

**Oracle® Communications**  
**User Data Repository**  
**Licensing Information User Manual**  
Release 12.10  
**F47097-01**

August 2021

**ORACLE®**

F47097-01

Copyright © 2014, 2018, 2021 Oracle and/or its affiliates. All rights reserved.

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 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 installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. 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 and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon 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, Opteron, the AMD logo, and the AMD Opteron 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

Introduction .....	4
Licensing Information .....	5
Network Function Edition Licensing Information .....	7
Third-Party Notices .....	5
Commercial Software.....	5
Open Source Software .....	5
Third-Party Licenses .....	7
Apache License, Version 2.0 .....	7
Artistic License .....	9
Loki 0.1.7 License .....	11
The MIT License (MIT).....	14

## 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>.

## Licensing Information

Product	Subproduct	Licensing Description
Oracle Communications User Data Repository	Oracle Communications User Data Repository Base, Per Server	This product provides the following base User Data Repository functionality:  The Oracle Communications User Data Repository Base, Per Server is the base UDR product and is a mandatory license for the product. All R10.0.1 product functionality is represented by this license. Other licenses are capacity based licenses.
	Oracle Communications User Data Repository Enhanced Subscriber Profile Repository 25 Transactions Per Second Perpetual	The Oracle Communications User Data Repository Enhanced Subscriber Profile Repository 25 Transactions Per Second Perpetual is a mandatory product to account for all transactions that occur with the Oracle Communications User Data Repository product via the 3GPP defined Sh Diameter interface.  <b>Prerequisites:</b>  Oracle Communications User Data Repository Base.
	Oracle Communications User Data Repository Enhanced Subscriber Profile Repository 25K Subscribers Perpetual	The Oracle Communications User Data Repository (OCUDR) Enhanced Subscriber Profile Repository 25K Subscribers Perpetual product accounts for the capacity of all subscribers that are provisioned in the OCUDR database.  <b>Prerequisites:</b>  Oracle Communications User Data Repository Base.
	Oracle Communications Unified Data Repository, Schedule Quota Reset, Per Server	The Oracle Communications User Data Repository (OCUDR) Schedule Quota Reset product adds OCUDR client commands to reset quota on a range of subscribers (based on IMSI or MSISDN)  <b>Prerequisites:</b>  Oracle Communications User Data Repository Base.
	Oracle Communications Unified Data Repository, High Provisioning Performance, Per Server	The Oracle Communications User Data Repository (OCUDR) High Provisioning Performance product supports extending provisioning TPS from the base 400 TPS up to 2000 TPS (dependent on provisioning traffic model).  <b>Prerequisites:</b>  Oracle Communications User Data Repository Base.
	Oracle Communications Unified Data Repository, Client Access Whitelists, Per Server	The Oracle Communications User Data Repository (OCUDR) Client Access Whitelists product provides flexible configuration of provisioning clients within the same .subnet  <b>Prerequisites:</b>  Oracle Communications User Data Repository Base.
	Oracle Communications User Data Repository, Provisioning Quota Reset - Per Server Perpetual	The Oracle Communications User Data Repository Provisioning Quota Reset- per Server product enables reset of Pooled Quotas via the provisioning interface.  <b>Prerequisites:</b>  Oracle Communications User Data Repository Base.

Product	Subproduct	Licensing Description
	Oracle Communications User Data Repository, Enterprise Pools- Per 25K Subscribers Perpetual	<p>The Oracle Communications User Data Repository, Enterprise Pools - per 25K Subscribers Perpetual product enables the management of large shared quota pools to allow enterprise sized pools (up to 1500 members) to roll up to a single shared usage quota</p> <p><b>Prerequisites:</b></p> <p>Oracle Communications User Data Repository Base.</p>
	Oracle Communications User Data Repository, Third Site Replication - Per Server, Perpetual	<p>The Oracle Communications User Data Repository Third Site Replication- per Server Perpetual product provides the ability to replicate the subscriber database across three distinct geographic sites.</p> <p><b>Prerequisites:</b></p> <p>Oracle Communications User Data Repository Base.</p>

# Network Function Edition Licensing Information

Description of Product Editions and Permitted Features for the User Data Repository Function Edition. The Network Function Edition products cannot be mixed in the same network as any other User Data Repository products managed by a single Network OAM (NOAM).

Product	Subproduct	Licensing Description
Oracle Communications User Data Repository	Oracle Communications User Data Repository Network Function Edition - per 25K Subscribers Perpetual	<p>This product provides base User Data Repository functionality:</p> <p>It is a network-wide, mandatory license for the product and includes all base functionality for the product.</p> <p><b>Restriction:</b></p> <p>The Network Function Edition products cannot be mixed in the same network with any other User Data Repository Products.</p>
	Oracle Communications User Data Repository Network Function Edition for Scheduled Quota Reset - per 25K Subscribers Perpetual	<p>The Oracle Communications User Data Repository Network Function Edition for Schedule Quota Reset product adds OCUDR client commands to reset quota on a range of subscribers (based on IMSI or MSISDN)</p> <p><b>Prerequisites:</b></p> <p>Oracle Communications User Data Repository Network Function Edition - per 25K Subscribers Perpetual.</p>
	Oracle Communications User Data Repository Network Function Edition for Enterprise Pools - per 25K Subscribers Perpetual	<p>The Oracle Communications User Data Repository Network Function Edition for Enterprise Pools - per 25K Subscribers Perpetual product enables the management of large shared quota pools to allow enterprise sized pools (up to 1000 members) to roll up to a single shared usage quota.</p> <p><b>Prerequisites:</b></p> <p>Oracle Communications User Data Repository Network Function Edition - per 25K Subscribers Perpetual.</p>





