](#).

5.2.2 Sorting Nonalphabetic Characters

On occasion, you may need to sort characters that are not specified in the NISO sorting method. If this situation occurs, then use the ASCII character sort order for those characters. For information about the NISO sorting method, see [Section 10.3](#).

[Example 5–1](#) lists the printable ASCII characters in decimal code number order, starting with the space character.

Example 5–1 ASCII Character Sort Order

! " # \$ % & ' () * + , - . /

```
0123456789
: ; <=> ? @
ABCDEFGHIJKLMNOPQRSTUVWXYZ
[\]^_
abcdefghijklmnopqrstuvwxyz
```

5.2.3 Alphabetization in Translated Documents

Use alphabetization carefully, especially for lists or tables. During translation, the text order may need to be changed to be in the correct sequence for each language into which a document is translated. Depending on the language, rearrangement of characters and symbols might be a time-consuming task for the translator. Clearly mark the content so that the translator is aware that the content must be rearranged.

5.2.4 Alphabetization in Glossaries

Usually, you must alphabetize glossary entries manually. Use the recommended NISO method of alphabetization to order your glossary entries, which will simplify the creation of a master glossary, if there is one in the documentation set. For more information, see [Section 10.3](#).

5.2.5 Alphabetization in Indexes

Most authoring tools control the alphabetic sort order of index entries. For example, FrameMaker sorts index entries by using word-by-word alphabetization. Index entries are generally sorted alphabetically; symbols and numbers appear before the *A* entries. For more information, see [Chapter 11](#).

5.2.6 Alphabetization with Acronyms and Abbreviations

Alphabetize an acronym or abbreviation according to the letters in it, not according to its expansion. For example, the acronym SCSI should appear in a glossary as it is spelled (between *sa* and *se* entries). Although SCSI stands for small computer system interface, it would not appear in a glossary between *sl* and *sn* entries.

Acronyms and abbreviations are alphabetized this way because an acronym such as SCSI is easily recognized, but not everyone may know what words are represented by the acronym letters. For more information, see [Section 7.6](#).

5.3 Capitalization

The following information is a general policy for capitalization. Use the standard capitalization rules defined in *The Chicago Manual of Style* (The University of Chicago Press, 2010), whenever possible.

For more information about capitalization, see the following sections:

- [Section 5.3.1, "General Guidelines for Capitalization"](#)
- [Section 5.3.2, "Capitalization for Acronyms and Abbreviations"](#)
- [Section 5.3.3, "Capitalization for Titles and Headings"](#)
- [Section 5.3.4, "Special Oracle Terms in Lowercase"](#)
- [Section 5.3.5, "Special Oracle Terms in Uppercase"](#)

5.3.1 General Guidelines for Capitalization

Be consistent with capitalization. Some languages, such as Arabic, do not use capitalization, so it is difficult for translators to determine if a term is capitalized for a special reason. For example, the following terms were used as message menu items:

Account, account

When you submit terminology lists to translators, include a list of words that must be capitalized.

- Avoid excessive capitalization. The current movement is toward a lowercase rather than an uppercase style, because lowercase enhances readability.
- Never use all uppercase letters for emphasis. Use italic for emphasis.
- Avoid constructions that would begin a sentence with a lowercase letter:

Correct	Incorrect
The emp table contains the names of company employees.	emp is a table that contains the names of employees.

- Capitalize the first letter of keys on the keyboard.

Correct	Incorrect
Press F2 to save your file.	Press f2 to save your file.

- For the proper names of *assistants*, *buttons*, *dialog box options*, *dialog box titles*, *fields*, *menus*, *screens*, *windows*, and *wizards* use initial capital letters, as you would for the capitalization of a title. Do not capitalize interface elements themselves unless you refer to them by their proper names. Capitalize words such as *Big Data* when they are part of product names; otherwise, use lowercase when those words are used as common nouns.

Correct	Incorrect
The Oracle Database Creation Assistant helps you create databases.	The Oracle Database Creation assistant helps you create databases.
This assistant helps you create databases.	This Assistant helps you create databases.
Oracle Big Data Cloud Service provides the industry's most complete and optimized big data management system.	Oracle Big Data Cloud Service provides the industry's most complete and optimized Big Data management system.

5.3.2 Capitalization for Acronyms and Abbreviations

Capitalize the letters of most acronyms and abbreviations. For example:

Oracle Installer is a graphical user interface (GUI).

Enter your personal identification number (PIN).

Table 7–4 shows the preferred forms of acronyms or abbreviations that frequently appear in Oracle documents.

5.3.3 Capitalization for Titles and Headings

Capitalize the first and last words in titles and headings. The following information describes how to capitalize parts of speech in titles and headings.

Note: Do not change the font from your authoring tool's default font for headings, even if the headings contain syntax or other programmatic elements that might otherwise require a font change. If the headings contain syntax or other programmatic elements, then present the syntax or other programmatic elements exactly as they appear in the code.

Adjectives, Adverbs, Nouns, Pronouns, and Verbs

Use initial capital letters for all adjectives (including *this* and *that*), adverbs (including *than* and *when*), nouns and pronouns (including *its*), and verbs (including *is* and other forms of *to be*) in all document, part, chapter, section, example, illustration, and table titles, and in row or column headings. For example:

What Is Oracle Exadata?
How to Use This Manual

Articles

Do not capitalize articles (*the*, *a*, *an*) unless one is the first word of a document, part, chapter, section, example, illustration, and table title, or row or column headings. For example:

Review the Online Documentation
Creating a New Database

Compound Words

Use initial capital letters for all words in a compound word in any titles and in a row or column heading that would be capitalized if these words stood alone. For example:

Expanding a Single-Record Block
When to Use Run-in Subheadings

Coordinate Conjunctions

Do not capitalize coordinate conjunctions (*and*, *but*, *for*, *nor*, *or*, *so*, *yet*) in document, part, chapter, section, example, illustration, and table titles, or in row or column headings. For example:

Configuring Cartridges for Windows NT
Creating Titles and Headings

Infinitive Phrases

Do not capitalize the word *to* in an infinitive phrase unless the preposition begins the title or heading. For example:

How to Start Multiple Oracle Instances
What to Do After Setup

Prepositions

Do not capitalize prepositions with four or fewer letters unless the prepositions are part of a verb; for example, Setting Up and Logging In or Shutting Down the System. Also, when you use *with* and *without* in the same title, begin both with capital letters. For example:

Installing Oracle 11g Clients on Windows XP With and Without Help
Choosing Commands in Windows XP
Setting Up Your Personal Working Environment

Subordinate Conjunctions

Use initial capital letters for subordinate conjunctions (*after, although, as, as if, because, before, if, since, unless, when, while*) in document, part, chapter, section, example, illustration, and table titles, and in row and column headings. For example:

What to Do After Setup
Starting an Application When You Start Windows NT

5.3.4 Special Oracle Terms in Lowercase

Except in case-sensitive operating system documentation, the following terms are lowercase in Oracle technical documentation:

- **Directory names in code examples**
`c:\orant\database> del ctl1sid.ora`
- **File names in code examples**
`svrmgr> spool catout.log`

5.3.5 Special Oracle Terms in Uppercase

Except in case-sensitive operating system documentation, the following terms are uppercase in Oracle technical documentation:

- **Command names**
LSNCTL START, NET STOP
- **Data types**
CHAR, DATE, INTEGER
- **Database element names**
TABLE_NAME, COLUMN_NAME
- **Directory names in text**
Control files are located in the \ORANT\DATABASE directory.
- **File names in text**
Create a spool file called CATOUT.LOG.
- **Keywords**
ONLINE, OFFLINE
- **Logical operators**
AND, OR, NOT
- **Program language reserved words**
SELECT *, INSERT INTO t1, IF, WHILE
- **SQL statements**
ALTER ROLLBACK SEGMENT, ALTER DATABASE

5.4 Compound Words

The general rules for compound words are provided in the following sections:

- [Section 5.4.1, "When to Use Hyphens in Compound Words"](#)
- [Section 5.4.2, "When Hyphens Are Unnecessary in Compound Words"](#)
- [Section 5.4.3, "Other Guidelines for Compound Modifiers and Modifier Strings"](#)
- [Section 5.4.4, "Two-Word Verbs"](#)

5.4.1 When to Use Hyphens in Compound Words

Hyphenate the following word combinations when they function as compound adjectives modifying nouns and when they act as predicate adjectives. Do not hyphenate words that end with *-ly*. For more information, see [Section 5.7](#).

- **Adjective + noun**
dual-port controller
cold-load sequence
high-speed digital circuits
- **Noun + adjective**
code-relative string
bit-synchronous controller
error-free compilation
- **Noun + noun**
audit-trail file
data-block size
disk-head repositioning
- **Noun + participle**
entry-sequenced file
load-balancing features
block-structured language
- **Number + noun**
16-bit register
first-level manager
second-degree burns

Note: Numbers with the word *percent* are an exception to this rule.
Always write them without a hyphen, 9 percent, 5 percent.

- **Phrasal compounds**
clear-on-purge attribute
exit-on-error mode
end-of-message character

- Use hyphens with the prefixes *self-* and *half-*, whether the words that contain these prefixes precede or follow the nouns that they modify, as follows:
a self-fulfilling prophecy or the prophecy is self-fulfilling
a half-formed idea or the idea is half-formed
- Hyphenate adverb-participle combinations when they occur before (but not after) the noun:
well-known fact (But: The fact is well known.)
much-needed equipment (But: The equipment was much needed.)
past-due invoice (But: The invoice was past due.)

5.4.2 When Hyphens Are Unnecessary in Compound Words

Do not use hyphens in the following situations:

- Do not hyphenate a compound word that includes a participle and an adverb that ends with *ly*. For example:
rapidly growing market
previously defined command
currently executing process
- Certain well-established nouns do not need hyphenating when they occur as compound adjectives. For example, do not hyphenate the following compound adjectives:
data communications expert
personal computer setup
word processing department

5.4.3 Other Guidelines for Compound Modifiers and Modifier Strings

Avoid using lengthy modifier strings. A modifier string is a series of words used to describe a noun. Try to limit the number of modifiers in your string to two.

Correct	Incorrect
a customer base dominated by the defense industry	a defense-industry-dominated customer base

Place modifiers close to the word that they modify. When modifiers are not close to the word that they modify, the sentence is often confusing, especially to the reader whose native language is not English.

Correct	Incorrect
My father taught me to ride a bicycle when I was five.	At five years old, my father taught me to ride a bicycle.

Do not use a series of hyphenated adjectives whose only common element is the last word.

Correct	Incorrect
long-term and short-term goals	long- and short-term goals
small, medium, and large transaction loads	small-, medium-, and large-size transaction loads

Spell adjectival compounds containing the suffix *fold* without a hyphen, except when the word is a combination of numerals and the suffix. For example:

We hope for a twofold increase in profits this year.

We want our customer base to increase 25-fold within 5 years.

5.4.4 Two-Word Verbs

Avoid phrasal verbs (two-word verbs). These phrasal verbs are a particular problem for the reader whose native language is not English, because there are so many variations on them. To appreciate this problem, look up the verb *get* in a dictionary and notice how many phrasal verbs the entry contains.

Correct	Incorrect
We hope that you benefit from reading this manual.	We hope that you get a lot out of reading this manual.
You should be able to finish . . .	You should be able to get through . . .

5.5 Prepositions and Articles

Do not omit prepositions or articles from sentences in an attempt to save space. This abbreviated text leads to multiple and often erroneous interpretations, especially in message writing.

Correct	Incorrect
Yes to All.	Yes All

5.6 Contractions

Contractions reflect informal speech and writing and are not always translated correctly. However, if you are writing for an audience that is less formal, you can use the following:

- Contractions of the word *not*, for example *can't* and *don't*
- Contractions involving the verb *to be*, for example *what's* and *it's*
- Certain contractions involving the word *will*, for example *they'll*, *we'll*, and *you'll*
- Certain contractions involving the word *you*, for example *you've*, *you'd*, and *you're*

Never use the following:

- Certain contractions of the word *have*, for example *could've*, *should've*, and *must've*
- Certain contractions of the word *will*, for example *that'll*, *there'll*, and *this'll*
- Certain contractions of the word *would*, for example *there'd*, *what'd*, and *where'd*

5.7 Hyphens

Oracle generally favors the fused form of compound words, such as *checklist*, *flowchart*, *download*. Sometimes, however, two or more words are commonly linked through syntax, but they are not used frequently enough to warrant formally fusing them; for example, a *graphics-based system*, a *many-to-many relationship*, or *full-screen picture*. Most of those cases involve compound adjectives. For more information about compound words, see [Section 5.4](#).

Ensure that hyphenation helps rather than hinders communication. When in doubt, check if the absence of a hyphen alters the meaning. Some examples:

- A high-level table or a high level table
- State-of-the-art work or state of the art work
- A foreign-policy adviser or a foreign policy adviser
- A cross-reference or a cross reference
- A hundred-odd people or a hundred odd people

When possible, avoid hyphenating words. In some languages, such as Arabic, words are not separated by hyphens and using hyphenated words causes confusion.

5.8 Numbers

Use the following guidelines for numbers:

- Use the US standard for dates and numbers. Readers and translators will expect to see the US standard when reading a US publication.

The US standard for dates is month/day/year.

Correct	Incorrect
9/29/97	29/9/97

- Avoid using the 24-hour system, also known as *military time*, when referring to time. The US standard of using *a.m.* and *p.m.* is acceptable.

Correct	Incorrect
2:00 p.m.	14:00

- Typically, remove all logistics information that is not applicable in countries other than the US, such as 800 telephone numbers, long lists of US local offices, hours of operation for support services, warranties that are specific to the US, and regulatory permit statements.
- Spell out numbers zero through nine. Use numerals for the number 10 and higher. An exception to this rule is for units of measurement: Present all units of measurement as numerals.
- In a given paragraph, treat numbers that refer to comparable quantities in the same manner. That is, if the larger number appears as a numeral, then write numbers zero through nine as numerals also, for example:

The company opened 18 new sales offices: 6 in the United States and 12 in Europe.

- Spell out all numbers when they begin a sentence, or rewrite the sentence to avoid this situation entirely.
- When numbers may be taken literally by readers as data input, use numerals. For example, if you were to write about the size of a data structure, then write "the internal size of an Oracle ROWID is 6 bytes," which gives the readers a visual cue if they were actually setting up an array while they were reading.
- Use numerals for all units of measurement and time, even if the value is under 10. For example, use numerals for computer storage (bytes), units of distance (meters, yards), temperature (degrees), volume (liters, quarts), size (blocks, picas, points), weight (pounds, grams), time (nanoseconds, seconds, minutes, days, weeks, months, years), and energy (volts, watts). For example:

8:30 p.m.	3 days	2 bytes	2 meters	5 seconds
9 minutes	4 weeks	5 pages	4 liters	3 longwords
4 picas	2 months	3 parts	1 bit	2 quadwords
5 degrees	1 year	4 records	2 bytes	6 digits

- Telephone numbers include three groups of numbers. In the US, the groups are area code, city code, and a 4-digit number. International telephone numbers also include three groups of numbers. The groups for international telephone numbers are country code, city code, and telephone number. International numbers are preceded by a plus sign (+). The plus sign reminds you that you must use the international prefix before dialing the telephone number. This prefix varies from country to country. When presenting telephone numbers in text, use a period (.) to separate the three different groups of numbers. For information about how to use telephone numbers in examples, see [Section 3.5.6.6](#).

US Telephone Number Examples	International Telephone Number Examples
■ 650.555.0100	■ +39.02.24959230
■ 800.555.0185	■ +91.124.2549250

- Avoid using the single quotation mark ('') to indicate *foot* and the double quotation mark ("") to indicate *inch*. Many countries outside the US use the metric system and these symbols may not be understood. These marks are also difficult to see in online and printed text.
- Spell out common fractions, such as *three-fourths share*, *three-fourths of the total*. Use numerals in mixed fractions, such as *greater than 2 1/2* (a better alternative is 2.5).
- Write out large numbers such as *million* and *billion*, preceded by a modifying numeral (for example, *5 billion*).
- Do not state the word *number* when you use a numeral in text. Numerals are understood to be numbers and do not need to be identified.

5.9 Plurals

In general, form plurals by adding a lowercase *s* or *es* to the singular form. There are some exceptions where plurals are formed by adding an apostrophe and an *s*. Check *Merriam-Webster's Collegiate Dictionary* (Merriam-Webster, Inc., 2003) for correct spelling of plurals.

For information about forming plurals, see the following sections:

- [Section 5.9.1, "Plurals of Acronyms"](#)
- [Section 5.9.2, "Plurals of Numbers and Numerals"](#)
- [Section 5.9.3, "Plurals of Letters"](#)
- [Section 5.9.4, "Problem Plurals"](#)
- [Section 5.9.5, "Avoiding the Use of \(s\)"](#)

5.9.1 Plurals of Acronyms

Form the plural of an acronym by adding an *s*. For example:

The operating system synchronizes multiple CPUs.

The documentation library includes numerous CD-ROMs.

5.9.2 Plurals of Numbers and Numerals

Form the plurals of numbers and numerals by adding an *s*. For example:

The 1990s was a boom period for technology stocks.

They counted by twos.

Exceptions

Spell out the plurals of *0* and *1* as *zeros* and *ones*. Adding an *s* alone to form the plural of *0* or *1* produces combinations that can be confused with words or common abbreviations such as *Os* and *Is*.

Correct	Incorrect
The serial number is composed of zeros and ones.	The serial number is composed of 0s and 1s.

For more information about numbers, see [Section 5.8](#).

5.9.3 Plurals of Letters

The Chicago Manual of Style (The University of Chicago Press, 2010) says that as far as it can be done without confusion, form the plurals of letters by adding an *s* with no apostrophe. For example:

The curriculum consists of the three Rs.

Exceptions

In some proverbial expressions, form the plural by adding an apostrophe and an *s*:

Mind your p's and q's.

Can we play x's and y's?

Dot your i's and cross your t's.

Form the plural of M, and vowels by adding an apostrophe and an *s*. For example, M's, A's, I's, E's, O's, and U's. Adding an *s* alone to form the plural of M and vowels produces combinations that can be confused with words or common abbreviations such as Ms, As, Is, Us, and the abbreviation OS for operating system.

5.9.4 Problem Plurals

Many words have several correct plural forms. For consistency in Oracle documentation, use the plural forms in the following list:

Singular	Plural
addendum	addenda
agenda	agendas
appendix	appendices
axis	axes
basis	bases
criterion	criteria
data	data
ellipsis	ellipses
formula	formulas
index	indexes
matrix	matrixes
medium	media
memorandum	memoranda
mouse	mouse devices
phenomenon	phenomena
prospectus	prospectuses

5.9.5 Avoiding the Use of (s)

Do not add an *s* inside a pair of parentheses (s) to mean both singular and plural. Both singular and plural are implied in the plural form. If it is critical that you convey both singular and plural, then rework the sentence to clearly state both forms.

Correct	Incorrect
Select the products that you want to remove.	Select the product(s) that you want to remove.
Select the product or products that you want to remove.	

5.10 Possessives

Use the possessive case when you refer to animate objects. Avoid the possessive case when you refer to inanimate objects.

Correct	Incorrect
The user's operating system must be working properly.	The users operating system must be working properly.

Do not use the possessive case with product names to avoid the risk of trademark infringement.

Correct	Incorrect
Oracle E-Business Suite is a comprehensive suite of global business applications.	Oracle E-Business Suite's global business applications are comprehensive.

5.11 Prefixes

Avoid using prefixes to create words. It is better for comprehension and for translation if you use existing words, fully spelled out. If you have limited space, such as with a table, then the shortened form is acceptable. For example:

Preferred	Avoid
create automatically (or just create)	autocreate
multiple currencies	multicurrency

In general, use the following guidelines when deciding whether to use a hyphen between the prefix and the root word:

- When the prefix ends with *a* or *i* and the base word begins with the same letter, use a hyphen to prevent misreading:
 - anti-inflammatory
 - semi-independent
- When the prefix ends with *e* or *o* and the base word begins with the same letter, the hyphen is almost always omitted:
 - cooperation
 - coordinate
 - preeminent
 - preexisting
 - reemphasize
 - reexport

However, some exceptions to this rule are as follows:

- co-opt
- de-emphasize
- pre-engineer
- Use a hyphen if the root word begins with a capital letter; for example, *non-SQL*.
- Use a hyphen if its omission confuses the meaning, such as with homographs: *re-form* (to form again) and *reform* (a correction of what is defective or wrong), *re-create* (to create again) and *recreate* (to enjoy recreation), *re-sort* (to sort again) and *resort* (a place providing recreation).
- Compounds formed with the following prefixes are usually not hyphenated, whether these compounds are nouns, verbs, adjectives, or adverbs:

anti	intra	non	sub
auto	macro	over	super
co	meta	post	supra

de	micro	pre	trans
hyper	mid	pro	semi
hypo	mini	pseudo	ultra
infra	multi	re	un
inter	neo	retro	under

This list provides some examples:

autocommit	nonnative	retry
autogenerate	nonredundant	submenu
autologin	redesign	subquery
autoquery	redisplay	subschema
autoskip	regenerate	subset
multiprotocol	reload	subsystem
multiuser	reset	superset

6

Accessibility

This chapter discusses style guidelines for creating documentation accessible to disabled users. Documentation is accessible when the content imparts the same information to the disabled user as it does to the user who is not disabled. Your documentation must be accessible regardless of how a user navigates through it.

The Oracle standards for accessibility are based on the World Wide Web Consortium's Web Content Accessibility Guidelines 2.0 AA (WCAG 2.0 "AA") and Section 508. WCAG 2.0 guidelines apply equally to Oracle documentation as they do to Oracle products.

This chapter contains the following sections:

- [Section 6.1, "Corporate Accessibility Mandate"](#)
- [Section 6.2, "Who Are the Disabled?"](#)
- [Section 6.3, "How to Document Accessibility Use and Features"](#)
- [Section 6.4, "Formats for Accessible Documentation"](#)
- [Section 6.5, "Oracle Accessibility Guidelines 3.0 Standards"](#)
- [Section 6.6, "Document Formatting"](#)
- [Section 6.7, "Word Use"](#)
- [Section 6.8, "Electronic Forms"](#)
- [Section 6.9, "Windows and Window Sections"](#)
- [Section 6.10, "Testing and Validation"](#)
- [Section 6.11, "Resources"](#)

6.1 Corporate Accessibility Mandate

All products, services, and websites, including documentation, that Oracle provides to customers must address accessibility by following the Oracle Accessibility Guidelines (OAG). Each product that may be used by a customer must have a Voluntary Product Accessibility Template (VPAT). If the results of testing indicate that the product, service, or website does not meet Oracle's minimum threshold for accessibility, then management must provide a roadmap to the Accessibility Program Office that details when the defects will be corrected. Individual lines of business (LOB) cannot opt out of the guidelines; any exemption requires a discussion with the Accessibility Program Office, Legal, and Business Practices.

6.2 Who Are the Disabled?

Among the people most likely to face significant barriers to electronic and information technology (E&IT) are the blind and those with low vision, as well as those with multiple disabilities. Most of the Section 508 standards and the Web Content Accessibility Guidelines (WCAG) for software, documentation, and web design pertain to usability and accessibility for people with impaired vision. Each accessible design choice generally benefits several disability groups at one time, and the web community as a whole.

Some disabilities that affect documentation include:

- Inability to see or hear some types of information
- Inability to comprehend some types of information
- Difficulty reading text
- Inability to use a keyboard or mouse

6.3 How to Document Accessibility Use and Features

All information about a product and product support services must be usable by people with disabilities. Each US Federal agency requires its vendors to include clear documentation about the accessibility features of their products.

You must document all accessibility features. However, if users can use the standard keyboard and keyboard shortcuts to navigate your product without a mouse, then you do not need to document those features. If there is an alternative way to use your product that would be helpful to someone who is disabled, then you must document that alternative. You must also document how to use your product to create accessible output (an accessible application). For more information about product accessibility, see *Guidelines for Documenting Product Accessibility* at

http://aseng-wiki.us.oracle.com/asengwiki/display/~ken_kipnes/Guidelines+for+Documenting+Product+Accessibility

Your documentation must include sufficient and clear instructions that enable a system implementor, system administrator, or a disabled user to learn how to configure and use the product:

- A description of the accessibility and compatibility features of the product, including how to install or activate the features
- A description of keyboard alternatives when complex, mouse-specific actions are discussed, such as drag-and-drop operations
- A description of keyboard techniques for individual product components when those techniques do not match, or are absent from, standard platform operations
- A description of an alternative solution to a task when a particular process is not accessible or a statement that the task has no accessible solution

Authoring tool documentation must include:

- How to configure and use the product to create accessible output
- A clear statement of what accessibility standards can be met in the output (Section 508 and WCAG 2.0, AA)
- The rationale for content generated for situations where a solution is ambiguous or a third-party validation tool may flag something as an error

Documentation about your product's accessibility features must be written so that it can be translated and localized, as applicable.

For every product that supports branding customization, you must ensure that the documentation describes how to replace the logo file and how to revise the alternative text that goes along with the logo.

6.3.1 Accessibility Features and Keyboard Shortcuts

If your product contains special accessibility features or keyboard shortcuts, then document this information in an appendix. Provide a title that clearly identifies the appendix as accessibility related, such as "Accessibility Features." Provide keyboard access to every product feature, and ensure that keyboard shortcuts do not conflict with those predefined by screen reader software (WCAG 2.0, Section 2.1.1). Do not allow the keyboard user to get stuck. The keyboard user must be able to move out of any field or area on a page or form (WCAG 2.0, Section 2.1.2). The keyboard user must be able to move the focus in a sequence that is logical and meaningful using the Tab key (WCAG 2.0, Section 3.4.3), and as focus moves between the controls when using a keyboard, the keyboard user must be able to see where the focus is. Enabling the keyboard user to know where the focus is can be achieved, for example, by having a blinking cursor visible or by having a border around a window visible (WCAG 2.0, Section 2.4.7).

The standard Microsoft Windows keyboard shortcuts and the standard Macintosh keyboard shortcuts are documented and available at

<http://support.microsoft.com/kb/126449>

<https://developer.apple.com/library/prerelease/content/documentation/UserExperience/Conceptual/OSXHIGuidelines/Keyboard.html>

Keep all references to accessibility itself as generic as possible. Do not refer to specific accessibility-related products or statutes. For information about terminology to avoid, see [Section 6.7](#).

If an Oracle product is integrated with another company's product, then ensure that product is accessible. If there are any known issues with a product (Oracle or not) and an assistive technology, such as with a particular screen reader, then document this information similarly to any other third-party interoperability issue. If there are accessibility workarounds in your product, then document these workarounds where other workarounds are documented. An accessibility workaround provides an alternative for a nonaccessible function, for which an accessibility bug has been filed, and which will be fixed in a future release.

6.3.2 Accessibility Statements

Your document must be tested for accessibility and must contain the TTY statement and accessibility statement from

http://docaccessibility.us.oracle.com/accessibility_statements.html

For more information about testing, see [Section 6.10](#).

Place the following statements in the preface of your document, or if you have an appendix that contains accessibility information, then include the statements there. If your document does not have a preface (a single-file document), then place the statements in a separate section.

- TTY Access to Oracle Support Services statement

The TTY Access to Oracle Support Services statement *must* be present in your document. It contains information about how to contact Oracle Support Services using a Text Telephone (TTY).

- Documentation accessibility statement

The documentation accessibility statement *must* be present, but it can be used *only* after your document is tested for accessibility.

Caution: Do not alter any of the statements in any way. These statements were approved by the Oracle legal counsel for accessibility, and they must not be changed.

6.4 Formats for Accessible Documentation

When a Federal agency provides documentation to users of technology, the agency must ensure that the documentation is available, upon request, in formats that are accessible to disabled users. HTML files, which can be accessed by screen readers through a browser window, are considered to be an acceptable delivery format for disabled users as suggested by the World Wide Web Consortium (W3C).

Oracle requires all documentation be available as accessible HTML files. These HTML files must meet Oracle Accessibility Guidelines (OAG), which are available at <http://globaldc-git.oracle.com/perl/twiki/view/AccessibilityProgram/About0AG>.

Converting an existing document from an inaccessible format to an HTML file does not always create an accessible document. You cannot, for example, take a PDF file and convert it to an HTML file and assume that it is accessible. In addition to the HTML files meeting OAG, they must also meet content standards (published formal HTML grammar), as outlined in the sections of this chapter.

PDF files are not considered to be accessible at Oracle.

6.5 Oracle Accessibility Guidelines 3.0 Standards

This section presents each of the relevant Oracle Accessibility Guidelines (OAG) 3.0 standards. These standards address access to all information, software, documentation, hardware, and support provided to users. Following the text of each standard and guideline are recommendations about how to make your documentation accessible.

Table 6-1 describes the accessibility terms used in this chapter.

Table 6-1 Accessibility Terms

Term	Meaning
Accessible	Content that can be used by people with disabilities.
Americans with Disabilities Act (ADA)	A civil rights law for people with disabilities.
Alternative text	Descriptive text for a nontext element that acts as a substitute for the nontext element. Alternative text provides the nontext elements' essential meaning to people with disabilities. The HTML ALT attribute causes the alternative text to be read by a screen reader. The HTML ALT attribute is required. If the descriptive text is too long for the HTML ALT attribute, then use an alternative text file (a separate HTML file).

Table 6–1 (Cont.) Accessibility Terms

Term	Meaning
Alternative text file	A text (.HTM or .HTML) file that contains descriptive text for a nontext element. A link to this file appears immediately after (below) the nontext element.
Assistive technology	Software or hardware specifically designed to assist people with disabilities. Some examples of assistive technology are screen readers, speech synthesizers, and alternative keyboards.
Disability	A condition that causes a physical or mental deficiency that requires the use of assistive technology.
Oracle Accessibility Guidelines (OAG)	Guidelines within Oracle that <i>must</i> be followed for HTML coding to be considered valid, that is, accessible. Based on rules from Section 508 of the Rehabilitation Act, the World Wide Web Consortium, and the National Federation for the Blind.
Section 508	Part of the Rehabilitation Act. Enacted to eliminate barriers (that people with disabilities may face) to electronic and information technology.
Screen reader	A software application that reads aloud the contents of a screen.
World Wide Web Consortium (W3C)	A group that develops common protocols for the web.
Web Content Accessibility Guidelines (WCAG)	Information about how to make web content accessible. Written by the World Wide Web Consortium.

6.5.1 Nontext Elements

Rules

WCAG 2.0, Section 1.1.1. Nontext content: All nontext content that is presented to the user has a text alternative that serves the equivalent purpose, except for the following situations:

- Controls, input: If nontext content is a control or accepts user input, then it has a name that describes its purpose. (See Guideline WCAG - 4.1.2 for additional requirements for controls and content that accepts user input.)
- Time-based media: If nontext content is time-based media, then text alternatives at least provide descriptive identification of the nontext content. (See Guideline WCAG - 1.2.1, Guideline WCAG - 1.2.2, and Guideline WCAG - 1.2.3 for additional requirements for media.)
- Test: If nontext content is a test or exercise that would be invalid if presented in text, then text alternatives at least provide descriptive identification of the nontext content.
- Sensory: If nontext content is primarily intended to create a specific sensory experience, then text alternatives at least provide descriptive identification of the nontext content.
- CAPTCHA: If the purpose of nontext content is to confirm that content is being accessed by a person rather than a computer, then text alternatives that identify and describe the purpose of the nontext content are provided, and alternative forms of CAPTCHA using output modes for different types of sensory perception are provided to accommodate different disabilities.

- Decoration, formatting, invisible: If nontext content is pure decoration, is used only for visual formatting, or is not presented to users, then it is implemented in a way that it can be ignored by assistive technology.

WCAG 2.0, Section 1.3.3. Sensory characteristics: Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, size, visual location, orientation, or sound.

Note: For requirements related to color, see Guideline WCAG - 1.4.1.

WCAG 2.0, Section 1.4.5. Images of text: If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text except for the following:

- Customizable: The image of text can be visually customized to the user's requirements.
- Essential: A particular presentation of text is essential to the information being conveyed.

Note: Logotypes (text that is part of a logo or brand name) are considered essential.

Recommendations

This guideline emphasizes the importance of providing alternative text of nontext elements. Because assistive technology cannot describe a nontext element, such as an image, you must provide an alternative that conveys the same information as the nontext element. The following are some nontext elements that require alternative text:

- Images used for navigation (for example, arrows, a home icon)
- Images used to convey information (for example, diagrams, graphs, screenshots)
- Symbols (also called icons, for example, eyeglasses to mean *look*, a stop sign to mean *stop*)
- Image map regions
- Multimedia presentations
- Plug-ins and scripts

6.5.1.1 Images

Images pose a problem to the disabled user, especially those with low or no vision. Therefore, use images carefully. Do not use ASCII characters to create images.

If the purpose of an image is to show a specific screen region or field, then explain that region or field in detail. If the image is a graph or diagram, then describe the information that is pertinent to the discussion. If the purpose is to illustrate an action, then describe the action.

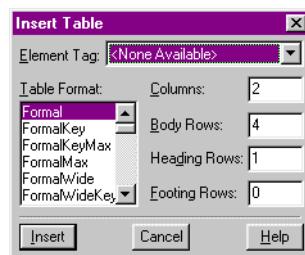
Some images do not need to be described because they do not add meaning to the documentation. Examples of images that do not need to be described are bullets in a list, transparent blocks used for formatting, and decorative images such as logos. Although these images do not need descriptions, the images are required to have an empty alternative text attribute (`alt=" "`) in the HTML file.

If you describe images within the text of the document, then try to do so *before* the appearance of the image. Use formal images (formal figures) whenever possible, because formal figures have titles and can be cross-referenced, as shown in [Example 6-1](#).

Example 6-1 Explanation of an Image Within a Document

[Figure 6-1](#) shows the Insert Table window, with the Formal table format selected. Enter the number of columns in the Columns field, the number of body rows in the Body Rows field, and the number of heading rows in the Heading Rows field. Enter 0 in the Footing Rows field for any table format that does not include the word Key.

Figure 6-1 Insert Table Window

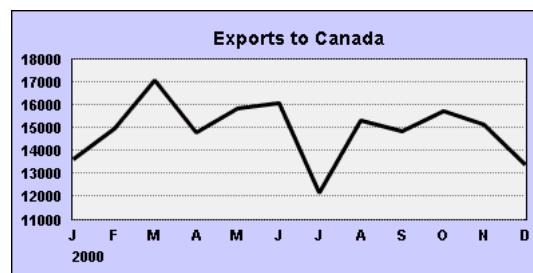


6.5.1.2 Graphs

If your document contains graphs, then name the type of graph (line, bar, pie, and so on), and state the title, the source of the graph information, and captions.

When describing a line graph, begin the description by explaining what quantity is measured along the horizontal (x) axis, the unit of measurement, and its limits. Do the same for the vertical (y) axis. Decide whether the purpose of the graph is to give detailed information, to describe a trend, or to show a comparison. Start at the left side of the graph and give the coordinates (x and y values) of significant points. Always give the starting point of the curve. [Figure 6-2](#) shows a line graph and [Example 6-2](#) shows its associated alternative text. For more information about alternative text, see [Section 6.5.3](#). For examples of a bar graph and a pie chart, see [Section 6.5.4](#).

Figure 6-2 Sample Line Graph: Exports to Canada



Example 6-2 Alternative Text for Figure 6-2

The image linechart1.gif is the line graph titled Exports to Canada. The x-axis is the months of the year, from January to December 2000. The y-axis is the number of exports, in increments of 1,000, from 11,000 to 18,000. In January, the number of exports is slightly less than 14,000. In February, the number of exports is approximately 15,000. (You would continue the description, ending with December, depending on what is important in the graph.)

6.5.1.3 Image Maps

Rules

- 1194.22 (e) Redundant text links shall be provided for each active region of a server-side image map.
- 1194.22 (f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.

Recommendations

An **image map** is an image in an HTML document with hot (active) spots, which, when clicked, act as anchors or links to other information (either directly or indirectly). For example, an image of a map of a park might show the various picnic areas. Clicking a picnic area would take the user to more information about that area. There are two types of image maps, client-side and server-side.

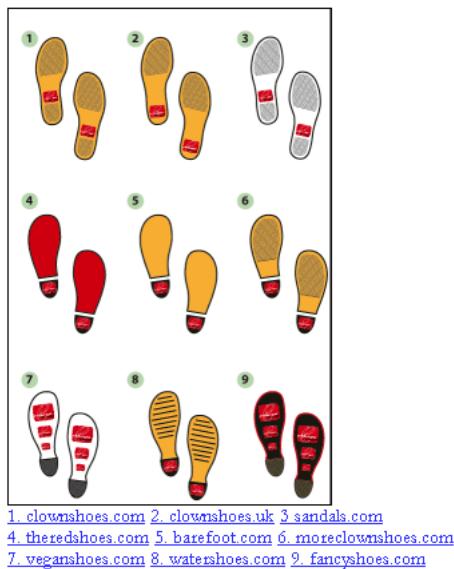
When a user moves the mouse over a region of a client-side image map with the cursor, the pixel coordinates are interpreted by the browser. The browser selects a link that was specified for the activated region and follows it. When a user moves the mouse over a region of a server-side image map with the cursor, the pixel coordinates of the click of the mouse are sent to the server-side agent specified in the code. The server-side agent interprets the coordinates and performs some action.

Client-side image maps are the preferred type of image maps. They enable the image map creator to specify each active region, which can then be assigned its own link, and each region can have its own alternative text. If you use client-side image maps, then remember to include alternative text that describes where each link takes the user.

If image maps are included, then use client-side image maps, except where the regions cannot be defined with geometric shapes. Supplement all image maps with alternative text. For more information about alternative text, see [Section 6.5.3](#).

If you use server-side image maps, then you must include redundant text links for each active region, as shown in [Figure 6-3](#). Server-side image maps must also have alternative text associated with them.

It is not possible to make complex client-side image maps or complex server-side image maps accessible. Do not use image maps, for example, with decision trees.

Figure 6–3 Image Map with Redundant Text Links

Unlike client-side image maps, server-side image maps specify the coordinates within the image only when the mouse is clicked. Thus, a screen reader user cannot identify where the link will go. The redundant text link is necessary to provide access for anyone who is not able to see or accurately click the map.

6.5.1.4 Multimedia Presentations

Rules

WCAG 2.0, Section 1.2.1. Audio-only and video-only (prerecorded): For prerecorded audio-only and prerecorded video-only media, the following are true, except when the audio or video is a media alternative for text and is clearly labeled as such:

- Prerecorded audio-only: An alternative for time-based media is provided that presents equivalent information for prerecorded audio-only content.
- Prerecorded video-only: Either an alternative for time-based media or an audio track is provided that presents equivalent information for prerecorded video-only content.

WCAG 2.0, Section 1.2.2. Captions (prerecorded): Captions are provided for all prerecorded audio content in synchronized media, except when the media is a media alternative for text and is clearly labeled as such.

WCAG 2.0, Section 1.2.4. Captions (live): Captions are provided for all live audio content in synchronized media.

WCAG 2.0, Section 1.2.5. Audio description (prerecorded): Audio description is provided for all prerecorded video content in synchronized media.

WCAG 2.0, Section 1.4.2. Audio control: The volume must be able to be controlled by the user.

Recommendations

For multimedia presentations (web-based or not) that contain audio or video, you must provide an equivalent alternative that is synchronized with the presentation, such as a written transcript or captions that can be read by a screen reader. If audio

and video are used in synchronization with each other, then provide captions as an alternative for the audio portion of the presentation, and a written transcript as an alternative for the visual portion of the presentation.

The content of the alternative that you provide must match the content of the presentation. If the content is updated, then the alternative must be updated at the same time.

6.5.1.5 Plug-ins and Scripts

Rules

1194.22(a) A text equivalent for every nontext element shall be provided.

1194.22(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology.

1194.22(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with 1194.21(a) through (l).

Recommendations

Most browsers can read and display HTML code; however, some companies have proprietary file formats, such as PDF, referenced in the HTML code. Those file formats cannot be displayed without a specific plug-in installed on the user's system. If a document or web page uses plug-ins, then include a link to the required plug-in application so it can be downloaded by the user. In addition, to ensure that a screen reader can detect a plug-in in the HTML code, use the HTML <OBJECT> tag and describe the plug-in using the alt attribute. All plug-ins must be accessible, or another method to access equivalent content must be provided to the user.

Similar to handling plug-ins, identify scripts and applets with either the HTML <OBJECT> tag or the HTML <APPLET> tag and describe the script or applet by using the alt attribute. Provide a link for downloading the required script or applet, and ensure that scripts and applets are accessible, or provide another method to access equivalent content.

A screen reader must be able to read a script, and the content must be clearly written. Often, text in scripts is meaningless to the user because no context is provided. For example, a script causes the product's name to scroll across a page, forward and backward. The screen reader reads the product name forward and backward; however, the user has no idea that this scrolling is being done purely for effect, unless the user is told.

It is particularly difficult for a screen reader user to understand information presented when images are included in a script. For example, a script might cause an image to change when the user moves the mouse over it. Some screen readers will tell the user only about the second image. Again, without any context, the user cannot understand the meaning or intent of the information being presented.

If a script (or any element) has its own interface, then ensure that it can be operated without any special devices. The user must be able to operate the script using the keyboard, a mouse, a speech synthesizer, and so on. If a script or an applet creates movement, then a way to stop the movement must also be provided.

Often event handlers are used to perform actions such as checking a form for blank fields before it is submitted to the server for processing. Because the level of support for event handlers varies among screen readers, if an event handler is used, then

ensure that the event handler is created according to guidelines defined by the Access Board. (See [Section 6.11](#).)

6.5.2 Alternative Text Files

Alternative text files are files that can be read by a screen reader. These files must be formatted using HTML, and they must meet Oracle Accessibility Guidelines (OAG).

In your alternative text file, you must describe the meaning of the image. If your authoring tool does not provide a link to the alternative text file with the name of the image, then it is recommended that you include the name of the image file in the first line of the alternative text file.

It is acceptable to include an empty alternative text attribute (`alt=""`) in the HTML file of your document for images that do not add any meaning to the documentation. For example, a transparent block that is used as a spacer for formatting purposes does not require a description.

