

---

# Licensing Information User Manual

## MySQL Shell, part of MySQL 9.3.0 Commercial

### Table of Contents

|                                                             |     |
|-------------------------------------------------------------|-----|
| Licensing Information .....                                 | 2   |
| Licenses for Third-Party Components .....                   | 2   |
| ANTLR .....                                                 | 2   |
| cURL (libcurl) .....                                        | 3   |
| Google Protocol Buffers .....                               | 4   |
| GTK+ (GIMP Toolkit) .....                                   | 5   |
| Kerberos5 .....                                             | 5   |
| libssh .....                                                | 25  |
| linenoise-ng .....                                          | 26  |
| LZ4 .....                                                   | 27  |
| OpenSSL 3.0 .....                                           | 27  |
| Oracle OCI Python SDK .....                                 | 27  |
| Paramiko .....                                              | 35  |
| Python 3 .....                                              | 39  |
| RapidJSON v1.1.0 .....                                      | 54  |
| Setuptools .....                                            | 55  |
| TinyXML2 .....                                              | 56  |
| V8 .....                                                    | 56  |
| XZ Utils .....                                              | 59  |
| zlib .....                                                  | 60  |
| ZSTD (Zstandard) .....                                      | 60  |
| Additional third-party components .....                     | 66  |
| Standard Licenses .....                                     | 122 |
| Apache License v2.0, January 2004 .....                     | 122 |
| GNU Lesser General Public License v2.1, February 1999 ..... | 125 |
| Mozilla Public License 2.0 .....                            | 133 |
| Written Offer for Source Code .....                         | 139 |

This License Information User Manual contains Oracle's product license and other licensing information, including licensing information for third-party software which may be included in this distribution of MySQL Shell, part of MySQL 9.3.0 Commercial.

Last updated: April 2025

### Introduction

This 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)"). 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 (<https://www.oracle.com/corporate/pricing/>), and/or contact the applicable Oracle License Management Services representative listed on <https://www.oracle.com/corporate/license-management-services/>.

## Licensing Information

### Product License - MySQL Shell, part of MySQL 9.3.0 Commercial

Last updated: April 2025

Copyright (c) 1997, 2025, Oracle and/or its affiliates.

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.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

**U.S. GOVERNMENT RIGHTS.** Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software 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 which may create a risk of personal injury. If you use this software in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure the safe use of this software. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software in dangerous applications.

**Oracle** is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

This software and documentation may provide access to or information on 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. 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.

## Licenses for Third-Party Components

The following sections contain licensing information for libraries that may be included with this product. We are thankful to all individuals that have created these. Standard licenses referenced herein are detailed in the [Standard Licenses section](#).

### ANTLR

Copyright (c) 2012-2022 The ANTLR Project. 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. Neither the name of the copyright holder 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 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.

=====

MIT License for codepointat.js from <https://git.io/codepointat>  
 MIT License for fromcodepoint.js from <https://git.io/vDW1m>  
 Copyright Mathias Bynens <<https://mathiasbynens.be/>>  
 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.

=====

## cURL (libcurl)

cURL (libcurl)

Use of any of this software is governed by the terms of the license below:

COPYRIGHT AND PERMISSION NOTICE

Copyright (c) 1996 - 2019, Daniel Stenberg, <[daniel@haxx.se](mailto:daniel@haxx.se)>, and many contributors, see the THANKS file.

All rights reserved.

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

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 OF THIRD PARTY RIGHTS. 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.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.

=====

## Google Protocol Buffers

Copyright 2008 Google 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 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.

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.

Code generated by the Protocol Buffer compiler is owned by the owner of the input file used when generating it. This code is not standalone and requires a support library to be linked with it. This support library is itself covered by the above license.

4th party - abseil-cpp

-----

=== Header in source files:

```
// Copyright 2017 The Abseil Authors.
//
// 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
//
//     https://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.
//
// This header file contains C++11 versions of standard <utility> header
```

```
// abstractions available within C++14 and C++17, and are designed to be
// drop-in replacement for code compliant with C++14 and C++17.
```

```
        Apache License
        Version 2.0, January 2004
        https://www.apache.org/licenses/
```

A copy of the [Apache License v2.0, January 2004](#) license can be found in the 'Standard Licenses' section.

```
=====
=====
```

## GTK+ (GIMP Toolkit)

This component is licensed under  
[GNU Lesser General Public License v2.1, February 1999](#).  
See the 'Standard Licenses' section for license text.

```
=====
=====
```

## Kerberos5

Kerberos5

Copyright (C) 1985-2019 by the Massachusetts Institute of Technology.

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.

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.

Downloading of this software may constitute an export of cryptographic software from the United States of America that is subject to the United States Export Administration Regulations (EAR), 15 CFR 730-774. Additional laws or regulations may apply. It is the responsibility of the person or entity contemplating export to comply with all applicable export laws and regulations, including obtaining any required license from the U.S. government.

The U.S. government prohibits export of encryption source code to certain countries and individuals, including, but not limited to, the countries of Cuba, Iran, North Korea, Sudan, Syria, and residents and

nationals of those countries.

Documentation components of this software distribution are licensed under a Creative Commons Attribution-ShareAlike 3.0 Unported License. (<http://creativecommons.org/licenses/by-sa/3.0/>)

Individual source code files are copyright MIT, Cygnus Support, Novell, OpenVision Technologies, Oracle, Red Hat, Sun Microsystems, FundsXpress, and others.

Project Athena, Athena, Athena MUSE, Discuss, Hesiod, Kerberos, Moira, and Zephyr are trademarks of the Massachusetts Institute of Technology (MIT). No commercial use of these trademarks may be made without prior written permission of MIT.

"Commercial use" means use of a name in a product or other for-profit manner. It does NOT prevent a commercial firm from referring to the MIT trademarks in order to convey information (although in doing so, recognition of their trademark status should be given).

=====

The following copyright and permission notice applies to the OpenVision Kerberos Administration system located in "kadmin/create", "kadmin/dbutil", "kadmin/passwd", "kadmin/server", "lib/kadm5", and portions of "lib/rpc":

Copyright, OpenVision Technologies, Inc., 1993-1996, All Rights Reserved

WARNING: Retrieving the OpenVision Kerberos Administration system source code, as described below, indicates your acceptance of the following terms. If you do not agree to the following terms, do not retrieve the OpenVision Kerberos administration system.

You may freely use and distribute the Source Code and Object Code compiled from it, with or without modification, but this Source Code is provided to you "AS IS" EXCLUSIVE OF ANY WARRANTY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, WHETHER EXPRESS OR IMPLIED. IN NO EVENT WILL OPENVISION HAVE ANY LIABILITY FOR ANY LOST PROFITS, LOSS OF DATA OR COSTS OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES, OR FOR ANY SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THIS AGREEMENT, INCLUDING, WITHOUT LIMITATION, THOSE RESULTING FROM THE USE OF THE SOURCE CODE, OR THE FAILURE OF THE SOURCE CODE TO PERFORM, OR FOR ANY OTHER REASON.

OpenVision retains all copyrights in the donated Source Code. OpenVision also retains copyright to derivative works of the Source Code, whether created by OpenVision or by a third party. The OpenVision copyright notice must be preserved if derivative works are made based on the donated Source Code.

OpenVision Technologies, Inc. has donated this Kerberos Administration system to MIT for inclusion in the standard Kerberos 5 distribution. This donation underscores our commitment to continuing Kerberos technology development and our gratitude for the valuable work which has been performed by MIT and the Kerberos community.

=====

Portions contributed by Matt Crawford "crawdada@fnal.gov" were work performed at Fermi National Accelerator Laboratory, which is operated by Universities Research Association, Inc., under contract DE-AC02-76CH03000 with the U.S. Department of Energy.

=====  
Portions of "src/lib/crypto" have the following copyright:

Copyright (C) 1998 by the FundsXpress, INC.

All rights reserved.

Export of this software from the United States of America may require a specific license from the United States Government. It is the responsibility of any person or organization contemplating export to obtain such a license before exporting.

WITHIN THAT CONSTRAINT, permission to use, copy, modify, and distribute this software and its documentation for any purpose and 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, and that the name of FundsXpress. not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. FundsXpress makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

THIS SOFTWARE 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 implementation of the AES encryption algorithm in "src/lib/crypto/builtin/aes" has the following copyright:

Copyright (C) 2001, Dr Brian Gladman "brg@gladman.uk.net", Worcester, UK.  
All rights reserved.

#### LICENSE TERMS

The free distribution and use of this software in both source and binary form is allowed (with or without changes) provided that:

1. distributions of this source code include the above copyright notice, this list of conditions and the following disclaimer;
2. distributions in binary form include the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other associated materials;
3. the copyright holder's name is not used to endorse products built using this software without specific written permission.

#### DISCLAIMER

This software is provided 'as is' with no explicit or implied warranties in respect of any properties, including, but not limited to, correctness and fitness for purpose.

=====  
Portions contributed by Red Hat, including the pre-authentication plug-in framework and the NSS crypto implementation, contain the following copyright:

Copyright (C) 2006 Red Hat, Inc.  
Portions copyright (C) 2006 Massachusetts Institute of Technology  
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 Red Hat, 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.

=====

The bundled verto source code is subject to the following license:

Copyright 2011 Red Hat, Inc.

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.

=====

The MS-KKDCP client implementation has the following copyright:

Copyright 2013,2014 Red Hat, Inc.

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.

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.

=====

The implementations of GSSAPI mechglue in GSSAPI-SPNEGO in "src/lib/gssapi", including the following files:

```
lib/gssapi/generic/gssapi_err_generic.et
lib/gssapi/mechglue/g_accept_sec_context.c
lib/gssapi/mechglue/g_acquire_cred.c
lib/gssapi/mechglue/g_canon_name.c
lib/gssapi/mechglue/g_compare_name.c
lib/gssapi/mechglue/g_context_time.c
lib/gssapi/mechglue/g_delete_sec_context.c
lib/gssapi/mechglue/g_dsp_name.c
lib/gssapi/mechglue/g_dsp_status.c
lib/gssapi/mechglue/g_dup_name.c
lib/gssapi/mechglue/g_exp_sec_context.c
lib/gssapi/mechglue/g_export_name.c
lib/gssapi/mechglue/g_glue.c
lib/gssapi/mechglue/g_imp_name.c
lib/gssapi/mechglue/g_imp_sec_context.c
lib/gssapi/mechglue/g_init_sec_context.c
lib/gssapi/mechglue/g_initialize.c
lib/gssapi/mechglue/g_inquire_context.c
lib/gssapi/mechglue/g_inquire_cred.c
lib/gssapi/mechglue/g_inquire_names.c
lib/gssapi/mechglue/g_process_context.c
lib/gssapi/mechglue/g_rel_buffer.c
lib/gssapi/mechglue/g_rel_cred.c
lib/gssapi/mechglue/g_rel_name.c
lib/gssapi/mechglue/g_rel_oid_set.c
lib/gssapi/mechglue/g_seal.c
lib/gssapi/mechglue/g_sign.c
lib/gssapi/mechglue/g_store_cred.c
lib/gssapi/mechglue/g_unseal.c
lib/gssapi/mechglue/g_userok.c
lib/gssapi/mechglue/g_utils.c
lib/gssapi/mechglue/g_verify.c
lib/gssapi/mechglue/gssd_pname_to_uid.c
lib/gssapi/mechglue/mglueP.h
lib/gssapi/mechglue/oid_ops.c
lib/gssapi/spnego/gssapiP_spnego.h
lib/gssapi/spnego/spnego_mech.c
```

and the initial implementation of incremental propagation, including the following new or changed files:

```
include/ipropr_hdr.h
kadmin/server/ipropr_svc.c
lib/kdb/ipropr.x
lib/kdb/kdb_convert.c
lib/kdb/kdb_log.c
lib/kdb/kdb_log.h
lib/krb5/error_tables/kdb5_err.et
slave/kpropd_rpc.c
slave/kproplog.c
```

are subject to the following license:

Copyright (C) 2004 Sun Microsystems, Inc.

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.

=====

Kerberos V5 includes documentation and software developed at the University of California at Berkeley, which includes this copyright notice:

Copyright (C) 1983 Regents of the University of California.  
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. Neither the name of the 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 REGENTS 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 REGENTS 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.

=====  
Portions contributed by Novell, Inc., including the LDAP database backend, are subject to the following license:

Copyright (C) 2004-2005, Novell, 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.
- \* The copyright holder's name is not 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.

=====  
Portions funded by Sandia National Laboratory and developed by the University of Michigan's Center for Information Technology Integration, including the PKINIT implementation, are subject to the following license:

COPYRIGHT (C) 2006-2007  
THE REGENTS OF THE UNIVERSITY OF MICHIGAN  
ALL RIGHTS RESERVED

Permission is granted to use, copy, create derivative works and redistribute this software and such derivative works for any purpose, so long as the name of The University of Michigan is not used in any advertising or publicity pertaining to the use of distribution of this software without specific, written prior authorization. If the above copyright notice or any other identification of the University of Michigan is included in any copy of any portion of this software, then the disclaimer below must also be included.

THIS SOFTWARE IS PROVIDED AS IS, WITHOUT REPRESENTATION FROM THE UNIVERSITY OF MICHIGAN AS TO ITS FITNESS FOR ANY PURPOSE, AND WITHOUT WARRANTY BY THE UNIVERSITY OF MICHIGAN OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED

WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE REGENTS OF THE UNIVERSITY OF MICHIGAN SHALL NOT BE LIABLE FOR ANY DAMAGES, INCLUDING SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WITH RESPECT TO ANY CLAIM ARISING OUT OF OR IN CONNECTION WITH THE USE OF THE SOFTWARE, EVEN IF IT HAS BEEN OR IS HEREAFTER ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

=====

The pkcs11.h file included in the PKINIT code has the following license:

Copyright 2006 g10 Code GmbH  
Copyright 2006 Andreas Jellinghaus

This file is free software; as a special exception the author gives unlimited permission to copy and/or distribute it, with or without modifications, as long as this notice is preserved.

This file is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY, to the extent permitted by law; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

=====

Portions contributed by Apple Inc. are subject to the following license:

Copyright 2004-2008 Apple Inc. All Rights Reserved.

Export of this software from the United States of America may require a specific license from the United States Government. It is the responsibility of any person or organization contemplating export to obtain such a license before exporting.

WITHIN THAT CONSTRAINT, permission to use, copy, modify, and distribute this software and its documentation for any purpose and 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, and that the name of Apple Inc. not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. Apple Inc. makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

THIS SOFTWARE 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 implementations of UTF-8 string handling in src/util/support and src/lib/krb5/unicode are subject to the following copyright and permission notice:

The OpenLDAP Public License  
Version 2.8, 17 August 2003

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 in source form must retain copyright statements and notices,

2. Redistributions in binary form must reproduce applicable copyright statements and notices, this list of conditions, and the following disclaimer in the documentation and/or other materials provided with the distribution, and
3. Redistributions must contain a verbatim copy of this document.

The OpenLDAP Foundation may revise this license from time to time. Each revision is distinguished by a version number. You may use this Software under terms of this license revision or under the terms of any subsequent revision of the license.

THIS SOFTWARE IS PROVIDED BY THE OPENLDAP FOUNDATION AND ITS 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 THE OPENLDAP FOUNDATION, ITS CONTRIBUTORS, OR THE AUTHOR(S) OR OWNER(S) OF THE 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.

The names of the authors and copyright holders must not be used in advertising or otherwise to promote the sale, use or other dealing in this Software without specific, written prior permission. Title to copyright in this Software shall at all times remain with copyright holders.

