

# Oracle® Database

# Database Licensing Information User Manual



12c Release 2 (12.2)  
E85683-39  
December 2024



Copyright © 2004, 2024, Oracle and/or its affiliates.

Contributors: Prabhaker Gongloor, Mughees Minhas, Anu Natarajan, Jill Robinson, Jenny Tsai-Smith

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, MySQL, and NetSuite are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

# Contents

## Preface

---

Audience	v
Documentation Accessibility	v
Diversity and Inclusion	v
Related Documents	v
Conventions	vi

## 1 Licensing Information

---

1.1	Introduction	1-1
1.2	Oracle Database Offerings and Their Permitted Features	1-1
1.2.1	Oracle Database Offerings	1-1
1.2.2	Permitted Features, Options, and Management Packs by Oracle Database Offering	1-3
1.2.3	Oracle Database Options and Their Permitted Features	1-13
1.2.4	Oracle Management Packs and Their Permitted Features	1-18
1.2.5	Checking for Feature, Option, and Management Pack Usage	1-40
1.3	Special License Rights	1-41
1.4	Restricted Use Licenses	1-45

## 2 Third-Party Notices and/or Licenses

---

2.1	Commercial Software	2-1
2.2	Open Source or Other Separately Licensed Software	2-2
2.3	Written Offer for Source Code	2-52

## A Open Source Software License Text

---

A.1	Apache POI License	A-1
A.2	Apache Tomcat 8.5.32 License	A-2
A.3	Font Awesome License	A-16
A.4	GeoNames Data License	A-18
A.5	Geospatial Data Abstraction Library/OpenGIS Simple Features Reference Implementation (GDAL/OGR) License	A-22

A.6	HttpComponents Core License	A-26
A.7	Netty License	A-29
A.8	Perl Interpreter License	A-32
A.9	The Apache Software License, Version 1.1	A-34
A.10	The Apache Software License, Version 2.0	A-35

## Index

---

# Preface

This Preface contains these topics:

- [Audience](#)
- [Documentation Accessibility](#)
- [Diversity and Inclusion](#)
- [Related Documents](#)
- [Conventions](#)

## Audience

This book is intended for all purchasers of Oracle Database 12c.

## 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.

## Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

## Related Documents

For more information, see these Oracle resources:

- *Oracle Database New Features Guide* for information on the features new to this release of Oracle Database
- Oracle Global Pricing and Licensing, available at:

---

<http://www.oracle.com/us/corporate/pricing/index.html>

- Oracle Database licensing guidelines, available at:  
<https://www.oracle.com/assets/databaselicensing-070584.pdf>

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

# 1

## Licensing Information

- [Introduction](#)
- [Oracle Database Offerings and Their Permitted Features](#)
- [Special License Rights](#)
- [Restricted Use Licenses](#)

### 1.1 Introduction

This Licensing Information document is a part of the product or program documentation under the terms of your Oracle license agreement and is intended to help you understand the program editions, entitlements, restrictions, prerequisites, special license rights, and/or separately licensed third party technology terms associated with the Oracle software program(s) covered by this document (the "Program(s)"). Entitled or restricted use products or components identified in this document that are not provided with the particular Program may be obtained from the Oracle Software Delivery Cloud website (<https://edelivery.oracle.com>) or from media Oracle may provide. If you have a question about your license rights and obligations, please contact your Oracle sales representative, review the information provided in Oracle's Software Investment Guide (<http://www.oracle.com/us/corporate/pricing/software-investment-guide/index.html>), and/or contact the applicable Oracle License Management Services representative listed on <http://www.oracle.com/us/corporate/license-management-services/index.html>.

### 1.2 Oracle Database Offerings and Their Permitted Features

This section contains:

- [Oracle Database Offerings](#)
- [Permitted Features, Options, and Management Packs by Oracle Database Offering](#)
- [Oracle Database Options and Their Permitted Features](#)
- [Oracle Management Packs and Their Permitted Features](#)
- [Checking for Feature, Option, and Management Pack Usage](#)

#### 1.2.1 Oracle Database Offerings

**Table 1-1 Oracle Database Offerings**

Oracle Database Offering	License Deployment Options	Abbreviated Name Used in this Guide	Description
Oracle Database Standard Edition 2	On-Premises, OCI*, and ACEs**	<b>SE2</b>	Oracle Database Standard Edition 2 includes features necessary to develop workgroup, department-level, and Web applications.

**Table 1-1 (Cont.) Oracle Database Offerings**

Oracle Database Offering	License Deployment Options	Abbreviated Name Used in this Guide	Description
Oracle Database Enterprise Edition	On-Premises, OCI*, and ACEs**	<b>EE</b>	<p>Oracle Database Enterprise Edition provides performance, availability, scalability, and security for developing applications such as high-volume online transaction processing (OLTP) applications, query-intensive data warehouses, and demanding Internet applications.</p> <p>Oracle Database Enterprise Edition can be enhanced with the purchase of Oracle Database options and Oracle management packs.</p>
Oracle Database Enterprise Edition on Oracle Exadata Database Machine	On-Premises, OCI*, and ACEs**	<b>EE-Exa</b>	<p>Oracle Database Enterprise Edition software installed on an Oracle Exadata Database Machine or an Oracle Supercluster.</p> <p>Includes all of the components of Oracle Database. You can further enhance this offering with the purchase of Oracle Database options and Oracle management packs.</p>
Oracle Database Personal Edition	On-Premises	<b>PE</b>	<p>Oracle Database Personal Edition supports single-user development and deployment environments that require full compatibility with Oracle Database Standard Edition 2 and Oracle Database Enterprise Edition.</p> <p>Includes all of the components that are included with Enterprise Edition, as well as all Oracle Database options, with the exception of the Oracle RAC One Node and Oracle Real Application Clusters options, which cannot be used with Personal Edition. Personal Edition is available on Linux and Windows platforms only. Oracle management packs cannot be used with Personal Edition.</p>
Oracle Base Database Service Standard Edition	OCI*	<b>BaseDB SE</b>	Includes Oracle Database Standard Edition 2 software
Oracle Base Database Service Enterprise Edition	OCI*	<b>BaseDB EE</b>	Includes Oracle Database Enterprise Edition software
Oracle Base Database Service Enterprise Edition - High Performance	OCI*	<b>BaseDB EE-HP</b>	Includes Oracle Base Database Service Enterprise Edition software plus many Oracle Database options and Oracle management packs
Oracle Base Database Service Enterprise Edition - Extreme Performance	OCI*	<b>BaseDB EE-EP</b>	Includes Oracle Base Database Service Enterprise Edition software plus all Oracle Database options and Oracle management packs that are appropriate for use in the cloud.
Oracle Database Exadata Cloud Service Oracle Database Exadata Cloud@Customer	OCI*	<b>ExaCS/CC</b>	<p>This guide uses <b>ExaCS/CC</b> to describe the licensing policies for both Oracle Database Exadata Cloud Service and Oracle Database Exadata Cloud@Customer.</p> <p>These offerings include Oracle Database Enterprise Edition software plus all Oracle Database options and Oracle management packs that are appropriate for use in Oracle Database Exadata Cloud Service or Oracle Database Exadata Cloud@Customer.</p>



\* OCI: Oracle Cloud Infrastructure

\*\*ACEs: Authorized Cloud Environments

 **Note:**

For the list of Authorized Cloud Environments, see <https://www.oracle.com/assets/cloud-licensing-070579.pdf>. All other public clouds and environments that are in any way considered an extension of non-Authorized Cloud Environments, such as cloud management, cloud billing, cloud support, cloud automation, cloud images, or cloud monitoring software, are not Authorized Cloud Environments.

## 1.2.2 Permitted Features, Options, and Management Packs by Oracle Database Offering

The tables in this section list Oracle Database features, Oracle Database options, and Oracle management packs, and their availability for each Oracle Database offering. The **Y** value in a column means that the feature, option, or pack is available for a particular offering; **N** means that it is unavailable; **N/A** means that it is not applicable. These tables can help you understand the difference between Oracle Database offerings to determine which one is right for you.

The tables are organized into the following functional categories:

- Consolidation - [Table 1-2](#)
- Development Platform - [Table 1-3](#)
- High Availability - [Table 1-4](#)
- Integration - [Table 1-5](#)
- Manageability - [Table 1-6](#)
- Networking - [Table 1-7](#)
- Performance - [Table 1-8](#)
- Scalability - [Table 1-9](#)
- Security - [Table 1-10](#)
- Snapshots and Cloning - [Table 1-11](#)
- Spatial and Graph Data - [Table 1-12](#)
- VLDB, Data Warehousing, and Business Intelligence - [Table 1-13](#)

Table 1-2 Consolidation

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Oracle Multitenant - # of PDBs	1	252	4096	1	1	4096	4096	4096	<p>The number value in each column indicates the maximum number of pluggable databases (PDBs) that can be created for each offering.</p> <ul style="list-style-type: none"> <li>For all offerings, if you are not licensed for Oracle Multitenant, then the container database architecture is available in single-tenant mode, that is, with one user-created PDB, one user-created application root, and one user-created proxy PDB.</li> <li><b>EE:</b> Extra cost option; if you are licensed for Oracle Multitenant, then you can create up to 252 PDBs.</li> <li><b>EE-Exa:</b> Extra cost option; if you are licensed for Oracle Multitenant, then you can create up to 4096 PDBs.</li> <li><b>BaseDB EE-HP, BaseDB EE-EP, and ExaCS/CC:</b> License included option: You can create up to 4096 PDBs. BYOL option: Limit is 3 PDBs, unless you purchase the Oracle Multitenant option.</li> </ul> <p><b>Authorized Cloud Environments:</b> Use is limited to three pluggable databases per container database.</p> <p><b>Note:</b> For licensing purposes, one non-CDB instance is equivalent to one user-created PDB inside one CDB.</p>

Table 1-3 Development Platform

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
SQLJ	Y	Y	Y	Y	Y	Y	Y	Y	Requires Oracle Programmer
Oracle Developer Tools for Visual Studio	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	Windows only

**Table 1-3 (Cont.) Development Platform**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Microsoft Distributed Transaction Coordinator support	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	Windows only
Active Directory integration	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	Windows only
Native .NET Data Provider—ODP.NET	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	Windows only
.NET Stored Procedures	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	Windows only

**Table 1-4 High Availability**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Application Continuity	N	Y	Y	N	N	N	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Active Data Guard option, the Oracle RAC One Node option, or the Oracle Real Application Clusters option
Oracle Sharding	N	Y	Y	N	Y	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : No limit on the number of either primary shards or standby shards if every shard has an Oracle Active Data Guard, Oracle GoldenGate, or Oracle RAC license. Without an Oracle Active Data Guard, Oracle GoldenGate, or Oracle RAC license, use is limited to three primary shards, with basic Data Guard standbys. <b>BaseDB EE</b> , <b>BaseDB EE-HP</b> , and <b>Authorized Cloud Environments</b> : Use is limited to three primary shards; there is no limit on the number of standby shards. <b>BaseDB EE-EP</b> and <b>ExaCS/CC</b> : No limit on the number of either primary shards or standby shards.
Oracle Fail Safe	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	Windows only
Oracle RAC One Node	Y	Y	Y	N	N	N	N	N	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Oracle Data Guard—Redo Apply	N	Y	Y	N	Y	Y	Y	Y	
Oracle Data Guard—Far Sync Standby	N	Y	Y	N	N	N	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Active Data Guard option
Oracle Data Guard—SQL Apply	N	Y	Y	N	Y	Y	Y	Y	

**Table 1-4 (Cont.) High Availability**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Oracle Data Guard—Snapshot Standby	N	Y	Y	N	Y	Y	Y	Y	
Oracle Data Guard—Real-Time Cascading Standbys	N	Y	Y	N	N	N	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Active Data Guard option
Oracle Active Data Guard	N	Y	Y	N	N	N	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option; license included with Oracle GoldenGate
Rolling Upgrades—Patch Set, Database, and Operating System	N	Y	Y	N	Y	Y	Y	Y	
Rolling Upgrade Using Active Data Guard	N	Y	Y	N	N	N	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Active Data Guard option
Online index rebuild	N	Y	Y	N	Y	Y	Y	Y	
Online table organization	N	Y	Y	N	Y	Y	Y	Y	ALTER TABLE ... MOVE ONLINE operations
Online table redefinition	N	Y	Y	N	Y	Y	Y	Y	Using the DBMS_REDEFINITION package
Duplexed backup sets	N	Y	Y	N	Y	Y	Y	Y	
Block change tracking for fast incremental backup	N	Y	Y	N	Y	Y	Y	Y	
Unused block compression in backups	N	Y	Y	N	Y	Y	Y	Y	
Block-level media recovery	N	Y	Y	N	Y	Y	Y	Y	
Lost Write Protection	N	Y	Y	N	Y	Y	Y	Y	
Automatic Block Repair	N	Y	Y	N	N	N	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Active Data Guard option
Parallel backup and recovery	N	Y	Y	N	Y	Y	Y	Y	
Tablespace point-in-time recovery	N	Y	Y	N	Y	Y	Y	Y	
Trial recovery	N	Y	Y	N	Y	Y	Y	Y	
Fast-start fault recovery	N	Y	Y	N	Y	Y	Y	Y	
Flashback Table	N	Y	Y	N	Y	Y	Y	Y	
Flashback Database	N	Y	Y	N	Y	Y	Y	Y	
Flashback Transaction	N	Y	Y	N	Y	Y	Y	Y	
Flashback Transaction Query	N	Y	Y	N	Y	Y	Y	Y	

**Table 1-4 (Cont.) High Availability**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Optimization for Flashback Data Archive	N	Y	Y	N	N	Y	Y	Y	Basic Flashback Data Archive is in all offerings <b>EE</b> and <b>EE-Exa</b> : Optimization for Flashback Data Archive requires the Oracle Advanced Compression option
Online Datafile Move	N	Y	Y	N	Y	Y	Y	Y	
Transaction Guard	N	Y	Y	N	Y	Y	Y	Y	
Cross-platform Backup and Recovery	N	Y	Y	N	Y	Y	Y	Y	
Global Data Services	N	Y	Y	N	N	N	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Active Data Guard option
Recovering tables and table partitions from RMAN backups	N	Y	Y	N	Y	Y	Y	Y	

**Table 1-5 Integration**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Oracle Streams	Y	Y	Y	Y	Y	Y	Y	Y	<b>SE2</b> : No capture from redo
Database Gateways	Y	Y	Y	Y	Y	Y	Y	Y	Includes Database Gateway for ODBC All other Database Gateway products require a separate product license
Messaging Gateway	N	Y	Y	N	Y	Y	Y	Y	
AQ Sharded Queues	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Partitioning option

**Table 1-6 Manageability**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Oracle Cloud Management Pack for Oracle Database	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Oracle Data Masking and Subsetting Pack	N	Y	Y	N	Y	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Oracle Database Lifecycle Management Pack for Oracle Database	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option

**Table 1-6 (Cont.) Manageability**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Oracle Diagnostics Pack	N	Y	Y	N	Y	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Oracle Tuning Pack	N	Y	Y	N	Y	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option, also requires Oracle Diagnostics Pack
Oracle Real Application Testing	N	Y	Y	N	Y	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Database Resource Manager	N	Y	Y	N	Y	Y	Y	Y	
I/O Resource Management	N	N	Y	N	N	N	N	Y	
Instance Caging	Y	Y	Y	Y	Y	Y	Y	Y	
SQL Plan Management	N	Y	Y	N	Y	Y	Y	Y	SQL Plan Management does not require a license for Oracle Diagnostics Pack or Oracle Tuning Pack
SQL Tuning Sets	N	Y	Y	N	Y	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : SQL Tuning Sets can also be accessed by way of database server APIs and command-line interfaces. The following subprograms, part of the DBMS_SQLTUNE package, provide an interface to manage SQL Tuning Sets and are part of the <b>EE</b> and <b>EE-Exa</b> offerings: ADD_SQLSET_REFERENCE, CAPTURE_CURSOR_CACHE_SQLSET, CREATE_SQLSET, CREATE_STGTAB_SQLSET, DELETE_SQLSET, DROP_SQLSET, LOAD_SQLSET, PACK_STGTAB_SQLSET, REMOVE_SQLSET_REFERENCE, SELECT_CURSOR_CACHE, SELECT_SQLSET, SELECT_WORKLOAD_REPOSITORY, UNPACK_STGTAB_SQLSET, UPDATE_SQLSET.
Oracle Fleet Patching and Provisioning (formerly Rapid Home Provisioning)	N	Y	Y	N/A	N/A	N/A	N/A	N/A	<b>EE</b> and <b>EE-ES</b> : When deployed across multiple clusters, each FPP-managed target must be licensed for one of the following: Oracle Database Lifecycle Management Pack, Oracle RAC, or Oracle RAC One Node

**Table 1-7 Networking**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
RDMA fabric	N	N	Y	N	N	N	N	Y	
Oracle Connection Manager	N	Y	Y	N	Y	Y	Y	Y	Available via a custom install of the Oracle Database client, usually installed on a separate machine or compute instance
Network Compression	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Advanced Compression option
Network Encryption (SSL/TLS)	Y	Y	Y	Y	Y	Y	Y	Y	

**Table 1-8 Performance**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Client Side Query Cache	N	Y	Y	N	Y	Y	Y	Y	
Query Results Cache	N	Y	Y	N	Y	Y	Y	Y	
PL/SQL Function Result Cache	N	Y	Y	N	Y	Y	Y	Y	
Oracle TimesTen Application-Tier Database Cache	N	Y	Y	N	N	N	N	N	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Database Smart Flash Cache	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	<b>EE</b> : Solaris and Oracle Linux only
Support for Oracle Exadata Storage Server Software	N	N	Y	N	N	N	N	Y	
Adaptive Execution Plans	N	Y	Y	N	Y	Y	Y	Y	
Concurrent Execution of UNION and UNION ALL Branches	N	Y	Y	N	Y	Y	Y	Y	
Oracle Database In-Memory	N	Y	Y	N	N	N	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
In-Memory Column Store on Active Data Guard standby	N	N	Y	N	N	N	N	Y	<b>EE-Exa</b> : Requires the Oracle Database In-Memory option and the Oracle Active Data Guard option

**Table 1-8 (Cont.) Performance**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Fault Tolerant In-Memory Column Store	N	Y	Y	N	N	N	N	Y	<b>EE:</b> Requires Oracle Database Appliance, the Oracle Database In-Memory option, and the Oracle Real Application Clusters option <b>EE-Exa:</b> Requires the Oracle Database In-Memory option and the Oracle Real Application Clusters option
In-Memory Aggregation	N	Y	Y	N	N	N	Y	Y	<b>EE and EE-Exa:</b> Requires the Oracle Database In-Memory option
Attribute Clustering	N	Y	Y	N	Y	Y	Y	Y	
Zone Maps	N	N	Y	N	N	N	N	Y	<b>EE-Exa:</b> Requires the Oracle Partitioning option

**Table 1-9 Scalability**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Oracle Real Application Clusters (Oracle RAC)	Y	Y	Y	N	N	N	Y	Y	<b>EE and EE-Exa:</b> Extra cost option
Automatic Workload Management	Y	Y	Y	N	N	N	Y	Y	<b>EE and EE-Exa:</b> Requires the Oracle Real Application Clusters option
Quality of Service Management	Y	Y	Y	N	N	N	Y	Y	<b>EE and EE-Exa:</b> Requires the Oracle RAC One Node option or the Oracle Real Application Clusters option
Oracle NoSQL Database Enterprise Edition	N	Y	Y	N/A	N/A	N/A	N/A	N/A	

**Table 1-10 Security**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Transparent Data Encryption (TDE) for Columns	N	Y	Y	N	N	Y	Y	Y	<b>EE and EE-Exa:</b> Requires the Oracle Advanced Security option
Transparent Data Encryption (TDE) for Tablespaces	N	Y	Y	Y	Y	Y	Y	Y	<b>EE and EE-Exa:</b> Requires the Oracle Advanced Security option
Oracle Advanced Security	N	Y	Y	N	N	Y	Y	Y	<b>EE and EE-Exa:</b> Extra cost option



**Table 1-10 (Cont.) Security**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Oracle Database Vault	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Oracle Label Security	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Enterprise User Security	N	Y	Y	N	Y	Y	Y	Y	<b>EE</b> , <b>EE-Exa</b> , <b>BaseDB EE</b> , <b>BaseDB EE-HP</b> , <b>BaseDB EE-EP</b> , and <b>ExaCS/CC</b> : Enterprise User Security is a feature for directory-based management of database users. It requires a corresponding Oracle Identity Management Directory Services Plus to be licensed.
Fine-grained Auditing	N	Y	Y	N	Y	Y	Y	Y	
Privilege Analysis	N	Y	Y	N	Y	Y	Y	Y	
Real Application Security	N	Y	Y	N	Y	Y	Y	Y	
Redaction	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Advanced Security option
Transparent Sensitive Data Protection	N	Y	Y	N	Y	Y	Y	Y	
Virtual Private Database	N	Y	Y	N	Y	Y	Y	Y	

**Table 1-11 Snapshots and Cloning**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Storage Snapshot Optimization	N	Y	Y	N/A	N/A	N/A	N/A	N/A	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Advanced Compression option

**Table 1-12 Spatial and Graph Data**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Oracle Spatial and Graph	Y	Y	Y	Y	Y	Y	Y	Y	Oracle Spatial and Graph no longer requires an extra cost license. See <a href="#">Oracle Database Insider blog post</a> for more information.
Graph and Semantic Technologies (RDF/OWL)	Y	Y	Y	Y	Y	Y	Y	Y	Graph and Semantic Technologies (RDF/OWL) no longer requires an extra cost license. See <a href="#">Oracle Database Insider blog post</a> for more information.

**Table 1-12 (Cont.) Spatial and Graph Data**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Parallel spatial index builds	N	Y	Y	N	Y	Y	Y	Y	
Partitioned spatial indexes	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Partitioning option

**Table 1-13 VLDB, Data Warehousing, and Business Intelligence**

Feature / Option / Pack	SE2	EE	EE-Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/CC	Notes
Oracle Partitioning	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Oracle On-Line Analytical Processing (OLAP)	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Oracle Machine Learning (formerly Advanced Analytics)	Y	Y	Y	Y	Y	Y	Y	Y	Oracle Machine Learning no longer requires an extra cost license. See <a href="#">Oracle Database Insider blog post</a> for more information.
Oracle Advanced Compression	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Extra cost option
Advanced Index Compression	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Advanced Compression option
Prefix Compression (also called Key Compression)	N	Y	Y	N	Y	Y	Y	Y	
Hybrid Columnar Compression	N	Y	Y	N	Y	Y	Y	Y	<b>EE</b> : Requires ZFS, Axiom, or FS1 storage
Row-Level Locking for Hybrid Columnar Compression	N	Y	Y	N	N	N	N	Y	<b>EE</b> : Requires ZFS or FS1 storage, and the Oracle Advanced Compression option <b>EE-Exa</b> : Requires the Oracle Advanced Compression option
Exadata Flash Cache Compression	N	N	Y	N	N	N	N	Y	<b>EE-Exa</b> : Requires the Oracle Advanced Compression option
Heat Map	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Advanced Compression option or the Oracle Database In-Memory option
Automatic Data Optimization	N	Y	Y	N	N	Y	Y	Y	<b>EE</b> and <b>EE-Exa</b> : Requires the Oracle Advanced Compression option or the Oracle Database In-Memory option
Basic Table Compression	N	Y	Y	N	Y	Y	Y	Y	

**Table 1-13 (Cont.) VLDB, Data Warehousing, and Business Intelligence**

Feature / Option / Pack	SE2	EE	EE- Exa	Base DB SE	Base DB EE	Base DB EE-HP	Base DB EE-EP	ExaCS/ CC	Notes
Deferred Segment Creation	N	Y	Y	N	Y	Y	Y	Y	
Bitmapped index, bitmapped join index, and bitmap plan conversions	N	Y	Y	N	Y	Y	Y	Y	
Parallel query/DML	N	Y	Y	N	Y	Y	Y	Y	
Parallel statistics gathering	N	Y	Y	N	Y	Y	Y	Y	
Parallel index build/scans	N	Y	Y	N	Y	Y	Y	Y	
Parallel Data Pump Export/Import	N	Y	Y	N	Y	Y	Y	Y	
In-Memory Parallel Execution	N	Y	Y	N	Y	Y	Y	Y	
Parallel Statement Queuing	N	Y	Y	N	Y	Y	Y	Y	
Parallel capture and apply via XStream	N	Y	Y	N	Y	Y	Y	Y	
Transportable tablespaces, including cross-platform and full transportable export and import	N	Y	Y	N	Y	Y	Y	Y	Import of transportable tablespaces is supported from all offerings that include Enterprise Edition software into <b>SE2</b> ; this does not include the use of cross-platform capabilities.
Summary management —Materialized View Query Rewrite	N	Y	Y	N	Y	Y	Y	Y	

## 1.2.3 Oracle Database Options and Their Permitted Features

[Table 1-14](#) lists Oracle Database options, the Oracle Database offerings for which each option is available, and the features that are included with each option. You must be licensed for an option in order to use any of its features.

**Table 1-14 Oracle Database Options and Their Permitted Features**

Option	Availability	Included Features
Oracle Active Data Guard	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>PE, BaseDB EE-EP, ExaCS/CC</b>	<p>Oracle Active Data Guard includes the following features:</p> <ul style="list-style-type: none"> <li>• Physical Standby with Real-time Query</li> <li>• Fast Incremental Backup on Physical Standby</li> <li>• Automatic Block Repair</li> <li>• Active Data Guard Far Sync</li> <li>• Global Data Services</li> <li>• Real-Time Cascade</li> <li>• Application Continuity</li> <li>• Rolling Upgrade using Active Data Guard</li> </ul> <p>In an Oracle Data Guard configuration, Oracle Active Data Guard must be licensed on any standby databases with any of the above features in use, as well as the primary database. If there are additional standby databases in the Oracle Data Guard configuration that are not using any of the Oracle Active Data Guard features, those standby databases do not require an Oracle Active Data Guard license.</p> <p><b>Note:</b> For customers who back up standby databases to Zero Data Loss Recovery Appliance (ZDLRA) and wish to use the Fast Incremental Backup on Physical Standby or Real-Time Cascade feature, an Oracle Active Data Guard license is not required. Oracle Active Data Guard must still be licensed on standby databases, if any other of the above features are in use.</p>
Oracle Advanced Compression	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>PE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b>	<p>Oracle Advanced Compression includes the following features:</p> <ul style="list-style-type: none"> <li>• Advanced Row Compression</li> <li>• Advanced LOB Compression</li> <li>• Advanced LOB Deduplication</li> <li>• RMAN Backup Compression (<code>RMAN DEFAULT COMPRESS</code> does not require the Oracle Advanced Compression option)</li> <li>• Data Pump Export Data Compression (<code>COMPRESSION=METADATA_ONLY</code> does not require the Oracle Advanced Compression option)</li> <li>• Heat Map</li> <li>• Automatic Data Optimization</li> <li>• Data Guard Redo Transport Compression</li> <li>• Advanced Network Compression</li> <li>• Optimization for Flashback Data Archive History Tables</li> <li>• Storage Snapshot Optimization</li> <li>• Online Move Partition (to any compressed format)</li> <li>• Exadata Flash Cache Compression (This feature can be enabled only on Exadata storage servers, and all database processors that access the Exadata storage servers must be licensed for Oracle Advanced Compression.)</li> <li>• Advanced Index Compression</li> <li>• Row-Level Locking for Hybrid Columnar Compression (Requires Exadata, Supercluster, ZFS, or FS1 storage)</li> </ul> <p><b>Note:</b> The use of Hybrid Columnar Compression without Row-Level Locking does not require a license for Oracle Advanced Compression.</p>

**Table 1-14 (Cont.) Oracle Database Options and Their Permitted Features**

Option	Availability	Included Features
Oracle Advanced Security	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>PE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b>	Oracle Advanced Security includes the following features: <ul style="list-style-type: none"> <li>• Transparent Data Encryption (TDE) for columns and tablespaces (including Oracle SecureFiles)</li> <li>• DataPump Export File encryption</li> <li>• RMAN backup encryption to disk</li> <li>• Encrypted Database File System (DBFS)</li> <li>• Data Redaction of sensitive data returned to applications (Full, Partial, Regular Expression, and Random techniques)</li> </ul> Oracle Advanced Security includes a restricted use license for certain Oracle Enterprise Manager features. Refer to <a href="#">Oracle Advanced Security</a> in "Restricted Use Licenses" for more information.  <b>Note:</b> Network encryption (native network encryption, network data integrity, and SSL/TLS) and strong authentication services (Kerberos, PKI, and RADIUS) are no longer part of Oracle Advanced Security and are available in all licensed editions of all supported releases of Oracle Database.
Oracle Database In-Memory	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>PE, BaseDB EE-EP, ExaCS/CC</b>	Oracle Database In-Memory includes the following features: <ul style="list-style-type: none"> <li>• In-Memory Column Store</li> <li>• Fault Tolerant In-Memory Column Store (Requires Exadata, Supercluster, or Oracle Database Appliance)</li> <li>• In-Memory Aggregation</li> <li>• Heat Map</li> <li>• Automatic Data Optimization</li> </ul>
Oracle Database Vault	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>PE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b>	Oracle Database Vault includes the following features: <ul style="list-style-type: none"> <li>• Separation of Duties</li> <li>• Realms</li> <li>• Command Rules</li> <li>• Trusted Paths</li> </ul> Oracle Database Vault includes special license rights for Oracle Label Security. Refer to <a href="#">Oracle Database Vault</a> in "Special License Rights" for more information.  Oracle Database Vault includes a restricted use license for certain Oracle Enterprise Manager features. Refer to <a href="#">Oracle Database Vault</a> in "Restricted Use Licenses" for more information.
Oracle Label Security	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>PE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b>	Oracle Label Security includes the following features: <ul style="list-style-type: none"> <li>• Label based access control (LBAC)</li> <li>• Multi-level security (MLS)</li> <li>• Label factors for Oracle Database Vault (Confidential, Sensitive)</li> <li>• User label authorizations (Confidential, Sensitive: PII)</li> <li>• Data labels (Sensitive: PII)</li> </ul> Oracle Label Security includes a restricted use license for certain Oracle Enterprise Manager features. Refer to <a href="#">Oracle Label Security</a> in "Restricted Use Licenses" for more information.