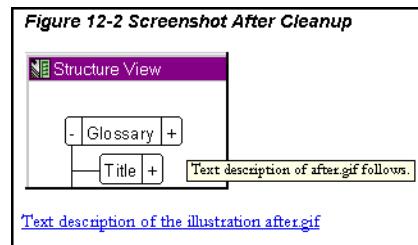
Note: An *empty* alternative text attribute for an image is acceptable; *no* alternative text attribute is not acceptable.

6.5.3 Alternative Text for Images

Alternative text is a textual description that acts as a substitute for a nontext element. All nontext elements (for instance, an image) must be accompanied by alternative text in the form of a brief description that is read to a screen reader user in place of an image using the HTML `ALT` attribute. In addition, by also using the HTML `title` attribute, the description can be displayed by a browser when a user moves a cursor over an image (tooltip). If this description is too long for the HTML `ALT` attribute, then provide a link to a long description contained in a separate HTML file (the alternative text file). At a minimum, the HTML `ALT` attribute is required.

[Figure 6-4](#) shows the alternative text (using the HTML `title` attribute) that is displayed for a particular image. [Figure 6-4](#) also shows the link to the alternative text file.

Figure 6-4 Alternative Text Being Displayed



When writing alternative text, consider the following:

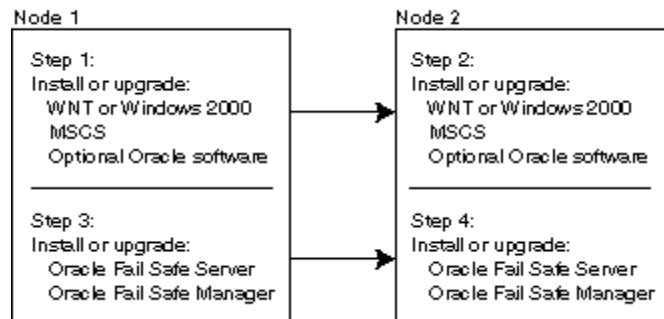
- If you use symbols to represent concepts, then:
 - Explain what these symbols mean.
 - Remember to include alternative text for each occurrence of the symbol.
 - Do not change the meaning of the symbol.

For example, if a picture of eyeglasses means *see another book*, then do not change that meaning to be *see the pharmaceutical reference*.

- When describing user-interface controls, such as those in a window, do so in tab order, as shown in [Example 6–1](#). Tab order is the sequence in which a user navigates through fields when pressing the Tab key.
- Do not include inconsequential details. Be as concise as possible, while still providing alternative text that conveys the same meaning to a disabled user as it would to a user without a disability.

If you are presenting various toolbar buttons, then each button could be described in the text with its label: Save, Print, and so on. These toolbar buttons would not require links to separate alternative text files. However, if you are illustrating a process, such as the order of operations in a procedure or program, then you must include a link to an alternative text file that adequately describes the information conveyed in the image. [Figure 6–5](#) shows an image that depicts a process for which a separate alternative text file is required. [Example 6–3](#) shows the required alternative text.

Figure 6–5 Image Depicting a Process



Example 6–3 Contents of the Alternative Text File for Figure 6–3

The image nu-fsinstall.gif shows the steps involved in installing Oracle Fail Safe on two nodes:

- The first rectangle is Node 1, and contains Step 1 and Step 3. The second rectangle is Node 2, and contains Step 2 and Step 4.
- Node 1, Step 1: Install or upgrade: Windows NT or Windows 2000, MSCS, Optional Oracle software.
- Node 2, Step 2: Install or upgrade: Windows NT or Windows 2000, MSCS, Optional Oracle software.
- Node 1, Step 3: Install or upgrade Oracle Fail Safe Server and Oracle Fail Safe Manager.
- Node 2, Step 4: Install or upgrade Oracle Fail Safe Server and Oracle Fail Safe Manager.

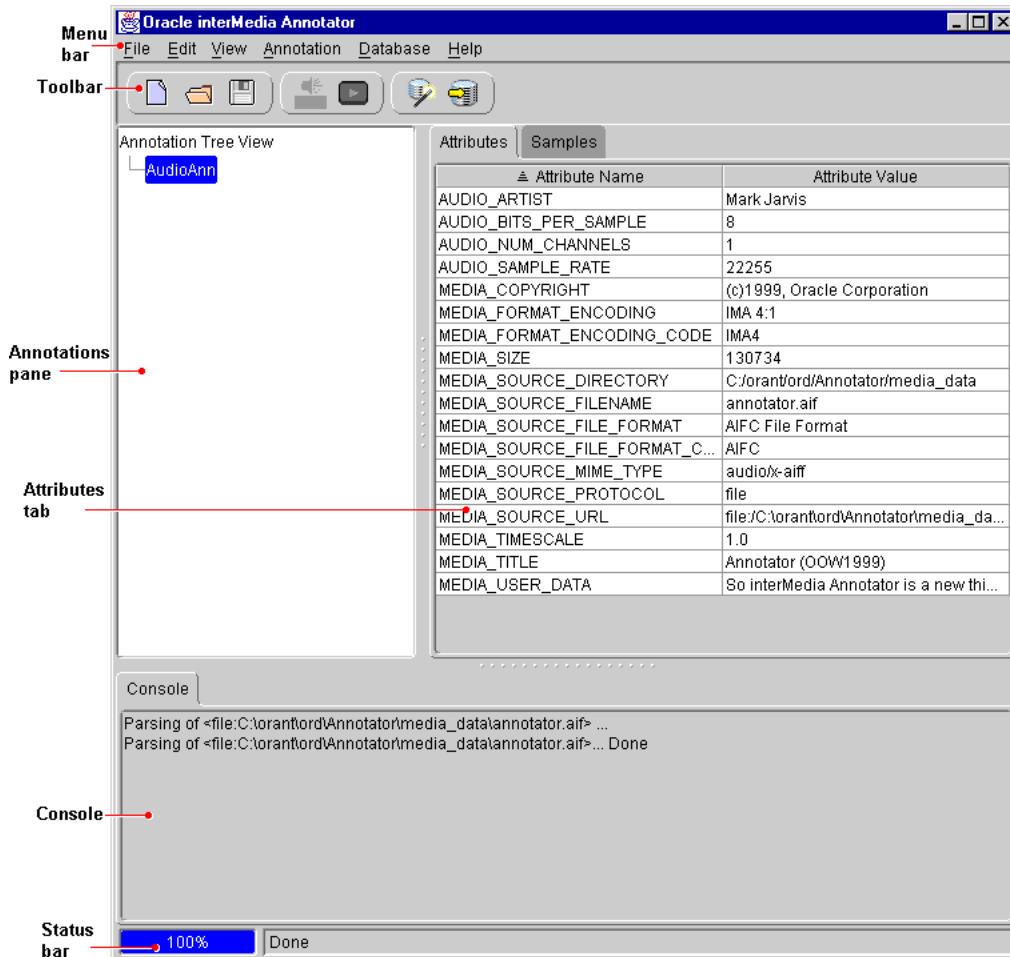
6.5.4 Sample Images and Their Alternative Text Files

Sample images and appropriate alternative text contained in the alternative text files for those images demonstrate how to ensure that your document meets the Oracle accessibility guidelines.

Screenshots

Figure 6–6 shows a screenshot of the Oracle *interMedia Annotator* window. Example 6–4 shows the contents of the associated alternative text file.

Figure 6–6 Sample Image: Oracle *interMedia Annotator* Window



Example 6–4 Contents of the Alternative Text File for Figure 6–6

The image fullscre.gif shows the Oracle *interMedia Annotator* window.

The main features of the window, from top to bottom, are the Menu bar, the Toolbar, the Annotations pane, the Attributes tab, the Console tab, and the Status bar. The main features of the window are described in more detail in the text following the image.

Bar Graphs

Describe bar graphs in a manner similar to line graphs. Figure 6–7 shows a bar graph. Example 6–5 shows the contents of the associated alternative text file.

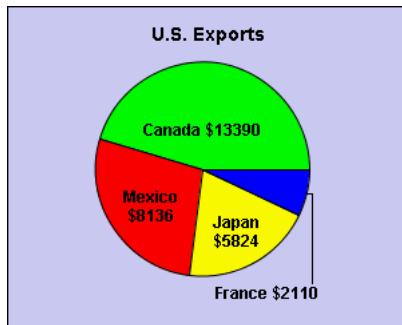
Figure 6–7 Sample Bar Graph: World's Busiest Airports**Example 6–5 Contents of the Alternative Text File for Figure 6–7**

The image bar_string_3d.gif is the bar graph titled World's Busiest Airports. The x-axis shows the airport identification codes. The y-axis shows the number of passengers in March 2001, in increments of 15,000, from 30,000 to 90,000. The bar graph shows that Atlanta (airport code ATL) carried about 80,000 passengers. Orlando (ORD) carried just under 75,000 passengers. Los Angeles International (LAX) carried about 70,000 passengers. (You would continue to describe the graph, ending with AMS.)

The source of the graph is the Airports Council International from March 2001.

Pie Charts

When describing pie charts, start with the title, source, and captions. The user can visualize a pie chart more easily if you begin by writing at which clock position you are starting, and whether you are traveling clockwise or counterclockwise from the starting point. If the colors of the chart are mentioned in the text, then mention which wedges of the chart are in those colors. [Figure 6–8](#) shows a pie chart. [Example 6–6](#) shows the contents of the associated alternative text file.

Figure 6–8 Sample Pie Chart: US Exports**Example 6–6 Contents of the Alternative Text File for Figure 6–8**

The image pie_example_quant.gif is the pie chart titled US Exports. Starting at 10 o'clock and going clockwise, Canada, represented by a green segment, purchased \$13,390 worth of exports. France, represented by a blue segment at 3 o'clock, purchased \$2,110 worth of exports. Japan, represented by a yellow segment at 4 o'clock, purchased \$5,824 worth of exports. Mexico, represented by a red segment at 6 o'clock, purchased \$8,136 worth of exports.

Diagrams and Other Complex Images

Images, such as flow chart diagrams, are often complex and require detailed explanations, even for users who are not disabled. In this case, you can describe the

image in the text preceding it. By doing so, you eliminate the need for lengthy alternative text.

[Example 6–7](#) shows the information contained within the document text that describes [Figure 6–9](#). [Example 6–8](#) shows the contents of the associated alternative text file for the image. The alternative text informs the user that the image is described in the document text that precedes the image.

Example 6–7 Information Within the Document Text About Figure 6–9

You can use *interMedia* Annotator to perform the following operations, in this order:

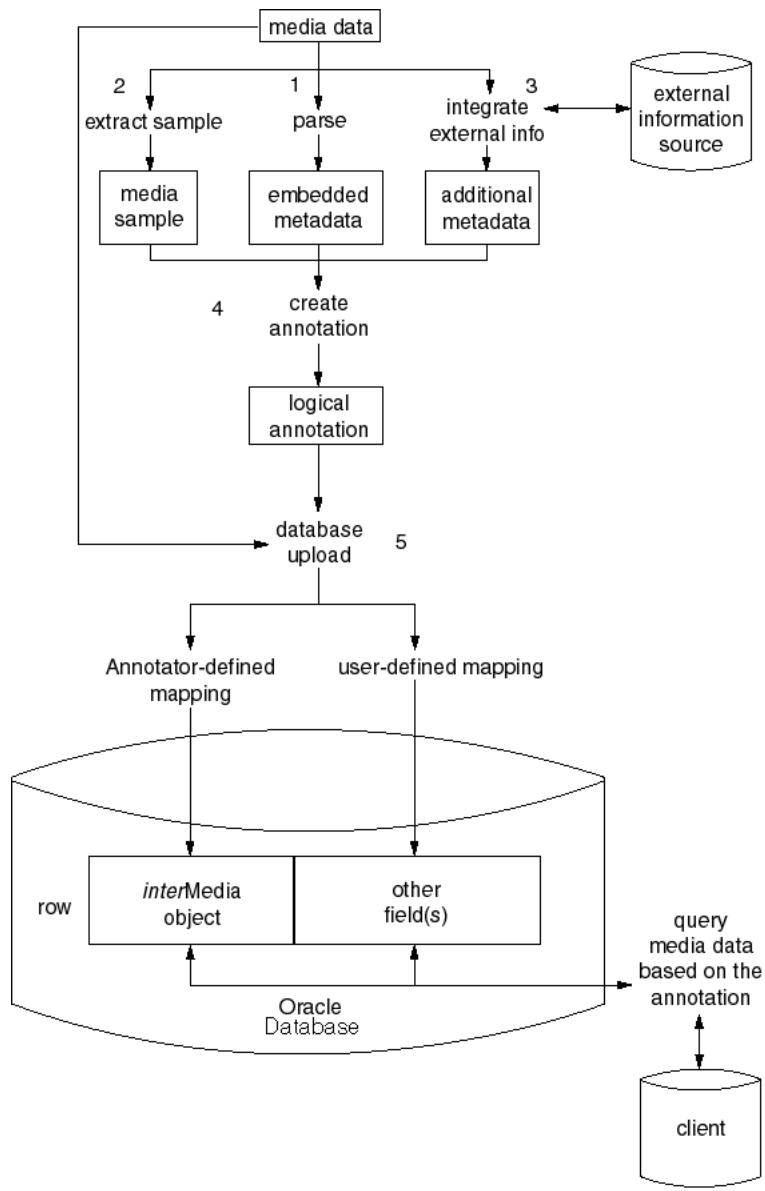
1. Parse the media source. *interMedia* Annotator extracts the metadata from the source file.
2. Extract samples from the media source. *interMedia* Annotator extracts a sample from the media data (such as a text track from a movie file).
3. Integrate information from additional sources. Some information that would be useful in an annotation is not necessarily included in the metadata. For example, you could import data from a previously generated annotation.
4. Create a logical annotation. *interMedia* Annotator combines the extracted samples and the metadata, and builds a logical annotation.

Applications can further customize the annotation at this point.

5. Upload the annotation and the media source to an Oracle database.

interMedia Annotator will upload the media source and the annotation (in XML format) into an *interMedia* object in the database. *interMedia* Annotator can also upload individual attributes from the annotation into other columns of the database. You specify the *interMedia* object to which you will upload, along with the rest of the information to be uploaded, in a PL/SQL Upload Template. You can create a template using a text editor or the PL/SQL Template Wizard.

After you have completed these steps, you will be able to query the information in the annotation to use information about the media source that cannot be directly extracted.

Figure 6–9 Sample Image: Overview of *interMedia* Annotator Operations**Example 6–8 Contents of the Alternative Text File for Figure 6–9**

The image overview.gif shows an overview of the operations performed by *interMedia* Annotator. The operations are described in detail in the text preceding the image.

6.5.5 Color

Rules

WCAG 2.0, Section 1.4.1. Use of color: Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

Note: This success criterion addresses color perception specifically. Other forms of perception are covered in Guideline WCAG - 1.3.1 and Guideline WCAG - 1.3.3, including programmatic access to color and other visual presentation coding.

WCAG 2.0, Section 1.4.3. Contrast (minimum): The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following:

- Large text: Large-scale text and images of large-scale text have a contrast ratio of at least 3:1.
- Incidental: Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement.
- Logotypes: Text that is part of a logo or brand name has no minimum contrast requirement.

Recommendations

Do not use color as the sole method to convey meaning. When colors are used as the sole method for identifying information, users who are color blind, blind, or have low vision might find the information unusable. You may use color to enhance the identification of important features.

Ensure that all information conveyed with color is also available without color. For example, do not identify all MS-DOS commands by making them blue. In an application, you cannot tell users to "click the red button to stop the process." If the only method of identifying the button is its color, then the application itself is not accessible.

To see if your document uses color to convey information, try viewing it on a black and white monitor or printing it on a noncolor printer.

Example 6–9 Do Not Rely Solely on Color for Meaning

Correct	Incorrect
Click the Stop button to stop the process.	Click the red button to stop the process.
In UNIX, enter ls -a. In MS-DOS, enter dir.	Enter ls -a or dir. Note: In the HTML text, the command ls -a is green, and the command dir is blue.

Users who have low vision are especially affected by foreground and background color choices. Ensure that foreground and background color combinations in images provide sufficient contrast. Some combinations of colors are less readable than others. Use dark colors on light backgrounds, such as black on white, navy blue on white, and so on. Do not override user-selected contrast and color selections and other individual display attributes.

6.5.6 Tables

WCAG 2.0, Section 1.3.1. Information and relationships: Information structure and relationships conveyed through presentation can be programmatically determined or are available in text.

OAG notes:

- User interface component labels are associated with the fields that they are labeling.
- Headings are encoded with HTML heading tags.
- List markup is used for marking up lists.
- Table markup is used for marking up data tables, including row and column headings and table captions/summaries, where appropriate.
- Data tables specify the HTML SUMMARY or CAPTION attribute.
- Layout tables use appropriate markup.
- Groups of components are marked up with their descriptions.
- Style sheets are used only to change the layout and presentation on the screen.

Recommendations

These provisions permit the use of tables, but require that the tables be coded using the appropriate HTML code.

To ensure that HTML files are accessible, avoid using tables for formatting text. If a table is used for formatting, then do not use structural markup code for visual formatting. For example, do not use a table heading tag to cause the content of a table cell that is not a table heading to be centered and bold. If a table is used for formatting text, then include a blank summary attribute (`summary=""`) and the WAI-ARIA ROLE attribute (`ROLE="presentation"`) in the HTML code to inform the screen reader user that the purpose of the table is just for formatting. Tables that are not used for visual formatting must have summaries.

[Example 6–10](#) shows a DARB templates simple table. Simple tables do not have borders or headings. However, this table was modified to use bold and centered text in the first row to make it appear as though the row contains headings. Instead of using a simple table, use an informal table, which does allow headings, such as that in [Example 6–11](#).

Example 6–10 Incorrect Table Formatting Using a Simple Table

Abbreviation or Acronym	Spelled Out
DARB	Document Architecture Review Board
SGRB	Style Guide Review Board

Example 6–11 Correct Table Formatting Using an Informal Table

Abbreviation or Acronym	Spelled Out
DARB	Documentation Architecture Review Board
SGRB	Style Guide Review Board

It is recommended that all tables have titles. Formal tables have titles that appear in document text. Informal and simple tables do *not* have titles that appear in document text. Use the title attribute of the HTML tag <TABLE> to include a title that is visible to and read by screen readers. For an example of how to use the title attribute, see [Example 6–14](#).

Tables must have summaries. Table summaries briefly describe the contents of a table. Each table must have a summary sentence that appears in the document text and in the HTML code, visible to and read by a screen reader. Use the `summary` attribute of the HTML tag `<TABLE>` to include a summary. For an example of how to use the `summary` attribute, see [Example 6–14](#).

6.5.6.1 General Guidelines for Creating Tables

Keep in mind the following when creating formal, informal, and simple tables:

- Cross-reference all formal tables in the paragraph that precedes the table. Introduce the table with a summary sentence and include a summary of the table using the `summary` attribute in the HTML code.
An example of a summary sentence for a formal table is, "Table 10–2 lists some keyboard shortcuts and their actions."
- All informal tables must have a summary sentence directly preceding the table and include a summary of the table using the `summary` attribute in the HTML code. All informal tables must have a title in the HTML code that is visible to and read by screen readers. To include a title in the HTML code, use the `title` attribute.
An example of a summary sentence for an informal table is, "The following table shows the correspondence between the commands in the previous and current versions of the software."
- All simple tables must have a summary sentence directly preceding the table. Simple tables must have a title and a summary of the table in the HTML code that is visible to and read by screen readers. To include a summary of the table and a title in the HTML code, use the `summary` and `title` attributes. Because simple tables do not have headings, your summary must be very descriptive.
An example of a summary sentence for a simple table is, "The following table lists countries and their corresponding abbreviations." It is recommended that you include in the table summary, "This table reads down the columns, from left to right."

Before creating any type of table, keep in mind the following:

- Ensure that table cells make sense when read in order. A table cell is the intersection of a row and a column.
If the table cells were read, one cell right after another, from left to right, then the cumulative text must make sense. However, if the text of the table cells does not make sense when read in this order, then use the `summary` attribute to describe how the table should be read.
- Identify row and column headings.
Use the HTML tag `<TD>` to identify table cells and the HTML tag `<TH>` to identify table headings. Use the `headers` and `id` attributes of the `<TH>` and `<TD>` tags to associate the contents of a cell with the appropriate row and column headings. For tables that do not have rows that span columns, use the `scope` attribute of the `<TH>` and `<TD>` tags to associate columns and rows with cells located in those columns or rows.
- Associate table cells and heading cells.
Screen readers can get lost inside a table because it might be impossible to associate a particular cell that a screen reader is reading with the corresponding column headings and row names for that cell. For tables that have two or more logical levels of row or column headings, use the HTML tags `<THEAD>`, `<TFOOT>`,

and <TBODY> to group columns, and use the axis, scope, id, and headers attributes to describe complex relationships among table data.

- Include no more than two columns in a table that does not have column headings.

Larger, longer tables that do not have headings become confusing for some users of screen readers. Without column headings, the context of large tables could be lost.

- Do not span rows or columns with table cell text, unless you are able to correctly associate cells with headings.

When table cell text spans rows or columns, a screen reader may not read the table correctly. In fact, it might not recognize the table as a table. If you provide cell text that spans rows and columns, then you must associate table headings with individual table cells.

Caution: Most HTML conversion tools do not automatically generate mandatory HTML table code, such as summaries and heading IDs. You must manually enter this information if you use such tools.

- If you use tables that contain legend information, then consider repeating that information in the text that precedes the table.

Screen readers read text in order. Thus, screen reader users will not know what the legend means until they reach the end of the table.

For example, "Table A-5 lists the paragraph formats available in the DARB SGML Templates generated files, including the table of contents; lists of examples, figures, and tables; and index." The following abbreviations are used for the templates:

- A for Appendix
- C for Chapter
- and so on . . .

In your table summary, add "This table has a legend."

- Provide abbreviations for headings.

When the screen reader navigates from one cell to the next, it reads the relevant heading for each cell, if the headings have been associated appropriately. Summarize long headings so that the cell reading becomes less repetitive and easier to follow. For example, if a heading is Sales Data for September 2001, then the abbreviation could read September Sales.

- Avoid leaving table cells blank (empty).

Blank table cells can cause problems for screen reader users. When a screen reader comes to a blank table cell, the blank cell is skipped. A skipped cell can cause the screen reader user to become lost in the table.

6.5.6.2 Sample HTML Code for Tables

This section gives examples of different types of tables and the appropriate HTML code for those tables.

[Table 6–2](#) is an example of a table with spanned rows, and [Example 6–12](#) shows the HTML code for that table.

Table 6–2 Example of a Table with Spanned Rows

Animal Size	Type of Animal	Species	Method of Movement
Large	Mammal	Buffalo	Walking
		Whale	Swimming
Tiny	Insect	Mosquito	Flying

Example 6–12 HTML Code for Table 6–2

```
[1]<table border=1 summary="A test table to show a spanned row">
<tr>
[2]<th id="size" abbr="size">Animal Size</th>
<th id="kind" abbr="type">Type of Animal</th>
<th id="animal">Species</th>
<th id="transport" abbr="movement">Method of Movement</th>
</tr>
<tr>
[3]<td rowspan=2 headers="size" id="large">Large</td>
<td rowspan=2 headers="kind large" id="mammal">Mammal</td>
<td headers="Large Mammal Animal">Buffalo</td>
<td headers="Large Mammal Transport">Walking</td>
</tr>
<tr>
[4]<td headers="Large Mammal Animal">Whale</td>
<td headers="Large Mammal Transport">Swimming</td>
</tr>
<tr>
<td headers="Size" id="Tiny">Tiny</td>
<td headers="Tiny Kind" id="Insect">Insect</td>
<td headers="Tiny Insect Animal">Mosquito</td>
<td headers="Tiny Insect Transport">Flying</td>
</tr>
</table>
```

Explanation of Callouts in Example 6–12

1. A table summary
2. A table heading tag with the id attribute
3. A spanned row
4. A table cell with the headers attribute

The following is an informal table as it is displayed by a browser, and [Example 6–13](#) shows a portion of the HTML code for that table.

Data Type	Description
ok4B	Signed 4-byte integer

Example 6–13 HTML Code for the Previous (Informal) Table

```
[1]<table summary="This table is a two-column informal table that has two column
headings and one row."
dir="ltr" border="1" width="100%" frame="hsides" rules="groups"
cellpadding="3" cellspacing="0">
[2]<thead>
<tr align="left" valign="top">
<th id="r1c1" align="left" colspan="1" valign="bottom">
```

```
<font face="Arial, Helvetica, sans-serif">
<strong>Data Type</strong></font></th>
[3]<th id="r1c2" align="left" colspan="1" valign="bottom">
<font face="Arial, Helvetica, sans-serif">
<strong>Description</strong></font></th>
</tr>
</thead>
<tbody>
<tr align="left" valign="top">
[4]<td id="r2c1" headers="r1c1" align="left" colspan="1">
<code>ok4B</code>
</td>
[5]<td headers="r2c1 r1c2" align="left" colspan="1">
Signed 4-byte integer
</td>
```

Explanation of Callouts in Example 6–13

1. A table summary
2. The <THEAD> tag
3. A table heading tag with the id attribute
4. A table cell with the id attribute
5. A table cell with the headers attribute

Figure 6–3 shows a formal table as it is displayed through a browser, and Example 6–14 shows the HTML code for that table.

Table 6–3 Temperature and Cooking Times for Baked Goods

Food Item	Oven Temperature (Degrees F)	Cooking Time (Minutes)
Biscuits	450	12
Bread	400	45
Brownies	350	25
Cake	350	60
Cookies	375	10
Tarts	375	40

Example 6–14 HTML Code for Table 6–3

```
<table class="Formal" title="Temperature and Cooking Times for Baked Goods"
summary="This table is an example of a properly constructed formal table."
dir="ltr" border="1" width="100%" frame="hsides" rules="groups" cellpadding="3"
cellspacing="0">
<thead>

<tr align="left" valign="top">
<th align="left" valign="bottom" id="r1c1-t26">Food Item</th>
<th align="left" valign="bottom" id="r1c2-t26">Oven Temperature (Degrees F)</th>
<th align="left" valign="bottom" id="r1c3-t26">Cooking Time (Minutes)</th>
</tr>
</thead>
<tbody>
<tr align="left" valign="top">
<td align="left" id="r2c1-t26" headers="r1c1-t26">
<p>Biscuits</p>
```

```
</td>
<td align="left" headers="r2c1-t26 r1c2-t26">
<p>450</p>

</td>
<td align="left" headers="r2c1-t26 r1c3-t26">
<p>12</p>
</td>
</tr>
<tr align="left" valign="top">
<td align="left" id="r3c1-t26" headers="r1c1-t26">
<p>Bread</p>
</td>
<td align="left" headers="r3c1-t26 r1c2-t26">
<p>400</p>
</td>
<td align="left" headers="r3c1-t26 r1c3-t26">
<p>45</p>

</td>
</tr>
<tr align="left" valign="top">
<td align="left" id="r4c1-t26" headers="r1c1-t26">
<p>Brownies</p>
</td>
<td align="left" headers="r4c1-t26 r1c2-t26">
<p>350</p>
</td>
<td align="left" headers="r4c1-t26 r1c3-t26">
<p>25</p>
</td>
</tr>
<tr align="left" valign="top">

<td align="left" id="r5c1-t26" headers="r1c1-t26">
<p>Cake</p>
</td>
<td align="left" headers="r5c1-t26 r1c2-t26">
<p>350</p>
</td>
<td align="left" headers="r5c1-t26 r1c3-t26">
<p>60</p>
</td>
</tr>
<tr align="left" valign="top">
<td align="left" id="r6c1-t26" headers="r1c1-t26">
<p>Cookies</p>

</td>
<td align="left" headers="r6c1-t26 r1c2-t26">
<p>375</p>
</td>
<td align="left" headers="r6c1-t26 r1c3-t26">
<p>10</p>
</td>
</tr>
<tr align="left" valign="top">
<td align="left" id="r7c1-t26" headers="r1c1-t26">
<p>Tarts</p>
</td>
```

```
<td align="left" headers="r7c1-t26 r1c2-t26">
<p>375</p>

</td>
<td align="left" headers="r7c1-t26 r1c3-t26">
<p>40 <a id="sthref266" name="sthref266"></a></p>
</td>
</tr>
</tbody>
</table>
```

The following shows an example of how to correctly use a simple table. This table appears in this chapter. [Example 6–15](#) shows a sample of the HTML code for this table.

acute (angles)	horizontal	perpendicular
bottom	left	points of the compass
clockwise	lower	radially
concentric	mirror-image	right
counterclockwise	oblique	top
cross-section through	o'clock position	upper
diagonal	parallel	vertical

Example 6–15 HTML Code for the Previous (Simple) Table

```
<table title="Terms to Describe Objects in an Image" summary="This columnar table
reads down the columns from left to right to conserve space." dir="ltr"
width="100%">
<tbody>
<tr align="left" valign="top">
<td align="left">acute (angles)
</td>
<td align="left">horizontal
</td>
<td align="left">perpendicular
</td>
</tr>
<tr align="left" valign="top">
<td align="left">bottom
</td>
<td align="left">left
</td>
<td align="left">points of the compass
</td>
</tr>
.
.
.
</tbody>
</table>
```

6.5.7 Timed Content

Rules

WCAG 2.0, Section 2.3.1. Three flashes or below threshold: Web pages do not contain anything that flashes more than three times in any 1 second period, or the flash is below the general flash and red flash thresholds.

Note: Because any content that does not meet this success criterion can interfere with a user's ability to use the whole page, all content on the web page (whether it is used to meet other success criteria or not) must meet this success criterion.

WCAG 2.0, Section 2.2.1. Timing adjustable: For each time limit that is set by the content, at least one of the following is true:

- Turn off: The user is allowed to turn off the time limit before encountering it.
- Adjust: The user is allowed to adjust the time limit before encountering it over a wide range that is at least 10 times the length of the default setting.
- Extend: The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, press the space bar), and the user is allowed to extend the time limit at least 10 times.
- Real-time exception: The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible.
- Essential exception: The time limit is essential and extending would invalidate the activity.
- 20-hour exception: The time limit is longer than 20 hours.

Note: This success criterion helps ensure that users can complete tasks without unexpected changes in content or context that are a result of a time limit. This guideline should be considered in conjunction with Guideline WCAG - 3.2.1, which puts limits on changes of content or context as a result of user action.

WCAG 2.0, Section 2.2.2. Pause, stop, hide: For moving, blinking, scrolling, or auto-updating information, all of the following are true:

- Moving, blinking, scrolling: For any moving, blinking, or scrolling information that starts automatically, lasts more than 5 seconds, and is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential.
- Auto-updating: For any auto updating information that starts automatically and is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it, or to control the frequency of the update unless the auto-updating is part of an activity where it is essential.

Note: Because any content that does not meet this success criterion can interfere with a user's ability to use the whole page, all content on the web page (whether it is used to meet other success criteria or not) must meet this success criterion.

Note: Content that is updated periodically by software or that is streamed to the user agent is not required to preserve or present information that is generated or received between the initiation of the pause and resuming presentation, because this may not be technically possible, and in many situations could be misleading to do so.

Note: An animation that occurs as part of a preload phase or similar situation can be considered essential if interaction cannot occur during that phase for all users and if not indicating progress could confuse users or cause them to think that content was frozen or broken.

WCAG 2.0, Section 2.3.1. Three flashes or below threshold. Nothing can flash more than 3 times per second.

Note: Section 2.3.1 must *never* be violated. A product that violates this section cannot be shipped.

Recommendations

This rule sets a limit on the blink or flicker rate of screen elements. This standard is necessary because some individuals with photosensitive epilepsy can have a seizure triggered by displays that flicker, flash, or blink in the 2 to 55 flashes per second (Hertz) range.

Note: Because blinking can cause seizures, do not make content blink.

Avoid movement in pages. When important elements, such as buttons or relevant text are animated, the screen reader user cannot access those elements. If your documentation contains animation that conveys meaning, then you must provide an accessible alternative that conveys the same meaning.

Avoid creating pages that automatically refresh, or automatically change the content or focus of the page. If you allow these actions, then you must provide a way for the user to disable them.

If the location of a web page was changed and the user can still get to the old location, then put a link on the old web page to redirect the user to the new location, and inform the user of the change. Send the user to the new location using the HTML <A HREF> tag. Do not use the HTML <META> tag to automatically redirect the user to the new location. Using the HTML <META> tag causes the screen reader to stop reading what is on the current page. The screen reader then begins reading what is on the new page without notifying the screen reader user, which can cause confusion.

If a timed response is necessary, then you must notify the user and you must allow the user to indicate, if necessary, that more time is required.

Do not cause anything to flash more than 3 times per second.

6.5.8 Navigation

The following information describes navigation issues that are potential problems for screen reader users, and what you can do to avoid them in your document.

6.5.8.1 Repetitive Navigation Links

Rules

WCAG 2.0, Section 2.4.1. Bypass blocks: A mechanism is available to bypass blocks of content that are repeated on multiple web pages.

Recommendations

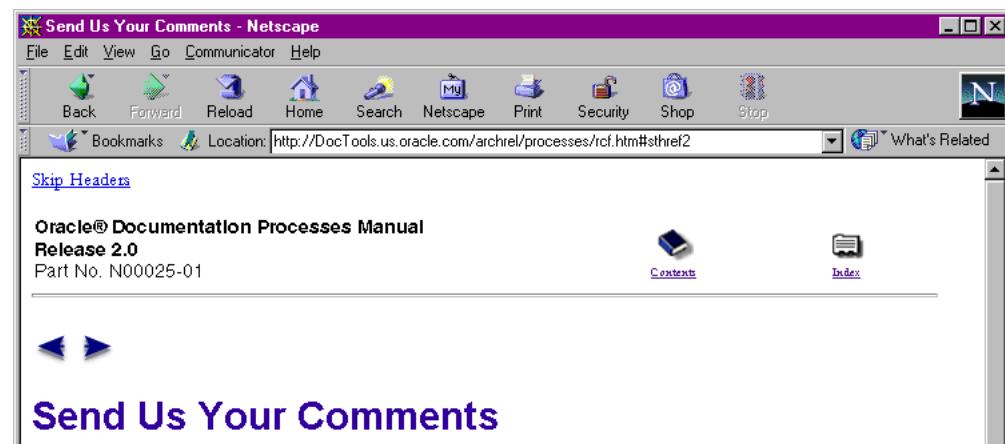
Waiting for technology to work through and announce each standard, repeated link before getting to the main body of text can be tedious and time-consuming for those who use screen readers. For example, at the top of every standard Oracle (documentation) HTML page, there are navigation icons that provide links to the table of contents, index, library, and product pages. Provide a Skip Headers link that when clicked, skips these types of repetitive navigation links. Also provide an anchor in the HTML code that brings the user to the correct area in the document if the Skip Headers link has been clicked. [Example 6–16](#) shows an example of the HTML code for the Skip Headers link and anchor.

Example 6–16 HTML Code for the Skip Headers Link and Anchor

```
<A HREF="#Begin">Skip Headers</A>
<A NAME="Begin"></A>
```

[Figure 6–10](#) shows a portion of an HTML page that enables users to skip repetitive navigation links. The Skip Headers link takes the user to the beginning of the main body of text, in this case the title Send Us Your Comments. The navigation icons for table of contents, index, previous, and next are considered repetitive navigation links.

Figure 6–10 The Skip Headers Link in an HTML Document



6.5.8.2 Links

Rules

WCAG 2.0, Section 2.4.4. Link purpose (in context): Make the purpose of each link clear from its text alone, or in context.

Recommendations

When creating links, ensure that the purpose of the link is clear. Do not tell the user to *click here*, and make *click here* the link. Doing this does not provide the user with any information about where the link goes.

Ensure that there are no repeating chapter or section titles. Using the same chapter or section title multiple times is confusing for the screen reader user because the screen reader user does not know which particular chapter or section is being referred to.

6.5.8.3 Context and Orientation

Rules

WCAG 2.0, Section 2.4.6. Headings and labels: Headings and labels describe a topic or purpose.

WCAG 2.0, Section 1.3.2. Meaningful sequence: When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined.

WCAG 2.0, Section 2.4.2. Page titles: Web pages have titles that describe topic or purpose.

WCAG 2.0, Section 2.4.3. Focus order: If a web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability.

Recommendations

Provide users with an easily understood means of navigating within and between HTML pages.

Use numbered headings whenever possible, because they give context to the screen reader user, especially when used in cross-reference links. Use numbered headings in all installation guides so that screen reader users have a clear forward or backward context for any cross-reference.

In an HTML document, use cross-reference formats that include the chapter, appendix, part, heading, or formal item numbers. The use of numbers for these elements provides forward or backward context. Do not use page numbers as cross-references for documents with numbered headings. If you have a document that does not use numbered headings and uses page numbers as cross-references, then these cross-references must include the titles of the chapter, section, and so on.

In HTML, always use the HTML <Hn> (header) tag. Do not replace the header element with another method of creating a heading, for example using Cascading Style Sheets (CSS) or boldface and font sizes to replicate the heading style.

Consider using WAI-ARIA landmarks to enable users using assistive technology to find main or important areas of the web page.

6.5.8.4 Navigation Mechanisms

Rules

WCAG 2.0, Section 2.4.4. Link purpose: Make the purpose of the link clear from its text alone, or in context.

WCAG 2.0, Section 2.4.5. Multiple ways: More than one way is available to locate a web page within a set of web pages, except where the web page is the result of, or a step in, a process.

WCAG 2.0, Section 3.2.3. Consistent navigation: Navigational mechanisms that are repeated on multiple web pages within a set of web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user.

WCAG 2.0, Section 3.2.4. Consistent identification: Components that have the same functionality within a set of web pages are identified consistently.

Recommendations

It is important that information can be found quickly, for those with or without disabilities. To help users find the information that they need, provide a table of contents, a site map, or a collection of links to specific topics, as appropriate. Grouping related links and identifying the group to the user will further help the user navigate through a document or website.

Titles

Wherever appropriate, use titles. Titles help because screen reader users can, with keystrokes, have a list of titles read to them. The level of the titles in the list is determined by the screen reader users, for example, a screen reader user might find a list of all the highest-level titles in a chapter to be helpful.

Clearly identify the target of each link, and create a logical tab order for links, form controls, and objects. Ensure that the link text is descriptive and makes sense when read out of context. For example, do not create a link that reads *click here*. If a screen reader user configured the screen reader to read link text only, then a series of *click here* links means nothing. Remember to group related links and identify the group to the user. Always provide a way to bypass the group.

Web cross-references

When referring users to documents on the web (internet or intranet), use either full URLs to those documents or use the entire document title for each link. For example: "For more information about writing style, see *Oracle Documentation Standards Oracle Style Guide*." If you have more than one reference to the same URL in a document, then ensure that the text that introduces the URLs is identical.

Documentation cross-references on a CD-ROM

For a document list on a documentation CD-ROM, it is common to list the document title, then links to the HTML and PDF forms of the document.

Index entries

When inserting markers to identify index entries, place the marker within the text that describes or corresponds to the indexed term. HTML generation tools, such as WebWorks Publisher, move index markers to the beginning of the paragraph in which the marker occurs, even if the marker is inserted at the end of the paragraph. Putting index markers within the proper text will help users find the content that they need.

Browser window titles

To provide context at the browser level, ensure that the browser title (found at the top, left corner of the browser window) provides enough information about the particular document. For example, a sufficient browser title could be "Send Us Your Comments." Use the HTML <title> tag to include a browser title in the HTML document.

Figure 6–10 shows an example of a browser title. This browser title states the name of the file being displayed and the name of the browser being used to display the file. (In this case, the browser automatically added the word Netscape to the browser title.)

HTML documents or web pages

When creating HTML documents or web pages, include semantic information in the HTML code that describes such things as which tool was used to create the web page, who the author was, the date the web page was created, and any licensing or copyright information.

Menus and other controls

Ensure that menus and other navigation controls can be operated without causing a form to be submitted or a screen to change without action from the user.

Disables or changed functions

Do not create web pages that disable or change the functions of browser features such as sticky keys. (Sticky keys are keys that when pressed, such as the Ctrl key, remain active until another key is pressed.)

6.5.8.5 Footnotes

Rule

WCAG, Section 2.4.4. Link purpose: Make the purpose of the link clear from its text alone, or in context.

Recommendations

Use sequential footnote numbering throughout a document. Footnotes that restart numbering on each page present a problem in an HTML document. Because the HTML document is not set up as pages, footnotes are numbered continuously (1, 2, 3, and so on) throughout a file. If you insert a cross-reference to a footnote and the footnotes restart on each page, then the link in the HTML document is correct, but the number in the cross-reference is incorrect, which is confusing to all users.

The legend for the footnotes is usually at the bottom of an HTML page, or, in the case of table footnotes, directly below the table. This footnote placement might create a problem for screen reader users. In either case, the screen reader fails to return to the original place in the text where the footnote number first appeared. When a user selects a footnote link using a particular screen reader, the screen reader goes to the bottom of the page to read the footnote. Then, the screen reader reads the appropriate footnote and any other footnotes that are at the bottom of the page. If a user selects a footnote in a table, then the screen reader reads the footnote, any additional footnotes, and then continues on with the text that follows the table.

6.6 Document Formatting

Rules

WCAG 2.0, Section 1.3.1. Information and relationships: Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.

WCAG 2.0, Section 1.4.4. Resize text. Allow the text size to double from the default size.

WCAG 2.0, Section 3.1.1. Language of page: The default human language of each web page can be programmatically determined.

WCAG 2.0, Section 3.1.2. Language of parts: The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text.

WCAG 2.0, Section 4.1.1. Parsing: Markup has complete start and end tags, elements nested according to specification, attributes are not duplicated, and IDs are unique.

Recommendations

Ensure that the style of a document is consistent. Use style sheets to control layout and presentation, and ensure that HTML code is used correctly. Include a document type declaration at the beginning of a document that refers to a published HTML document type definition (DTD).

Do not use HTML code to format text (for example, using the HTML `` tag to change the font size or the HTML `<dir>` tag to control indentation). This contrived formatting would make it difficult for disabled users with specialized software to understand the organization of the page or to navigate through it.