OpenLDAP is a registered trademark of the OpenLDAP Foundation.

Copyright 1999-2003 The OpenLDAP Foundation, Redwood City, California, USA. All Rights Reserved. Permission to copy and distribute verbatim copies of this document is granted.

Marked test programs in src/lib/krb5/krb have the following copyright:

Copyright (C) 2006 Kungliga Tekniska Högskolan  
(Royal Institute of Technology, Stockholm, Sweden).  
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. Neither the name of KTH 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 KTH AND ITS 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 KTH 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.

=====

The KCM Mach RPC definition file used on macOS has the following copyright:

Copyright (C) 2009 Kungliga Tekniska Högskolan  
(Royal Institute of Technology, Stockholm, Sweden).  
All rights reserved.

Portions Copyright (C) 2009 Apple 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. Neither the name of the Institute 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 INSTITUTE 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 INSTITUTE 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.

=====

Portions of the RPC implementation in src/lib/rpc and src/include/gssrpc have the following copyright and permission notice:

Copyright (C) 2010, Oracle America, 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. Neither the name of the "Oracle America, 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 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.

=====  
Copyright (C) 2006,2007,2009 NTT (Nippon Telegraph and Telephone Corporation). 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 as the first lines of this file unmodified.
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.

THIS SOFTWARE IS PROVIDED BY NTT "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 NTT 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.

=====  
Copyright 2000 by Carnegie Mellon University

All Rights Reserved

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and 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, and that the name of Carnegie Mellon University not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

CARNEGIE MELLON UNIVERSITY DISCLAIMS ALL WARRANTIES WITH REGARD TO

THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL CARNEGIE MELLON UNIVERSITY BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

=====  
Copyright (C) 2002 Naval Research Laboratory (NRL/CCS)

Permission to use, copy, modify and distribute this software and its documentation is hereby granted, provided that both the copyright notice and this permission notice appear in all copies of the software, derivative works or modified versions, and any portions thereof.

NRL ALLOWS FREE USE OF THIS SOFTWARE IN ITS "AS IS" CONDITION AND DISCLAIMS ANY LIABILITY OF ANY KIND FOR ANY DAMAGES WHATSOEVER RESULTING FROM THE USE OF THIS SOFTWARE.

=====  
Portions extracted from Internet RFCs have the following copyright notice:

Copyright (C) The Internet Society (2006).

This document is subject to the rights, licenses and restrictions contained in BCP 78, and except as set forth therein, the authors retain all their rights.

This document and the information contained herein are provided on an "AS IS" basis and THE CONTRIBUTOR, THE ORGANIZATION HE/SHE REPRESENTS OR IS SPONSORED BY (IF ANY), THE INTERNET SOCIETY AND THE INTERNET ENGINEERING TASK FORCE DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

=====  
Copyright (C) 1991, 1992, 1994 by Cygnus Support.

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and 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. Cygnus Support makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

=====  
Copyright (C) 2006 Secure Endpoints Inc.

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.

=====

Portions of the implementation of the Fortuna-like PRNG are subject to the following notice:

Copyright (C) 2005 Marko Kreen  
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.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR 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 AUTHOR 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.

Copyright (C) 1994 by the University of Southern California

EXPORT OF THIS SOFTWARE from the United States of America may require a specific license from the United States Government. It is the responsibility of any person or organization contemplating export to obtain such a license before exporting.

WITHIN THAT CONSTRAINT, permission to copy, modify, and distribute this software and its documentation in source and binary forms is hereby granted, provided that any documentation or other materials related to such distribution or use acknowledge that the software was developed by the University of Southern California.

DISCLAIMER OF WARRANTY. THIS SOFTWARE IS PROVIDED "AS IS". The University of Southern California MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. By way of example, but not limitation, the University of Southern California MAKES NO REPRESENTATIONS OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. The University of Southern California shall not be held liable for any liability nor for any direct, indirect, or consequential damages with respect to any claim by the user or

distributor of the ksu software.

=====  
Copyright (C) 1995  
The President and Fellows of Harvard University

This code is derived from software contributed to Harvard by Jeremy Rassen.

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. All advertising materials mentioning features or use of this software must display the following acknowledgement:

This product includes software developed by the University of California, Berkeley and its contributors.

4. Neither the name of the 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 REGENTS 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 REGENTS 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.

=====  
Copyright (C) 2008 by the Massachusetts Institute of Technology.  
Copyright 1995 by Richard P. Basch. All Rights Reserved.  
Copyright 1995 by Lehman Brothers, Inc. All Rights Reserved.

Export of this software from the United States of America may require a specific license from the United States Government. It is the responsibility of any person or organization contemplating export to obtain such a license before exporting.

WITHIN THAT CONSTRAINT, permission to use, copy, modify, and distribute this software and its documentation for any purpose and 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, and that the name of Richard P. Basch, Lehman Brothers and M.I.T. not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. Richard P. Basch, Lehman Brothers and M.I.T. make no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

=====

The following notice applies to "src/lib/krb5/krb/strptime.c" and "src/include/k5-queue.h".

Copyright (C) 1997, 1998 The NetBSD Foundation, Inc.  
All rights reserved.

This code was contributed to The NetBSD Foundation by Klaus Klein.

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. All advertising materials mentioning features or use of this software must display the following acknowledgement:

This product includes software developed by the NetBSD Foundation, Inc. and its contributors.

4. Neither the name of The NetBSD Foundation 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 NETBSD FOUNDATION, INC. 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 FOUNDATION 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.

=====

The following notice applies to Unicode library files in "src/lib/krb5/unicode":

Copyright 1997, 1998, 1999 Computing Research Labs,  
New Mexico State University

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 COMPUTING RESEARCH LAB OR NEW MEXICO STATE UNIVERSITY 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.

=====

The following notice applies to "src/util/support/strncpy.c":

Copyright (C) 1998 Todd C. Miller "Todd.Miller@courtesan.com"

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

THE SOFTWARE IS PROVIDED "AS IS" AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

=====

The following notice applies to "src/util/profile/argv\_parse.c" and "src/util/profile/argv\_parse.h":

Copyright 1999 by Theodore Ts'o.

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies. THE SOFTWARE IS PROVIDED "AS IS" AND THEODORE TS'O (THE AUTHOR) DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE. (Isn't it sick that the U.S. culture of lawsuit-happy lawyers requires this kind of disclaimer?)

=====

The following notice applies to SWIG-generated code in "src/util/profile/profile\_tcl.c":

Copyright (C) 1999-2000, The University of Chicago

This file may be freely redistributed without license or fee provided this copyright message remains intact.

=====

The following notice applies to portions of "src/lib/rpc" and "src/include/gssrpc":

Copyright (C) 2000 The Regents of the University of Michigan. All rights reserved.

Copyright (C) 2000 Dug Song "dugsong@UMICH.EDU". All rights

reserved, all wrongs reversed.

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. Neither the name of the 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 "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 REGENTS 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.

Implementations of the MD4 algorithm are subject to the following notice:

Copyright (C) 1990, RSA Data Security, Inc. All rights reserved.

License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD4 Message Digest Algorithm" in all material mentioning or referencing this software or this function.

License is also granted to make and use derivative works provided that such works are identified as "derived from the RSA Data Security, Inc. MD4 Message Digest Algorithm" in all material mentioning or referencing the derived work.

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.

=====  
Implementations of the MD5 algorithm are subject to the following notice:

Copyright (C) 1990, RSA Data Security, Inc. All rights reserved.

License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD5 Message- Digest Algorithm" in all material mentioning or referencing this software or this function.

License is also granted to make and use derivative works provided

that such works are identified as "derived from the RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing the derived work.

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.

=====

The following notice applies to  
"src/lib/crypto/crypto\_tests/t\_md driver.c":

Copyright (C) 1990-2, RSA Data Security, Inc. Created 1990. All rights reserved.

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.

=====

Portions of "src/lib/krb5" are subject to the following notice:

Copyright (C) 1994 CyberSAFE Corporation.

Copyright 1990,1991,2007,2008 by the Massachusetts Institute of Technology.  
All Rights Reserved.

Export of this software from the United States of America may require a specific license from the United States Government. It is the responsibility of any person or organization contemplating export to obtain such a license before exporting.

WITHIN THAT CONSTRAINT, permission to use, copy, modify, and distribute this software and its documentation for any purpose and 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, and that the name of M.I.T. not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission. Furthermore if you modify this software you must label your software as modified software and not distribute it in such a fashion that it might be confused with the original M.I.T. software. Neither M.I.T., the Open Computing Security Group, nor CyberSAFE Corporation make any representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

=====

Portions contributed by PADL Software are subject to the following license:

Copyright (c) 2011, PADL Software Pty Ltd. 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. Neither the name of PADL Software 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 PADL SOFTWARE 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 PADL SOFTWARE 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.

=====

The bundled libev source code is subject to the following license:

All files in libev are Copyright (C)2007,2008,2009 Marc Alexander Lehmann.

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.

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.

Alternatively, the contents of this package may be used under the terms of the GNU General Public License ("GPL") version 2 or any later version, in which case the provisions of the GPL are applicable instead of the above. If you wish to allow the use of your version of this package only under the terms of the GPL and not to allow others to use your version of this file under the BSD license, indicate your decision by deleting the provisions above and replace them with the notice and other provisions required by the GPL in this and the other files of this package. If you do not

delete the provisions above, a recipient may use your version of this file under either the BSD or the GPL.

=====  
Files copied from the Intel AESNI Sample Library are subject to the following license:

Copyright (C) 2010, Intel Corporation  
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 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.

=====  
The following notice applies to  
"src/ccapi/common/win/0ldCC/autolock.hxx":

Copyright (C) 1998 by Danilo Almeida. 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.

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.

=====

=====

## libssh

You are receiving a copy of libssh as part of MySQL Workbench in object code form. The terms of the Oracle license do NOT apply to libssh; libssh is licensed under the LGPLv2.1 license, separate from MySQL. If you do not wish to install this library, you may remove it, but the Oracle program might not operate properly or at all without it. Depending on the operating system the library can be found in the following locations:

- Linux: <librarydir-prefix>/mysql-shell/libssh.so
- OSX: <librarydir-prefix>/mysql-shell/libssh.dylib
- Windows: <installation-path>\bin\libssh.dll

\* Copyright (c) 2004-2013 by Aris Adamantiadis

\*

\* The SSH Library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

\*

\* The SSH Library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

\*

\* You should have received a copy of the GNU Lesser General Public License along with the SSH Library; see the file COPYING. If not, write to the Free Software Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA.

\*/

Some parts are under the BSDv2 License :

Copyright (c) 2000 Markus Friedl. 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.

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.

This component is licensed under

[GNU Lesser General Public License v2.1, February 1999](#).

See the 'Standard Licenses' section for license text.

## linenose-ng

```
=====  
=====  
Copyright (c) 2010, Salvatore Sanfilippo <antirez at gmail dot com>  
Copyright (c) 2010, Pieter Noordhuis <pcnoordhuis at gmail dot com>
```

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 Redis 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.

wcwidth.cpp

-----  
Markus Kuhn -- 2007-05-26 (Unicode 5.0)

Permission to use, copy, modify, and distribute this software  
for any purpose and without fee is hereby granted. The author  
disclaims all warranties with regard to this software.

ConvertUTF.cpp

-----  
Copyright 2001-2004 Unicode, Inc.

Disclaimer

This source code is provided as is by Unicode, Inc. No claims are  
made as to fitness for any particular purpose. No warranties of any  
kind are expressed or implied. The recipient agrees to determine  
applicability of information provided. If this file has been  
purchased on magnetic or optical media from Unicode, Inc., the  
sole remedy for any claim will be exchange of defective media  
within 90 days of receipt.

Limitations on Rights to Redistribute This Code

Unicode, Inc. hereby grants the right to freely use the information  
supplied in this file in the creation of products supporting the  
Unicode Standard, and to make copies of this file in any form  
for internal or external distribution as long as this notice  
remains attached.

## LZ4

LZ4 Library  
Copyright (c) 2011-2016, Yann Collet  
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.

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.

=====

## OpenSSL 3.0

```
/*
 * Copyright 2003-2022 The OpenSSL Project Authors. All Rights Reserved.
 *
 * Licensed under the Apache License 2.0 (the "License"). You may not use
 * this file except in compliance with the License. You can obtain a copy
 * in the file LICENSE in the source distribution or at
 * https://www.openssl.org/source/license.html
 */
```

See [Apache License v2.0, January 2004](#) in the 'Standard Licenses' section.

=====

## Oracle OCI Python SDK

Copyright (c) 2016, 2022, Oracle and/or its affiliates. All rights reserved.

This software is dual-licensed to you under the Universal Permissive License (UPL) 1.0 or Apache License 2.0. See below for license terms. You may choose either license.

The Universal Permissive License (UPL), Version 1.0  
Copyright (c) 2016, 2022, Oracle and/or its affiliates. All rights reserved.

The Universal Permissive License (UPL), Version 1.0

Subject to the condition set forth below, permission is hereby granted to any person obtaining a copy of this software, associated documentation and/or data (collectively the "Software"), free of charge and under any and all copyright rights in the Software, and any and all patent rights owned or freely licensable by each licensor hereunder

covering either (i) the unmodified Software as contributed to or provided by such licensor, or (ii) the Larger Works (as defined below), to deal in both

(a) the Software, and  
(b) any piece of software and/or hardware listed in the `lrgwrks.txt` file if one is included with the Software (each a "Larger Work" to which the Software is contributed by such licensors), without restriction, including without limitation the rights to copy, create derivative works of, display, perform, and distribute the Software and make, use, sell, offer for sale, import, export, have made, and have sold the Software and the Larger Work(s), and to sublicense the foregoing rights on either these or other terms.

This license is subject to the following condition:

The above copyright notice and either this complete permission notice or at a minimum a reference to the UPL must 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.

The Apache Software License, Version 2.0  
Copyright (c) 2016, 2018, Oracle and/or its affiliates. All rights reserved.

Licensed under the Apache License, Version 2.0 (the "License"); You may not use this product except in compliance with 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

Version 2.0, January 2004  
For the text of the [Apache License v2.0, January 2004](#)  
See the 'Standard Licenses' section.