**Table 1-14 (Cont.) Oracle Database Options and Their Permitted Features**

Option	Availability	Included Features
Oracle Multitenant	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>PE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b>	<p>Oracle Multitenant includes the following features:</p> <ul style="list-style-type: none"> <li>For <b>EE</b> and <b>PE</b>, the ability to have up to 252 pluggable databases per multitenant container database</li> <li>For <b>EE-Exa, BaseDB EE-HP, BaseDB EE-EP, and ExaCS/CC</b>, the ability to have up to 4096 pluggable databases per multitenant container database</li> </ul> <p>A restricted use license for Oracle Multitenant is included with all Oracle Database offerings. Refer to <a href="#">Oracle Multitenant</a> in "Restricted Use Licenses" for more information.</p> <p><b>Note:</b> For licensing purposes, one non-CDB instance is equivalent to one user-created PDB inside one CDB.</p>
Oracle On-Line Analytical Processing (OLAP)	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>PE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b>	<p>Oracle On-Line Analytical Processing (OLAP) includes the following features:</p> <ul style="list-style-type: none"> <li>OLAP Cube Definition, Storage, and Querying</li> <li>OLAP API and Metadata</li> <li>OLAP Cube Materialized Views</li> <li>Analytic Workspaces</li> <li>SQL Access to OLAP Cubes</li> </ul>
Oracle Partitioning	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>PE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b>	<p>Oracle Partitioning includes the following features:</p> <ul style="list-style-type: none"> <li>Table Partitions and Subpartitions</li> <li>Global and Local Index Partitions and Subpartitions</li> <li>AQ Sharded Queues</li> <li>Zone Maps (Available only on <b>EE-Exa</b> and <b>ExaCS/CC</b>; requires Exadata or Supercluster)</li> </ul>
Oracle RAC One Node	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>SE2</b>	<p>Oracle RAC One Node includes the following features:</p> <ul style="list-style-type: none"> <li>Database Cold Failover to another node in the cluster in case of server or instance failure</li> <li>Online migration of the database instance to another server</li> <li>Support for online rolling upgrades of the database, grid infrastructure, and OS homes</li> <li>Online upgrade to Oracle Real Application Clusters</li> <li>Policy-managed Server Pools</li> <li>Quality of Service Management</li> <li>Application Continuity</li> </ul>
Oracle Real Application Clusters (Oracle RAC)	Extra cost option: <b>EE, EE-Exa</b> Included option: <b>SE2, BaseDB EE-EP, ExaCS/CC</b>	<p>Oracle Real Application Clusters (Oracle RAC) includes the following features:</p> <ul style="list-style-type: none"> <li>All of the features included with Oracle RAC One Node</li> <li>Real Application Clusters scaling to multiple servers</li> <li>Connection Load Balancing</li> <li>Fast Connection Failover</li> <li>Hot Cluster Failover</li> </ul>

**Table 1-14 (Cont.) Oracle Database Options and Their Permitted Features**

Option	Availability	Included Features
Oracle Real Application Testing	<p>Extra cost option: <b>EE, EE-Exa</b></p> <p>Included option: <b>PE, BaseDB EE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b></p>	<p>Oracle Real Application Testing includes the following features:</p> <ul style="list-style-type: none"> <li>Database Replay</li> <li>SQL Performance Analyzer (SPA)</li> <li>Database Migration Planner</li> <li>Database Migration Workbench</li> </ul> <p><b>Database Replay</b></p> <ul style="list-style-type: none"> <li>The Oracle Real Application Testing license is required on both capture and replay systems for Database Replay and is charged by the total number of CPUs on those systems.</li> <li>Use of Capture and Replay ASH Analytics Reports, Compare Period ADDM Reports, and Replay Compare Period Reports also requires an Oracle Diagnostics Pack license.</li> <li>An Oracle Real Application Testing license permits you to access Database Replay functionality through Oracle Enterprise Manager, as well as through the following database server command-line APIs: <code>DBMS_WORKLOAD_CAPTURE</code> package and <code>DBMS_WORKLOAD_REPLAY</code> package. The use of the <code>DBMS_WORKLOAD_REPLAY.COMPARE_PERIOD_REPORT()</code> function also requires a license for Oracle Diagnostics Pack.</li> </ul> <p><b>SQL Performance Analyzer (SPA)</b></p> <p>An Oracle Real Application Testing license permits you to access SQL Performance Analyzer functionality through Oracle Enterprise Manager, as well as through the following database server command-line API: <code>DBMS_SQLPA</code> package, which is part of the Oracle Real Application Testing option.</p> <p><b>Database Migration Planner</b></p> <ul style="list-style-type: none"> <li>Database Migration Planner was renamed from Database Consolidation Workbench in Enterprise Manager Cloud Control 13.4.</li> <li>Database Migration Planner, introduced in Oracle Enterprise Manager Cloud Control 13c, provides a data-driven and systematic approach to consolidation by eliminating guess work and human errors.</li> <li>Use of the consolidation planning feature of Database Migration Planner requires an Oracle Diagnostics Pack license.</li> <li>An Oracle Real Application Testing license permits you to access the following links on the Database Migration Planner page in Oracle Enterprise Manager: <ul style="list-style-type: none"> <li>From the <b>Enterprise</b> menu, select <b>Migration and Consolidation</b>, then select <b>Database Migration Planner</b>.</li> <li>On the database target home page, select the <b>Administration</b> menu, then select <b>Database Migration Planner</b>.</li> <li>All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Database Migration Planner.</li> </ul> </li> </ul> <p><b>Database Migration Workbench</b></p> <ul style="list-style-type: none"> <li>Database Migration Workbench, introduced in Oracle Enterprise Manager Cloud Control 13c Release 4, is a single workbench that integrates all needs for migration sizing and performance comparison.</li> <li>An Oracle Real Application Testing license permits you to access the following links on the Database Migration Workbench page in Oracle Enterprise Manager:</li> </ul>

**Table 1-14 (Cont.) Oracle Database Options and Their Permitted Features**

Option	Availability	Included Features
		<ul style="list-style-type: none"> <li>– From the <b>Enterprise</b> menu, select <b>Migration and Consolidation</b>, then select <b>Database Migration Workbench</b>.</li> <li>– All features, functions, links, buttons, and drill-downs on this page are licensed as part of the Database Migration Workbench.</li> </ul>
Oracle TimesTen Application-Tier Database Cache	Extra cost option: <b>EE</b> , <b>EE-Exa</b> Included option: <b>PE</b>	Oracle TimesTen Application-Tier Database Cache includes the following features: <ul style="list-style-type: none"> <li>• Data access using PL/SQL, JDBC, ODBC, ttClasses, OCI, and Pro*C/C++ interfaces</li> <li>• Transaction Log API (XLA) for change notification</li> <li>• Multi-node Cache Grid</li> <li>• Automatic data synchronization with the Oracle database</li> <li>• Transactional replication between the in-memory cache databases</li> <li>• Automated failure detection and database failovers</li> <li>• TimesTen Extension for Oracle SQL Developer</li> <li>• TimesTen Plug-in for Oracle Enterprise Manager</li> </ul>

## 1.2.4 Oracle Management Packs and Their Permitted Features

Table 1-15 lists Oracle management packs, the Oracle Database offerings for which each pack is available, and the features that are included with each pack. The features in these packs are accessible through Oracle Enterprise Manager, Desktop Widgets, and APIs provided with Oracle Database software. You must be licensed for a management pack in order to use any of its features.



**Table 1-15 Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
Oracle Cloud Management Pack for Oracle Database	<p>Extra cost pack: <b>EE, EE-Exa</b></p> <p>Included pack: <b>BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b></p>	<p><b>Features:</b></p> <p>Oracle Cloud Management Pack for Oracle Database includes the following features:</p> <ul style="list-style-type: none"> <li>• Database-as-a-Service comprising self-service database provisioning on physical or virtual infrastructure</li> <li>• DBaaS Rapid Start Kit allowing users to set up and configure Enterprise Manager Cloud Control 12c in under a minute.</li> <li>• Pluggable Database-as-a-Service (PDBaaS) providing self-service provisioning on a pool of multitenant container databases (CDBs).</li> <li>• Support shared server, shared cluster, and shared database (Schema-as-a-Service) deployment models</li> <li>• Virtual assembly provisioning. For example, if there is an assembly topology of three VMs (two WebLogic Server-managed servers and one database), you will need both packs to cover the respective tiers.</li> <li>• Snap Clone, a fast, storage efficient way of cloning Oracle databases</li> <li>• Full clones using RMAN backups</li> <li>• Role based access and resource control through quotas and retirement policies</li> <li>• Schedule- and performance-based resource management policies</li> <li>• Metering and chargeback based on fixed cost, utilization metrics and configuration parameters of the database</li> <li>• Programmatic access to the Self-Service Portal</li> <li>• Blueprint driven orchestration of cloud operations</li> </ul> <p><b>Prerequisites:</b></p> <p>Oracle Cloud Management Pack for Oracle Database requires Oracle Database Lifecycle Management Pack for Oracle Database.</p> <p><b>Licensed Links:</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Cloud Management Pack for Oracle Database.</p> <p>Starting on the Enterprise Summary home page, click the <b>Enterprise</b> menu. Select:</p> <ul style="list-style-type: none"> <li>• <b>Cloud</b>, then <b>Infrastructure Home</b></li> <li>• <b>Cloud</b>, then <b>Infrastructure Request Dashboard</b></li> <li>• <b>Cloud</b>, then <b>Infrastructure Policies</b></li> <li>• <b>Cloud</b>, then <b>Middleware and Database Home</b></li> <li>• <b>Cloud</b>, then <b>Middleware and Database Request Dashboard</b></li> <li>• <b>Cloud</b>, then <b>Self Service Portal</b></li> <li>• <b>Cloud</b>, then <b>Service Instances</b></li> <li>• <b>Chargeback</b></li> <li>• <b>Provisioning and Patching</b>, then <b>Database Provisioning</b>. In the Database Provisioning page, in the Related Links section of the left menu pane, click <b>Provision Pluggable Databases</b>. Next, from the PDB Operations section, select <b>Create New Pluggable Databases</b>. Click <b>Launch</b>, and from Pluggable Database Creation Options, select <b>Clone an Existing PDB -&gt; Snap Clone</b>.</li> </ul> <p>Starting on the Enterprise Summary home page, click the <b>Setup</b> menu. Select:</p> <ul style="list-style-type: none"> <li>• <b>Cloud</b>. Select <b>Infrastructure</b></li> <li>• <b>Cloud</b>. Select <b>Database</b></li> <li>• <b>Provisioning and Patching</b>, then <b>Storage Registration</b></li> </ul> <p>On the Multitenant container database's home page, from the Oracle Database menu, select <b>Provisioning</b>, then <b>Provision Pluggable</b></p>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<p><b>Database.</b> Next, from the PDB Operations section, select <b>Create New Pluggable Databases</b>. Click <b>Launch</b>, and from Pluggable Database Creation Options, select <b>Clone an Existing PDB -&gt; Snap Clone</b>.</p> <p><b>Licensed APIs:</b></p> <p>Use of the following APIs requires a license for Oracle Cloud Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• <b>Assembly Operations</b> — Any POST/GET/PUT/DELETE on /em/cloud/iaas URI space for Resources Assembly Template and Assembly Instance</li> <li>• <b>DBaaS Operations</b> — Any POST/GET/PUT/DELETE on /em/cloud/dbaas URI space</li> <li>• <b>DBaaS Setup Operations</b> — Any POST/GET/PUT/DELETE on /em/websvcs/restful/extws/cloudservices/admin/cfw/v1 URI space.</li> </ul> <p><b>Licensed Command Line Interface (CLI) Verbs:</b></p> <p>The following Enterprise Manager Command Line Interface (CLI) verbs are licensed as part of Oracle Cloud Management Pack for Oracle Database. These verbs operate on a database pool.</p> <ul style="list-style-type: none"> <li>• add_pool_members</li> <li>• create_charge_item</li> <li>• create_dbaas_quota</li> <li>• create_dbprofile</li> <li>• create_pool</li> <li>• create_service_template</li> <li>• delete_charge_item</li> <li>• delete_dbaas_quota</li> <li>• delete_pool</li> <li>• delete_service_template</li> <li>• get_dbaas_quota</li> <li>• get_dbaas_request_settings</li> <li>• get_metering_data</li> <li>• get_pool_capacity_data</li> <li>• get_pool_capacity_summary_data</li> <li>• get_pool_constraints</li> <li>• get_pool_criteria</li> <li>• get_pool_detail</li> <li>• get_pool_instance_data</li> <li>• get_pool_target_type</li> <li>• get_pools</li> <li>• get_service_template</li> <li>• list_charge_item_candidates</li> <li>• remove_pool_members</li> <li>• update_dbaas_quota</li> <li>• update_dbaas_request_settings</li> <li>• update_pool</li> </ul> <p><b>Licensed Views and Tables:</b></p> <p>The following objects within the repository schema are licensed under Oracle Cloud Management Pack for Oracle Database:</p>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>• Tables starting with EMCT_CBA</li> <li>• Views starting with EMCT\$CBA</li> <li>• The GP_EMCT_CBA_TARGET_CHARGE views</li> <li>• The MGMT\$EMCT_CBA_CHARGE_DAILY view</li> <li>• The MGMT\$EMCT_CBA_CHARGE_HOURLY view</li> </ul> <p><b>Licensed Chargeback Reports:</b></p> <p>The following BI Publisher reports are licensed under Oracle Cloud Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• Charge Trend Report</li> <li>• Charge Summary Report</li> <li>• Usage Trend Report</li> <li>• Usage Summary Report</li> </ul> <p>Also, any report created using the "create-like" feature of BI publisher referring the preceding reports, falls under this license.</p>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
Oracle Data Masking and Subsetting Pack	<p>Extra cost pack: <b>EE, EE-Exa</b></p> <p>Included pack: <b>BaseDB EE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b></p>	<p><b>Features:</b></p> <p>Oracle Data Masking and Subsetting Pack includes the following features:</p> <ul style="list-style-type: none"> <li>• Application Data Modeling</li> <li>• Data Masking Formats Library</li> <li>• Data Masking Definitions</li> <li>• Data Subsetting Definitions</li> <li>• Application Data Modeling, Data Masking and Subsetting Enterprise Manager Command Line Interface (CLI) verbs</li> <li>• Application Data Modeling accelerator for select versions of Oracle E-Business Suite</li> <li>• Application Data Modeling accelerator for select versions of Oracle Fusion Applications</li> <li>• Data Masking templates for select versions of Oracle Fusion Applications</li> <li>• Data Masking templates for select versions of Oracle E-Business Suite</li> </ul> <p>Oracle Data Masking and Subsetting Pack includes the following restricted use licenses:</p> <ul style="list-style-type: none"> <li>• Database Gateway for APPC</li> <li>• Database Gateway for DRDA</li> <li>• Database Gateway for Informix</li> <li>• Database Gateway for SQLServer</li> <li>• Database Gateway for Sybase</li> <li>• Database Gateway for Teradata</li> </ul> <p>If you want to use the Oracle Database Gateways listed above not solely for the purposes of Oracle Data Masking and Subsetting Pack, then you must purchase full-use licenses for the Oracle Database Gateways. When using Oracle Data Masking and Subsetting Pack for non-Oracle databases, the Oracle Database Gateways stage the data in a separately licensed Oracle Database. Oracle Data Masking and Subsetting functionality cannot be executed directly against the non-Oracle database.</p> <p>Oracle Data Masking and Subsetting Pack must be licensed only for the source database server, i.e., the databases from which the data originates.</p> <p>There is no requirement to license the pack for the staging database server on which masking and subsetting operations are executed, or for copies made of the masked database.</p> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Oracle Data Masking and Subsetting Pack incorporates the previous Oracle Data Masking Pack, Oracle Test Data Management Pack, and Oracle Data Masking and Subsetting Pack for non-Oracle Databases.</li> <li>2. Application Data Modeling was previously called Data Discovery and Modeling.</li> </ol> <p><b>Licensed Links:</b></p> <p>All features, functions, links, buttons, and drill-downs on these Oracle Enterprise Manager menus are licensed as part of the Oracle Data Masking and Subsetting Pack.</p> <p>Starting on the Enterprise Summary home page, click the <b>Enterprise</b> menu, then <b>Quality Management</b>, then select:</p>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>• <b>Application Data Modeling</b></li> <li>• <b>Data Masking Definitions</b></li> <li>• <b>Data Masking Formats</b></li> <li>• <b>Data Subset Definitions</b></li> </ul> <p>From the Oracle database or cluster database target home page, click the <b>Security</b> menu, then select:</p> <ul style="list-style-type: none"> <li>• <b>Application Data Modeling</b></li> <li>• <b>Data Masking Definitions</b></li> <li>• <b>Data Subsetting</b></li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
Oracle Database Lifecycle Management Pack for Oracle Database	Extra cost pack: <b>EE, EE-Exa</b> Included pack: <b>BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b>	<p><b>Features:</b></p> <p>Oracle Database Lifecycle Management Pack for Oracle Database includes the following features:</p> <ul style="list-style-type: none"> <li>• Change Activity Plans</li> <li>• Client system analyzer</li> <li>• Compliance</li> <li>• Configuration Collection Extensibility</li> <li>• Configuration Compare</li> <li>• Configuration History</li> <li>• Configuration Instance Browser</li> <li>• Configuration Save</li> <li>• Configuration Search</li> <li>• Configuration Topology</li> <li>• Copy Objects</li> <li>• Database Patching</li> <li>• Database Provisioning</li> <li>• Database Upgrade</li> <li>• Disaster Recovery via Site Guard</li> <li>• Enterprise Data Governance</li> <li>• File Synchronization</li> <li>• Notifications</li> <li>• Pluggable Database (PDB) Clone</li> <li>• PDB Create/Plug/Unplug (Multiple target operations or performed using a customized deployment procedure.)</li> <li>• PDB Migrate</li> <li>• RAC Scale Back</li> <li>• RAC Scale Out</li> <li>• Real-time configuration change detection</li> <li>• Real-time schema change detection</li> <li>• Schema and Data Comparisons</li> <li>• Schema and Data Synchronization</li> <li>• Schema Change Plans</li> <li>• Schema Comparisons</li> <li>• User Defined Deployment Procedures (UDDP)</li> </ul> <p>With the purchase of Oracle Database Lifecycle Management Pack for Oracle Database, you also are entitled to the features described in the following sections. These features are restricted to the Oracle Database targets in the Oracle Database Home and the Platform (hardware and operating system) for the CPUs you have licensed.</p> <ul style="list-style-type: none"> <li>• Application Configuration Console</li> <li>• The <code>oplan</code> Utility (The basic OPlan feature is free for everyone that has an Oracle Support contract. Use of OPlan metadata to drive orchestration logic from either Enterprise Manager or custom/third-party scripts is part of Oracle Database Lifecycle Management Pack for Oracle Database.)</li> <li>• Migrate to ASM</li> <li>• Self Update</li> </ul> <p><b>Licensed Parameters:</b></p> <p>The <code>init.ora</code> parameter <code>ENABLE_DDL_LOGGING</code> is licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database when set to <code>TRUE</code>. When set to <code>TRUE</code>, the database reports schema changes in</p>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<p>real time into the database alert log under the message group schema_ddl. The default setting is FALSE.</p> <p><b>Licensed Links:</b></p> <p>The Licensed Links, features, and functions listed in the following sections apply only to the Oracle Database target and the associated host an Oracle Database is deployed on. For management on non-Oracle Database targets, you must purchase the appropriate management pack.</p> <p><b>Licensed Links – Database Provisioning Procedures:</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• From the Enterprise Manager home page, click the <b>Enterprise</b> menu, <b>Provisioning and Patching</b>, then <b>Procedure Library</b>. All Procedures that Clone and Provision a Database are licensed with Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>• From the Enterprise Manager home page, click the <b>Enterprise</b> menu, <b>Provisioning and Patching</b>, then <b>Database Provisioning</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>• From the Oracle database or cluster database target home page, click the Oracle Database menu, then <b>Provisioning</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – Database Upgrade:</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• From the Enterprise Manager home page, click the <b>Enterprise</b> menu, <b>Provisioning and Patching</b>, then <b>Procedure Library</b>. All Procedures that Upgrade a Database are licensed with Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>• From the Oracle database or cluster database target home page, click the Oracle Database menu, then <b>Provisioning</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – User Defined Deployment Procedures (UDDP)</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• From the Enterprise Manager home page, click the <b>Enterprise</b> menu, <b>Provisioning and Patching</b>, then <b>Procedure Library</b>. On the Provisioning Library page, from the list of actions, the Create New option is licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – RAC Scale Out and Scale Back</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• From the Enterprise Manager home page, click the <b>Enterprise</b> menu, <b>Provisioning and Patching</b>, then <b>Procedure Library</b>. All</li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<p>Procedures that Extend or Scale a database or RAC are licensed with Oracle Database Lifecycle Management Pack for Oracle Database.</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click the <b>Enterprise</b> menu, <b>Provisioning and Patching</b>, then <b>Database Provisioning</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>From the Oracle cluster database target home page, click the Oracle Database menu, then <b>Provisioning</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – Database Patching</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click the <b>Enterprise</b> menu, <b>Provisioning and Patching</b>, then <b>Procedure Library</b>. All Procedures that patch a database, Clusterware or Real Application Clusters are licensed with Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – Offline Patching</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click the <b>Setup</b> menu, <b>Provisioning and Patching</b>, then <b>Offline Patching</b>. From the Online and Offline Setting tab, the <b>Connection, Offline</b> setting is licensed with Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – Configuration Instance Browser</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click on <b>Targets, Databases</b>, and select a Database. From the database home page, click on <b>Oracle Database, Configuration</b>. All features, functions, links, buttons, and drill-downs on this menu, excluding Topology, are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>If the Target Home Page is accessed directly or by other paths: <ul style="list-style-type: none"> <li>From the database home page, click on <b>Oracle Database, Configuration</b>. All features, functions, links, buttons, and drill-downs on this menu, excluding Topology, are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> </li> </ul> <p><b>Licensed Links – Configuration Search</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click the <b>Enterprise</b> menu, then <b>Configuration and Search</b>. All features, functions, links,</li> </ul>