Use the HTML `<pre>` tag only for code examples. Do not use it for other formatting purposes.

Use HTML heading elements to convey document structure and use them according to the best practices of using HTML. For example, use a second-level heading to indicate a subsection of a first-level heading. Do not use headings for formatting effects. Use headings in order. For example, do not follow a first-level heading with a third-level heading. Screen readers and other assistive technology software have problems following headings when they are not in order.

Use relative rather than absolute units to specify items such as font size and table cell size.

The text size in a document must be able to be doubled from the default text size.

Do not use HTML quotation tags for formatting effects such as indentation. Use the appropriate tags to mark up short and long quotations.

The language being used in an HTML document must be identified to the user. Use the HTML `lang` attribute to assign the language to the document. For example, to assign English as the language used in the document, use the HTML code `<html lang=en>`. If you include any information in your document in a language other than the one identified, then you must distinguish the foreign language from the primary language of the document using the HTML `lang` attribute.

You must validate your HTML code using a W3C validator to ensure that your HTML code parses properly. Your code should not have any errors, unless you are using ARIA tags. Currently, ARIA tags produce errors.

6.6.1 Angle Brackets

Sometimes, procedures are documented in the following manner:

1. Select **File > Import > File**.

In this case, a screen reader might read:

One Select file greater import greater file

Screen reader users might have difficulty following this information; therefore, avoid shorthand notation when writing procedures. However, experienced screen reader users will become familiar with this notation, just as with *see*, *click*, or *press*. The previous example could be rewritten. For example:

From the **File** menu, select **Import**, and then select **File**.

This construction makes the document clearer for all users.

6.6.2 Lists

Use the proper HTML code for lists and list elements. Use the appropriate HTML tags for ordered, unordered, and definition lists.

When a screen reader user sets up a particular screen reader with the default settings, it reads HTML list entries as straight text, without identifying the list as a list, or calling out the list entry symbol (for example, a bullet, or 1, 2, 3, and so on).

When this screen reader is set up to read everything on a page, it reads each list entry, calling out the entry symbol for numbered, lettered, and bulleted lists.

Example 6–17 shows how a screen reader might read a list when the screen reader is set up to read everything.

Example 6–17 How JAWS Reads Lists

1. An ordered list entry.

Screen reader reads: One An ordered list entry

- A bulleted list entry.

Screen reader reads: Bullet A bulleted list entry

6.7 Word Use

Some words, phrases, and symbols could confuse screen reader users because screen reader software adds these terms to the text to alert the user about important elements such as *links*, *images*, *tables*, *forms*, *lists*, and *frames*. Avoid using these particular words as much as possible, except where it is certain that the context will not cause confusion. A document that uses certain terms and symbols might technically be accessible, however, a user might not be able to comprehend it.

For example, you can use the terms *see*, *click*, or *press*, although users with disabilities may not be able to do these things. The screen reader user will understand what the terms mean.

When using acronyms or abbreviations, remember to define them at the first occurrence in a document, and ensure that they are indexed (with a link to their definitions). In addition, if the document has a glossary, then define the acronyms and abbreviations in the glossary.

For legal reasons, do not use the following terms in documentation:

- Americans with Disabilities Act (ADA)
- ADA-compliant
- Section 508

- Certify or certified, when referring to testing and validation of software or documentation for accessibility
- JAWS

Avoid using the following terminology near URLs (links) because these terms are screen reader keywords that cue the screen reader user that there is a link within the text:

- This page
- Link
- Graphic
- Sendmail
- Same page
- New frame
- Visited

Example 6–18 shows terminology commonly used in technical documentation. This previous sentence is commonly read by JAWS as:

Visited same page link example six dash one eight shows terminology commonly used in technical documentation

Example 6–18 Terminology in Documentation

Correct	Incorrect
Figure 1-2 shows the Anchored Frame window.	The graphic shows the Anchored Frame window.
A description of the image otters.gif follows.	A description of the graphic follows.
The Oracle website is at the following URL.	Click the following link to take you to the Oracle website.

6.8 Electronic Forms

Rules

WCAG 2.0, Section 3.3.2. Labels or instructions: Labels or instructions are provided when content requires user input.

WCAG 2.0, Section 4.1.2. Name, role, value: For all user interface components (including but not limited to form elements, links, and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.

WCAG 2.0, Section 3.2.1. On focus: When any component receives focus, it does not initiate a change of context.

WCAG 2.0, Section 3.2.2. On input: Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before using the component.

WCAG 2.0, Section 3.3.1. Error identification: Identify the item in error and the error with text.

WCAG 2.0, Section 3.3.3. Error suggestion: If possible, provide text to suggest how to fix an input error.

WCAG 2.0, Section 3.3.4. Error prevention: If legal, financial, or test data can be entered, then specify ways for the user to reverse, verify, or confirm that data.

Note: This success criterion is primarily for web authors who develop or script their own user interface components. Standard HTML controls already meet this success criterion when used according to specification.

Recommendations

HTML forms can pose problems for screen reader users if the forms are not carefully coded. For screen readers to correctly read an electronic form, the form elements must be associated with the element labels. It is important to make this association because visual proximity on a web page does not guarantee that a screen reader will read the label intended for a particular element on a form. You associate form elements and their labels using the `id` and `for` attributes of the `<LABEL>` tag.

Ensure that labels for form controls are positioned adjacent to the controls. Align the labels to the left of the controls, but if this alignment is not possible, then place the labels above the controls.

Avoid changing the actions of a control, such as causing an item in a list to be automatically activated. The controls should work as the user expects.

If a form contains lists or fields, then ensure that they do not require the user to scroll horizontally. Make the list or field wide enough for the text to fit in the designated area.

6.9 Windows and Window Sections

Rules

WCAG 2.0, Section 4.1.2. Name, role, value: For all user interface components (including but not limited to form elements, links, and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.

Note: This success criterion is primarily for web authors who develop or script their own user interface components. Standard HTML controls already meet this success criterion when used according to specification.

Recommendations

Each window and each section of a window (if applicable) must have a title to identify it and to provide the means to navigate the window or section. Provide descriptive titles that identify the purpose or content of the window or window section. If the titles do not make it obvious how the window sections relate to each other, then describe the purpose of the window sections. To describe the window or window sections, use the `title` attribute of the HTML `<FRAME>` tag.

Avoid using windows that appear without the user performing some action to initiate the window's appearance. Windows that appear without the user's knowledge can cause the user to become disoriented.

Consider using WAI-ARIA landmarks to enable users using assistive technology to find main or important areas of the web page.

6.10 Testing and Validation

Test your document for accessibility. Begin using validation methods at the earliest stages of development because accessibility issues identified early are easier to avoid or correct.

Each page of every document must be validated for accessibility. For more information about testing and validation, see

<http://docaccessibility.us.oracle.com/>

In short, perform keyboard-only tests, use the OGHAG Helper toolbar extension for Firefox, and perform JAWS screen reader testing.

Record all accessibility errors in the bug database, as a documentation error (bug). Accessibility errors must have the prefix ACC: or be tagged with the appropriate Accessibility tag. The bug database is available at

<https://bug.oraclecorp.com/>

6.11 Resources

The following resources were used to write this chapter. If you have questions about accessibility, then start a thread on the Accessibility forum at

<https://myforums.oracle.com/jive3/category.jspa?categoryID=1064>

Access Board, *Proposed Access Standards for Electronic and Information Technology: An Overview* (<https://www.access-board.gov/index.php>)

Access Board, *Standards for Electronic and Information Technology: An Overview* (<http://www.access-board.gov/index.php>)

OAG 3.0 and Revised Section 508

(<http://globaldc-git.oracle.com/perl/twiki/view/AccessibilityProgram/Revised508>)

About OAG 2.0

(<http://globaldc-git.oracle.com/perl/twiki/view/AccessibilityProgram/AboutOAG>, July 2013)

OAG 2.0.1 Checklist

(<http://globaldc-git.oracle.com/perl/twiki/view/AccessibilityProgram/OAG20ChecklistandSampleRemarksWeb>, Sept. 2013)

Using WAI-ARIA Landmarks

(<https://www.pacielllogroup.com/blog/2013/02/using-wai-aria-landmarks-2013/>, Feb. 2013)

WCAG FAQ (<https://www.w3.org/WAI/WCAG20/wcag2faq.html>, July 2013)

W3C, Web Content Accessibility Guidelines 2.0 (<https://www.w3.org/TR/WCAG20/>, Dec. 2008)

Word Spelling and Usage

This chapter shows the preferred spelling of certain words and contains some information about word use. Although mostly a list of specialized information technology terms, it also contains frequently misspelled or misused words and words to avoid because of translation issues.

This chapter contains the following sections:

- [Section 7.1, "Word Spelling and Usage Sources"](#)
- [Section 7.2, "Word Spelling and Usage Guidelines"](#)
- [Section 7.3, "Word List"](#)
- [Section 7.4, "Redundant or Wordy Phrases"](#)
- [Section 7.5, "Symbols and Special Characters"](#)
- [Section 7.6, "Abbreviations and Acronyms"](#)

7.1 Word Spelling and Usage Sources

This chapter was developed from the following sources:

- Current word use in Oracle technical documentation
- *Merriam-Webster's Collegiate Dictionary*, Eleventh Edition
- *The Free On-line Dictionary of Computing* at <http://foldoc.org>
- *The Microsoft Manual of Style for Technical Publications* for personal computer (PC) and Windows operating systems terms

Refer to these authorities on spelling, in the following order:

1. The word spelling and usage listed in this chapter
2. *Merriam-Webster's Collegiate Dictionary*, Eleventh Edition

7.2 Word Spelling and Usage Guidelines

Be careful using certain English words that do not translate well. Words that are interchangeable in English sometimes translate into a single meaning in another language. For example, *supplier* and *vendor* might translate into the same foreign language word.

Other times, one English word might translate into multiple meanings in the target language. To avoid confusion, be consistent with terminology throughout a document.

When there is a different spelling of a word between American English and British English, use the American English version.

American English	British English
realize	realise
center	centre
practice	practise
behavior	behaviour
labor	labour

Avoid using compound words, especially those combined with *over* and *under*. They are difficult to understand in some languages. For example:

Overreceive

Some keywords or reserved words are regular English words (for example, SELECT). Writers can help translators distinguish easily between keywords or reserved words and regular English words by writing all keywords and reserved words in uppercase. Avoid writing regular words in uppercase. If a word is written in uppercase, then translators might believe it is a keyword or a reserved word and not translate it.

The following technical terms are not translated:

- Oracle keywords (for example, SELECT, DECIMAL)
- Reserved words (for example, DEBUGON in PL/SQL)
- UNIX commands

7.3 Word List

In this word list, the following abbreviations are used:

- **n** for noun
- **v** for verb
- **vt** for verb transitive
- **adj** for adjective
- **adv** for adverb
- **pred adj** for predicate adjective
- **prep** for preposition
- **conj** for conjunction

The order of terms in this word list is based on the word-by-word sort order preferred by the National Standards Organization (NISO). For more information about the NISO sort order, see [Section 10.3](#).

The style and usage notes contained in this list apply to general documentation situations. Where *Oracle Style Guide* and a product name diverge, use the product name. For instance, if you are documenting the Oracle eMail Server, then you must refer to the product by its proper trademarked name, which has a capital *M*. However, when you refer to electronic mail, use the abbreviation *email*.

7.3.1 A

abort (n) (v)

Avoid. Never use *abortion* as a noun in technical documentation. Use *end*, *quit*, *stop*, *cancel*, or *terminate*, depending on your meaning.

above (adv) (prep)

Do not use *above* to refer to material that can be found at an earlier position in a document. Formatting changes can cause this instruction to mislead the reader. Use *preceding*, *previous*, or *earlier* instead. Whenever possible, use an accurate and precise cross-reference or hypertext link.

acceptor (n)

access (n) (v)

Do not use to mean *open*.

accessible (adj)

When describing documentation or software that is usable by disabled users, use the word *accessible*. Do not spell as *accessable*. Do not use *ADA-compliant*.

acknowledgment (n)

Do not spell as *acknowledgement*.

ad hoc (adj) (adv)

Avoid. Use *spontaneous* or *dynamic* instead. However, *ad hoc query* is an accepted database term, and *ad hoc rate* and *ad hoc tax amounts* are accepted financial terms.

ADA (n)

Americans with Disabilities Act. Do not use in Oracle documentation.

ADA-compliant (adj)

Do not use. Use *accessible*.

adapter (adj) (n)

Do not spell as *adaptor*.

addendum (n singular), addenda (n plural)

Note the plural *addenda*.

admin (n)

Avoid. Use *database administrator*, *system administrator*, *network administrator*, or *database administration tools* as appropriate.

affect (n) (v), effect (n) (v)

Verify the use of these words in text because their spellings are often confused.

- Affect as a verb means *to influence* or *to produce an effect upon*.
- Effect is usually a noun meaning *a result*. Effect can also be a verb meaning *to cause something to happen*.
- Avoid using *affect* as a noun in technical documentation.

Examples:

- The parameter will *affect* the actions of all sessions and connections under that environment handle.

- We notice the *effect* of inflation when we buy goods and services.

If you *affect* something, then the result is an *effect*.

afterward (adv)

Do not use *afterwards*.

afterwards (adv)

Do not use.

agenda (n singular), agendas (n plural)

Note the plural *agendas*.

airbill (n)

One word.

alive (adj)

Do not use to refer to processes. Use *active* instead.

all right (adj) (adv)

Do not spell as *alright*.

allows you to (phrase)

Avoid using this phrase because it does not translate well. Use *enables*, *permits*, or *lets you*. *Allow* is appropriate when discussing concepts such as permissions and privileges.

alpha (adj)

Note the lowercase *a* in *alpha*.

alphabetic (adj)

Do not use *alphabetical*.

alphabetical (adj)

Do not use.

alphanumeric (adj)

Do not use *alphanumerical*.

alphanumerical (adj)

Do not use.

alright (adj) (adv)

Do not use. Use *all right*.

alternate (adj), alternative (adj)

Ensure that you use the correct term. They do not have the same meaning.

Alternate is used when taking turns is implied; first him, then her, then him again, and so on. *Alternative* is used when a choice between two or more options is stated or implied.

among (prep)

Do not use *amongst*.

amongst (prep)

Do not use.

analog (adj)

Do not spell as *analogue*.

and/or (conj)

Do not use this construction. Instead of writing *X and/or Y*, decide which is correct, *X and Y*, or *X or Y*. If necessary, use *X, or Y, or both*.

anti (prefix)

In general, do not hyphenate words that have this prefix.

app (n)

Use to refer only to applications on handheld (mobile) devices.

appears (v), displays (vt)

Use *appears* as an intransitive verb and *displays* as a transitive verb.

Examples:

- The message *appears* every hour.
- The monitor *displays* a message if you do not disconnect from the database.

appendix (n singular), appendixes (n plural)

Note the plural *appendixes*.

applet (n)**application (n)**

Use to mean a computer program designed to help people perform a certain type of work. An application differs from an operating system (which runs a computer), a utility (which performs maintenance or general-purpose tasks), and a language (with which computer programs are created). Do not use *system*, *tool*, or *program* in this context. See also [system \(n\)](#).

as (adv) (conj) (prep)

For clarity, avoid using *as* to mean *because*, *why*, or *when*.

as-of date (n)

Avoid. Use *effective date*, *start date*, or *valid date*. If you must use *as-of date*, then define the term the first time it is used.

assembler (n)

A program that converts *assembly language* into machine code. Do not use *assembly*. Do not confuse with *compiler*, which converts a program from some source language to machine code. Do not use to mean assembly language.

assembly (n)

Do not use to mean *assembler*.

assembly language (n)

Do not use *assembler*.

associate with (phrase)

Do not use *associate to*.

auto (prefix)

In general, do not hyphenate words that have this prefix. Avoid using words with the prefix *auto*, unless space is limited.

auto-award (v)

Note the hyphen.

auto-install (v)

Note the hyphen.

autoapproval (adj) (n)

autocomplete (v)

autocreate (v)

autoextend (v)

autogenerate (v)

autoload (v)

autosave (v)

axis (n singular), axes (n plural)

Note the plural *axes*.

7.3.2 B

B-tree index (n)

Note that an initial capital letter is used for *B*.

Bachman diagram (n)

Note that an initial capital letter is used for the proper name *Bachman*.

back end (n), back-end (adj)

back order (v), backorder (adj) (n)

Note the difference in spelling, depending on use. Use the *backorder* operation to *back order* the software that is out of stock.

back up (v), backup (adj) (n)

Note the difference in spelling, depending on use. *Back up* the database files. Perform a *backup* before upgrading your database.

backplane (n)

backslash (n)

One word.

backspace (adj) (n) (v)

One word.

backward (adj)

Do not use *backwards*. *Backward compatibility*.

backwards (adj)

Do not use.

bandwidth (n)

One word.

Bash (n)

Note the initial capital *B*.

basis (n singular), bases (n plural)

Note the plural *bases*.

be escaped (phrase)

Do not use. Use *be preceded by an escape character*.

be sure and (phrase)

Do not use. Use *ensure that* or *be sure to*.

behave (v)

Do not use. Use *act* instead.

behavior (n)

Avoid. Use *action*, *act*, or *activity*. Do not spell as *behaviour*.

being that (phrase)

Do not use. Use *because* instead.

below (adv) (prep)

Do not use to refer to material that can be found at a later position in a document. Formatting changes can cause this instruction to mislead the reader. Use *later*, *subsequent*, or *in the following sections* instead. Whenever possible, use a precise cross-reference.

beta (adj)

Note the lowercase *b*.

binary (adj)

Do not use as a noun.

bit vector (n)

Note the space between the words.

bitmap (adj) (n)**blank (adj)**

Having empty spaces to be filled in with information.

block size (n)**boilerplate (n)**

boldface (adj) (n)**Boolean (adj)**

Always use an initial capital letter, as in Boolean algebra, Boolean operator. In code, Boolean can be lowercase.

boot (adj) (v), reboot (adj) (v)

Avoid. Use *start* or *restart*.

bottom-up (adj)**bottommost (adj)****Bourne shell (n)**

Note the initial capital letter for *Bourne*.

box (n)

A GUI element. Use *box* in place of *choice box* or *combo box*.

breadcrumbs (n)

Do not use. Use *locator links*.

breakpoint (adj) (n)**built-in (adj)****bulleted (adj)**

Do not spell as *bulletted*.

bus (n singular), buses (n plural)**busy bar (n)**

Do not use. Use *progress indicator*.

busy box (n)

Do not use. Use *progress indicator*.

bytecode (n)

7.3.3 C

C++ (n) (adj)

Do not use superscript plus signs, as in *C⁺⁺*.

C language (n)

Do not spell as *C-language*.

C shell (n)

cache (n)

Do not spell as *cashe* or *cash*.

can (v) and may (v)

See also [may \(v\)](#) and [might \(v\)](#).

Can implies capability. *May* implies possibility or permission. This ambiguity sometimes causes misinterpretation. In technical documentation, do not use the word *may* to mean permission. Use *enables*, *lets you*, or *permits* to mean permission. Use *allow* if you are discussing permissions or privileges.

The following shows a correct and an incorrect example of capability.

Correct	Incorrect
You <i>can</i> customize the letter to reflect the policies of your organization.	You <i>may</i> customize the letter to reflect the policies of your organization.

The following shows a correct and an incorrect example of possibility.

Correct	Incorrect
If your rollback segments are too small, then you <i>may</i> lose data.	If your rollback segments are too small, then you <i>can</i> lose data.

cancel (v), canceled (v), canceling (v), cancellation (n), cancelable (adj)

Do not spell as *cancelled* or *cancelling*. Use *cancellation* as the noun.

cannot (v)

Use *cannot* rather than *can not*.

case-insensitive (adj) (pred adj)

Do not use. Use *not case-sensitive*.

case-sensitive (adj) (pred adj)

Note the hyphen.

cash flow (n)

Two words.

categorize (v)

Do not spell as *categorise*.

Celsius (n)

Use instead of *centigrade*.

changeable (adj)**check box (n)****check in (v), check-in (n)****check mark (n)**

Two words. Do not use *correct mark*, *tick*, *tick mark*, or *check* instead of check mark.

check out (v), checkout (adj) (n)**checklist (n)**

One word.

checksum (adj) (n)**child elements (n)**

Do not use *children elements*.

choose (v)

Do not use *choose* when referring to GUI elements. Use *select* or *click* instead.

class path (n)

Use two words in instructional text, but use *classpath* as a variable in code instructions and commands.

clean up (v), cleanup (adj) (n)**clear (v)**

Use *clear* to remove text from a field.

click (v)

Use *click*, not *click on*. The action of clicking includes the preposition *on*. Click refers to the actions taken with a mouse or other pointer. *See also* [select \(v\)](#).

client/server (adj)

Always use the slash. Do not use *client-server*.

client-side (adj)

Note the hyphen.

clip art (n)

Two words.

clipboard (n)

One word.

cloud (n)

Use lowercase, unless using in a heading or as part of a product name.

clusterwide (adj)

No hyphen.

co (prefix)

In general, do not hyphenate words that have this prefix.

codebase (n)**coexist (v)**

No need for a hyphen.

collapse (v)

command line (n), command-line (adj)

Use *command-line* interface or *command-line* utility, but as a noun, use "enter the following at the *command line*."

comment out (v)

Do not use. Use *precede the comment with the comment character* or *put the text within a comment*.

commit (v)

Do not use *commit* to mean *save*. The COMMIT statement makes database transactions permanent.

commit time (n), commit-time (adj)**compile time (n), compile-time (adj)****compiler (n)**

Use to mean a program that converts another program from some source language to machine language. Do not confuse with *assembler*, which converts assembly language into machine code.

comprise (v)

Avoid. Use *contain* or *include*. Do not use *comprised* when you mean *composed of*. Never use *comprised of*.

computer (n)

Do not use *machine*.

context menu (n)**context-sensitive (adj) (pred adj)**

Note the hyphen.

control, controlled, controlling (v)**control file (n)**

Two words. Use *controlfile* (one word) in syntax.

copy-protected (adj) (pred adj)

Note the hyphen.

corrupt (adj) (v)

Use to mean a violation of data integrity.

crash (n) (v)

Avoid. Use *fail*, *malfunction*, or *stop*.

criterion (n singular), criteria (n plural)

Note the singular *criterion*.

cross (prefix)

Hyphenate *cross* when using it as a prefix except for compound words such as *crossbow*, *crosshair*, or *crossroad* and except for words that are specifically mentioned in

Merriam-Webster's Eleventh as not hyphenated, such as *cross fire*, *cross multiply*, and *cross product*.

cross-reference (n)

Note the hyphen.

cursor (n)

As a GUI term, *cursor* refers to a movable item used to mark a position.

As a database term, *cursor* is a statement that points to a data row.

Examples:

- Before you can enter a number, the *cursor* must be visible in the field.
- OPENCURSOR is a SQL statement.

cut off (v), cutoff (adj) (n)

7.3.4 D

daemon (n)**data (n singular), data (n plural)**

Use with a singular verb, for example, *the data is invalid*. Do not use *datum*.

data center (adj) (n)**data dictionary (adj) (n)**

Two words.

data file (adj) (n)

Two words.

data flow (adj) (n)

The movement of data through a system. In parallel processing, *dataflow* (one word) refers to a type of design in which a calculation can be made either when all necessary information is available, or when other processors request the results of the calculation.

data guide (adj) (n)

Two words.

data mart (adj) (n)

Two words.

data set (adj) (n)

Two words.

data source (adj) (n)

Two words.

data store (adj) (n)

Two words.

data type (adj) (n)

Two words.

data warehouse (n)**database (adj) (n)**

One word.

database administrator (n)

Spell out the first time this word is used, and use the abbreviation *DBA* for subsequent references. Always use lowercase for *database administrator*.

database management system (adj) (n)

Spell out, all lowercase, the first time this term is used, and then use the abbreviation *DBMS*.

dbkey (n)

Spell out the first time this word is used, *database key*, and use the abbreviation *dbkey* for subsequent references.

de (prefix)

In general, do not hyphenate words that have this prefix.

de-escalate (v)

Avoid. Use *decrease* instead.

deactivate (v)

Avoid. Use words that express the meaning more precisely, such as *clear*, *close*, *stop*, or *cancel*.

dead (adj) (processes)

Do not use. Use *terminated* (processes) instead.

deadlock (n)**debugging (adj), debug (v)****decision making (n), decision-making (adj)**

Example: The *decision-making* environment was positive for *decision making*.

deconfigure (v)

Do not use. Use *unconfigure*.

decrease or decrement (v)

Decrement means to decrease by set intervals.

default (adj) (n) (v)

Use this word carefully.

Examples:

- Default parameters for each server type are specified for you.
- You can change the defaults.
- The parameter value defaults to true.

deinstall (v)

Consider using *uninstall* or *remove* instead. Do not spell as *de-install*.

demo (n) (v)

Do not use. Use *demonstrate* or *demonstration*.

dependent (adj)

Do not spell as *dependant*.

deploy (v)**deprecate (v); deprecated (adj)**

Use only in developer-type guides. If necessary, explain the term in parentheses, for example: *deprecated (superseded by)*.

Use to warn the user that a feature will be unsupported in the next major release or in a future release. A deprecated feature remains functional for a full, major release cycle.

depress (v)

Do not use. Use *press* for keys.

descriptor (adj) (n)

Do not spell as *descripter*.

deselect (v)

Use *deselect* to remove a selection; typically used with check boxes.

design time (n); design-time (adj)**desirable (adj)**

Do not spell as *desireable*.

desire (n) (v)

Avoid. Use *want* as the verb, or *need* as the noun instead.

desktop (adj) (n)**desupport (v); unsupported (adj)**

Use to state that a feature is no longer supported. Use *desupport* after the feature has been deprecated for a full, major release cycle.

dial in (v), dial-in (adj)

Use *dial in to*, not *dial into*.

dial out (v), dial-out (adj)**dial up (v), dial-up (adj)****dialog (adj) (n)**

Do not spell as *dialogue*.

dialog box (n)

dimmed (adj)

Use to describe the appearance of an unavailable command. *Grayed out* is also acceptable.

disable (v)**disabled (adj) (n)**

Do not use *handicapped*. When referring to anyone with disabilities, use *disabled*.

disc (adj) (n), disk (adj) (n), diskette (adj) (n)

Use *disc* only in the term compact disc. In general, use *disk* to refer to both hard disks and floppy disks. Use *diskette* to refer to a 3.5-inch disk.

displays (vt)

See [appears \(v\)](#), [displays \(vt\)](#).

domain name server (n)**dot-com (adj)**

Use only as an adjective.

Example: He worked at a *dot-com* company.

double click (n); double-click (v)

Do not use *double-click on*.

double-sided (adj)**double tap (n); double-tap (v)****download (adj) (v)**

One word. Use when referring to the process of transferring a copy of a file from a remote computer or server.

downtime (n)

One word.

downward-compatible (adj)

Use to mean compatible with the previous release. Do not use *downwards-compatible*, *backwards-compatible*, or *backwardly-compatible*.

drag and drop (v), drag-and-drop (adj)

Use the hyphenated form as an adjective.

Examples:

Copy the folders to drive C using the *drag-and-drop* operation.

Do not hyphenate the verb *drag and drop*.

drill down (v), drill-down (adj) (n)**drop-down (adj)**

drop shipment (adj) (n), drop-ship (v)**dumb (adj)**

Do not use. Use *nonprogrammable*.

dump file (n)**dynamic-link library (n)**

Note the hyphen. After the first occurrence is spelled out, the abbreviation *DLL* can be used. Do not use *dynalink*.

7.3.5 E

e-business (adj) (n)

Use *E-business* if it is the first word in a sentence. Use *E-Business* in headings and titles.

e-commerce (adj) (n)

Use *E-commerce* if it is the first word in a sentence. Use *E-Commerce* in headings and titles.

e-signature (adj) (n)

Use *E-signature* if it is the first word in a sentence. Use *E-Signature* in headings and titles.

earlier (adj)

Use when referring to previous release numbers. Do not use *lower*.

easy to use (phrase), easy-to-use (adj)

Do not use the phrase *easy to use* in technical documentation. Do not presume a task is easy. Avoid synonyms such as *simply* and *just*.

effect (n) (v)

See [affect \(n\) \(v\)](#), [effect \(n\) \(v\)](#).

ellipsis (n singular), ellipses (n plural)

Note the plural *ellipses*. When referring to the punctuation, use *ellipsis points*, not *ellipses*.

email (adj) (n) (v)

Use *Email* at the beginning of a sentence and in headings or titles.

embed (v)

Do not use *imbed*.

enable (v)

Use instead of *allow*.

end point (n), endpoint (n)

Use *end point* (two words) to mean a point marking the completion of a process or stage of a process.

Use *endpoint* (one word) to mean either of two points or two values that mark each end of a line segment or interval.

end user (n), end-user (adj)

Avoid. Use *user* instead.

endline (adj)

One word, as in *endline comment*.

ensure (v) and insure (v)

Use *ensure* to mean make certain; use *insure* only in the sense of obtaining an insurance policy.

enter (v)

Use *enter* to enter a command or text in a field. Do not use it to mean click or press.

Use *click* to select a command or option. Use *press* for keys.

Examples:

- Enter the CREATE DATABASE command at the Server Manager prompt.
- Press F5, and then click Generate Summary.

enterprise software (n) (adj)**enterprisewide (adj)****environment (n)**

Use to mean the set of resources made available to the user of a system. For example, Microsoft Windows is referred to as a windows *environment* because it uses an interface based on screen regions called *windows*.

equijoin (n)

Do not hyphenate.

Ethernet (n)

Note the use of the initial capital letter.

execute (v)

Use to mean performing a programming instruction.

7.3.6 F

fail back (v), fallback (adj) (n)**fail over (v), failover (adj) (n)**

Examples:

- During the *failover* process, the auditing utility must be disabled.
- If a server node is shut down or *fails*, then the server can *fail over* to another cluster node.

farther (adv), further (adv)

Use *farther* to refer to physical distance. Use *further* to refer to time, quantity, or an addition.

fat client (adj) (n)

Do not use. Use *thick client*.

fatal (adj)

Avoid. Use *irrecoverable error* or a phrase indicating that the error disrupts operations.

fault-tolerant (adj) (pred adj)**feed back (v), feedback (adj) (n)**

Examples:

The scheduler process is used to *feed back* information to the system.

Such *feedback* ensures that system activity can be accurately measured.

fewer (adj), less (adj)

Use *fewer* for individual items that you can count; use *less* for items that you measure by volume. Because *fewer* people were on the flight, *less* food was required.

Fibre Channel (adj) (n)

Note the capitalization.

file name (adj) (n)

Use two words in instructional text, but use *filename* as a variable in code instructions and commands.

file server (n)

Two words.

file system (n)

Two words.

finalize (v)

Use to mean to *put in final or finished form*, or to *give final approval*.

fine-tune (v)**fingerprint reader (n)**

Two words.

finished (v)

Use instead of *done*, as in *when you have finished*, not the colloquial *when you are done*.

firewall (n)**firmware (adj) (n)**

One word.

fixed point (n), fixed-point (adj)**flick (n) (v)****floating point (n), floating-point (adj)****flowchart (adj) (n)**

One word.

follow up (v), follow-up (adj) (n)**foo (n)**

Do not use.

form feed (n), form-feed (adj)**formatted (adj)**

Note the use of two t's.

formula (n singular), formulas (n plural)**free-form (adj)****front end (n), front-end (adj)**

7.3.7 G

gateway (n)

Use to mean software or a computer running software that enables two different networks to communicate.

gray (adj) (n)

Do not spell as *grey*.

grayed out (pred adj)

Use to describe the appearance of an unavailable command. *Dimmed* is also acceptable.

grayscale (adj)

One word.

guideline (n)

7.3.8 H

handheld (adj)**hang (v)**

Avoid using this word to describe a computer, application, or program that has stopped or is not responding. Use *delay*, *suspend*, or *stop responding* instead.

hard-code (v), hard-coded (adj)

Avoid. Use *included in the software code* instead.

hard copy (n), hard-copy (adj)

Avoid. Use *printed documentation*.

hardware (adj) (n)

One word.

he/she, s/he, him/her, he or she, him or her

Do not use the *he/she*, *s/he*, *him/her* constructions at all. Avoid the others.

Example: System administrators can select either approach to setting up nodes.

headcount (n)**help (adj) (n)**

Note the lowercase *h*, even when referring to a *help* system.

hexadecimal (adj) (n)

Do not abbreviate as *hex*.

high availability (adj) (n)**high-level (adj)****higher (adj)**

Do not use to refer to release numbers. Use *later*.

hit (v)

Do not use. Use *press* for keys.

hits (n)

Do not use. Use *visits* or *results* instead.

Example: The number of *visits* that your site receives is above average.

home page (n)

Two words.

host name (n)

Use two words, but use *hostname* as a one-word variable in code instructions and commands.

hot keys (n)

Do not use. Use *keyboard shortcuts*.

hotspot (n)**hyperlink (n)**

Do not use. Use *link*.

hypertext (adj) (n)

One word.

7.3.9 |

if (conj)/then (conj adv)

Use *if/then* as a pair, not one or the other.

Correct	Incorrect
If the user session is performing an activity, then Oracle Database 11g waits for it to end.	If the user session is performing an activity, Oracle Database 11g waits for it to end.

if (conj) and whether (conj)

Use *if* to express a condition. Use *whether* to express uncertainty or alternatives.

Correct	Incorrect
This task verifies whether the data was successfully deployed to the target environment.	This task verifies if the data was successfully deployed to the target environment.
You must decide whether to use a staged or a full deployment.	You must decide if you need a staged or a full deployment.
The refresh functionality does not work if a user deletes a forecast record.	

illegal (adj)

Do not use. Use *not allowed*, *not permitted*, or *invalid*.

imbed (v)

Do not use. Use *embed* instead.

impact (n) (v)

Do not use to mean *effect*. As a verb, use *impact* only to mean striking forcefully; otherwise, use *affect*. To mean an outcome or result, use *effect* as the noun, not *impact*.

implementor (n)**inbox (n)****increase (v) or increment (v)**

Use *increment* to mean to increase by set intervals.

index (n singular), indexes (n plural)

Do not spell the plural as *indices*.

info (n)

Do not use. Spell out *information*.

information about or information on (phrase)

Use *information about* because it is clearer for translation purposes.

infrastructure as a service (n), infrastructure-as-a-service (adj)

The abbreviation is *IaaS*. Previously, *infrastructure as a service* was capitalized.

initiate (v)

Avoid. Use *start* or *begin*.

inline (adj)

One word. No hyphen.

input (adj) (n)

Avoid using as a verb. Use *enter* instead.

input/output (adj) (n)

Abbreviate as *I/O*. Always capitalize the abbreviation.

insert (v)

Use *insert* to refer to adding something to a database.

install (v), installation (adj) (n)**insure (v)**

See [ensure \(v\)](#) and [insure \(v\)](#).

inter (prefix)

Do not hyphenate unless this prefix precedes a proper noun, for example, *inter-American*.

interface (adj) (n)

Do not use as a verb.

internet (adj) (n)**Internet of Things (n)****interrelated (adj)**

No hyphen.

intra (prefix)

Do not hyphenate unless this prefix precedes a proper noun, for example, *intra-American*.

intranet (n)

Use to mean any network that provides similar services *within* an organization to those provided by the internet outside it, but that is not necessarily connected to the internet.

invoke (v)

Avoid. Use *call*, *start*, or *load*.

irrecoverable (adj)

Use instead of *nonrecoverable*.

is indicative of (phrase)

Avoid. Use *indicates* instead.

issue (n)

Avoid using as a verb. Use a more specific verb instead. Do not use to refer to commands.

Correct	Incorrect
Windows XP <i>displays</i> an error message.	Windows XP <i>issues</i> an error message.
<i>Click Save As</i> to save a file under a new name.	<i>Issue the Save As command</i> to <i>issue</i> a file under a new name.

italic (adj) (n), italicize (v)**its, it is, it's**

Proofread your work to ensure that you have used the correct word. *Its* is the possessive form; *it's* is the contraction meaning *it is*.

Examples:

- *It's* easy to take advantage of new features in the application.
- The easy connection to other systems is one of *its* many advantages.

7.3.10 J

Java (adj) (n)

Note the capitalization.

JavaBeans

A trademarked Oracle technology. Use *bean* or *beans* for generic usage.

Javadoc**JAWS (adj)**

Refers to a screen reader. *JAWS* is a registered trademark of Freedom Scientific, Inc.

joystick (n)

One word.

judgment (n)

Do not spell as *judgement*.

7.3.11 K

kernel (n)**keyboard shortcuts (n)**

Do not use *shortcut keys* or *hot keys*.

keystore (n)

One word.

keyword (adj) (n)

One word.

kill (v)

Do not use. Use *end*, *stop*, or *terminate*. There are certain exceptions, such as the *UNIX kill -9* command.

Korn shell (n)

Note the initial capital letter for *Korn*.

7.3.12 L

labeled (adj) (v), labeling (adj) (n)

Do not spell as *labelled*. Do not spell as *labelling*.

landscape mode (n)

laptop (adj) (n)

One word.

later (adv)

Use instead of *below* in cross-references. For example, *later in this section*. Use instead of *higher* for product release numbers. For example, *Oracle Database 11g release 11.2 or later*.

launch (v)

Do not use to mean starting an application or opening a window or a browser. Use *start* or *begin* instead.

lay out (v), layout (n)

lead (v), led (v)

Use *lead* as a verb to mean to direct or guide; the past tense of *lead* is *led*. *Lead* as a noun is a heavy metal.

left (adj), right (adj)

Do not use *left-hand* or *right-hand* to refer to sides.

left-adjust (v), left-adjusted (adj)

left-align (v), left-aligned (adj)

left-justify (v), left-justified (adj)

leftmost (adj)

legal (adj) (n)

Do not use, except in reference to the law. Use *valid*, *allowed*, or *permitted* instead.

less (adj), fewer (adj)

Use *fewer* for individual items that you can count; use *less* for items that you measure by volume. Because *fewer* people were on the flight, *less* food was required.

leverage (v)

Do not use. Use *enhance*, *benefit from*, *improve*, *take advantage of*, or *use*.

life cycle (n), lifecycle (adj)

like

Do not use *like* to mean *such as* or *similar to*.

line spacing (n), linespace (n)**link (n) (v)**

Avoid using the term *link* before or after a URL. This term is a keyword used by some screen readers. The keyword link tells the screen reader user there is a hypertext link in line with the text. Do not use *hyperlink*.

Linux (adj) (n), Linux operating system

Note the initial capital letter.

list box (n)

Avoid. Use *drop-down list* or *list*.

listener (n)**live (adj)**

Do not use. Use *active* instead.

load balancing (n), load-balancing (adj)**locator links (n)**

Do not use *breadcrumbs*.

log in to (v), login (n)

Do not use *log into*. *Login* is the user name or account name that you use to access a computer system or application that requires authorization.

Example: Have you been given a *login* yet?

log off (v)

Use to mean the process of disconnecting from a network or a remote system.

Example: *Log off* the network immediately.

log on to (v), logon (adj) (n)

Use to mean the process of connecting to a network or a remote system.

Example: *Log on to* the network.

log out (v)**look and feel (n), look-and-feel (adj)****look up (v), lookup (adj) (n)****low-cost (adj)****low-level (adj)****lower (adj)**

Do not use to refer to release numbers. Use *earlier*.

lowercase (adj) (n) (v)

One word.

7.3.13 M

machine (n)

Do not use. Use *computer* or *system* instead.

mail stop (n)

Two words.

mailbox (n)

One word.

mainframe (n)

One word.

make file, makefile (n)

Use this UNIX term as two words, except when *makefile* (one word) is a variable in code instructions and commands.

make it easier (phrase)

Avoid. Use *help*.

Example: Windows Explorer *helps* you to find files.

master/slave (adj) (n)

Do not use. Use *parent/child*.

mathematical (adj)

Do not use *mathematic*.

mathematics (n)**matrix (n singular), matrixes (n plural)**

Do not spell the plural as *matrices*.

may (v) and might (v)

See also can (v) and may (v).

Use *may* to imply possibility. Do not use *may* to mean permission. Use *might* to express the past tense or a hypothetical situation.

Examples:

- You *may* need to increase the memory in your hard drive to install this software.
- If his price had been lower, then he *might* have won the bid for the job.

medium (n singular), media (n plural)

Note the plural spelling.

memorandum (n singular), memoranda (n plural)

Note the plural spelling.

menu bar (n)

Two words.

metadata (n singular and plural)

One word.

mice (n)

Avoid. Use *mouse*. If you need to refer to more than one mouse, then use *mouse devices*.

Microsoft (adj) (n)

Do not abbreviate as *MS*.

monospace (adj)

One word.

movable (adj)

Do not spell as *moveable*.

MS-DOS command prompt (n)

Use *MS-DOS prompt* or *MS-DOS command prompt* when referring to the operating system prompt. Do not use *DOS prompt*.

multi (prefix)

In general, do not hyphenate this prefix.

multibyte (adj)**multischema (adj)****multitenancy (n), multitenant (adj)****multithread (adj)****multitier (adj)****multitouch (adj)****multivolume (adj)****must (v)**

Use instead of *needs to*, *should*, or other ambiguous terms.

Example: Before you restart your system, you *must* exit from all of your applications.

7.3.14 N

n

Use *n* to represent an unknown or unassigned number. Note the italics. Always use lowercase. *See also x*.

namespace (n)

navigation tree (n)

Use *navigation tree* on first use, then use *tree* thereafter.

needs to (phrase)

Avoid. Use *must*.

network (n), networking (n)

Use *networking* to refer to the function of making business and personal contacts. Do not use *network* as a verb; instead, use *connect* or *link*.