OCI toolkit for Python Third Party License File

```
----- Third Party Components -----
----- Licenses -----
- MIT License
- Apache License 2.0
- Mozilla Public License 2.0 (MPL 2.0)
- BSD 2-Clause "Simplified" License
- BSD 3-Clause "New" or "Revised" License
- GNU Lesser General Public License v2.1
- PSF License
- OpenSSL License
- Original SSLeay License
----- Notices -----
Requests
Copyright 2019 Kenneth Reitz
```

```
-----  
===== Third Party Components =====  
certifi  
* Copyright 2022, Kenneth Reitz  
* License: Mozilla Public License 2.0 (MPL 2.0)  
* Source code: https://github.com/certifi/python-certifi  
* Project home: https://certifi.io  
  
cryptography  
* Copyright (c) Individual contributors.  
* License: Apache License, BSD License, PSF License  
* Source code: https://github.com/pyca/cryptography  
* Project home: https://github.com/pyca/cryptography  
  
pyOpenSSL  
* Copyright 2001 The pyOpenSSL developers  
* License: Apache License 2.0  
* Source code: https://github.com/pyca/pyopenssl  
* Project home: https://www.pyopenssl.org/  
  
python-dateutil  
* Copyright 2017- Paul Ganssle <paul@ganssle.io>  
  2017- dateutil contributors (see AUTHORS file)  
* License: Apache License 2.0  
* Source code: https://github.com/dateutil/dateutil  
* Project home: https://dateutil.readthedocs.io/  
  
pytz  
* Copyright (c) 2003-2019 Stuart Bishop <stuart@stuartbishop.net>  
* License: The MIT License (MIT)  
* Source code: https://github.com/stub42/pytz  
* Project home: https://pythonhosted.org/pytz  
  
six  
* Copyright (c) 2010-2020 Benjamin Peterson  
* License: The MIT License (MIT)  
* Source code: https://github.com/benjaminp/six  
* Project home: https://github.com/benjaminp/six  
  
vendorize  
* Copyright (c) 2015, Michael Williamson All rights reserved  
* License: BSD 2-Clause "Simplified" License  
* Source code: https://github.com/mwilliamson/python-vendorize  
* Project home: https://github.com/mwilliamson/python-vendorize  
  
chardet  
* Copyright 2015, Mark Pilgrim, Dan Blanchard, Ian Cordasco  
* License: GNU Lesser General Public License v2.1  
* Source code: https://github.com/chardet/chardet  
* Project home: https://github.com/chardet/chardet  
  
httpsig_cffi  
* Copyright (c) 2014 Adam Knight 2012 Adam T. Lindsay (original author)  
* License: The MIT License (MIT)  
* Source code: https://github.com/hawkowl/httpsig\_cffi  
* Project home: https://github.com/hawkowl/httpsig\_cffi  
  
idna  
* Copyright (c) 2013-2021, Kim Davies All rights reserved  
* License: BSD 3-Clause "New" or "Revised" License  
* Source code: https://github.com/kjd/idna  
* Project home: https://github.com/kjd/idna  
  
jwt  
* Copyright 2017 Gehirn Inc  
* License: Apache License 2.0
```

```

* Source code: https://github.com/GehirnInc/python-jwt
* Project home: https://github.com/GehirnInc/python-jwt

requests
* Copyright 2019 Kenneth Reitz
* License: Apache License 2.0
* Source code: https://github.com/psf/requests
* Project home: https://requests.readthedocs.io

urllib3
* Copyright (c) 2008-2020 Andrey Petrov and contributors (see CONTRIBUTORS.txt)
* License: MIT License
* Source code: https://github.com/urllib3/urllib3
* Project home: https://urllib3.readthedocs.io

circuitbreaker
* Copyright (c) 2016-2020, Fabian Fuelling opensource@fabfuel.de. All rights reserved.
* License: BSD-3-Clause New License
* Source code: https://github.com/fabfuel/circuitbreaker
* Project home: https://pypi.org/project/circuitbreaker

pycparser
* Copyright (c) 2008-2020, Eli Bendersky All rights reserved.
* License: BSD-3-Clause New License
* Source code: https://github.com/eliben/pycparser
* Project home: https://pypi.org/project/pycparser

cffi
* Copyright (C) 2005-2007, James Bielman <jamesjb@jamesjb.com>
* License: The MIT License
* Source code: https://pypi.org/project/cffi/#files
* Project home: https://cffi.readthedocs.io/en/latest

sseclient
* Copyright 2024 Maxime Petazzoni maxime.petazzoni@bulix.org
* License: Apache License 2.0
* Source code: https://github.com/mpetazzoni/sseclient
* Project home: https://github.com/mpetazzoni/sseclient

openssl
* Copyright (c) 1998-2023 The OpenSSL Project Authors
* Copyright (c) 1995-1998 Eric A. Young, Tim J. Hudson
* License: Apache License 2.0, OpenSSL License, Original SSLeay License
* Source code: https://github.com/openssl/openssl
* Project home: https://www.openssl.org/

libffi
* Copyright (c) 1996-2024 Anthony Green, Red Hat, Inc and others.
* License: The MIT License
* Source code: https://github.com/libffi/libffi
* Project home: https://github.com/libffi/libffi

===== Licenses =====

----- MIT 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.

-----

----- Apache License 2.0 -----

Apache License  
Version 2.0, January 2004  
<http://www.apache.org/licenses/>

For the text of the [Apache License v2.0, January 2004](#)  
See the 'Standard Licenses' section.

----- BSD 2-Clause "Simplified" License -----

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.

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.

-----

----- BSD-3-Clause New 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. 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. Neither the name of the copyright holder 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.

-----

----- Mozilla Public License -----

Bundle of CA Root Certificates

Certificate data from Mozilla as of: Thu Nov 3 19:04:19 2011#  
This is a bundle of X.509 certificates of public Certificate Authorities (CA). These were automatically extracted from Mozilla's root certificates file (certdata.txt). This file can be found in the mozilla source tree: <https://hg.mozilla.org/mozilla-central/file/tip/security/nss/lib/ckfw/builtins/certdata.txt>  
It contains the certificates in PEM format and therefore can be directly used with curl / libcurl / php\_curl, or with an Apache+mod\_ssl webserver for SSL client authentication.  
Just configure this file as the SSLCACertificateFile.#

\*\*\*\*\* BEGIN LICENSE BLOCK \*\*\*\*\*

This Source Code Form is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this file, You can obtain one at <http://mozilla.org/MPL/2.0/>

\*\*\*\*\* END LICENSE BLOCK \*\*\*\*\*

@(#) \$RCSfile: certdata.txt,v \$ \$Revision: 1.80 \$ \$Date: 2011/11/03 15:11:58 \$

Mozilla Public License  
Version 2.0

For the text of the [Mozilla Public License 2.0](#)  
See the 'Standard Licenses' section.

----- GNU LESSER GENERAL PUBLIC LICENSE -----

GNU LESSER GENERAL PUBLIC LICENSE  
Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.  
51 Franklin St, Fifth Floor, Boston, MA 02110-1301 USA  
Everyone is permitted to copy and distribute verbatim copies  
of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts  
as the successor of the GNU Library Public License, version 2, hence  
the version number 2.1.]

For the text of the [GNU Lesser General Public License v2.1, February 1999](#)  
See the 'Standard Licenses' section.

----- PYTHON SOFTWARE FOUNDATION LICENSE -----

1. This LICENSE AGREEMENT is between the Python Software Foundation ("PSF"), and the Individual or Organization ("Licensee") accessing and otherwise using Python 2.7.12 software in source or binary form and its associated documentation.

2. Subject to the terms and conditions of this License Agreement, PSF hereby grants Licensee a nonexclusive, royalty-free, world-wide license to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use Python 2.7.12 alone or in any derivative version, provided, however, that PSF's License Agreement and PSF's notice of copyright, i.e., "Copyright © 2001-2016 Python Software Foundation; All Rights Reserved" are retained in Python 2.7.12 alone or in any derivative version prepared by Licensee.

3. In the event Licensee prepares a derivative work that is based on or incorporates Python 2.7.12 or any part thereof, and wants to make the



derivative work available to others as provided herein, then Licensee hereby agrees to include in any such work a brief summary of the changes made to Python 2.7.12.

4. PSF is making Python 2.7.12 available to Licensee on an "AS IS" basis. PSF MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, PSF MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF PYTHON 2.7.12 WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.

5. PSF SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON 2.7.12 FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON 2.7.12, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.

6. This License Agreement will automatically terminate upon a material breach of its terms and conditions.

7. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between PSF and Licensee. This License Agreement does not grant permission to use PSF trademarks or trade name in a trademark sense to endorse or promote products or services of Licensee, or any third party.

8. By copying, installing or otherwise using Python 2.7.12, Licensee agrees to be bound by the terms and conditions of this License Agreement.

#### ----- OpenSSL License

```
/* =====
 * Copyright (c) 1998-2019 The OpenSSL Project. 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. All advertising materials mentioning features or use of this
 *    software must display the following acknowledgment:
 *    "This product includes software developed by the OpenSSL Project
 *    for use in the OpenSSL Toolkit. (http://www.openssl.org/)
 *
 * 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to
 *    endorse or promote products derived from this software without
 *    prior written permission. For written permission, please contact
 *    openssl-core@openssl.org.
 *
 * 5. Products derived from this software may not be called "OpenSSL"
 *    nor may "OpenSSL" appear in their names without prior written
 *    permission of the OpenSSL Project.
 *
 * 6. Redistributions of any form whatsoever must retain the following
 *    acknowledgment:
 *    "This product includes software developed by the OpenSSL Project
 *    for use in the OpenSSL Toolkit (http://www.openssl.org/)
```

```

*
* THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``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 OpenSSL PROJECT 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.
* =====
*
* This product includes cryptographic software written by Eric Young
* (eay@cryptsoft.com). This product includes software written by Tim
* Hudson (tjh@cryptsoft.com).
*
*/
-----

Original SSLeay License
-----

/* Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com)
 * All rights reserved.
 *
 * This package is an SSL implementation written
 * by Eric Young (eay@cryptsoft.com).
 * The implementation was written so as to conform with Netscapes SSL.
 *
 * This library is free for commercial and non-commercial use as long as
 * the following conditions are aheared to. The following conditions
 * apply to all code found in this distribution, be it the RC4, RSA,
 * lhash, DES, etc., code; not just the SSL code. The SSL documentation
 * included with this distribution is covered by the same copyright terms
 * except that the holder is Tim Hudson (tjh@cryptsoft.com).
 *
 * Copyright remains Eric Young's, and as such any Copyright notices in
 * the code are not to be removed.
 * If this package is used in a product, Eric Young should be given attribution
 * as the author of the parts of the library used.
 * This can be in the form of a textual message at program startup or
 * in documentation (online or textual) provided with the package.
 *
 * 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 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. All advertising materials mentioning features or use of this software
 * must display the following acknowledgement:
 * "This product includes cryptographic software written by
 * Eric Young (eay@cryptsoft.com)"
 * The word 'cryptographic' can be left out if the rouines from the library
 * being used are not cryptographic related :-).
 * 4. If you include any Windows specific code (or a derivative thereof) from
 * the apps directory (application code) you must include an acknowledgement:
 * "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"
 *
 * THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``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 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.
*
* The licence and distribution terms for any publically available version or
* derivative of this code cannot be changed. i.e. this code cannot simply be
* copied and put under another distribution licence
* [including the GNU Public Licence.]
*/
-----

```

```

=====
=====

```

## Paramiko

```

=====
=====
# Copyright (C) 2003-2008 Robey Pointer <robeypointer@gmail.com>
#
# This file is part of paramiko.
#
# Paramiko is free software; you can redistribute it and/or modify it under
# the terms of the GNU Lesser General Public License as published by the Free
# Software Foundation; either version 2.1 of the License, or (at your option)
# any later version.
#
# Paramiko is distributed in the hope that it will be useful, but WITHOUT ANY
# WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS
# FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more
# details.
#
# You should have received a copy of the GNU Lesser General Public License
# along with Paramiko; if not, write to the Free Software Foundation, Inc.,
# 51 Franklin Street, Suite 500, Boston, MA 02110-1335 USA.

A copy of the GNU Lesser General Public License v2.1, February 1999 license can be found
in the 'Standard Licenses' section.

-----
---
4th party
=====

bcrypt
-----
# Author:: Donald Stufft (<donald@stufft.io>)
# Copyright:: Copyright (c) 2013 Donald Stufft
# License:: Apache License, Version 2.0
#
# 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.
```

A copy of the [Apache License v2.0, January 2004](#) license can be found in the 'Standard Licenses' section.

```
-----
---
```

```
cryptography
-----
```

This software is made available under the terms of *\*either\** of the licenses found in LICENSE.APACHE or LICENSE.BSD. Contributions to cryptography are made under the terms of *\*both\** these licenses.

The code used in the OS random engine is derived from CPython, and is licensed under the terms of the PSF License Agreement.

```
LICENSE.BSD
```

```
- - - - -
```

Copyright (c) Individual contributors.  
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. Neither the name of PyCA Cryptography 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.

```
LICENCE.APACHE
```

```
- - - - -
```

Apache License  
Version 2.0, January 2004  
<https://www.apache.org/licenses/>

A copy of the [Apache License v2.0, January 2004](#) license can be found in the 'Standard Licenses' section.

```
LICENSE.PSF
```

```
- - - - -
```

1. This LICENSE AGREEMENT is between the Python Software Foundation ("PSF"), and the Individual or Organization ("Licensee") accessing and otherwise using Python 2.7.12 software in source or binary form and its associated documentation.

2. Subject to the terms and conditions of this License Agreement, PSF hereby grants Licensee a nonexclusive, royalty-free, world-wide license

to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use Python 2.7.12 alone or in any derivative version, provided, however, that PSF's License Agreement and PSF's notice of copyright, i.e., "Copyright © 2001-2016 Python Software Foundation; All Rights Reserved" are retained in Python 2.7.12 alone or in any derivative version prepared by Licensee.

3. In the event Licensee prepares a derivative work that is based on or incorporates Python 2.7.12 or any part thereof, and wants to make the derivative work available to others as provided herein, then Licensee hereby agrees to include in any such work a brief summary of the changes made to Python 2.7.12.

4. PSF is making Python 2.7.12 available to Licensee on an "AS IS" basis. PSF MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, PSF MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF PYTHON 2.7.12 WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.

5. PSF SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON 2.7.12 FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON 2.7.12, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.

6. This License Agreement will automatically terminate upon a material breach of its terms and conditions.

7. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between PSF and Licensee. This License Agreement does not grant permission to use PSF trademarks or trade name in a trademark sense to endorse or promote products or services of Licensee, or any third party.

8. By copying, installing or otherwise using Python 2.7.12, Licensee agrees to be bound by the terms and conditions of this License Agreement.

-----  
---

PyNaCl

-----

```
#!/usr/bin/env python
# Copyright 2013 Donald Stufft and individual contributors
#
# 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.
```

Apache License  
Version 2.0, January 2004  
<http://www.apache.org/licenses/>

A copy of the [Apache License v2.0, January 2004](#) license can be found in the 'Standard Licenses' section.

-----  
---

```
cffi
```

```
----
```

Except when otherwise stated (look for LICENSE files in directories or information at the beginning of each file) all software and documentation is licensed as follows:

#### The MIT 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.

Some source files include the following (combination of copyright years):

```
/* -----
  Copyright (c) 1996, 1998, 1999, 2001 Red Hat, Inc.
  Copyright (c) 2002 Ranjit Mathew
  Copyright (c) 2002 Bo Thorsen
  Copyright (c) 2002 Roger Sayle
  Copyright (c) 1996-2003 Red Hat, Inc.
  Copyright (c) 2009, 2010, 2011, 2012 ARM Ltd.
  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 CYGNUS SOLUTIONS 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.
  ----- */
```