**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<p>buttons, and drill-downs on this page are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</p> <p><b>Licensed Links – Configuration History</b> Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click the <b>Enterprise</b> menu, then <b>Configuration and History</b>. All features, functions, links, buttons, and drill-downs on this page are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – Configuration Compare</b> Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click the <b>Enterprise</b> menu, then <b>Configuration and Compare</b>. All features, functions, links, buttons, and drill-downs on this page are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – Configuration Save</b> Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click the <b>Enterprise</b> menu, then <b>Configuration and Save</b>. All features, functions, links, buttons, and drill-downs on this page are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – Configuration Topology</b> Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Target Home Page, click on <b>Oracle Database, Configuration, Topology</b>. In the View Dropdown, Used By is licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>From the Target Home Page, click on <b>Oracle Database, Configuration, Topology, Customization</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>If the Target Home Page is accessed directly or by other paths: <ul style="list-style-type: none"> <li>From the Target Home Page, click on <b>Oracle Database, Configuration, Topology</b>. In the View drop-down, Used By is licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>From the Target Home Page, click on <b>Oracle Database, Configuration, Topology, Customization</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> </li> </ul> <p><b>Licensed Links – Configuration Collection Extensibility</b> Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click the <b>Enterprise</b> menu, then <b>Configuration and Custom</b>. All features, functions,</li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<p>links, buttons, and drill-downs on this page are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</p> <p><b>Licensed Links – File Synchronization</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>When viewing comparison results differences as described in the Configuration Compare feature, select the configuration specification in the tree on the left. Select <b>Enable File Synchronization</b>. All features, functions, links, buttons, and drill-downs on this page are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – Schema Comparison:</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click on <b>Targets, Databases</b>, and then select a Database. From the database home page, click on <b>Schema, Change Management</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>If the Target Home Page is accessed directly or by other paths: <ul style="list-style-type: none"> <li>From the database home page, click on <b>Schema, Change Management</b>. All features, unctions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> </li> </ul> <p><b>Licensed Links – Schema and Data Comparisons:</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click on <b>Targets, Databases</b>, and then select a Database. From the database home page, click on <b>Schema, Change Management</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>If the Target Home Page is accessed directly or by other paths: <ul style="list-style-type: none"> <li>From the database home page, click on <b>Schema, Change Management</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> </li> </ul> <p><b>Licensed Links – Schema and Data Synchronization:</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>From the Enterprise Manager home page, click on <b>Targets, Databases</b>, and then select a Database. From the database home page, click on <b>Schema, Change Management</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>If the Target Home Page is accessed directly or by other paths:</li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>– From the database home page, click on <b>Schema, Change Management</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Links – Copy Objects:</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• From the Enterprise Manager home page, click on <b>Targets, Databases</b>, and then select a Database. From the database home page, click on <b>Schema, Change Management</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>• If the Target Home Page is accessed directly or by other paths: <ul style="list-style-type: none"> <li>– From the database home page, click on <b>Schema, Change Management</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> </li> </ul> <p><b>Licensed Links – Real-Time Schema Change Detection:</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• From the Enterprise Manager home page, click on <b>Targets, Databases</b>, and then select a Database. From the database home page, click on <b>Schema, Change Management</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> <li>• If the Target Home Page is accessed directly or by other paths: <ul style="list-style-type: none"> <li>– From the database home page, click on <b>Schema, Change Management</b>. All features, functions, links, buttons, and drill-downs on this menu are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> </li> </ul> <p><b>Licensed Links – Real-time Configuration Change Detection and Compliance:</b></p> <p>Use of the following Oracle Enterprise Manager pages and links requires a license for Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• From the Enterprise Manager home page, click the <b>Enterprise</b> menu and <b>Compliance</b>. All features, functions, links, buttons, and drill-downs associated with the Library, Results and Real-Time Observations pages are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</li> </ul> <p><b>Licensed Reports:</b></p> <p>The following reports are part of Oracle Database Lifecycle Management Pack for Oracle Database. All reports in each of these sections are licensed as part of this pack. To access the reports go to the Enterprise Manager home page, click the Reports, Information Publisher Reports or BI Publisher Enterprise Reports.</p> <p>The following reporting areas, reports, and sub-reports under Information Publisher Reports are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database:</p>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>• Compliance</li> <li>• Deployment and Configuration</li> <li>• Sample Host reports, Configuration Reports</li> <li>• Security</li> </ul> <p>The following reporting areas, reports and sub-reports under BI Publisher Enterprise Reports are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• Compliance</li> <li>• Deployment and Configuration</li> <li>• Sample Host reports, Configuration Reports</li> <li>• Security</li> </ul> <p><b>Licensed Command Line Interface (CLI) Verbs:</b></p> <p>The following Enterprise Manager Command Line Interface (CLI) verbs are licensed as part of Oracle Database Lifecycle Management Pack for Oracle Database.</p> <ul style="list-style-type: none"> <li>• <code>associate_cs_targets</code></li> <li>• <code>clone_database</code></li> <li>• <code>config_compare</code></li> <li>• <code>config_db_service_target</code></li> <li>• <code>configure_log_archive_locations</code></li> <li>• <code>confirm_instance</code></li> <li>• <code>create_database</code></li> <li>• <code>describe_instance</code></li> <li>• <code>describe_procedure_input</code></li> <li>• <code>disable_config_history</code></li> <li>• <code>enable_config_history</code></li> <li>• <code>export_compliance_group</code></li> <li>• <code>export_compliance_standard_rule</code></li> <li>• <code>export_facet</code></li> <li>• <code>export_standard</code></li> <li>• <code>fix_compliance_state</code></li> <li>• <code>get_config_searches</code></li> <li>• <code>get_config_templates</code></li> <li>• <code>get_executions</code></li> <li>• <code>get_instance_data</code></li> <li>• <code>get_instance_status</code></li> <li>• <code>get_instances</code></li> <li>• <code>get_oms_config_property</code></li> <li>• <code>get_procedure_types</code></li> <li>• <code>get_procedure_xml</code></li> <li>• <code>get_procedures</code></li> <li>• <code>get_retry_argument</code></li> <li>• <code>get_saved_configs</code></li> <li>• <code>ignore_instance</code></li> <li>• <code>import_compliance_object</code></li> <li>• <code>list_oms_config_properties</code></li> <li>• <code>remove_cs_target_association</code></li> <li>• <code>reschedule_instance</code></li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>• resume_instance</li> <li>• run_config_search</li> <li>• save_procedure</li> <li>• set_config_history_retention_period</li> <li>• stop_instance</li> <li>• submit_procedure</li> <li>• suspend_instance</li> <li>• update_and_retry_step</li> <li>• update_procedure_input</li> <li>• upgrade_database</li> </ul>
		<p><b>Licensed Repository Views – Compliance Views:</b></p> <p>The following compliance views within the repository schema are licensed under Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• MGMT\$CCC_ALL_OBS_BUNDLES</li> <li>• MGMT\$CCC_ALL_OBSERVATIONS</li> <li>• MGMT\$CCC_DIAG_ANALYTICS</li> <li>• MGMT\$CCC_DIAG_QUEUEBACKLOG</li> <li>• MGMT\$COMPLIANCE_STANDARD</li> <li>• MGMT\$COMPLIANCE_STANDARD_GROUP</li> <li>• MGMT\$COMPLIANCE_STANDARD_RULE</li> <li>• MGMT\$COMPOSITE_CS_EVAL_SUMMARY</li> <li>• MGMT\$CS_ASM_DISKGRP_SETTINGS</li> <li>• MGMT\$CS_DB_CONTROL_FILE_COUNT</li> <li>• MGMT\$CS_DB_INIT_PARAMS</li> <li>• MGMT\$CS_DB_RBS_IN_SYSTEM</li> <li>• MGMT\$CS_DB_REC_SEG_SETTINGS</li> <li>• MGMT\$CS_DB_REC_TS_SETTINGS</li> <li>• MGMT\$CS_DB_REC_USER_SETTINGS</li> <li>• MGMT\$CS_DB_REDO_LOG_COUNT</li> <li>• MGMT\$CS_DB_REDO_LOGS</li> <li>• MGMT\$CS_DB_TABLESPACES</li> <li>• MGMT\$CS_DB_TBSP_SEGSPACE_MGMT</li> <li>• MGMT\$CS_EVAL_SUMMARY</li> <li>• MGMT\$CS_FEATURE_USAGE</li> <li>• MGMT\$CS_GROUP_EVAL_SUMMARY</li> <li>• MGMT\$CS_GROUP_KEYWORD</li> <li>• MGMT\$CS_HA_INFO</li> <li>• MGMT\$CS_HIERARCHY</li> <li>• MGMT\$CS_KEYWORD</li> <li>• MGMT\$CS_RQS_HIERARCHY</li> <li>• MGMT\$CS_RULE_ATTRS</li> <li>• MGMT\$CS_RULE_EVAL_SUMMARY</li> <li>• MGMT\$CS_RULEFOLDER</li> <li>• MGMT\$CS_TARGET_ASSOC</li> <li>• MGMT\$CS_TGT_ASSOC_TXF_REQ</li> <li>• MGMT\$CSG_HIERARCHY</li> <li>• MGMT\$CSG_SUBGROUP</li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>• MGMT\$CSR_CURRENT_VIOLATION</li> <li>• MGMT\$CSR_TARGET_ASSOC</li> <li>• MGMT\$CSR_VIOLATION_CONTEXT</li> <li>• MGMT\$CSRF_TARGET_ASSOC</li> <li>• MGMT\$EM_CS_RULE_EVENT_ERROR</li> <li>• MGMT\$EM_RULE_VIOL_CTXT_DEF</li> <li>• MGMT\$ICS_TARGET_ASSOC</li> <li>• MGMT\$REPO_RULE_CHK_DETAILS</li> <li>• MGMT\$REPOSITORY_RULE_BIND_VARS</li> <li>• MGMT\$REPOSITORY_RULE_PARAMS</li> <li>• MGMT\$RULE_KEYWORD</li> </ul> <p><b>Licensed Repository Views – Provisioning and Patching Views:</b> The following provisioning and patching views within the repository schema are licensed under Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• EM\$PROV_APPTYPES</li> <li>• EM\$PROVAPP_METADATA</li> <li>• EM\$PROVAPP_METADATA_VERSION</li> <li>• EM\$PROVAPP_TAG_PROPERTIES</li> <li>• EM\$PROVAPP_TAGS</li> <li>• MGMT\$PA_RECOM_METRIC_SOURCE</li> </ul> <p><b>Licensed Repository Views – Patching Views:</b> The following patching views within the repository schema are licensed under Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• GC\$EM_PC_PLAN_PATCHES</li> <li>• GC\$EM_PC_PLANS</li> <li>• GC\$EM_PC_PLAN_TARGETS</li> <li>• GC_PC_EXECUTION_INSTANCES</li> <li>• GC_PC_PLAN_ANALYSIS_RS</li> <li>• GC_PC_PLAN_REMEDY</li> <li>• GC_PC_PLAN_REMEDY_DETAILS</li> <li>• GC_PC_PLAN_USERS</li> <li>• GC_PC_TARGETS</li> <li>• MGMT\$APPLIED_PATCHES</li> <li>• MGMT\$APPLIED_PATCHSETS</li> <li>• MGMT\$ARU_FAMILY_PRODUCT_MAP</li> <li>• MGMT\$ARU_LANGUAGES</li> <li>• MGMT\$ARU_PATCH_RECOMMENDATIONS</li> <li>• MGMT\$ARU_PLATFORMS</li> <li>• MGMT\$ARU_PRODUCT_RELEASE_MAP</li> <li>• MGMT\$ARU_PRODUCTS</li> <li>• MGMT\$ARU_RELEASES</li> <li>• MGMT\$ARU_TARGETS</li> <li>• MGMT\$PA_AFFTED_HOST_GUID_OH</li> <li>• MGMT\$PA_AFFTED_HOST_OH</li> <li>• MGMT\$PA_AFFTED_TARGETS</li> <li>• MGMT\$PA_FINAL_PATCH_LIST</li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>• MGMT\$PA_TARGET_MAPPING</li> <li>• MGMT\$PR_APPL_PATCHES_TO_OH</li> <li>• MGMT\$PR_APPL_PATCHES_TO_OH_TGT</li> <li>• MGMT\$PR_HOME_INFO</li> <li>• MGMT\$PR_HOMES_AFFECTED_COUNT</li> <li>• MGMT\$RECOM_METRIC_SOURCE</li> </ul>
		<p><b>Licensed Repository Views – Configuration Views:</b> The following configuration views within the repository schema are licensed under Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• GC\$ECM_COMP_PROPERTIES</li> <li>• GC\$ECM_CONFIG_SUMMARY</li> <li>• GC\$ECM_CURR_CONFIG</li> <li>• GC\$ECM_CURR_CONFIG_FLAT_MEMS</li> <li>• GC\$ECM_CURR_CONFIG_SNAPSHOTS</li> <li>• GC\$ECM_CURR_TARGET_SNAPSHOTS</li> <li>• GC\$ECM_DATA_RETENTION_TIME</li> <li>• GC\$ECM_GEN_SNAPSHOT</li> <li>• GC\$ECM_SAVED_CONFIG</li> <li>• GC\$ECM_SAVED_CONFIG_FLAT_MEMS</li> <li>• GC\$ECM_SAVED_CONFIG_SNAPSHOTS</li> <li>• GC\$ECM_SAVED_CONFIG_TARGETS</li> <li>• GC\$ECM_SAVED_TARGET_SNAPSHOTS</li> <li>• MGMT\$CCS_DATA</li> <li>• MGMT\$CCS_DATA_SOURCE</li> <li>• MGMT\$CCS_DATA_SOURCE_VISIBLE</li> <li>• MGMT\$CCS_DATA_VISIBLE</li> <li>• MGMT\$DB_CONTROLFILES</li> <li>• MGMT\$DB_DATAFILES</li> <li>• MGMT\$DB_DBNINSTANCEINFO</li> <li>• MGMT\$DB_FEATUREUSAGE</li> <li>• MGMT\$DB_INIT_PARAMS</li> <li>• MGMT\$DB_LICENSE</li> <li>• MGMT\$DB_OPTIONS</li> <li>• MGMT\$DB_REDOLOGS</li> <li>• MGMT\$DB_ROLLBACK_SEGS</li> <li>• MGMT\$DB_SGA</li> <li>• MGMT\$DB_TABLESPACES</li> <li>• MGMT\$DB_TABLESPACES_ALL</li> <li>• MGMT\$ECM_CMP_JOB_LAST_RESULTS</li> <li>• MGMT\$ECM_CMP_JOBS</li> <li>• MGMT\$ECM_CMP_RPT_CCS_DS</li> <li>• MGMT\$ECM_CMP_RPT_CCS_DS_DTLS</li> <li>• MGMT\$ECM_CMP_RPT_CCS_PD_ALL</li> <li>• MGMT\$ECM_CMP_RPT_CCS_PD_DIFFS</li> <li>• MGMT\$ECM_CMP_RPT_CI_DIFFS</li> <li>• MGMT\$ECM_CMP_VISIBLE_CONFIGS</li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>• MGMT\$ECM_CURRENT_SNAPSHOTS</li> <li>• MGMT\$ECM_VISIBLE_SNAPSHOTS</li> <li>• MGMT\$SERVICETAG_INSTANCES</li> <li>• MGMT\$SERVICETAG_REGISTRY</li> <li>• MGMT\$UNPATCHABLE_DB_TARGETS</li> </ul>
		<p><b>Licensed Repository Views – Oracle Home Patching Views:</b></p> <p>The following Oracle home patching views within the repository schema are licensed under Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• MGMT\$APPLIED_PATCHES</li> <li>• MGMT\$APPLIED_PATCHSETS</li> <li>• MGMT\$APPL_PATCH_AND_PATCHSET</li> <li>• MGMT\$CPF_ADVISORY_INFO</li> <li>• MGMT\$CPF_HOMES_INFO</li> <li>• MGMT\$CPF_PATCH_INFO</li> <li>• MGMT\$EM_HOMES_PLATFORM</li> <li>• MGMT\$HOMES_AFFECTED</li> <li>• MGMT\$OH_CLONE_PROPERTIES</li> <li>• MGMT\$OH_COMP_DEP_RULE</li> <li>• MGMT\$OH_COMP_INST_TYPE</li> <li>• MGMT\$OH_COMPONENT</li> <li>• MGMT\$OH_CRS_NODES</li> <li>• MGMT\$OH_DEP_HOMES</li> <li>• MGMT\$OH_FILE</li> <li>• MGMT\$OH_HOME_INFO</li> <li>• MGMT\$OH_INSTALLED_TARGETS</li> <li>• MGMT\$OH_INV_SUMMARY</li> <li>• MGMT\$OH_PATCH</li> <li>• MGMT\$OH_PATCHED_COMPONENT</li> <li>• MGMT\$OH_PATCHED_FILE</li> <li>• MGMT\$OH_PATCH_FIXED_BUG</li> <li>• MGMT\$OH_PATCHSET</li> <li>• MGMT\$OH_VERSIONED_PATCHV</li> <li>• MGMT\$PATCH_ADVISORIES</li> </ul> <p><b>Licensed Repository Views – Security Views:</b></p> <p>The following security views within the repository schema are licensed under Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• MGMT\$ESA_ALL_PRIVS_REPORT</li> <li>• MGMT\$ESA_ANY_DICT_REPORT</li> <li>• MGMT\$ESA_ANY_PRIV_REPORT</li> <li>• MGMT\$ESA_AUDIT_SYSTEM_REPORT</li> <li>• MGMT\$ESA_BECOME_USER_REPORT</li> <li>• MGMT\$ESA_CATALOG_REPORT</li> <li>• MGMT\$ESA_CONN_PRIV_REPORT</li> <li>• MGMT\$ESA_CREATE_PRIV_REPORT</li> <li>• MGMT\$ESA_DBA_GROUP_REPORT</li> <li>• MGMT\$ESA_DBA_ROLE_REPORT</li> </ul>



**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>• MGMT\$ESA_DIRECT_PRIV_REPORT</li> <li>• MGMT\$ESA_EXMPT_ACCESS_REPORT</li> <li>• MGMT\$ESA_KEY_OBJECTS_REPORT</li> <li>• MGMT\$ESA_OH_OWNERSHIP_REPORT</li> <li>• MGMT\$ESA_OH_PERMISSION_REPORT</li> <li>• MGMT\$ESA_POWER_PRIV_REPORT</li> <li>• MGMT\$ESA_PUB_PRIV_REPORT</li> <li>• MGMT\$ESA_SYS_PUB_PKG_REPORT</li> <li>• MGMT\$ESA_TABSP_OWNERS_REPORT</li> <li>• MGMT\$ESA_TRC_AUD_PERM_REPORT</li> <li>• MGMT\$ESA_WITH_ADMIN_REPORT</li> <li>• MGMT\$ESA_WITH_GRANT_REPORT</li> </ul> <p><b>Licensed Repository Views – Client Configuration Views:</b> The following client configuration views within the repository schema are licensed under Oracle Database Lifecycle Management Pack for Oracle Database:</p> <ul style="list-style-type: none"> <li>• MGMT\$CSA_COLLECTIONS</li> <li>• MGMT\$CSA_FAILED</li> <li>• MGMT\$CSA_HOST_COOKIES</li> <li>• MGMT\$CSA_HOST_CPUS</li> <li>• MGMT\$CSA_HOST_CUSTOM</li> <li>• MGMT\$CSA_HOST_IOCARDS</li> <li>• MGMT\$CSA_HOST_NICS</li> <li>• MGMT\$CSA_HOST_OS_COMPONENTS</li> <li>• MGMT\$CSA_HOST_OS_FILESYSTEMS</li> <li>• MGMT\$CSA_HOST_OS_PROPERTIES</li> <li>• MGMT\$CSA_HOST_RULES</li> <li>• MGMT\$CSA_HOST_SW</li> <li>• MGMT\$ECM_CONFIG_HISTORY</li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
Oracle Diagnostics Pack	<p>Extra cost pack: <b>EE, EE-Exa</b></p> <p>Included pack: <b>BaseDB EE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b></p>	<p><b>Features:</b></p> <p>Oracle Diagnostics Pack includes the following features:</p> <ul style="list-style-type: none"> <li>• Performance monitoring and diagnostics (database and host)</li> <li>• Automatic Workload Repository (AWR)</li> <li>• AWR Warehouse</li> <li>• Automatic Database Diagnostic Monitor (ADDM)</li> <li>• Compare Period ADDM</li> <li>• Real Time ADDM</li> <li>• Active Session History (ASH)</li> <li>• ASH analytics</li> <li>• Performance Hub</li> <li>• Top Activity Lite</li> <li>• Exadata Cell Grid Administration</li> <li>• Exadata Cell Grid Performance</li> <li>• Exadata Cell Group Health Overview page</li> <li>• Exadata Resource Utilization</li> <li>• Blackouts</li> <li>• Notifications</li> <li>• Metric and Alert/Event history</li> <li>• User-Defined Metrics and Metric Extensions</li> <li>• Management Connectors</li> <li>• Dynamic metric baselines and Adaptive metric thresholds</li> <li>• Monitoring templates and Template Collections</li> <li>• Replay Compare Period Report</li> <li>• Supporting functionality to perform per stream bottleneck detection and per component top wait event analysis</li> </ul> <p>In order to use the features listed above, you must purchase licenses for Oracle Diagnostics Pack. A new initialization parameter, <code>CONTROL_MANAGEMENT_PACK_ACCESS</code>, controls access to Oracle Diagnostics Pack and Oracle Tuning Pack. This parameter can be set to one of three values:</p> <ul style="list-style-type: none"> <li>• <code>DIAGNOSTIC+TUNING</code>: Oracle Diagnostics Pack and Oracle Tuning Pack functionally is enabled in the database server.</li> <li>• <code>DIAGNOSTIC</code>: Only Oracle Diagnostics Pack functionality is enabled in the server.</li> <li>• <code>NONE</code>: Oracle Diagnostics Pack and Oracle Tuning Pack functionally is disabled in the database server.</li> </ul> <p>Any and all methods of accessing Oracle Diagnostics Pack functionality, whether through Enterprise Manager Console, Desktop Widgets, command-line APIs, or direct access to the underlying data, requires an Oracle Diagnostics Pack license.</p> <p><b>Licensed Links:</b></p> <p>To determine which links in Enterprise Manager are part of Oracle Diagnostics Pack, click the <b>Setup</b> link on the top right-hand part of the Enterprise Manager Home page.</p> <ul style="list-style-type: none"> <li>• When you click the <b>Setup</b> link, the navigation bar contains the <b>Management Pack Access</b> link. Click this link.</li> <li>• This will take you to the <b>Management Pack Access</b> page, which allows you to grant and remove access from all the management packs.</li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>– For Enterprise Manager Database Control, click the <b>Remove Access</b> radio button for the Diagnostics Pack and click <b>Apply</b>.</li> <li>– For Enterprise Manager Cloud Control, click the appropriate check box for the Diagnostics Pack and click <b>Apply</b>.</li> </ul> <p>This procedure disables all the links and tabs associated with Oracle Diagnostics Pack in Enterprise Manager. All the disabled links and tabs are part of Oracle Diagnostics Pack and therefore require a pack license.</p> <p><b>Licensed Command-Line APIs:</b></p> <p>Oracle Diagnostics Pack features can also be accessed by way of database server APIs and command-line interfaces:</p> <ul style="list-style-type: none"> <li>• The DBMS_ADDM, DBMS_PERF, DBMS_UMF, and DBMS_WORKLOAD_REPOSITORY packages are part of this pack.</li> <li>• The DBMS_ADVISOR package is part of this pack if you specify ADDM as the value of the advisor_name parameter, or if you specify for the value of the task_name parameter any value starting with the ADDM prefix.</li> <li>• The DBMS_WORKLOAD_REPLAY.COMPARE_PERIOD_REPORT function is part of this pack.</li> <li>• The V\$ACTIVE_SESSION_HISTORY dynamic performance view and its underlying table, X\$ASH, are part of this pack.</li> <li>• The DBA_STREAMS_TP_PATH_BOTTLENECK view is part of this pack.</li> <li>• All views beginning with DBA_ADDM_ are part of this pack.</li> <li>• Some data in DBA_STREAMS_TP_COMPONENT_STAT requires Oracle Diagnostics Pack. The following filter clause to any query on DBA_STREAMS_TP_COMPONENT_STAT shows Diagnostics-Pack-dependent data:</li> </ul> <pre>where STATISTIC_UNIT = 'PERCENT'</pre> <p>For example, the following query shows Diagnostics-Pack-dependent data only:</p> <pre>SELECT * FROM DBA_STREAMS_TP_COMPONENT_STAT where STATISTIC_UNIT = 'PERCENT';</pre> <ul style="list-style-type: none"> <li>• All data dictionary views beginning with the prefix DBA_HIST_ are part of this pack, along with their underlying tables. The only exception are the views: DBA_HIST_SNAPSHOT, DBA_HIST_DATABASE_INSTANCE, DBA_HIST_SNAP_ERROR, DBA_HIST_SEG_STAT, DBA_HIST_SEG_STAT_OBJ, and DBA_HIST_UNDOSTAT. They can be used without the Oracle Diagnostics Pack license.</li> <li>• All data dictionary views with the prefix DBA_ADVISOR_ are part of this pack if queries to these views return rows with the value ADDM in the ADVISOR_NAME column or a value of ADDM* in the TASK_NAME column or the corresponding TASK_ID.</li> <li>• The following reports found in the /rdbms/admin/ directory of the Oracle home directory are part of this pack: awrrpt.sql, awrrpti.sql, awrgdrpt.sql, awrgdrpi.sql, addmrpt.sql, addmrpti.sql, ashrpt.sql, ashrpti.sql, awrddrpt.sql, awrddrpi.sql, awrsqrpt.sql, awrsqrpti.sql, awrextr.sql, awrload.sql, awrinfo.sql, spawrio.sql, and spawrrac.sql.</li> </ul> <p><b>Licensed Repository Views – Monitoring Views:</b></p>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<p>The following monitoring views are licensed under Oracle Diagnostics Pack:</p> <ul style="list-style-type: none"> <li>• MGMT\$ALERT_ANNOTATIONS</li> <li>• MGMT\$ALERT_CURRENT</li> <li>• MGMT\$ALERT_HISTORY</li> <li>• MGMT\$ALERT_NOTIF_LOG</li> <li>• MGMT\$AVAILABILITY_CURRENT</li> <li>• MGMT\$AVAILABILITY_HISTORY</li> <li>• MGMT\$BLACKOUT_HISTORY</li> <li>• MGMT\$BLACKOUTS</li> <li>• MGMT\$METRIC_COLLECTIONS</li> <li>• MGMT\$ALERT_CURRENT</li> <li>• MGMT\$METRIC_DAILY</li> <li>• MGMT\$METRIC_DETAILS</li> <li>• MGMT\$METRIC_HOURLY</li> <li>• MGMT\$TARGET_METRIC_COLLECTIONS</li> <li>• MGMT\$TARGET_METRIC_SETTINGS</li> </ul> <p><b>Licensed Repository Views – Template Views:</b></p> <p>The following template views are licensed under Oracle Diagnostics Pack:</p> <ul style="list-style-type: none"> <li>• MGMT\$TEMPLATES</li> <li>• MGMT\$TEMPLATE_METRIC_COLLECTION</li> <li>• MGMT\$TEMPLATE_METRIC_SETTINGS</li> <li>• MGMT\$TEMPLATE_POLICY_SETTINGS</li> </ul> <p><b>Additional Licensing Information:</b></p> <ul style="list-style-type: none"> <li>• The use of Top Activity Lite in Enterprise Manager requires an Oracle Diagnostics Pack license.</li> <li>• The use of Top Activity Lite in OCI Database Management Service requires both an Oracle Diagnostics Pack license and an <a href="#">OCI Database Management Service subscription – Full Management</a>.</li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
Oracle Tuning Pack	<p>Extra cost pack: <b>EE, EE-Exa</b></p> <p>Included pack: <b>BaseDB EE, BaseDB EE-HP, BaseDB EE-EP, ExaCS/CC</b></p>	<p><b>Features:</b></p> <p>Oracle Tuning Pack includes the following features:</p> <ul style="list-style-type: none"> <li>• SQL Access Advisor</li> <li>• SQL Tuning Advisor</li> <li>• Oracle Database In-Memory Advisor</li> <li>• Automatic SQL Tuning</li> <li>• SQL Profiles</li> <li>• Real-time SQL and PL/SQL Monitoring</li> <li>• Real-time Database Operations Monitoring</li> <li>• Reorganize objects</li> </ul> <p>A new initialization parameter, <code>CONTROL_MANAGEMENT_PACK_ACCESS</code>, is introduced to control access to Oracle Diagnostics Pack and Oracle Tuning Pack in the database server. This parameter can be set to one of three values:</p> <ul style="list-style-type: none"> <li>• <code>DIAGNOSTIC+TUNING</code>: Oracle Diagnostics Pack and Oracle Tuning Pack functionally is enabled in the database server.</li> <li>• <code>DIAGNOSTIC</code>: Only Oracle Diagnostics Pack functionality is enabled in the server.</li> <li>• <code>NONE</code>: Oracle Diagnostics Pack and Oracle Tuning Pack functionally is disabled in the database server.</li> </ul> <p>Any and all methods of accessing Oracle Tuning Pack functionality, whether through Enterprise Manager Console, Desktop Widgets, command-line APIs, or direct access to the underlying data, requires an Oracle Tuning Pack license.</p> <p><b>Prerequisites:</b></p> <p>Oracle Tuning Pack requires Oracle Diagnostics Pack.</p> <p><b>Licensed Links:</b></p> <p>To determine which links in Enterprise Manager are part of Oracle Tuning Pack, click the <b>Setup</b> link on the top right-hand part of the Enterprise Manager Home page.</p> <ul style="list-style-type: none"> <li>• When you click the <b>Setup</b> link, the navigation bar contains the <b>Management Pack Access</b> link. Click this link.</li> <li>• This will take you to the Management Pack Access page, which allows you to grant and remove access from all the management packs. <ul style="list-style-type: none"> <li>– For Enterprise Manager Database Control, click the <b>Remove Access</b> radio button for the Tuning Pack and click <b>Apply</b>.</li> <li>– For Enterprise Manager Cloud Control, click the appropriate check box for the Tuning Pack and click <b>Apply</b>.</li> </ul> </li> </ul> <p>This procedure disables all the links and tabs associated with Oracle Tuning Pack in Enterprise Manager. All the disabled links and tabs are part of Oracle Tuning Pack and therefore require a pack license.</p> <p><b>Licensed Command Line APIs:</b></p> <p>Oracle Tuning Pack features can also be accessed by way of database server APIs and command-line interfaces:</p> <ul style="list-style-type: none"> <li>• <code>DBMS_ADVISOR</code>, when the value of the <code>advisor_name</code> parameter is either <code>SQL Tuning Advisor</code> or <code>SQL Access Advisor</code>.</li> <li>• <code>DBMS_AUTO_SQLTUNE</code></li> <li>• <code>DBMS_PERF</code></li> <li>• <code>DBMS_SQL_MONITOR</code></li> </ul>

**Table 1-15 (Cont.) Oracle Management Packs and Their Permitted Features**

Management Pack	Availability	Included Features
		<ul style="list-style-type: none"> <li>DBMS_SQLTUNE (See Note)</li> <li>V\$SQL_MONITOR</li> <li>V\$SQL_PLAN_MONITOR</li> <li>The following report found in the <code>/rdbms/admin/</code> directory of the Oracle home directory is part of this pack: <code>sqltrpt.sql</code>.</li> </ul> <p><b>Note:</b> If you are licensed for the on-premises Oracle Database Enterprise Edition, then you can use certain subprograms of the <code>DBMS_SQLTUNE</code> package even if you do not have an Oracle Tuning Pack license. See the SQL Tuning Sets entry in <a href="#">Table 1-6</a> for more information.</p>

## 1.2.5 Checking for Feature, Option, and Management Pack Usage

Oracle provides the script `options_packs_usage_statistics.sql`, which enables you to check feature usage, Oracle Database option usage, and Oracle management pack usage on your database. This script lists, in two distinct sections:

- Oracle Database option and Oracle management pack usage
- Features used by each option and management pack

You can obtain the script from My Oracle Support as follows:

1. Use a Web browser to view the My Oracle Support Web site:

<https://support.oracle.com>

2. Log in to My Oracle Support.

If you are not a My Oracle Support registered user, then click **Register** and follow the registration instructions.

3. Search for Document ID 1317265.1, or access it directly with the following URL:

<https://support.oracle.com/rs?type=doc&id=1317265.1>

You can manually run the script on an individual database or use Oracle Enterprise Manager Job System to automatically run the script on multiple databases. Refer to *Oracle Enterprise Manager Cloud Control Administrator's Guide* for information on Oracle Enterprise Manager Job System.

### Note:

The information obtained from this script will provide you an overview of the licensable Oracle Database options and Oracle management packs that were identified as used by your organization. This is to be used for informational purposes only and this does not represent your license entitlement or requirement. Please contact the License Management Services representative at <http://www.oracle.com/us/corporate/license-management-services/index.html> to understand your license requirements.

## 1.3 Special License Rights

**Table 1-16 Special License Rights**

Feature / Option	Licensing Information
Data Guard Far Sync	The far sync instance can be installed and used on a server different from the server where the Oracle Database is installed and used. It is not necessary to obtain a separate license for the server running the far sync instance.
Enterprise User Security	If you wish to use Enterprise User Security in Oracle Database Enterprise Edition, you no longer need to license the Oracle Advanced Security option for Kerberos and PKI based authentication. It does require a corresponding Oracle Identity Management Directory Services Plus to be licensed. Any Oracle Advanced Security licenses purchased on or before January 31, 2004, have restricted use of the Oracle Internet Directory (OID) component of Oracle Directory Services Plus to support Enterprise User Security.
Global Data Services	The GSM listener can be installed and used on a server different from the server where the Oracle Database is installed and used. It is not necessary to obtain a separate license for the server running the GSM listener.
Infrastructure repository databases	<p>A separate single instance Oracle Database can be installed and used as an infrastructure repository for RMAN, Oracle Enterprise Manager Cloud Control, Automatic Workload Repository (AWR) Warehouse, Global Data Services Catalog, Sharding Catalog, and Grid Infrastructure Management Repository without additional license requirements, provided that all the targets are correctly licensed. It may not be used or deployed for other uses.</p> <p>The infrastructure repositories for RMAN, Oracle Enterprise Manager Cloud Control, AWR Warehouse, Global Data Services Catalog, and Sharding Catalog can be shared in one database, or deployed in separate databases. Enterprise Edition must be used for the infrastructure repository database(s).</p> <p>If Oracle RAC is used for the infrastructure database, then Oracle RAC licenses for all servers, and Enterprise Edition licenses for all but the first server, are required.</p> <p>If Data Guard is used for the infrastructure database for RMAN, Oracle Enterprise Manager Cloud Control, AWR Warehouse, Global Data Services, and Grid infrastructure management Repository, then an Enterprise Edition license for the standby server is required. The Infrastructure Database for the Sharding Catalog can be protected with Data Guard without a second Enterprise Edition license.</p>
Oracle ASM Cluster File System (Oracle ACFS)	<p>When used with non-Oracle Database files, all Oracle ACFS features are free.</p> <p>When used with Oracle Database files, all Oracle ACFS features are free, with the following exceptions:</p> <ul style="list-style-type: none"> <li>• ACFS Auditing - Not available (use Oracle Audit Vault*)</li> <li>• ACFS Compression - Not available (use Oracle Advanced Compression*)</li> <li>• ACFS Encryption - Not available (use Oracle Transparent Data Encryption (TDE), part of the Oracle Advanced Security option*)</li> <li>• ACFS Security - Not available (use Oracle Database Vault*)</li> </ul> <p>* Requires appropriate full-use licenses to these products or components.</p> <p>Oracle will provide support services for Oracle ACFS only if the server it operates on also operates an Oracle product, which may include Oracle Linux or Oracle Solaris, which is under an Oracle support contract.</p>
Oracle Automatic Storage Management (Oracle ASM)	Oracle ASM is free to use with all Oracle databases and Oracle ACFS file systems.