Examples:

- You can *connect* several computers so that they communicate with each other; this computer *network* increases productivity in the group.
- The convention offers an excellent opportunity for *networking* with your peers.

new line (n), newline (adj)

Use *newline* only to refer to the ASCII end-of-line code. Use *new line* to refer to the start of a new line of text or a new line of code.

non (prefix)

In general, do not hyphenate this prefix except in the special situations shown in *The Chicago Manual of Style*, (The University of Chicago Press, 2010) or in this word list.

non-key (adj) (n)

Use the hyphen for readability.

nonbase table (n)**nondefault (adj)****nondetail (adj)****nonenterable (adj)****nonequijoin (n)****nonexistent (adj)****nonintrusive (adj)****nonpartitioned (adj)****nonprocedural (adj)****nonrecoverable (adj)**

Avoid in developer documentation: Use *irrecoverable* or *not recoverable*. In financial documentation, use it if you are referring to nonrecoverable taxes or nonrecoverable expenses. Define the term the first time it is used.

nonredundant (adj)**nonscalar (adj)****nonserialized (adj)****nonshared code (n)****nontransferable (adj)****nonupdatable (adj)****nonvolatile (adj)****normal (adj), normally (adv)**

Avoid using these words to describe human behavior or human actions in technical documentation. Instead, use *standard*, *frequent* or *frequently*, *typical* or *typically*, *usual* or *usually*. It is acceptable, and sometimes necessary, to use *normal* and *normally* to describe hardware and software, for example:

Correct	Incorrect
If the system were not shut down properly, then the database might return an error during <i>normal</i> instance startup.	<i>Normally</i> , users click the right mouse button to open a context menu. (This statement implies that right-handed users are normal, and that left-handed users are somehow abnormal.)
Opening a mounted database makes it available for <i>normal</i> database operations.	Database startup is restricted to users who connect to an Oracle database with administrator privileges. <i>Normal</i> users do not have control over database setup.

null (adj)

A value that can be stored in a database column to represent another unknown, missing, not applicable, or undefined value.

numeric (adj)

Do not use *numerical*.

7.3.15 O

object-oriented (adj)**obsolete (adj)**

Do not use to describe deprecated or unsupported features. Use *deprecate* or *desupport*.

off-premises (adj)

Do not use when referring to cloud computing. Use *cloud*. See also [on-premises \(adj\)](#), [on-premises \(n\)](#).

off-site (adj)**off-the-shelf (adj)****offline (adj) (adv)**

One word. Note no hyphen.

OK (adj) (adv)

Do not spell as *O.K.*, *Ok*, or *okay*.

on-demand (adj)**on-hand (adj)****on-premises (adj), on premises (n)**

Do not use *on-premise*. *Premise* is not the singular form of *premises*. It has a different meaning from *premises*. In headings, always capitalize *on*. See also [off-premises \(adj\)](#).

onscreen (adj) (adv)**onsite (adj)****on to (prep), onto**

Use *onto* except where *on* is part of the verb. For example, *move on to a new subject*.

onboard memory (n)**once (adv) (n)**

Do not use to mean *after*.

online (adj) (adv)

One word. Note no hyphen.

open-ended (adj)**open source (adj) (n)**

Two words.

operating system (n)

Use to describe the software that runs a computer. Do not use *platform* to describe the software.

operating system-specific (adj)

Note the location of the hyphen.

Oracle (as a trade name) (n)

Use as a trade name. Trade names are the actual business names of companies. Trade names can be used in the possessive and do not require a generic term or a trademark symbol. Examples:

- *Oracle's* latest software developments are outstanding.

- This software was developed by *Oracle*.

Oracle Applications (n)

The entire set of application offerings from Oracle, such as Oracle E-Business Suite, Oracle Fusion Applications, PeopleSoft Enterprise, JD Edwards EnterpriseOne, JD Edwards World, and Siebel Customer Relationship Management.

Oracle by Example (OBE) (n)**Oracle Corporation (n)**

Do not use. Use *Oracle*. See also [Oracle recommends \(phrase\)](#).

Oracle Database (n)

Do not use *Oracle data server*, *Oracle database server*, or *Oracle Database Server*.

Oracle home (n), Oracle home directory (n)

Do not use *Oracle Home*.

Oracle recommends (phrase)

Do not use *Oracle Corporation recommends*.

orient (v), oriented (adj)

Do not use *orientate* or *orientated*.

out-of-date (adj) (pred adj)**out-of-the-box (adj)**

Do not use. Use *ready-to-use*.

outdent (v)

Do not use. This term is not the opposite of *indent*. Use *decrease the indentation* or *remove the indentation*.

output (adj) (n singular and plural)

Avoid using as a verb. Use *appears*, *prints to*, *displays*, *produces*, or *writes to*, depending on your meaning.

outward (adj) (adv)

Do not use *outwards*.

outwards (adj) (adv)

Do not use.

overall (adj)**overestimate (v)****override (v)**

7.3.16 P

page in (v), page-in (adj), page-in operation (n)

page out (v), page-out (adj), page-out operation (n)

pageable (adj)

pane (n)

parent/child (adj) (n)

Use to describe hierarchical relationships. Do not use *master/slave*.

Pascal (n)

Do not spell as *PASCAL*. It is not an abbreviation or an acronym; it is a proper name.

past due (pred adj), past-due (adj)

patch (n)

In Oracle documentation, use to refer to a bug fix for a software problem or added features to an existing product, effective until the next release. There are two types of *patches*:

- *Patch sets* are collections of critical bug fixes.
- *Individual patches* are bug fixes created for specific customers.

path name (n), path-name (adj)

Use two words. However, when referring to a variable in a code example, spell as one word, *pathname*.

Examples:

- You must specify the *path name* and service name for the log files.
- {LOCATION=local_pathname | SERVICE=tnsnames_service}

percent (n)

Spell out in text. In tables and where space is limited, use the symbol (%).

Perl (n)

Note the capitalization. Do not expand in text. It stands for Practical Extraction and Report Language.

persist (v)

Use only as an intransitive verb. Do not use with an object.

Example: Something *persists*; something does not *persist* something else.

phenomenon (n singular), phenomena (n plural)

Note the plural spelling.

Phillips screw (n); Phillips screwdriver (n)

pick up (v), pickup (adj) (n)**PINless (adj)**

Do not use.

platform (n)

Use to describe the computer hardware. Use *operating system* to describe the software that runs a computer.

platform as a service (n), platform-as-a-service (adj)

The abbreviation is *PaaS*. Previously, *platform as a service* was capitalized.

please (adv)

Do not use.

plug-and-play (adj)**plug in (v), plug-in (adj) (n)****pop up (v), pop-up (adj)**

Avoid using *pop-up*. For example, instead of *pop-up list*, use *list*. Instead of *pop-up menu*, use *context menu*. Do not use *pop-up* as a noun.

populate (v)**portrait mode (n)****possesses (v)**

Avoid. Use *has* or *owns*.

post (prefix)

In general, do not hyphenate this prefix except in the special situations shown in *The Chicago Manual of Style* (The University of Chicago Press, 2010).

postal code (n)

Use instead of *ZIP code*.

postinstallation (adj) (n)**postprocessor (n)****PostScript (adj)**

Do not use *Postscript* or *postscript*. This term is a trademark of Adobe Corporation. Typically, it refers to a PostScript file or PostScript format.

power off, power on (v)

The act of disconnecting or connecting a power supply.

pre (prefix)

In general, do not hyphenate this prefix except in the special situations shown in *The Chicago Manual of Style* (The University of Chicago Press, 2010).

preallocated (adj)**presassembled (adj)****preceding (adj)**

Use *preceding*, *prior*, or *earlier* rather than *above* to refer to text that came earlier in the text. Do not spell as *preceeding*.

preconfigure (v)**predefine (v)****preexisting (adj)****preinitialization (n)****preinstall (v), preinstallation (n)****prepend (v)**

Do not use. Use *prefix* instead.

prepend (v)

Do not use. It does not mean the opposite of *postpone*.

preprocessing (adj) (n)**preprocessor (n)****press (v)**

Use *press* for keyboard use or the equivalent. Do not use *hit*.

preventive (adj)

Do not use *preventative*.

print (v), printout (n)

Use *print* as the verb format. Do not use *printout* or *print out* as a verb.

private cloud (n)**program (n) (v)**

See [application \(n\)](#).

progress indicator (n)

Do not use *busy box*, *slider*, or *busy bar*.

prospectus (n singular), prospectuses (n plural)

pseudo (prefix)

In general, do not hyphenate this prefix except in the special situations shown in *The Chicago Manual of Style* (The University of Chicago Press, 2010).

pseudocode (n)**public/private key pair (phrase)**

Note the slash. Do not hyphenate.

pull-down (adj) (n)

Do not use. Use *menu*.

punch out (v), punchout (adj) (n)**push button (adj) (n)**

Do not use. Use *button*.

7.3.17 Q

quality of service (n)

The abbreviation is QoS.

query allowed or queryable (phrase)

Do not spell as *queriable*.

query by example (phrase)**queuing (n)**

Do not spell as *queueing*.

quick start (n), quick-start (adj)**quotation marks (n)**

Do not use *quotes* or *quote marks*.

7.3.18 R

rack-mounted (adj), rackmount (n)**random access (adj) (n)****re (prefix)**

In general, do not hyphenate this prefix except in the special situations shown in *The Chicago Manual of Style* (The University of Chicago Press, 2010) and in this word list.

re-archive (v)

re-create (v)

Use to mean *to create anew*. The hyphen distinguishes the verb *re-create* from the verb *recreate*, which means *to enjoy recreation*.

read-only (adj) (pred adj)**read-out (adj)****read/write (adj)**

Do not use *read-write*.

readme (adj) (n)

Note the lowercase. If referring to a file name, then match the case with the actual file name.

reaggregation (n)**real time (n), real-time (adj)****reassign (v)****reboot (v)**

Avoid. Use *start*, *start up*, or *restart*.

receive-only (adj)**record handling (n), record-handling (adj)****record keeping (n), record-keeping (adj)****record length (n)****record mark (n)****record-oriented (adj)****record size (n)****recur (v)**

Do not use *reoccur*.

redesign (v)**redispatch (v)**

redisplay (v)

reenable (v)

reenter (v)

reentrant (n)

reestablish (v)

reevaluate (v)

reexamine (v)

reexecute (v)

reexport (v)

regenerate (v)

region (n)

Use to mean a generic area of a GUI. This term does not describe any single, specific GUI element.

registry (n)

Do not use *Registry* or *Windows XP registry*.

reinitialize (v)

reinsert (v)

reinstall (v), reinstallation (n)

release (n) and version (n)

Oracle does not ship a version of a product. Oracle ships the current release of a particular version. A version is the formal numbered product release, such as version 12. A release number includes a specific revision level, such as release 12.1.

Always spell out release and version. Use lowercase for release and version except in titles, headings, and at the start of a sentence. Treat a patch the same way as a release.

Correct	Incorrect
Oracle Application Server 10g release 10.1	Oracle Application Server version 10.1
Oracle E-Business Suite 12	Oracle E-Business Suite release 12
Oracle E-Business Suite Special Edition	Oracle E-Business Suite SE
Oracle Database 11g	11g database

reload (v)**remote computer or remote system (n)**

Do not use *remote host* or *remote host computer*.

removable (adj)

Do not spell as *removeable*.

reopen (v)**replace mode (n)****requester (n)****reroute (v)****rerun (n) (v)****reset (adj) (n) (v)****restart (n) (v)****retry (n) (v)****reusable (adj)****right (adj), left (adj)**

Do not use *right-hand* and *left-hand* to refer to sides.

right-adjust (v), right-adjusted (adj)**right-align (v), right-aligned (adj)****right-click (v)****right-justify (v)**

rightmost (adj)**roll back (v), rollback (adj), rollback operation (n)****roll forward (v), rollforward (adj), rollforward operation (n)****roll in (v), roll-in (adj)**

Note the hyphen for readability.

roll out (v), rollout (adj), rollout operation (n)**roll up (v), rollup (adj) (n)****round-trip (adj) (n)**

Note the hyphen.

run out (v), runout (adj) (n)**runtimes (adj) (n)**

Previously was hyphenated as an adjective and was two words as a noun.

7.3.19 S

saleable (adj)

Do not spell as *salable*.

scalable (adj), scalability (n)

Do not spell as *scaleable*.

screen reader (adj) (n)

Do not hyphenate *screen reader user*.

screenshot (n)**scroll arrow (n)**

Do not use. Use *arrow*.

scroll bar (n)

Avoid. Describe the action required to scroll the contents.

scroll box (n)

Do not use. Use *box*.

scrollable list cursor (n)

Do not use *scrolling list cursor*.

Section 508 certified

Do not use. Use *accessible*.

select (v)

Use *select* for menu or list items. See also [click \(v\)](#).

self (prefix)

In general, hyphenate this prefix, except for *selfless* and *selfsame*. See *Merriam-Webster's Collegiate Dictionary* (Merriam-Webster, Inc., 2003) and *The Chicago Manual of Style* (The University of Chicago Press, 2010).

self-checking (adj)**self-defining (adj)****self-initializing (adj)****self-loading (adj)****self-relocating (adj)****semi (prefix)**

In general, do not hyphenate this prefix, except when the second part of the compound begins with *i*; then use a hyphen.

semi-idle (adj)**semiannual (adj)****send-only (adj)****server-side (adj)**

Note the hyphen.

serviceability (n)**servlet (n)****set ID (n)**

Two words.

set up (v), setup (n) (adj)

Examples:

- You must *set up* the system.
- The *setup* must include environment variables.

sharable (adj)

Do not spell as *shareable*.

short-term (adj)**shortcut keys (n)**

Do not use. Use *keyboard shortcuts*.

shortcut menu (adj) (n)

Do not use. Use *context menu*.

should

Avoid. If an action is required, then use *must* instead.

Example (appropriate use): The output should look similar to the following.

shut down (v), shutdown (n)**shut off (v), shutoff (adj) (n)****sign in (v)**

The process of gaining access to an application that requires authorization. *See also log in to (v), login (n) and log on to (v), logon (adj) (n).*

sign off (v), sign-off (adj) (n)

Do not use.

sign on (v), sign-on (adj) (n)

Do not use. *See sign in (v). See also log in to (v), login (n) and log on to (v), logon (adj) (n).*

sign out (v), sign-out (adj) (n)

The process of disconnecting from an application. *See also log off (v).*

.silent installation (n)

Avoid. Use *unattended installation* instead.

simple (adj), simply (adv)

Avoid. *See also easy to use (phrase), easy-to-use (adj).*

since (conj)

Do not use *since* to mean *because*. Use *since* only to refer to time (for example, *since yesterday*).

single-sided (adj)**single sign-on (n)**

Note the hyphen.

sizable (adj)

Do not spell as *sizeable*.

slave (adj) (n)

Do not use. Use *child* as in *parent/child* instead. *See also master/slave (adj) (n).*

slider (n)

smartcard (n)**smartphone (n)****soft copy (n), soft-copy (adj)**

Avoid. Use *online documentation*.

software (adj) (n)**software as a service (n), software-as-a-service (adj)**

The abbreviation is *SaaS*. Previously, *software as a service* was capitalized.

spacebar (n)**spreadsheet (n)****stand by (v), standby (adj) (n)**

Examples:

- The *standby* database system facilitates quick disaster recovery.
- The database *stands by* until it is needed.

standalone (adj)**start up (v), startup (adj) (n)****status bar (n)****Step n**

When referring to a step in a series, such as a procedure, capitalize this word.

Example: Repeat *Step 3*.

style sheet (adj) (n)

Two words.

stylus (n)**sub (prefix)**

In general, do not hyphenate this prefix except in the special situations shown in *The Chicago Manual of Style* (The University of Chicago Press, 2010).

subblock (n)**subclause (n)****subfield (n)**

submenu (n)

subparameter (n)

subpartition (n)

subprogram (n)

subquery (n)

subroutine (n)

subschema (n)

subset (n)

subsystem (n)

super (prefix)

In general, do not hyphenate this prefix except in the special situations shown in *The Chicago Manual of Style* (The University of Chicago Press, 2010).

superset (n)

superuser (n)

supply chain management (n)

supra (prefix)

In general, do not hyphenate this prefix except in the special situations shown in *The Chicago Manual of Style* (The University of Chicago Press, 2010).

swap in (v), swap-in (adj), swap-in operation (n)

swap out (v), swap-out (adj), swap-out operation (n)

sync (n) (v)

Do not use. Spell out *synchronization* and *synchronize*.

system (n)

Use to refer to hardware configurations. A hardware configuration can include operating system software. *See also* [application \(n\)](#) and [platform \(n\)](#).

systemwide (adj)**7.3.20 T****tablespace (n)**

One word.

take into consideration (phrase)

Avoid. Use *consider*.

tap (v)

Use *tap* to describe how users physically interact with a touch-screen GUI, including handheld devices. Do not use *click* in this context. Do not use *tap on*.

tape mark (n)**tar (v)**

Do not use. Use *compress* or *archive*.

taskbar (n)**taskflow (n)****Telnet (adj) (n)**

Note the initial capital *T*. Use only as a noun or adjective; do not use as a verb.

thick client (n)

Use instead of *fat client*.

thin client (n)**Thin driver (n)**

Use *JDBC Thin Driver* at first use, then use *Thin driver* thereafter. Note the capitalized *T*; this term is proprietary to Oracle. Do not confuse this term with thin or thick client.

three-dimensional, 3-D (adj)

In general, spell out. Use the abbreviation *3-D* in tables and where space is limited, or to reflect the user interface.

throttle (v)

To cause something to slow down or speed up.

tick mark (n)

Do not use. Use *check mark*.

time card (n), time-card (adj)**time frame (n)**

time-of-day (adj)

time out (v), timeout (adj), timeout interval (n)

time series (n) (adj)

time-share (v), time-sharing (adj) (n)

time sheet (n)

time slice (n) (v), time slicing (n), time-slicing (adj)

time stamp (n) (v), time-stamp (adj)

time to market (n), time-to-market (adj)

time zone (n)

Two words.

timeline (adj) (n)

to-do (adj)

Avoid using *to-do* as a noun.

toolbar (n)

toolset (n)

tooltip (n)

top-down (adj)

topmost (adj)

touch point (n)

touch screen (n) touch-screen (adj)

touch-sensitive (adj)

toward (prep)

Do not use *towards*.

towards (prep)

Do not use.

trackball (n)**trade off (v), trade-off (n)****tree (n)**

Use *navigation tree* on first use, and then use *tree* thereafter.

troublefree (adj)**troubleshoot (v), troubleshooting (adj) (n)****trust keystore (n)****tunable (adj)****turnaround (adj) (n)****two-dimensional, 2-D (adj)**

In general, spell out. Use the abbreviation *2-D* in tables and where space is limited, or to reflect the user interface.

type (v)

See [enter \(v\)](#).

typebar (n)**typecase (n)****typeface (n)****typical (adj)**

Use instead of *normal*. See also [usual \(adj\)](#).

7.3.21 U

ultra (prefix)

In general, do not hyphenate this prefix except in the special situations shown in *The Chicago Manual of Style* (The University of Chicago Press, 2010).

un (prefix)

In general, do not hyphenate this prefix except in the special situations shown in *The Chicago Manual of Style* (The University of Chicago Press, 2010).

unallocated (adj)

Use to mean *not allocated* or *never allocated*.

unblocked (adj)

Use to mean *not blocked* or *never blocked*.

unconfigure (v)**underestimate (v)****Unicode**

Note the capitalization.

uninstall (v)

Use instead of *deinstall*.

UNIX (adj)

Use all capital letters. *UNIX* is a registered trademark in the US, licensed exclusively through X/Open Company Limited.

unshielded (v)**untar (v)**

Do not use. Use *extract*.

unzip (v)

Do not use. Use *extract*.

updatable (adj)**upload (v)****uppercase (adj) (n) (v)**

One word.

uptime (n)**upward (adj) (adv)**

Do not use *upwards*.

upward-compatible (adj)

Use to mean compatible with future releases. Do not use *upwards-compatible*.

upwards (adj) (adv)

Do not use.

US-based (adj)

Note the use of periods and the hyphen.

usable (adj)

Do not spell as *useable*.

user-defined (adj)**user ID (n)**

Use two words, but *userid* in syntax or code instructions is acceptable.

user name (n)

Use two words, but *username* in syntax or code instructions is acceptable.

user-oriented (adj)**user-specified (adj)****user-supplied (adj)****user-written (adj)****usual (adj)**

Use instead of *normal*. See also [typical \(adj\)](#).

utilization (n)

Avoid. Use *usage* or *use*.

utilize (v)

Avoid. Use *use*.

7.3.22 V

variable-format (adj)**variable-length (adj)****version (n)**

Use to refer to the formal numbered Oracle product release, such as *version 12*.

See also [release \(n\)](#) and [version \(n\)](#).

versus, vs. (prep)

Use the abbreviation *vs.* only in headings or tables.

via (prep)

Avoid. Use *by*, *by using*, or *through*.

voice-frequency (adj)**voice-grade (adj)**

voice mail (n), voice-mail (adj)**7.3.23 W****warm up (v), warm-up (n) (adj)****we (pron)**

The use of *we* is acceptable in the following:

- Articles
- Documents written in an informal style
- Frequently asked questions (FAQs)
- Marketing proposals
- White papers

Do not alternate between using *Oracle* and *we*. Use one term consistently throughout your document.

web (adj) (n)

Note the lowercase *w*. In previous releases, the entry was *Web*.

web agent (n)

Note the lowercase *w*. In previous releases, the entry was *Web agent*.

web form (n)**web page (n)****web portal (n)****web server (n)**

Note the lowercase *w*. In previous releases, the entry was *Web server*.

webmaster (n)**website (n)**

Note the lowercase *w* and the spelling. In previous releases, the entry was *Web site*.

where (clause)

Do not use to define variables. Write a complete sentence.

Correct	Incorrect
<p>The following syntax shows you how to typecast a value:</p> <pre>identifier = (target_type) value</pre> <p>In the previous example, <code>identifier</code> is the name you assign to the variable, <code>(target_type)</code> is the type to which you want to typecast the value (note that <code>target_type</code> must be in parentheses), and <code>value</code> is the value that you want to assign to the <code>identifier</code>.</p>	<p>The syntax for typecasting a value is:</p> <pre>identifier = (target_type) value</pre> <p>where</p> <p><code>identifier</code> is the name you assign to the variable</p> <p><code>(target_type)</code> is the type to which you want to typecast the value (note that <code>target_type</code> must be in parentheses)</p> <p><code>value</code> is the value that you want to assign to the <code>identifier</code></p>

white paper (n)**Wi-Fi (n)**

Stands for wireless fidelity. Do not spell out.

wide (suffix)

In general, do not hyphenate words that have this suffix, unless they have three or more syllables.

wildcard (n)

Use *wildcard* (one word) when referring to a symbol used to represent unspecified characters.

window (n)

Use to mean the main container for objects and data in a graphical user interface (GUI).

Windows (adj)**Windows-based (adj)****Windows Explorer (adj)**

Use to refer to the trademarked Microsoft product.

wish (n) (v)

Avoid. Use *want* instead.

Wizard, wizard (n)

Use an initial capital letter if this word is a named wizard, a product feature, or a product component. Otherwise, use lowercase.

Examples:

- The *Answer Wizard* is included on the CD-ROM.
- This *wizard* includes help topics for Oracle Enterprise Manager.

word length (n)

work around (v), workaround (n)

workflow (n)

workload (n)

worksheet (n)

workspace (n)

workstation (n)

worldwide (adj)

wrap around (v), wraparound (adj) (n)

wrap up (v), wrap-up (adj) (n)

writable (adj)

write-enable (v)

write-protect (v)

write-up (n)

7.3.24 X

x

Use *x* to represent an unknown or unassigned letter. Use italic. Always use lowercase. It can also be used to represent *by* in a dimension or the symbol for multiplication. If you use *x* in a dimension or as the multiplication symbol in an equation, then do not use italic. *See also n.*

x-axis (n)

Note the hyphen.

x-coordinate (n)

Note the hyphen.

X-status (n)

Note the capital X.

X Window System (n)

Do not use X Windows.

7.3.25 Y**y-axis (n)**

Note the hyphen.

y-coordinate (n)

Note the hyphen.

year-to-date (adj)

Note the hyphens. This term is sometimes abbreviated *YTD*.

7.3.26 Z**zero (v)**

Use to mean *reset to zero*.

zero-suppression (adj) (n)**zeroed (v), zeroing (adj) (n), zeros (n)****zip (v)**

Do not use. Use *compress*.

ZIP code (n)

Do not use. Use *postal code*.

zoom box (n)**zoom in, zoom out (v)**

Do not use *dezoom* or *unzoom*.

7.4 Redundant or Wordy Phrases

Concise use of the English language helps readers understand complex information.

Avoid using redundancies or wordy phrases that can be simplified or shortened.

Table 7-1 is a list of phrases that can be replaced with fewer words.

Table 7-1 Redundant or Wordy Phrases

Incorrect	Correct
a number of	several
acute crisis	crisis
add an additional	add
adequate enough	enough
advanced planning	planning
after having + past participle	after + past participle

Table 7–1 (Cont.) Redundant or Wordy Phrases

Incorrect	Correct
along the lines of	like
alongside of	alongside
another additional	another, additional
as a consequence	therefore
as a general rule	generally
as a result	consequently, therefore
as long as	if
as to	about, regarding
assemble together	assemble
at any given point in time	at any time
at present	now
at the present time	currently, now
at this point in time	now, then
at this time	now
background experience	experience
both alike	alike
by means of	by, with
by reason of	because
carry out	perform
check to see	verify, confirm
close proximity	near
completely eliminate	eliminate
component part	component, part
connect together	connect
consensus of opinion	consensus
continue on	continue
create a new	create
draws a conclusion	infers, concludes
due to the fact that	due to, because
during the course of	during
end result	result
equally as	equally
exactly the same	the same
few in number	few
for the purpose of	for, to
for the reason that	because
give consideration	consider

Table 7–1 (Cont.) Redundant or Wordy Phrases

Incorrect	Correct
given the condition that	if
gives rise to	causes
group together	group
grow in size	grow
half of	half
has a requirement	requires, plans
has plans	requires, plans
has the capability of	can
help to	help
important essentials	essentials
in a number of cases	sometimes
in a satisfactory manner	satisfactorily
in actual fact	in fact
in case of a	in a
in conjunction with	with
in connection with	of, related to, about, for
in order to	to
in spite of	regardless of, despite
in the event that	if, when
in the nature of	similar to
in view of	because
inasmuch as	because
is capable	can
is dependent upon	depends on
is in agreement	agrees
is indicative of	indicates
joined together	joined
make a choice	choose
make a decision	decide
makes contact with	meets, contacts
makes use of	changes, uses
mix together	mix
needs to be	must be
of an unusual nature	unusual
on account of the fact that	because
on the other hand	however
once	after, when (except when the intended meaning is <i>one time</i>)

Table 7–1 (Cont.) Redundant or Wordy Phrases

Incorrect	Correct
originally created	created
output out of	output
owing to the fact that	because
past history	past, history
performs the printing	prints
period of time	period
preliminary to	before
preloaded	loaded
preplan	plan
prints out	prints
prior to	before
provides assistance	helps
renders inoperative	breaks
reset back to	reset to, set back to
revert back to	revert to
should be required	is necessary
should be used	is necessary
single unit	unit
spell out in detail	spell out, detail
subsequent to	after
take into consideration	consider
through	finished
through the use of	with, using
together with	with
utilize	use
very unique	unique
vital necessity	vital
with a view to	to
with regard to	about, regarding
with the exception of	except

7.5 Symbols and Special Characters

It is important to use consistent names for symbols that are used in Oracle documentation. The following information describes the basic guidelines for their use.

Symbols used in documentation can present problems for international audiences. Symbol names can vary from one language to another. In addition to having different naming conventions, many symbols have multiple meanings and translators may have

difficulty deciding which meaning was intended. For example, the slash symbol (/) can mean *and*, *or*, *and/or*, *with*, *divide by*, *root*, or *path-name divider*.

Symbols used in documentation can present problems for readers with disabilities, including the visually impaired. Use symbols consistently throughout documentation. Do not change the meaning of a symbol within text. Check all symbols in HTML output to ensure that they have converted properly and can be read by screen readers.

To increase consistency within documentation, this section of *Oracle Style Guide* cites the most common variations and presents the preferred terminology. The preferred terminology is based most often on standard US use. To avoid confusion, spell out the symbol name in text at its first occurrence and enclose the symbol in parentheses after the symbol name in each chapter where the symbol appears. This method ensures that readers clearly associate the symbol and its name. Because these symbols can have different names in different countries, it is important to set up this association in the text.

Do not use symbols, such as an ampersand, equal sign, or back slash, instead of words in text. Symbols can present problems for international audiences.

Avoid using the slash symbol (/) to mean *and* or *or* because it does not translate well. Usually, *and* can be substituted satisfactorily.

Avoid using the ampersand symbol (&) in text, because it does not automatically translate into *and* in other languages.

After you have established an association, however, you can use the symbol alone where space is limited, such as in tables, code examples, and illustrations.

Correct	Incorrect
The vertical bar () in command syntax separates the choice of mandatory options. For example, {EXIT QUIT}.	The in command syntax separates the choice of mandatory options. For example, {EXIT QUIT}.

A symbol has no plural form. Spell out the name of the symbol to form the plural.

Correct	Incorrect
Use two hyphens (--) as the comment character for interactive SQL.	Use two --'s as the comment character for interactive SQL.

Test symbols to ensure that they appear correctly in all output. (Check a variety of browsers and platforms.)

Symbols present a special challenge for indexing. See [Section 11.2.3.12](#) for information about how to index symbols.

[Table 7-2](#) matches commonly used symbols and special characters with their recommended names.

Table 7-2 Symbols and Special Characters

Symbol	Name	Remarks
&	ampersand	Avoid using in text.
< >	angle brackets	None.
'	apostrophe	<i>See also</i> single quotation mark .

Table 7–2 (Cont.) Symbols and Special Characters

Symbol	Name	Remarks
$\leftarrow\rightarrow$ $\uparrow\downarrow$	arrow	<i>See left arrow; right arrow; up arrow; and down arrow.</i>
*	asterisk	Do not call this symbol a star. Do not use in place of the multiplication symbol x in text.
@	at sign	Do not call this symbol a commercial at or commercial at sign.
\	backslash	Do not call this symbol a reverse solidus.
{}	braces	Do not call these curly brackets or curly braces. Individual symbols are called left brace or right brace.
[]	brackets	Do not call these square brackets. Individual symbols are called left bracket or right bracket.
^	caret	None.
√	check mark	<i>Do not call this symbol a tick mark or check.</i> Avoid using this symbol in documentation.
:	colon	None.
,	comma	None.
©	copyright symbol	None.
— —	dash	<i>See em dash; en dash or minus sign; hyphen.</i>
\$	dollar sign	None.
↓	down arrow	None.
...	ellipsis points	<i>See horizontal ellipsis points; vertical ellipsis points.</i>
.		
.		
.		
—	em dash	None.
–	en dash or minus sign	None.
=	equal sign	Do not call this symbol an equals sign.
!	exclamation point	Do not call this symbol an exclamation mark or bang.
>	greater than symbol or right-angle bracket	None.
...	horizontal ellipsis points	None.
-	hyphen	<i>See also em dash; en dash or minus sign.</i>
←	left arrow	None.
<	less than symbol or left-angle bracket	None.
–	minus sign or en dash	None.

Table 7–2 (Cont.) Symbols and Special Characters

Symbol	Name	Remarks
#	number sign	In UNIX, this symbol is called a pound sign. On social media sites, this symbol is called a hashtag. Do not call this symbol a hash mark or crosshatch.
	parallel symbol	None.
()	parentheses	Individual symbols are the left parenthesis and right parenthesis (not opening parenthesis and closing parenthesis or open parenthesis and close parenthesis).
%	percent sign	Do not include a space between the number and the symbol. For example: 48%, not 48 %.
.	period	Do not call this symbol a fullstop, full stop, or dot.
+	plus sign	Do not refer to this symbol as a cross.
?	question mark	None.
"	quotation mark	A pair is called quotation marks. Call these double quotation marks when you must distinguish them from single quotation marks. Do not call these quote marks or quotes.
®	registered trademark symbol	None.
→	right arrow	None.
;	semicolon	None.
SM	service mark symbol	None.
'	single quotation mark	A pair of these is called single quotation marks. Do not call these single quote marks, single quotes, or inverted commas. <i>See also apostrophe.</i>
/	slash	Do not call this symbol a virgule, solidus, forward slash, slant, or slash mark.
	space	Do not call this symbol a blank or blank space.
~	tilde	None.
™	trademark symbol	None.
_	underscore	Do not call this symbol a horizontal bar or underbar.
↑	up arrow	None.
or ‖	vertical bar	Use <i>pipe</i> only when this symbol refers to the UNIX pipe function.
.	vertical ellipsis	None.
.	points	

7.6 Abbreviations and Acronyms

An **abbreviation** is a shortened form of a word or phrase that is used in place of the entire word or phrase. CPU for central processing unit, Btu for British thermal unit, and SGML for Standard Generalized Markup Language are examples of abbreviations.

An **acronym** is an easily pronounced word, or something that resembles a word, formed from the initial letters or major parts of a compound term. COBOL for

common business-oriented language, pixel for picture element, and FAR for Federal Acquisition Regulation are examples of acronyms.

See [Table 7–4](#) for the abbreviated and expanded forms of abbreviations and acronyms that are commonly used in Oracle documentation, and for guidance in their use.

When using abbreviations or acronyms:

- Use abbreviations sparingly. In general, the only acceptable abbreviations are those for bytes, a.m. and p.m., the United States (US), the United Kingdom (UK), and units of measure in tables. Abbreviations can lead to confusion in the translation process and can be a problem for screen reader users. For example:

INV PO Inv to Invs

In this example, inv can mean inventory or invoice.

Do not use different abbreviations for the same term. Be consistent in the use of abbreviations throughout a document. For example:

GL, G/L, and Gl are all used to indicate General Ledger.

- Include acronyms and abbreviations when submitting a terminology list to translators.
- Avoid creating acronyms and abbreviations for your product. Some of these shortened forms can have unintended negative or offensive meanings in other languages.
- Nonnative readers of English may not be familiar with some abbreviations and acronyms. In most cases, abbreviations and acronyms must be spelled out when translated, which might make sizing illustrations a problem, for example.
- Spell out the complete term the first time an abbreviation or acronym appears in each chapter of the text or in each topic (for topic-based documents). Then, show the abbreviation or acronym within parentheses. In subsequent references within the chapter or topic, use the acronym or abbreviation. Do not use the spelled-out version and the acronym or abbreviation interchangeably. If spelling out the complete term (in every chapter or in every topic) becomes distracting to the reader, then include the abbreviation or acronym in the glossary, index, or both. Ensure that there is a method for the reader to easily obtain the meaning of the abbreviation or acronym.
- If you cite a term only once or twice in a document, then do not shorten it unless the abbreviation or acronym is well known, for example, BASIC.
- Do not shorten trademarked terms or spell out trademarked terms that appear to be abbreviations or acronyms. To do so violates the integrity and legal safety of a trademark.
- When using an acronym, ensure that its pronunciation is natural and obvious. If not, then describe how to pronounce the acronym when you first use it by itself.
- It is acceptable to use an acronym in a heading or title, but do not spell out its meaning there. Instead, use and spell out the full term in the first sentence after the heading or title, if it has not been spelled out previously in the chapter or help topic.
- Choose a preceding indefinite article (a or an) based on the pronunciation of the acronym.

Note: Use the article *an* before acronyms beginning with the letter *h*.
For example, *an HTML file*.

- Avoid Latin abbreviations. Use them only in tables or where space is limited.
- Use English equivalents in place of Latin abbreviations, as shown in [Table 7–3](#).

Table 7–3 Latin Abbreviations and Their Equivalents

Do Not Use This Abbreviation	Use Its Equivalent
e.g.	for example, such as
et al.	and others
etc.	and so on, and so forth
i.e.	that is
N.B.	note
re	regarding, concerning
via	through, by using
vice versa	conversely

7.6.1 Punctuation for Abbreviations or Acronyms

Follow these rules for abbreviation or acronym punctuation:

- The trend is away from using a period in abbreviations. Common exceptions are a.m. and p.m. Consult [Table 7–4](#) for other exceptions.
- If an abbreviation contains a period internal to the abbreviation (for example, a.m. or p.m.), then do not put a space after the period.
- If an abbreviation with a terminal period falls at the end of a sentence, then omit the period at the end of the sentence.
- Add a lowercase *s* but no apostrophe to form the plural of abbreviations or acronyms that contain no periods.
- Add an apostrophe and a lowercase *s* to form the plural of abbreviations or acronyms that use internal periods.

7.6.2 Measurements

Avoid using measurements unnecessarily, especially in examples. When you do use measurements, follow these conventions:

- Do not abbreviate common American units of measurement, such as inches, pounds, and feet, unless space conservation (such as within a table column) is an overriding concern.
- Use standard abbreviations for units of measurement accurately.

For example, the difference between Mb and MB is the difference between a megabit and a megabyte. Avoid this confusion by consistently spelling out such terms.

- Always insert a space between numbers and abbreviations.
- Be aware that most abbreviations for units of measurement already represent the singular and plural form.

For example, the abbreviation for 1 kilowatt and 10 kilowatts is written the same way: kW.

- Include the metric or US equivalent of a unit of measurement, when appropriate.
- Use numerals for all measurements, even if the number is under 10. This guideline is true when the measurement unit is spelled out and when it is abbreviated. Measurements include distance, temperature, volume, size, weight, points, picas, and time. Bits and bytes are also considered units of measurement. For example:
 - 5 inches
 - 0.5 inch
 - 8 bits
 - 12 points
- For two or more quantities, repeat the unit of measure.

Correct	Incorrect
3.5-inch or 5.25-inch disk	3.5- or 5.25-inch disk
64 KB and 128 KB	64 and 128 KB

- When a measurement is used as an adjective, use a hyphen to connect the number to the measurement. Otherwise, do not use a hyphen. For example:
 - 12-point type
 - 3.5-inch disk
 - 8.5-by-11-inch paper
 - 24 KB of memory
- Use number *x* number, not number *by* number, when discussing screen resolutions. Use the lowercase *x*. For example:
 - 640 x 480 VGA
- When units of measurement are not abbreviated, use the singular form for quantities of one or fewer, except with zero, which takes the plural (0 inches). Conversely, with units of measurement of more than one, use the plural (15 inches).
- Abbreviations of measurements appear without periods. For example:
 - 1 centimeter: 1 cm
 - 1 foot: 1 ft

Note: Use a period with the abbreviation for inch.

7.6.3 Common Abbreviations and Acronyms

Table 7-4 provides information about common abbreviations and acronyms. All abbreviations and acronyms must be spelled out at their first occurrence in a document unless stated otherwise.