```
six
```

```
---
```

Copyright (c) 2010-2020 Benjamin Peterson

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.

-----  
---

pyparser

-----

pyparser -- A C parser in Python

Copyright (c) 2008-2020, Eli Bendersky  
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 Eli Bendersky 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.

=====  
=====

## Python 3

History of the software  
=====

Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <https://www.cwi.nl/>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <https://www.cnri.reston.va.us/>) in Reston,

Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation; see <https://www.zope.org/>). In 2001, the Python Software Foundation (PSF, see <https://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see <https://opensource.org/> for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

| Release        | Derived from | Year      | Owner      | GPL compatible? |
|----------------|--------------|-----------|------------|-----------------|
| 0.9.0 thru 1.2 | n/a          | 1991-1995 | CWI        | yes             |
| 1.3 thru 1.5.2 | 1.2          | 1995-1999 | CNRI       | yes             |
| 1.6            | 1.5.2        | 2000      | CNRI       | no              |
| 2.0            | 1.6          | 2000      | BeOpen.com | no              |
| 1.6.1          | 1.6          | 2001      | CNRI       | no              |
| 2.1            | 2.0+1.6.1    | 2001      | PSF        | no              |
| 2.0.1          | 2.0+1.6.1    | 2001      | PSF        | yes             |
| 2.1.1          | 2.1+2.0.1    | 2001      | PSF        | yes             |
| 2.1.2          | 2.1.1        | 2002      | PSF        | yes             |
| 2.1.3          | 2.1.2        | 2002      | PSF        | yes             |
| 2.2 and above  | 2.1.1        | 2001-now  | PSF        | yes             |

.. note::

GPL-compatible doesn't mean that we're distributing Python under the GPL. All Python licenses, unlike the GPL, let you distribute a modified version without making your changes open source. The GPL-compatible licenses make it possible to combine Python with other software that is released under the GPL; the others don't.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

Terms and conditions for accessing or otherwise using Python

Python software and documentation are licensed under the  
:ref:`PSF License Agreement <PSF-license>`.

Starting with Python 3.8.6, examples, recipes, and other code in the documentation are dual licensed under the PSF License Agreement and the :ref:`Zero-Clause BSD license <BSD0>`.

Some software incorporated into Python is under different licenses. The licenses are listed with code falling under that license. See :ref:`OtherLicenses` for an incomplete list of these licenses.



PSF LICENSE AGREEMENT FOR PYTHON |release|

1. This LICENSE AGREEMENT is between the Python Software Foundation ("PSF"), and the Individual or Organization ("Licensee") accessing and otherwise using Python |release| software in source or binary form and its associated documentation.
2. Subject to the terms and conditions of this License Agreement, PSF hereby grants Licensee a nonexclusive, royalty-free, world-wide license to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use Python |release| alone or in any derivative version, provided, however, that PSF's License Agreement and PSF's notice of copyright, i.e., "Copyright © 2001-2022 Python Software Foundation; All Rights Reserved" are retained in Python |release| alone or in any derivative version prepared by Licensee.
3. In the event Licensee prepares a derivative work that is based on or incorporates Python |release| or any part thereof, and wants to make the derivative work available to others as provided herein, then Licensee hereby agrees to include in any such work a brief summary of the changes made to Python |release|.
4. PSF is making Python |release| available to Licensee on an "AS IS" basis. PSF MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, PSF MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF PYTHON |release| WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.
5. PSF SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON |release| FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON |release|, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.
6. This License Agreement will automatically terminate upon a material breach of its terms and conditions.
7. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between PSF and Licensee. This License Agreement does not grant permission to use PSF trademarks or trade name in a trademark sense to endorse or promote products or services of Licensee, or any third party.
8. By copying, installing or otherwise using Python |release|, Licensee agrees to be bound by the terms and conditions of this License Agreement.

BEOPEN.COM LICENSE AGREEMENT FOR PYTHON 2.0

BEOPEN PYTHON OPEN SOURCE LICENSE AGREEMENT VERSION 1

1. This LICENSE AGREEMENT is between BeOpen.com ("BeOpen"), having an office at 160 Saratoga Avenue, Santa Clara, CA 95051, and the Individual or Organization ("Licensee") accessing and otherwise using this software in source or binary form and its associated documentation ("the Software").
2. Subject to the terms and conditions of this BeOpen Python License Agreement, BeOpen hereby grants Licensee a non-exclusive, royalty-free, world-wide license to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use the Software alone or in any derivative version, provided, however, that the BeOpen Python License is retained in the Software, alone or in any derivative version prepared by Licensee.
3. BeOpen is making the Software available to Licensee on an "AS IS" basis. BEOPEN MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, BEOPEN MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF THE SOFTWARE WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.

4. BEOPEN SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF THE SOFTWARE FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS A RESULT OF USING, MODIFYING OR DISTRIBUTING THE SOFTWARE, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.
5. This License Agreement will automatically terminate upon a material breach of its terms and conditions.
6. This License Agreement shall be governed by and interpreted in all respects by the law of the State of California, excluding conflict of law provisions. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between BeOpen and Licensee. This License Agreement does not grant permission to use BeOpen trademarks or trade names in a trademark sense to endorse or promote products or services of Licensee, or any third party. As an exception, the "BeOpen Python" logos available at <http://www.pythonlabs.com/logos.html> may be used according to the permissions granted on that web page.
7. By copying, installing or otherwise using the software, Licensee agrees to be bound by the terms and conditions of this License Agreement.

#### CNRI LICENSE AGREEMENT FOR PYTHON 1.6.1

1. This LICENSE AGREEMENT is between the Corporation for National Research Initiatives, having an office at 1895 Preston White Drive, Reston, VA 20191 ("CNRI"), and the Individual or Organization ("Licensee") accessing and otherwise using Python 1.6.1 software in source or binary form and its associated documentation.
2. Subject to the terms and conditions of this License Agreement, CNRI hereby grants Licensee a nonexclusive, royalty-free, world-wide license to reproduce, analyze, test, perform and/or display publicly, prepare derivative works, distribute, and otherwise use Python 1.6.1 alone or in any derivative version, provided, however, that CNRI's License Agreement and CNRI's notice of copyright, i.e., "Copyright © 1995-2001 Corporation for National Research Initiatives; All Rights Reserved" are retained in Python 1.6.1 alone or in any derivative version prepared by Licensee. Alternately, in lieu of CNRI's License Agreement, Licensee may substitute the following text (omitting the quotes): "Python 1.6.1 is made available subject to the terms and conditions in CNRI's License Agreement. This Agreement together with Python 1.6.1 may be located on the Internet using the following unique, persistent identifier (known as a handle): 1895.22/1013. This Agreement may also be obtained from a proxy server on the Internet using the following URL: <http://hdl.handle.net/1895.22/1013>."
3. In the event Licensee prepares a derivative work that is based on or incorporates Python 1.6.1 or any part thereof, and wants to make the derivative work available to others as provided herein, then Licensee hereby agrees to include in any such work a brief summary of the changes made to Python 1.6.1.
4. CNRI is making Python 1.6.1 available to Licensee on an "AS IS" basis. CNRI MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED. BY WAY OF EXAMPLE, BUT NOT LIMITATION, CNRI MAKES NO AND DISCLAIMS ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF PYTHON 1.6.1 WILL NOT INFRINGE ANY THIRD PARTY RIGHTS.
5. CNRI SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON 1.6.1 FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON 1.6.1, OR ANY DERIVATIVE THEREOF, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.
6. This License Agreement will automatically terminate upon a material breach of its terms and conditions.
7. This License Agreement shall be governed by the federal intellectual property law of the United States, including without limitation the federal copyright law, and, to the extent such U.S. federal law does not apply, by the law of the

Commonwealth of Virginia, excluding Virginia's conflict of law provisions. Notwithstanding the foregoing, with regard to derivative works based on Python 1.6.1 that incorporate non-separable material that was previously distributed under the GNU General Public License (GPL), the law of the Commonwealth of Virginia shall govern this License Agreement only as to issues arising under or with respect to Paragraphs 4, 5, and 7 of this License Agreement. Nothing in this License Agreement shall be deemed to create any relationship of agency, partnership, or joint venture between CNRI and Licensee. This License Agreement does not grant permission to use CNRI trademarks or trade name in a trademark sense to endorse or promote products or services of Licensee, or any third party.

8. By clicking on the "ACCEPT" button where indicated, or by copying, installing or otherwise using Python 1.6.1, Licensee agrees to be bound by the terms and conditions of this License Agreement.

#### CWI LICENSE AGREEMENT FOR PYTHON 0.9.0 THROUGH 1.2

-----  
Copyright © 1991 - 1995, Stichting Mathematisch Centrum Amsterdam, The Netherlands. All rights reserved.

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and 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, and that the name of Stichting Mathematisch Centrum or CWI not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

STICHTING MATHEMATISCH CENTRUM DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL STICHTING MATHEMATISCH CENTRUM BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

.. \_BSD0:

#### ZERO-CLAUSE BSD LICENSE FOR CODE IN THE PYTHON |release| DOCUMENTATION

-----

.. parsed-literal::

Permission to use, copy, modify, and/or distribute this software for any purpose with or without fee is hereby granted.

THE SOFTWARE IS PROVIDED "AS IS" AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

#### Licenses and Acknowledgements for Incorporated Software

=====

This section is an incomplete, but growing list of licenses and acknowledgements for third-party software incorporated in the Python distribution.

Mersenne Twister

-----

The `:mod:`_random`` module includes code based on a download from <http://www.math.sci.hiroshima-u.ac.jp/~m-mat/MT/MT2002/emt19937ar.html>. The following are the verbatim comments from the original code::

A C-program for MT19937, with initialization improved 2002/1/26.  
Coded by Takuji Nishimura and Makoto Matsumoto.

Before using, initialize the state by using `init_genrand(seed)`  
or `init_by_array(init_key, key_length)`.

Copyright (C) 1997 - 2002, Makoto Matsumoto and Takuji Nishimura,  
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 its contributors may not 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.

Any feedback is very welcome.

<http://www.math.sci.hiroshima-u.ac.jp/~m-mat/MT/emt.html>

email: m-mat @ math.sci.hiroshima-u.ac.jp (remove space)

Sockets

-----

The `:mod:`socket`` module uses the functions, `:func:`getaddrinfo``, and  
`:func:`getnameinfo``, which are coded in separate source files from the WIDE  
Project, <http://www.wide.ad.jp/>. ::

Copyright (C) 1995, 1996, 1997, and 1998 WIDE Project.  
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. Neither the name of the project 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 PROJECT 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 PROJECT 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.

#### Asynchronous socket services

-----

The :mod:`asynchat` and :mod:`asyncore` modules contain the following notice::

Copyright 1996 by Sam Rushing

All Rights Reserved

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and 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, and that the name of Sam Rushing not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

SAM RUSHING DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL SAM RUSHING BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

#### Cookie management

-----

The :mod:`http.cookies` module contains the following notice::

Copyright 2000 by Timothy O'Malley <timo@alum.mit.edu>

All Rights Reserved

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and 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, and that the name of Timothy O'Malley not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

Timothy O'Malley DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL Timothy O'Malley BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR

## PERFORMANCE OF THIS SOFTWARE.

### Execution tracing

-----

The :mod:`trace` module contains the following notice::

```
portions copyright 2001, Autonomous Zones Industries, Inc., all rights...
err... reserved and offered to the public under the terms of the
Python 2.2 license.
Author: Zooko O'Whielacronx
http://zooko.com/
mailto:zooko@zooko.com
```

```
Copyright 2000, Mojam Media, Inc., all rights reserved.
Author: Skip Montanaro
```

```
Copyright 1999, Bioreason, Inc., all rights reserved.
Author: Andrew Dalke
```

```
Copyright 1995-1997, Automatrix, Inc., all rights reserved.
Author: Skip Montanaro
```

```
Copyright 1991-1995, Stichting Mathematisch Centrum, all rights reserved.
```

```
Permission to use, copy, modify, and distribute this Python software and
its associated documentation for any purpose without fee is hereby
granted, provided that the above copyright notice appears in all copies,
and that both that copyright notice and this permission notice appear in
supporting documentation, and that the name of neither Automatrix,
Bioreason or Mojam Media be used in advertising or publicity pertaining to
distribution of the software without specific, written prior permission.
```

### UUencode and UUdecode functions

-----

The :mod:`uu` module contains the following notice::

```
Copyright 1994 by Lance Ellinghouse
Cathedral City, California Republic, United States of America.
All Rights Reserved
Permission to use, copy, modify, and distribute this software and its
documentation for any purpose and 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, and that the name of Lance Ellinghouse
not be used in advertising or publicity pertaining to distribution
of the software without specific, written prior permission.
LANCE ELLINGHOUSE DISCLAIMS ALL WARRANTIES WITH REGARD TO
THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND
FITNESS, IN NO EVENT SHALL LANCE ELLINGHOUSE CENTRUM BE LIABLE
FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES
WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN
ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT
OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.
```

```
Modified by Jack Jansen, CWI, July 1995:
```

- Use binascii module to do the actual line-by-line conversion between ascii and binary. This results in a 1000-fold speedup. The C version is still 5 times faster, though.
- Arguments more compliant with Python standard

### XML Remote Procedure Calls

-----  
The :mod:`xmlrpc.client` module contains the following notice::

The XML-RPC client interface is

Copyright (c) 1999-2002 by Secret Labs AB  
Copyright (c) 1999-2002 by Fredrik Lundh

By obtaining, using, and/or copying this software and/or its associated documentation, you agree that you have read, understood, and will comply with the following terms and conditions:

Permission to use, copy, modify, and distribute this software and its associated documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appears in all copies, and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of Secret Labs AB or the author not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

SECRET LABS AB AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL SECRET LABS AB OR THE AUTHOR BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

test\_epoll

-----  
The :mod:`test\_epoll` module contains the following notice::

Copyright (c) 2001-2006 Twisted Matrix Laboratories.

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.

Select kqueue

-----  
The :mod:`select` module contains the following notice for the kqueue interface::

Copyright (c) 2000 Doug White, 2006 James Knight, 2007 Christian Heimes  
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.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR 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 AUTHOR 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.

SipHash24  
-----

The file :file:`Python/pyhash.c` contains Marek Majkowski' implementation of Dan Bernstein's SipHash24 algorithm. It contains the following note::

<MIT License>

Copyright (c) 2013 Marek Majkowski <marek@popcount.org>

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.

</MIT License>

Original location:

<https://github.com/majek/csiphash/>

Solution inspired by code from:

Samuel Neves (supercop/crypto\_auth/siphash24/little)

djb (supercop/crypto\_auth/siphash24/little2)

Jean-Philippe Aumasson (<https://131002.net/siphash/siphash24.c>)

strtod and dtoa  
-----

The file :file:`Python/dtoa.c`, which supplies C functions dtoa and strtod for conversion of C doubles to and from strings, is derived from the file of the same name by David M. Gay, currently available from <http://www.netlib.org/fp/>. The original file, as retrieved on March 16, 2009, contains the following copyright and licensing notice::

```

/*****
 *
 * The author of this software is David M. Gay.
 *
 * Copyright (c) 1991, 2000, 2001 by Lucent Technologies.
 */

```



```

* Permission to use, copy, modify, and distribute this software for any
* purpose without fee is hereby granted, provided that this entire notice
* is included in all copies of any software which is or includes a copy
* or modification of this software and in all copies of the supporting
* documentation for such software.
*
* THIS SOFTWARE IS BEING PROVIDED "AS IS", WITHOUT ANY EXPRESS OR IMPLIED
* WARRANTY. IN PARTICULAR, NEITHER THE AUTHOR NOR LUCENT MAKES ANY
* REPRESENTATION OR WARRANTY OF ANY KIND CONCERNING THE MERCHANTABILITY
* OF THIS SOFTWARE OR ITS FITNESS FOR ANY PARTICULAR PURPOSE.
*
*****/

```

## OpenSSL

-----

The modules :mod:`hashlib`, :mod:`posix`, :mod:`ssl`, :mod:`crypt` use the OpenSSL library for added performance if made available by the operating system. Additionally, the Windows and macOS installers for Python may include a copy of the OpenSSL libraries, so we include a copy of the OpenSSL license here::

### LICENSE ISSUES

=====

The OpenSSL toolkit stays under a dual license, i.e. both the conditions of the OpenSSL License and the original SSLeay license apply to the toolkit. See below for the actual license texts. Actually both licenses are BSD-style Open Source licenses. In case of any license issues related to OpenSSL please contact [openssl-core@openssl.org](mailto:openssl-core@openssl.org).

### OpenSSL License

-----