**Table 1-16 (Cont.) Special License Rights**

Feature / Option	Licensing Information
Oracle Clusterware	Oracle Clusterware provides cluster membership and high availability monitoring and failover. Oracle Clusterware may be used to protect any application (restarting or failing over the application in the event of a failure) on any server, free of charge. Oracle will provide support for Clusterware only if the server is running an Oracle product that is under a valid Oracle support contract. Examples of such products include, but are not limited to, Oracle Linux, Oracle Solaris, Oracle Database, and Oracle Fusion Middleware.
Oracle Connection Manager	Oracle Connection Manager can be installed and used on a machine different from the machine where the Oracle Database is installed and used. It is not necessary to obtain a separate license for the machine running Oracle Connection Manager.
Oracle Data Guard broker	You can install the broker command line interface DGMGRL and run the observer software on computer systems that are separate from the Oracle Data Guard primary and standby systems. It is not necessary to obtain a separate license for a system hosting the observer.
Oracle Database Backup Cloud Service	<p>Oracle Database Backup Cloud Service includes use of the following two features from the Oracle Advanced Security option or the Oracle Advanced Compression option at no additional cost:</p> <ul style="list-style-type: none"> <li>• RMAN backup encryption</li> <li>• All RMAN backup compression algorithms</li> </ul> <p>To use additional features of the Oracle Advanced Security option or the Oracle Advanced Compression option, you must license those options separately. In addition, the Oracle Advanced Security option must be separately licensed when performing RMAN encrypted backups directly to disk.</p>
Oracle Database Gateway for ODBC	Oracle Database Gateway for ODBC can be installed and used on a machine different from the machine where the Oracle Database is installed and used. It is not necessary to obtain a separate license for the machine running Oracle Gateway for ODBC.
Oracle Database Provider for DRDA	Oracle Database Provider for DRDA can be installed and used on a machine different from the machine where the Oracle Database is installed and used. It is not necessary to obtain a separate license for the machine running Oracle Database Provider for DRDA.
Oracle Database Vault	When Oracle Database Vault is configured and enabled, it configures and enables Oracle Label Security. Oracle Label Security is solely restricted for use by the Oracle Database Vault software. If you want to create Oracle Label Security policies, then you must purchase a full-use license for Oracle Label Security.
Oracle JDK and Oracle JRE	<p>Oracle customers of Oracle products that use the Oracle JDK or Oracle JRE are entitled, without the need to separately purchase Oracle Java SE Subscriptions, to the following:</p> <ul style="list-style-type: none"> <li>• Download and use Oracle Java SE updates, patches, and tools for use with the licensed Oracle product. Customers are only entitled to download such Java SE versions as are required by their Oracle product.</li> <li>• Install and use such Java SE updates, patches, and tools to develop or deploy an Oracle product.</li> <li>• Customers can file service requests for Java issues against an Oracle product, but not directly against Java SE.</li> <li>• Oracle JFR may be used when requested by Oracle Support for troubleshooting Oracle products on any supported Oracle product.</li> </ul>



Table 1-16 (Cont.) Special License Rights

Feature / Option	Licensing Information
Oracle Real Application Clusters (Oracle RAC)	<p>The following licensing information applies when using Oracle Real Application Clusters in a clustered server environment with Oracle Database Standard Edition 2:</p> <ul style="list-style-type: none"> <li>• You must use Oracle Clusterware. Third-party clusterware management solutions are not supported.</li> <li>• Oracle Automatic Storage Management (Oracle ASM) or Oracle ASM Cluster File System (Oracle ACFS) is required for creating and managing all Oracle database file types. Raw volumes, partitions, or third-party cluster file systems are not supported for storing Oracle database files with Oracle Database Standard Edition 2 and Oracle RAC. Refer to <i>Oracle Automatic Storage Management Administrator's Guide</i> for a comprehensive list of all database file types.</li> <li>• Oracle ACFS or a local OS file system must be used to store all non-database files. No Oracle-maintained copies of any non-database files can exist in any other locations, with the following exceptions: <ul style="list-style-type: none"> <li>– Customers who want to manually script maintenance of a standby database can create a second copy of their archive logs outside of Oracle ASM on a local file system only, designated by the <code>LOG_ARCHIVE_DEST_n</code> parameter.</li> <li>– RMAN backups of files can reside on either a local or network mounted file system.</li> </ul> </li> <li>• No other cluster software can be installed on the system, including OCFS, OCFS2, third-party clusterware, third-party cluster volume managers, and third-party cluster file systems.</li> </ul>
Oracle Real Application Testing	<p>The full functionality of Oracle Real Application Testing is available only on Oracle Database 11g Release 1 or higher. Partial functionality of Oracle Real Application Testing is available to customers wishing to upgrade from Oracle9i Database Release 2 or Oracle Database 10g.</p> <p>The functionality available on Oracle9i Database Release 2 is as follows:</p> <ul style="list-style-type: none"> <li>• <b>Database Replay:</b> Only the Workload Capture feature is supported, and the captured workload may only be replayed only on Oracle Database 11g. This feature can be used only to facilitate upgrades from Oracle 9i Database Release 2 to Oracle Database 11g or higher.</li> </ul> <p>The functionality available on Oracle Database 10g Release 2 is as follows:</p> <ul style="list-style-type: none"> <li>• <b>Database Replay:</b> Only the Workload Capture feature is supported, and the captured workload may be replayed only on Oracle Database 11g. This feature can be used only to facilitate upgrades from Oracle Database 10g Release 2 to Oracle Database 11g.</li> <li>• <b>SQL Performance Analyzer:</b> Only the Remote SQL Test Execute and SQL Capture into SQL Tuning Set features are supported. These features can be used only to facilitate upgrades from Oracle9i Database Release 2 and Oracle Database 10g Release 1 to Oracle Database 10g Release 2 or higher. When upgrading to Oracle Database 10g Release 2 from earlier releases (Oracle 9i Database or Oracle Database 10g Release 1), Oracle Database 11g is needed to remotely execute SQL on the target database (that is, Oracle Database 10g Release 2). Oracle Real Application Testing licensing is required for both systems, Oracle Database 10g Release 2 and Oracle Database 11g.</li> </ul>

Table 1-16 (Cont.) Special License Rights

Feature / Option	Licensing Information
Oracle Secure Backup Oracle Secure Backup Cloud Module	<p>For backup of Oracle Database Enterprise Edition, Oracle Secure Backup includes restricted use licenses for:</p> <ul style="list-style-type: none"> <li>• RMAN backup encryption to tape or Amazon S3</li> <li>• RMAN backup compression leveraging LOW, MEDIUM, BASIC or HIGH algorithms</li> </ul> <p>The Oracle Secure Backup special-use licenses apply to RMAN backup encryption, which is a component of the Oracle Advanced Security option, and RMAN backup compression levels, which are components of the Oracle Advanced Compression option. To use additional features of the Oracle Advanced Security option or the Oracle Advanced Compression option, you must license those options separately. In addition, the Oracle Advanced Security option must be licensed when performing RMAN encrypted backups directly to disk whether or not Oracle Secure Backup is the media manager.</p>
Oracle Secure Backup Cloud Module on ZDLRA	<p>Oracle Secure Backup Cloud Module can be used free of charge on Oracle Zero Data Loss Recovery Appliance (ZDLRA) for the sole purpose of backing up data to and restoring data from S3-compatible storage devices that are in the same campus as ZDLRA.</p> <p>This special use license does not allow you to move such data to or from Non-Oracle Public Cloud Environments, either directly or through gateway devices.</p> <p>You are allowed to move such data to and from Oracle databases that do not have ZDLRA, however, Oracle Secure Backup Cloud Module must be licensed on those Oracle databases. For example, if you use Oracle Secure Backup Cloud Module free of charge on ZDLRA to back up data to an S3-compatible storage device, you can then use Oracle Secure Backup Cloud Module to restore that data to an Oracle database without ZDLRA, but only if Oracle Secure Backup Cloud Module is licensed on that Oracle database.</p> <p>To move data to or from the Oracle Cloud Infrastructure, the ZDLRA provides an integration with the OCI Backup Cloud Module which does not require a license.</p>
Oracle Secure Backup Express	<p>Oracle Secure Backup Express is bundled with the Oracle Database. Support for Oracle Secure Backup Express is provided exclusively through a free Oracle Discussion Forum monitored by Oracle employees as well as community experts.</p> <p>Oracle Secure Backup Express can back up an Oracle database as well as Oracle home files and other file system data requiring tape protection.</p> <p>For more information, refer to <i>Oracle Secure Backup Licensing Information</i>.</p>
Oracle Wallet	<p>An Oracle Wallet is a PKCS#12 container used to store authentication and encryption keys. The Oracle database secure external password store feature stores passwords in an Oracle Wallet for password-based authentication to the Oracle database. The Oracle Wallet may also be used to store credentials for PKI authentication to the Oracle Database, configuration of network encryption (SSL/TLS), and Oracle Advanced Security transparent data encryption (TDE) master encryption keys. Network encryption (native network encryption, network data integrity, and SSL/TLS) and strong authentication services (Kerberos, PKI, and RADIUS) are no longer part of Oracle Advanced Security and are available in all licensed editions of all supported releases of Oracle Database.</p>
Shard Director	<p>The shard directors can be installed and used on a server different from the server where the Oracle Database is installed and used. It is not necessary to obtain a separate license for the server running the shard directors.</p>

**Table 1-16 (Cont.) Special License Rights**

Feature / Option	Licensing Information
XStream	XStream provides application programming interfaces (APIs) that enable client applications to receive real-time data changes from an Oracle database (using XStream Out APIs) and to send real-time data changes to an Oracle database (using XStream In APIs). These data changes can be shared between Oracle databases and other systems, such as filesystems and non-Oracle databases. XStream is licensed via the Oracle GoldenGate product. You must purchase a license for this product before using the XStream APIs. Please contact your Oracle sales representative for additional information.

## 1.4 Restricted Use Licenses

**Table 1-17 Restricted Use Licenses**

Feature / Option	Licensing Information
Oracle Advanced Compression Oracle Advanced Security	<p>Restricted use licenses for Oracle Advanced Compression and Oracle Advanced Security are granted when performing either of the following migrations:</p> <ul style="list-style-type: none"> <li>• Oracle Zero Downtime Migration</li> <li>• Oracle Cloud Infrastructure Database Migration (DMS)</li> </ul> <p>These restricted use licenses are in effect only while the migration is being performed and apply solely for the purposes of the migration operation. All other uses of Oracle Advanced Compression and Oracle Advanced Security require a license.</p>
Oracle Advanced Security	<p>Any Oracle Advanced Security licenses purchased on or before January 31, 2004, have restricted use of the Oracle Internet Directory (OID) component of Oracle Directory Services Plus to support Enterprise User Security.</p> <p>Oracle Advanced Security includes a restricted use license for the following Oracle Enterprise Manager features:</p> <ul style="list-style-type: none"> <li>• Application Data Models (previously called Data Discovery and Modeling)</li> <li>• Sensitive Column Types and Sensitive Data Discovery</li> <li>• Application Accelerators</li> </ul> <p>If you want to use the Oracle Enterprise Manager features listed above not solely for the purposes of Oracle Advanced Security, then you must purchase a full-use license for Oracle Data Masking and Subsetting Pack.</p>
Oracle Application Server Containers for J2EE	A restricted use license for Oracle Application Server Containers for J2EE (OC4J) is included with all editions (except for Oracle Database Express Edition). This embedded version is provided solely to support Oracle Enterprise Manager (Database and Cloud Control), Advanced Queuing Servlet, Ultra Search, and Application Express, and may not be used or deployed for other purposes
Oracle Applications Unlimited	An Oracle Base Database Service Enterprise Edition (BaseDB EE) instance being used to support an Oracle Cloud deployment of an Oracle Applications Unlimited application has restricted use of the following options: Oracle On-Line Analytical Processing (OLAP) and Oracle Partitioning. These options may be used only to support Oracle Applications Unlimited and may not be used or deployed for any other purpose.

Table 1-17 (Cont.) Restricted Use Licenses

Feature / Option	Licensing Information
Oracle Database Mobile Server	<p>Oracle Database Mobile Server is a powerful tool for controlling networks of mobile or embedded devices from a centralized management console. It provides a secure, scalable method for connecting applications running locally on mobile or embedded devices to an Oracle enterprise backend. The synchronization system is robust and fault tolerant. It is able to successfully synchronize over unreliable or intermittently available networks. Oracle Database Mobile Server provides management for applications, users, and devices. It runs on a variety of application server platforms, including Oracle WebLogic, Oracle Glassfish, and Apache TomEE.</p> <p>On the client device side, it is designed to work with Oracle Berkeley DB as a data store, providing efficient, reliable, and secure data management running locally on mobile and embedded devices. It is also compatible with SQLite, a widely used open source data store. Database Mobile Server supports many popular device platforms including Oracle Java, Linux, Windows (laptop as well as mobile/CE), and Android.</p>
Oracle Database Vault	<p>Oracle Database Vault includes a restricted use license for the following Oracle Enterprise Management features:</p> <ul style="list-style-type: none"> <li>• Application Data Modeling (previously called Data Discovery and Modeling)</li> <li>• Application Data Modeling accelerator for select versions of Oracle E-Business Suite</li> <li>• Application Data Modeling accelerator for select versions of Oracle Fusion Applications</li> </ul>
Oracle HTTP Server	<p>A restricted use license for Oracle HTTP Server is included with all editions (except for Oracle Database Express Edition) when the HTTP Server is running on the same server as the database. Running Oracle HTTP server on a different server requires that other server be licensed to use the HTTP server, either through an Oracle Database license or an Oracle Application Server license</p>
Oracle Internet Directory Oracle Unified Directory	<p>A restricted use license for Oracle Identity Management Directory Services Plus components Oracle Internet Directory (OID)/Oracle Unified Directory (OUD) is included with all editions (except for Oracle Database Express Edition) if users use the Directory Naming feature to configure Oracle Net Services. OID/OUD may not be used or deployed for other uses.</p>
Oracle Label Security	<p>Oracle Label Security includes a restricted use license for the following Oracle Enterprise Manager features:</p> <ul style="list-style-type: none"> <li>• Application Data Models (previously called Data Discovery and Modeling)</li> <li>• Sensitive Column Types and Sensitive Data Discovery</li> <li>• Application Accelerators</li> </ul> <p>If you want to use the Oracle Enterprise Manager features listed above not solely for the purposes of Oracle Label Security, then you must purchase a full-use license for Oracle Data Masking and Subsetting Pack.</p>
Oracle Multitenant	<p>A restricted use license is included with all Oracle Database offerings that permits you to use the container database architecture in single-tenant mode without the Oracle Multitenant option license. Single-tenant mode is defined as one user-created pluggable database, and, optionally, one user-created application root, and one user-created proxy pluggable database.</p>
Oracle Programmer	<p>Oracle Programmer provides application programmers with a programmatic interface to any edition of Oracle Database. However, in order to use Oracle Programmer, you must purchase a separate Oracle Programmer license.</p> <p>Oracle Programmer includes the following products:</p> <ul style="list-style-type: none"> <li>• Embedded SQL-style interfaces: Pro*C/C++, Pro*COBOL, Pro*Fortran, SQL*Module for Ada, SQLJ</li> <li>• Utilities to generate host-language bindings from database schemas: Object Type Translator and JPub</li> </ul>

**Table 1-17 (Cont.) Restricted Use Licenses**

Feature / Option	Licensing Information
Oracle Real Application Testing	Restricted use licenses of Load Testing Accelerator for Oracle Database, Oracle Load Testing, and Oracle Load Testing Controller are included with Oracle Real Application Testing for use for Oracle Database testing and may not be used for application testing.
Oracle Secure Backup Express	Oracle Secure Backup Express is a centralized tape backup management solution that provides data protection for single-server Oracle Database environments. A restricted use license for Oracle Secure Backup Express is included with all Oracle Database editions. Oracle Secure Backup Express is limited to a single host with one direct-attached tape drive and has some restrictions on advanced feature usage. Refer to the <i>Oracle Secure Backup Licensing Information</i> for additional information.
Oracle Sharding	Oracle Sharding includes a restricted use license for Global Data Services. If you want to use Global Data Services not solely for the purposes of Oracle Sharding, then you must be licensed for the Oracle Active Data Guard option.
Oracle Spatial and Graph	Restricted use of Oracle Partitioning is allowed on all offerings, free of charge, for the sole purpose of supporting the following Spatial, Property Graph, and RDF Graph Technologies (RDF/OWL) features: spatial topology, property graph schema, and RDF Semantic Graph. All other uses of Oracle Partitioning require a license for the Oracle Partitioning option, where available.
Real Application Security	Restricted use of Real Application Security (RAS) is allowed on Oracle Database Standard Edition 2 (SE2) and Oracle Base Database Service Standard Edition (BaseDB SE), free of charge, for the sole purpose of using the subprograms in the DBMS_NETWORK_ACL_ADMIN package.
Recovery Manager (RMAN)	Restricted use of Oracle Partitioning is allowed on all offerings, free of charge, for the sole purpose of supporting the RMAN recovery catalog. All other uses of Oracle Partitioning require a license for the Oracle Partitioning option, where available.
Unified Audit	Restricted use of Oracle Partitioning is allowed on all offerings, free of charge, for the sole purpose of storing the unified audit trail. All other uses of Oracle Partitioning require a license for the Oracle Partitioning option, where available.

# 2

## Third-Party Notices and/or Licenses

### 2.1 Commercial Software

Commercial software products or components distributed in Oracle Database 12c Release 2 (12.2) are identified in the following table along with the applicable licensing information.

**Table 2-1 Commercial Software**

Provider	Component(s)	Licensing Information
DataDirect	DataDirect Technology	The DataDirect component provided with this Oracle Program is distributed only for use with Oracle Program.
Frederico Caldera Knabben (FredCK.com)	CKEditor	© 2003 - 2010 CKSource - Frederico Knabben. All rights reserved. This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a> .
MapInfo Corp.	Projections Code	Portions of this software Copyright 1992-2000, MapInfo Corporation, ALL RIGHTS RESERVED.
Microsoft	Microsoft Visual Studio 2010 Redistributables	Must include Oracle copyright notice in Oracle applications containing the Distributable Code. Oracle must not use Microsoft's trademarks in Oracle program names or in a way that suggests Oracle programs come from or are endorsed by Microsoft.
Microsoft	Microsoft Visual Studio 2013 Redistributables	Must include Oracle copyright notice in Oracle applications containing the Distributable Code. Oracle must not use Microsoft's trademarks in Oracle program names or in a way that suggests Oracle programs come from or are endorsed by Microsoft.
RSA	Micro Edition Suite (MES)	This product includes code licensed from RSA Data Security. See <a href="#">Figure 2-1</a> .
Sibental, Inc.	AnyChart AnyChart Flash Chart Component AnyGantt AnyMap	AnyChart Flash chart support in Oracle Application Express is based on the Anychart Flash Chart Component. Anychart is a flexible Macromedia Flash-based solution that enables developers to create animated, compact, interactive flash charts. Flash charts are rendered by a browser and require Flash player 8 or later. Flash charts used in interactive reports require Flash Player 9 or later. For more information about Anychart, go to: <a href="http://www.anychart.com">http://www.anychart.com</a> Any attempt to unbundle the AnyChart Flash Chart Component from an Oracle product, or to use the AnyChart Flash Chart Component outside of the Oracle product will be in violation of this license and will result in the immediate termination of this license.

**Figure 2-1 RSA Secure Logo**



## 2.2 Open Source or Other Separately Licensed Software

Required notices for open source or other separately licensed software products or components distributed in Oracle Database 12c Release 2 (12.2) are identified in the following table along with the applicable licensing information. Additional notices and/or licenses may be found in the included documentation or readme files of the individual third party software.

**Table 2-2 Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
ACE - Open Source Community	ACE Code Editor for the Web	<p>Copyright (c) 2010, Ajax.org B.V. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of Ajax.org B.V. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL AJAX.ORG B.V. BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
ANTLR	Antlr	<p>ANTLR 3 License [The BSD License] Copyright (c) 2003-2007, Terence Parr All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of the author nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>



**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
ANTLR	Antlr	<p>This product was build using ANTLR, which was provided to Oracle under the following terms:</p> <p>Copyright (c) 2010 Terence Parr All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of the author nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>
Adam Shaw	FullCalendar	<p>Copyright (c) 2009 Adam Shaw</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Alexander Potochkin	JXLayer	<p>Copyright (c) 2006-2009, Alexander Potochkin All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of the JXLayer project nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>
Alexis Sellier	Less.js	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Anton Scheffer	As Zip	<p>Copyright (C) 2010,2011 by Anton Scheffer</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Apache	Apache Commons Logging	<p>Copyright 2003-2007 The Apache Software Foundation</p> <p>This product includes software developed by The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Apache	Apache Commons Logging	<p>Notice:</p> <pre>// ----- // NOTICE file corresponding to the section 4d of The // Apache License, Version 2.0, in this case for // Commons Logging // -----</pre> <p>Commons Logging Copyright 2001-2007 The Apache Software Foundation This product includes/uses software(s) developed by 'an unknown organization'</p> <ul style="list-style-type: none"> <li>• Unnamed - avalon-framework:avalon-framework:jar:4.1.3</li> <li>• Unnamed - log4j:log4j:jar:1.2.12</li> <li>• Unnamed - logkit:logkit:jar:1.0.1</li> </ul> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Apache FOP	<p>Apache FOP 0.20.5 Copyright © 1999-2000, The Apache Software Foundation. All rights reserved. Licensed under the Apache 1.1 License Agreement. The names "Xerces", "Xalan", "Batik", "Jakarta", "Apache Avalon", "Avalon Excalibur", "Avalon Framework" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org. This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation and without limiting the foregoing, contains portions originally based on software copyright (c) 1999, International Business Machines, Inc., <a href="http://www.ibm.com">http://www.ibm.com</a>, portions originally based on software copyright (c) 1999, Lotus Development Corporation, <a href="http://www.lotus.com">http://www.lotus.com</a>, and portions originally created by Stefano Mazzocchi &lt;stefano@apache.org&gt;. For more information on the Apache Software Foundation, please see &lt;<a href="http://www.apache.org/">http://www.apache.org/</a>&gt;. This product is licensed under the Apache 1.1 license. See <a href="#">The Apache Software License, Version 1.1</a>.</p>
Apache	Apache Geronimo JMS 1.1 Specification	This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a> .
Apache	Apache HC Fluent	This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a> .
Apache	Apache Http Components Client	<p>Apache HttpComponents Client Copyright 1999-2013 The Apache Software Foundation This product includes software developed at The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>). This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Apache POI	For a copy of the license, see <a href="#">Apache POI License</a> .
Apache	Apache Tomcat	For a copy of the license, see <a href="#">Apache Tomcat 8.5.32 License</a> .

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Apache	Apache XMLBeans	<p>This product includes software developed by The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>Portions of this software were originally based on the following:- software copyright (c) 2000-2003, BEA Systems.</p> <p>Aside from contributions to the Apache XMLBeans project, this software also includes:</p> <ul style="list-style-type: none"> <li>• one or more source files from the Apache Xerces-J and Apache Axis products, Copyright (c) 1999-2003 Apache Software Foundation</li> <li>• W3C XML Schema documents Copyright 2001-2003 (c) World Wide Web Consortium (Massachusetts Institute of Technology, European Research Consortium for Informatics and Mathematics, Keio University)</li> <li>• resolver.jar from Apache Xml Commons project, Copyright (c) 2001-2003 Apache Software Foundation</li> <li>• Piccolo XML Parser for Java from <a href="http://piccolo.sourceforge.net/">http://piccolo.sourceforge.net/</a>, Copyright 2002 Yuval Oren under the terms of the Apache Software License 2.0</li> <li>• JSR-173 Streaming API for XML from <a href="http://sourceforge.net/projects/xmlpullparser/">http://sourceforge.net/projects/xmlpullparser/</a>, Copyright 2005 BEA under the terms of the Apache Software License 2.0</li> </ul> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Commons CLI	<p>Apache Commons CLI</p> <p>Copyright 2001-2009 The Apache Software Foundation</p> <p>This product includes software developed by The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Commons Codec	<p>Apache Commons Codec</p> <p>Copyright 2002-2013 The Apache Software Foundation</p> <p>This product includes software developed at The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p><a href="src/test/org/apache/commons/codec/language/DoubleMetaphoneTest.java">src/test/org/apache/commons/codec/language/DoubleMetaphoneTest.java</a> contains test data from <a href="http://aspell.sourceforge.net/test/batch0.tab">http://aspell.sourceforge.net/test/batch0.tab</a>.</p> <p>Copyright (C) 2002 Kevin Atkinson (<a href="mailto:kevina@gnu.org">kevina@gnu.org</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Commons Collections	<p>Apache Commons Collections</p> <p>Copyright 2001-2008 The Apache Software Foundation</p> <p>This product includes software developed by The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Commons Compress	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Commons Configuration	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Apache	Commons IO	<p>Apache Commons IO Copyright 2002-2012 The Apache Software Foundation This product includes software developed by The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Commons Math	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Groovy	<pre>===== == NOTICE file corresponding to the section 4 d == == of the Apache License, Version 2.0, in this == == case for the Groovy Language distribution. == =====</pre> <p>Groovy Language Copyright 2003-2013 The respective authors and developers Developers and Contributors are listed in the project POM file and Gradle build file This product includes software developed by The Groovy community (<a href="http://groovy.codehaus.org/">http://groovy.codehaus.org/</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	HttpComponents Core	<p>For a copy of the license, see <a href="#">HttpComponents Core License</a>.</p>
Apache	Jansi	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Apache	Jena	<p>Copyright 2011, 2012, 2013, 2014 The Apache Software Foundation This product includes software developed at The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>). Portions of this software were originally based on the following:</p> <ul style="list-style-type: none"> <li>• Copyright 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009 Hewlett-Packard Development Company, LP</li> <li>• Copyright 2010, 2011 Epimorphics Ltd.</li> <li>• Copyright 2010, 2011 Talis Systems Ltd.</li> </ul> <p>These have been licensed to the Apache Software Foundation under a software grant. This product includes software developed by PluggedIn Software under a BSD license. This product includes software developed by Mort Bay Consulting Pty. Ltd. Copyright (c) 2004-2009 Mort Bay Consulting Pty. Ltd. This product is licensed under the Apache 2.0 license. See "<a href="#">The Apache Software License, Version 2.0</a>". The following files contain code contributed by Plugged In Software: src/main/java/com/hp/hpl/jena/rdf/arp/ExtendedHandler.java src/main/java/com/hp/hpl/jena/rdf/arp/impl/XMLHandler.java src/main/java/com/hp/hpl/jena/rdf/arp/ARP.java (c) Copyright 2003, Plugged In Software All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ol style="list-style-type: none"> <li>1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>3. The name of the author may not be used to endorse or promote products derived from this software without specific prior written permission.</li> </ol> <p>THIS SOFTWARE IS PROVIDED BY THE AUTHOR "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Apache	Log4J	<p>Apache log4j Copyright 2007 The Apache Software Foundation This product includes software developed at The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Lucene Core	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Regular Expression Package	<p>Jakarta Regexp Version 1.3, Copyright © 1999-2002 The Apache Software Foundation. All rights reserved. Licensed under the Apache 1.1 License Agreement.</p> <p>The names "The Jakarta Project", "Jakarta-Regexp", and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact <a href="mailto:apache@apache.org">apache@apache.org</a>.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <a href="http://www.apache.org/">http://www.apache.org/</a>.</p> <p>This product is licensed under the Apache 1.1 license. See <a href="#">The Apache Software License, Version 1.1</a>.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Apache	Tomcat	<p>Apache Tomcat</p> <p>Copyright 1999-2016 The Apache Software Foundation</p> <p>This product includes software developed at The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>The Windows Installer is built with the Nullsoft Scriptable Install System (NSIS), which is open source software. The original software and related information is available at <a href="http://nsis.sourceforge.net">http://nsis.sourceforge.net</a>.</p> <p>Java compilation software for JSP pages is provided by the Eclipse JDT Core Batch Compiler component, which is open source software. The original software and related information is available at <a href="http://www.eclipse.org/jdt/core/">http://www.eclipse.org/jdt/core/</a>.</p> <p>For the bayeux implementation</p> <p>The org.apache.cometd.bayeux API is derivative work originating at the Dojo Foundation</p> <p>* Copyright 2007-2008 Guy Molinari</p> <p>* Copyright 2007-2008 Filip Hanik</p> <p>* Copyright 2007 Dojo Foundation</p> <p>* Copyright 2007 Mort Bay Consulting Pty. Ltd.</p> <p>The original XML Schemas for Java EE Deployment Descriptors:</p> <ul style="list-style-type: none"> <li>• javaee_5.xsd</li> <li>• javaee_web_services_1_2.xsd</li> <li>• javaee_web_services_client_1_2.xsd</li> <li>• javaee_6.xsd</li> <li>• javaee_web_services_1_3.xsd</li> <li>• javaee_web_services_client_1_3.xsd</li> <li>• jsp_2_2.xsd</li> <li>• web-app_3_0.xsd</li> <li>• web-common_3_0.xsd</li> <li>• web-fragment_3_0.xsd</li> <li>• javaee_7.xsd</li> <li>• javaee_web_services_1_4.xsd</li> <li>• javaee_web_services_client_1_4.xsd</li> <li>• jsp_2_3.xsd</li> <li>• web-app_3_1.xsd</li> <li>• web-common_3_1.xsd</li> <li>• web-fragment_3_1.xsd</li> </ul> <p>may be obtained from:</p> <p><a href="http://www.oracle.com/webfolder/technetwork/jsc/xml/ns/javaee/index.html">http://www.oracle.com/webfolder/technetwork/jsc/xml/ns/javaee/index.html</a></p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>