Table 7–4 Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
2-D	two-dimensional	None.
3-D	three-dimensional	None.
3GL	third-generation language	None.
3NF	third normal form	None.
4GL	fourth-generation language	None.
A	ampere	None.
A/D	analog-to-digital	None.
A/V	audio/video	None.
ABI	application binary interface	None.
ABIOS	advanced basic input/output system	None.
AC	alternating current	None.
ACE	access control entry	Acronym.
ACID	Atomicity, Consistency, Isolation, and Durability	None.
ACL	access control list	None.
ACK	acknowledgment	None.
ACM	Association for Computing Machinery	None.
ADA	Americans with Disabilities Act	None.
ADC	analog-to-digital converter	None.
ADP	automatic data processing	None.
ADPCM	adaptive differential pulse code modulation	None.
ADU	automatic dialing unit	None.
AFC	automatic frequency control	None.
AI	artificial intelligence	None.
AIJ	after-image journal; after-image journaling	None.
ALG	adjustable lock granularity	Do not spell out.
ALGOL	Algorithmic Language	Do not spell out.
ALU	arithmetic logic unit	None.
a.m.	ante meridiem (morning)	Do not spell out.
ANSI	American National Standards Institute	Acronym.
API	application programming interface	None.
APPCC	Advanced Program-to-Program Communication	None.
APPN	Advanced Peer-to-Peer Networking	None.
ARP	Address Resolution Protocol	None.
ARPANET	Advanced Research Projects Agency Network	None.
ASCII	American Standard Code for Information Interchange	Acronym. Not necessary to spell out.
ASIC	application-specific integrated circuit	None.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
ASR	automatic send/receive	None.
async	asynchronous	Always spell out.
ATM	asynchronous transfer mode; automated teller machine	None.
AVI	Audio Video Interleaved	None.
b	bits	None.
B	bytes	None.
Bash	Bourne-again shell	None.
BASIC	Beginner's All-Purpose Symbolic Instruction Code	Acronym. All capitals only. Not necessary to spell out.
BCD	binary-coded decimal	None.
BER	bit error rate	None.
BIFF	binary interchange file format	None.
BIOS	basic input/output system	None.
BIS	business information system	None.
BLOB	binary large object	Acronym.
BNF	Backus-Naur Form	None.
BOF	beginning-of-file	None.
BOM	Bill of Materials	Acronym.
bpi	bits per inch	None.
BPO	blanket purchase order	None.
BPR	Business Process Reengineering	None.
bps	bits per second	None.
Bps	bytes per second	None.
BSD	Berkeley Software Distribution; block schematic diagram	None.
BSMS	billing and subscriber management system	None.
Btu	British thermal unit	None.
C	C programming language	Use C programming language, not C-language or C.
CA	Certificate Authority	None.
CAD	computer-aided design	Acronym.
CAE	computer-aided engineering	None.
CAI	computer-assisted instruction	None.
CAL	computer-assisted learning	None.
CAM	computer-aided manufacturing	Acronym.
CASE	computer-aided software engineering	Acronym.
CAT	computer-aided testing; computer-assisted teaching	Acronym.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
CBC	Cipher Block Chaining	None.
CBL	computer-based learning	None.
CBT	computer-based training	Avoid; use QuickTour, Product Tour, or tutorial.
CCID	code combination identification	None.
CD	compact disc	Use only for audio discs.
CDB	container database	None.
CD-ROM	compact disc read-only memory	When referring to the disc itself, use <i>CD-ROM</i> or <i>compact disc</i> (not disk). Refer to the drive for a <i>CD-ROM</i> as the <i>CD-ROM drive</i> , not <i>CD-ROM player</i> , <i>CD player</i> , or <i>CD drive</i> . Use the abbreviation CD only for audio discs.
CDATA	character data	None.
CDE	Corporate Development Environment (Oracle)	None.
CGA	Color Graphics Adapter	None.
CGI	computer graphics interface; common gateway interface	None.
CGM	computer graphics metafile	None.
CIM	computer-integrated manufacturing	None.
CIS	computer information systems	None.
CISC	complex instruction set computer (or computing)	None.
CLI	command-line interface	None.
CLOB	character large object	Acronym.
cm	centimeters	None.
CYMB	cyan-magenta-yellow-black	None.
COBOL	Common Business-Oriented Language	Acronym. Not necessary to spell out. Do not spell as Cobol.
CODASYL	Conference on Data Systems Languages	Acronym. Do not spell out.
COM	Component Object Model	None.
CORBA	Common Object Request Broker Architecture	Acronym.
CPU	central processing unit	Do not spell out.
CRAN	Comprehensive R Archive Network	None.
CRC	cyclic redundancy check	None.
CRM	customer relationship management	None.
CRT	cathode-ray tube	Do not spell out.
CSS	Cascading Style Sheets	None.
DAC	digital-to-analog converter	None.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
DAP	Directory Access Protocol	None.
DASD	direct access storage device	None.
DAT	digital audio tape	None.
DAV	distributed authoring and versioning	None.
DB2	IBM relational database	None.
DBA	database administrator	None.
DBCS	double-byte character set	None.
DBID	database identifier	None.
dbkey	database key	None.
DBMS	database management system	None.
DC	direct current	None.
DCA	Document Content Architecture	None.
DCD	database connection descriptor	None.
DCE	distributed computing environment	None.
DCL	data control language	None.
DDE	dynamic data exchange	None.
DDL	data definition language	None.
deg	degrees	None.
DES	Data Encryption Standard	None.
DHCP	dynamic host configuration protocol	None.
DIA	Document Interchange Architecture	None.
DIB	device-independent bitmap	None.
DIF	Data Interchange Format	None.
DIN	Deutsche Industrie Norm	Acronym. Do not spell out.
DLL	dynamic-link library	Do not use dynalink.
DLM	Distributed Lock Manager	None.
DMA	direct memory access	None.
DML	data manipulation language	None.
DNS	domain name system	None.
DOS	disk operating system	Do not spell out.
DP	data processing	None.
dpi	dots per inch	Do not spell out.
DRAM	dynamic RAM; dynamic random access memory	Acronym.
DRAW	direct read after write	Acronym.
DRDW	direct read during write	None.
DSP	digital signal processor	None.
DSS	decision support system	None.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
DTD	document type definition	None.
DVD	digital video disk	None.
e-business	electronic business	Do not spell out.
e-commerce	electronic commerce	Do not spell out.
EBCDIC	Extended Binary Coded Decimal Interchange Code	Do not spell out.
ECMA	European Computer Manufacturers Association	None.
ECO	engineering change order	None.
EDI	electronic data interchange	None.
EDIFACT	European EDI Standards Board [EDI for Administration, Commerce, and Trade]	None.
EEMS	Enhanced Expanded Memory Specification	None.
EFT	electronic funds transfer	None.
e.g.	for example, such as	Do not use abbreviation, except where space is limited, as in a table or an illustration.
EGA	Enhanced Graphics Adapter	None.
EIA	Electronics Industries Association	None.
EIS	executive information system	None.
EISA	Extended Industry Standard Architecture	None.
EJB	Enterprise JavaBeans	None.
email	electronic mail	Do not spell out. Avoid using this word as a verb. Use <i>Email</i> at the beginning of a sentence and in headings or titles.
EMM	Expanded Memory Manager	None.
EMS	Expanded Memory Specification	None.
ENIAC	Electronic Numerical Integrator and Calculator	None.
EOF	end-of-file	Do not spell out.
EOT	end-of-transmission	None.
EPO	emergency power-off	None.
EPROM	erasable programmable read-only memory	None.
EPS	encapsulated PostScript	None.
EPSF	encapsulated PostScript file	None.
ER	entity relationship	None.
ERD	entity relationship diagram	None.
ERM	entity relationship model	None.
ERP	enterprise resource planning	None.
ESD	electrostatic discharge	None.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
ESDI	Enhanced Small Device Interface	None.
et al.	and others	Do not use abbreviation, except where space is limited, as in a table or an illustration.
etc.	and so on; and so forth	Do not use abbreviation, except where space is limited, as in a table or an illustration.
ETL	extract, transform, and load	None.
ETX	end-of-text	None.
FAQ	frequently asked questions	Abbreviation. Use the article <i>an</i> with FAQ (e.g., <i>an</i> FAQ is provided).
FAR	Federal Acquisition Regulation	None.
FAT	file allocation table	Acronym.
fax	facsimile	Do not use FAX; use fax instead. Do not spell out.
FCB	file control block	None.
FCC	Federal Communications Commission	None.
FCoE	Fibre Channel over Ethernet	None.
FDDI	fiber distributed data interface	None.
FEP	front-end processor	None.
FF	form feed	None.
FIFO	first in, first out	None.
FLOPS	floating-point operations per second	Acronym.
FORTRAN	Formula Translation	Acronym. All capital letters only. Not necessary to spell out.
FOSDIC	film optical scanning device	Acronym.
FPLA	field-programmable logic array	None.
FRU	field-replaceable unit	Acronym.
ft	feet	Do not use the apostrophe symbol (') to indicate feet.
FTAM	File-Transfer Access and Management	None.
FTP	File Transfer Protocol	Do not spell out. All lowercase when used in an internet location. Do not use as a verb.
g	grams	None.
Gb	gigabits	None.
GB	gigabytes	None.
GbE	gigabit Ethernet	None.

Table 7-4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
Gbps	gigabits per second	None.
GDI	graphics device interface	None.
GEMMS	Global Enterprise Manufacturing Management System	Do not spell out because this is a trademarked acronym.
GHz	gigahertz	None.
GIF	Graphics Interchange Format	Acronym.
GPF	General Protection Fault	None.
GPI	graphics programming interface	None.
GPIB	general-purpose interface bus	None.
GUI	graphical user interface	Acronym.
GUID	globally unique identifier	None.
HAL	hardware abstraction layer	Acronym.
HBA	host bus adapter	None.
HCA	Host Channel Adapter	None.
HCM	human capital management	None.
HDBMS	hierarchical database management system	None.
HDLC	High-level Data Link Control	None.
HDMI	High-Definition Multimedia Interface	None.
HDTV	high-definition television	None.
hex	hexadecimal	Do not use abbreviation.
HFS	Hierarchical File System	None.
HMA	high-memory area	None.
HPFS	high-performance file system	None.
HPGL	Hewlett-Packard Graphics Language	None.
hr	hours	None.
HTML	Hypertext Markup Language	Not necessary to spell out.
HTTP	Hypertext Transfer Protocol	Not necessary to spell out. Use all capital letters if used in text. Use lowercase in a URL. For example: http://www.oracle.com
HTTPS	Hypertext Transfer Protocol Secure	Not necessary to spell out. Use all capital letters if used in text. Use lowercase in a URL. For example: https://www.oracle.com
Hz	hertz	Do not spell out.
IaaS	Infrastructure as a Service	None.
IANA	Internet Assigned Numbers Authority	None.
IB	InfiniBand	None.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
ICX	intercartridge exchange	None.
ID	identification; identifier	Do not use <i>Id</i> or <i>id.</i> in text. Either one might appear in the software code.
IDE	integrated development environment; Integrated Device Electronics	None.
IDL	interactive distance learning	None.
i.e.	that is	Do not use abbreviation, except where space is limited, as in a table or illustration.
IEEE	Institute of Electrical and Electronics Engineers, Inc.	Do not spell out.
IETF	Internet Engineering Task Force	None.
IFIP	International Federation of Information Processing	None.
IGES	Initial Graphics Exchange Specification	None.
IHV	independent hardware vendor	None.
IIOP	Internet Inter-ORB Protocol	None.
IMAP	Internet Message Access Protocol	Acronym.
in.	inches	Avoid using except in tables or illustrations where space is limited. If used, then use the period. Do not use the double quotation mark ("") to indicate inches.
I/O	input/output	Do not spell out.
IOCTL	I/O control; input/output control	None.
IOS	integrated office system	None.
IOT	index-organized table	None.
IoT	Internet of Things	None.
IP	Internet Protocol	Spell out first use if appropriate, depending on the audience.
IPC	interprocess communication; interprocess call	None.
IPL	initial program load	None.
IPoIB	Internet Protocol over InfiniBand	None.
IR	infrared	None.
IRQ	interrupt request line	None.
IS	information systems	None.
ISA	Industry Standard Architecture	None.
ISAM	indexed sequential access method	None.
ISDN	integrated service digital network	None.
ISP	internet service provider	None.

Table 7-4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
ISO	International Organization for Standardization	None.
ISO/OSI	International Organization for Standardization/Open Systems Interconnection	None.
ISV	independent software vendor	None.
IT	information technology	None.
ITV	interactive TV	None.
IVP	Installation Verification Procedure	None.
IVR	interactive voice response	None.
JAAS	Java Authentication and Authorization Service	None.
JAR	Java Archive	Acronym.
JAWS	The name of a screen reader.	JAWS is a registered trademark of Freedom Scientific, Inc. Do not spell out this acronym.
JDBC	Java Database Connectivity	None.
JDK	Java Development Kit	None.
JIT	just in time	None.
JNDI	Java Naming and Directory Interface	None.
JPEG	Joint Photographic Experts Group	None.
JRE	Java Runtime Environment	None.
JVM	Java Virtual Machine	None.
Kb	kilobits	Put a space between the number and Kb (20 Kb).
KB	kilobytes	Put a space between the number and KB (20 KB).
Kbps	kilobits per second	None.
KBps	kilobytes per second	None.
kc	kilocycles	None.
kg	kilograms	None.
kHz	kilohertz	None.
kJ	kilojoules	None.
km	kilometers	None.
kVA	kilovolt amperes	None.
KVM	keyboard, video, and mouse	None.
kW	kilowatts	None.
LADDR	layered-architecture device driver	Acronym.
LAN	local area network	None.
LCD	liquid crystal display	Not necessary to spell out at first mention.
LDAP	Lightweight Directory Access Protocol	None.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
LDIF	Lightweight Directory Interchange Format	None.
LED	light-emitting diode	None.
LF	line feed	None.
LIFO	last in, first out	None.
LISP	List Processor (language)	Acronym. Not necessary to spell out.
lo-res	low resolution	Do not use abbreviation.
LOB	large object	Acronym.
LOM	lights out management	Acronym.
LOV	list of values	None.
LPM	lines per minute	None.
LRPC	lightweight remote procedure call	None.
LRU	least recently used	None.
LSB	least significant bit	None.
LSC	least significant character	None.
LSI	large-scale integration	None.
m	meters	None.
macro	macroinstruction	None.
MAPI	messaging application programming interface	Not necessary to spell out in technical documentation.
Mb	megabits	Put a space between the number and Mb (20 Mb).
MB	megabytes	Put a space between the number and MB (20 MB).
Mbeans	managed beans	None.
Mbps	megabits per second	None.
MBps	megabytes per second	None.
MC	megacycles	None.
MCA	Micro Channel Architecture	IBM trademark.
MCGA	multiple-color graphics array	None.
MCI	media control interface	None.
MDI	multiple-document interface; medium dependent interface	None.
MHz	megahertz	None.
mi	miles	None.
MIDI	musical instrument digital interface	Acronym.
MIF	Maker Interchange Format	Acronym.
MIME	Multipurpose Internet Mail Extensions	Acronym.
min	minutes	None.

Table 7-4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
MIPS	millions of instructions per second	Acronym.
MIS	Management Information Systems	None.
mm	millimeters	None.
MMU	memory management unit	None.
mo	months	None.
MP3	MPEG-1 audio layer 3	None.
MPEG	Moving Pictures Experts Group	None.
MRP	Material Requirements Planning (Oracle)	None.
MS	Microsoft	Do not use abbreviation.
MS-DOS	Microsoft Disk Operating System	Do not spell out. This is a trademarked abbreviation.
msec	milliseconds	None.
MSO	multiple service operator	None.
MTBF	mean time between failures	None.
mV	millivolts	None.
NA	not applicable, not available	Do not use abbreviation. If you must use in tables, for space reasons, then create a footnote to make the meaning clear. Do not use N/A.
NAC	network adapter card	Do not use abbreviation.
NAN	not a number	None.
NAS	network-attached storage	Acronym.
NCA	Network Computing Architecture	None.
NCOS	network computer operating system	None.
NCSA	National Center for Supercomputing Applications	None.
NDIS	network driver interface specification	None.
NetBEUI	NetBIOS extended user interface	None.
NetBIOS	network basic input/output system	None.
NFS	network file system	None.
NIC	network interface card	Do not use acronym or term; use network adapter card instead.
NIST	National Institute of Standards and Technology	None.
NMI	nonmaskable interrupt	None.
NOS	network operating system	None.
nsec	nanoseconds	None.
NVMe	Non-Volatile Memory Express	None.
OBE	Oracle by Example	None.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
OC4J	Oracle Application Server Containers for Java EE	None.
OCI	Oracle Call Interface	None.
OCO	Oracle ConText Option	None.
OCR	optical character recognition	None.
ODBC	Open Database Connectivity	None.
ODS	Open Data Services library	None.
OEM	Oracle Enterprise Manager	Do not use abbreviation.
OEO	Oracle Express Objects	Do not use abbreviation.
OFA	Oracle Financial Analyzer	Do not use abbreviation.
OIS	office information system	None.
OK	okay	Do not spell out or spell as O.K., Ok, ok, or okay.
OLAP	online analytical processing	Acronym.
OLE	object linking and embedding	Do not spell out.
OLL	Oracle Learning Library	None.
OLTP	online transaction processing	None.
OOP	object-oriented programming	None.
OPUS	Open Parallel Unisys Server	Acronym.
ORB	object request broker	Acronym.
OS	operating system	Do not use abbreviation.
OSI	Open Systems Interconnect	None.
PaaS	Platform as a Service	None.
PC	personal computer	Not necessary to spell out.
PCIe	PCI Express	None.
PCMCIA	Personal Computer Memory Card International Association	Not necessary to spell out.
PDA	personal digital assistant	None.
PDF	Portable Document Format	Not necessary to spell out.
PDM	Product Data Management	None.
PDU	power distribution unit	None.
Perl	Practical Extraction and Report Language	Acronym. Do not spell out.
PERT	program evaluation and review technique	Acronym. Not necessary to spell out.
PHP	Hypertext Preprocessor	None.
PID	processor identifier	None.
PIF	program information file	None.
PIN	personal identification number	Acronym.
pixel	picture element	Do not spell out.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
p.m.	post meridiem (after noon)	Do not spell out.
POP3	Post Office Protocol, version 3	Acronym.
PPP	Point-to-Point Protocol	None.
PPV	purchase price variance	None.
PROM	programmable read-only memory	Acronym.
PSU	power supply unit	None.
PuTTY		Acronym. No expansion.
QA	quality assurance	None.
QBE	query by example	None.
QoS	quality of service	Note the lowercase <i>o</i> .
RAID	redundant arrays of independent disks	Acronym.
RAM	random access memory	Acronym. Do not spell out.
RDBMS	relational database management system	Spell out first use if appropriate, depending on the audience.
RFQ	request for quotation	None.
RFT	revisable form text, request for technology	None.
RFTDCA	Revisable-Form-Text DCA	None.
RGB	red-green-blue	Do not spell out.
RIFF	resource interchange file format	Acronym.
RISC	reduced instruction set computer	Acronym. Do not spell out.
RMA	Return Material Authorization (a form)	None.
ROM	read-only memory	Acronym. Do not spell out.
RPC	remote procedure call	None.
RTF	rich text format	None.
SAA	Systems Application Architecture	IBM trademark.
SaaS	Software as a Service	Acronym.
SAN	storage area network	Acronym.
SBCS	single-byte character set	None.
SCSI	small computer system interface	Acronym. Pronounce SKUZZ-ee. Precede acronym with <i>a</i> , not <i>an</i> .
SDI	single-document interface	None.
SDK	software development (or developer's) kit	None.
SDLC	synchronous data link control; system development life cycle	None.
sec	seconds	None.
SGA	System Global Area	None.
SGML	Standard Generalized Markup Language	Do not spell out.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
SI	systems integration	None.
SIC	standard industry classification	Acronym.
SID	system identifier	Acronym.
SIG	special interest group	Acronym.
SIMM	single inline memory module	Acronym. Do not spell out.
SLA	service-level agreement	None.
SLIP	Serial Line Internet Protocol	Acronym.
SMB	server message block	None.
SMP	symmetric multiprocessing	None.
SMTP	Simple Mail Transfer Protocol	None.
SNA	systems network architecture	None.
SNMP	Simple Network Management Protocol	None.
SOA	service-oriented architecture	Acronym.
SOAP	Simple Object Access Protocol	Acronym.
SOD	statement of direction	Acronym.
SPI	service provider interface	None.
SQL	structured query language	Precede abbreviation with <i>a</i> , not <i>an</i> . Pronounced as sequel.
SSH	Secure Shell	None.
SSL	Secure Sockets Layer	None.
SVGA	super video graphics array	Do not spell out.
TAF	transparent application failover	None.
TB	terabytes	None.
TCP	Transmission Control Protocol	Do not spell out.
TCP/IP	Transmission Control Protocol/Internet Protocol	Do not spell out.
TIFF	Tagged Image File Format	Acronym. Do not spell out.
TLS	Transport Layer Security	None.
TSR	terminate-and-stay-resident	None.
TTY	teletype	None.
UDDI	Universal Description, Discovery and Integration	No comma after <i>Discovery</i> .
UI	user interface	Not necessary to spell out.
UID	unique identifier	None.
UK	United Kingdom	None.
UMB	upper memory block	None.
UNC	universal naming convention	None.
UPC	universal product code	None.
UPS	uninterruptible power supply; United Parcel Service	None.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
URI	Universal Resource Identifier	None.
URL	Uniform Resource Locator	Do not spell out. Use the article <i>a</i> rather than <i>an</i> (for example, a URL is listed).
US	United States (of America)	Do not spell out.
UTC	Coordinated Universal Time	None.
UTF-8	8-bit encoding of Unicode	None.
UTF-16	16-bit encoding of Unicode	None.
UUID	universally unique identifier	None.
VAN	value-added network	Acronym.
VAR	value-added reseller	None.
VCPI	virtual control program interface	None.
vCPU	virtual CPU	None.
VCR	video cassette recorder	Do not spell out.
VDT	video display terminal	None.
VGA	video graphics adapter	Do not spell out.
VIO	video input/output	None.
VLAN	virtual local area network	None.
VLDB	very large database	None.
VLSI	very large-scale integration	None.
VM	virtual machine	None.
VRML	Virtual Reality Modeling Language	Do not spell out.
VSAM	virtual storage access method (or memory)	None.
WAIS	Wide Area Information Servers	None.
WAN	wide area network	Acronym.
Wi-Fi	wireless fidelity	Do not spell out.
WIP	Work In Process (Oracle)	Acronym.
wk	weeks	None.
WORM	write once, read many	Acronym.
WP	word processing	None.
WRB	Web Request Broker	Do not use abbreviation.
WRBX	Web Request Broker Executable Engine (component of an Oracle product)	None.
WWW	World Wide Web, the Web	Lowercase when used in an internet location.
WYSIWYG	what you see is what you get	Acronym. Pronounce WIZ-ee-wig. Spell out first use if appropriate, depending on the audience.
XCMD	external command	None.

Table 7–4 (Cont.) Common Abbreviations and Acronyms

Abbreviation or Acronym	Definition	Comments
XML	Extensible Markup Language	None.
XMS	extended memory specification	None.
XSD	XML schema definition	None.
XSLT	Extensible Stylesheet Language Transformation	None.
yr	years	None.
YTD	year-to-date	None.

8

Typographic Conventions

Use typographic conventions to help the reader understand special uses of words. The most important rule about typographic conventions is that you use them consistently and you explain their use to the reader. Typographic conventions must aid the reader's understanding of the document not hinder it. Do not use color as the sole method for identifying information, and do not use too many conventions, because you may confuse and frustrate the reader.

Usually, a section of the preface includes a list of the typographic conventions for a document. If particular conventions are used in only a small section of the document, then you may prefer to explain them at the beginning of that section, especially for an online document, because you cannot assume that the reader has read an earlier part of that document.

Be careful how you implement typographic conventions in any document. Those that clearly assist a reader in a printed document may not transfer well to the online format of that document.

Although specific situations may call for a modification of the conventions described in [Table 8-1](#), use these conventions as often as possible so readers of multiple Oracle documents will not have to learn new sets of conventions every time that they switch documents.

Note that these typographic conventions are particularly suitable for software documentation that might be used with many different platforms. If you are writing platform-specific documentation, then use standards that are expected by users of that platform.

Table 8–1 Suggested Typographic Conventions

To Indicate...	Use Font or Format	Issues, Comments, and Examples
Variables in text or code	<i>italic</i> and monospace	<p>Text example: Configure the <code>svserver_name.app</code> file.</p> <p>Code example: <code>httpd-serv1/</code></p> <p>Note: If your authoring tool cannot have both monospace font and italic at the same time, then place variables within angle brackets. Example: <code>httpd-<serv1></code></p>
Emphasis	<i>italic</i>	<p>Avoid showing emphasis using different fonts or font formats other than italic.</p> <p>Example: <code>Do not reveal your password to anyone.</code></p>
File, folder, and directory names in text	monospace	<p>Examples: The file is located in the <code>/usr/ccs/bin</code> directory.</p> <p>Change the values in the <code>sqlnet.ora</code> file.</p>
SQL statements, configuration parameter names, and keywords	UPPERCASE and monospace	<p>Code example: <code>SELECT * FROM emp</code></p> <p>Text example: The <code>NAMES.PREFERRED_SERVERS</code> parameter overrides the results of the discovery process.</p>
Commands within a text paragraph	monospace	<p>Example: To create a new directory, use the <code>mkdir</code> command.</p> <p>Example: Enter <code>ls</code> to see a list of files in the directory.</p>
Code (as in examples and syntax statements), and text that appears on the screen	monospace	<p>Example of computer output: <code>20020 - TNSAPI_ERROR - TNS error occurred.</code></p>
Text that the user enters	monospace	<p>Example: <code>% chmod 777 \$TMPDIR</code></p> <p>If there might be confusion between user input and computer output, then use bold monospace for user input.</p>
Text the user enters, when shown in combination with computer output	bold monospace	<p>Example: <code>% sqlplus /@test_222</code></p> <p>SQL*Plus: Release 3.2.2.0.0 -...</p> <p>Use bold only when confusion between user input and computer output might occur.</p>
Document titles	<i>italic</i>	<p>Example: For more information about schema objects, see <i>Oracle 11g Database Administrator's Guide</i>.</p>
Chapter and section titles	quotation marks	<p>Example: "Configuring Oracle Data Guard"</p>
New terms defined in the text or the glossary	bold	<p>Example: A server is a specialized application that performs a particular task or provides access to a shared resource.</p>

Table 8–1 (Cont.) Suggested Typographic Conventions

To Indicate . . .	Use Font or Format	Issues, Comments, and Examples
URLs	monospace	<p>Example:</p> <p>You can find this information at http://www.long_address_example.com/xyz.html</p>
Cross-references	standard text font	<p>Example:</p> <p>For more information, visit http://www.example.com.</p> <p>Because cross-references may appear in printed documents, ensure that they follow Oracle standards. (See Section 3.2.) When converted to HTML, cross-references will automatically acquire the distinctive look of a link.</p> <p>Example:</p> <p>For further information, see Chapter 6, "Creating Tables."</p> <p>Example:</p> <p>For more information about schema objects, see <i>Oracle 11g Database Administrator's Guide</i>.</p>
Keyboard keys	standard text font, initial capital letters	<p>Refer to keyboard keys with the label of the key, beginning with an initial capital letter. Because keyboards vary, you may prefer to use the whole word rather than an abbreviation.</p> <p>Example: Press the Del key. Press the Delete key.</p> <p>Example: Press Delete.</p> <p>Note: Generally, refer to the Enter key rather than the Return key.</p>
Keys pressed simultaneously	separate keys pressed at the same time with a plus sign (+) between each key	<p>Use the following notation to mean to press these three keys together:</p> <p>Control+Alt+Delete</p>
Keys pressed sequentially	separate keys pressed sequentially with a space	<p>Use the following notation to mean to press the Control key and the lowercase q key together, and then press the uppercase Q:</p> <p>Control+q Q</p>
In a syntax statement, an optional element	monospace [text]	Enclose monospace text in brackets. This convention is an industry standard.
In a syntax statement, a choice among optional elements	monospace [text text]	<p>Use a vertical bar between the choices, and enclose the choices in brackets.</p> <p>Example:</p> <p>owsctl [start stop reload]</p>
In a syntax statement, a choice between mandatory items	monospace {text text}	Use a vertical bar to separate the choices, and enclose them all in braces. This convention is an industry standard.
In a line of code, the preceding item can be repeated	monospace text . . .	<p>Use horizontal ellipsis points to indicate that something has been omitted from a line, or that the preceding item can be repeated.</p> <p>For more information, see Section 5.1.7.</p>

Table 8–1 (Cont.) Suggested Typographic Conventions

To Indicate . . .	Use Font or Format	Issues, Comments, and Examples
In a code example, lines of code that are irrelevant to the current task have been deleted	monospace text . . . text	Use vertical ellipsis points in code examples to indicate that information irrelevant to the example has been omitted.
A word in a sentence emphasized for a particular reason	<i>italic</i>	Example: <i>Client</i> and <i>server</i> are relative terms. If a server itself requires services that are not available locally, then it becomes the client of a server that can provide these services.
A graphical user interface (GUI) element	bold	Example: Select Generate Pages . For more information about graphical user interface elements, see Chapter 12, "Graphical User Interface Elements."
A value in a list of values	bold	Example: From the Date list, select Last 30 days .
Utility names	standard text font and uppercase, unless mixed case or lowercase is the industry or product standard	Example: LSNRCTL is a utility that you run from the operating system prompt to start and control the listener.

Note: Punctuation immediately following a word, phrase, or URL retains that font. For example, in the following sentence, the period is in italic:

For more information, see *Oracle Database Concepts*.

Writing Tasks, Procedures, and Steps

The purpose of many technical documents is to explain how to use a product to accomplish specific tasks. In technical documentation, detailed instructions about how to accomplish tasks are often provided in the form of procedures and steps.

This chapter contains the following sections:

- [Section 9.1, "Understanding the Relationships Among Tasks, Procedures, and Steps"](#)
- [Section 9.2, "Developing Task Information"](#)
- [Section 9.3, "Writing Procedures"](#)
- [Section 9.4, "Writing Steps"](#)
- [Section 9.5, "Checking for Structural Problems"](#)

9.1 Understanding the Relationships Among Tasks, Procedures, and Steps

This chapter uses these task-related terms:

- Task: Specific work that can be performed. A task includes instructions for completing the work. A task can also include an explanation of why the work might be performed and any prerequisites and examples.
A task can be short and simple, even just one action to complete. A task can also be long and complex. A long, complex task might need to be separated into subtasks to make the task easier to understand.
- Subtask: A small, short component of a larger task. A subtask might be one action or one set of actions to complete. A subtask can include prerequisites and examples.
To complete a task, a user might have to complete or choose from multiple subtasks. Some subtasks might be optional or conditional. These tasks might not always have to be completed, depending on the user's situation or the intended outcome. Remember to clearly identify any optional or conditional subtasks.
- Procedure: One step or an ordered set of steps that explains how to accomplish a task or subtask.
A procedure can be optional or conditional. A procedure also can include prerequisites and examples.

- Step: An instruction that explains how to perform a task or part of a procedure. A short, simple procedure might require only one step. Two or more steps are ordered and are numbered to show the sequence of actions.

A step can be optional or conditional. A step can also include prerequisites and examples.

A short task, such as backing up a system, might require performing one simple procedure. In that case, you might not use all of the guidelines in this chapter.

9.2 Developing Task Information

A task is work that is performed for a particular purpose.

Focusing on the task is as important for a developer's guide as it is for a user's guide or an administrator's guide. When identifying tasks, do not become distracted by the interface. The interface, whether it is a browser interface, graphical user interface, application programming interface, or command-line interface, is the means by which a user accomplishes tasks. Your primary focus should be on how to accomplish the tasks, not on how the interface works.

9.2.1 Providing Only Necessary Task Information

When you write a task, provide only the information that is necessary to complete the task. In particular, limit an overview to information without which the user cannot complete the task.

To provide just the relevant information, consider including the following in a task:

- An explanation of what the task is
- The reasons why the user needs to perform the task
- Prerequisites for performing the task
- Instructions about how to perform the task
- Examples that illustrate how to perform the task

For most tasks, the instructions about how to complete the task are in the form of a procedure. For information about writing procedures, see [Section 9.3](#).

9.2.2 Including Prerequisites

Include any prerequisites that users must consider before performing a task. The risk of users performing an action out of sequence is particularly high with online documentation because users can enter a task from various points.

For a task that is written as a procedure, follow these guidelines:

- If the task contains information that users must know before performing the procedure, then include that information in an introductory paragraph.
- If users must perform a prerequisite step or procedure, then make the first step the prerequisite step or add a cross-reference to the prerequisite procedure.

9.2.3 Providing Examples

Consider including one or more examples whenever doing so can help the user. Do not provide an example if the task is self-evident.

When providing examples, follow these guidelines:

- If the example requires clarification, then include text with the example.
 - Keep the example short, showing only the necessary elements.
- If the output is lengthy or used only for verification, then show just the first lines, last lines, and pertinent intervening lines. Use vertical ellipses points to indicate any missing lines that users do not need to see.
- Examples can be included within a procedure (after a step) or at the end of a procedure.

Note: Be careful when providing examples of code or screenshots. Ensure that each name that you use for a URL, IP address, or network domain can be made public, or use the examples in this guide. See [Section 3.5.6](#).

9.3 Writing Procedures

A procedure is usually an ordered set of steps. However, a procedure can include only one step. A procedure can include prerequisites. A procedure can also be preceded by introductory text or by cross-references to overview or supplementary information.

A procedure can also be followed by one or more examples and by pointers to the next procedure or the next topic that must be addressed.

To write effective procedures, follow these guidelines:

- Introduce procedures with an infinitive phrase.
- Write procedures that are easy to follow.
- Place procedures appropriately.
- Use one method to describe a single procedure.

9.3.1 Introduce Procedures with an Infinitive Phrase

Begin the steps of the procedure with an infinitive phrase, such as: "To create a message."

9.3.2 Write Procedures That Are Easy to Follow

To help users understand and follow procedural content, use these guidelines:

- Ensure that you establish the entire context in which the procedure is done. You cannot assume that users have read surrounding paragraphs or procedures preceding the current procedure. Do not assume that users have already opened the screen or the file that previous sections or procedures discuss.
- Try to write no more than 10 steps for each procedure.

If a procedure is a long, single series of steps, then the procedure might be too complex. If a procedure is too long (more than 10 steps), then consider dividing the task into two or more smaller procedures.

Do not break up a long procedure if you cannot logically divide the steps. Therefore, do not separate a single procedure into smaller, less comprehensible procedures just to meet the recommended number of steps.

- Do not number single-step procedures. Place the single-step procedure in a separate paragraph.

- Include any prerequisite information.
- Provide explanatory text and visual cues.
- Include all required steps.

Users do not like to search through pages or go to another document to find required steps. In such cases, duplicate the required steps.

However, if procedural content is common to many procedures in a task, then include the procedure at the start of the task. Then, in subsequent procedures, cross-reference the common procedure.

- Do not provide a detailed description of each window, menu, or field in an interface.

Most users explore an interface with a specific task in mind. Therefore, in procedures, describe only the parts of the interface that are necessary to complete the task.
- Do not use graphics in place of procedural information.

A graphic that provides an overview of the areas in a window can help orient users. However, do not provide graphics of the interface in place of step-by-step procedures. In addition, do not provide procedural information in the callouts of a graphic.
- Do not repeat overview information or information that is not related to the task.

Place overview information in a section or in paragraphs before the procedure. Cross-reference any related, detailed supplementary information that supports the procedure.
- Add one or more examples to procedures if doing so can help the user. For more information about examples in procedures, see [Section 9.2.3](#).

9.3.3 Place Procedures Appropriately

To place procedures appropriately and consistently in a document, follow these guidelines:

- Put one or more procedures inside a section.

Place any introductory text or overview information that relates to one or more procedures under a section heading.

If introductory text is appropriate, then use one of these constructions:

 - Full paragraph
 - Complete sentence that ends with a period
 - Complete sentence that ends with a colon
- Try to put procedures under a first-level section or a second-level section heading.

Place related procedures at the same level.
- Do not nest a procedure within another procedure.

9.3.4 Use One Method to Describe a Procedure

If users can perform a procedure in more than one way, then show only one method in a procedure. For example, do not mix steps that use a command-line interface with steps that use a graphical user interface in the same procedure.

Choose one method of presentation, command-line interface or graphical user interface, that best suits the needs of your users and the organization of the document.

An alternative is to present each method separately. Some of the more common ways to present each method separately are as follows:

- Put command-line procedures in one chapter and graphical user interface procedures in another chapter. Ensure that each chapter title identifies the specific method.
- Put related command-line procedures in one section and related graphical user interface procedures in another section.
- Primarily use the graphical user interface method, showing pertinent screenshots of graphical user interface windows within the procedure.
 - Use screenshots as a supplement to steps, not as a substitute for steps.
 - Do not overuse screenshots. Graphical user interfaces change frequently, and the screenshots may become a maintenance problem.
 - Provide visual cues only as necessary, and explain what happens after each step, if appropriate.
- If the entire procedure could be performed using the command line, then include a command-line example that shows the same actions at the end of the procedure.
- If only one step has a command associated with it, then consider adding a note or tip following the step that shows the command, for example:
 1. Click in the text where you want the symbol to appear.
 2. From the **Items** menu, select **Symbol**.

Tip: Alternatively, you can display this window by entering `show symbols` at the command line.

3. Double-click the symbol name.

If you provide both graphical user interface and command-line information, then provide users with enough information to choose one method over the other method.

9.4 Writing Steps

When writing steps, determine what a user must do first, next, and last. To write concise steps, follow these guidelines:

- Order and number the steps.
- Make each step short.
- Write each step as a complete sentence and in the imperative mood.
- Orient the user first with either the location (in a graphical user interface) or provide the goal of the task, and then tell the user what action to take.
- Write meaningful steps.
- Use branching of steps appropriately. For more information about branching, see [Section 9.4.5](#).

9.4.1 Order and Number the Steps

When ordering and numbering steps, follow these guidelines:

- Present information in a logical order. For example, ensure that a step that requires certain information appears after the user acquires that information.

Correct	Incorrect
<p>1. Determine the new host's name.</p> <pre>#sge-root/utilbin/SARCH/gethostname</pre> <p>2. In the sge-root/default/common/act_qmaster file, replace the current host name with the new host's name.</p>	<p>1. In the sge-root/default/common/act_qmaster file, replace the current host name with the new host's name.</p> <p>This name should be the same as the name returned by the gethostname utility. To get the name, enter the following:</p> <pre>#sge-root/utilbin/SARCH/gethostname</pre>

- Do not use a number if a procedure has only one step. Make that step a paragraph.
- If a procedure includes two or more steps, then use numerals to number the steps. Use letters for sequential substeps.
- Indicate optional steps with the word *Optional* within parentheses at the beginning of the step. Do not identify a step as optional if any user needs to complete the step for the procedure to be successful.
 - 3. (Optional) Reboot the system.
- If users must perform different actions depending on the outcome of a step, then use a bulleted list to show the alternatives. Use letters for substeps.

9.4.2 Make Each Step Short

A user can more easily follow a procedure when each step is short and explains one action. To help a user understand what to do in each step, follow these guidelines:

- Try to use no more than 20 words to write each step.
- Place any explanatory text in a separate paragraph under the step text, and keep the explanatory text as short as possible.
- Do not bury steps in a paragraph.
- Write about only one action in each step.

Exceptions to this guideline include the following:

- You conclude a step with *and click OK* because that action is a necessary component of the step.
- You begin a step with a common instruction such as *Log in as* or *Log in to* followed by another short instruction.

However, this combination of steps depends on the audience and the subject matter. Novice users might need more instruction than experienced users.

Novice User	Experienced User
<p>1. Become a superuser.</p> <pre>\$ su</pre> <p>Password:</p> <p>2. Reboot the system.</p> <pre># reboot</pre>	<p>1. Become a superuser and reboot the system.</p>

- Ensure that you include steps for all actions that the user must perform.

9.4.3 Write Each Step as a Complete Sentence in the Imperative Mood

Verbs do most of the work in instructions. When writing steps, follow these guidelines:

- Write each step as a complete, correctly punctuated sentence.
- Present the step as a statement of action rather than a question.
- Ensure that each step contains an active verb in the imperative mood. Reserve participles and gerunds for lists.

Put the verb at the start of the step unless you are explaining why, how, or where an action takes place. You might clarify a step to do one of the following:

- Qualify the verb.
Gently lift the I/O board up and out of the unit.
- Provide information to orient readers.
In the **Add Attachments** window, click **Add File**.
- State a condition.
If the card's I/O address conflicts with another device, then change the I/O address according to the manufacturer's instructions.
- Show the desired outcome or reason for the action.
To secure the board to the unit, tighten both screws.
- Stress the importance or consequence of an action.
To shut down the system, enter shutdown.
- Do not use command names as verbs.

Correct	Incorrect
1. To change to the new directory, enter cd directory-name.	1. cd to the new directory.

9.4.4 Write Meaningful Steps

To write complete steps that are effective, do the following:

- For GUI procedures, clearly state what users must do to interact with the interface.
State what data the user must enter in a text field, which menu option the user must select, which button the user must click, and so on.
- For command-line procedures, make the task, not the command, the focus of the step. Follow the step immediately with the command syntax, if applicable.
- For command-line procedures, follow the step and the command line with a description of the command options and variables that directly relate to the step.

Note: If the command line contains only one or two self-explanatory variables and no command options, then you can choose not to define the variables. For example, if `filename` and `username` are the only variables, then you can choose not to define these variables.

- Explain to users why they are to skip a step or jump to a step.
 1. Determine whether you want the partition table to be the current table.
 - If you want to change the displayed partition table, then enter `n` and go to Step 4.
 - If you want to use the current partition table, then enter `y` when prompted.
- When providing an instruction in a step, ensure that you provide all the information that the user must have to complete the step. For example, if you instruct the user to stop a server or to edit a file, then provide the information about how to do so.

9.4.5 Use Branching of Steps Appropriately

Use branching if the action to take in a particular step in a procedure differs depending on the user's situation or intended outcome. Follow these guidelines to determine whether a step requires the use of branching:

- Use branching if the procedure is the same for many cases and differs only at one or two steps.
 1. Format the diskette:
 - To format the diskette for a UFS file system, enter `fdformat` and press Return.
 - To format the diskette for a Windows file system, enter `fdformat - w` and press Enter.
- Indicate the branching condition in the main step text, not by using the word *or*.

Correct	Incorrect
To restart NFS, enter one of the following commands: <ul style="list-style-type: none"> ■ <code>/etc/init.c/nfs/restart</code> ■ <code>/etc/rc3.d/s60nfs restart</code> 	1. Restart NFS. <pre># /etc/init.d/nfs/restart OR #/etc/rc3.d/s60nfs restart</pre>

- If the branching condition applies to most or all of the procedure, then use two different procedures.
 For example, if the procedure has several steps that provide alternatives for HTTP and FTP protocols, then create two procedures. Write one procedure for HTTP and one for FTP.
- If a particular condition requires a substitution in most of the steps in the procedure, then provide that information in a note.
 For example, tell users to use the default directory if their default directory is different from the directory provided in the steps.
- If a step is optional, then do not use branching.

Correct	Incorrect
<p>1. (Optional) To make this printer the default printer, select Default.</p> <ul style="list-style-type: none"> ■ If a user must know certain information to determine which branch to follow, then include the process by which the user can find out that information. 	<p>Determine whether you want to make this printer the default printer.</p> <ul style="list-style-type: none"> ■ If no, then go to Step 2. ■ If yes, then select Default.
<p>1. Use a text editor to ensure that the .html file is complete.</p> <ul style="list-style-type: none"> ■ If the file is complete, then post the file on the internal website. ■ If the file is not complete, then see Appendix C. 	<p>1. Ensure that the .html file is complete.</p> <ul style="list-style-type: none"> ■ If the file is complete, then post the file on the internal website. ■ If the file is not complete, then see Appendix C.

9.5 Checking for Structural Problems

This section describes some signs of a possible need for restructuring.

9.5.1 Duplicate Series of Steps

If two or more procedures begin with the same series of steps, then consider creating a separate procedure with the shared steps and then cross-referencing to that procedure in the related procedures.

For example, suppose you have several procedures that are accomplished through a web page deep in the application's hierarchy. To describe how to get to the Modify Objects page requires four steps. You can create a separate procedure. Then, at the beginning of each modification task, Step 1 could be *If you are not already on the Modify Objects page, then see "Accessing the Modifying Object Page."*

9.5.2 Nearly Identical Procedures

Look for two or more procedures that are alike except for one or two steps that require a different value or choice. Consider combining the procedures into one procedure. Provide information in the steps that require choices.

For example, a word processing application might use the same basic procedure to create generated lists such as tables of contents, lists of tables, and lists of figures.

Rather than having a separate procedure for each type of generated list, you can provide one procedure that describes how to create generated lists. Then, in the relevant steps, you can provide the specific file names related to the type of list that the user is creating.

9.5.3 Many Nested Substeps

Multiple levels of substeps within several steps in a procedure probably indicate that the procedure should be divided into separate procedures.

9.5.4 Procedures with More Than 10 Steps

Long procedures are difficult to follow. Look for a logical place to divide the procedure. You might want to describe the overall procedure, followed by a task map or numbered list that describes the related procedures.

9.5.5 Several Single-Step Procedures

The presence of many single-step procedures might indicate some different structural problems:

- If many of the procedures describe the same basic action, then you might be able to collapse the procedures.

For example, suppose you have separate single-step procedures for opening different applications from a front panel. You might want to provide one single-step procedure with the heading *Opening an Application from the Front Panel*. If necessary, then provide a cross-reference from each application.

- If some procedures are related logically, then you might be able to combine the procedures.