```

/* =====
 * Copyright (c) 1998-2008 The OpenSSL Project. 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. All advertising materials mentioning features or use of this
 * software must display the following acknowledgment:
 * "This product includes software developed by the OpenSSL Project
 * for use in the OpenSSL Toolkit. (http://www.openssl.org/)"
 *
 * 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to
 * endorse or promote products derived from this software without
 * prior written permission. For written permission, please contact
 * openssl-core@openssl.org.
 *
 * 5. Products derived from this software may not be called "OpenSSL"
 * nor may "OpenSSL" appear in their names without prior written
 * permission of the OpenSSL Project.
 *
 * 6. Redistributions of any form whatsoever must retain the following
 * acknowledgment:

```

```
* "This product includes software developed by the OpenSSL Project
* for use in the OpenSSL Toolkit (http://www.openssl.org/)"
*
* THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``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 OpenSSL PROJECT 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.
* =====
*
* This product includes cryptographic software written by Eric Young
* (eay@cryptsoft.com). This product includes software written by Tim
* Hudson (tjh@cryptsoft.com).
*
*/
```

#### Original SSLeay License

-----

```
/* Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com)
* All rights reserved.
*
* This package is an SSL implementation written
* by Eric Young (eay@cryptsoft.com).
* The implementation was written so as to conform with Netscapes SSL.
*
* This library is free for commercial and non-commercial use as long as
* the following conditions are aheared to. The following conditions
* apply to all code found in this distribution, be it the RC4, RSA,
* lhash, DES, etc., code; not just the SSL code. The SSL documentation
* included with this distribution is covered by the same copyright terms
* except that the holder is Tim Hudson (tjh@cryptsoft.com).
*
* Copyright remains Eric Young's, and as such any Copyright notices in
* the code are not to be removed.
* If this package is used in a product, Eric Young should be given attribution
* as the author of the parts of the library used.
* This can be in the form of a textual message at program startup or
* in documentation (online or textual) provided with the package.
*
* 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 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. All advertising materials mentioning features or use of this software
* must display the following acknowledgement:
* "This product includes cryptographic software written by
* Eric Young (eay@cryptsoft.com)"
* The word 'cryptographic' can be left out if the rouines from the library
* being used are not cryptographic related :-).
* 4. If you include any Windows specific code (or a derivative thereof) from
* the apps directory (application code) you must include an acknowledgement:
* "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"
*
* THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``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 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.
*
* The licence and distribution terms for any publically available version or
* derivative of this code cannot be changed. i.e. this code cannot simply be
* copied and put under another distribution licence
* [including the GNU Public Licence.]
*/
```

expat  
-----

The :mod:`pyexpat` extension is built using an included copy of the expat sources unless the build is configured ``--with-system-expat``:

Copyright (c) 1998, 1999, 2000 Thai Open Source Software Center Ltd  
and Clark Cooper

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.

libffi  
-----

The :mod:`\_ctypes` extension is built using an included copy of the libffi sources unless the build is configured ``--with-system-libffi``:

Copyright (c) 1996-2008 Red Hat, Inc and others.

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.

zlib  
----

The `:mod:`zlib`` extension is built using an included copy of the zlib sources if the zlib version found on the system is too old to be used for the build::

Copyright (C) 1995-2011 Jean-loup Gailly and Mark Adler

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.

|                  |                           |
|------------------|---------------------------|
| Jean-loup Gailly | Mark Adler                |
| jloup@gzip.org   | madler@alumni.caltech.edu |

cfuhash  
-----

The implementation of the hash table used by the `:mod:`tracemalloc`` is based on the cfuhash project::

Copyright (c) 2005 Don Owens  
All rights reserved.

This code is released under the BSD license:

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 author 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.

libmpdec  
-----

The :mod:`decimal` module is built using an included copy of the libmpdec library unless the build is configured ``--with-system-libmpdec``:

Copyright (c) 2008-2020 Stefan Krah. 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.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR 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 AUTHOR 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.

W3C C14N test suite  
-----

The C14N 2.0 test suite in the :mod:`test` package (`Lib/test/xmltestdata/c14n-20/`) was retrieved from the W3C website at <https://www.w3.org/TR/xml-c14n2-testcases/> and is distributed under the 3-clause BSD license:

Copyright (c) 2013 W3C(R) (MIT, ERCIM, Keio, Beihang),  
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 works must retain the original copyright notice, this list of conditions and the following disclaimer.
- \* Redistributions in binary form must reproduce the original 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 W3C nor the names of its contributors may be used to endorse or promote products derived from this work 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.

=====  
=====

## RapidJSON v1.1.0

Copyright (C) 2015 THL A29 Limited, a Tencent company, and Milo Yip. All rights reserved.

If you have downloaded a copy of the RapidJSON binary from Tencent, please note that the RapidJSON binary is licensed under the MIT License.  
If you have downloaded a copy of the RapidJSON source code from Tencent, please note that RapidJSON source code is licensed under the MIT License, except for the third-party components listed below which are subject to different license terms. Your integration of RapidJSON into your own projects may require compliance with the MIT License, as well as the other licenses applicable to the third-party components included within RapidJSON. To avoid the problematic JSON license in your own projects, it's sufficient to exclude the bin/jsonchecker/ directory, as it's the only code under the JSON license.  
A copy of the MIT License is included in this file.

Other dependencies and licenses:

Open Source Software Licensed Under the BSD License:

-----

The msinttypes r29  
Copyright (c) 2006-2013 Alexander Chemeris  
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 copyright holder 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 REGENTS 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 REGENTS AND 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.

Open Source Software Licensed Under the JSON License:

-----  
 json.org  
 Copyright (c) 2002 JSON.org  
 All Rights Reserved.

JSON\_checker  
 Copyright (c) 2002 JSON.org  
 All Rights Reserved.

Terms of the JSON 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 shall be used for Good, not Evil.

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.

Terms of the MIT 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.

=====

## Setuptools

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.

=====

## TinyXML2

Original code by Lee Thomason ([www.grinninglizard.com](http://www.grinninglizard.com))

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.

=====

## V8

This license applies to all parts of V8 that are not externally maintained libraries. The externally maintained libraries used by V8 are:

- PCRE test suite, located in `test/mjsunit/third_party/regexp-pcre/regexp-pcre.js`. This is based on the test suite from PCRE-7.3, which is copyrighted by the University of Cambridge and Google, Inc. The copyright notice and license are embedded in `regexp-pcre.js`.
- Layout tests, located in `test/mjsunit/third_party/object-keys`. These are based on layout tests from `webkit.org` which are copyrighted by Apple Computer, Inc. and released under a 3-clause BSD license.
- Strongtalk assembler, the basis of the files `assembler-arm-inl.h`, `assembler-arm.cc`, `assembler-arm.h`, `assembler-ia32-inl.h`, `assembler-ia32.cc`, `assembler-ia32.h`, `assembler-x64-inl.h`, `assembler-x64.cc`, `assembler-x64.h`, `assembler.cc` and `assembler.h`. This code is copyrighted by Sun Microsystems Inc. and released



under a 3-clause BSD license.

- Valgrind client API header, located at `src/third_party/valgrind/valgrind.h`  
This is released under the BSD license.
- The Wasm C/C++ API headers, located at `third_party/wasm-api/wasm.{h, hh}`  
This is released under the Apache license. The API's upstream prototype implementation also formed the basis of V8's implementation in `src/wasm/c-api.cc`.

These libraries have their own licenses; we recommend you read them, as their terms may differ from the terms below.

Further license information can be found in LICENSE files located in sub-directories.

Copyright 2014, the V8 project authors. 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 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.

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.

LICENSE.fdlbm

-----

Copyright (C) 1993-2004 by Sun Microsystems, Inc. All rights reserved.

Developed at SunSoft, a Sun Microsystems, Inc. business.  
Permission to use, copy, modify, and distribute this software is freely granted, provided that this notice is preserved.

LICENSE.strongtalk

-----

Copyright (c) 1994-2006 Sun Microsystems 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.
- Redistribution 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 Sun Microsystems or the names of 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.

=== External 4th party used in the MySQL use case

Zlib

LICENSE file

-----

=== License file has wrong version number  
version 1.2.12, March 27th, 2022

Copyright (C) 1995-2022 Jean-loup Gailly and Mark Adler

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.

=====  
trace\_event\_common.h  
== No LICENSE file provided

// Copyright 2015 The Chromium Authors  
// Use of this source code is governed by a BSD-style license that can be  
// found in the LICENSE file.

=====  
abseil-cpp

LICENSE file

-----

Apache License  
Version 2.0, January 2004  
<https://www.apache.org/licenses/>

A copy of the [Apache License v2.0, January 2004](#) license can be found

in the 'Standard Licenses' section.

=====

=====

## XZ Utils

Different licenses apply to different files in this package. Here is a rough summary of which licenses apply to which parts of this package (but check the individual files to be sure!):

- liblzma is in the public domain.
- xz, xzdec, and lzmadec command line tools are in the public domain unless GNU getopt\_long had to be compiled and linked in from the lib directory. The getopt\_long code is under GNU LGPLv2.1+.
- The scripts to grep, diff, and view compressed files have been adapted from gzip. These scripts and their documentation are under GNU GPLv2+.
- All the documentation in the doc directory and most of the XZ Utils specific documentation files in other directories are in the public domain.

Note: The JavaScript files (under the MIT license) have been removed from the Doxygen-generated HTML version of the liblzma API documentation. Doxygen itself is under the GNU GPL but the remaining files generated by Doxygen are not affected by the licenses used in Doxygen because Doxygen licensing has the following exception:

"Documents produced by doxygen are derivative works derived from the input used in their production; they are not affected by this license."

- Translated messages are in the public domain.
- The build system contains public domain files, and files that are under GNU GPLv2+ or GNU GPLv3+. None of these files end up in the binaries being built.
- Test files and test code in the tests directory, and debugging utilities in the debug directory are in the public domain.
- The extra directory may contain public domain files, and files that are under various free software licenses.

You can do whatever you want with the files that have been put into the public domain. If you find public domain legally problematic, take the previous sentence as a license grant. If you still find the lack of copyright legally problematic, you have too many lawyers.

As usual, this software is provided "as is", without any warranty. If you copy significant amounts of public domain code from XZ Utils into your project, acknowledging this somewhere in your software is polite (especially if it is proprietary, non-free software), but naturally it is not legally required. Here is an example of a good notice to put into "about box" or into documentation:

This software includes code from XZ Utils <<https://tukaani.org/xz/>>

The following license texts are included in the following files:

- COPYING.LGPLv2.1: GNU Lesser General Public License version 2.1
- COPYING.GPLv2: GNU General Public License version 2
- COPYING.GPLv3: GNU General Public License version 3

Note that the toolchain (compiler, linker etc.) may add some code pieces that are copyrighted. Thus, it is possible that e.g. liblzma binary wouldn't actually be in the public domain in its entirety even though it contains no copyrighted code from the XZ Utils source package.

If you have questions, don't hesitate to ask the author(s) for more information.

=====

## zlib

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.

Copyright (C) 1995-2022 Jean-loup Gailly and Mark Adler

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.

Jean-loup Gailly  
jloup@gzip.org

Mark Adler  
madler@alumni.caltech.edu

If you use the zlib library in a product, we would appreciate \*not\* receiving lengthy legal documents to sign. The sources are provided for free but without warranty of any kind. The library has been entirely written by Jean-loup Gailly and Mark Adler; it does not include third-party code.

If you redistribute modified sources, we would appreciate that you include in the file ChangeLog history information documenting your changes. Please read the FAQ for more information on the distribution of modified source versions.

```
=====
=====
```

## ZSTD (Zstandard)

Zstandard is dual-licensed under [BSD](LICENSE) and [GPLv2](COPYING).

```
/*
 * This source code is licensed under both the BSD-style license (found in
 * the LICENSE file in the root directory of this source tree) and the GPLv2
 * (found in the COPYING file in the root directory of this source tree).
 * You may select, at your option, one of the above-listed licenses.
 */
```

Oracle elects the BSD license

LICENSE:

Copyright (c) 2016-present, Facebook, Inc. All rights reserved.  
 Copyright (C) 2012-2016, Yann Collet.  
 Copyright (c) 2003-2008 Yuta Mori All Rights Reserved.  
 Copyright (c) 2016 Tino Reichardt  
 Copyright (c) 2016-present, Przemysław Skibinski, Yann Collet, Facebook, Inc.  
 Copyright (c) 2016-present, Yann Collet, Facebook, Inc.  
 Copyright (c) 2018-present, Facebook, Inc.

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 Facebook 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.

The following is from the COPYING file and is included for completeness:

-----

GNU GENERAL PUBLIC LICENSE  
Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.,  
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA  
Everyone is permitted to copy and distribute verbatim copies  
of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE  
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this license.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this

License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

- a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under

this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any



later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

#### NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### END OF TERMS AND CONDITIONS

#### How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the program's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>
```

```
This program is free software; you can redistribute it and/or modify
it under the terms of the GNU General Public License as published by
the Free Software Foundation; either version 2 of the License, or
(at your option) any later version.
```

```
This program is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY; without even the implied warranty of
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
GNU General Public License for more details.
```

```
You should have received a copy of the GNU General Public License along
with this program; if not, write to the Free Software Foundation, Inc.,
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.
```

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright interest in the program
`Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this license.

```
=====
=====
```

## || Additional third-party components

The following section contain licensing information for libraries that may be included in using the JavaScript Engine functionality:

### LLVM

```
=====
The LLVM Project is under the Apache License v2.0 with LLVM Exceptions:
=====
```

```

        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.

---- LLVM Exceptions to the Apache 2.0 License ----

As an exception, if, as a result of your compiling your source code, portions of this Software are embedded into an Object form of such source code, you may redistribute such embedded portions in such Object form without complying with the conditions of Sections 4(a), 4(b) and 4(d) of the License.

In addition, if you combine or link compiled forms of this Software with software that is licensed under the GPLv2 ("Combined Software") and if a court of competent jurisdiction determines that the patent provision (Section 3), the indemnity provision (Section 9) or other Section of the License conflicts with the conditions of the GPLv2, you may retroactively and prospectively choose to deem waived or otherwise exclude such Section(s) of the License, but only in their entirety and only with respect to the Combined Software.