**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Apache	Xerces	<p>Copyright 1999-2007 The Apache Software Foundation</p> <p>This product includes software developed at The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>Portions of this software were originally based on the following:</p> <ul style="list-style-type: none"> <li>• software copyright (c) 1999, IBM Corporation., <a href="http://www.ibm.com">http://www.ibm.com</a>.</li> <li>• software copyright (c) 1999, Sun Microsystems., <a href="http://www.sun.com">http://www.sun.com</a>.</li> <li>• voluntary contributions made by Paul Eng on behalf of the Apache Software Foundation that were originally developed at iClick, Inc., software copyright (c) 1999.</li> </ul> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Xerces Java	<p>Apache Xerces Java</p> <p>Copyright 1999-2010 The Apache Software Foundation</p> <p>This product includes software developed at The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>Portions of this software were originally based on the following:</p> <ul style="list-style-type: none"> <li>• software copyright (c) 1999, IBM Corporation., <a href="http://www.ibm.com">http://www.ibm.com</a>.</li> <li>• software copyright (c) 1999, Sun Microsystems., <a href="http://www.sun.com">http://www.sun.com</a>.</li> <li>• voluntary contributions made by Paul Eng on behalf of the Apache Software Foundation that were originally developed at iClick, Inc., software copyright (c) 1999.</li> </ul> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	Xerces2	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	commons-cli	<p>commons-cli Copyright (c) 1999-2001</p> <p>The Apache Software Foundation.</p> <p>All rights reserved.</p> <p>Licensed under the Apache 1.1 License Agreement.</p> <p>The names "The Jakarta Project", "Commons" and "Apache Software Foundation" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact <a href="mailto:apache@apache.org">apache@apache.org</a>. This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <a href="http://www.apache.org/">http://www.apache.org/</a></p> <p>This product is licensed under the Apache 1.1 license. See <a href="#">The Apache Software License, Version 1.1</a>.</p>
Apache	commons-digester	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	commons-io	<p>Apache Commons IO</p> <p>Copyright 2002-2011 The Apache Software Foundation</p> <p>This product includes software developed by The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	commons-io-1.2.jar	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Apache	commons-lang	<p>Apache Commons Lang Copyright 2001-2010 The Apache Software Foundation This product includes software developed by The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	commons-lang-2.1.jar	<p>This product includes software developed by The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>)</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	commons-lang3	<p>Apache Commons Lang Copyright 2001-2011 The Apache Software Foundation This product includes software developed by The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>This product includes software from the Spring Framework, under the Apache License 2.0 (see: <code>StringUtils.containsWhitespace()</code>)</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	commons-logging	<p>Apache Commons Logging Copyright 2003-2014 The Apache Software Foundation This product includes software developed at The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	commons-logging-api	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	lucene-core	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apache	xml-commons	<p>Apache XML Commons XML APIs Copyright 1999-2009 The Apache Software Foundation. This product includes software developed at The Apache Software Foundation (<a href="http://www.apache.org/">http://www.apache.org/</a>).</p> <p>Portions of this software were originally based on the following:</p> <ul style="list-style-type: none"> <li>• software copyright (c) 1999, IBM Corporation., <a href="http://www.ibm.com">http://www.ibm.com</a>.</li> <li>• software copyright (c) 1999, Sun Microsystems., <a href="http://www.sun.com">http://www.sun.com</a>.</li> <li>• software copyright (c) 2000 World Wide Web Consortium, <a href="http://www.w3.org">http://www.w3.org</a></li> </ul> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>

Table 2-2 (Cont.) Open Source or Other Separately Licensed Software

Provider	Component(s)	Licensing Information
Apple Computer	Apple MDNS (Bonjour)	<p>Apple MDNS (Bonjour) Copyright (c) 2002-2004 Apple Computer, Inc. All rights reserved.</p> <p>Licensed under the Apache License, Version 2.0 (the "License")</p> <p>To accommodate license compatibility with the widest possible range of client code licenses, the shared library code, which is linked at runtime into the same address space as the client using it, is licensed under the terms of the "Three-Clause BSD License".</p> <p>The Linux Name Service Switch code, contributed by National ICT Australia Ltd (NICTA) is licensed under the terms of the NICTA Public Software Licence (which is substantially similar to the "Three-Clause BSD License", with some additional language pertaining to Australian law).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Apple Computer	Apple MDNS (Bonjour)	<p>Apple MDNS (Bonjour) Copyright (c) 2002-2013 Apple Computer, Inc. All rights reserved.</p> <p>Licensed under the Apache License, Version 2.0 (the "License")</p> <p>To accommodate license compatibility with the widest possible range of client code licenses, the shared library code, which is linked at runtime into the same address space as the client using it, is licensed under the terms of the "Three-Clause BSD License".</p> <p>The Linux Name Service Switch code, contributed by National ICT Australia Ltd (NICTA) is licensed under the terms of the NICTA Public Software Licence (which is substantially similar to the "Three-Clause BSD License", with some additional language pertaining to Australian law).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
CPAN	Perl Interpreter	For a copy of the license, see <a href="#">Perl Interpreter License</a> .
Codehaus	Jackson	<p>Jackson is available under the Apache License, Version 2.0.</p> <p>See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Codehaus	Jettison	<p>Copyright 2006 Envoi Solutions LLC.</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Craig Michael Thompson	qTip	<p>qTip2 - Pretty powerful tooltips, Version: nightly Copyright 2009-2011 Craig Michael Thompson</p> <p>Dual licensed under MIT or GPLv2 licenses</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
David Furfero	jQuery UI Touch Punch	<p>This has dual license</p> <p>URLs: <a href="http://touchpunch.furf.com/mit.txt">http://touchpunch.furf.com/mit.txt</a>  <a href="http://touchpunch.furf.com/gpl.txt">http://touchpunch.furf.com/gpl.txt</a></p> <p>Oracle chooses the MIT License:</p> <p>Copyright 2013 jQuery Foundation and other contributors  <a href="http://jquery.com/">http://jquery.com/</a></p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Dmitry Baranovskiy	Raphael JavaScript Library	<p>Copyright © 2008 Dmitry Baranovskiy</p> <p>Copyright (c) 2013 Adobe Systems Incorporated. All rights reserved. The license is still MIT.</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Flot	Flot	<p>Copyright © 2007 - 2013 IOLA and Ole Laursen</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
FreeBSD	MD5_Crypt	<p>* "THE BEER-WARE LICENSE" (Revision 42):</p> <p>&lt;phk@login.dknet.dk&gt; wrote this file. As long as you retain this notice you can do whatever you want with this stuff. If we meet some day, and you think this stuff is worth it, you can buy me a beer in return. Poul-Henning Kamp</p>
Geonames.org	GeoNames Data	For a copy of the license, see <a href="#">GeoNames Data License</a> .
GitHub	Font Awesome	For a copy of the license, see <a href="#">Font Awesome License</a> .

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
GitHub	flot-axislabels	<p>Axis Labels Plugin for flot.</p> <p><a href="http://github.com/markrcote/flot-axislabels">http://github.com/markrcote/flot-axislabels</a></p> <p>Original code is Copyright (c) 2010 Xuan Luo.</p> <p>Original code was released under the GPLv3 license by Xuan Luo, September 2010.</p> <p>Original code was rereleased under the MIT license by Xuan Luo, April 2012.</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE. */</p>
GitHub	grunticon	<p>Copyright (c) 2012 Scott Jehl</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
GitHub	handlebars.js	<p><a href="https://github.com/wycats/handlebars.js/blob/master/LICENSE">https://github.com/wycats/handlebars.js/blob/master/LICENSE</a></p> <p>Copyright (C) 2011-2014 by Yehuda Katz</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
GitHub	jQuery-mobile-nestedlists	<p><a href="https://github.com/arschmitz/jquery-mobile-nestedlists/blob/master/LICENSE">https://github.com/arschmitz/jquery-mobile-nestedlists/blob/master/LICENSE</a></p> <p>The MIT License (MIT)</p> <p>Copyright (c) 2013 Alexander Schmitz</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Google	GSON Google Guava R-11 Google Guice	<p>These products are licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Google	GoogleMaps API Code Samples	<p>Portions of this code include modifications based on work created and shared by Google and used according to terms described in the Apache 2.0 license. See <a href="https://developers.google.com/maps/documentation/javascript/examples/">https://developers.google.com/maps/documentation/javascript/examples/</a>.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Google	Protocol Buffers (aka Google protobuf)	<p>Copyright 2008, Google Inc. All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of Google Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>
Igor Vaynberg	Select2	<p>Copyright 2012 Igor Vaynberg Version: @@ver@@ Timestamp: @@timestamp@@</p> <p>This software is licensed under the Apache License, Version 2.0 (the "Apache License") or the GNU General Public License version 2 (the "GPL License"). You may choose either license to govern your use of this software only upon the condition that you accept all of the terms of either the Apache License or the GPL License.</p> <p>You may obtain a copy of the Apache License and the GPL License at: <a href="http://www.apache.org/licenses/LICENSE-2.0">http://www.apache.org/licenses/LICENSE-2.0</a> <a href="http://www.gnu.org/licenses/gpl-2.0.html">http://www.gnu.org/licenses/gpl-2.0.html</a></p> <p>Unless required by applicable law or agreed to in writing, software distributed under the Apache License or the GPL License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the Apache License and the GPL License for the specific language governing permissions and limitations under the Apache License and the GPL License.</p>



**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Infozip	unzip zip	<p>Copyright (c) 1990-2007 Info-ZIP. All rights reserved.</p> <p>For the purposes of this copyright and license, "Info-ZIP" is defined as the following set of individuals:</p> <p>Mark Adler, John Bush, Karl Davis, Harald Denker, Jean-Michel Dubois, Jean-loup Gailly, Hunter Goatley, Ed Gordon, Ian Gorman, Chris Herborth, Dirk Haase, Greg Hartwig, Robert Heath, Jonathan Hudson, Paul Kienitz, David Kirschbaum, Johnny Lee, Onno van der Linden, Igor Mandrichenko, Steve P. Miller, Sergio Monesi, Keith Owens, George Petrov, Greg Roelofs, Kai Uwe Rommel, Steve Salisbury, Dave Smith, Steven M. Schweda, Christian Spieler, Cosmin Truta, Antoine Verheijen, Paul von Behren, Rich Wales, Mike White.</p> <p>This software is provided "as is," without warranty of any kind, express or implied. In no event shall Info-ZIP or its contributors be held liable for any direct, indirect, incidental, special or consequential damages arising out of the use of or inability to use this software.</p> <p>Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the above disclaimer and the following restrictions:</p> <ol style="list-style-type: none"> <li>1. Redistributions of source code (in whole or in part) must retain the above copyright notice, definition, disclaimer, and this list of conditions.</li> <li>2. Redistributions in binary form (compiled executables and libraries) must reproduce the above copyright notice, definition, disclaimer, and this list of conditions in documentation and/or other materials provided with the distribution. The sole exception to this condition is redistribution of a standard UnZipSFX binary (including SFXWiz) as part of a self-extracting archive; that is permitted without inclusion of this license, as long as the normal SFX banner has not been removed from the binary or disabled.</li> <li>3. Altered versions--including, but not limited to, ports to new operating systems, existing ports with new graphical interfaces, versions with modified or added functionality, and dynamic, shared, or static library versions not from Info-ZIP--must be plainly marked as such and must not be misrepresented as being the original source or, if binaries, compiled from the original source. Such altered versions also must not be misrepresented as being Info-ZIP releases--including, but not limited to, labeling of the altered versions with the names "Info-ZIP" (or any variation thereof, including, but not limited to, different capitalizations), "Pocket UnZip," "WiZ" or "MacZip" without the explicit permission of Info-ZIP. Such altered versions are further prohibited from misrepresentative use of the Zip-Bugs or Info-ZIP e-mail addresses or the Info-ZIP URL(s), such as to imply Info-ZIP will provide support for the altered versions.</li> <li>4. Info-ZIP retains the right to use the names "Info-ZIP," "Zip," "UnZip," "UnZipSFX," "WiZ," "Pocket UnZip," "Pocket Zip," and "MacZip" for its own source and binary releases.</li> </ol>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
JCraft	JSch	<p>Copyright (c) 2002-2010 Atsuhiko Yamanaka, JCraft, Inc. All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ol style="list-style-type: none"> <li>1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>3. The names of the authors may not be used to endorse or promote products derived from this software without specific prior written permission.</li> </ol> <p>THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JCRAFT, INC. OR ANY CONTRIBUTORS TO THIS SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
JCraft	JSch	<p>Copyright (c) 2002-2014 Atsuhiko Yamanaka, JCraft, Inc. All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ol style="list-style-type: none"> <li>1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>3. The names of the authors may not be used to endorse or promote products derived from this software without specific prior written permission.</li> </ol> <p>THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JCRAFT, INC. OR ANY CONTRIBUTORS TO THIS SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
JGoodies	JGoodies Looks	<p>The BSD License for the JGoodies Looks</p> <p>=====</p> <p>Copyright (c) 2003 JGoodies Karsten Lentzsch. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of JGoodies Karsten Lentzsch nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
JGraph	jGraphX.jar	<p>Oracle provides the following as a notice only:</p> <p>JGraphX is licensed under the modern, 3 clause BSD license. The precise text of the license you receive the software under is here (<a href="http://www.jgraph.com/bsd.html">http://www.jgraph.com/bsd.html</a>). If you cannot understand it, do not use the software.</p> <p>=====</p> <p>License.txt included in software.</p> <p>Copyright (c) 2001-2009, JGraph Ltd</p> <p>All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of JGraph Ltd nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>Termination for Patent Action.</p> <p>This License shall terminate automatically, as will all licenses assigned to you by the copyright holders of this software, and you may no longer exercise any of the rights granted to you by this license as of the date you commence an action, including a cross-claim or counterclaim, against the copyright holders of this software or any licensee of this software alleging that any part of the JGraph, JGraphX and/or mxGraph software libraries infringe a patent. This termination provision shall not apply for an action alleging patent infringement by combinations of this software with other software or hardware.</p> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
JQuery	jQuery	<p>Copyright 2013 jQuery Foundation and other contributors <a href="http://jquery.com/">http://jquery.com/</a></p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Jacek Galanciak	Quicksand	<p>Quicksand 1.2.2</p> <p>Reorder and filter items with a nice shuffling animation.</p> <p>Copyright (c) 2010 Jacek Galanciak (<a href="http://razorjack.net">razorjack.net</a>) and <a href="http://agilope.com">agilope.com</a></p> <p>Big thanks for Piotr Petrus (<a href="http://riddle.pl">riddle.pl</a>) for deep code review and wonderful docs &amp; demos.</p> <p>Dual licensed under the MIT and GPL version 2 licenses.</p> <p><a href="http://github.com/jquery/jquery/blob/master/MIT-LICENSE.txt">http://github.com/jquery/jquery/blob/master/MIT-LICENSE.txt</a></p> <p><a href="http://github.com/jquery/jquery/blob/master/GPL-LICENSE.txt">http://github.com/jquery/jquery/blob/master/GPL-LICENSE.txt</a></p> <p>Project site: <a href="http://razorjack.net/quicksand">http://razorjack.net/quicksand</a></p> <p>Github site: <a href="http://github.com/razorjack/quicksand">http://github.com/razorjack/quicksand</a></p> <p>Oracle has elected to receive the code under the MIT license.</p> <p>Copyright (c) 2011 John Resig, <a href="http://jquery.com/">http://jquery.com/</a> Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Jean-loup Gailly and Mark Adler	zlib	<p>Oracle gratefully acknowledges the contributions of Jean-loup Gailly and Mark Adler in creating the zlib general purpose compression library which is used in this product.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
John Resig	Hotkeys	<p>jQuery Hotkeys Plugin            Copyright 2010, John Resig            Dual licensed under the MIT or GPL Version 2 licenses.            Oracle has elected to receive the code under the MIT license.            Based upon the plugin by Tzury Bar Yochay:  <a href="http://github.com/tzuryby/hotkeys">http://github.com/tzuryby/hotkeys</a>            Original idea by:            Binny V A, <a href="http://www.openjs.com/scripts/events/keyboard_shortcuts/">http://www.openjs.com/scripts/events/keyboard_shortcuts/</a>            Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:            The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.            THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
John Resig	JQuery	<p>Copyright (c) 2011 John Resig, <a href="http://jquery.com/">http://jquery.com/</a>            Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:            The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.            THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
John Resig	jQuery	<pre> jQuery JavaScript Library v2.1.3 * http://jquery.com/ * * Includes Sizzle.js * http://sizzlejs.com/ * * Copyright 2005, 2014 jQuery Foundation, Inc. * and other contributors * Released under the MIT license * http://jquery.org/license * * Date: 2014-12-18T15:11Z */ </pre> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>



**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
John Resig	Metadata	<p>Dual licensed under the MIT and GPL licenses:</p> <p><a href="http://www.opensource.org/licenses/mit-license.php">http://www.opensource.org/licenses/mit-license.php</a>  <a href="http://www.gnu.org/licenses/gpl.html">http://www.gnu.org/licenses/gpl.html</a></p> <p>Revision: \$Id: jquery.metadata.js 4187 2007-12-16 17:15:27Z joern.zaefferer \$</p> <p>Oracle has elected to receive the code under MIT terms.</p> <p>Copyright (c) 2006 John Resig, Yehuda Katz, Jörn Zaefferer, Paul McLanahan</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
John Resig	jQuery Mobile	<p>Copyright (c) 2011 John Resig, <a href="http://jquery.com/">http://jquery.com/</a></p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Jordan Boesch	Gritter for JQuery	<p>Oracle has licensed the following under the terms of the MIT license.</p> <p>Gritter for jQuery</p> <p><a href="http://www.boedesign.com/">http://www.boedesign.com/</a></p> <p>Copyright (c) 2012 Jordan Boesch</p> <p>Dual licensed under the MIT and GPL licenses.</p> <p>Date: February 24, 2012</p> <p>Version: 1.7.4</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Jorik Tangelder (Eight Media)	Hammer.js	<p>Copyright (C) 2011-2014 by Jorik Tangelder (Eight Media)</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Manos Batsis	Sarissa	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Marc Prud'hommeaux	JLine	<p>Copyright (c) 2002-2015, the original author or authors. All rights reserved.</p> <p><a href="http://www.opensource.org/licenses/bsd-license.php">http://www.opensource.org/licenses/bsd-license.php</a></p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of JLine nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>
Marijn Haverbeke	CodeMirror	<p>Oracle gratefully acknowledges the contributions of Marijn Haverbeke in creating CodeMirror, which was used in creating this product.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Marijn Haverbeke	CodeMirror	<p>Copyright (C) 2013 by Marijn Haverbeke and others</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Marijn Haverbeke	CodeMirror	<p>Copyright (C) 2014 by Marijn Haverbeke and others</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
MaxMind	Java API for GeolIP2-Java	<p>This product includes software developed by the Apache Software Foundation (<a href="http://www.apache.org">http://www.apache.org</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
MaxMind	Maxmind DB	<p>Copyright (c) Vladimir Dzhuvinov, 2010 - 2014</p> <p>This product includes software developed by the Apache Software Foundation (<a href="http://www.apache.org">http://www.apache.org</a>).</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
MetaStuff, Ltd.	dom4j	<p>Copyright 2001-2005 (C) MetaStuff, Ltd. All Rights Reserved.</p> <p>Redistribution and use of this software and associated documentation ("Software"), with or without modification, are permitted provided that the following conditions are met:</p> <ol style="list-style-type: none"> <li>1. Redistributions of source code must retain copyright statements and notices. Redistributions must also contain a copy of this document.</li> <li>2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>3. The name "DOM4J" must not be used to endorse or promote products derived from this Software without prior written permission of MetaStuff, Ltd. For written permission, please contact dom4j-info@metastuff.com.</li> <li>4. Products derived from this Software may not be called "DOM4J" nor may "DOM4J" appear in their names without prior written permission of MetaStuff, Ltd. DOM4J is a registered trademark of MetaStuff, Ltd.</li> <li>5. Due credit should be given to the DOM4J Project - <a href="http://www.dom4j.org">http://www.dom4j.org</a></li> </ol> <p>THIS SOFTWARE IS PROVIDED BY METASTUFF, LTD. AND CONTRIBUTORS "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL METASTUFF, LTD. OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Michael Bostock	D3 (d3.js)	<p>Copyright (c) 2013, Michael Bostock All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of the Michael Bostock nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Michael Bostock	D3 (d3.js)	<p>Copyright (c) 2010-2015, Michael Bostock All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• The name Michael Bostock may not be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>
Microsoft	Entity Framework Source Code	<p>Copyright (c) Microsoft Open Technologies, Inc. All rights reserved.</p> <p>Microsoft Open Technologies would like to thank its contributors, a list of whom are at <a href="http://aspnetwebstack.codeplex.com/wikipage?title=Contributors">http://aspnetwebstack.codeplex.com/wikipage?title=Contributors</a>.</p> <p>Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at <a href="http://www.apache.org/licenses/LICENSE-2.0">http://www.apache.org/licenses/LICENSE-2.0</a></p> <p>Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Modernizr	Modernizr	<p>Modernizr is available under the MIT and BSD licenses:</p> <p>MIT License</p> <p>Copyright (c) 2009–2011</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Open Source	960.js	<p>=====</p> <p>960 GRID SYSTEM</p> <p>=====</p> <p>Created by Nathan Smith. See the official site for more info: <a href="http://960.gs/">http://960.gs/</a></p> <p>GPL license:</p> <p><a href="http://www.gnu.org/licenses/gpl.html">http://www.gnu.org/licenses/gpl.html</a></p> <p>MIT license:</p> <p><a href="http://www.opensource.org/licenses/mit-license.php">http://www.opensource.org/licenses/mit-license.php</a> Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Open Source	Respond.js	<p>Copyright 2011: Scott Jehl, scottjehl.com</p> <p>Dual licensed under the MIT or GPL Version 2 licenses</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Open Source	Selectivizr	<p>(c) Keith Clark, freely distributable under the terms of the MIT license.</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Open Source	Twitter Bootstrap	<p>Designed and built with all the love in the world @twitter by @mdo and @fat.</p> <p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>



**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Open Source	iOS-Inspired-jQuery-Mobile-Theme	<p>Copyright (c)</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Open Source Geospatial Foundation	Geospatial Data Abstraction Library/OpenGIS Simple Features Reference Implementation (GDAL/OGR)	<p>For a copy of the license, see <a href="#">Geospatial Data Abstraction Library/OpenGIS Simple Features Reference Implementation (GDAL/OGR) License</a>.</p>
Open Web Application Security Project (OWASP)	Enterprise Security API (ESAPI)	<p>ESAPI New BSD License</p> <p>Copyright (c) 2007 - The OWASP Foundation. All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of OWASP nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
OpenJPEG	OpenJPEG	<p>Copyright (c) 2002-2007, Communications and Remote Sensing Laboratory, Universite catholique de Louvain (UCL), Belgium</p> <p>Copyright (c) 2002-2007, Professor Benoit Macq</p> <p>Copyright (c) 2001-2003, David Janssens</p> <p>Copyright (c) 2002-2003, Yannick Verschueren</p> <p>Copyright (c) 2003-2007, Francois-Olivier Devaux and Antonin Descampe</p> <p>Copyright (c) 2005, Herve Drolon, FreeImage Team</p> <p>All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ol style="list-style-type: none"> <li>1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> </ol> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS 'AS IS' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>
Patrick Wolf	APEX Essentials	<p>Copyright (c) 2008 Patrick Wolf (<a href="http://www.inside-oracle-apex.com/">http://www.inside-oracle-apex.com/</a>)</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
QOS.ch	SLF4J	<p>Copyright (c) 2004-2011 QOS.ch</p> <p>All rights reserved.</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Regents of the University of California and the JUNG Project	JUNG (Java Universal Network/Graph Framework)	<p>THE JUNG LICENSE</p> <p>Copyright (c) 2003-2004, Regents of the University of California and the JUNG Project</p> <p>All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of the University of California nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Sadayuki Furuhashi	MessagePack	<p><a href="https://github.com/msgpack/msgpack-c/blob/master/COPYING">https://github.com/msgpack/msgpack-c/blob/master/COPYING</a>            Copyright (C) 2008-2010 FURUHASHI Sadayuki            Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at  <a href="http://www.apache.org/licenses/LICENSE-2.0">http://www.apache.org/licenses/LICENSE-2.0</a>            Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.</p>
Sebastiano Vigna	fastutil	<p>fastutil, Version: 6.5.15            This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>
Sergey Chikuyonok	Emmet Plugin for CodeMirror	<p>Copyright (c) 2012 Sergey Chikuyonok            Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:            The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.            THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Sergey Lyubka	Mongoose	<p>Uses the MIT license:</p> <p>Copyright (c) 2004-2013 Sergey Lyubka            Copyright (c) 2013 No Face Press, LLC (Thomas Davis)            Copyright (c) 2013 F-Secure Corporation</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Shigeru Chiba	javassist	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
SourceForge	ipmiutil	<pre> pefconfig.c   Copyright (c) 2001-2007, Intel Corporation ipmicmd.c    Copyright (c) 2002-2006, Intel Corporation ipmicmd.h    Copyright (c) 2002, Intel Corporation ipmims.c     Copyright (c) 2002, Intel Corporation           </pre>
		<p>All rights reserved.</p> <pre> /*-----* The BSD License Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: a. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. b. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. c. Neither the name of Intel Corporation nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. *-----*/           </pre>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Splunk Inc.	jQuery Sparklines Plugin	<p>jquery.sparkline.js v2.1.2 (c) Splunk, Inc Contact: Gareth Watts (gareth@splunk.com) <a href="http://omnipotent.net/jquery.sparkline/">http://omnipotent.net/jquery.sparkline/</a> Generates inline sparkline charts from data supplied either to the method or inline in HTML. Compatible with Internet Explorer 6.0+ and modern browsers equipped with the canvas tag (Firefox 2.0+, Safari, Opera, etc) License: New BSD License Copyright (c) 2012, Splunk Inc. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. Neither the name of Splunk Inc nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Stilbuero	Cookie	<p>Oracle has elected to receive the code under MIT terms.</p> <p>Copyright (c) 2006 Klaus Hartl (stilbuero.de)</p> <p>Url: <a href="http://plugins.jquery.com/project/cookie">http://plugins.jquery.com/project/cookie</a></p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Terence Parr	StringTemplate	<p>Copyright (c) 2008, Terence Parr</p> <p>All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of the author nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>
Terracota	Quartz Job Scheduler	<p>This product is licensed under the Apache 2.0 license. See <a href="#">The Apache Software License, Version 2.0</a>.</p>



**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
The Legion Of The Bouncy Castle	Bouncy Castle Crypto API	<p>Copyright (c) 2000 - 2015 The Legion Of The Bouncy Castle (<a href="http://www.bouncycastle.org">http://www.bouncycastle.org</a>)</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
The Netty Project	Netty	For a copy of the license, see <a href="#">Netty License</a> .
Tim Wood	Moment.js	<p>Copyright (c) 2011-2013 Tim Wood, Iskren Chernev, Moment.js contributors</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Tinkerpop	Blueprints Gremlin	<p>Copyright (c) 2009-2012, TinkerPop [<a href="http://tinkerpop.com">http://tinkerpop.com</a>]</p> <p>All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of the TinkerPop nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL TINKERPOP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>
Tinkerpop	Pipes	<p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of the TinkerPop nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL TINKERPOP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
University of Cambridge, Google. Inc.	PCRE (Perl Compatible Regular Expressions) Library 5.0	<p>PCRE LICENCE -----</p> <p>PCRE is a library of functions to support regular expressions whose syntax and semantics are as close as possible to those of the Perl 5 language.</p> <p>Release 5 of PCRE is distributed under the terms of the "BSD" licence, as specified below. The documentation for PCRE, supplied in the "doc" directory, is distributed under the same terms as the software itself.</p> <p>Written by: Philip Hazel &lt;ph10@cam.ac.uk&gt;</p> <p>University of Cambridge Computing Service, Cambridge, England. Phone: +44 1223 334714.</p> <p>Copyright (c) 1997-2004 University of Cambridge</p> <p>All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of the University of Cambridge nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Vadim Kiryukhin	JSONfn	<p>Copyright (c) 2012 Vadim Kiryukhin</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
Vakata	jsTree	<p>Dual licensed under the MIT and GPL licenses:</p> <p><a href="http://www.opensource.org/licenses/mit-license.php">http://www.opensource.org/licenses/mit-license.php</a>  <a href="http://www.gnu.org/licenses/gpl.html">http://www.gnu.org/licenses/gpl.html</a></p> <p>Oracle has elected to receive the code under MIT terms.  <a href="http://jstree.com/">http://jstree.com/</a></p> <p>Copyright (c) 2009 Ivan Bozhanov (vakata.com)</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
Various Open Source Licensors	LAPACK	<p>Copyright (c) &lt;YEAR&gt;, Jack Dongarra All rights reserved.</p> <p>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</p> <ul style="list-style-type: none"> <li>• Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</li> <li>• Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</li> <li>• Neither the name of BLAS or LPACK nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</li> </ul> <p>THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.</p>
jQuery	Autocomplete plugin	<p>jQuery Autocomplete plugin 1.1 (Modified to work with Oracle Application Express)</p> <p>Copyright (c) 2009 Jörn Zaefferer</p> <p>Dual licensed under the MIT and GPL licenses:</p> <p><a href="http://www.opensource.org/licenses/mit-license.php">http://www.opensource.org/licenses/mit-license.php</a>  <a href="http://www.gnu.org/licenses/gpl.html">http://www.gnu.org/licenses/gpl.html</a></p> <p>Revision: \$Id: jquery.autocomplete.js 15 2009-08-22 10:30:27Z joern.zaefferer \$/</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
jQuery	Bgiframe plugin	<p>Copyright (c) 2006 Brandon Aaron</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
jQuery	Color Picker	<p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
jQuery	Validation plugin	<p>jQuery validation plug-in 1.7</p> <p><a href="http://bassistance.de/jquery-plugins/jquery-plugin-validation/">http://bassistance.de/jquery-plugins/jquery-plugin-validation/</a>  <a href="http://docs.jquery.com/Plugins/Validation">http://docs.jquery.com/Plugins/Validation</a></p> <p>Copyright (c) 2006 - 2008 Jörn Zaefferer            \$Id: jquery.validate.js 6403 2009-06-17 14:27:16Z joern.zaefferer \$</p> <p>Dual licensed under the MIT and GPL licenses:  <a href="http://www.opensource.org/licenses/mit-license.php">http://www.opensource.org/licenses/mit-license.php</a>  <a href="http://www.gnu.org/licenses/gpl.html/">http://www.gnu.org/licenses/gpl.html/</a></p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
jQuery	jQuery Mobile	<p>Copyright 2013 jQuery Foundation and other contributors  <a href="http://jquery.com/">http://jquery.com/</a></p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

**Table 2-2 (Cont.) Open Source or Other Separately Licensed Software**

Provider	Component(s)	Licensing Information
jQuery	jQueryUI	<p>Copyright jQuery Foundation and other contributors</p> <p>This software consists of voluntary contributions made by many individuals (AUTHORS.txt, <a href="http://jqueryui.com/about">http://jqueryui.com/about</a>) For exact contribution history, see the revision history and logs, available at <a href="http://jquery-ui.googlecode.com/svn/">http://jquery-ui.googlecode.com/svn/</a>.</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>
jQuery Foundation	jQuery UI	<p>Copyright (c) 2012 Paul Bakaus, <a href="http://jqueryui.com/">http://jqueryui.com/</a></p> <p>This software consists of voluntary contributions made by many individuals (AUTHORS.txt, <a href="http://jqueryui.com/about">http://jqueryui.com/about</a>) For exact contribution history, see the revision history and logs, available at <a href="http://jquery-ui.googlecode.com/svn/">http://jquery-ui.googlecode.com/svn/</a>.</p> <p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>



Table 2-2 (Cont.) Open Source or Other Separately Licensed Software

Provider	Component(s)	Licensing Information
justGage	justGage	<p>Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:</p> <p>The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.</p> <p>THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</p>

## 2.3 Written Offer for Source Code

For third party technology that you receive from Oracle in binary form which is licensed under an open source license that gives you the right to receive the source code for that binary, you can obtain a copy of the applicable source code from [this page](#). If the source code for the technology was not provided to you with the binary, you can also receive a copy of the source code on physical media by submitting a written request to:

Oracle America, Inc.  
Attn: Associate General Counsel  
Development and Engineering Legal  
500 Oracle Parkway, 10th Floor  
Redwood Shores, CA 94065

Or, you may send an email to Oracle using [this form](#). Your request should include:

- The name of the component or binary file(s) for which you are requesting the source code
- The name and version number of the Oracle product
- The date you received the Oracle product
- Your name
- Your company name (if applicable)
- Your return mailing address and email
- A telephone number in the event we need to reach you.