For example, suppose you must add one line to a system file to set a printer resource and another line to set a scanner resource. You can provide a procedure with the heading *Adding Peripherals to the .Nresource File*. The procedure contains the steps that are common to the procedures that are being combined. Then one step includes the different text lines for each peripheral.

- Examine each single-step procedure to ensure that all required steps are provided.

For example, you might be assuming that the user is at a particular place in the GUI or has already logged in to the system.

9.5.6 Repeated Steps Indicated at the End of Repeated Actions

Instructions such as *Repeat Steps 2 through 4* that are placed at the end of a set of steps can indicate a structural problem. Instead, indicate the repetition at the start of the steps to be repeated. Sometimes, this strategy results in nested substeps, but it also shortens the overall number of steps and gives the user sufficient context in the form of an advanced warning.

Correct	Incorrect
<p>1. On each system perform the following steps:</p> <p>a. Determine which data links are configured on a host. <code># dladm show-link</code></p> <p>b. Identify which VID to associate with each data link on the system.</p> <p>c. Create PPAs for each interface to be configured with a VLAN.</p>	<p>1. Determine which data links are configured on a host. <code># dladm show-link</code></p> <p>2. Identify which VID to associate with each data link on the system.</p> <p>3. Create PPAs for each interface to be configured with a VLAN.</p> <p>4. Repeat Steps 1 through 3 on each system.</p>

10

Glossaries

A **glossary** groups terms and their definitions at the end of a document, and a **master glossary** provides terminology for an entire documentation set. Because readers do not typically read Oracle documentation sequentially or entirely, a glossary is a helpful reference for unfamiliar terminology.

This chapter provides information to help you decide when to include a glossary, and if so, then how to develop one. It also explains how to relate glossary entries to the rest of the text, and the effect of a master glossary on your glossary decisions.

To ensure consistency and reduce duplication of glossary entries, this chapter provides the following Oracle standards for glossaries:

- Appropriate case of terms
- Singular form of terms
- Consistent presentation (capitalization, hyphenation, spacing, spelling) of terms
- Correct presentation of product names and features as terms
- Consistent definition content
- Consistent presentation of acronyms and abbreviations and their expansions
- Consistent and predictable sorting of terms
- Consistent placement, wording, punctuation, and formatting of cross-references

This chapter contains the following sections:

- [Section 10.1, "Planning a Glossary"](#)
- [Section 10.2, "Creating a Glossary Structure and Format"](#)
- [Section 10.3, "Sorting Glossary Entries"](#)
- [Section 10.4, "Relating Glossary Entries to Text"](#)
- [Section 10.5, "Using a Checklist to Ensure an Effective Glossary"](#)

10.1 Planning a Glossary

In Oracle documentation, the glossary defines new or unusual terms that are introduced in boldface type within a document. Although a glossary can be a helpful source of information for readers, not every document requires one, as [Section 10.1.1](#) explains.

10.1.1 Does This Document Need a Glossary?

Your strategic planning for the documentation set includes collaboration with other documentation team members and partners in marketing and development to establish clear, concise, and uniform terminology and definitions for readers.

As a team, establish optimal points of entry for readers by determining which documents will contain glossaries, which glossaries will be included in the master glossary (if there is one), and what processes to use to review and resolve any conflicting term definitions.

The decision that a document merits a glossary will be based on your team strategy as well as on how your document fits within the overall documentation set. For example, consider the following questions:

- Do you plan to provide a master glossary for the documentation set?
- Which documents will be included in a master glossary? Which documents must contain their own glossaries? Which documents do not require glossaries?

For example, your team might decide that installation guides will not contain glossaries. It might further decide to provide a master glossary that includes terms from all the concepts guides, but excludes terms from all the reference manuals and installation guides.

If your document is not part of a documentation set, or if you are still uncertain about providing a glossary for it, then consider its content, structure, audience, and relationship to other product documents. For example, if your document is written for advanced software users and contains mostly industry-standard terminology with which they should be familiar, then a glossary is unnecessary. Conversely, if your document is for novice software users who are unfamiliar with its terminology, or your document introduces terms that even experienced users might find unique or perplexing, then a glossary would be useful.

Also consider where the terms are positioned in the document. A glossary may not be needed if one or more of the following statements are true:

- Terms are defined only where they are used and are not used again.
- The term definition is readily located from the index.
- Other documents in the product set do not expose readers to these terms, or if so, then the terms are defined in the other documents.

10.1.2 What to Include

Review the terms under consideration for inclusion in your glossary. Discuss with editors and other contributors to the product documentation set how to standardize the presentation of glossary entries and the wording of term definitions.

When you review the terms, check the master glossary (if there is one) for your product set, as well as any related product sets, for those terms. Readers benefit from clear, concise, consistently defined terminology. Where suitable definitions already exist for your terms, use them, or where appropriate, work with other writers to create the optimal shared definitions.

Candidate terms to consider include acronyms and abbreviations, industry-standard synonyms for new terms (used as cross-references), new terms, and sometimes proprietary terms. Limit your glossary content to terms used within the document (and to terms needed to explain other terms within the glossary).

Note: If you include proprietary names, then ensure that they meet all legal and product naming standards. Oracle trademarks are valuable corporate assets; it is important that you use them correctly.

10.2 Creating a Glossary Structure and Format

A glossary entry consists of a glossary term, a glossary definition, and optionally, one or more cross-references to other glossary terms. See the [Sample Glossary](#) to examine a variety of glossary entries and their components.

10.2.1 Glossary Terms

As explained in [Section 10.4.1](#), a new term introduced in an Oracle document is presented in boldface type and often linked to a corresponding glossary term. The glossary term is typically a noun or noun phrase, and occasionally a verb. Use lowercase for glossary terms, unless the term is a proper noun, acronym, or case-sensitive command, language statement, or term. See [Section 7.2](#), [Section 7.6](#), and *Merriam-Webster's Collegiate Dictionary* for capitalization preferences. Also, see any product-specific style guidelines, trademark lists, and naming standards documents for your product, and consult with other members of your team to ensure consistency and accuracy.

Correct	Incorrect
access control list (ACL)	Access Control List (ACLS)
binary large object (BLOB)	Binary Large Object (BLOB)
Component Object Model (COM)	component object model (COM)

See [Section 10.2.3](#) for information about special handling of acronyms and abbreviations that are glossary terms.

Use the singular form for glossary terms, as follows:

Correct	Incorrect
access point	access points
blackout	blackouts
control file	control files

Place glossary terms on separate lines from their glossary definitions. Do not include final punctuation after the glossary term.

10.2.2 Glossary Definitions

Begin the glossary definition on a new line, with a sentence fragment that accurately and succinctly describes the term being defined. Use either fragments or complete sentences for any subsequent text.

Provide final punctuation for both sentences and fragments within the definition. Begin both sentences and sentence fragments with a capital letter.

If a term in your document has multiple definitions, then provide each definition as a separate glossary entry, including a parenthetical description as part of each term

when possible and appropriate. Do not combine definitions under a single term by numbering each definition, as in a dictionary.

Correct	Incorrect
salt (chemistry) A compound formed by the interaction of an acid and a base, which neutralize each other.	salt 1. In cryptography, a random string that is added to data before it is encrypted. 2. In chemistry, a compound formed by the interaction of an acid and a base, which neutralize each other. 3. In printing, a type of printer's proof, now obsolete, that was created using salt-based chemicals.
salt (cryptography) A random string that is added to data before it is encrypted.	
salt (printing) A type of printer's proof, now obsolete, that was created using salt-based chemicals.	

10.2.3 Acronyms and Abbreviations in a Glossary

If the glossary term is an acronym or an abbreviation, then you must provide two complementary glossary entries.

The primary glossary entry is a full entry that includes both the term and the definition. The glossary term for this entry is an acronym or abbreviation. The glossary term (the acronym or abbreviation) is followed by a glossary definition, which begins with the expanded form of the acronym or abbreviation. The definition is followed by any necessary cross-references. For example:

ANSI

American National Standards Institute, the official US representative to ISO. This not-for-profit organization coordinates the development and use of voluntary consensus standards in the US and represents the needs and views of US stakeholders in international standards forums.

See also ISO; NISO.

In the secondary glossary entry, the glossary term is the expanded form of the term, followed by the acronym or abbreviation enclosed in parentheses. Instead of a glossary definition, the secondary glossary entry includes a *See* cross-reference to the primary (full) entry. For example:

American National Standards Institute (ANSI)

See ANSI.

10.2.4 Cross-References Within Glossary Entries

Cross-references within a glossary are similar in function to cross-references in the index. A glossary entry can contain either a *See* or a *See also* cross-reference. (The use of italic type in this section for the words *See* and *See also* is for emphasis. In contrast to the use of these cross-references in an index, do not use italic type in the glossary entries for these cross-reference words.)

A *See* cross-reference in a glossary redirects the reader to another glossary entry, which contains the full definition. Do not include the definition in the glossary entry that

contains the *See* cross-reference. A *See* cross-reference should appear on a separate line under the glossary entry.

Correct	Incorrect
access control list (ACL)	ACL
See ACL.	See access control list.
dash	dash
See em dash; en dash.	See em dash and en dash.

Do not italicize the *See* and *See also* words in the glossary. Capitalize the word *See*, and follow the cross-reference with a period.

If the *See* or *See also* cross-reference contains multiple cross-references, then list the cross-references in alphabetic order and separate the cross-references with semicolons.

A *See also* cross-reference in the glossary directs readers from a full glossary entry to one or more related glossary entries. A *See also* cross-reference begins a new paragraph.

Correct	Incorrect
line string	line string
One or more pairs of points that define a line segment.	One or more pairs of points that define a line segment. See also: multiline string.
See also multiline string; line segment.	

10.3 Sorting Glossary Entries

If your authoring tool does not automatically sort the terms in the glossary, then *Oracle Style Guide* recommends the following method for sorting both glossary and master glossary entries. This method is based on the word-by-word sort order preferred by the National Standards Organization (NISO) in *NISO TR03-1999: Guidelines for Alphabetical Arrangement of Letters and Sorting of Numerals and Other Symbols*. The complete NISO TR03-1999 report is available at

<http://www.niso.org/publications/tr/>

The basic order of characters is as follows:

Spaces, hyphens, dashes (any length), or slashes
 Symbols *other than* numerals, letters, and punctuation marks
 Numerals
 Letters

The rules are as follows:

1. A space precedes any other character. Treat the hyphen, dash (any length), or slash as a space.

Note: When characters are equivalent, sorting is based on the space or character that follows it. For example, client/ and client- are equivalent. Based on the next two characters, the proper order is client/server, then client-side.

2. Ignore the following punctuation marks, and do not treat them as spaces:

- Angle brackets
- Apostrophe
- Braces
- Brackets
- Colon
- Comma
- Exclamation point
- Parentheses
- Period
- Question mark
- Quotation marks (single or double)
- Semicolon

Note: Sort names or suffixes beginning with a period as alphabetic rather than symbolic entries. For example, list .doc files with the D entries (between *DNS* and *domain*), rather than under a Symbols entry for the period or at the beginning of the D entries.

3. Place symbols other than numerals, letters, and punctuation marks before numerals and letters. (For a list of symbols, see [Table 7–2](#).) These symbols include:

- Ampersand
- Asterisk
- At sign
- Caret
- Dollar sign
- Equal sign
- Number sign
- Percent sign
- Plus sign
- Underscore

No order is placed on these symbols. The position of a symbol in the alphanumeric list is determined only by the space or character that follows it. When symbols must be placed in a sequence, *Oracle Style Guide* recommends using the ASCII decimal sort order. (The symbols in the preceding list are in ASCII decimal sort order.) For placement of additional symbols, see their decimal codes in the ASCII character table at

<http://www.asciitable.com/>

4. Place numerals (0 through 9) before letters. Do not position numerals as if spelled out.

Note: Sort all numerals by value rather than by digit. Humans expect to find 8 before 10, because 8 has a smaller value than 10. Avoid the machine sorting style that places 10 before 8 because the digit 1 precedes the digit 8; it is counter-intuitive.

5. Place letters (A through Z) after numerals. Uppercase and lowercase letters have equal values.

10.4 Relating Glossary Entries to Text

Ensure that the content provided in glossary entries is readily available to readers from a variety of access points. Introduce glossary terms clearly in text, appropriately cross-referenced, and make them accessible from the index, as explained in the following sections.

10.4.1 Managing Terminology

You can introduce new terms to the readers of your document in a variety of ways. Typically, you introduce a new term within the context of a discussion in a chapter or an appendix. If the term is key to understanding the discussion, then you define it immediately. To indicate that this term is a key term, you present the term in boldface type. If this term has a less frequently used synonym, then you may choose to provide the synonym in italic type. You create index entries for both the term and its synonym, using the text page as the index locator. If your document has a glossary, then you may also create a glossary entry for this new term, and create a link to the glossary from the chapter.

If the definition in the glossary is identical to the definition in the text, then do not link this boldface term to the glossary entry. However, if the definition is provided only in the glossary, or if the definition provided in the glossary is more detailed than that provided within the text, then you should create a link from the text to the glossary term. Because readers do not always access documents in a linear fashion, you can use boldface type and create links to the glossary more than once for each term, if helpful to the reader.

When you link from the text to the glossary, use the term exactly as it appears in the glossary. For example, if *ping* is the glossary term, then do not use *pinging* or *pinged* within the text as a link to it. Similarly, do not begin a sentence with a glossary term if the term should not be capitalized. Rewrite the sentence (or the glossary entry) to avoid this situation.

10.4.2 Indexing a Glossary Term

Although the glossary itself is not indexed, it is important that you consider each defined term for possible inclusion in the index. Find the section where the glossary term is first defined or most prominently discussed, and index that location. Indexing a term where it is first defined provides the reader with both context and, when appropriate, a link to the expanded glossary definition. Note that although the glossary terms usually are singular, they typically appear in the index in the plural form. To enter the definition as a specific index subentry, use the word *definition*. (In many cases, this word might not be required in an index, because the term definition may be easily located using an *about* or *overview* subentry.)

10.5 Using a Checklist to Ensure an Effective Glossary

When you have completed your document, use the following list to verify the quality and effectiveness of your glossary:

- Are all entries sorted according to the NISO TR03-1999 guidelines as described in [Section 10.3](#)?
- Does each glossary term use spelling, capitalization, hyphenation, punctuation, and spacing consistent with *Oracle Style Guide* and any product style sheet standards?
- Are the glossary terms, definitions, and cross-references formatted and styled correctly and consistently?
- Does the glossary appear as an entry in the bookmarks and table of contents in your HTML and PDF output?
- For glossary terms that are abbreviations or acronyms, have you provided a cross-reference from the expanded term to the abbreviation or acronym? Have you provided the definition only under the abbreviation or acronym glossary entry? Have you provided the abbreviation or acronym in parentheses following the expanded form?
- Have you removed any duplicate glossary entries and consolidated nearly identical entries? Have you corrected entries that were wordy, redundant, or unclear?
- Have you compared your glossary entries with those in the master glossary, if applicable?
- Have you worked with other glossary writers to standardize presentation and wording as appropriate?
- Are all glossary cross-references valid? Do all *See* and *See also* links within the glossary work? Is their formatting correct and consistent?
- Are all glossary definitions suitable for this document and its audience?
- Are all glossary terms used within the document or within another definition in the glossary?
- Have you provided boldface links from new terms within the document to their glossary entries, and linked from entries within the glossary to other glossary entries as appropriate? Do the links work?
- Did you check the glossary against the index?

This chapter provides a philosophy of indexing as well as guidelines for indexing an Oracle technical document.

- If you are already convinced of the necessity of a thorough, well-constructed index for your document and are eager to begin, then go directly to [Section 11.2, "Indexing Guidelines."](#).
- If you seek further inspiration or explanation, then begin with [Section 11.1, "Indexing Philosophy."](#).
- If you are an expert indexer and want a few reminders, then go to [Section 11.3, "Quick Reference for Indexing."](#).

11.1 Indexing Philosophy

The philosophy for indexing an Oracle technical document includes the following sections:

- [Section 11.1.1, "Why Index?"](#)
- [Section 11.1.2, "Good and Bad Indexes"](#)
- [Section 11.1.3, "What to Index"](#)
- [Section 11.1.4, "How Much to Index"](#)
- [Section 11.1.5, "Who Creates the Index?"](#)
- [Section 11.1.6, "When to Index"](#)

If you want specific suggestions for creating a good index, then see [Section 11.2](#). If you want a few reminders, then see [Section 11.3](#).

11.1.1 Why Index?

Readers generally do not read through an entire guide to learn about Oracle products. They have questions, and they hope that the documentation contains the answers. How can you help readers find information quickly, in a way that encourages them to use the documentation whenever they have a question?

The index, online or printed, is the most important tool for information retrieval. Indexes must be comprehensive and involve analysis of topics to be a good resource to a reader.

The art of creating a usable index is based on designing the quickest path to any information in the document that might be needed by any reader. Because the quickest

path varies among readers, you must think of most of the ways in which readers might try to look up information.

Consider the index to be a major part of the user interface of your document. About 50% of software code and 30% of a software development budget usually are dedicated to the user interface, whereas an index typically is only 4% to 5% of a document and uses 3% to 4% of the documentation budget. Spending more time on the user interface of your documentation can greatly improve its usability.

Plan to spend substantial time creating an index for a new document and maintaining updates and edits to the index in each release. If readers can retrieve information efficiently using your indexes, then you can expect these results:

- Improved customer productivity and satisfaction
- Reduced customer reliance on support personnel
- Enhanced product marketability

11.1.2 Good and Bad Indexes

The ability to retrieve information is the key to index usability. In searching for information, most readers will try to think of three alternative keywords. If they fail all three times, then their frustration is likely to prompt a call to customer support. By that time, the documentation, the product, and perhaps even the company have lost credibility.

11.1.2.1 Problems of a Bad Index

Readers discover the following typical problems in a poorly indexed document:

- Too few terms are indexed.
- The level of detail is not fine enough (primary entries are too general, with few or no subentries).
- Primary entries are inconsistent and disorganized.
- Terms that should be primary entries are subentries hidden under other primary entries.
- Synonyms are not indexed with cross-references to preferred terms.
- There are not enough synonyms for the primary term.

11.1.2.2 Advantages of a Good Index

A good index is accurate and complete. It is consistent in terminology, style, and organization. A well-constructed index enhances ease of use and knowledge in the following ways:

- Helps readers find a particular topic quickly
- Shows how subjects are interrelated
- Indicates which terms are standard or nonstandard
- Provides more than one way to find information
- Connects the term that the reader already knows to the new term that your product uses instead

11.1.3 What to Index

Generally, any document of more than 10 pages should have an index. For more detail, see [Section 11.2.2](#).

11.1.4 How Much to Index

The index length (in two-column format) should be 5% to 20% of the content length (5 to 15 index markers per page of text). The length and depth of the index depends on the complexity of the content.

11.1.5 Who Creates the Index?

The writer is responsible for creating and updating a document index. In some groups, an editor has this responsibility, in collaboration with the writer.

11.1.6 When to Index

Begin indexing early in the document cycle and continue throughout. By spreading the indexing work over the development phase of your document, you are more likely to have enough time to prepare a thorough index and get feedback. Saving all the indexing work until the end of your schedule might limit your index effort due to tight deadlines, resulting in an index that is less than adequate.

Indexing a document at an early stage offers you the following advantages:

- Provides a working template (a skeleton index) for subsequent entries
- Defines terminology early in the project
- Assists in refining your indexing method over the cycle of the document
- Allows reviewers to use and comment on the usefulness of the index during early reviews
- Allows time to quality-check the final index

11.2 Indexing Guidelines

The following information describes the definitions and guidelines for indexing an Oracle technical document. If you seek further inspiration or explanation, then see [Section 11.1](#). If you are an expert indexer and just need some reminders, then see [Section 11.3](#).

The guidelines for indexing are in the following sections:

- [Section 11.2.1, "Index Components"](#)
- [Section 11.2.2, "Index Topics"](#)
- [Section 11.2.3, "Issues and Potential Problems"](#)
- [Section 11.2.4, "Tips for Creating a Good Index"](#)
- [Section 11.2.5, "Index Evaluation"](#)
- [Section 11.2.6, "Sample Index"](#)

11.2.1 Index Components

An index consists of the following parts:

- [Section 11.2.1.1, "Primary Entries"](#)
- [Section 11.2.1.2, "Subentries" \(including second-level and third-level entries\)](#)
- [Section 11.2.1.3, "Cross-References" \(*see* and *see also* entries\)](#)
- [Section 11.2.1.4, "Page References" or locators \(or links for online indexes\)](#)

11.2.1.1 Primary Entries

A **primary entry** is a noun or noun phrase (including gerunds) that identifies a key concept or main topic in the document. Use primary entries for every key concept covered in the document.

Use lowercase, unless the term is a proper noun, acronym, or case-sensitive command or language statement or term.

Use the plural form, unless it is misleading or incorrect. See [Section 11.2.3.3](#).

11.2.1.1.1 Synonym Entries A *synonym entry* is another term that some readers might use when researching a key concept, depending on the reader's background or level of experience with the product. Think of as many alternative terms as possible. For example, you might use the synonym *account* for *user name*. Synonyms help you determine *see* and *see also* references, as well as additional subjects for the index.

11.2.1.1.2 Grammatical Forms Use the following forms for primary entries:

- Nouns (for example: error messages)
- Gerunds (for example: relinking error messages)

Avoid using verbs and adjectives as primary entries. For example:

Correct	Incorrect
arrays, very large deleting expense accounts large small	delete expense accounts reports very large arrays expense accounts

11.2.1.1.3 Indexing File Names, Commands, and Parameters When indexing file names, commands, parameters, and so on, give the category of the object. For example, ensure that a parameter name is followed by the word *parameter*.

Correct	Incorrect
DIF files INIT.ORA file MERGE statement	DIF INIT.ORA MERGE

11.2.1.1.4 Grouping Related Subentries Group related subentries under appropriate primary entries. Note that *alert* is an adjective in the first two correct primary entries that follow, and *alerts* is a noun in the third entry. As shown earlier, an adjective cannot stand alone as a primary entry. For example:

Correct	Incorrect
alert data	alert, changing filters for
alert recording filter	alert data
alerts	alert, displaying
changing filters for	alert, monitoring
displaying	alert, overview of
monitoring	alert recording filter
overview of	

11.2.1.2 Subentries

A **subentry**, indented under a primary entry, directs the reader to further discussion of the primary entry.

Use lowercase in subentries, unless the term is a proper noun, acronym, or case-sensitive command or language statement or term.

11.2.1.2.1 Criteria for Dividing a Primary Entry into Subentries Use the following criteria to determine when to divide a primary entry into subentries:

- If a primary entry has more than three page references, then try to divide it into logical subentries that reference the information in those pages. Entries with more than three page references can become unwieldy. For example:

Correct	Incorrect
capitalization commands 2-12 file names 7-15 headings 4-8 titles 9-30	capitalization 2-12, 4-8, 7-15, 9-30

- If a primary entry contains many subentries, then consider dividing the subentries into related groups and creating a new primary entry for each group.

[Example 11–1](#) shows an index before categorization. [Example 11–2](#) shows an index after categorization.

Example 11–1 Many Subentries in an Index

creatures
 aardvarks
 crocodiles
 dragons
 hippopotamuses
 koalas
 opossums
 raccoons
 unicorns
 wallabies
 werewolves

Example 11–2 New Primary Entries in an Index

land creatures
 aardvarks
 dragons
 unicorns
 wallabies

werewolves
tree creatures
 koalas
 opossums
 raccoons
water creatures
 crocodiles
 hippopotamuses

- A primary entry for a key concept might also be used as a subentry of a broader topic. For example, *CHAR data type* is a key concept that covers a broad topic. A reader might look for it not only as the primary entry *CHAR data type* but also as a subentry listed under other primary entries—for example, as a subentry to *data types* and *column*. [Example 11–3](#) illustrates this concept.

Example 11–3 Primary Entry and Subentry in an Index

CHAR data type
 compared to RAW
 description of
 displaying
columns
 CHAR
 DATE
 versus ROWID
data types
 CHAR
 DATE
 NUMBER

- Ensure that there are at least two subentries when a primary entry is divided, and at least two third-level entries (sub-subentries) when a subentry is divided, as shown in [Example 11–4](#).

Example 11–4 Entries and Subentries in an Index

water creatures
 crocodiles
 man-eating
 vegetarian
 hippopotamuses

11.2.1.2.2 Noun Subentries Ensure that subentries that are *nouns* are also primary entries, as shown in [Example 11–5](#).

Example 11–5 Noun Primary Entries and Subentries in an Index

crocodiles
hippopotamuses
water creatures
 crocodiles
 hippopotamuses

11.2.1.2.3 Third-Level Entries Use *third-level* entries when necessary, as shown in [Example 11–6](#).

Example 11–6 Third-Level Entries in an Index

water creatures
 crocodiles
 man-eating
 vegetarian
 hippopotamuses

11.2.1.3 Cross-References

Because readers think of one concept in a variety of ways, it is important to provide cross-references to synonym entries and related topics in an index. Cross-references list no page numbers: They simply give the term under which page references can be found. The two kinds of cross-references are *see* and *see also*. In the index, the term *see* appears in italic with an initial capital letter, and the term *see also* appears in italic with the *s* in *see* capitalized. Do not initial capitalize the *a* in *also*.

11.2.1.3.1 See References The *see* reference directs readers to the more common term, the proper term, or the preferred company term, which is especially important when the industry uses other synonyms. For example, the primary entry *cutting* might have a *see* cross-reference to *deleting*, if that is the preferred term in Oracle documentation. Although no page numbers are listed for *cutting*, the reader will find one or several page references after going to the cross-referenced primary entry *deleting*, as shown in [Example 11–7](#).

Example 11–7 A See Reference in an Index

cutting
See deleting
 deleting 2-10, 2-12, 4-21

As another example, command or statement terminology typically is used as a gerund in the document. Thus, the experienced user of a product with a SHOW command would probably go directly to the "showing" index entry, but a new user might arrive there only after redirection, as shown in [Example 11–8](#).

Example 11–8 A See Reference for Redirection in an Index

displaying
See showing
 showing 3-5, 3-7

By providing *see* cross-references, you help the new user learn the product language.

To avoid frustrating the reader with too much page turning in the index, it is better to use *double posting* than a *see* reference when a primary entry has no subentries, very few page references, or is merely a synonym entry.

Correct (double posting)	Incorrect (unnecessary <i>See</i> reference)
format overrides 9-11, 9-14 overrides, format 9-11, 9-14	format overrides <i>See</i> overrides, format overrides, format 9-11, 9-14

11.2.1.3.2 See Also References Use *see also* to refer readers to related topics. For example, the following *see also* cross-reference indicates that a specific entry exists under *DECLARE DATABASE statement* that is related to the optional clause *AT dbname* as shown in [Example 11–9](#).

Example 11–9 A See Also Reference in an Index

AT dbname clause
 embedded SQL clause 5-30
 See also DECLARE DATABASE statement

If your indexing tool sorts *see also* cross-references alphabetically, then usually, you can force the sort order to place *see also* references at the end of the subentries. For example:

Correct (double posting)	Incorrect (misplaced <i>See also</i> reference)
symbols in equations text <i>See also</i> icons	symbols in equations <i>See also</i> icons text

11.2.1.4 Page References

Index entries in printed documents are useless without page numbers or other location indicators such as paragraph or section numbers.

11.2.1.4.1 Form of Page References Page numbers are separated by commas, and they are always ordered sequentially from lowest to highest. Your indexing program may or may not include a comma immediately after the entry, before the first page number. Oracle documents typically use double enumeration, which includes both chapter number and page number, with a hyphen as the separator, as shown in [Example 11–10](#).

Example 11–10 Page Numbers in Index Entries

1-13, 1-23, 2-34, 3-45

11.2.1.4.2 Inclusive Page Numbers (Page Ranges) Use inclusive page numbers to tell the reader exactly where the discussion of a topic is begun, interrupted, resumed, and ended, as shown in [Example 11–11](#).

Example 11–11 Page Ranges in Index Entries

widgets
 widget_a 2-3 to 2-5, 2-7, 2-10
 widget_b 5-5, 5-9 to 5-10
 widget_c 7-2, 7-4, 7-8 to 7-11

A primary entry with subentries may or may not give inclusive page numbers. In the preceding example, assume that there is no general discussion of widgets. If there is a general discussion, however, and if you want to give the reader an idea of its extent, then consider giving inclusive page numbers, as shown in [Example 11–12](#).

Example 11–12 Primary Entries and Subentries with Page Ranges

indexing 1 to 20
 guidelines 5 to 19
 philosophy 2 to 4
 quick reference 20

11.2.2 Index Topics

When planning an index, first decide how exhaustive that you want the index to be. Think about including entries for information contained in the following:

- Chapter and section headings
- Examples, tables, and illustrations
- Definitions of new terms
- Acronyms and abbreviations
- Synonyms
- Main topic of each major paragraph
- Important concepts
- Warnings or restrictions
- Main tasks
- Main features of a product
- Buttons, check boxes, field names, forms, menu items, profile options, programs, reports and lists, dashboards, screen names, window names, workbenches
- Information that is cross-referenced within the document or document set
For example, if you suggest that the reader "See Chapter 4 for more information about widgets," then ensure that there is an index entry for widgets in Chapter 4.
- Information in appendixes

However, in general you should not index the following document elements or types of information:

- Glossary
- Front matter (table of contents, preface, and so on)
- Casual mentions of a topic that add no substantive information

Note: Exceptions to this list might be a glossary term that experienced readers are expected to understand (for example, relational database), but inexperienced readers might want to look up in a glossary.

After you have decided what types of entries to make, indexing can become more systematic and lead to a consistent and complete index.

11.2.3 Issues and Potential Problems

To make the index usable, check it for the issues defined in this section and correct any problems.

11.2.3.1 Large Classifications

In a user's guide, large classifications of terms, such as commands or messages, are best put together in an appendix rather than listed in an index. It is important, however, to list the range of pages of the appropriate appendix under the appropriate primary entry, as shown in [Example 11-13](#).

Example 11–13 Large Classifications in Index Entries

commands B-1 to B-32
messages C-1 to C-28

In smaller classifications and in reference material, the following entries are more appropriate, as shown in [Example 11–14](#) and [Example 11–15](#).

Example 11–14 Index Entries for Commands

commands
See specific command name
MERGE command 6-14 to 6-17
SAVE command 8-10 to 8-13

Example 11–15 Index Entries for Messages

messages
"Stop, ignore, or retry?" 5-5, 8-22
"Beam me up, Scotty" 10-31
"Hello, world" 1-3

11.2.3.2 Dead-End and Circular Cross-References

Ensure that all *see* and *see also* entries lead somewhere. Remove any cross-references that lead nowhere (that is, are dead ends). It is particularly important to check cross-references after extensive revisions to your document. Also, ensure that cross-references are not circular, as in the following examples:

Correct	Incorrect
floral bouquets <i>See flowers</i> flowers bouquet of 9-1 pansies 2-5 tulips 1-3	floral bouquets. <i>See flowers</i> flowers. <i>See floral bouquets</i>

11.2.3.3 Singular and Plural Forms

If a term chosen as an entry appears in the document in both the singular and plural forms (for example, task and tasks), then use only one form in the index, unless the two forms have different meanings.

This guide recommends plural entries, unless they are incorrect. [Example 11–16](#) shows some plural index entry terms, as well as some singular index entries that are appropriately singular.

Example 11–16 Plural Index Entries

accelerator keys
check boxes
Control key
OK button
pound sign
privileges
product names
setup
tasks

time zones
toolbar

11.2.3.4 Double Posting

Think of all the possible terms a reader might use to look for information. Using multiple entries for one concept is sometimes known as **double posting**.

[Example 11–17](#) illustrates several ways in which *CHAR data type* could be indexed.

Example 11–17 Double Posting in an Index

CHAR data type
compared to RAW
description of
displaying
columns
CHAR
DATE
versus ROWID
data types
CHAR
DATE
NUMBER

11.2.3.5 Too Few or Too Many Entries for a Key Concept

Eliminate unnecessary entries if they can be consolidated into a more general entry. However, consider ways to expand the index and improve readability by:

- Using subentries as primary entries (double posting)
- Creating additional entries by rearranging the word order of existing entries
- Including synonyms for important terms and concepts

11.2.3.6 Excessive Number of Page References for an Entry

If an entry has more than three page references, then consider creating subentries that provide readers with a better topic analysis. See [Section 11.2.1.2.1](#).

11.2.3.7 Spelling

To avoid multiple entries for the same term, be consistent in spelling a term. For example:

Correct	Incorrect
data types 1-3, 1-5, 1-7	data type 1-5 data types 1-7 datatype 1-3 datatypes 1-7

11.2.3.8 Capitalization

Use lowercase for index entries, with the following exceptions:

- Proper nouns
- Acronyms and abbreviations
- Language statements

- Case-sensitive commands
- The terms *See* and *See also* in cross-references

11.2.3.9 Prepositions and Conjunctions

Avoid unnecessary prepositions and conjunctions in subentries. Sometimes, however, you may need connecting words to keep the subentries parallel in relation to the primary entry. Disregard any initial prepositions and conjunctions when alphabetizing subentries, as shown in [Example 11–18](#).

Example 11–18 Prepositions and Conjunctions in Subentries of an Index

numbers
 in addresses
 at beginning of sentence
 in dates
 and symbols

If you must begin your subentries with prepositions and conjunctions, then ensure that your authoring or indexing tool will disregard these words when it alphabetizes your subentries. Most authoring and indexing tools provide this option.

11.2.3.10 Gerunds

Gerunds for specific product-related terms are legitimate primary entries. For example, in a word processing application, the gerunds *spelling* and *hyphenating* are appropriate, and in a database document, the gerunds *filing*, *installing*, and *saving* probably are appropriate. Avoid vague gerunds such as *using* as primary entries, but note that they are acceptable as subentries.

11.2.3.11 Acronyms or Abbreviations

Create an index entry for the acronym or abbreviation (with the name spelled out in parentheses). Point to the acronym or abbreviation entry with a *See* reference from the entry for the spelled-out term. If three or fewer pages are referenced, use the page numbers in both forms as shown in [Example 11–19](#).

Example 11–19 Acronyms or Abbreviations in Index Entries

access control lists 2-4, 2-8
ACLs (access control lists) 2-4, 2-8
data interchange format files
 See DIF files
DIF (data interchange format) files 3-3 to 3-4, 3-7, 3-9

11.2.3.12 Numbers and Symbols

Indexing tools usually sort numbers and symbols together at the beginning of the index, as shown in [Example 11–20](#).

Example 11–20 Numbers and Symbols in an Index

10BaseT
3Com3+
4GL
 See fourth-generation language
88000 family

```
# (number sign)
% (percent sign)
? (question mark)
; (semicolon)
[ ] (brackets)
```

Consider using double posting for symbols, as shown in [Example 11–21](#).

Example 11–21 Double Posting for Symbols in an Index

```
# (number sign)
% (percent sign)
? (question mark)
number sign (#)
percent sign (%)
question mark (?)
```

11.2.3.13 Backtracking

There will always be some backtracking (iterative processing) in indexing simply because you cannot know at the outset what you will have at the end. You cannot prepare for all contingencies.

At the beginning, make your primary entries plural (if appropriate) with supporting information as subentries. Note the double posting in [Example 11–22](#).

Example 11–22 Backtracking and Double Posting in an Index

```
doodads
    troubleshooting 3-15
troubleshooting
    doodads 3-15
```

In your final review of the index, if you see that you have only one subentry under a primary entry, then edit the entry to the form in [Example 11–23](#).

Example 11–23 Correcting an Index Entry with One Subentry

```
doodads, troubleshooting 3-15
```

Then, you might end up with an index like the one in [Example 11–24](#).

Example 11–24 Index Entries

```
doodads, troubleshooting 3-15
thingamajigs, troubleshooting 8-41
troubleshooting
    doodads, 3-15
    thingamajigs 8-41
    whatnots 4-23
whatnots, troubleshooting 4-23
```

11.2.3.14 Continuation Lines

If time, authoring tools, and resources allow, then add continuation lines in your final edit of the index when you have primary entries with subentries that break to a new column or page. That is, repeat the primary entry (and the subentry, if the break is in a third-level entry) with the italicized word *continued* in lowercase and in parentheses.

Keep at least two subentries (or third-level entries) before and after the break; otherwise, leave the column short and move the primary entry and all subentries to the new column or page. For example:

tasks changing details 7-11 completion date 7-24 creating 7-9 <i>[end of column or page]</i>	tasks (<i>continued</i>) deleting 7-20 reviewing 7-20
--	--

11.2.3.15 Translatability

Consistently following all the recommended indexing guidelines will reduce translation costs. Keep in mind cultural and linguistic differences in the selection and grouping of index entries. For example, sales tax is a US-specific concept. In many European languages, no semantic relationship exists between a sales tax and a salesperson. Therefore, it is recommended that you index a concept such as sales tax in the following way:

Correct	Incorrect
sales [with all topics related to salespersons, compensation, hierarchies, and so on] sales tax [with all tax-related topics]	sales salesperson sales tax

For online indexes, place index markers at the beginning of a paragraph to avoid problems with the translation tool during the automatic translation process.

11.2.4 Tips for Creating a Good Index

Keep your index complete and up-to-date.

Always index in the same manner. Keep an updated copy of your index at your side when writing new documentation or editing existing documentation. Develop a habit of adding and editing index entries whenever you write.

Think of the questions that various levels of readers might ask.

Review your table of contents for topics and tasks. Review your glossary to determine if any terms should be index entries pointing to text in your document. Ensure that important topics are sufficiently indexed.

Identify and use synonyms and cross-references to provide multiple points of access.

Review your product data sheet and other marketing materials for possible terms and ideas. Research your industry for synonyms to Oracle terms, and include *see* references to the Oracle-preferred terms. Ensure that acronyms and abbreviations are expanded.

Provide entries for tables, illustrations, and examples.

At a minimum, create one reference to each table and illustration. You are encouraged to include several references for each table and illustration. Tables and illustrations often contain large amounts of detailed and varied information. By having access to several different references, readers are more likely to find the information that they need.

Integrate indexing into the documentation process.

Schedule indexing in your documentation plan. Start indexing early. Give copies of the document and draft index to testers and product support. Give copies to other writers to check for accuracy, appropriate depth, conciseness, cross-referencing, and logic. Always have the index edited by an editor, if one is available.

11.2.5 Index Evaluation

Ask yourself the following questions:

- What would your readers look up in an index?
- Does the index orient readers to the terminology and concepts covered in the documentation?
- Does the index provide a good topic analysis of the text?
- How long does it take readers to find the information that they need?
- Can readers find terms relating to the tasks that they perform?
- Are the most important topics indexed thoroughly?
- Are terms used consistently?
- Can you consolidate multiple similar entries?
- Are there sufficient cross-references?
- Do all cross-references work? Do they point somewhere?

Is the index accurate?

Check the page numbers of randomly selected index entries to ensure that you can find the text easily. Check spelling. Run a spellchecker on your index, and review it for spelling mistakes that evade the spellchecker. Check capitalization.

Is the index complete?

Check for gaps in your index, that is, areas that may not be indexed as thoroughly as others. Do index entries exist for each letter of the alphabet, each chapter of the book, each section in the table of contents? Are tables, examples, and illustrations indexed? If not, then are omissions intentional and appropriate? Make a list of verification questions (questions that must be answered by your documentation), and confirm that the index addresses them.

Are the entries useful?

Ask your customer or technical support representatives for the most common questions about your product. Does the index lead readers to the answers? Ask support and sales representatives for the terms that they use when discussing a product, technical concept, or task. Have a subject matter expert review your index. If possible, conduct a usability analysis with some readers.

11.2.6 Sample Index

The following is a brief sample index for only one section of a document. It appropriately includes only titles and main concepts. Assume that each entry has associated page numbers, except for the *see* and *see also* cross-references. Creating the index from more than one section in a document requires different forms of entries. For example, the entry *components*, *of indexes* would probably be divided into several

subentries, with *of indexes* being only one, when merged into a larger document. You may decide that the term *components* is too vague to be useful.

Every indexer will take a slightly different approach. You may find some entries to be too vague. You may find the index to be incomplete. You may see ways to combine entries and refine the index. For example, notice that there are four levels of entries, and our guideline recommends a maximum of three levels, preferably two. How could you follow this guideline and retain the depth of information that you want? How about dividing the primary entry *indexing* into three new primary entries: *indexing guidelines*, *indexing philosophy*, and *indexing quick reference*? Then each level would move up one position, giving you three levels.

If you decide that you do not want to go into this level of detail, then you can eliminate the third-level entries and just use page ranges in the second-level entries that include the topics in the third-level entries.

acronyms
backtracking
capitalization
circular cross-references
classifications, large
commands
components, of indexes

See index components

conjunctions
continuation lines
cross-references

circular

dead-end

see

see also

dead-end cross-references

double posting

evaluation, of indexes

file names

gerunds

grouping related entries

guidelines, for indexing

index components

index evaluation

index guidelines

index philosophy

index problems

index topics

indexes

advantages of good indexes

guidelines for creating

how used by readers

impact on credibility of documentation

issues and potential problems

See indexing, as part of documentation user interface

philosophy background

problems of poor indexes

quick reference for

retrievability of information

tips for

topics in

See also indexing
indexing
 as part of documentation user interface
 guidelines for
 components defined
 cross-references
 page references
 primary entries
 subentries
 evaluation
 acronyms
 backtracking
 capitalization
 continuation lines
 dead-end and circular cross-references
 double posting
 excessive number of page references for an entry
 gerunds
 issues and potential problems
 large classifications
 numbers and symbols
 prepositions and conjunctions
 singular and plural forms
 spelling
 tips for creating good indexes
 topics
 philosophy of good and bad indexes
 advantages of a good index
 problems of a poor index
 how much to index
 what to index
 when to index
 who creates the index
 why index
 benefits to company
 credibility
 retrievability of information
 use of documentation budget
 quick reference for
See also indexes
large classifications
lowercase
notes
nouns
numbers
page references
 excessive number
 form of
 in primary entries
 ranges of
parameters
plural form of entry
prepositions
primary entries
 definition

dividing
form of
synonyms
problems, in indexing
quick reference, for indexing
ranges of pages
see also cross-references
see cross-references
singular form of entry
spelling
subentries
 definition
 dividing
 third-level entries
symbols
third-level entries
user interface, index as part of

11.3 Quick Reference for Indexing

Follow these guidelines:

- Create index entries that will be meaningful to your readers.
- Create index entries that will be meaningful to your readers.
- Create primary entries in noun form (including gerunds). Make the entries consistently plural, except where the singular form is more appropriate, to keep the entries grouped by subject.
- Consider ways to increase the accessibility of the information and improve readability by using subentries as primary entries (double posting), creating additional entries by rearranging the word order of existing entries, and including synonyms for important terms and concepts.
- Ensure consistency in terminology, capitalization, punctuation, and other conventions.
- Be concise. Eliminate unnecessary entries if they can be consolidated.
- Avoid unnecessary articles, conjunctions, and prepositions.
- If a primary entry has only one subentry, then eliminate the subentry and include the page reference with the primary entry.
- Ensure that subentries relate logically or hierarchically to primary entries.
- Qualify commands, fields, parameters, and other special names—for example, MERGE command (not just MERGE) and DIF (data interchange format) files (not just DIF).
- Avoid vague gerunds such as *using* in primary entries. Use specific product-related or computer-related gerunds such as *filing*, *saving*, *archiving*, and *linking*.
- Use cross-references (*see* and *see also*) as needed.
- Run a spellchecker on your index.
- Edit and test your index.