```
=====
Software from third parties included in the LLVM Project:
=====
The LLVM Project contains third party software which is under different license
```

terms. All such code will be identified clearly using at least one of two mechanisms:

- 1) It will be in a separate directory tree with its own `LICENSE.txt` or `LICENSE` file at the top containing the specific license and restrictions which apply to that software, or
- 2) It will contain specific license and restriction terms at the top of every file.

=====

Legacy LLVM License (<https://llvm.org/docs/DeveloperPolicy.html#legacy>):

=====

University of Illinois/NCSA  
Open Source License

Copyright (c) 2003-2019 University of Illinois at Urbana-Champaign.  
All rights reserved.

Developed by:

LLVM Team

University of Illinois at Urbana-Champaign

<http://llvm.org>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal with 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:

- \* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimers.
- \* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimers in the documentation and/or other materials provided with the distribution.
- \* Neither the names of the LLVM Team, University of Illinois at Urbana-Champaign, nor the names of its contributors may be used to endorse or promote products derived from this Software without specific prior written permission.

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 CONTRIBUTORS 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 WITH THE SOFTWARE.

=====

clang-tidy CERT Files

-----

All clang-tidy files are licensed under the same terms as the rest of the LLVM project with the following additions:

Any file referencing a CERT Secure Coding guideline:

Please allow this letter to serve as confirmation that open source projects on <http://llvm.org> are permitted to link via hypertext to the CERT(R) secure coding guidelines available at <https://www.securecoding.cert.org>.

The foregoing is permitted by the Terms of Use as follows:

"Linking to the Service

Because we update many of our Web documents regularly, we would prefer that you

link to our Web pages whenever possible rather than reproduce them. It is not necessary to request permission to make referential hypertext links to The Service."

<http://www.sei.cmu.edu/legal/ip/index.cfm>.

Please allow this letter to also confirm that no formal permission is required to reproduce the title of the content being linked to, nor to reproduce any de Minimis description of such content.

=====  
-----  
clang-tidy High-Integrity C++ Files  
-----

All clang-tidy files are licensed under the same terms as the rest of the LLVM project with the following additions:

Any file referencing a High-Integrity C++ Coding guideline:

HIC++ Coding Standard as created by PRQA.

Please see <http://www.codingstandard.com/section/conditions-of-use/> for more information.

=====  
libd/third\_party/Python/module/six  
ISC LICENSE

This license is approved by the OSI and FSF as GPL-compatible.  
<http://opensource.org/licenses/isc-license.txt>

Copyright (c) 2013-2014, Pexpect development team  
Copyright (c) 2012, Noah Spurrier <noah@noah.org>

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

THE SOFTWARE IS PROVIDED "AS IS" AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Copyright (c) 2010-2015 Benjamin Peterson

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.

=====  
Ptyprocess

Ptyprocess is under the ISC license, as code derived from Pexpect.  
<http://opensource.org/licenses/ISC>

Copyright (c) 2013-2014, Pexpect development team  
Copyright (c) 2012, Noah Spurrier <noah@noah.org>

PERMISSION TO USE, COPY, MODIFY, AND/OR DISTRIBUTE THIS SOFTWARE FOR ANY PURPOSE WITH OR WITHOUT FEE IS HEREBY GRANTED, PROVIDED THAT THE ABOVE COPYRIGHT NOTICE AND THIS PERMISSION NOTICE APPEAR IN ALL COPIES. THE SOFTWARE IS PROVIDED "AS IS" AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

lib/support/BLAKE3

This work is released into the public domain with CC0 1.0. Alternatively, it is licensed under the Apache License 2.0.

#### Creative Commons Legal Code

##### CC0 1.0 Universal

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

##### Statement of Purpose

The laws of most jurisdictions throughout the world automatically confer exclusive Copyright and Related Rights (defined below) upon the creator and subsequent owner(s) (each and all, an "owner") of an original work of authorship and/or a database (each, a "Work").

Certain owners wish to permanently relinquish those rights to a Work for the purpose of contributing to a commons of creative, cultural and scientific works ("Commons") that the public can reliably and without fear of later claims of infringement build upon, modify, incorporate in other works, reuse and redistribute as freely as possible in any form whatsoever and for any purposes, including without limitation commercial purposes. These owners may contribute to the Commons to promote the ideal of a free culture and the further production of creative, cultural and scientific works, or to gain reputation or greater distribution for their work in part through the use and efforts of others.

For these and/or other purposes and motivations, and without any expectation of additional consideration or compensation, the person associating CC0 with a Work (the "Affirmer"), to the extent that he or she is an owner of Copyright and Related Rights in the Work, voluntarily elects to apply CC0 to the Work and publicly distribute the Work under its terms, with knowledge of his or her Copyright and Related Rights in the Work and the meaning and intended legal effect of CC0 on those rights.

1. Copyright and Related Rights. A Work made available under CC0 may be protected by copyright and related or neighboring rights ("Copyright and Related Rights"). Copyright and Related Rights include, but are not limited to, the following:

- i. the right to reproduce, adapt, distribute, perform, display, communicate, and translate a Work;
- ii. moral rights retained by the original author(s) and/or performer(s);
- iii. publicity and privacy rights pertaining to a person's image or



- likeness depicted in a Work;
- iv. rights protecting against unfair competition in regards to a Work, subject to the limitations in paragraph 4(a), below;
- v. rights protecting the extraction, dissemination, use and reuse of data in a Work;
- vi. database rights (such as those arising under Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, and under any national implementation thereof, including any amended or successor version of such directive); and
- vii. other similar, equivalent or corresponding rights throughout the world based on applicable law or treaty, and any national implementations thereof.

2. Waiver. To the greatest extent permitted by, but not in contravention of, applicable law, Affirmer hereby overtly, fully, permanently, irrevocably and unconditionally waives, abandons, and surrenders all of Affirmer's Copyright and Related Rights and associated claims and causes of action, whether now known or unknown (including existing as well as future claims and causes of action), in the Work (i) in all territories worldwide, (ii) for the maximum duration provided by applicable law or treaty (including future time extensions), (iii) in any current or future medium and for any number of copies, and (iv) for any purpose whatsoever, including without limitation commercial, advertising or promotional purposes (the "Waiver"). Affirmer makes the Waiver for the benefit of each member of the public at large and to the detriment of Affirmer's heirs and successors, fully intending that such Waiver shall not be subject to revocation, rescission, cancellation, termination, or any other legal or equitable action to disrupt the quiet enjoyment of the Work by the public as contemplated by Affirmer's express Statement of Purpose.

3. Public License Fallback. Should any part of the Waiver for any reason be judged legally invalid or ineffective under applicable law, then the Waiver shall be preserved to the maximum extent permitted taking into account Affirmer's express Statement of Purpose. In addition, to the extent the Waiver is so judged Affirmer hereby grants to each affected person a royalty-free, non transferable, non sublicensable, non exclusive, irrevocable and unconditional license to exercise Affirmer's Copyright and Related Rights in the Work (i) in all territories worldwide, (ii) for the maximum duration provided by applicable law or treaty (including future time extensions), (iii) in any current or future medium and for any number of copies, and (iv) for any purpose whatsoever, including without limitation commercial, advertising or promotional purposes (the "License"). The License shall be deemed effective as of the date CC0 was applied by Affirmer to the Work. Should any part of the License for any reason be judged legally invalid or ineffective under applicable law, such partial invalidity or ineffectiveness shall not invalidate the remainder of the License, and in such case Affirmer hereby affirms that he or she will not (i) exercise any of his or her remaining Copyright and Related Rights in the Work or (ii) assert any associated claims and causes of action with respect to the Work, in either case contrary to Affirmer's express Statement of Purpose.

#### 4. Limitations and Disclaimers.

- a. No trademark or patent rights held by Affirmer are waived, abandoned, surrendered, licensed or otherwise affected by this document.
- b. Affirmer 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, non infringement, or the absence of latent or other defects, accuracy, or the present or absence of errors, whether or not discoverable, all to the greatest extent permissible under applicable law.
- c. Affirmer disclaims responsibility for clearing rights of other persons that may apply to the Work or any use thereof, including without limitation any person's Copyright and Related Rights in the Work.

Further, Affirmer disclaims responsibility for obtaining any necessary consents, permissions or other rights required for any use of the Work.

- d. Affirmer understands and acknowledges that Creative Commons is not a party to this document and has no duty or obligation with respect to this CC0 or use of the Work.

```
=====
utils/unittest/googletest
Copyright 2008, Google 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 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.

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.

```
=====
onemp/runtime/src/thirdparty/itnnotify
Copyright (c) 2019 Intel Corporation. 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. Neither the name of the copyright holder 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.

```
=====
polly/lib/external/isl
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.

```
=====
llvm/test/yamplparser
Copyright (c) 2006 Kirill Simonov
```

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.

```
=====
polly/lib/external/isl/imath
IMath is Copyright 2002-2009 Michael J. Fromberger
You may use it subject to the following Licensing 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.

# ``` ===== COPYRIGHTS ===== ```

```

libcxx/test/std/utilities/charconv/*
libcxx/src/ryu/*
Copyright (c) Microsoft Corporation.
2018 Ulf Adams

libcxx/src/support/solaris/*
Copyright (c) 2002-2004 Tim J. Robbins.

compiler-rt/lib/BlocksRuntime/*
Copyright 2008-2010 Apple, Inc.

clang/tools/scan-build/share/scan-build/sorttable.js Copyright 2006, Dean Edwards

lldb/test/API/functionalities/gdb_remote_client/TestJLink6Armv7RegisterDefinition.py
Copyright (C) 2008 Free Software Foundation, Inc.

llvm/utils/unittest/googletest/include/gtest/internal/custom/gtest-printers.h
Copyright 2015, Google Inc.

libclc/generic/lib/math/erfc.cl Copyright (C) 1993 by Sun Microsystems, Inc.
All rights reserved.
libclc/generic/lib/math/clc_remquo.cl
Copyright (c) 2014 Advanced Micro Devices, Inc.

polly/lib/External/isl/
Copyright 2010      INRIA Saclay
Copyright 2013      Ecole Normale Supérieure
Copyright 2015      INRIA Paris-Rocquencourt
Copyright 2017      Sven Verdoolaege
Copyright 2020      Cerebras Systems
Copyright 2008-2009 Katholieke Universiteit Leuven
Copyright 2016-2017 Tobias Grosser
Copyright 2008-2009 Katholieke Universiteit Leuven

third-party/benchmark/src/*
Copyright 2015 Google Inc. All rights reserved.
Copyright 2016 Ismael Jimenez Martinez. All rights reserved.
Copyright 2017 Roman Lebedev. All rights reserved.
```

## simdjson

This component is licensed under  
[Apache License v2.0, January 2004](#).  
 See the 'Standard Licenses' section for license text.

## onnxruntime

```

MIT License

Copyright (c) Microsoft Corporation

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.

=====

# 3rd Party Libraries (External Dependencies)

fp16  
MIT License  
The MIT License (MIT)

Copyright (c) 2017 Facebook Inc.  
Copyright (c) 2017 Georgia Institute of Technology  
Copyright 2019 Google LLC

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.

=====

safeint  
MIT License as listed above

Copyright (c) 2018 Microsoft  
=====

XNNPACK  
BSD License

For XNNPACK software

Copyright (c) Facebook, Inc. and its affiliates. All rights reserved.  
Copyright 2019 Google LLC

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 Facebook 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.

=====

cub

Copyright (c) 2010-2011, Duane Merrill. All rights reserved.

Copyright (c) 2011-2018, NVIDIA CORPORATION. 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 NVIDIA 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 NVIDIA CORPORATION 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.

=====

cxxopts

MIT License as listed above

Copyright (c) 2014 Jarryd Beck

=====

date

The source code in this project is released using the MIT License. There is no global license for the project because each file is licensed individually with different author names and/or dates.

If you contribute to this project, please add your name to the license of each file you modify. If you have already contributed to this project and forgot to add your name to the license, please feel free to submit a new P/R to add your name to the license in each file you modified.

For convenience, here is a copy of the MIT license found in each file except without author names or dates:

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.

=====

dlpack

This component is licensed under  
[Apache License v2.0, January 2004](#).  
 See the 'Standard Licenses' section for license text.

=====

eigen

COPYING.README

Eigen is primarily MPL2 licensed. See COPYING.MPL2 and these links:

<http://www.mozilla.org/MPL/2.0/>

<http://www.mozilla.org/MPL/2.0/FAQ.html>

Some files contain third-party code under BSD or other MPL2-compatible licenses, whence the other COPYING.\* files here.

-----

Mozilla Public License Version 2.0

=====

1. Definitions

-----

1.1. "Contributor"

means each individual or legal entity that creates, contributes to the creation of, or owns Covered Software.

1.2. "Contributor Version"

means the combination of the Contributions of others (if any) used by a Contributor and that particular Contributor's Contribution.

1.3. "Contribution"

means Covered Software of a particular Contributor.

1.4. "Covered Software"

means Source Code Form to which the initial Contributor has attached the notice in Exhibit A, the Executable Form of such Source Code Form, and Modifications of such Source Code Form, in each case including portions thereof.

1.5. "Incompatible With Secondary Licenses"

means

(a) that the initial Contributor has attached the notice described in Exhibit B to the Covered Software; or

(b) that the Covered Software was made available under the terms of version 1.1 or earlier of the License, but not also under the terms of a Secondary License.

1.6. "Executable Form"

means any form of the work other than Source Code Form.

1.7. "Larger Work"

means a work that combines Covered Software with other material, in a separate file or files, that is not Covered Software.

1.8. "License"

means this document.

1.9. "Licensable"

means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently, any and all of the rights conveyed by this License.

1.10. "Modifications"

means any of the following:

- (a) any file in Source Code Form that results from an addition to, deletion from, or modification of the contents of Covered Software; or
- (b) any new file in Source Code Form that contains any Covered Software.

1.11. "Patent Claims" of a Contributor

means any patent claim(s), including without limitation, method, process, and apparatus claims, in any patent Licensable by such Contributor that would be infringed, but for the grant of the License, by the making, using, selling, offering for sale, having made, import, or transfer of either its Contributions or its Contributor Version.

1.12. "Secondary License"

means either the GNU General Public License, Version 2.0, the GNU Lesser General Public License, Version 2.1, the GNU Affero General Public License, Version 3.0, or any later versions of those licenses.

1.13. "Source Code Form"

means the form of the work preferred for making modifications.

1.14. "You" (or "Your")

means an individual or a legal entity exercising rights under this License. For legal entities, "You" includes any entity that 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 and Conditions

-----

2.1. Grants

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 such Contributor to use, reproduce, make available, modify, display, perform, distribute, and otherwise exploit its Contributions, either on an unmodified basis, with Modifications, or as part of a Larger Work; and
- (b) under Patent Claims of such Contributor to make, use, sell, offer for sale, have made, import, and otherwise transfer either its Contributions or its Contributor Version.

2.2. Effective Date

The licenses granted in Section 2.1 with respect to any Contribution become effective for each Contribution on the date the Contributor first distributes such Contribution.



### 2.3. Limitations on Grant Scope

The licenses granted in this Section 2 are the only rights granted under this License. No additional rights or licenses will be implied from the distribution or licensing of Covered Software under this License. Notwithstanding Section 2.1(b) above, no patent license is granted by a Contributor:

- (a) for any code that a Contributor has removed from Covered Software; or
- (b) for infringements caused by: (i) Your and any other third party's modifications of Covered Software, or (ii) the combination of its Contributions with other software (except as part of its Contributor Version); or
- (c) under Patent Claims infringed by Covered Software in the absence of its Contributions.

This License does not grant any rights in the trademarks, service marks, or logos of any Contributor (except as may be necessary to comply with the notice requirements in Section 3.4).

### 2.4. Subsequent Licenses

No Contributor makes additional grants as a result of Your choice to distribute the Covered Software under a subsequent version of this License (see Section 10.2) or under the terms of a Secondary License (if permitted under the terms of Section 3.3).

### 2.5. Representation

Each Contributor represents that the Contributor believes its Contributions are its original creation(s) or it has sufficient rights to grant the rights to its Contributions conveyed by this License.

### 2.6. Fair Use

This License is not intended to limit any rights You have under applicable copyright doctrines of fair use, fair dealing, or other equivalents.

### 2.7. Conditions

Sections 3.1, 3.2, 3.3, and 3.4 are conditions of the licenses granted in Section 2.1.

## 3. Responsibilities

-----

### 3.1. Distribution of Source Form

All distribution of Covered Software in Source Code Form, including any Modifications that You create or to which You contribute, must be under the terms of this License. You must inform recipients that the Source Code Form of the Covered Software is governed by the terms of this License, and how they can obtain a copy of this License. You may not attempt to alter or restrict the recipients' rights in the Source Code Form.