We may charge you a fee to cover the cost of physical media and processing. Your request must be sent (i) within three (3) years of the date you received the Oracle product that included the component or binary file(s) that are the subject of your request, or (ii) in the case of code licensed under the GPL v3, for as long as Oracle offers spare parts or customer support for that product model.

# A

## Open Source Software License Text

### A.1 Apache POI License

Apache POI

Copyright 2009 The Apache Software Foundation

This product includes software developed by The Apache Software Foundation (<http://www.apache.org/>).

This product contains the DOM4J library (<http://www.dom4j.org>). Copyright 2001-2005 (C) MetaStuff, Ltd. All Rights Reserved.

This product contains parts that were originally based on software from BEA. Copyright (c) 2000-2003, BEA Systems.

This product contains W3C XML Schema documents. Copyright 2001-2003 (c) World Wide Web Consortium (Massachusetts Institute of Technology, European Research Consortium for Informatics and Mathematics, Keio University)

This product contains the Piccolo XML Parser for Java (<http://piccolo.sourceforge.net/>). Copyright 2002 Yuval Oren.

This product contains the chunks\_parse\_cmds.tbl file from the vsdump program. Copyright (C) 2006-2007 Valek Filippov (frob@df.ru)

This product is licensed under the Apache 2.0 license. See "[The Apache Software License, Version 2.0](#)".

DOM4J library (dom4j-1.6.1.jar)

Copyright 2001-2005 (C) MetaStuff, Ltd. All Rights Reserved.

Redistribution and use of this software and associated documentation ("Software"), with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain copyright statements and notices. Redistributions must also contain a copy of this document.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The name "DOM4J" must not be used to endorse or promote products derived from this Software without prior written permission of MetaStuff, Ltd. For written permission, please contact [dom4j-info@metastuff.com](mailto:dom4j-info@metastuff.com).
4. Products derived from this Software may not be called "DOM4J" nor may "DOM4J" appear in their names without prior written permission of MetaStuff, Ltd. DOM4J is a registered trademark of MetaStuff, Ltd.
5. Due credit should be given to the DOM4J Project - <http://www.dom4j.org>

THIS SOFTWARE IS PROVIDED BY METASTUFF, LTD. AND CONTRIBUTORS "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL METASTUFF, LTD. OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

## A.2 Apache Tomcat 8.5.32 License

NOTICE file from the download package from <http://mirrors.up.pt/pub/apache/tomcat/tomcat-8/v8.5.23/src/apache-tomcat-8.5.23-src.tar.gz> (replacing information referenced to Apache Tomcat Version 8.5.20 that was here before):

Apache Tomcat

Copyright 1999-2017 The Apache Software Foundation

This product includes software developed at

The Apache Software Foundation (<http://www.apache.org/>).

This software contains code derived from netty-native developed by the Netty project (<http://netty.io>, <https://github.com/netty/netty-tcnative/>) and from finagle-native developed at Twitter (<https://github.com/twitter/finagle>).

The Windows Installer is built with the Nullsoft Scriptable Install System (NSIS), which is open source software. The original software and related information is available at <http://nsis.sourceforge.net>.

Java compilation software for JSP pages is provided by the Eclipse JDT Core Batch Compiler component, which is open source software. The original software and related information is available at <http://www.eclipse.org/jdt/core/>.

For portions of the Tomcat JNI OpenSSL API and the OpenSSL JSSE integration The `org.apache.tomcat.jni` and the `org.apache.tomcat.net.openssl` packages are derivative work originating from the Netty project and the finagle-native project developed at Twitter

- Copyright 2014 The Netty Project
- Copyright 2014 Twitter

The original XML Schemas for Java EE Deployment Descriptors:

- `javaee_5.xsd`
- `javaee_web_services_1_2.xsd`
- `javaee_web_services_client_1_2.xsd`
- `javaee_6.xsd`
- `javaee_web_services_1_3.xsd`
- `javaee_web_services_client_1_3.xsd`
- `jsp_2_2.xsd`
- `web-app_3_0.xsd`

- web-common\_3\_0.xsd
- web-fragment\_3\_0.xsd
- javaee\_7.xsd
- javaee\_web\_services\_1\_4.xsd
- javaee\_web\_services\_client\_1\_4.xsd
- jsp\_2\_3.xsd
- web-app\_3\_1.xsd
- web-common\_3\_1.xsd
- web-fragment\_3\_1.xsd

may be obtained from:

<http://www.oracle.com/webfolder/technetwork/jsc/xml/ns/javaee/index.html>

=====

LICENSE file from the same package:

This product is licensed under the Apache 2.0 license. See "[The Apache Software License, Version 2.0](#)".

## APACHE TOMCAT SUBCOMPONENTS

Apache Tomcat includes a number of subcomponents with separate copyright notices and license terms. Your use of these subcomponents is subject to the terms and conditions of the following licenses.

For the Eclipse JDT Core Batch Compiler (ecj-x.x.x.jar) component:

Eclipse Public License - v 1.0

THE ACCOMPANYING PROGRAM IS PROVIDED UNDER THE TERMS OF THIS ECLIPSE PUBLIC LICENSE ("AGREEMENT"). ANY USE, REPRODUCTION OR DISTRIBUTION OF THE PROGRAM CONSTITUTES RECIPIENT'S ACCEPTANCE OF THIS AGREEMENT.

### 1. DEFINITIONS

"Contribution" means:

- a. in the case of the initial Contributor, the initial code and documentation distributed under this Agreement, and
- b. in the case of each subsequent Contributor:
  - i. changes to the Program, and
  - ii. additions to the Program;

where such changes and/or additions to the Program originate from and are distributed by that particular Contributor. A Contribution 'originates' from a Contributor if it was added to the Program by such Contributor itself or anyone acting on such Contributor's behalf. Contributions do not include additions to the Program which: (i) are separate modules of software distributed in conjunction with the Program under their own license agreement, and (ii) are not derivative works of the Program.

"Contributor" means any person or entity that distributes the Program.

"Licensed Patents" mean patent claims licensable by a Contributor which are necessarily infringed by the use or sale of its Contribution alone or when combined with the Program.

"Program" means the Contributions distributed in accordance with this Agreement.

"Recipient" means anyone who receives the Program under this Agreement, including all Contributors.

## 2. GRANT OF RIGHTS

- a. Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free copyright license to reproduce, prepare derivative works of, publicly display, publicly perform, distribute and sublicense the Contribution of such Contributor, if any, and such derivative works, in source code and object code form.
- b. Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free patent license under Licensed Patents to make, use, sell, offer to sell, import and otherwise transfer the Contribution of such Contributor, if any, in source code and object code form. This patent license shall apply to the combination of the Contribution and the Program if, at the time the Contribution is added by the Contributor, such addition of the Contribution causes such combination to be covered by the Licensed Patents. The patent license shall not apply to any other combinations which include the Contribution. No hardware per se is licensed hereunder.
- c. Recipient understands that although each Contributor grants the licenses to its Contributions set forth herein, no assurances are provided by any Contributor that the Program does not infringe the patent or other intellectual property rights of any other entity. Each Contributor disclaims any liability to Recipient for claims brought by any other entity based on infringement of intellectual property rights or otherwise. As a condition to exercising the rights and licenses granted hereunder, each Recipient hereby assumes sole responsibility to secure any other intellectual property rights needed, if any. For example, if a third party patent license is required to allow Recipient to distribute the Program, it is Recipient's responsibility to acquire that license before distributing the Program.
- d. Each Contributor represents that to its knowledge it has sufficient copyright rights in its Contribution, if any, to grant the copyright license set forth in this Agreement.

## 3. REQUIREMENTS

A Contributor may choose to distribute the Program in object code form under its own license agreement, provided that:

- a. it complies with the terms and conditions of this Agreement; and
- b. its license agreement:
  - i. effectively disclaims on behalf of all Contributors all warranties and conditions, express and implied, including warranties or conditions of title and non-infringement, and implied warranties or conditions of merchantability and fitness for a particular purpose;
  - ii. effectively excludes on behalf of all Contributors all liability for damages, including direct, indirect, special, incidental and consequential damages, such as lost profits;
  - iii. states that any provisions which differ from this Agreement are offered by that Contributor alone and not by any other party; and
  - iv. states that source code for the Program is available from such Contributor, and informs licensees how to obtain it in a reasonable manner on or through a medium customarily used for software exchange.

When the Program is made available in source code form:

- a. it must be made available under this Agreement; and

- b. a copy of this Agreement must be included with each copy of the Program.

Contributors may not remove or alter any copyright notices contained within the Program.

Each Contributor must identify itself as the originator of its Contribution, if any, in a manner that reasonably allows subsequent Recipients to identify the originator of the Contribution.

#### 4. COMMERCIAL DISTRIBUTION

Commercial distributors of software may accept certain responsibilities with respect to end users, business partners and the like. While this license is intended to facilitate the commercial use of the Program, the Contributor who includes the Program in a commercial product offering should do so in a manner which does not create potential liability for other Contributors. Therefore, if a Contributor includes the Program in a commercial product offering, such Contributor ("Commercial Contributor") hereby agrees to defend and indemnify every other Contributor ("Indemnified Contributor") against any losses, damages and costs (collectively "Losses") arising from claims, lawsuits and other legal actions brought by a third party against the Indemnified Contributor to the extent caused by the acts or omissions of such Commercial Contributor in connection with its distribution of the Program in a commercial product offering. The obligations in this section do not apply to any claims or Losses relating to any actual or alleged intellectual property infringement. In order to qualify, an Indemnified Contributor must: a) promptly notify the Commercial Contributor in writing of such claim, and b) allow the Commercial Contributor to control, and cooperate with the Commercial Contributor in, the defense and any related settlement negotiations. The Indemnified Contributor may participate in any such claim at its own expense.

For example, a Contributor might include the Program in a commercial product offering, Product X. That Contributor is then a Commercial Contributor. If that Commercial Contributor then makes performance claims, or offers warranties related to Product X, those performance claims and warranties are such Commercial Contributor's responsibility alone. Under this section, the Commercial Contributor would have to defend claims against the other Contributors related to those performance claims and warranties, and if a court requires any other Contributor to pay any damages as a result, the Commercial Contributor must pay those damages.

#### 5. NO WARRANTY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, THE PROGRAM IS PROVIDED ON AN "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OR CONDITIONS OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Each Recipient is solely responsible for determining the appropriateness of using and distributing the Program and assumes all risks associated with its exercise of rights under this Agreement, including but not limited to the risks and costs of program errors, compliance with applicable laws, damage to or loss of data, programs or equipment, and unavailability or interruption of operations.

#### 6. DISCLAIMER OF LIABILITY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER RECIPIENT NOR ANY CONTRIBUTORS SHALL HAVE ANY LIABILITY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOST PROFITS), HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OR DISTRIBUTION OF THE PROGRAM OR THE EXERCISE OF ANY RIGHTS GRANTED HEREUNDER, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### 7. GENERAL

If any provision of this Agreement is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this Agreement, and without further action by the parties hereto, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.

If Recipient institutes patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Program itself (excluding combinations of the Program with other software or hardware) infringes such Recipient's patent(s), then such Recipient's rights granted under Section 2(b) shall terminate as of the date such litigation is filed.

All Recipient's rights under this Agreement shall terminate if it fails to comply with any of the material terms or conditions of this Agreement and does not cure such failure in a reasonable period of time after becoming aware of such noncompliance. If all Recipient's rights under this Agreement terminate, Recipient agrees to cease use and distribution of the Program as soon as reasonably practicable. However, Recipient's obligations under this Agreement and any licenses granted by Recipient relating to the Program shall continue and survive.

Everyone is permitted to copy and distribute copies of this Agreement, but in order to avoid inconsistency the Agreement is copyrighted and may only be modified in the following manner. The Agreement Steward reserves the right to publish new versions (including revisions) of this Agreement from time to time. No one other than the Agreement Steward has the right to modify this Agreement. The Eclipse Foundation is the initial Agreement Steward. The Eclipse Foundation may assign the responsibility to serve as the Agreement Steward to a suitable separate entity. Each new version of the Agreement will be given a distinguishing version number. The Program (including Contributions) may always be distributed subject to the version of the Agreement under which it was received. In addition, after a new version of the Agreement is published, Contributor may elect to distribute the Program (including its Contributions) under the new version. Except as expressly stated in Sections 2(a) and 2(b) above, Recipient receives no rights or licenses to the intellectual property of any Contributor under this Agreement, whether expressly, by implication, estoppel or otherwise. All rights in the Program not expressly granted under this Agreement are reserved.

This Agreement is governed by the laws of the State of New York and the intellectual property laws of the United States of America. No party to this Agreement will bring a legal action under this Agreement more than one year after the cause of action arose. Each party waives its rights to a jury trial in any resulting litigation.

For the Windows Installer component:

- All NSIS source code, plug-ins, documentation, examples, header files and graphics, with the exception of the compression modules and where otherwise noted, are licensed under the zlib/libpng license.
- The zlib compression module for NSIS is licensed under the zlib/libpng license.
- The bzip2 compression module for NSIS is licensed under the bzip2 license.
- The lzma compression module for NSIS is licensed under the Common Public License version 1.0.

zlib/libpng license

This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:



1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.
2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
3. This notice may not be removed or altered from any source distribution.

bzip2 license

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.
3. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
4. The name of the author may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Julian Seward, Cambridge, UK.

[jseward@acm.org](mailto:jseward@acm.org)

Common Public License version 1.0

THE ACCOMPANYING PROGRAM IS PROVIDED UNDER THE TERMS OF THIS COMMON PUBLIC LICENSE ("AGREEMENT"). ANY USE, REPRODUCTION OR DISTRIBUTION OF THE PROGRAM CONSTITUTES RECIPIENT'S ACCEPTANCE OF THIS AGREEMENT.

## 1. DEFINITIONS

"Contribution" means:

- a. in the case of the initial Contributor, the initial code and documentation distributed under this Agreement, and b) in the case of each subsequent Contributor:
  - i. changes to the Program, and
  - ii. additions to the Program;

where such changes and/or additions to the Program originate from and are distributed by that particular Contributor. A Contribution 'originates' from a Contributor if it was added to the Program by such Contributor itself or anyone acting on such Contributor's behalf. Contributions do not include additions to the Program which: (i) are separate modules of



software distributed in conjunction with the Program under their own license agreement, and (ii) are not derivative works of the Program.

"Contributor" means any person or entity that distributes the Program.

"Licensed Patents" mean patent claims licensable by a Contributor which are necessarily infringed by the use or sale of its Contribution alone or when combined with the Program.

"Program" means the Contributions distributed in accordance with this Agreement.

"Recipient" means anyone who receives the Program under this Agreement, including all Contributors.

## 2. GRANT OF RIGHTS

- a. Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free copyright license to reproduce, prepare derivative works of, publicly display, publicly perform, distribute and sublicense the Contribution of such Contributor, if any, and such derivative works, in source code and object code form.
- b. Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free patent license under Licensed Patents to make, use, sell, offer to sell, import and otherwise transfer the Contribution of such Contributor, if any, in source code and object code form. This patent license shall apply to the combination of the Contribution and the Program if, at the time the Contribution is added by the Contributor, such addition of the Contribution causes such combination to be covered by the Licensed Patents. The patent license shall not apply to any other combinations which include the Contribution. No hardware per se is licensed hereunder.
- c. Recipient understands that although each Contributor grants the licenses to its Contributions set forth herein, no assurances are provided by any Contributor that the Program does not infringe the patent or other intellectual property rights of any other entity. Each Contributor disclaims any liability to Recipient for claims brought by any other entity based on infringement of intellectual property rights or otherwise. As a condition to exercising the rights and licenses granted hereunder, each Recipient hereby assumes sole responsibility to secure any other intellectual property rights needed, if any. For example, if a third party patent license is required to allow Recipient to distribute the Program, it is Recipient's responsibility to acquire that license before distributing the Program.
- d. Each Contributor represents that to its knowledge it has sufficient copyright rights in its Contribution, if any, to grant the copyright license set forth in this Agreement.

## 3. REQUIREMENTS

A Contributor may choose to distribute the Program in object code form under its own license agreement, provided that:

- a. it complies with the terms and conditions of this Agreement; and
- b. its license agreement:
  - i. effectively disclaims on behalf of all Contributors all warranties and conditions, express and implied, including warranties or conditions of title and non-infringement, and implied warranties or conditions of merchantability and fitness for a particular purpose;
  - ii. effectively excludes on behalf of all Contributors all liability for damages, including direct, indirect, special, incidental and consequential damages, such as lost profits;
  - iii. states that any provisions which differ from this Agreement are offered by that Contributor alone and not by any other party; and

- iv. states that source code for the Program is available from such Contributor, and informs licensees how to obtain it in a reasonable manner on or through a medium customarily used for software exchange.

When the Program is made available in source code form:

- a. it must be made available under this Agreement; and
- b. a copy of this Agreement must be included with each copy of the Program.

Contributors may not remove or alter any copyright notices contained within the Program.

Each Contributor must identify itself as the originator of its Contribution, if any, in a manner that reasonably allows subsequent Recipients to identify the originator of the Contribution.

#### 4. COMMERCIAL DISTRIBUTION

Commercial distributors of software may accept certain responsibilities with respect to end users, business partners and the like. While this license is intended to facilitate the commercial use of the Program, the Contributor who includes the Program in a commercial product offering should do so in a manner which does not create potential liability for other Contributors. Therefore, if a Contributor includes the Program in a commercial product offering, such Contributor ("Commercial Contributor") hereby agrees to defend and indemnify every other Contributor ("Indemnified Contributor") against any losses, damages and costs (collectively "Losses") arising from claims, lawsuits and other legal actions brought by a third party against the Indemnified Contributor to the extent caused by the acts or omissions of such Commercial Contributor in connection with its distribution of the Program in a commercial product offering. The obligations in this section do not apply to any claims or Losses relating to any actual or alleged intellectual property infringement. In order to qualify, an Indemnified Contributor must: a) promptly notify the Commercial Contributor in writing of such claim, and b) allow the Commercial Contributor to control, and cooperate with the Commercial Contributor in, the defense and any related settlement negotiations. The Indemnified Contributor may participate in any such claim at its own expense.

For example, a Contributor might include the Program in a commercial product offering, Product X. That Contributor is then a Commercial Contributor. If that Commercial Contributor then makes performance claims, or offers warranties related to Product X, those performance claims and warranties are such Commercial Contributor's responsibility alone. Under this section, the Commercial Contributor would have to defend claims against the other Contributors related to those performance claims and warranties, and if a court requires any other Contributor to pay any damages as a result, the Commercial Contributor must pay those damages.

#### 5. NO WARRANTY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, THE PROGRAM IS PROVIDED ON AN "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OR CONDITIONS OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Each Recipient is solely responsible for determining the appropriateness of using and distributing the Program and assumes all risks associated with its exercise of rights under this Agreement, including but not limited to the risks and costs of program errors, compliance with applicable laws, damage to or loss of data, programs or equipment, and unavailability or interruption of operations.

#### 6. DISCLAIMER OF LIABILITY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER RECIPIENT NOR ANY CONTRIBUTORS SHALL HAVE ANY LIABILITY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOST PROFITS), HOWEVER CAUSED AND ON

ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OR DISTRIBUTION OF THE PROGRAM OR THE EXERCISE OF ANY RIGHTS GRANTED HEREUNDER, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

## 7. GENERAL

If any provision of this Agreement is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this Agreement, and without further action by the parties hereto, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.

If Recipient institutes patent litigation against a Contributor with respect to a patent applicable to software (including a cross-claim or counterclaim in a lawsuit), then any patent licenses granted by that Contributor to such Recipient under this Agreement shall terminate as of the date such litigation is filed. In addition, if Recipient institutes patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Program itself (excluding combinations of the Program with other software or hardware) infringes such Recipient's patent(s), then such Recipient's rights granted under Section 2(b) shall terminate as of the date such litigation is filed.

All Recipient's rights under this Agreement shall terminate if it fails to comply with any of the material terms or conditions of this Agreement and does not cure such failure in a reasonable period of time after becoming aware of such noncompliance. If all Recipient's rights under this Agreement terminate, Recipient agrees to cease use and distribution of the Program as soon as reasonably practicable. However, Recipient's obligations under this Agreement and any licenses granted by Recipient relating to the Program shall continue and survive.

Everyone is permitted to copy and distribute copies of this Agreement, but in order to avoid inconsistency the Agreement is copyrighted and may only be modified in the following manner. The Agreement Steward reserves the right to publish new versions (including revisions) of this Agreement from time to time. No one other than the Agreement Steward has the right to modify this Agreement. IBM is the initial Agreement Steward. IBM may assign the responsibility to serve as the Agreement Steward to a suitable separate entity. Each new version of the Agreement will be given a distinguishing version number. The Program (including Contributions) may always be distributed subject to the version of the Agreement under which it was received. In addition, after a new version of the Agreement is published, Contributor may elect to distribute the Program (including its Contributions) under the new version. Except as expressly stated in Sections 2(a) and 2(b) above, Recipient receives no rights or licenses to the intellectual property of any Contributor under this Agreement, whether expressly, by implication, estoppel or otherwise. All rights in the Program not expressly granted under this Agreement are reserved.

This Agreement is governed by the laws of the State of New York and the intellectual property laws of the United States of America. No party to this Agreement will bring a legal action under this Agreement more than one year after the cause of action arose. Each party waives its rights to a jury trial in any resulting litigation.

### Special exception for LZMA compression module

Igor Pavlov and Amir Szekely, the authors of the LZMA compression module for NSIS, expressly permit you to statically or dynamically link your code (or bind by name) to the files from the LZMA compression module for NSIS without subjecting your linked code to the terms of the Common Public license version 1.0. Any modifications or additions to files from the LZMA compression module for NSIS, however, are subject to the terms of the Common Public License version 1.0.

For the following XML Schemas for Java EE Deployment Descriptors:

- javaee\_5.xsd
- javaee\_web\_services\_1\_2.xsd
- javaee\_web\_services\_client\_1\_2.xsd
- javaee\_6.xsd
- javaee\_web\_services\_1\_3.xsd
- javaee\_web\_services\_client\_1\_3.xsd
- jsp\_2\_2.xsd
- web-app\_3\_0.xsd
- web-common\_3\_0.xsd
- web-fragment\_3\_0.xsd
- javaee\_7.xsd
- javaee\_web\_services\_1\_4.xsd
- javaee\_web\_services\_client\_1\_4.xsd
- jsp\_2\_3.xsd
- web-app\_3\_1.xsd
- web-common\_3\_1.xsd
- web-fragment\_3\_1.xsd
- javaee\_8.xsd
- web-app\_4\_0.xsd
- web-common\_4\_0.xsd
- web-fragment\_4\_0.xsd

## COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL) Version 1.0

### 1. Definitions.

1.1. Contributor. means each individual or entity that creates or contributes to the creation of Modifications.

1.2. Contributor Version. means the combination of the Original Software, prior Modifications used by a Contributor (if any), and the Modifications made by that particular Contributor.

1.3. Covered Software. means (a) the Original Software, or (b) Modifications, or (c) the combination of files containing Original Software with files containing Modifications, in each case including portions thereof.

1.4. Executable. means the Covered Software in any form other than Source Code.

1.5. Initial Developer. means the individual or entity that first makes Original Software available under this License.

1.6. Larger Work. means a work which combines Covered Software or portions thereof with code not governed by the terms of this License.

1.7. License. means this document.

1.8. Licensable. means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. Modifications. means the Source Code and Executable form of any of the following:

A. Any file that results from an addition to, deletion from or modification of the contents of a file containing Original Software or previous Modifications;

B. Any new file that contains any part of the Original Software or previous Modification; or

C. Any new file that is contributed or otherwise made available under the terms of this License.

1.10. Original Software. means the Source Code and Executable form of computer software code that is originally released under this License.

1.11. Patent Claims. means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

1.12. Source Code. means (a) the common form of computer software code in which modifications are made and (b) associated documentation included in or with such code.

1.13. You. (or .Your.) means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License. For legal entities, .You. includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, .control. means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

## 2. License Grants.

### 2.1. The Initial Developer Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual property claims, the Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license:

(a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer, to use, reproduce, modify, display, perform, sublicense and distribute the Original Software (or portions thereof), with or without Modifications, and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using or selling of Original Software, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Software (or portions thereof).

(c) The licenses granted in Sections 2.1(a) and (b) are effective on the date Initial Developer first distributes or otherwise makes the Original Software available to a third party under the terms of this License.

(d) Notwithstanding Section 2.1(b) above, no patent license is granted: (1) for code that You delete from the Original Software, or (2) for infringements caused by: (i) the modification of the Original Software, or (ii) the combination of the Original Software with other software or devices.

### 2.2. Contributor Grant.

Conditioned upon Your compliance with Section 3.1 below and subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license:

(a) under intellectual property rights (other than patent or trademark) Licensable by Contributor to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof), either on an unmodified basis, with other Modifications, as Covered Software and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: (1) Modifications made by that Contributor (or portions thereof); and (2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).

(c) The licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first distributes or otherwise makes the Modifications available to a third party.

(d) Notwithstanding Section 2.2(b) above, no patent license is granted: (1) for any code that Contributor has deleted from the Contributor Version; (2) for infringements caused by: (i) third party modifications of Contributor Version, or (ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or (3) under Patent Claims infringed by Covered Software in the absence of Modifications made by that Contributor.

### 3. Distribution Obligations.

#### 3.1. Availability of Source Code.

Any Covered Software that You distribute or otherwise make available in Executable form must also be made available in Source Code form and that Source Code form must be distributed only under the terms of this License. You must include a copy of this License with every copy of the Source Code form of the Covered Software You distribute or otherwise make available. You must inform recipients of any such Covered Software in Executable form as to how they can obtain such Covered Software in Source Code form in a reasonable manner on or through a medium customarily used for software exchange.

#### 3.2. Modifications.

The Modifications that You create or to which You contribute are governed by the terms of this License. You represent that You believe Your Modifications are Your original creation(s) and/or You have sufficient rights to grant the rights conveyed by this License.

#### 3.3. Required Notices.

You must include a notice in each of Your Modifications that identifies You as the Contributor of the Modification. You may not remove or alter any copyright, patent or trademark notices contained within the Covered Software, or any notices of licensing or any descriptive text giving attribution to any Contributor or the Initial Developer.

#### 3.4. Application of Additional Terms.

You may not offer or impose any terms on any Covered Software in Source Code form that alters or restricts the applicable version of this License or the recipients' rights hereunder. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Software. However, you may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear that any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

#### 3.5. Distribution of Executable Versions.

You may distribute the Executable form of the Covered Software under the terms of this License or under the terms of a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable form does not attempt to limit or alter the recipient's rights in the



Source Code form from the rights set forth in this License. If You distribute the Covered Software in Executable form under a different license, You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

### 3.6. Larger Works.

You may create a Larger Work by combining Covered Software with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Software.

## 4. Versions of the License.

### 4.1. New Versions.

Sun Microsystems, Inc. is the initial license steward and may publish revised and/or new versions of this License from time to time. Each version will be given a distinguishing version number. Except as provided in Section 4.3, no one other than the license steward has the right to modify this License.

### 4.2. Effect of New Versions.

You may always continue to use, distribute or otherwise make the Covered Software available under the terms of the version of the License under which You originally received the Covered Software. If the Initial Developer includes a notice in the Original Software prohibiting it from being distributed or otherwise made available under any subsequent version of the License, You must distribute and make the Covered Software available under the terms of the version of the License under which You originally received the Covered Software. Otherwise, You may also choose to use, distribute or otherwise make the Covered Software available under the terms of any subsequent version of the License published by the license steward.

### 4.3. Modified Versions.

When You are an Initial Developer and You want to create a new license for Your Original Software, You may create and use a modified version of this License if You: (a) rename the license and remove any references to the name of the license steward (except to note that the license differs from this License); and (b) otherwise make it clear that the license contains terms which differ from this License.

## 5. DISCLAIMER OF WARRANTY.

COVERED SOFTWARE IS PROVIDED UNDER THIS LICENSE ON AN .AS IS. BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED SOFTWARE IS FREE OF DEFECTS, MERCHANTABILITY, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED SOFTWARE IS WITH YOU. SHOULD ANY COVERED SOFTWARE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED SOFTWARE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

## 6. TERMINATION.

6.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the

breach. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.