12

Graphical User Interface Elements

This chapter provides guidelines for describing graphical user interface (GUI) elements. These guidelines apply to all types of documentation, and this information is intended for writers describing, rather than designing, GUIs.

Use boldface formatting to indicate a GUI element in text. If your authoring tool has a UI element tag, then use it to indicate that the term is a UI element. UI element tags are helpful for translation.

Use graphical elements (buttons, icons, and so on) to enhance user comprehension in these ways:

- Help users navigate Oracle products by providing them with recognizable, simple, and universal UI symbols.
- Help users accomplish tasks when using Oracle software. When each graphical element is distinguishable from the others and conveys its main purpose, users learn to associate each one with its purpose.

This chapter contains the following sections:

- [Section 12.1](#) provides tables of preferred and nonpreferred terms to use when describing GUI elements.
- [Section 12.2](#) provides images that are examples of GUI elements.
- [Section 12.3](#) provides information about how to refer to buttons and icons in procedural and conceptual text.

12.1 Words to Describe Actions and Elements

Refer to GUI elements by their labels, as shown in the following examples.

Correct	Incorrect
Click Update .	Click the button labeled Update .
Tap Photos .	Tap the Photos icon.

When necessary for clarity, include the name of the GUI element. For example, click the **Select All** button. [Table 12–4](#) lists the approved terms for the GUI elements.

Avoid referring to well-known GUI elements that even novice users should know, for example, busy bar and resize handle controls.

If you are writing for a specific platform (such as a Microsoft Windows GUI), then use the terminology familiar to users of that interface. For example, Microsoft terms, when

different from the element names listed in this chapter, should be used only when explicitly discussing the Microsoft interface.

[Table 12–1](#) lists the preferred verbs to use when describing GUI elements.

Table 12–1 Preferred Verbs

Preferred Verb	Explanation
Clear	Use <i>clear</i> to remove text from a field. Example: Clear the Alternate Author field.
Click	Use <i>click</i> for buttons, tabs, links, icons, and so on. (Do not use the phrase <i>click on</i> .) Example: Click Cancel .
Collapse	Use <i>collapse</i> to hide a list or a tree. Example: To collapse the list, click –.
Deselect	Use <i>deselect</i> to remove a selection; it is usually used with check boxes. Example: From the Print Document dialog box, deselect Collate .
Enter	Use <i>enter</i> when the user types (enters) text. Example: Enter the host name. Enter a name for the database instance and then click Next .
Expand	Use <i>expand</i> to display a list or a portion of a tree that is hidden. Example: Click + to expand the list.
Flick	Use <i>flick</i> to refer to quickly brushing across a screen or trackpad to scroll through a list or group of items. Flicking is similar to dragging, except quicker. Flicking relies on momentum, not precise start and end points. Example: To make a call on your smartphone, flick through your contacts. After you find the contact that you want to call, tap the name of the contact.
Insert	Use <i>insert</i> to refer to adding something to a database. Example: Insert the row into the table.
Relocate	Use <i>relocate</i> to refer to the action of moving an object from one place to another within the same component or between components. Example: Relocate the Java options to the Active list.
Right-click	Use right-click to refer to clicking the right mouse button. Do not use the phrase right-click on. Example: Right-click to open the Properties menu.
Scroll	Use <i>scroll</i> to refer to moving up, down, or across a window or page. Example: Scroll down to the bottom of the page to view the list of servers.
Select	Use <i>select</i> for menu items. Use <i>select</i> to specify one or more items from a list, putting a check mark in a check box, or enabling an option using an input device such as a mouse or a keyboard. Example: Select the database. Select Match Existing Code .

Table 12–1 (Cont.) Preferred Verbs

Preferred Verb	Explanation
Tap	Use <i>tap</i> instead of <i>click</i> to describe how users physically interact with a touch-screen GUI, including handheld devices. Example: To view photos on your tablet, tap Gallery , and then tap Photos .

Table 12–2 describes the touch gestures for Apple iOS mobile devices.

Table 12–2 Apple iOS Touch Gestures

Gesture	Action to Perform
Double tap	Two taps in quick succession
Drag	Touch and hold, move, and then lift.
Flick	Quickly brushing across a screen
Pinch (close)	Two-finger press, move inward, and then lift.
Pinch (open)	Two-finger press, move outward, and then lift.
Shake	Move the device back and forth or up and down.
Swipe	Press, move, and then lift.
Tap	Press and then lift.
Touch and hold	Press, wait, and then lift.

Table 12–3 describes the touch gestures for Google Android mobile devices.

Table 12–3 Google Android Touch Gestures

Gesture	Action to Perform
Double touch	Two touches in quick succession
Drag	Long press, move, and then lift.
Long press	Press, wait, and then lift.
Pinch (close)	Two-finger press, move inward, and then lift.
Pinch (open)	Two-finger press, move outward, and then lift.
Swipe	Press, move, and then lift.
Touch	Press and then lift.

12.1.1 GUI Terms

Table 12–4 lists the terms to use when referring to a GUI element in a web browser or a standalone application interface. *The primary guideline is to avoid using these terms unless necessary for clarity.* The table indicates the following:

- Terms that identify GUI elements
- Definitions of terms
- Correct usage when referring to a GUI element

Table 12–4 Approved GUI Terms

Term	Definition	Correct Usage
Arrow	<p>A button with an image of an arrow on it or a button in the shape of an arrow.</p> <p>If the button does not have an associated label, then specify the image on the button (for example left arrow, up arrow, double right arrow, and so on).</p> <p>See Figure 12–1 for examples of arrows.</p>	<p>Click Move All.</p> <p>Click the left arrow.</p>
Button	<p>An element, often rectangular in shape, that initiates an action or displays another dialog box or window.</p> <p>See Figure 12–1 for examples of buttons.</p>	<p>Click OK.</p> <p>Click the Help button for information about selecting a printer.</p>
Check box	<p>An element that indicates that a state is enabled or disabled by displaying or not displaying a check mark. If multiple check boxes are presented as a group, then none, one, or more than one of them can be selected at the same time.</p> <p>Note: A check box is a type of option.</p> <p>See Figure 12–10 for examples of check boxes.</p>	<p>From the Print Options group, select Print Corner Crop Marks.</p> <p>Select the Title check box.</p>
Context menu	<p>An element that appears when a user right-clicks.</p> <p>See Figure 12–2 for an example of a context menu.</p>	<p>Right-click to display the context menu.</p>
Date editor	<p>An element that displays the date and permits the user to change the date.</p> <p>See Figure 12–3 for an example of a date editor.</p>	<p>In the date editor, select the current month.</p>
Date-time editor	<p>An element that displays the date and time, and permits the user to change them. If only the date can be selected, then use <i>date editor</i>.</p> <p>See Figure 12–4 for an example of a date-time editor.</p>	<p>Update the system time to Pacific Daylight Time (PDT) using the date-time editor.</p>
Dialog box	<p>A secondary window with controls that enable the user to interact with the application. A dialog box often includes buttons such as OK and Cancel.</p> <p>See Figure 12–5 for examples of dialog boxes.</p>	<p>From the FrameMaker dialog box, click Properties.</p> <p>On the Object menu, select Create. From the Create dialog box, select Role, and then click Create.</p>
Divider	<p>A horizontal or vertical element for changing the relative size of two sections of a window.</p> <p>See Figure 12–6 for examples of dividers.</p>	<p>To increase the size of the All Folders section, move the divider to the right.</p>
Drop-down list	<p>A list of values from which you can make a selection. The list of values is displayed when you click the arrow adjacent to the box.</p> <p>See Figure 12–7 for an example of a drop-down list.</p>	<p>From the drop-down list, select the font size.</p>
Error message	<p>A secondary window that displays a message indicating an error condition. An error message often has an OK button.</p> <p>See Figure 12–8 for an example of an error message.</p>	<p>If you do not select a file, then an error message is displayed.</p>
Field	<p>An element in which a user enters one or more lines of text or an element that displays information.</p> <p>See Figure 12–10 for an example of a field.</p>	<p>In the Command Line field, enter the command to share the server.</p>

Table 12–4 (Cont.) Approved GUI Terms

Term	Definition	Correct Usage
Floating submenu	<p>A menu that enables users to execute similar commands repeatedly without opening a menu multiple times.</p> <p>See Figure 12–9 for an example of a floating submenu.</p> <p>See also tear-off submenu.</p>	In the floating submenu, select More Columns .
Group	<p>An identified set of related options.</p> <p>See Figure 12–10 for an example of a group.</p>	In the Print Options group, select Title .
Handle	<p>An element used to move or size an object.</p> <p>See Figure 12–29 for an example of a handle.</p>	Click the handle of the tear-off submenu to move the submenu to another part of the screen or to resize the screen.
Help drawer	<p>An element that provides in-application contextual help for the current page.</p> <p>See Figure 12–11 for an example of a help drawer.</p>	To access the help drawer, click the Help icon.
Hint	<p>An element that provides a rule or example for a field.</p> <p>Validation hints provide a rule. Formatting hints provide an example or specific syntax.</p> <p>See Figure 12–12 for an example of a hint.</p>	<p>Validation hint example: Cost must be a positive value.</p> <p>Formatting hint example: Example: 05-May-2010</p>
Icon	<p>A graphic symbol that usually suggests the type of object represented or the purpose of an available function.</p> <p>See Figure 12–13 for examples of icons.</p>	Click the Library icon.
Keyboard shortcut	<p>Keystrokes that initiate actions or move through the elements of a GUI. Keyboard shortcuts provide an alternative to pointing devices such as a mouse.</p> <p>See Example 12–1 for examples of keyboard shortcuts.</p>	The keyboard shortcut for copying is Ctrl+C.
Link	A hyperlink to text or an illustration that, when selected, displays (links to) another page or initiates some other action.	A cross-reference can be a link to another section in a document.
List	<p>A catalog of words or numerals.</p> <p>See Figure 12–14 for examples of lists.</p>	From the Collaboration list, select Calendar .
List of values	<p>A catalog of words or numerals from which to choose.</p> <p>See Figure 12–15 for an example of a list of values.</p>	From the Date list, select Last 30 days .
Locator link	<p>An element that specifies the location of the current page within an application module and page hierarchy. When the user navigates through hierarchical content, or drills down through levels of content and functions, locator links track the location, and allow the user to navigate back to higher levels in the hierarchy.</p> <p>Note: Locator links do not necessarily show the route taken by the user to reach the current page.</p> <p>See Figure 12–16 for an example of locator links.</p>	The locator links at the top of the page indicate the position of the page in the hierarchy of Oracle Enterprise Manager.
Menu	<p>An element that displays a list of commands and options. A menu often appears in a menu bar at the top of a window.</p> <p>See Figure 12–17 for an example of a menu.</p>	From the File menu, select Print Setup .
Menu bar	<p>A horizontal bar at the top of the window. Menu bars are usually composed of separate menu options. The user selects the menu name to display the menu.</p> <p>See Figure 12–17 for an example of a menu bar.</p>	From the menu bar, select File .

Table 12–4 (Cont.) Approved GUI Terms

Term	Definition	Correct Usage
Message	<p>A secondary window or a section of a browser page that displays an informational or other message.</p> <p>See Figure 12–18 for examples of messages.</p>	To continue to the unsecured site, click Yes .
Navigation tree	<p>An element that displays hierarchical relationships among items. A user clicks the plus sign (+) or minus sign (–) next to an item in the tree to display or hide a list beneath the item.</p> <p>Use navigation tree in the first instance; use tree thereafter.</p> <p>See Figure 12–19 for an example of a navigation tree.</p>	Select the current Oracle home from the navigation tree, and then select the product that you want to delete. From the tree, select another Oracle home.
Option	<p>An element that indicates if something is enabled or disabled. Some options indicate one requirement in a set of mutually exclusive selections, and others indicate one or more selections that are optional and are not exclusive.</p> <p>Note: A check box is a type of option.</p> <p>See Figure 12–10 for examples of options.</p>	Select Show all files .
Page	<p>A GUI that is displayed in a web browser.</p> <p>See Figure 12–20 for an example of a page.</p>	<p>A web page</p> <p>Oracle Enterprise Manager Database Control page</p>
Pane	<p>A section of a window.</p> <p>If a label is not available, then specify the location of the window section.</p> <p>See Figure 12–21 for examples of panes.</p>	<p>In the bottom right pane, click Channel.</p> <p>In the pane on the left side of the window, click Business Model.</p>
Progress indicator	<p>An element that indicates a process is under way, or indicates how much of the process has been completed.</p> <p>See Figure 12–22 for examples of progress indicators.</p>	The progress indicator shows the percentage of the task that is complete.
Screen	The graphic portion of a monitor. Use <i>screen</i> instead of <i>display</i> or <i>monitor</i> .	Relocate the submenu to another part of the screen.
Secondary tab	<p>A second-level navigation area below the tabs that includes a bar of links.</p> <p>See Figure 12–27 for examples of secondary tabs.</p>	<p>To display the application servers on your system, click Application Servers.</p> <p>To display the targets on the Targets tab, click the All Targets secondary tab.</p>
Slider	An element that is used to choose one of a variety of numeric or other values by sliding a control.	Move the slider to 10 percent.
Submenu	<p>A list of related commands and options grouped by subcategory that appears when the user clicks a parent menu item. Submenus can be used in both regular menus and in context menus.</p> <p>See Figure 12–28 for an example of a submenu.</p>	From the View menu, select Sort , and then select Ascending .
Subtab	<p>An element, usually in the shape of a file folder tab, that displays another page of the user interface. Subtabs are in a bar below the tabs and the secondary tabs, and are smaller than the tabs on the other bars.</p> <p>See Figure 12–24 for examples of subtabs.</p>	<p>On the Databases subtab, click Performance.</p> <p>To display general information about the database, click the Home subtab.</p>

Table 12–4 (Cont.) Approved GUI Terms

Term	Definition	Correct Usage
Tab	An element, usually in the shape of a file folder tab, that displays a page of the user interface. Tabs are in a bar at the top of the page. See Figure 12–25 for examples of tabs.	Click Targets . To return to the home page, click the Home tab.
Table	A display of information in row and column format. See Figure 12–23 for an example of a table.	To view the information about a database instance, from the Name column of the table, select an instance.
Tear-off submenu	A submenu that includes a handle at the top. The handle enables the submenu to be pulled away from the main menu. After the submenu is pulled away, the submenu is then called a floating submenu. See also floating submenu. See Figure 12–29 for an example of a tear-off submenu.	Click the handle of the tear-off submenu to move the submenu to another part of the screen.
Toolbar	A bar that contains a set of tools provided by an application. The tools are often represented by buttons. See Figure 12–30 for an example of a toolbar.	From the toolbar, click Favorites .
Tooltip	Text that appears automatically when a user pauses the mouse pointer over a tool or some other GUI element. See Figure 12–26 for an example of a tooltip.	
Tree	A displayed hierarchy. Use navigation tree in the first instance, then use tree thereafter. See also navigation tree. See Figure 12–19 for an example of a navigation tree.	From the navigation tree, select the server. From the tree, select Buffer Activity to view the available metrics.
Tree table	A table that displays a list within a tree. See Figure 12–31 for an example of a tree table.	To show the rows associated with Node 3, click + .
Window	The main container for objects and data in a GUI. See Figure 12–19 for an example of window.	From the Control Panel, select Mouse . The results appear in the Results window. You can resize a window on your screen.

[Table 12–5](#) lists terms for GUI elements used in the industry that are not to be used in Oracle documentation. If you find it is necessary to refer to a GUI element by name, then use the preferred term. See [Table 12–4](#) for descriptions of the preferred terms.

Table 12–5 Do Not Use These GUI Terms

Term	Preferred Term
Access key	Keyboard shortcut
Alert	Message
Arrow button	Arrow
Breadcrumb	Locator link
Busy bar	Progress indicator
Choice box	Drop-down list

Table 12–5 (Cont.) Do Not Use These GUI Terms

Term	Preferred Term
Combo box	Drop-down list
Date picker	Date-time editor. Use date editor if the user cannot select the time.
Grid	Table
Group box	Group
Horizontal navigation	Secondary tab
Hyperlink A link to text or an illustration that, when selected, displays (links to) another page or initiates some other action.	Link
List box	List
Pop-up menu	Context menu
Property sheet	Use page, for a browser interface. Use dialog box, for a nonbrowser interface.
Pull-down list	Drop-down list or list
Pull-down menu	Menu
Push button	Button
Radio button A radio button is a round button that, when clicked, selects an option. It is not possible to select more than one option at the same time.	Option
Scroll bar A scroll bar is a GUI element for scrolling up, down, or across a window or page when that window or page is not large enough to display its entire contents.	No preferred term. Instead, describe the action required to scroll the contents. For example: Scroll down to the bottom of the page.
Shortcut key	Keyboard shortcut
Shuttle A shuttle is an element used for moving or copying items from one list to another list.	No preferred term. Instead, describe the actions required to move the selection from one list to another list. For example: Select items from the Available Target Subtabs column and move them to the Selected Target Subtabs column.
Side navigation Side navigation is a navigation area on the side of a page that contains one or more links.	No preferred term. Instead, refer to a specific navigation link by name. If additional clarification is needed, then describe the location or include the name of the group. For example: Click Mail on the left side of the page.
Spin box	Field

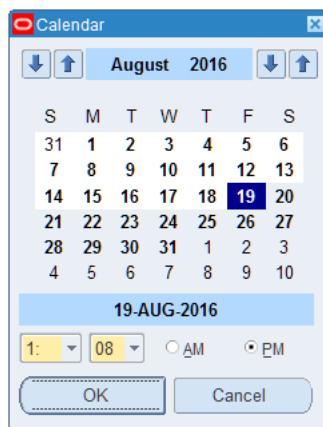
Table 12–5 (Cont.) Do Not Use These GUI Terms

Term	Preferred Term
Splitter	Divider
Tab bar	Tab
Tab page	Page
Text area	Field
Text field	Field
Tool drawer A tool drawer is a GUI element that slides out or expands to display a selection of related tools (buttons).	No preferred term. Instead, refer to the action that you want the user to take. For example: Click the wrench to display tools for the application.
Window button	Button
Window control icon A window control icon is an image at the edge of a title bar or menu bar that, when clicked, displays a menu.	No preferred term. Instead, refer to the icon by name. If the icon does not have a title, then describe the icon.
Window control menu	Menu

12.2 Examples of GUI Elements

These images are examples of user interfaces that show the elements described in this chapter.

[Figure 12–1](#) shows examples of arrows and buttons.

Figure 12–1 Examples of Arrows and Buttons

[Figure 12–2](#) shows an example of a context menu.

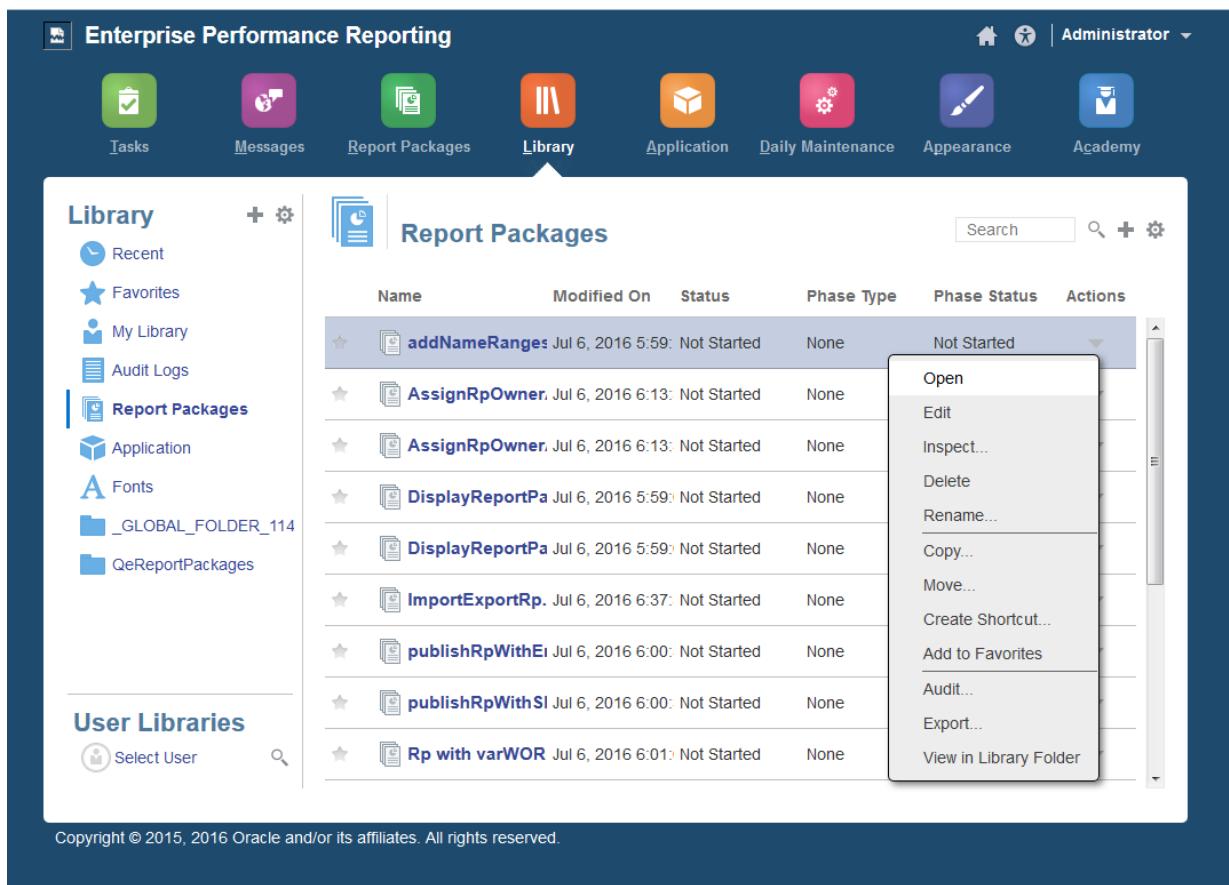
Figure 12–2 Example of a Context Menu

Figure 12–3 shows an example of a date editor.

Figure 12–3 Example of a Date Editor

Figure 12–4 shows an example of a date-time editor.

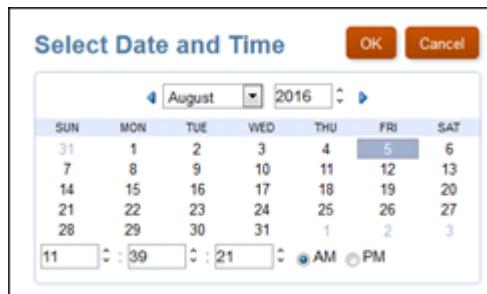
Figure 12–4 Example of a Date-Time Editor

Figure 12–5 shows examples of dialog boxes.

Figure 12–5 Examples of Dialog Boxes

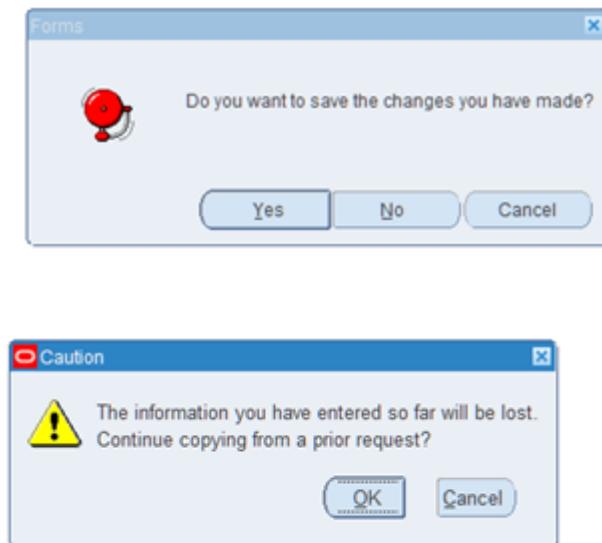
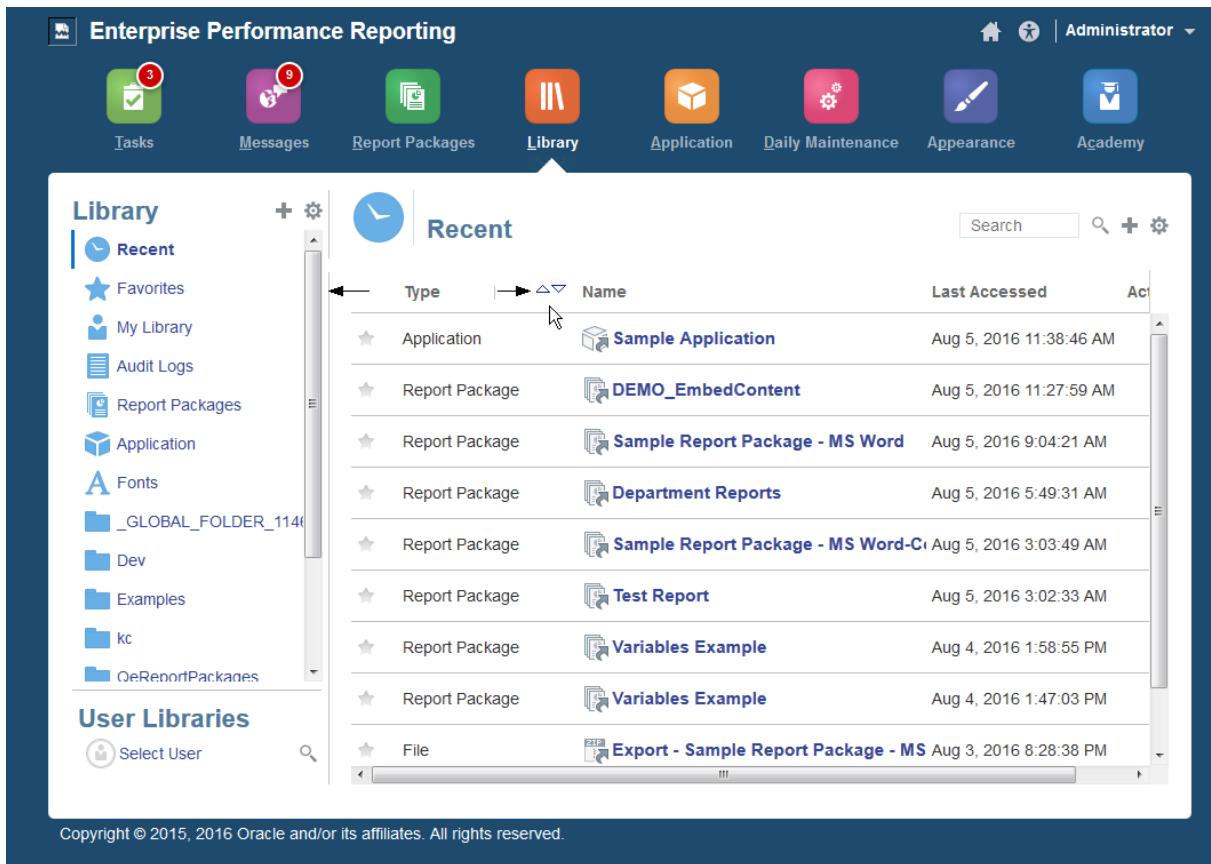


Figure 12–6 shows examples of dividers.

Figure 12–6 Example of Dividers

Note: The arrow on the right is pointing to the controls of an invisible divider.

Figure 12–7 shows an example of a drop-down list. The first example is of the list when it is closed, and the second is when it is open.

Figure 12–7 Example of a Drop-Down List

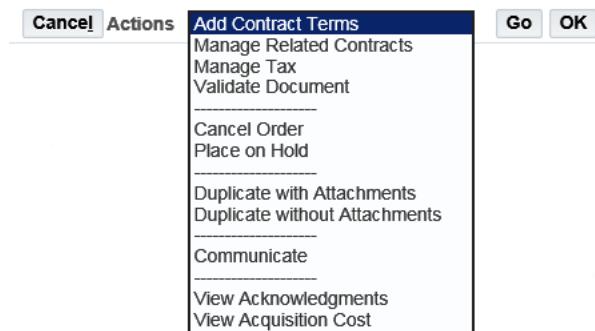


Figure 12–8 shows an example of an error message.

Figure 12–8 Example of an Error Message



Figure 12–9 shows an example of a floating submenu.

Figure 12–9 Example of a Floating Submenu

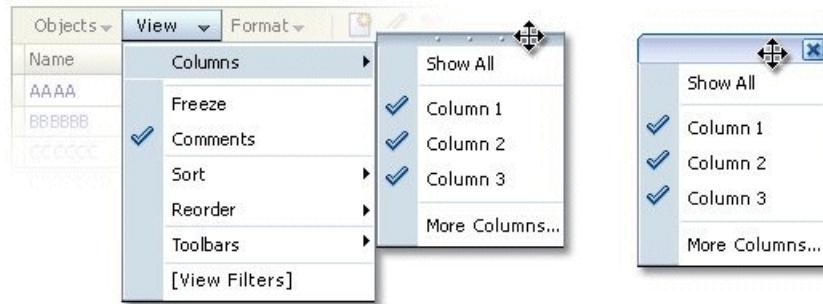
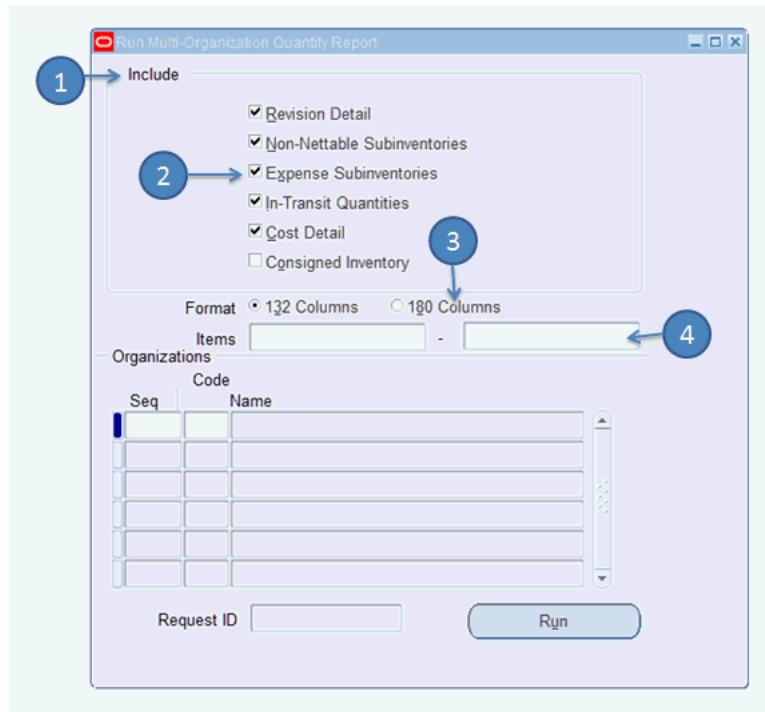


Figure 12–10 shows examples of a group, check boxes, options, and fields.

Figure 12–10 Examples of a Group, Check Boxes, Options, and Fields



1. Group
2. Check boxes
3. Options
4. Fields

Figure 12–11 shows an example of a help drawer.

Figure 12–11 Example of a Help Drawer

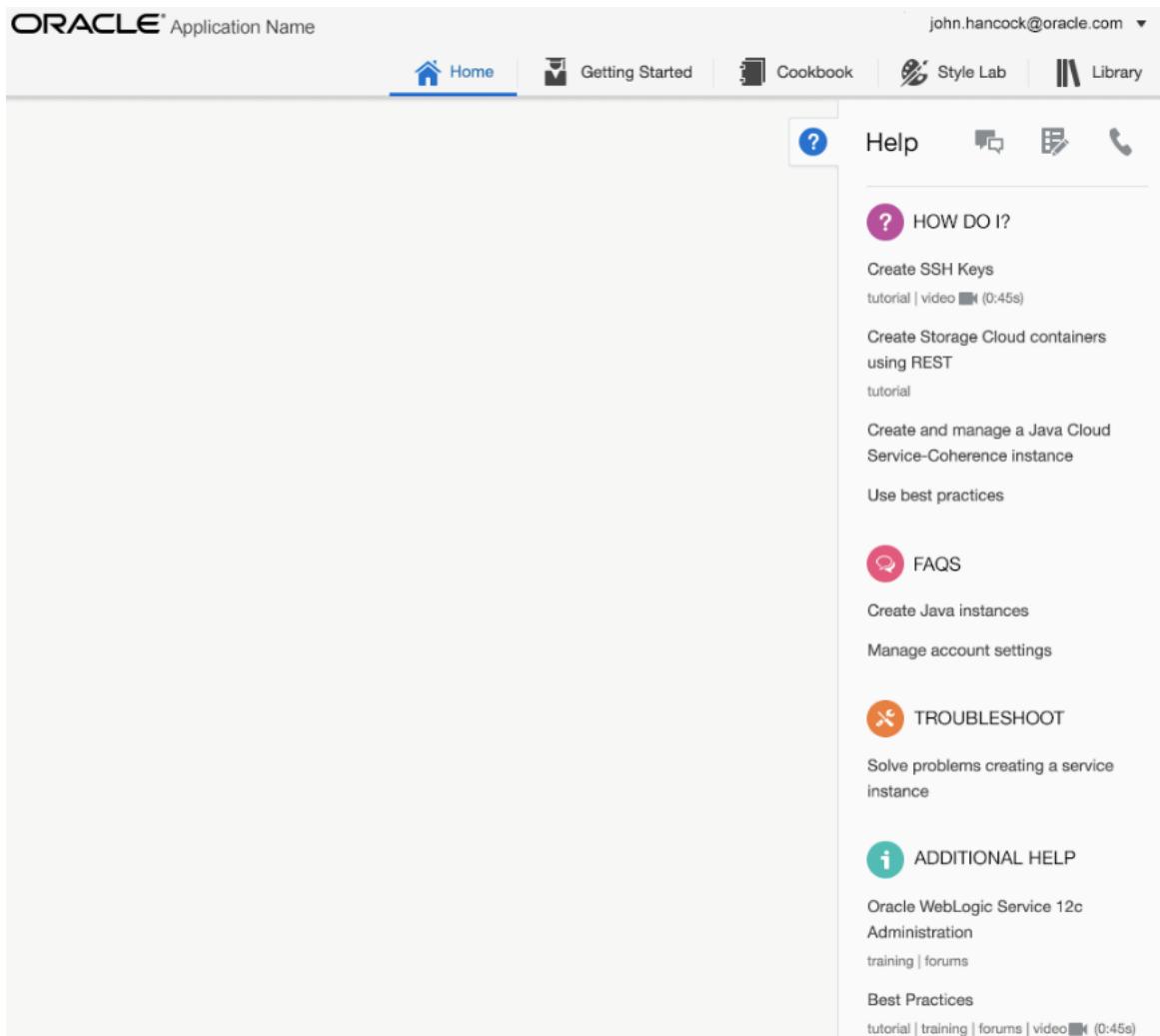


Figure 12–12 shows an example of a hint.

Figure 12–12 Example of a Hint

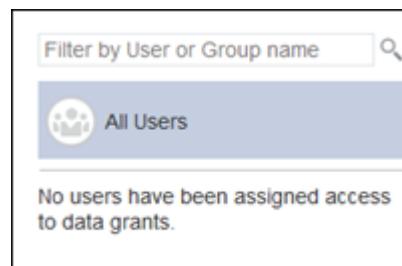
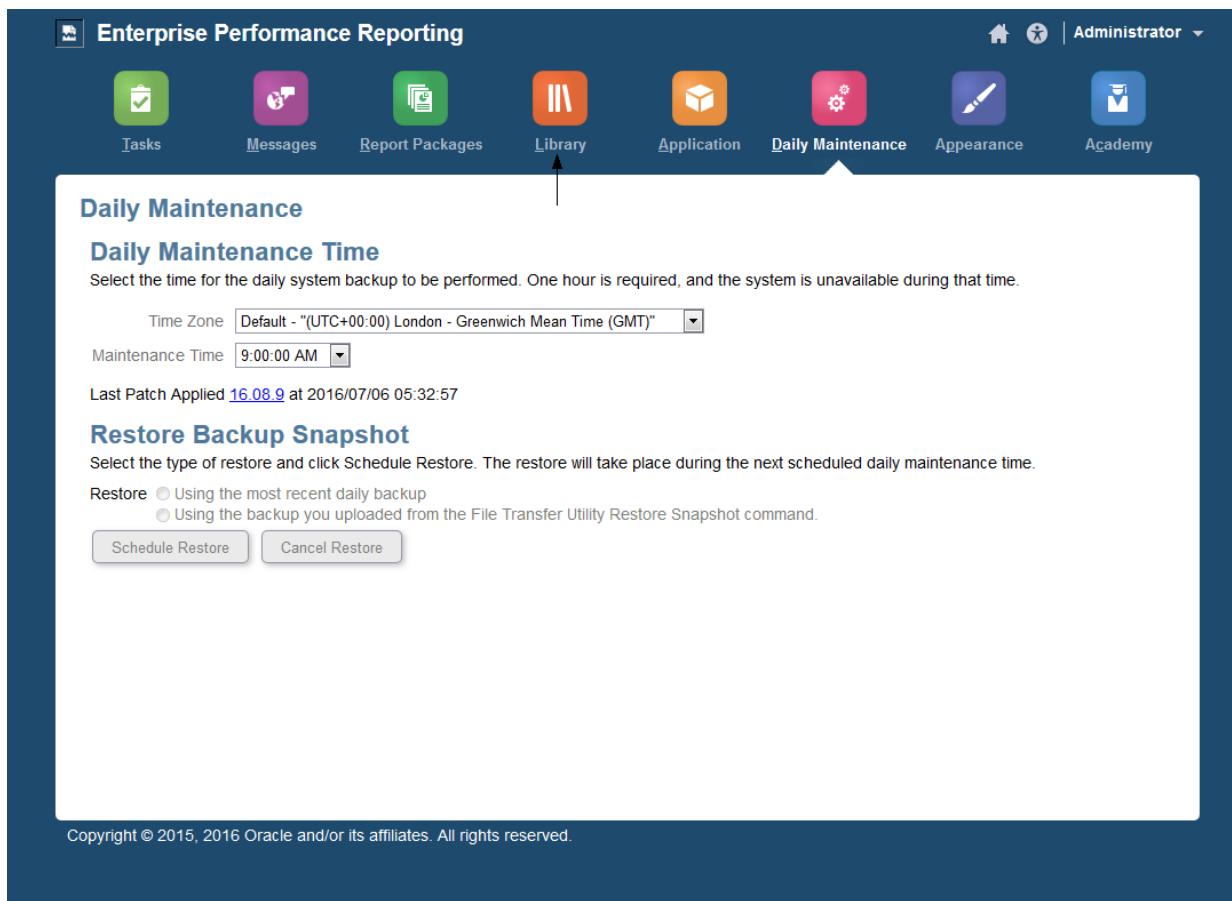


Figure 12–13 shows an example of icons.

Figure 12–13 Example of Icons

[Example 12–1](#) shows an example of keyboard shortcuts.

Example 12–1 Examples of Keyboard Shortcuts

From *Oracle Advanced Security Administrator's Guide 11g Release 2 (11.2)*:

Keyboard shortcuts for copying and pasting certificates:

Use Ctrl+C to copy, and use Ctrl+V to paste.

[Figure 12–14](#) shows examples of lists.

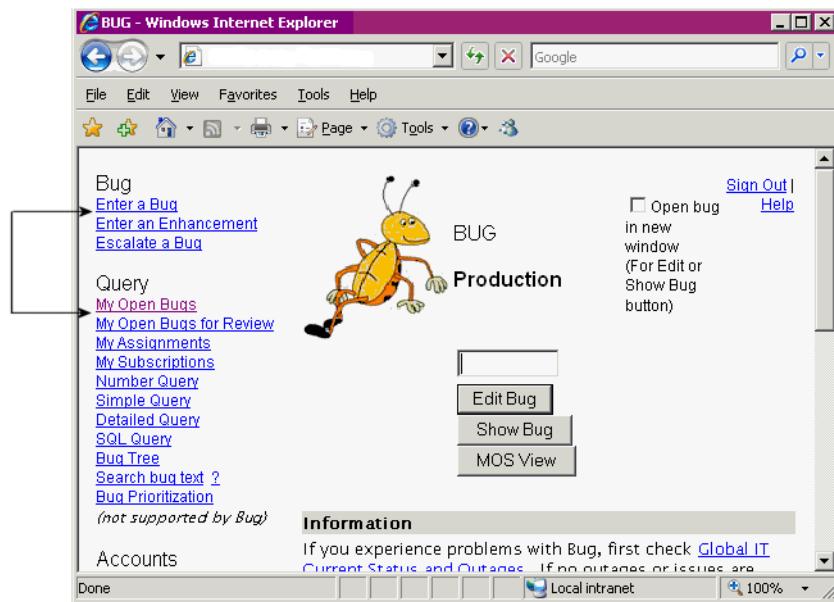
Figure 12–14 Examples of Lists

Figure 12–15 shows an example of a list of values.