### 3.2. Distribution of Executable Form

If You distribute Covered Software in Executable Form then:

- (a) such Covered Software must also be made available in Source Code Form, as described in Section 3.1, and You must inform recipients of

the Executable Form how they can obtain a copy of such Source Code Form by reasonable means in a timely manner, at a charge no more than the cost of distribution to the recipient; and

- (b) You may distribute such Executable Form under the terms of this License, or sublicense it under different terms, provided that the license for the Executable Form does not attempt to limit or alter the recipients' rights in the Source Code Form under this License.

### 3.3. Distribution of a Larger Work

You may create and distribute a Larger Work under terms of Your choice, provided that You also comply with the requirements of this License for the Covered Software. If the Larger Work is a combination of Covered Software with a work governed by one or more Secondary Licenses, and the Covered Software is not Incompatible With Secondary Licenses, this License permits You to additionally distribute such Covered Software under the terms of such Secondary License(s), so that the recipient of the Larger Work may, at their option, further distribute the Covered Software under the terms of either this License or such Secondary License(s).

### 3.4. Notices

You may not remove or alter the substance of any license notices (including copyright notices, patent notices, disclaimers of warranty, or limitations of liability) contained within the Source Code Form of the Covered Software, except that You may alter any license notices to the extent required to remedy known factual inaccuracies.

### 3.5. Application of Additional Terms

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 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 every Contributor for any liability incurred by such Contributor as a result of warranty, support, indemnity or liability terms You offer. You may include additional disclaimers of warranty and limitations of liability specific to any jurisdiction.

## 4. Inability to Comply Due to Statute or Regulation

-----

If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Covered Software due to statute, judicial order, or regulation then You must: (a) comply with the terms of this License to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be placed in a text file included with all distributions of the Covered Software under this License. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

## 5. Termination

-----

5.1. The rights granted under this License will terminate automatically if You fail to comply with any of its terms. However, if You become compliant, then the rights granted under this License from a particular Contributor are reinstated (a) provisionally, unless and until such Contributor explicitly and finally terminates Your grants, and (b) on an ongoing basis, if such Contributor fails to notify You of the non-compliance by some reasonable means prior to 60 days after You have come back into compliance. Moreover, Your grants from a particular

Contributor are reinstated on an ongoing basis if such Contributor notifies You of the non-compliance by some reasonable means, this is the first time You have received notice of non-compliance with this License from such Contributor, and You become compliant prior to 30 days after Your receipt of the notice.

5.2. If You initiate litigation against any entity by asserting a patent infringement claim (excluding declaratory judgment actions, counter-claims, and cross-claims) alleging that a Contributor Version directly or indirectly infringes any patent, then the rights granted to You by any and all Contributors for the Covered Software under Section 2.1 of this License shall terminate.

5.3. In the event of termination under Sections 5.1 or 5.2 above, all end user license agreements (excluding distributors and resellers) which have been validly granted by You or Your distributors under this License prior to termination shall survive termination.

```
*****
*
* 6. Disclaimer of Warranty
* -----
*
* Covered Software is provided under this License on an "as is"
* basis, without warranty of any kind, either expressed, implied, or
* statutory, including, without limitation, warranties that the
* Covered Software is free of defects, merchantable, fit for a
* particular purpose or non-infringing. 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 any 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 under this License except under this disclaimer.
*
*****
```

```
*****
*
* 7. Limitation of Liability
* -----
*
* Under no circumstances and under no legal theory, whether tort
* (including negligence), contract, or otherwise, shall any
* Contributor, or anyone who distributes Covered Software as
* permitted above, be liable to You for any direct, 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. Litigation

Any litigation relating to this License may be brought only in the courts of a jurisdiction where the defendant maintains its principal place of business and such litigation shall be governed by laws of that jurisdiction, without reference to its conflict-of-law provisions.

Nothing in this Section shall prevent a party's ability to bring cross-claims or counter-claims.

## 9. Miscellaneous

-----

This License represents the complete agreement concerning the 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. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not be used to construe this License against a Contributor.

## 10. Versions of the License

### 10.1. New Versions

Mozilla Foundation is the license steward. Except as provided in Section 10.3, no one other than the license steward has the right to modify or publish new versions of this License. Each version will be given a distinguishing version number.

### 10.2. Effect of New Versions

You may distribute the Covered Software under the terms of the version of the License under which You originally received the Covered Software, or under the terms of any subsequent version published by the license steward.

### 10.3. Modified Versions

If you create software not governed by this License, and you want to create a new license for such software, you may create and use a modified version of this License if you rename the license and remove any references to the name of the license steward (except to note that such modified license differs from this License).

### 10.4. Distributing Source Code Form that is Incompatible With Secondary Licenses

If You choose to distribute Source Code Form that is Incompatible With Secondary Licenses under the terms of this version of the License, the notice described in Exhibit B of this License must be attached.

#### Exhibit A - Source Code Form License Notice

-----

This Source Code Form is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this file, You can obtain one at <https://mozilla.org/MPL/2.0/>.

If it is not possible or desirable to put the notice in a particular file, then You may include the notice in a location (such as a LICENSE file in a relevant directory) where a recipient would be likely to look for such a notice.

You may add additional accurate notices of copyright ownership.

#### Exhibit B - "Incompatible With Secondary Licenses" Notice

-----

This Source Code Form is "Incompatible With Secondary Licenses", as defined by the Mozilla Public License, v. 2.0.

-----

COPYING.APACHE

[Apache License v2.0, January 2004.](#)

See the 'Standard Licenses' section for license text.

-----  
COPYING.BSD

/\*

Copyright (c) 2011, Intel Corporation. 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 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.

\*/

-----  
COPYING.MINPACK

Minpack Copyright Notice (1999) University of Chicago. 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 end-user documentation included with the redistribution, if any, must include the following acknowledgment:

"This product includes software developed by the University of Chicago, as Operator of Argonne National Laboratory.

Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.

4. WARRANTY DISCLAIMER. THE SOFTWARE IS SUPPLIED "AS IS" WITHOUT WARRANTY OF ANY KIND. THE COPYRIGHT HOLDER, THE UNITED STATES, THE UNITED STATES DEPARTMENT OF ENERGY, AND THEIR EMPLOYEES: (1) DISCLAIM ANY WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE OR NON-INFRINGEMENT, (2) DO NOT ASSUME ANY LEGAL LIABILITY OR RESPONSIBILITY FOR THE ACCURACY, COMPLETENESS, OR USEFULNESS OF THE SOFTWARE, (3) DO NOT REPRESENT THAT USE OF

THE SOFTWARE WOULD NOT INFRINGE PRIVATELY OWNED RIGHTS, (4)  
DO NOT WARRANT THAT THE SOFTWARE WILL FUNCTION  
UNINTERRUPTED, THAT IT IS ERROR-FREE OR THAT ANY ERRORS WILL  
BE CORRECTED.

5. LIMITATION OF LIABILITY. IN NO EVENT WILL THE COPYRIGHT  
HOLDER, THE UNITED STATES, THE UNITED STATES DEPARTMENT OF  
ENERGY, OR THEIR EMPLOYEES: BE LIABLE FOR ANY INDIRECT,  
INCIDENTAL, CONSEQUENTIAL, SPECIAL OR PUNITIVE DAMAGES OF  
ANY KIND OR NATURE, INCLUDING BUT NOT LIMITED TO LOSS OF  
PROFITS OR LOSS OF DATA, FOR ANY REASON WHATSOEVER, WHETHER  
SUCH LIABILITY IS ASSERTED ON THE BASIS OF CONTRACT, TORT  
(INCLUDING NEGLIGENCE OR STRICT LIABILITY), OR OTHERWISE,  
EVEN IF ANY OF SAID PARTIES HAS BEEN WARNED OF THE  
POSSIBILITY OF SUCH LOSS OR DAMAGES.

```
// Copyright (C) 2010 Benoit Jacob <jacob.benoit.1@gmail.com>
// Copyright (C) 2009 Gael Guennebaud <gael.guennebaud@inria.fr>
// Copyright (C) 2012 Désiré Nuentza-Wakam <desire.nuentza_wakam@inria.fr>
// Copyright (c) 2021, NVIDIA CORPORATION. All rights reserved.
// Copyright (C) 2011 Jitse Niesen <jitse@maths.leeds.ac.uk>
// Copyright (C) 2007 Julien Pommier
// Copyright (C) 2016 Konstantinos Margaritis <markos@freevec.org>
// Copyright (C) 2014 Pedro Gonnet (pedro.gonnet@gmail.com)
// Copyright (C) 2018 Wave Computing, Inc.
// Copyright (c) Fabian Giesen, 2016
// Copyright (C) 2019 Rasmus Munk Larsen <rmlarsen@google.com>
// Copyright (C) 2022 Intel Corporation
// Copyright (C) 2020, Arm Limited and Contributors
// Copyright (C) 2017 Codeplay Software Limited
// Copyright (C) 2020 Antonio Sanchez <cantonios@google.com>
// Copyright (C) 2020 Everton Constantino (everton.constantino@ibm.com)
// Copyright (C) 2021 Chip Kerchner (chip.kerchner@ibm.com)
// Copyright (C) 2014 yoco <peter.xiao@gmail.com>
// Copyright (C) 2016 Eugene Brevdo <ebrevdo@gmail.com>
// Copyright (c) 1994 by Xerox Corporation. All rights reserved.
// Copyright (C) 2012 Keir Mierle <mierle@gmail.com>
// Copyright (c) 2005 by Timothy A. Davis. All Rights Reserved.
// Copyright (C) 2021 Huang, Zhaoquan <zhaquan2008@hotmail.com>
```

=====

emsdk

Copyright (c) 2018 Emscripten authors (see AUTHORS in Emscripten)

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.

-----

This is the MIT/Expat Licence. For more information see:

1. <http://www.opensource.org/licenses/mit-license.php>

2. [http://en.wikipedia.org/wiki/MIT\\_License](http://en.wikipedia.org/wiki/MIT_License)

#### CONTENT OF AUTHORS EMSCRIPTEN File

Contributors to Emscripten may optionally add themselves to this list of authors if they choose to do so. This is optional because the git history is good enough for that purpose, and in fact most projects do not maintain such a manual list.

While the file is not necessary, to preserve the history of the project we are not removing it.

(Authors keep copyright of their contributions, of course; they just grant a license to everyone to use it as detailed in LICENSE.)

- \* Alon Zakai <alonzakai@gmail.com>  
(copyright owned by Mozilla Foundation)
- \* Tim Dawborn <tim.dawborn@gmail.com>
- \* Max Shawabkeh <max99x@gmail.com>
- \* Sigmund Vik <sigmund\_vik@yahoo.com>
- \* Jeff Terrace <jterrace@gmail.com>
- \* Benoit Tremblay <trembl.ben@gmail.com>
- \* Andreas Bergmeier <abergmeier@gmx.net>
- \* Ben Schwartz <bens@alum.mit.edu>
- \* David Claughton <dave@eclecticdave.com>
- \* David Yip <yipdw@member.fsf.org>
- \* Julien Hamaide <julien.hamaide@gmail.com>
- \* Ehsan Akhgari <ehsan.akhgari@gmail.com>  
(copyright owned by Mozilla Foundation)
- \* Adrian Taylor <adrian@macrobug.com>
- \* Richard Assar <richard.assar@gmail.com>
- \* Nathan Hammond <emscripten@nathanhammond.com>
- \* Behdad Esfahbod <behdad@behdad.org>
- \* David Benjamin <davidben@mit.edu>
- \* Pierre Renaux <pierre@talansoft.com>
- \* Brian Anderson <banderson@mozilla.com>
- \* Jon Bardin <diclophis@gmail.com>
- \* Jukka Jylänki <jujjyl@gmail.com>
- \* Aleksander Guryanov <caiiycuk@gmail.com>
- \* Chad Austin <chad@chadaustin.me> (copyright owned by IMVU)
- \* nandhp <nandhp@gmail.com>
- \* YeZhongWen <linghuye2.0@gmail.com>
- \* Xingxing Pan <forandom@gmail.com>
- \* Justin Kerk <dopefishjustin@gmail.com>
- \* Andrea Bedini <andrea.bedini@gmail.com>
- \* James Pike <totoro.friend@chilon.net>
- \* Mokhtar Naamani <mokhtar.naamani@gmail.com>
- \* Benjamin Stover <benjamin.stover@gmail.com>
- \* Riccardo Magliocchetti <riccardo.magliocchetti@gmail.com>
- \* Janus Troelsen <janus.troelsen@stud.tu-darmstadt.de>
- \* Lars Schneider <lars.schneider@autodesk.com>  
(copyright owned by Autodesk, Inc.)
- \* Joel Martin <github@martintribe.org>
- \* Manuel Wellmann <manuel.wellmann@autodesk.com>  
(copyright owned by Autodesk, Inc.)
- \* Xuejie Xiao <xxuejie@gmail.com>
- \* Dominic Wong <dom@slowbunyip.org>
- \* Alan Kligman <alan.kligman@gmail.com>  
(copyright owned by Mozilla Foundation)
- \* Anthony Liot <wolfviking@yahoo.com>
- \* Michael Riss <Michael.Riss@gmx.de>
- \* Jasper St. Pierre <jstpierre@mecheye.net>
- \* Manuel Schölling <manuel.schoelling@gmx.de>
- \* Bruce Mitchener, Jr. <bruce.mitchener@gmail.com>
- \* Michael Bishop <mbytyke@gmail.com>

```
* Roger Braun <roger@rogerbraun.net>
* Vladimir Vukicevic <vladimir@pobox.com>
  (copyright owned by Mozilla Foundation)
* Lorant Pinter <lorant.pinter@prezi.com>
* Tobias Doerffel <tobias.doerffel@gmail.com>
* Martin von Gagern <martin@von-gagern.net>
* Ting-Yuan Huang <thuag@mozilla.com>
* Joshua Granick <jgranick@blackberry.com>
* Felix H. Dahlke <fhd@ubercode.de>
* Éloi Rivard <azmeuk@gmail.com>
* Alexander Gladyshev <ag@logiceditor.com>
* Arlo Breault <arlorla@gmail.com>
* Jacob Lee <artdent@gmail.com> (copyright owned by Google, Inc.)
* Joe Lee <jlee@imvu.com> (copyright owned by IMVU)
* Andy Friesen <andy@imvu.com> (copyright owned by IMVU)
* Bill Welden <bwelden@imvu.com> (copyright owned by IMVU)
* Michael Ey <mey@imvu.com> (copyright owned by IMVU)
* Llorens Marti Garcia <lgarcia@imvu.com> (copyright owned by IMVU)
* Jinsuck Kim <jkim@imvu.com> (copyright owned by IMVU)
* Todd Lee <tlee@imvu.com> (copyright owned by IMVU)
* Anthony Pesch <inolen@gmail.com>
* Robert Bragg <robert.bragg@intel.com>
  (copyright owned by Intel Corporation)
* Sylvestre Ledru <sylvestre@debian.org>
* Tom Fairfield <fairfield@cs.xu.edu>
* Anthony J. Thibault <ajt@hyperlogic.org>
* John Allwine <jallwine86@gmail.com>
* Martin Gerhardt <martin.gerhardt@gmail.com>
* James Gregory <jgregory@zynga.com> (copyright owned by Zynga, Inc.)
* Dan Gohman <sunfish@google.com> (copyright owned by Google, Inc.)
* Jeff Gilbert <jgilbert@mozilla.com>
  (copyright owned by Mozilla Foundation)
* Frits Talbot <frits@metapathy.com>
* Onno Jongbloed <hey@onnoj.net>
* Jez Ng <me@jezng.com>
* Marc Feeley <mfeeley@mozilla.com>
  (copyright owned by Mozilla Foundation)
* Ludovic Perrine <jazzzz@gmail.com>
* David Barksdale <david.barksdale@adcedosolutions.com>
* Manfred Manik Nerurkar <nerurkarmade-apps.biz>
  (copyright owned by MADE, GmbH)
* Joseph Gentle <me@josephg.com>
* Douglas T. Crosher <dtc-moz@scieneer.com>
  (copyright owned by Mozilla Foundation)
* Douglas T. Crosher <info@jsstats.com>
  (copyright owned by Scieneer Pty Ltd.)
* Soeren Balko <soeren.balko@gmail.com>
  (copyright owned by Clipchamp Pty Ltd.)
* Ryan Kelly <ryan@rfk.id.au>
* Michael Lelli <toadking@toadking.com>
* Yu Kobayashi <yukoba@accelart.jp>
* Pin Zhang <zhangpin04@gmail.com>
* Nick Bray <ncbray@chromium.org> (copyright owned by Google, Inc.)
* Aidan Hobson Sayers <aidanhs@cantab.net>
* Charlie Birks <admin@daftgames.net>
* Ranger Harke <ranger.harke@autodesk.com>
  (copyright owned by Autodesk, Inc.)
* Tobias Vrinssen <tobias@vrinssen.de>
* Patrick R. Martin <patrick.martin.r@gmail.com>
* Richard Quirk <richard.quirk@gmail.com>
* Marcos Scriven <marcos@scriven.org>
* Antoine Lambert <antoine.lambert33@gmail.com>
* Daniel Aquino <mr.danielaquino@gmail.com>
* Remi Papillie <remi.papillie@gmail.com>
* Fraser Adams <fraser.adams@blueyonder.co.uk>
* Michael Tirado <icetooth333@gmail.com>
* Ben Noordhuis <info@bnoordhuis.nl>
```