6.2. If You assert a patent infringement claim (excluding declaratory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You assert such claim is referred to as .Participant.) alleging that the Participant Software (meaning the Contributor Version where the Participant is a Contributor or the Original Software where the Participant is the Initial Developer) directly or indirectly infringes any patent, then any and all rights granted directly or indirectly to You by such Participant, the Initial Developer (if the Initial Developer is not the Participant) and all Contributors under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively and automatically at the expiration of such 60 day notice period, unless if within such 60 day period You withdraw Your claim with respect to the Participant Software against such Participant either unilaterally or pursuant to a written agreement with Participant.

6.3. In the event of termination under Sections 6.1 or 6.2 above, all end user licenses that have been validly granted by You or any distributor hereunder prior to termination (excluding licenses granted to You by any distributor) shall survive termination.

## 7. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED SOFTWARE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOST PROFITS, LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

## 8. U.S. GOVERNMENT END USERS.

The Covered Software is a .commercial item., as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of .commercial computer software. (as that term is defined at 48 C.F.R. ? 252.227-7014(a)(1)) and commercial computer software documentation. as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Software with only those rights set forth herein. This U.S. Government Rights clause is in lieu of, and supersedes, any other FAR, DFAR, or other clause or provision that addresses Government rights in computer software under this License.

## 9. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by the law of the jurisdiction specified in a notice contained within the Original Software (except to the extent applicable law, if any, provides otherwise), excluding such jurisdiction's conflict-of-law provisions. Any litigation relating to this License shall be subject to the jurisdiction of the courts located in the jurisdiction and venue specified in a notice contained within the Original Software, with the losing party responsible for costs, including, without limitation, court costs and reasonable attorneys. fees and expenses. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or



regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License. You agree that You alone are responsible for compliance with the United States export administration regulations (and the export control laws and regulation of any other countries) when You use, distribute or otherwise make available any Covered Software.

#### 10. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

#### NOTICE PURSUANT TO SECTION 9 OF THE COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL)

The code released under the CDDL shall be governed by the laws of the State of California (excluding conflict-of-law provisions). Any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California and the state courts of the State of California, with venue lying in Santa Clara County, California.

## A.3 Font Awesome License

#### SIL OPEN FONT LICENSE

Version 1.1 - 26 February 2007

#### PREAMBLE

The goals of the Open Font License (OFL) are to stimulate worldwide development of collaborative font projects, to support the font creation efforts of academic and linguistic communities, and to provide a free and open framework in which fonts may be shared and improved in partnership with others.

The OFL allows the licensed fonts to be used, studied, modified and redistributed freely as long as they are not sold by themselves. The fonts, including any derivative works, can be bundled, embedded, redistributed and/or sold with any software provided that any reserved names are not used by derivative works. The fonts and derivatives, however, cannot be released under any other type of license. The requirement for fonts to remain under this license does not apply to any document created using the fonts or their derivatives.

#### DEFINITIONS

"Font Software" refers to the set of files released by the Copyright Holder(s) under this license and clearly marked as such. This may include source files, build scripts and documentation.

"Reserved Font Name" refers to any names specified as such after the copyright statement(s).

"Original Version" refers to the collection of Font Software components as distributed by the Copyright Holder(s).

"Modified Version" refers to any derivative made by adding to, deleting, or substituting — in part or in whole — any of the components of the Original Version, by changing formats or by porting the Font Software to a new environment.

"Author" refers to any designer, engineer, programmer, technical writer or other person who contributed to the Font Software.

#### PERMISSION & CONDITIONS

Permission is hereby granted, free of charge, to any person obtaining a copy of the Font Software, to use, study, copy, merge, embed, modify, redistribute, and sell modified and unmodified copies of the Font Software, subject to the following conditions:

1. Neither the Font Software nor any of its individual components, in Original or Modified Versions, may be sold by itself.
2. Original or Modified Versions of the Font Software may be bundled, redistributed and/or sold with any software, provided that each copy contains the above copyright notice and this license. These can be included either as stand-alone text files, human-readable headers or in the appropriate machine-readable metadata fields within text or binary files as long as those fields can be easily viewed by the user.
3. No Modified Version of the Font Software may use the Reserved Font Name(s) unless explicit written permission is granted by the corresponding Copyright Holder. This restriction only applies to the primary font name as presented to the users.
4. The name(s) of the Copyright Holder(s) or the Author(s) of the Font Software shall not be used to promote, endorse or advertise any Modified Version, except to acknowledge the contribution(s) of the Copyright Holder(s) and the Author(s) or with their explicit written permission.
5. The Font Software, modified or unmodified, in part or in whole, must be distributed entirely under this license, and must not be distributed under any other license. The requirement for fonts to remain under this license does not apply to any document created using the Font Software.

#### TERMINATION

This license becomes null and void if any of the above conditions are not met.

#### DISCLAIMER

THE FONT SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF COPYRIGHT, PATENT, TRADEMARK, OR OTHER RIGHT. IN NO EVENT SHALL THE COPYRIGHT HOLDER BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, INCLUDING ANY GENERAL, SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF THE USE OR INABILITY TO USE THE FONT SOFTWARE OR FROM OTHER DEALINGS IN THE FONT SOFTWARE.

Font Awesome CSS, LESS, and SASS files were received under the following license:

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

## A.4 GeoNames Data License

This distribution includes and/or the service uses a modified version of the GeoNames geographical database {For distributions: which may be found in the following file: INSERT FILE NAME}. The original GeoNames database is available at [www.geonames.org](http://www.geonames.org) under the license set forth below.

CREATIVE COMMONS CORPORATION IS NOT A LAW FIRM AND DOES NOT PROVIDE LEGAL SERVICES. DISTRIBUTION OF THIS LICENSE DOES NOT CREATE AN ATTORNEY-CLIENT RELATIONSHIP. CREATIVE COMMONS PROVIDES THIS INFORMATION ON AN "AS-IS" BASIS. CREATIVE COMMONS MAKES NO WARRANTIES REGARDING THE INFORMATION PROVIDED, AND DISCLAIMS LIABILITY FOR DAMAGES RESULTING FROM ITS USE.

### License

THE WORK (AS DEFINED BELOW) IS PROVIDED UNDER THE TERMS OF THIS CREATIVE COMMONS PUBLIC LICENSE ("CCPL" OR "LICENSE"). THE WORK IS PROTECTED BY COPYRIGHT AND/OR OTHER APPLICABLE LAW. ANY USE OF THE WORK OTHER THAN AS AUTHORIZED UNDER THIS LICENSE OR COPYRIGHT LAW IS PROHIBITED.

BY EXERCISING ANY RIGHTS TO THE WORK PROVIDED HERE, YOU ACCEPT AND AGREE TO BE BOUND BY THE TERMS OF THIS LICENSE. TO THE EXTENT THIS LICENSE MAY BE CONSIDERED TO BE A CONTRACT, THE LICENSOR GRANTS YOU THE RIGHTS CONTAINED HERE IN CONSIDERATION OF YOUR ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

### 1. Definitions

"Adaptation" means a work based upon the Work, or upon the Work and other pre-existing works, such as a translation, adaptation, derivative work, arrangement of music or other alterations of a literary or artistic work, or phonogram or performance and includes cinematographic adaptations or any other form in which the Work may be recast, transformed, or adapted including in any form recognizably derived from the original, except that a work that constitutes a Collection will not be considered an Adaptation for the purpose of this License. For the avoidance of doubt, where the Work is a musical work, performance or phonogram, the synchronization of the Work in timed-relation with a moving image ("synching") will be considered an Adaptation for the purpose of this License.

"Collection" means a collection of literary or artistic works, such as encyclopedias and anthologies, or performances, phonograms or broadcasts, or other works or subject matter other than works listed in Section 1(f) below, which, by reason of the selection and arrangement of their contents, constitute intellectual creations, in which the Work is included in its entirety in unmodified form along with one or more other contributions, each constituting separate and independent works in themselves, which together are assembled into a collective whole. A work that constitutes a Collection will not be considered an Adaptation (as defined above) for the purposes of this License.

"Distribute" means to make available to the public the original and copies of the Work or Adaptation, as appropriate, through sale or other transfer of ownership.

"Licensor" means the individual, individuals, entity or entities that offer(s) the Work under the terms of this License.

"Original Author" means, in the case of a literary or artistic work, the individual, individuals, entity or entities who created the Work or if no individual or entity can be identified, the

publisher; and in addition (i) in the case of a performance the actors, singers, musicians, dancers, and other persons who act, sing, deliver, declaim, play in, interpret or otherwise perform literary or artistic works or expressions of folklore; (ii) in the case of a phonogram the producer being the person or legal entity who first fixes the sounds of a performance or other sounds; and, (iii) in the case of broadcasts, the organization that transmits the broadcast.

"Work" means the literary and/or artistic work offered under the terms of this License including without limitation any production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression including digital form, such as a book, pamphlet and other writing; a lecture, address, sermon or other work of the same nature; a dramatic or dramatico-musical work; a choreographic work or entertainment in dumb show; a musical composition with or without words; a cinematographic work to which are assimilated works expressed by a process analogous to cinematography; a work of drawing, painting, architecture, sculpture, engraving or lithography; a photographic work to which are assimilated works expressed by a process analogous to photography; a work of applied art; an illustration, map, plan, sketch or three-dimensional work relative to geography, topography, architecture or science; a performance; a broadcast; a phonogram; a compilation of data to the extent it is protected as a copyrightable work; or a work performed by a variety or circus performer to the extent it is not otherwise considered a literary or artistic work.

"You" means an individual or entity exercising rights under this License who has not previously violated the terms of this License with respect to the Work, or who has received express permission from the Licensor to exercise rights under this License despite a previous violation.

"Publicly Perform" means to perform public recitations of the Work and to communicate to the public those public recitations, by any means or process, including by wire or wireless means or public digital performances; to make available to the public Works in such a way that members of the public may access these Works from a place and at a place individually chosen by them; to perform the Work to the public by any means or process and the communication to the public of the performances of the Work, including by public digital performance; to broadcast and rebroadcast the Work by any means including signs, sounds or images.

"Reproduce" means to make copies of the Work by any means including without limitation by sound or visual recordings and the right of fixation and reproducing fixations of the Work, including storage of a protected performance or phonogram in digital form or other electronic medium.

2. Fair Dealing Rights. Nothing in this License is intended to reduce, limit, or restrict any uses free from copyright or rights arising from limitations or exceptions that are provided for in connection with the copyright protection under copyright law or other applicable laws.
3. License Grant. Subject to the terms and conditions of this License, Licensor hereby grants You a worldwide, royalty-free, non-exclusive, perpetual (for the duration of the applicable copyright) license to exercise the rights in the Work as stated below:
  - to Reproduce the Work, to incorporate the Work into one or more Collections, and to Reproduce the Work as incorporated in the Collections;
  - to create and Reproduce Adaptations provided that any such Adaptation, including any translation in any medium, takes reasonable steps to clearly label, demarcate or otherwise identify that changes were made to the original Work. For example, a translation could be marked "The original work was translated from English to Spanish," or a modification could indicate "The original work has been modified.";
  - to Distribute and Publicly Perform the Work including as incorporated in Collections; and,

- to Distribute and Publicly Perform Adaptations.
- For the avoidance of doubt:

Non-waivable Compulsory License Schemes. In those jurisdictions in which the right to collect royalties through any statutory or compulsory licensing scheme cannot be waived, the Licensor reserves the exclusive right to collect such royalties for any exercise by You of the rights granted under this License; Waivable Compulsory License Schemes. In those jurisdictions in which the right to collect royalties through any statutory or compulsory licensing scheme can be waived, the Licensor waives the exclusive right to collect such royalties for any exercise by You of the rights granted under this License; and, Voluntary License Schemes. The Licensor waives the right to collect royalties, whether individually or, in the event that the Licensor is a member of a collecting society that administers voluntary licensing schemes, via that society, from any exercise by You of the rights granted under this License. The above rights may be exercised in all media and formats whether now known or hereafter devised. The above rights include the right to make such modifications as are technically necessary to exercise the rights in other media and formats. Subject to Section 8(f), all rights not expressly granted by Licensor are hereby reserved.

4. Restrictions. The license granted in Section 3 above is expressly made subject to and limited by the following restrictions:

You may Distribute or Publicly Perform the Work only under the terms of this License. You must include a copy of, or the Uniform Resource Identifier (URI) for, this License with every copy of the Work You Distribute or Publicly Perform. You may not offer or impose any terms on the Work that restrict the terms of this License or the ability of the recipient of the Work to exercise the rights granted to that recipient under the terms of the License. You may not sublicense the Work. You must keep intact all notices that refer to this License and to the disclaimer of warranties with every copy of the Work You Distribute or Publicly Perform. When You Distribute or Publicly Perform the Work, You may not impose any effective technological measures on the Work that restrict the ability of a recipient of the Work from You to exercise the rights granted to that recipient under the terms of the License. This Section 4(a) applies to the Work as incorporated in a Collection, but this does not require the Collection apart from the Work itself to be made subject to the terms of this License. If You create a Collection, upon notice from any Licensor You must, to the extent practicable, remove from the Collection any credit as required by Section 4(b), as requested. If You create an Adaptation, upon notice from any Licensor You must, to the extent practicable, remove from the Adaptation any credit as required by Section 4(b), as requested.

If You Distribute, or Publicly Perform the Work or any Adaptations or Collections, You must, unless a request has been made pursuant to Section 4(a), keep intact all copyright notices for the Work and provide, reasonable to the medium or means You are utilizing: (i) the name of the Original Author (or pseudonym, if applicable) if supplied, and/or if the Original Author and/or Licensor designate another party or parties (e.g., a sponsor institute, publishing entity, journal) for attribution ("Attribution Parties") in Licensor's copyright notice, terms of service or by other reasonable means, the name of such party or parties; (ii) the title of the Work if supplied; (iii) to the extent reasonably practicable, the URI, if any, that Licensor specifies to be associated with the Work, unless such URI does not refer to the copyright notice or licensing information for the Work; and (iv) , consistent with Section 3(b), in the case of an Adaptation, a credit identifying the use of the Work in the Adaptation (e.g., "French translation of the Work by Original Author," or "Screenplay based on original Work by Original Author"). The credit required by this Section 4 (b) may be implemented in any reasonable manner; provided, however, that in the case of a Adaptation or Collection, at a minimum such credit will appear, if a credit for all contributing authors of the Adaptation or Collection appears, then as part of these credits and in a manner at least as prominent as the credits for the other contributing authors. For the avoidance of doubt, You may only use the credit required by this Section for the purpose of attribution in the manner

set out above and, by exercising Your rights under this License, You may not implicitly or explicitly assert or imply any connection with, sponsorship or endorsement by the Original Author, Licensor and/or Attribution Parties, as appropriate, of You or Your use of the Work, without the separate, express prior written permission of the Original Author, Licensor and/or Attribution Parties.

Except as otherwise agreed in writing by the Licensor or as may be otherwise permitted by applicable law, if You Reproduce, Distribute or Publicly Perform the Work either by itself or as part of any Adaptations or Collections, You must not distort, mutilate, modify or take other derogatory action in relation to the Work which would be prejudicial to the Original Author's honor or reputation. Licensor agrees that in those jurisdictions (e.g. Japan), in which any exercise of the right granted in Section 3(b) of this License (the right to make Adaptations) would be deemed to be a distortion, mutilation, modification or other derogatory action prejudicial to the Original Author's honor and reputation, the Licensor will waive or not assert, as appropriate, this Section, to the fullest extent permitted by the applicable national law, to enable You to reasonably exercise Your right under Section 3(b) of this License (right to make Adaptations) but not otherwise.

**5. Representations, Warranties and Disclaimer**

UNLESS OTHERWISE MUTUALLY AGREED TO BY THE PARTIES IN WRITING, LICENSOR OFFERS THE WORK AS-IS AND MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE WORK, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR THE ABSENCE OF LATENT OR OTHER DEFECTS, ACCURACY, OR THE PRESENCE OF ABSENCE OF ERRORS, WHETHER OR NOT DISCOVERABLE. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO SUCH EXCLUSION MAY NOT APPLY TO YOU.

**6. Limitation on Liability.** EXCEPT TO THE EXTENT REQUIRED BY APPLICABLE LAW, IN NO EVENT WILL LICENSOR BE LIABLE TO YOU ON ANY LEGAL THEORY FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES ARISING OUT OF THIS LICENSE OR THE USE OF THE WORK, EVEN IF LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

**7. Termination**

This License and the rights granted hereunder will terminate automatically upon any breach by You of the terms of this License. Individuals or entities who have received Adaptations or Collections from You under this License, however, will not have their licenses terminated provided such individuals or entities remain in full compliance with those licenses. Sections 1, 2, 5, 6, 7, and 8 will survive any termination of this License.

Subject to the above terms and conditions, the license granted here is perpetual (for the duration of the applicable copyright in the Work). Notwithstanding the above, Licensor reserves the right to release the Work under different license terms or to stop distributing the Work at any time; provided, however that any such election will not serve to withdraw this License (or any other license that has been, or is required to be, granted under the terms of this License), and this License will continue in full force and effect unless terminated as stated above.

**8. Miscellaneous**

Each time You Distribute or Publicly Perform the Work or a Collection, the Licensor offers to the recipient a license to the Work on the same terms and conditions as the license granted to You under this License.

Each time You Distribute or Publicly Perform an Adaptation, Licensor offers to the recipient a license to the original Work on the same terms and conditions as the license granted to You under this License.



If any provision of this License is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this License, and without further action by the parties to this agreement, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.

No term or provision of this License shall be deemed waived and no breach consented to unless such waiver or consent shall be in writing and signed by the party to be charged with such waiver or consent.

This License constitutes the entire agreement between the parties with respect to the Work licensed here. There are no understandings, agreements or representations with respect to the Work not specified here. Licensor shall not be bound by any additional provisions that may appear in any communication from You. This License may not be modified without the mutual written agreement of the Licensor and You.

The rights granted under, and the subject matter referenced, in this License were drafted utilizing the terminology of the Berne Convention for the Protection of Literary and Artistic Works (as amended on September 28, 1979), the Rome Convention of 1961, the WIPO Copyright Treaty of 1996, the WIPO Performances and Phonograms Treaty of 1996 and the Universal Copyright Convention (as revised on July 24, 1971). These rights and subject matter take effect in the relevant jurisdiction in which the License terms are sought to be enforced according to the corresponding provisions of the implementation of those treaty provisions in the applicable national law. If the standard suite of rights granted under applicable copyright law includes additional rights not granted under this License, such additional rights are deemed to be included in the License; this License is not intended to restrict the license of any rights under applicable law.

#### Creative Commons Notice

Creative Commons is not a party to this License, and makes no warranty whatsoever in connection with the Work. Creative Commons will not be liable to You or any party on any legal theory for any damages whatsoever, including without limitation any general, special, incidental or consequential damages arising in connection to this license. Notwithstanding the foregoing two (2) sentences, if Creative Commons has expressly identified itself as the Licensor hereunder, it shall have all rights and obligations of Licensor.

Except for the limited purpose of indicating to the public that the Work is licensed under the CCPL, Creative Commons does not authorize the use by either party of the trademark "Creative Commons" or any related trademark or logo of Creative Commons without the prior written consent of Creative Commons. Any permitted use will be in compliance with Creative Commons' then-current trademark usage guidelines, as may be published on its website or otherwise made available upon request from time to time. For the avoidance of doubt, this trademark restriction does not form part of this License.

Creative Commons may be contacted at <http://creativecommons.org/>.

## A.5 Geospatial Data Abstraction Library/OpenGIS Simple Features Reference Implementation (GDAL/OGR) License

### **GDAL/OGR Licensing**

This file attempts to include all licenses that apply within the GDAL/OGR source tree, in particular any that are supposed to be exposed to the end user for credit requirements for instance. The contents of this file can be displayed from GDAL commandline utilities using the --license commandline switch.

### **GDAL/OGR General**

In general GDAL/OGR is licensed under an MIT/X style license with the following terms:

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

#### **gdal/frmts/gtiff/tif\_float.c**

Copyright (c) 2002, Industrial Light & Magic, a division of Lucas Digital Ltd. LLC

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of Industrial Light & Magic nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

#### **gdal/frmts/hdf4/hdf-eos/\***

Copyright (C) 1996 Hughes and Applied Research Corporation

Permission to use, modify, and distribute this software and its documentation for any purpose without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation.

#### **gdal/frmts/pcraster/libcsf**

Copyright (c) 1997-2003, Utrecht University



All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of Utrecht University nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

#### **gdal/frmts/grib/degrib/\***

The degrib and g2clib source code are modified versions of code produced by NOAA NWS and are in the public domain subject to the following restrictions:

<http://www.weather.gov/im/softa.htm>

**DISCLAIMER** The United States Government makes no warranty, expressed or implied, as to the usefulness of the software and documentation for any purpose. The U.S. Government, its instrumentalities, officers, employees, and agents assumes no responsibility (1) for the use of the software and documentation listed below, or (2) to provide technical support to users.

<http://www.weather.gov/disclaimer.php>

The information on government servers are in the public domain, unless specifically annotated otherwise, and may be used freely by the public so long as you do not 1) claim it is your own (e.g. by claiming copyright for NWS information -- see below), 2) use it in a manner that implies an endorsement or affiliation with NOAA/NWS, or 3) modify it in content and then present it as official government material. You also cannot present information of your own in a way that makes it appear to be official government information.

The user assumes the entire risk related to its use of this data. NWS is providing this data "as is," and NWS disclaims any and all warranties, whether express or implied, including (without limitation) any implied warranties of merchantability or fitness for a particular purpose. In no event will NWS be liable to you or to any third party for any direct, indirect, incidental, consequential, special or exemplary damages or lost profit resulting from any use or misuse of this data.

As required by 17 U.S.C. 403, third parties producing copyrighted works consisting predominantly of the material appearing in NWS Web pages must provide notice with such work(s) identifying the NWS material incorporated and stating that such material is not subject to copyright protection.

**port/cpl\_minizip\***

This is version 2005-Feb-10 of the Info-ZIP copyright and license. The definitive version of this document should be available at <ftp://ftp.info-zip.org/pub/infozip/license.html> indefinitely.

Copyright (c) 1990-2005 Info-ZIP. All rights reserved.

For the purposes of this copyright and license, "Info-ZIP" is defined as the following set of individuals: Mark Adler, John Bush, Karl Davis, Harald Denker, Jean-Michel Dubois, Jean-loup Gailly, Hunter Goatley, Ed Gordon, Ian Gorman, Chris Herborth, Dirk Haase, Greg Hartwig, Robert Heath, Jonathan Hudson, Paul Kienitz, David Kirschbaum, Johnny Lee, Onno van der Linden, Igor Mandrichenko, Steve P. Miller, Sergio Monesi, Keith Owens, George Petrov, Greg Roelofs, Kai Uwe Rommel, Steve Salisbury, Dave Smith, Steven M. Schweda, Christian Spieler, Cosmin Truta, Antoine Verheijen, Paul von Behren, Rich Wales, Mike White

This software is provided "as is," without warranty of any kind, express or implied. In no event shall Info-ZIP or its contributors be held liable for any direct, indirect, incidental, special or consequential damages arising out of the use of or inability to use this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

1. Redistributions of source code must retain the above copyright notice, definition, disclaimer, and this list of conditions.
2. Redistributions in binary form (compiled executables) must reproduce the above copyright notice, definition, disclaimer, and this list of conditions in documentation and/or other materials provided with the distribution. The sole exception to this condition is redistribution of a standard UnZipSFX binary (including SFXWiz) as part of a self-extracting archive; that is permitted without inclusion of this license, as long as the normal SFX banner has not been removed from the binary or disabled.
3. Altered versions--including, but not limited to, ports to new operating systems, existing ports with new graphical interfaces, and dynamic, shared, or static library versions--must be plainly marked as such and must not be misrepresented as being the original source. Such altered versions also must not be misrepresented as being Info-ZIP releases--including, but not limited to, labeling of the altered versions with the names "Info-ZIP" (or any variation thereof, including, but not limited to, different capitalizations), "Pocket UnZip," "WiZ" or "MacZip" without the explicit permission of Info-ZIP. Such altered versions are further prohibited from misrepresentative use of the Zip-Bugs or Info-ZIP e-mail addresses or of the Info-ZIP URL(s).
4. Info-ZIP retains the right to use the names "Info-ZIP," "Zip," "UnZip," "UnZipSFX," "WiZ," "Pocket UnZip," "Pocket Zip," and "MacZip" for its own source and binary releases.

**gdal/ogr/ogrsf\_frmts/dxf/intronurbs.cpp**

This code is derived from the code associated with the book "An Introduction to NURBS" by David F. Rogers. More information on the book and the code is available at: <http://www.nar-associates.com/nurbs/>

Copyright (c) 2009, David F. Rogers

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of the David F. Rogers nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

## A.6 HttpComponents Core License

Apache HttpComponents Core

Copyright 2005-2013 The Apache Software Foundation

This product includes software developed at

The Apache Software Foundation (<http://www.apache.org/>).

This project contains annotations derived from JCIP-ANNOTATIONS

Copyright (c) 2005 Brian Goetz and Tim Peierls. See <http://www.jcip.net>

This product is licensed under the Apache 2.0 license. See "[The Apache Software License, Version 2.0](#)".

=====

This project contains annotations in the package org.apache.http.annotation which are derived from JCIP-ANNOTATIONS

Copyright (c) 2005 Brian Goetz and Tim Peierls.

See <http://www.jcip.net> and the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.5>)

Full text: <http://creativecommons.org/licenses/by/2.5/legalcode>

License

THE WORK (AS DEFINED BELOW) IS PROVIDED UNDER THE TERMS OF THIS CREATIVE COMMONS PUBLIC LICENSE ("CCPL" OR "LICENSE"). THE WORK IS PROTECTED BY COPYRIGHT AND/OR OTHER APPLICABLE LAW. ANY USE OF THE WORK OTHER THAN AS AUTHORIZED UNDER THIS LICENSE OR COPYRIGHT LAW IS PROHIBITED.

BY EXERCISING ANY RIGHTS TO THE WORK PROVIDED HERE, YOU ACCEPT AND AGREE TO BE BOUND BY THE TERMS OF THIS LICENSE. THE LICENSOR GRANTS YOU THE RIGHTS CONTAINED HERE IN CONSIDERATION OF YOUR ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

## 1. Definitions

"Collective Work" means a work, such as a periodical issue, anthology or encyclopedia, in which the Work in its entirety in unmodified form, along with a number of other contributions, constituting separate and independent works in themselves, are assembled into a collective whole. A work that constitutes a Collective Work will not be considered a Derivative Work (as defined below) for the purposes of this License.

"Derivative Work" means a work based upon the Work or upon the Work and other pre-existing works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which the Work may be recast, transformed, or adapted, except that a work that constitutes a Collective Work will not be considered a Derivative Work for the purpose of this License. For the avoidance of doubt, where the Work is a musical composition or sound recording, the synchronization of the Work in timed-relation with a moving image ("synching") will be considered a Derivative Work for the purpose of this License.

"Licensor" means the individual or entity that offers the Work under the terms of this License.

"Original Author" means the individual or entity who created the Work.

"Work" means the copyrightable work of authorship offered under the terms of this License.

"You" means an individual or entity exercising rights under this License who has not previously violated the terms of this License with respect to the Work, or who has received express permission from the Licensor to exercise rights under this License despite a previous violation.

2. Fair Use Rights. Nothing in this license is intended to reduce, limit, or restrict any rights arising from fair use, first sale or other limitations on the exclusive rights of the copyright owner under copyright law or other applicable laws.

3. License Grant. Subject to the terms and conditions of this License, Licensor hereby grants You a worldwide, royalty-free, non-exclusive, perpetual (for the duration of the applicable copyright) license to exercise the rights in the Work as stated below:

to reproduce the Work, to incorporate the Work into one or more Collective Works, and to reproduce the Work as incorporated in the Collective Works;

to create and reproduce Derivative Works;

to distribute copies or phonorecords of, display publicly, perform publicly, and perform publicly by means of a digital audio transmission the Work including as incorporated in Collective Works;

to distribute copies or phonorecords of, display publicly, perform publicly, and perform publicly by means of a digital audio transmission Derivative Works.

For the avoidance of doubt, where the work is a musical composition:

Performance Royalties Under Blanket Licenses. Licensor waives the exclusive right to collect, whether individually or via a performance rights society (e.g. ASCAP, BMI, SESAC), royalties for the public performance or public digital performance (e.g. webcast) of the Work.

Mechanical Rights and Statutory Royalties. Licensor waives the exclusive right to collect, whether individually or via a music rights agency or designated agent (e.g. Harry Fox Agency), royalties for any phonorecord You create from the Work ("cover version") and distribute, subject to the compulsory license created by 17 USC Section 115 of the US Copyright Act (or the equivalent in other jurisdictions).

Webcasting Rights and Statutory Royalties. For the avoidance of doubt, where the Work is a sound recording, Licensor waives the exclusive right to collect, whether individually or via a

performance-rights society (e.g. SoundExchange), royalties for the public digital performance (e.g. webcast) of the Work, subject to the compulsory license created by 17 USC Section 114 of the US Copyright Act (or the equivalent in other jurisdictions).

The above rights may be exercised in all media and formats whether now known or hereafter devised. The above rights include the right to make such modifications as are technically necessary to exercise the rights in other media and formats. All rights not expressly granted by Licensor are hereby reserved.