## Third-Party Notices

### Commercial Software

Commercial software products or components distributed in Oracle Communications User Data Repository are identified in the following table along with the applicable licensing information:

Provider	Component(s)	Licensing Information
N/A	N/A	N/A

### Open Source Software

Required notices for open source software products or components distributed in Oracle Communications User Data Repository 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 open source software.

Provider	Component(s)	Licensing Information
Andrei Alexandrescu	Loki – 0.1.7	For a copy of the license, see <a href="#">Loki 0.1.7 License</a> and <a href="#">The MIT License (MIT)</a> .

Provider	Component(s)	Licensing Information
Apache Software Foundation	xerces-c – 3.2.3	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>For a copy of the license, see <a href="#">Apache License, Version 2.0</a>.</p> <p>=====</p> <p>NOTICE file corresponding to section 4(d) of the Apache License, Version 2.0, in this case for the Apache Xerces distribution.</p> <p>=====</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>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> </ul>
Arseny Kapoulkine	pugixml 1.11	<p>Copyright (c) 2006-2020 Arseny Kapoulkine</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>

---

# Third-Party Licenses

## Apache 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>.

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

## Artistic License

Licensed under the Artistic License (the "License"); you may not use this file except in compliance with this License.

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

## Loki 0.1.7 License

Copyright notices in the source code of Lok 0.1.7

### 1. LevelMutex facility for the Loki Library

Copyright (c) 2008 Richard Sposato

The copyright on this file is protected under the terms of the MIT license.

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

The author makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

### 2. The Loki Library

Copyright (c) 2006 Peter Kmmel

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

The author makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

### 3. The Loki Library

Copyright (c) 2001 by Andrei Alexandrescu

This code accompanies the book:

Alexandrescu, Andrei. "Modern C++ Design: Generic Programming and Design Patterns Applied". Copyright (c) 2001. Addison-Wesley.

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

The author or Addison-Wesley Longman make no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

### 4. The Loki Library

Copyright (c) 2006 by Guillaume Chatelet

Code covered by the MIT License

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

The authors make no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty. This code DOES NOT accompany the book:

Alexandrescu, Andrei. "Modern C++ Design: Generic Programming and Design Patterns Applied". Copyright (c) 2001. Addison-Wesley.

5. The Loki Library Copyright (c) 2008 Rich Sposato

The copyright on this file is protected under the terms of the MIT license.

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

The author makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

6. The Loki Library.

Data Generator by Shannon Barber

This code DOES NOT accompany the book:

Alexandrescu, Andrei. "Modern C++ Design: Generic Programming and Design Patterns Applied". Copyright (c) 2001. Addison-Wesley.

Code covered by the MIT License

The author makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

7. The Loki Library

Copyright (c) 2009 by Fedor Pikus & Rich Sposato

The copyright on this file is protected under the terms of the MIT license.

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

The author makes no claims about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

8. Copyright (c) 2000 Andrei Alexandrescu

Copyright (c) 2000 Petru Marginean

Copyright (c) 2005 Joshua Lehrer

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

The author makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

9. The Loki Library

Copyright (c) 2001 by Andrei Alexandrescu his code is from the article:

"Generic<Programming>: volatile ~W Multithreaded Programmer~Rs Best Friend

Volatile-Correctness or How to Have Your Compiler Detect Race Conditions for You" by Alexandrescu, Andrei.

Published in the February 2001 issue of the C/C++ Users Journal.

<http://www.cuj.com/documents/s=7998/cujcexp1902alexandr/>

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

The author makes no representations about the suitability of this software for any purpose. It is



provided "as is" without express or implied warranty. Prepared for Loki library by Richard Sposato

10. The Loki Library

Copyright (c) 2001 by Andrei Alexandrescu

Copyright (c) 2005 by Peter Kuemmel

This code DOES NOT accompany the book:

Alexandrescu, Andrei. "Modern C++ Design: Generic Programming and Design Patterns Applied". Copyright (c) 2001. Addison-Wesley.

Code covered by the MIT License

The authors make no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

11. Copyright (c) 2005 by Andrei Alexandrescu

Copyright (c) 2006 Peter Kummel

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

The author makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

12. Copyright (c) 2006 Richard Sposato

Copyright (c) 2006 Peter Kummel

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

The authors make no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

13. The Loki Library

Copyright (c) 2001 by Andrei Alexandrescu

Copyright (c) 2006 Richard Sposato

This code accompanies the book:

Alexandrescu, Andrei. "Modern C++ Design: Generic Programming and Design Patterns Applied". Copyright (c) 2001. Addison-Wesley.

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

The author or Addison-Wesley Longman make no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

\*\*\*\*\*

## **The MIT License (MIT)**

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.