Figure 12–15 Example of a List of Values

Figure 12–16 shows an example of locator links.

Figure 12–16 Example of Locator Links



Figure 12–17 shows an example of a menu bar and a menu.

Figure 12–17 Example of a Menu Bar and a Menu

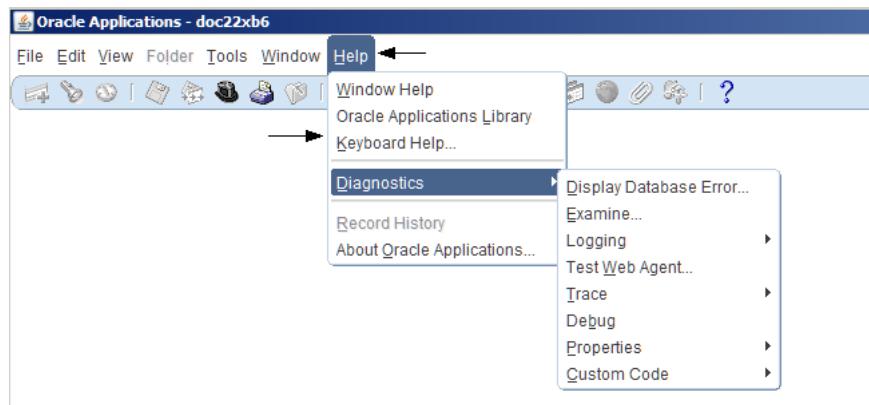


Figure 12–18 shows examples of messages.

Figure 12–18 Examples of Messages

Confirmation

A baseline was set for the project plan and a budget was generated.

OK

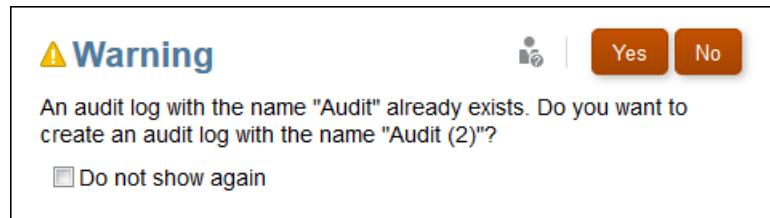
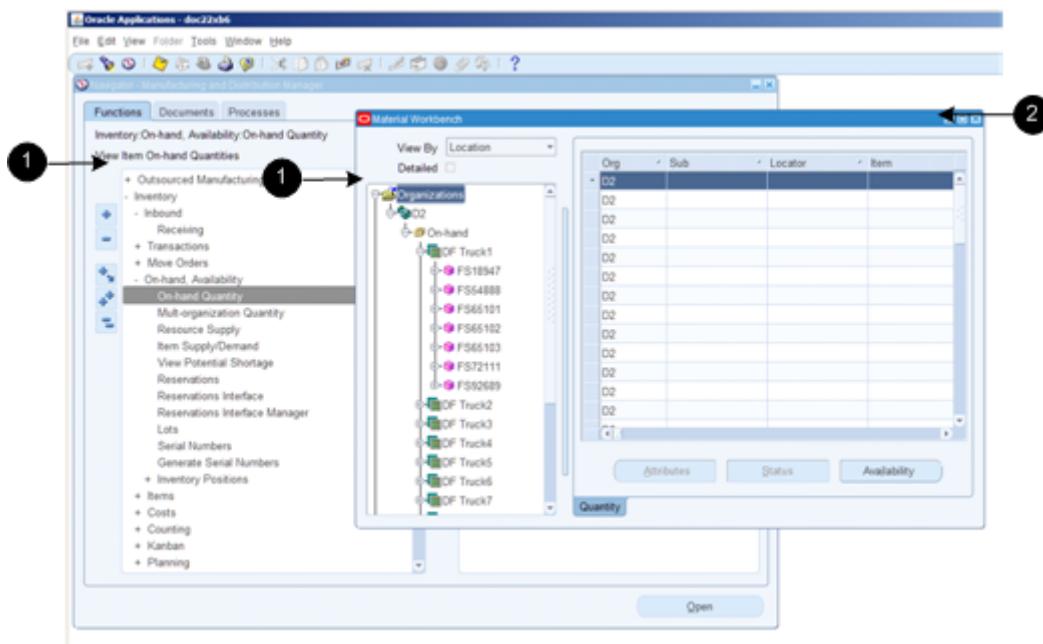


Figure 12–19 shows examples of navigation trees and a window.

Figure 12–19 Examples of Navigation Trees and a Window



1. Navigation tree

2. Window

Figure 12–20 shows an example of a page.

Figure 12–20 Example of a Page

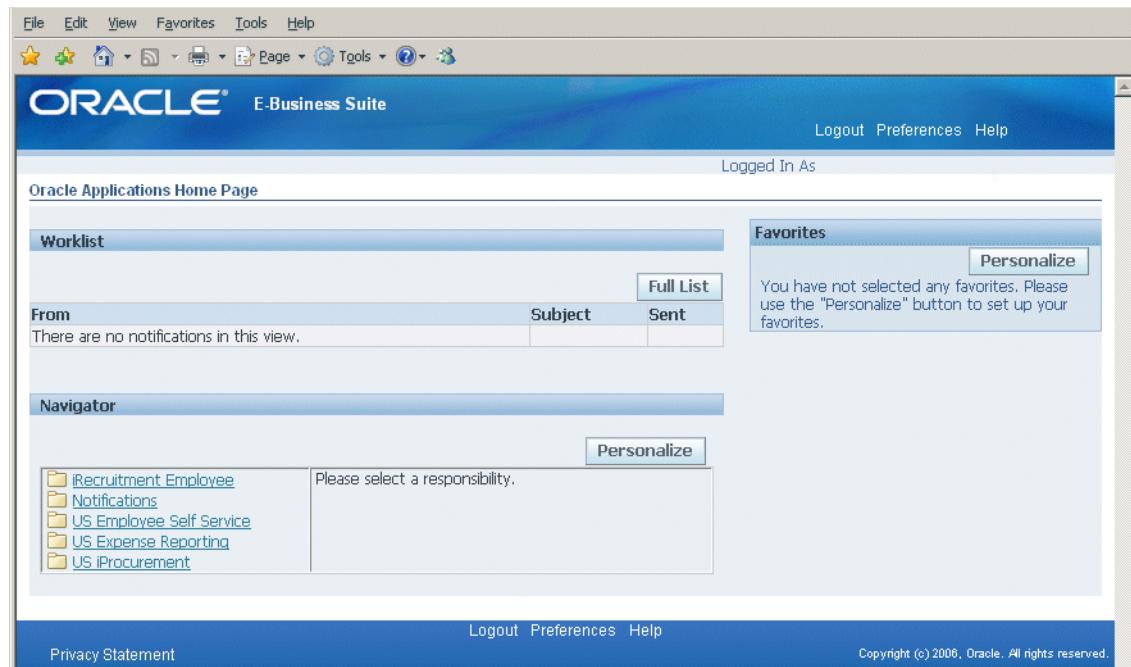


Figure 12–21 shows examples of panes.

Figure 12–21 Examples of Panes

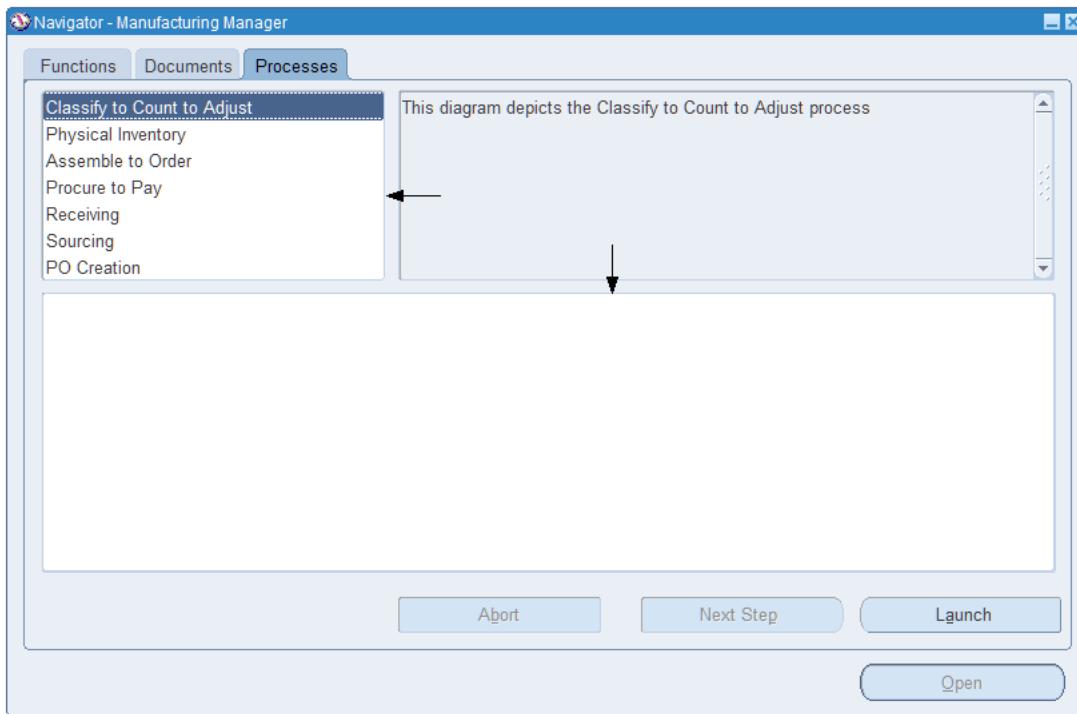
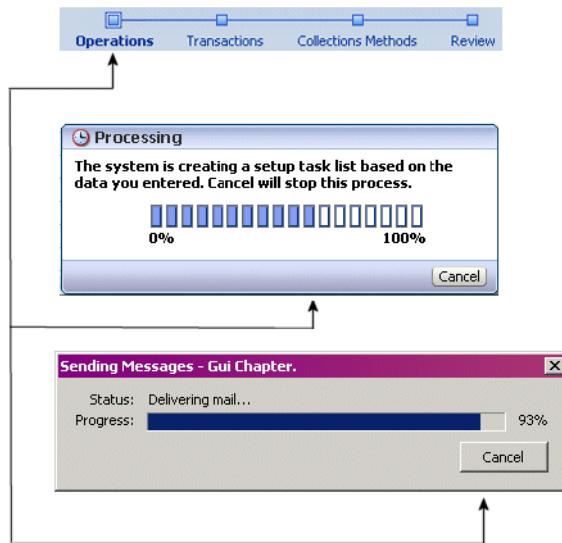


Figure 12–22 shows examples of progress indicators.

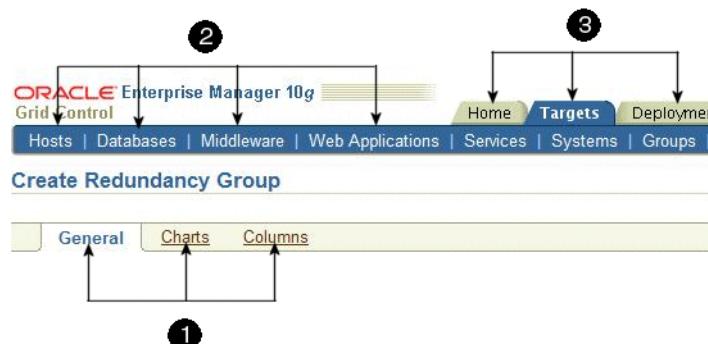
Figure 12–22 Examples of Progress Indicators

[Figure 12–23 shows an example of a table.](#)

Figure 12–23 Example of a Table

Requests Summary Table								Rows 1 to 30
Request ID	Name	Phase	Status	Scheduled Date	Details	Output	Republish	
47669355	Material cost transaction worker	Completed	Normal	02-Aug-2016 14:09:54				
47669354	Material cost transaction worker	Completed	Normal	02-Aug-2016 14:09:54				
47669353	Material cost transaction worker	Completed	Normal	02-Aug-2016 14:09:54				
47669352	Manager: Lot Move Transactions	Pending	Normal	02-Aug-2016 14:14:33				
47669349	Material cost transaction worker	Completed	Normal	02-Aug-2016 14:04:54				
47669348	Material cost transaction worker	Completed	Normal	02-Aug-2016 14:04:54				
47669347	Material cost transaction worker	Completed	Normal	02-Aug-2016 14:04:54				
47669346	Manager: Lot Move Transactions	Completed	Normal	02-Aug-2016 14:09:33				
47669344	Material cost transaction worker	Completed	Normal	02-Aug-2016 13:59:54				
47669343	Material cost transaction worker	Completed	Normal	02-Aug-2016 13:59:54				

[Figure 12–24 shows examples of tab-related terms.](#)

Figure 12–24 Examples of Tab-Related Terms

1. Subtabs

2. Secondary tabs

3. Tabs

Figure 12–25 shows examples of tabs.

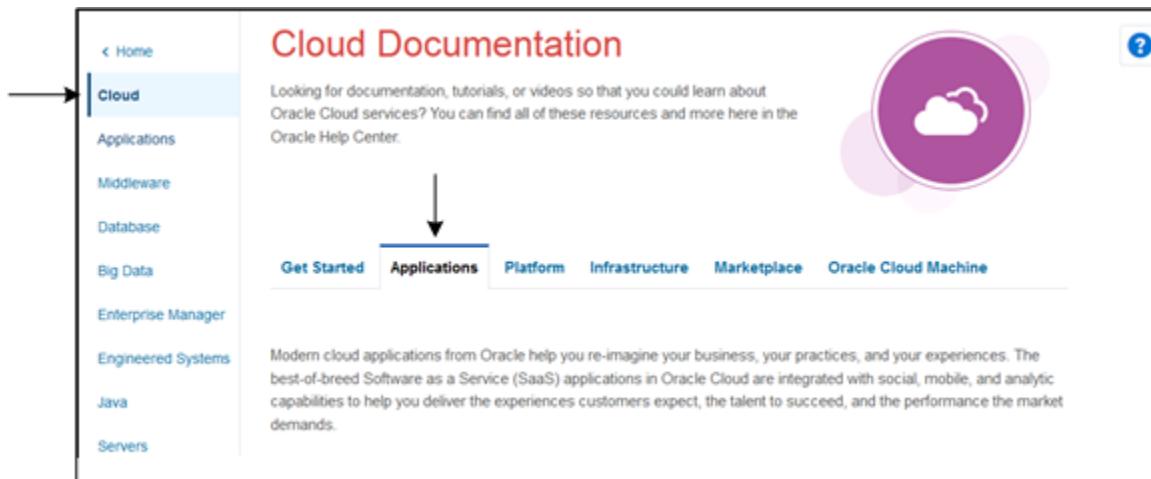
Figure 12–25 Examples of Tabs

Figure 12–26 shows an example of a tooltip.

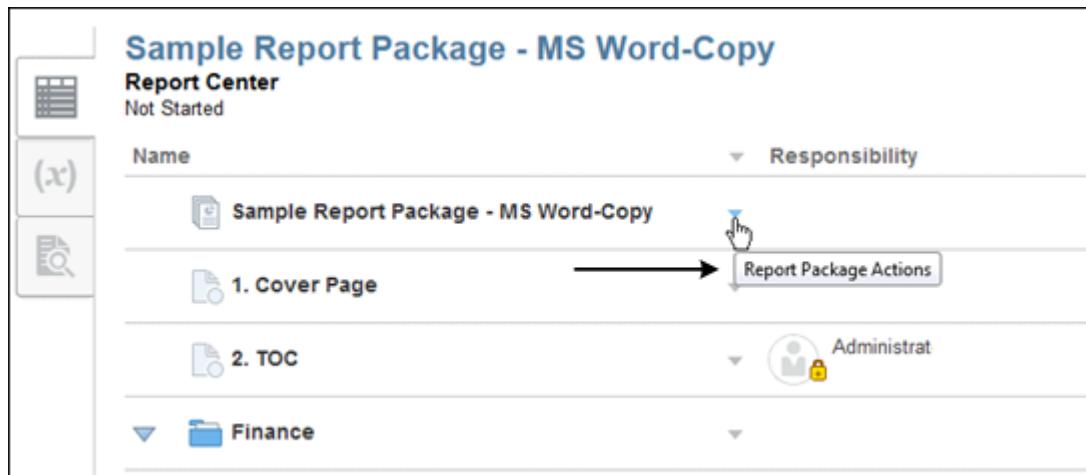
Figure 12–26 Example of a Tooltip

Figure 12–27 shows an example of secondary tabs.

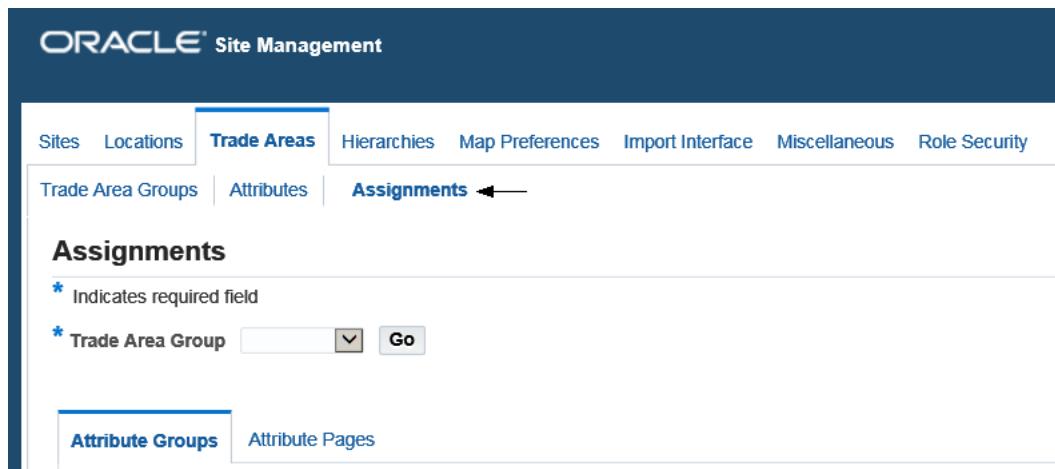
Figure 12–27 Example of Secondary Tabs

Figure 12–28 shows an example of a submenu.

Figure 12–28 Example of a Submenu

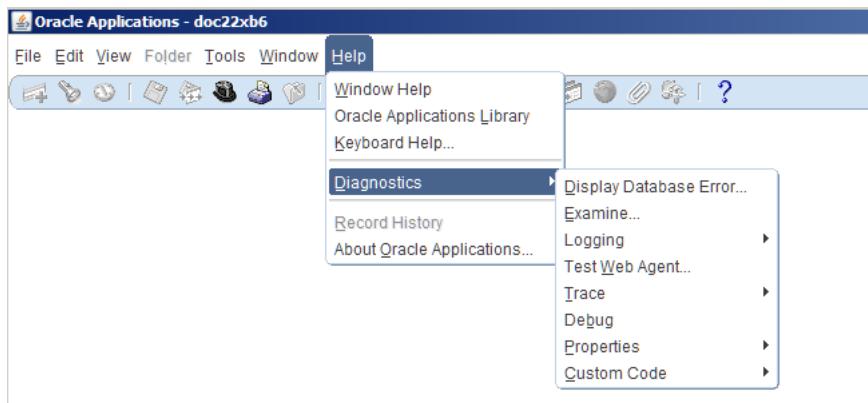


Figure 12–29 shows an example of a tear-off submenu and a handle (the section on top of the menu to which the arrow is pointing).

Figure 12–29 Example of a Handle and a Tear-Off Submenu

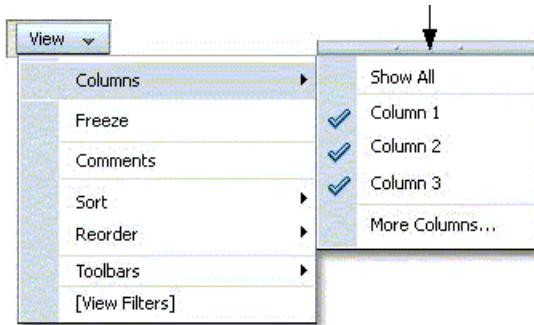


Figure 12–30 shows an example of a toolbar.

Figure 12–30 Example of a Toolbar



Figure 12–31 shows an example of a tree table.

Figure 12–31 Example of a Tree Table

The screenshot shows the Oracle Purchasing: Contract Terms interface in Internet Explorer. The top navigation bar includes links for File, Edit, View, Favorites, Tools, Help, and Oracle Purchasing. A banner at the top right indicates the user is 'Logged In As OPERATIONS'. Below the banner, there are tabs for Requisitions, Initiatives, Negotiations, Orders (which is selected), Agreements, Deliverables, Suppliers, and Initiatives. The main content area is titled 'Update Standard Purchase Order 6403: Contract Terms'. It displays a table with columns for Authoring Party (Internal), Contract Administrator, Legal Contact, Contract Source (Structured Terms), and Contract Template (Vision Operations Item Based PO Terms). The 'Clausules' tab is selected, showing a hierarchical tree table of contract terms. The tree starts with 'Contract Terms' and branches into '1. Terms & Conditions', '2. Delivery of Goods', '3. Termination', '3.1. Termination', '3.2. Setoff', and '4. Deliverables'. Each row in the table has edit icons (pencil) in the last column.

12.3 Buttons and Icons in Procedural and Conceptual Text

For procedural and conceptual text, refer to a button or an icon by its label. The guidelines differ slightly when you refer to buttons that display just a graphic without text, or a graphic in addition to text. The three button variations are:

- Standard buttons that display a label:
- Icon buttons that display only an icon:
- Icon buttons that display an icon and a label:

Note: You are not required to insert button or icon graphics in procedural or conceptual text, but if you decide to insert them, then note the guidelines for their presentation in [Section 12.3.1](#) and [Section 12.3.2](#).

12.3.1 Buttons and Icons in Procedural Text

Use the following guidelines for referring to buttons and icons in procedural text:

1. Refer to the button or icon by its label (name) or for what it does. Talk about **Edit** , not the pencil icon, or **Action** , not the gear icon. Do not include the word *button* or *icon* except on a rare occasion when the word is needed to clarify to the user exactly what to click or select.
2. Bold the label of the button or icon.

Correct	Incorrect
Click Update .	Click the button labeled Update .
Click Add and then specify a value in the empty field.	Click the Add button and then specify a value in the empty field.
Click Select All Files .	Click the Select All Files button.

3. Use title capitalization unless the UI shows sentence capitalization. The label must always accurately reflect what the user sees in the UI.
4. If you insert a graphic in your procedure, then insert the graphic *after* the label, and bold the label.

To present a button or icon that ...	Example
Has a label	To add a user account, click Add User 
Has only a graphic	To add your purchase to your order, click Shopping Cart  .
Has a graphic and a label	Note: Use the icon label that appears in the tooltip, such as Shopping Cart. If the icon label contains multiple words, then use the same capitalization that appears in the tooltip. To purchase subscriptions to Oracle Cloud SaaS applications or PaaS services, click Buy Services  Note: Use only the button's label; do not refer to the graphic on the button (Shopping Cart in this instance).

12.3.2 Buttons and Icons in Conceptual Text

When referring to buttons and icons in conceptual text:

1. Refer to the button or icon by its label (name), followed by the word *button* or *icon* if needed to ensure clarity.
2. Bold the label of the button or icon.
3. Use title capitalization for the label unless the UI shows sentence capitalization. The label must always accurately reflect what the user sees in the UI.
4. If you insert a button or icon graphic into your conceptual text, then follow these guidelines:
 - a. Insert the button or icon graphic after the label and after the word *button* or *icon*, and only once, at first mention of that same button or icon in the same paragraph, section, or topic.

Note: In conceptual text, include the word *button* if it is needed to ensure clarity.

If you are inserting a graphic for a button or icon that displays only a graphic (no text), then use the label that appears in the tooltip as if it were the label.

If the tooltip is long (more than a few words), then use the first words that convey the action of the icon or other user interface element, and then follow those words with ellipses to show that the text is truncated. For example, if the tooltip is **Save and Continue Editing the Document**, then use **Save ...** for the name of the icon.

- b. Use only the label thereafter for any further mention in that same paragraph, section, or topic.

Correct	Incorrect
<p>Oracle ProductName lets you quickly find whatever data you need, and organize that data at the same time. You can click the Search button  and the Configure button . You decide how to store and identify any data that you found by taking advantage of the dual-purpose Configure button. By using the Search and Configure buttons in combination, your data becomes information, not just random bits of text without relationship to your goals.</p>	<p>Oracle ProductName lets you quickly find whatever data you need, and organize that data at the same time. You can click the Search button (magnifying glass) and the Configure button (wrench). You decide how to store and identify any data that you've found by taking advantage of the dual-purpose Configure button (wrench). By using the Search (magnifying glass) and Configure (wrench) buttons in combination, your data becomes information, not just random bits of text without relationship to your goals.</p>

13

Resources

This chapter contains the following sections:

- [Section 13.1, "Printed Resources"](#)
- [Section 13.2, "Online Resources"](#)

13.1 Printed Resources

When you need to know more, where do you go? The documentation community provided recommendations for more in-depth reading on the following subjects of interest to technical communicators:

- [Dictionaries and Thesauruses](#)
- [Grammar](#)
- [Graphic Design](#)
- [Indexing](#)
- [Internationalization and Localization](#)
- [Miscellaneous](#)
- [Online Documentation](#)
- [Operating Systems](#)
- [Project Management](#)
- [Style and Usage](#)
- [Writing and Editing](#)

The sources presented in ***bold italics*** form the foundation for *Oracle Style Guide*.

Many valuable resources are also available online. See [Section 13.2](#).

13.1.1 Dictionaries and Thesauruses

Kipfer, Barbara Ann, and Robert L. Chapman, eds. *Roget's International Thesaurus*. Sixth Edition Revised. New York: HarperCollins, 2002. Contains more than 325,000 entries. Groups synonyms, antonyms, and related words together for comparison.

Merriam-Webster's Collegiate Dictionary. Eleventh Edition. Springfield, MA: Merriam-Webster Inc., 2003.

Microsoft Press. *Microsoft Computer Dictionary*. Fifth Edition. Redmond, WA: Microsoft Press, 2002. Defines computing terms and acronyms in straightforward language.

Includes words relating to hardware, programming, networks, databases, and applications. Excludes proprietary names (except some from Microsoft).

Pfaffenberger, Bryan, compiler. *Webster's New World Computer Dictionary*. Tenth Edition. Indianapolis: Wiley Publishing, Inc., 2003. A completely revised dictionary of computer and internet terms defined for the layperson.

Urdang, Laurence, Nancy Laroche, and J.I. Rodale. *The Synonym Finder*. New York: Warner Books, 1986. Perhaps the best English thesaurus in print. It contains more than a million synonyms arranged alphabetically.

13.1.2 Grammar

Glenn, Cheryl, Robert K. Miller, Suzanne Strobeck Webb, and Loretta Gray. *Hodges' Harbrace Handbook*. Fifteenth Edition. Heinle Publishers, 2004.

O'Conner, Patricia T. *Woe Is I: The Grammaphobe's Guide to Better English in Plain English*. Second Edition. Riverhead Press, 2003. O'Conner, a former editor at the N.Y. Times Book Review, explains the correct use of terms such as affect/effect, that/which, imply/infer, and compose/comprise. The second edition includes a chapter about email etiquette.

13.1.3 Graphic Design

Horton, William. *Illustrating Computer Documentation: The Art of Presenting Information Graphically on Paper and Online*. New York: John Wiley & Sons, 1991. How to turn complex ideas and instructions into pictures.

Tufte, Edward R. *Envisioning Information*. Graphics Press, 1990. This document is not a designer's how-to guide, but an exploration of how to represent the complex, multidimensional world in the two dimensions of paper and video screen. Tufte's examples include maps, timetables, drawings of Klee and Calder, musical notation, electrocardiogram tracings, and photographs of the Vietnam Veterans Memorial in Washington, DC.

13.1.4 Indexing

Bonura, Larry S. *The Art of Indexing*. New York: John Wiley & Sons, 1994. If you can see past the typographic and cosmetic errors, then Bonura provides a brief course in how to index a technical manual, with special attention to the user's needs.

Read Me First! A Style Guide for the Computer Industry, Second Edition, Chapter 14, "Indexing." Sun Microsystems Press, 2003.

13.1.5 Internationalization and Localization

Apple Computer, Inc. *Localization for Japan*. Cupertino, CA: 1992. Best on specific images and symbols to avoid; calendars and dates; sorting orders.

Coe, Marlana. *Human Factors for Technical Communicators*. New York: John Wiley & Sons, 1996. Designing technical communication with humans in mind. Good appendix on writing for other cultures, including cultural associations of icons.

Hoft, Nancy L. *International Technical Communication: How to Export Information About High Technology*. New York: John Wiley & Sons, 1995. How to plan, design, and create technical documentation for a worldwide audience. Includes strategies, anecdotes, examples, worksheets, practical tips, and international resources.

Kohl, John R. *The Global English Style Guide: Writing Clear Translatable Documentation for a Global Market*. North Carolina: SAS Institute, Inc., 2008.

O'Donnell, Sandra Martin. *Programming for the World: A Guide to Internationalization*. Englewood Cliffs, NJ: Prentice Hall, 1994. Provides many tables and examples to describe linguistic and cultural conventions that affect software. Presents both theory and practice.

13.1.6 Miscellaneous

Cooper, Alan and Robert M. Reimann. *About Face 2.0: The Essentials of Interaction Design*. Indianapolis, IN: Wiley Publishing, Inc., 2003. Written for developers but helpful to writers who want to speak to developers in their own terms. A look at the problems that arise when developers focus on the computer instead of the human who uses it. The original 1995 edition has been reorganized and updated to reflect the evolution of the web.

13.1.7 Online Documentation

Horton, William K. *Designing and Writing Online Documentation: Hypermedia for Self-Supporting Products*. Second Edition. New York: John Wiley & Sons, 1994. This revised edition of Horton's classic now includes information about multimedia and computer-based training. It explains how to write and design everything from messages, menus, and help files to computer tutorials so that they can be used easily and effectively.

Lemay, Laura. *Sams Teach Yourself Web Publishing with HTML and XHTML in 21 Days*. Fourth Edition. Indianapolis, IN: Sams Publishing, 2003. This extensive revision of the original includes guidelines on designing effective web documents, and addresses such topics as cascading style sheets and accessibility.

13.1.8 Operating Systems

Levine, John R., and Margaret Levine Young. *UNIX for Dummies*. Fifth Edition. Wiley Publishing, Inc., 2004. Provides conceptual explanation of files, directories, permissions, and commands. This book is recommended for those who have no knowledge of UNIX but need to learn it quickly.

13.1.9 Project Management

Hackos, JoAnn T. *Managing Your Documentation Projects*. New York: John Wiley & Sons, 1994. Dr. Hackos discusses five phases of publications project management: information planning, content specification, implementation, production, and evaluation. This document is a resource for sizing a project and estimating the documentation effort.

13.1.10 Style and Usage

Burchfield, R.W. *The New Fowler's Modern English Usage*. Revised Third Edition. NY: Oxford University Press, Inc., 1998. A sensible, practical, current, sometimes controversial guide to English grammar, spelling, and style.

Maggio, Rosalie. *Talking About People: A Guide to Fair and Accurate Language*. Third Edition. Phoenix, AZ: Oryx Press, 1997. Advice on choosing words to describe people in terms of age, sex, occupation, economic status, religion, lifestyle, ethnicity, or physical characteristics.

Microsoft Corporation. *The Microsoft Manual of Style for Technical Publications*. Fourth Edition. Redmond, WA: Microsoft Press, 2012. Contains particularly useful sections on dialog box elements, screen terminology, and common GUI verbs. This edition includes significant changes in internet and browser terminology and usage.

Sabin, William A. *Gregg Reference Manual*. Ninth Edition. Lake Forest, IL: Glencoe/McGraw-Hill, 2000. Good for new writers. Contains information about grammar, style, and punctuation that is applicable to both technical writing and business communication. Examples make each grammar rule clear and understandable. Available as a spiral-bound paperback.

Skillin, Marjorie E., and Robert M. Gay. *Words into Type*. Third Edition. Englewood Cliffs, NJ: Prentice Hall, 1974. A classic among style guides, with sections on manuscript, copy and proof, copyediting style, typographic style, grammar, word usage, and typography and illustration.

Strunk, William, Jr., and E.B. White. *The Elements of Style*. Fourth Edition. Pearson Higher Education, 2000.

Franklin Covey Company. *Franklin Covey Style Guide for Business and Technical Communication*. Ingram - LaVergne, 2000. Provides extensive information about writing correct and effective documents. A CD-ROM is included.

The University of Chicago Press. *The Chicago Manual of Style*. Sixteenth Edition. Chicago: The University of Chicago, 2010.

13.1.11 Writing and Editing

Blake, Gary, and Robert W. Bly. *The Elements of Technical Writing*. New York: Macmillan, 1993. A guide to rules and tasks associated with technical writing.

Brogan, John A. *Clear Technical Writing*. New York: McGraw-Hill Book Company, 1973. Shows how to remove deadwood and make other changes that result in clear, direct, concise writing.

Brusaw, Charles, Gerald J. Alred, and Walter E. Oliu. *Handbook of Technical Writing*. Seventh Edition. New York: St. Martin's Press, 2002. Contains practical approaches to all types of technical writing and a good approach to technical writing style.

Jorgensen, Linda B., ed. *STET Again: More Tricks of the Trade for Publications People*. Alexandria, VA: EEI Press, 1996. Selections from The Editorial Eye, 1990 to 1996.

Judd, Karen. *Copyediting: A Practical Guide*. Third Edition. Robert Hale, Ltd., 2002. The copy editor eliminates discrepancies in facts and inconsistencies in spelling, punctuation, abbreviations, capitalization, and style. Judd explains how.

Tarutz, Judith A. *Technical Editing: The Practical Guide for Editors and Writers*. Reading, MA: Addison-Wesley Publishing Company, Inc., 1992. Rather than a style guide, Tarutz offers a survival guide for editors and writers who must edit or deal with editors. She addresses such topics as working with impossible schedules, forging good writer-editor relationships, and the 100 most common errors in technical documentation.

Williams, Joseph M. *Style: Ten Lessons in Clarity and Grace*. Seventh Edition. Longman, 2002. A short, clear approach to style.

13.2 Online Resources

The World Wide Web (WWW) has become an extensive source of information. Because websites can easily accommodate change, they can be especially helpful for locating

information about new and emerging technologies. However, online readers must also be especially critical of what they read. Because most of these websites are external, content is beyond Oracle control, and both content and URLs are constantly changing in the WWW environment. You may find the URLs in this section to be helpful. Use them with care. URLs are grouped under the following topics:

- [Accessibility](#)
- [Copyright and Trademark Information](#)
- [Dictionaries and Thesauruses](#)
- [Grammar](#)
- [Illustrations](#)
- [Internationalization and Localization](#)
- [Online Documentation](#)
- [Style and Usage](#)
- [Writing and Editing](#)
- [User Interfaces](#)

Start a thread on the Oracle Style Guide Users Forum (<http://myforums.oracle.com/jive3/forum.jspa?forumID=2401>) with information about revised or broken links in this section.

13.2.1 Accessibility

Access Board Guidelines and Standards

<https://www.access-board.gov/index.php>

Guidelines for Documenting Product Accessibility

http://aseng-wiki.us.oracle.com/asengwiki/display/~ken_kipnes/Guidelines+for+Documenting+Product+Accessibility

Oracle's Accessibility Program

<http://www.oracle.com/us/corporate/accessibility/index.html>

Section 508 website

<https://www.section508.gov/>

W3C Web Content Accessibility Guidelines

<https://www.w3.org/WAI/intro/wcag.php>

13.2.2 Copyright and Trademark Information

Oracle Legal Copyright and Trademark Information

<http://my.oracle.com/site/legal/GlobalLegal/NALegal/Patents/index.html>

US Copyright Office Home Page

<http://www.copyright.gov/>

The Copyright website

<http://www.benedict.com/>

The International Trademark Association (INTA) Home Page

<http://www.inta.org/Pages/Home.aspx>

13.2.3 Dictionaries and Thesauruses

The Plumb Design Visual Thesaurus Online Edition

Use your Java-ready browser and this thesaurus to see the relationships between words and ideas presented graphically.

<http://www.visualthesaurus.com/index.jsp>

Thesaurus.com

<http://thesaurus.com/>

yourDictionary.com

<http://www.yourdictionary.com/>

Merriam-Webster Online Dictionary

<http://www.merriam-webster.com/>

Glossary of Computer-Oriented Abbreviations and Acronyms

<http://www.cs.tut.fi/tlt/stuff/misc/babel.html>

Free Online Dictionary of Computing

<http://foldoc.org>

13.2.4 Grammar

Jack Lynch's Guide to Grammar and Style

<http://andromeda.rutgers.edu/~jlynch/Writing/>

13.2.5 Illustrations

Oracle Corporate Branding Wiki

<http://globaldc-git.oracle.com/perl/twiki/view/MarketingBranding/>

Note: These illustrations are branding images, registered trademarks, or trademarks. They must be used exactly as they appear, and they cannot be altered in any way.

13.2.6 Internationalization and Localization

L10NBRIDGE, a well-known localization firm

<http://www.lionbridge.com/?LangType=1033>

SimulTrans, a translation agency based in Mountain View, CA

<http://www.simultrans.com>

The Oracle Worldwide Product Translation Group

<http://my.oracle.com/site/pd/pls/edc/wptg/cnt2008351.htm>

Link to information about internationalization from the World Wide Web Consortium page

<https://www.w3.org>

13.2.7 Online Documentation

Safari Books Online

<http://techbus.safaribooksonline.com/home?uicode=oracle>

13.2.8 Style and Usage

Elements of Style by William Strunk, Jr., 1918 edition

<http://www.bartleby.com/>

alt.usage.english Home Page (News Group)

<http://www.alt-usage-english.org>

13.2.9 Writing and Editing

The Slot: A Spot for Copy Editors Since 1995

<http://www.theslot.com/>

13.2.10 User Interfaces

Language in the UI Usage Guideline

<http://uistandards.us.oracle.com/blaf/RCUX/index.html>

Sample Glossary

abbreviation

A shortened form of a word or phrase that is used in place of the whole. For example, in the DARB templates, tables that occupy more than one page are labeled with the abbreviation Cont. as a shortened form of Continued. Acronyms and initialisms are types of abbreviations.

See also [acronym](#); [initialism](#).

acronym

An abbreviation formed from the initial letters of the major parts of a compound term, and pronounced as if it were a single word. For example: BLOB (binary large object), CAD (computer-aided design), PIN (personal identification number).

See also [abbreviation](#); [initialism](#).

alphabetization

The process of sorting items in order of the alphabet using the letter-by-letter or word-by-word system.

See also [letter-by-letter alphabetization](#); [word-by-word alphabetization](#).

American National Standards Institute (ANSI)

See [ANSI](#).

ANSI

American National Standards Institute, the official US representative to ISO. This not-for-profit organization coordinates the development and use of voluntary consensus standards in the US and represents the needs and views of US stakeholders in international standards forums.

See also [ISO](#); [NISO](#).

clear

To remove text from a field. For example, in a graphical user interface, you might be instructed to clear the Alternate Author field.

concordance

An alphabetic index of the principal words in a document or the works of an author with their immediate contexts.

dash

See [em dash](#); [en dash](#).

em dash

A dash whose linear measurement traditionally equals the space occupied by the letter M in a given font, that is, the point size of the type. (A 10-point em dash is 10 points wide.) Em dashes are used in text to indicate a parenthetical note or break in a sentence—like this one—or to present vague or open-ended dates (YoYo Ma, 1955—). Em dashes may present problems for online conversion or usability. Use a colon wherever possible.

See also [en dash](#).

en dash

A dash whose linear measurement traditionally equals the space occupied by the letter N in a given font; half the measurement of an em dash. (A 10-point en dash is 5 points wide.) En dashes are used to indicate a range of values, for example, numbers from 3 to 5 (3–5). Use *to* or *through* instead of an en dash wherever possible.

See also [em dash](#).

glossary

A collection of specialized terms with their meanings. A glossary usually appears as a self-contained alphabetic list at the back of a document, before the index.

See also [master glossary](#).

glossary definition

The meaning of a term, introduced with a sentence fragment, and frequently containing subsequent fragments or sentences. The glossary definition follows the glossary term in a glossary or master glossary.

glossary entry

A record in a glossary that consists of the glossary term, its definition, and optional cross-references to other entries in the glossary.

glossary term

Typically a noun or noun phrase, but occasionally a gerund. In a glossary entry, the glossary term is followed by its definition.

initialism

An abbreviation formed from initial letters, and pronounced as a series of individual letters. For example, CPU (central processing unit), HTML (Hypertext Markup Language), DVD (digital video disk).

See also [abbreviation](#); [acronym](#).

International Organization for Standardization (ISO)

See [ISO](#).

ISO

International Organization for Standardization, the largest developer of standards in the world. ISO is a network of the national standards institutes of 156 countries. It develops voluntary worldwide standards based on market demand and by consensus of interested parties.

See also [ANSI](#); [NISO](#).

letter-by-letter alphabetization

A system of alphabetization in which word spaces are ignored. Open compounds (Oracle Database) and hyphenated compounds (cross-references) are treated as single words. Dictionaries, encyclopedias, and atlases typically use letter-by-letter sorting.

master glossary

A compilation of glossary entries from one or more documents, typically spanning an entire documentation set.

See also [glossary](#).

National Information Standards Organization (NISO)

See [NISO](#).

NISO

National Information Standards Organization, an organization accredited by the American National Standards Institute (ANSI) to develop and maintain standards for libraries, information services, and publishers. NISO was designated by ANSI to represent US interests to the International Organization for Standardization (ISO) Technical Committee 46 on Information and Documentation.

See also [ANSI](#); [ISO](#).

terms list

See [glossary](#).

word-by-word alphabetization

A system of alphabetization in which alphabetizing continues only up to the end of the first word, using subsequent words only when additional entries begin with the same word. Hyphenated compounds count as one word. Library catalogs and telephone directories are typically arranged in word-by-word style.

word-by-word alphabetization

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