4. Restrictions. The license granted in Section 3 above is expressly made subject to and limited by the following restrictions:

You may distribute, publicly display, publicly perform, or publicly digitally perform the Work only under the terms of this License, and You must include a copy of, or the Uniform Resource Identifier for, this License with every copy or phonorecord of the Work You distribute, publicly display, publicly perform, or publicly digitally perform. You may not offer or impose any terms on the Work that alter or restrict the terms of this License or the recipients' exercise of the rights granted hereunder. You may not sublicense the Work. You must keep intact all notices that refer to this License and to the disclaimer of warranties. You may not distribute, publicly display, publicly perform, or publicly digitally perform the Work with any technological measures that control access or use of the Work in a manner inconsistent with the terms of this License Agreement. The above applies to the Work as incorporated in a Collective Work, but this does not require the Collective Work apart from the Work itself to be made subject to the terms of this License. If You create a Collective Work, upon notice from any Licensor You must, to the extent practicable, remove from the Collective Work any credit as required by clause 4(b), as requested. If You create a Derivative Work, upon notice from any Licensor You must, to the extent practicable, remove from the Derivative Work any credit as required by clause 4(b), as requested.

If you distribute, publicly display, publicly perform, or publicly digitally perform the Work or any Derivative Works or Collective Works, You must keep intact all copyright notices for the Work and provide, reasonable to the medium or means You are utilizing: (i) the name of the Original Author (or pseudonym, if applicable) if supplied, and/or (ii) if the Original Author and/or Licensor designate another party or parties (e.g. a sponsor institute, publishing entity, journal) for attribution in Licensor's copyright notice, terms of service or by other reasonable means, the name of such party or parties; the title of the Work if supplied; to the extent reasonably practicable, the Uniform Resource Identifier, if any, that Licensor specifies to be associated with the Work, unless such URI does not refer to the copyright notice or licensing information for the Work; and in the case of a Derivative Work, a credit identifying the use of the Work in the Derivative Work (e.g., "French translation of the Work by Original Author," or "Screenplay based on original Work by Original Author"). Such credit may be implemented in any reasonable manner; provided, however, that in the case of a Derivative Work or Collective Work, at a minimum such credit will appear where any other comparable authorship credit appears and in a manner at least as prominent as such other comparable authorship credit.

5. Representations, Warranties and Disclaimer

UNLESS OTHERWISE MUTUALLY AGREED TO BY THE PARTIES IN WRITING, LICENSOR OFFERS THE WORK AS-IS AND MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE WORK, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR THE ABSENCE OF LATENT OR OTHER DEFECTS, ACCURACY, OR THE PRESENCE OF ABSENCE OF ERRORS, WHETHER OR NOT DISCOVERABLE. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO SUCH EXCLUSION MAY NOT APPLY TO YOU.

6. Limitation on Liability. EXCEPT TO THE EXTENT REQUIRED BY APPLICABLE LAW, IN NO EVENT WILL LICENSOR BE LIABLE TO YOU ON ANY LEGAL THEORY FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES ARISING OUT OF THIS LICENSE OR THE USE OF THE WORK, EVEN IF LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### 7. Termination

This License and the rights granted hereunder will terminate automatically upon any breach by You of the terms of this License. Individuals or entities who have received Derivative Works or Collective Works from You under this License, however, will not have their licenses terminated provided such individuals or entities remain in full compliance with those licenses. Sections 1, 2, 5, 6, 7, and 8 will survive any termination of this License.

Subject to the above terms and conditions, the license granted here is perpetual (for the duration of the applicable copyright in the Work). Notwithstanding the above, Licensor reserves the right to release the Work under different license terms or to stop distributing the Work at any time; provided, however that any such election will not serve to withdraw this License (or any other license that has been, or is required to be, granted under the terms of this License), and this License will continue in full force and effect unless terminated as stated above.

#### 8. Miscellaneous

Each time You distribute or publicly digitally perform the Work or a Collective Work, the Licensor offers to the recipient a license to the Work on the same terms and conditions as the license granted to You under this License.

Each time You distribute or publicly digitally perform a Derivative Work, Licensor offers to the recipient a license to the original Work on the same terms and conditions as the license granted to You under this License.

If any provision of this License is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this License, and without further action by the parties to this agreement, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.

No term or provision of this License shall be deemed waived and no breach consented to unless such waiver or consent shall be in writing and signed by the party to be charged with such waiver or consent.

This License constitutes the entire agreement between the parties with respect to the Work licensed here. There are no understandings, agreements or representations with respect to the Work not specified here. Licensor shall not be bound by any additional provisions that may appear in any communication from You. This License may not be modified without the mutual written agreement of the Licensor and You.

## A.7 Netty License

The Netty Project

=====

Please visit the Netty web site for more information:

- <http://netty.io/>

Copyright 2011 The Netty Project



The Netty Project licenses this file to you under the Apache License, version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at:

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Also, please refer to each LICENSE.<component>.txt file, which is located in the 'license' directory of the distribution file, for the license terms of the components that this product depends on.

-----  
This product contains the extensions to Java Collections Framework which has been derived from the works by JSR-166 EG, Doug Lea, and Jason T. Greene:

- LICENSE:
  - [license/LICENSE.jsr166y.txt](#) (Public Domain)
- HOMEPAGE:
  - <http://gee.cs.oswego.edu/cgi-bin/viewcvs.cgi/jsr166/>
  - <http://viewvc.jboss.org/cgi-bin/viewvc.cgi/jboss/cache/experimental/jsr166/>

This product contains a modified version of Robert Harder's Public Domain Base64 Encoder and Decoder, which can be obtained at:

- LICENSE:
  - [license/LICENSE.base64.txt](#) (Public Domain)
- HOMEPAGE:
  - <http://iharder.sourceforge.net/current/java/base64/>

This product contains a modified version of 'JZlib', a re-implementation of zlib in pure Java, which can be obtained at:

- LICENSE:
  - [license/LICENSE.jzlib.txt](#) (BSD Style License)
- HOMEPAGE:
  - <http://www.jcraft.com/jzlib/>

Copyright (c) 2000-2011 ymnk, JCraft, Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The names of the authors may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JCRAFT, INC. OR ANY CONTRIBUTORS TO THIS SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product optionally depends on 'Protocol Buffers', Google's data interchange format, which can be obtained at:

- LICENSE:
  - [license/LICENSE.protobuf.txt](#) (New BSD License)
- HOMEPAGE:
  - <http://code.google.com/p/protobuf/>

This product optionally depends on 'SLF4J', a simple logging facade for Java, which can be obtained at:

- LICENSE:
  - [license/LICENSE.slf4j.txt](#) (MIT License)
- HOMEPAGE:
  - <http://www.slf4j.org/>

This product optionally depends on 'Apache Commons Logging', a logging framework, which can be obtained at:

- LICENSE:
  - [license/LICENSE.commons-logging.txt](#) (Apache License 2.0)
- HOMEPAGE:
  - <http://commons.apache.org/logging/>

This product optionally depends on 'Apache Log4J', a logging framework, which can be obtained at:

- LICENSE:
  - [license/LICENSE.log4j.txt](#) (Apache License 2.0)
- HOMEPAGE:
  - <http://logging.apache.org/log4j/>

This product optionally depends on 'JBoss Logging', a logging framework, which can be obtained at:

- LICENSE:
  - [license/LICENSE.jboss-logging.txt](#) (GNU LGPL 2.1)
- HOMEPAGE:
  - <http://anonsvn.jboss.org/repos/common/common-logging-spi/>



This product optionally depends on 'Apache Felix', an open source OSGi framework implementation, which can be obtained at:

- LICENSE:
  - license/LICENSE.felix.txt (Apache License 2.0)
- HOMEPAGE:
  - <http://felix.apache.org/>

This product optionally depends on 'Webbit', a Java event based WebSocket and HTTP server:

- LICENSE:
  - license/LICENSE.webbit.txt (BSD License)
- HOMEPAGE:
  - <https://github.com/joewalnes/webbit>

This product is licensed under the Apache 2.0 license. See "[The Apache Software License, Version 2.0](#)".

## A.8 Perl Interpreter License

This program contains third-party code licensed under the Artistic license, the terms of which require Oracle to provide the following notices. Note, however, that the Oracle program license that accompanied this product determines your right to use the Oracle program, including the (xxx) software, and the terms contained in the following notices do not change those rights.

In accordance with the terms of the Perl licensing scheme, Oracle is hereby making the election to license (XXX) software under the Artistic License.

Source code for the (XXX) software may be obtained at the following sites:

This program is free software; you can redistribute it and/or modify it under the same terms as Perl itself.

The "Artistic License"

Preamble

The intent of this document is to state the conditions under which a Package may be copied, such that the Copyright Holder maintains some semblance of artistic control over the development of the package, while giving the users of the package the right to use and distribute the Package in a more-or-less customary fashion, plus the right to make reasonable modifications.

Definitions:

"Package" refers to the collection of files distributed by the Copyright Holder, and derivatives of that collection of files created through textual modification.

"Standard Version" refers to such a Package if it has not been modified, or has been modified in accordance with the wishes of the Copyright Holder as specified below.

"Copyright Holder" is whoever is named in the copyright or copyrights for the package.

"You" is you, if you're thinking about copying or distributing this Package.

"Reasonable copying fee" is whatever you can justify on the basis of media cost, duplication charges, time of people involved, and so on. (You will not be required to justify it to the

Copyright Holder, but only to the computing community at large as a market that must bear the fee.)

"Freely Available" means that no fee is charged for the item itself, though there may be fees involved in handling the item. It also means that recipients of the item may redistribute it under the same conditions they received it.

1. You may make and give away verbatim copies of the source form of the Standard Version of this Package without restriction, provided that you duplicate all of the original copyright notices and associated disclaimers.
2. You may apply bug fixes, portability fixes and other modifications derived from the Public Domain or from the Copyright Holder. A Package modified in such a way shall still be considered the Standard Version.
3. You may otherwise modify your copy of this Package in any way, provided that you insert a prominent notice in each changed file stating how and when you changed that file, and provided that you do at least ONE of the following:
  - a. place your modifications in the Public Domain or otherwise make them Freely Available, such as by posting said modifications to Usenet or an equivalent medium, or placing the modifications on a major archive site such as uunet.uu.net, or by allowing the Copyright Holder to include your modifications in the Standard Version of the Package.
  - b. use the modified Package only within your corporation or organization.
  - c. rename any non-standard executables so the names do not conflict with standard executables, which must also be provided, and provide a separate manual page for each non-standard executable that clearly documents how it differs from the Standard Version.
  - d. make other distribution arrangements with the Copyright Holder.
4. You may distribute the programs of this Package in object code or executable form, provided that you do at least ONE of the following:
  - a. distribute a Standard Version of the executables and library files, together with instructions (in the manual page or equivalent) on where to get the Standard Version.
  - b. accompany the distribution with the machine-readable source of the Package with your modifications.
  - c. give non-standard executables non-standard names, and clearly document the differences in manual pages (or equivalent), together with instructions on where to get the Standard Version.
  - d. make other distribution arrangements with the Copyright Holder.
5. You may charge a reasonable copying fee for any distribution of this Package. You may charge any fee you choose for support of this Package. You may not charge a fee for this Package itself. However, you may distribute this Package in aggregate with other (possibly commercial) programs as part of a larger (possibly commercial) software distribution provided that you do not advertise this Package as a product of your own. You may embed this Package's interpreter within an executable of yours (by linking); this shall be construed as a mere form of aggregation, provided that the complete Standard Version of the interpreter is so embedded.
6. The scripts and library files supplied as input to or produced as output from the programs of this Package do not automatically fall under the copyright of this Package, but belong to whoever generated them, and may be sold commercially, and may be aggregated with this Package. If such scripts or library files are aggregated with this Package via the so-called "undump" or "unexec" methods of producing a binary executable image, then distribution

of such an image shall neither be construed as a distribution of this Package nor shall it fall under the restrictions of Paragraphs 3 and 4, provided that you do not represent such an executable image as a Standard Version of this Package.

7. C subroutines (or comparably compiled subroutines in other languages) supplied by you and linked into this Package in order to emulate subroutines and variables of the language defined by this Package shall not be considered part of this Package, but are the equivalent of input as in Paragraph 6, provided these subroutines do not change the language in any way that would cause it to fail the regression tests for the language.
8. Aggregation of this Package with a commercial distribution is always permitted provided that the use of this Package is embedded; that is, when no overt attempt is made to make this Package's interfaces visible to the end user of the commercial distribution. Such use shall not be construed as a distribution of this Package.
9. The name of the Copyright Holder may not be used to endorse or promote products derived from this software without specific prior written permission.
10. THIS PACKAGE IS PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The End

## A.9 The Apache Software License, Version 1.1

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment:  
  
"This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>)."  
  
Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.
4. The names identified above with the specific software must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact [apache@apache.org](mailto:apache@apache.org).
5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Group.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)

ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

## A.10 The Apache Software License, Version 2.0

The following applies to all products licensed under the Apache 2.0 License:

You may not use the identified files except in compliance with the Apache License, Version 2.0 (the "License.")

You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>. A copy of the license is also reproduced below.

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.

See the License for the specific language governing permissions and limitations under the License.

Apache License

Version 2.0, January 2004

<http://www.apache.org/licenses/>

### TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

#### 1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

(c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work\ by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[ ]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.



# Index

## Symbols

---

.NET Stored Procedures, [1-5](#)

## A

---

Active Data Guard

See Oracle Active Data Guard

Active Directory, [1-5](#)

adaptive execution plans, [1-9](#)

Advanced Analytics

See Oracle Advanced Analytics

Advanced Compression

See Oracle Advanced Compression

advanced index compression, [1-12](#)

Advanced Security

See Oracle Advanced Security

Application Continuity, [1-5](#)

Application Express

See Oracle Application Express

AQ sharded queues, [1-7](#)

ASM

See Oracle Automatic Storage Management (Oracle ASM)

attribute clustering, [1-10](#)

Authorized Cloud Environments, [1-1](#)

feature availability, [1-3](#)

automatic block repair, [1-6](#), [1-14](#)

automatic data optimization, [1-12](#)

Automatic Workload Management, [1-10](#)

## B

---

backup and recovery, [1-6](#), [1-7](#)

backup, fast incremental, [1-6](#), [1-14](#)

BaseDB EE

See Oracle Base Database Service Enterprise Edition

BaseDB EE-EP

See Oracle Base Database Service Enterprise Edition - Extreme Performance

BaseDB EE-HP

See Oracle Base Database Service Enterprise Edition - High Performance

BaseDB SE

See Oracle Base Database Service Standard Edition

basic table compression, [1-12](#)

bitmap plan conversion, [1-13](#)

bitmapped index, [1-13](#)

block compression, [1-6](#)

block repair, [1-6](#)

block-level media recovery, [1-6](#)

## C

---

client side query cache, [1-9](#)

Cloud Management Pack

See Oracle Cloud Management Pack

column encryption, [1-10](#)

concurrent execution of UNION branches, [1-9](#)

Connection Manager

See Oracle Connection Manager

## D

---

Data Guard

See Oracle Data Guard

Data Guard Far Sync, [1-5](#), [1-41](#)

Data Masking and Subsetting Pack

See Oracle Data Masking and Subsetting Pack

Data Pump, [1-13](#)

database gateways, [1-7](#)

Database In-Memory

See Oracle Database In-Memory

Database Migration Planner, [1-17](#)

Database Migration Workbench, [1-17](#)

database options, [1-13](#)

checking for usage, [1-40](#)

Oracle Active Data Guard, [1-6](#), [1-14](#)

Oracle Advanced Compression, [1-12](#), [1-14](#)

Oracle Advanced Security, [1-10](#), [1-15](#), [1-41](#)

Oracle Database In-Memory, [1-9](#), [1-15](#)

Oracle Database Vault, [1-11](#), [1-15](#), [1-41](#), [1-45](#)

Oracle Label Security, [1-11](#), [1-15](#)

Oracle Multitenant, [1-4](#), [1-16](#)

Oracle On-Line Analytical Processing, [1-16](#)

Oracle On-Line Analytical Processing (OLAP), [1-12](#)

Oracle Partitioning, [1-11](#), [1-12](#), [1-16](#)

Oracle RAC One Node, [1-5](#), [1-16](#)

Oracle Real Application Clusters, [1-16](#)



database options (*continued*)  
 Oracle Real Application Clusters (Oracle RAC), [1-1](#), [1-10](#), [1-41](#)  
 Oracle Real Application Testing, [1-8](#), [1-17](#), [1-41](#)  
 Oracle TimesTen Application-Tier Database Cache, [1-9](#), [1-18](#)  
 Database Replay, [1-17](#), [1-41](#)  
 Database Resource Manager, [1-8](#)  
 Database Smart Flash Cache, [1-9](#)  
 Database Vault  
 See Oracle Database Vault  
 deferred segment creation, [1-13](#)  
 Diagnostics Pack  
 See Oracle Diagnostics Pack  
 duplexed backup sets, [1-6](#)

## E

---

editions, [1-1](#)  
 EE  
 See Oracle Database Enterprise Edition  
 EE-Exa  
 See Oracle Database Enterprise Edition on Oracle Exadata Database Machine  
 encryption  
 column, [1-10](#)  
 network, [1-9](#)  
 tablespace, [1-10](#)  
 Enterprise Edition  
 See Oracle Database Enterprise Edition  
 Enterprise Package  
 See Oracle Base Database Service Enterprise Edition  
 Enterprise User Security, [1-11](#), [1-41](#), [1-45](#)  
 ExaCC  
 See Oracle Database Exadata Cloud@Customer  
 ExaCS  
 See Oracle Database Exadata Cloud Service  
 ExaCS/CC  
 See Oracle Database Exadata Cloud Service and Oracle Database Exadata Cloud@Customer  
 Exadata  
 See Oracle Database Enterprise Edition on Oracle Exadata Database Machine  
 Extreme Performance Package  
 See Oracle Base Database Service Enterprise Edition - Extreme Performance

## F

---

Fail Safe  
 See Oracle Fail Safe  
 far sync, [1-5](#), [1-41](#)  
 fast incremental backup, [1-6](#), [1-14](#)  
 fast-start fault recovery, [1-6](#)  
 Fault Tolerant In-Memory Column Store, [1-10](#)

feature availability, [1-3](#)  
 fine-grained auditing, [1-11](#)  
 flash cache, [1-9](#)  
 flashback  
 database, [1-6](#)  
 table, [1-6](#)  
 transaction, [1-6](#)  
 transaction query, [1-6](#)  
 Flashback Data Archive, [1-7](#)  
 Fleet Patching and Provisioning, [1-8](#)

## G

---

Gateway for ODBC  
 See Oracle Database Gateway for ODBC  
 Global Data Services, [1-7](#), [1-41](#), [1-45](#)

## H

---

heat map, [1-12](#)  
 High Performance Package  
 See Oracle Base Database Service Enterprise Edition - High Performance  
 HTTP Server  
 See Oracle HTTP Server  
 hybrid columnar compression, [1-12](#)  
 row-level locking, [1-12](#)

## I

---

I/O Resource Management, [1-8](#)  
 In-Memory  
 See Oracle Database In-Memory  
 In-Memory Aggregation, [1-10](#)  
 In-Memory Column Store, [1-9](#)  
 fault tolerant, [1-10](#)  
 In-Memory Parallel Execution, [1-13](#)  
 index rebuild, [1-6](#)  
 infrastructure repository databases, [1-41](#)  
 Instance Caging, [1-8](#)  
 Internet Directory  
 See Oracle Internet Directory (OID)

## K

---

key compression  
 See prefix compression

## L

---

Label Security  
 See Oracle Label Security  
 Lifecycle Management Pack  
 See Oracle Database Lifecycle Management Pack for Oracle Database  
 Load Testing Accelerator, [1-47](#)

lost write protection, [1-6](#)

## M

---

### Machine Learning

See Oracle Machine Learning

management packs, [1-18](#)

checking for usage, [1-40](#)

Oracle Cloud Management Pack, [1-7](#), [1-19](#)

Oracle Data Masking and Subsetting Pack, [1-7](#), [1-22](#)

Oracle Database Lifecycle Management Pack for Oracle Database, [1-7](#), [1-24](#)

Oracle Diagnostics Pack, [1-8](#), [1-36](#)

Oracle Tuning Pack, [1-8](#), [1-39](#)

materialized view query rewrite, [1-13](#)

media recovery, [1-6](#)

messaging gateway, [1-7](#)

Microsoft Distributed Transaction Coordinator, [1-5](#)

### Multitenant

See Oracle Multitenant

## N

---

Native .NET Data Provider, [1-5](#)

network compression, [1-9](#)

network encryption, [1-9](#)

### NoSQL

See Oracle NoSQL Database

## O

---

### OC4J

See Oracle Application Server Containers for J2EE (OC4J)

offerings, [1-1](#)

### OID

See Oracle Internet Directory (OID)

### OLAP

See Oracle On-Line Analytical Processing (OLAP)

### OLTP

See Oracle On-Line Analytical Processing

online datafile move, [1-7](#)

online index rebuild, [1-6](#)

online table organization, [1-6](#)

online table redefinition, [1-6](#)

options

See database options

options\_packs\_usage\_statistics.sql, [1-40](#)

Oracle Active Data Guard, [1-6](#), [1-14](#)

rolling upgrades, [1-6](#)

Oracle Advanced Analytics, [1-12](#)

Oracle Advanced Compression, [1-12](#), [1-14](#), [1-45](#)

Oracle Advanced Security, [1-10](#), [1-15](#), [1-41](#), [1-45](#)

Oracle Application Express, [1-45](#)

Oracle Application Server Containers for J2EE (OC4J), [1-45](#)

Oracle Applications Unlimited, [1-45](#)

Oracle Automatic Storage Management (Oracle ASM), [1-41](#), [1-43](#)

Oracle Automatic Storage Management Cluster File System (Oracle ACFS), [1-41](#)

Oracle Base Database Service Enterprise Edition, [1-1](#)

feature availability, [1-3](#)

options, [1-13](#)

Oracle Base Database Service Enterprise Edition - Extreme Performance, [1-1](#)

feature availability, [1-3](#)

management packs, [1-18](#)

options, [1-13](#)

Oracle Base Database Service Enterprise Edition - High Performance, [1-1](#)

feature availability, [1-3](#)

management packs, [1-18](#)

options, [1-13](#)

Oracle Base Database Service Standard Edition, [1-1](#)

feature availability, [1-3](#)

options, [1-13](#)

Oracle Cloud Management Pack, [1-7](#), [1-19](#)

Oracle Clusterware, [1-41](#)

Oracle Connection Manager, [1-9](#), [1-41](#)

Oracle Data Guard, [1-5](#)

Oracle Data Masking and Subsetting Pack, [1-7](#), [1-22](#)

Oracle Database Backup Cloud Service, [1-41](#)

Oracle Database Enterprise Edition, [1-1](#)

feature availability, [1-3](#)

management packs, [1-18](#)

options, [1-13](#)

Oracle Database Enterprise Edition on Oracle Exadata Database Machine, [1-1](#)

feature availability, [1-3](#)

management packs, [1-18](#)

options, [1-13](#)

Oracle Database Exadata Cloud Service, [1-1](#)

feature availability, [1-3](#)

management packs, [1-18](#)

options, [1-13](#)

Oracle Database Exadata Cloud@Customer, [1-1](#)

feature availability, [1-3](#)

management packs, [1-18](#)

options, [1-13](#)

Oracle Database Gateway for ODBC, [1-41](#)

Oracle Database In-Memory, [1-9](#), [1-15](#)

Oracle Database Lifecycle Management Pack for Oracle Database, [1-7](#), [1-24](#)

Oracle Database Mobile Server, [1-45](#)

Oracle Database Personal Edition, [1-1](#)

feature availability, [1-1](#)

options, [1-13](#)

Oracle Database Provider for DRDA, [1-41](#)

Oracle Database Real Application Security, [1-11](#)  
 Oracle Database Standard Edition 2, [1-1](#)  
   feature availability, [1-3](#)  
   options, [1-13](#)  
   special-use licensing with Oracle Real Application Clusters, [1-41](#)  
 Oracle Database Vault, [1-11](#), [1-15](#), [1-41](#), [1-45](#)  
 Oracle Developer Tools for Visual Studio, [1-4](#)  
 Oracle Diagnostics Pack, [1-8](#), [1-36](#)  
 Oracle Exadata, [1-9](#)  
 Oracle Exadata Flash Cache Compression, [1-12](#)  
 Oracle Fail Safe, [1-5](#)  
 Oracle Fleet Patching and Provisioning, [1-8](#)  
 Oracle GoldenGate, [1-41](#)  
 Oracle HTTP Server, [1-45](#)  
 Oracle Internet Directory (OID), [1-41](#), [1-45](#)  
 Oracle Label Security, [1-11](#), [1-15](#), [1-41](#), [1-45](#)  
 Oracle Load Testing, [1-47](#)  
 Oracle Load Testing Controller, [1-47](#)  
 Oracle Machine Learning, [1-12](#)  
 Oracle Multitenant, [1-4](#), [1-16](#), [1-45](#)  
 Oracle NoSQL Database, [1-10](#)  
 Oracle On-Line Analytical Processing, [1-16](#)  
 Oracle On-Line Analytical Processing (OLAP), [1-12](#)  
 Oracle Partitioning, [1-11](#), [1-12](#), [1-16](#)  
 Oracle Programmer, [1-4](#), [1-45](#)  
 Oracle R Enterprise, [1-12](#)  
 Oracle RAC  
   See Oracle Real Application Clusters  
 Oracle RAC One Node, [1-5](#), [1-16](#)  
 Oracle Real Application Clusters, [1-16](#)  
 Oracle Real Application Clusters (Oracle RAC), [1-1](#), [1-10](#), [1-41](#)  
 Oracle Real Application Testing, [1-8](#), [1-17](#), [1-41](#), [1-45](#)  
 Oracle Secure Backup, [1-41](#), [1-45](#)  
 Oracle Secure Backup Cloud Module, [1-41](#), [1-45](#)  
 Oracle Secure Backup Express, [1-41](#), [1-45](#)  
 Oracle Sharding, [1-5](#), [1-45](#)  
 Oracle Spatial and Graph, [1-11](#)  
 Oracle Streams, [1-7](#)  
 Oracle TimesTen Application-Tier Database Cache, [1-9](#), [1-18](#)  
 Oracle Tuning Pack, [1-8](#), [1-39](#)  
 Oracle Unified Directory (OUD), [1-45](#)  
 Oracle Wallet, [1-41](#)

## P

---

packages, [1-1](#)  
 parallel  
   backup and recovery, [1-6](#)  
   capture and apply, [1-13](#)  
   index build/scans, [1-13](#)  
   query/DML, [1-13](#)

parallel (*continued*)  
   spatial index builds, [1-12](#)  
   statement queuing, [1-13](#)  
   statistics gathering, [1-13](#)  
 Parallel Data Pump Export/Import, [1-13](#)  
 partitioned spatial indexes, [1-12](#)  
 partitioning  
   See Oracle Partitioning  
 Partitioning  
   See Oracle Partitioning  
 PE  
   See Oracle Database Personal Edition  
 Personal Edition  
   See Oracle Database Personal Edition  
 physical standby, [1-14](#)  
 PL/SQL function result cache, [1-9](#)  
 pluggable databases, [1-4](#)  
 point-in-time recovery, [1-6](#)  
 prefix compression, [1-12](#)  
 privilege analysis, [1-11](#)  
 Provider for DRDA  
   See Oracle Database Provider for DRDA

## Q

---

Quality of Service Management, [1-10](#)  
 query cache, [1-9](#)  
 query results cache, [1-9](#)

## R

---

R  
   See Oracle R Enterprise  
 RAC  
   See Oracle Real Application Clusters  
 RAC One Node  
   See Oracle RAC One Node  
 rapid home provisioning, [1-8](#)  
 RDMA fabric, [1-9](#)  
 Real Application Clusters  
   See Oracle Real Application Clusters (Oracle RAC)  
 Real Application Security  
   See Oracle Database Real Application Security  
 Real Application Testing  
   See Oracle Real Application Testing  
 real-time cascading standby, [1-6](#)  
 Recovery Manager (RMAN), [1-45](#)  
 recovery,  
   block-level media, [1-6](#)  
   fast-start fault, [1-6](#)  
   parallel backup and, [1-6](#)  
   point-in-time, [1-6](#)  
   trial, [1-6](#)  
 redaction, [1-11](#)  
 redo apply, [1-5](#)  
 restricted use licensing, [1-45](#)  
 RMAN backups, [1-7](#)

rolling upgrades, [1-6](#)  
row-level locking, [1-12](#)

## S

---

### SE2

See Oracle Database Standard Edition 2

semantic technologies, [1-11](#)

Shard Director, [1-41](#)

sharded queues, [1-7](#)

smart flash cache, [1-9](#)

snapshot standby, [1-6](#)

snapshots, [1-11](#)

Spatial and Graph

See Oracle Spatial and Graph

special license rights, [1-41](#)

SQL apply, [1-5](#)

SQL Performance Analyzer, [1-17](#), [1-43](#)

SQL Plan Management, [1-8](#)

SQL Tuning Sets, [1-8](#)

SQLJ, [1-4](#)

Standard Edition 2

See Oracle Database Standard Edition 2

Standard Package

See Oracle Base Database Service Standard Edition

Streams

See Oracle Streams

## T

---

table compression, [1-12](#)

tablespace encryption, [1-10](#)

tablespace point-in-time recovery, [1-6](#)

TimesTen

See Oracle TimesTen Application-Tier Database Cache

TimesTen Application-Tier Database Cache

See Oracle TimesTen Application-Tier Database Cache

Transaction Guard, [1-7](#)

transparent sensitive data protection, [1-11](#)

transportable tablespaces, [1-13](#)

trial recovery, [1-6](#)

Tuning Pack

See Oracle Tuning Pack

## U

---

Uncompressed Flashback Data Archive, [1-7](#)

Unified Audit, [1-45](#)

upgrades, rolling, [1-6](#)

## V

---

vault

See Oracle Database Vault

Virtual Private Database, [1-11](#)

## W

---

Wallet

See Oracle Wallet

workload management, [1-10](#)

## X

---

XStream, [1-13](#), [1-41](#)

## Z

---

zone maps, [1-10](#), [1-16](#)