```
* Bob Roberts <bobroberts177@gmail.com>
* John Vilk <jvilk@cs.umass.edu>
* Daniel Baulig <dbaulig@fb.com> (copyright owned by Facebook, Inc.)
* Lu Wang <coolwanglu@gmail.com>
* Heidi Pan <heidi.pan@intel.com> (copyright owned by Intel)
* Vasilis Kalintiris <ehostunreach@gmail.com>
* Adam C. Clifton <adam@hulkamaniac.com>
* Volo Zyko <volo.zyko@gmail.com>
* Andre Weissflog <flooooh@gmail.com>
* Alexandre Perrot <alexandre.perrot@gmail.com>
* Emerson José Silveira da Costa <emerson.costa@gmail.com>
* Jari Vetoniemi <mailroxas@gmail.com>
* Sindre Sorhus <sindresorhus@gmail.com>
* James S Urquhart <jamesu@gmail.com>
* Boris Gjenere <boris.gjenere@gmail.com>
* jonas echterhoff <jonas@unity3d.com>
* Sami Vaarala <sami.vaarala@iki.fi>
* Jack A. Arrington <jack@epicpineapple.com>
* Richard Janicek <r@janicek.co>
* Joel Croteau <jcroteau@gmail.com>
* Haneef Mubarak <haneef503@gmail.com>
* Nicolas Peri <nicox@shivaengine.com>
  (copyright owned by Shiva Technologies, SAS)
* Bernhard Fey <e-male@web.de>
* Dave Nicponski <dave.nicponski@gmail.com>
* Jonathan Jarri <noxalus@gmail.com>
* Daniele Di Proietto <daniele.di.proietto@gmail.com>
* Dan Dascalescu <dNOSPAMdascalescu@gmail.com>
* Thomas Borsos <thomasborsos@gmail.com>
* Ori Avtalion <ori@avtalion.name>
* Guillaume Blanc <guillaumeblanc.sc@gmail.com>
* Usagi Ito <usagi@WonderRabbitProject.net>
* Camilo Polymeris <cpolymeris@gmail.com>
* Markus Henschel <markus.henschel@yager.de>
* Ophir Lojkine <ophir.lojkine@eleves.ec-nantes.fr>
* Ryan Sturgell <ryan.sturgell@gmail.com> (copyright owned by Google, Inc.)
* Jason Green <jason@transgaming.com> (copyright owned by TransGaming, Inc.)
* Ningxin Hu <ningxin.hu@intel.com> (copyright owned by Intel)
* Nicolas Guillemot <nlguillemot@gmail.com>
* Sathyanarayanan Gunasekaran <gsathya.ceg@gmail.com>
  (copyright owned by Mozilla Foundation)
* Nikolay Vorobyov <nik.vorobyov@gmail.com>
* Jonas Platte <mail@jonasplatte.de>
* Sebastien Ronsse <sronsse@gmail.com>
* Glenn R. Wichman <gwichman@zynga.com>
* Hamish Willee <hamishwillee@gmail.com>
  (copyright owned by Mozilla Foundation)
* Sylvain Chevalier <sylvain.chevalier@gmail.com>
* Nathan Ross <nross.se@gmail.com>
* Zachary Pomerantz <zmp@umich.edu>
* Boris Tsarev <boristsarev@gmail.com>
* Mark Logan <mark@artillery.com>
  (copyright owned by Artillery Games, Inc.)
* Korenberg Mark <socketpair@gmail.com>
* Gauthier Billot <gogoprogram@gmail.com>
* Árpád Goretity <h2co3@h2co3.org>
* Nicholas Wilson <nicholas@nicholaswilson.me.uk>
* Aaron Mandle <aaronmandle@gmail.com>
* Bailey Hayes <Bailey.Hayes@sas.com>
  (copyright owned by SAS Institute Inc.)
* Paul Holland <pholland@adobe.com>
* James Long <longster@gmail.com>
* David Anderson <danderson@mozilla.com>
  (copyright owned by Mozilla Foundation)
* Eric Rannaud <e@nanocritical.com>
  (copyright owned by Nanocritical Corp.)
* William Furr <wfurr@google.com>
```

(copyright owned by Google, Inc.)  
\* Dan Glastonbury <dglastonbury@mozilla.com>  
(copyright owned by Mozilla Foundation)  
\* Warren Seine <warren.seine@aerys.in>  
(copyright owned by Aerys SAS)  
\* Petr Babicka <babcca@gmail.com>  
\* Akira Takahashi <faithandbrave@gmail.com>  
\* Victor Costan <costan@gmail.com>  
\* Pepijn Van Eeckhoudt <pepijn.vaneeckhoudt@luciad.com>  
(copyright owned by Luciad NV)  
\* Stevie Trujillo <stevie.trujillo@gmail.com>  
\* Edward Rudd <urkle@outoforder.cc>  
\* Rene Eichhorn <rene.eichhorn1@gmail.com>  
\* Nick Desaulniers <nick@mozilla.com>  
(copyright owned by Mozilla Foundation)  
\* Luke Wagner <luke@mozilla.com>  
(copyright owned by Mozilla Foundation)  
\* Matt McCormick <matt.mccormick@kitware.com>  
\* Thaddée Tyl <thaddee.tyl@gmail.com>  
\* Philipp Wieseemann <philipp.wieseemann@arcor.de>  
\* Jan Jongboom <janjongboom@gmail.com>  
(copyright owned by Telenor Digital AS)  
\* Tiago Quelhas <tiagoq@gmail.com>  
\* Reinier de Blois <rddeblois@gmail.com>  
\* Yuichi Nishiwaki <yuichi.nishiwaki@gmail.com>  
\* Jérôme Bernard <jerome.bernard@ercom.fr>  
(copyright owned by Ercom)  
\* Chanhwi Choi <ccwpc@hanmail.net>  
\* Fábio Santos <fabiosantosart@gmail.com>  
\* Thibaut Despoulain <thibaut@artillery.com>  
(copyright owned by Artillery Games, Inc.)  
\* Wei Tjong Yao <weitjong@gmail.com>  
\* Tim Guan-tin Chien <timdream@gmail.com>  
\* Krzysztof Jakubowski <nadul@fastmail.fm>  
\* Vladimír Vondruš <mosra@centrum.cz>  
\* Brion Vibber <brion@pobox.com>  
\* Philip Lafleur <sendsbeak@gmail.com>  
\* Javier Meseguer de Paz <j.meseguer@gmail.com>  
\* Michael A. Balazs <michael.balazs@gmail.com>  
\* Andreas Blixt <me@blixt.nyc>  
\* Haofeng Zhang <h.z@duke.edu>  
\* Cody Welsh <codyw@protonmail.com>  
\* Hoong Ern Ng <hoongern@gmail.com>  
\* Kagami Hiiragi <kagami@genshiken.org>  
\* Jan Bölsche <jan@lagomorph.de>  
\* Sebastian Matthes <sebastianmatthes@outlook.com>  
(copyright owned by Volkswagen AG)  
\* Robert Goulet <robert.goulet@autodesk.com>  
(copyright owned by Autodesk, Inc.)  
\* Juha Järvi <befunge@gmail.com>  
\* Louis Lagrange <lagrange.louis@gmail.com>  
\* Ying-Ruei Liang <thumbd03803@gmail.com>  
\* Stuart Geipel <lapimlu@gmail.com>  
\* Yeonjun Lim <yjroot@gmail.com>  
\* Andrew Karpushin <reven86@gmail.com>  
\* Felix Zimmermann <fzimmermann89@gmail.com>  
\* Sven-Hendrik Haase <svenstaro@gmail.com>  
\* Simon Sandström <simon@nikanor.nu>  
\* Khaled Sami <k.sami.mohammed@gmail.com>  
\* Omar El-Mohandes <omar.elmohandes90@gmail.com>  
\* Florian Rival <florian.rival@gmail.com>  
\* Mark Achée <mark@achee.com>  
\* Piotr Paczkowski <kontakt@trzeci.eu>  
\* Braden MacDonald <braden@bradenmacdonald.com>  
\* Kevin Cheung <kevin.cheung@autodesk.com>  
(copyright owned by Autodesk, Inc.)  
\* Josh Peterson <petersonjm1@gmail.com>

```
* eska <eska@eska.me>
* Nate Burr <nate.oo@gmail.com>
* Paul "TBble" Hampson <Paul.Hampson@Pobox.com>
* Andreas Plesch <andreasplesch@gmail.com>
* Brian Armstrong <brian.armstrong.ece+github@gmail.com>
* Vincenzo Chianese <vincenz.chianese@icloud.com>
* Noam T.Cohen <noam@ecb.co.il>
* Nick Shin <nick.shin@gmail.com>
* Gregg Tavares <github@greggman.com>
* Tanner Rogalsky <tanner@tannerrogalsky.com>
* Richard Cook <rcook@tableau.com> (copyright owned by Tableau Software, Inc.)
* Arnab Choudhury <achoudhury@tableau.com> (copyright owned by Tableau Software, Inc.)
* Charles Vaughn <cvaughn@tableau.com> (copyright owned by Tableau Software, Inc.)
* Pierre Krieger <pierre.krieger1708@gmail.com>
* Jakob Stoklund Olesen <stoklund@2pi.dk>
* J  r  my Anger <angerj.dev@gmail.com>
* Derek Schuff <dschuff@chromium.org> (copyright owned by Google, Inc.)
* Ashley Sommer <flubba86@gmail.com>
* Dave Fletcher <graveyhead@gmail.com>
* Lars-Magnus Skog <ralphtheninja@riseup.net>
* Pieter Vantorre <pietervantorre@gmail.com>
* Maher Sallam <maher@sallam.me>
* Andrey Burov <burik666@gmail.com>
* Holland Schutte <hgschutte1@gmail.com>
* Kerby Geffrard <kerby.geffrard@gmail.com>
* cynecx <me@cynecx.net>
* Chris Gibson <cgibson@mrvoxel.com>
* Harald Reingruber <code*at*h-reingruber.at>
* Aiden Koss <madd0131@umn.edu>
* Dustin VanLerberghe <good_ol_dv@hotmail.com>
* Philip Bielby <pmb45-github@srcf.ucam.org> (copyright owned by Jagex Ltd.)
* R  gis F  n  on <regis.feneon@gmail.com>
* Dominic Chen <d.c.ddcc@gmail.com> (copyright owned by Google, Inc.)
* Junji Hashimoto <junji.hashimoto@gmail.com>
* Heejin Ahn <aheejin@gmail.com> (copyright owned by Google, Inc.)
* Andras Kucsma <andras.kucsma@gmail.com>
* Mateusz Borycki <mateuszborycki@gmail.com>
* Franklin Ta <fta2012@gmail.com>
* Jacob Gravelle <jgravelle@google.com> (copyright owned by Google, Inc.)
* Kagami Sascha Rosylight <saschanaz@outlook.com>
* Benny Jacobs <benny@gmx.it>
* Ray Brown <code@liquibits.com>
* Christopher Serr <christopher.serr@gmail.com>
* Aaron Ru   <aaron.russ@dfki.de> (copyright owned by DFKI GmbH)
* Vilibald Wanca <vilibald@wvi.cz>
* Alex Hixon <alex@alexhixon.com>
* Vladimir Davidovich <thy.ringo@gmail.com>
* Yuriy Levchenko <irov13@mail.ru>
* Dmitry Tolmachov <dmitolm@gmail.com>
* Dylan McKay <me@dylanmckay.io>
* Christophe Gragnic <cgragnic@netc.fr>
* Murphy McCauley <murphy.mccauley@gmail.com>
* Anatoly Trosinenko <anatoly.trosinenko@gmail.com>
* Brad Grantham <grantham@plunk.org>
* Sam Clegg <sbcc@chromium.org> (copyright owned by Google, Inc.)
* Joshua Lind <joshualind007@hotmail.com>
* Hiroaki GOTO as "GORRY" <gorry@hauN.org>
* Mikhail Kremnyov <mkremnyov@gmail.com> (copyright owned by XCDS International)
* Tasuku SUENAGA a.k.a. gunyarakun <tasuku-s-github@titech.ac>
* Vitorio Miguel Prieto Cilia <vdrbandeiras@gmail.com>
* Evan Wallace <evan.exe@gmail.com>
* Henning Pohl <henning@still-hidden.de>
* Tim Neumann <mail@timnn.me>
* Ondrej Stava <ondrej.stava@gmail.com> (copyright owned by Google, Inc.)
* Jakub Jirutka <jakub@jirutka.cz>
* Loo Rong Jie <loorongjie@gmail.com>
* Jean-Fran  ois Geyelin <jfgeyelin@gmail.com>
```

```
* Matthew Collins <thethinkofdeath@gmail.com>
* Satoshi N. M <snmatsutake@yahoo.co.jp>
* Ryan Speets <ryan@speets.ca>
* Fumiya Chiba <fumiya.chiba@nifty.com>
* Ryan C. Gordon <icculus@icculus.org>
* Inseok Lee <dlunch@gmail.com>
* Yair Levinson (copyright owned by Autodesk, Inc.)
* Matjaž Drolc <mdrolc@gmail.com>
* James Swift <james@3dengineer.com> (copyright owned by PSPDFKit GmbH)
* Ryan Lester <ryan@cyph.com> (copyright owned by Cyph, Inc.)
* Nikolay Zapolnov <zapolnov@gmail.com>
* Nazar Mokrynskyi <nazar@mokrynskyi.com>
* Yury Delendik <ydelendik@mozilla.com> (copyright owned by Mozilla Foundation)
* Kenneth Perry <thothonegan@gmail.com>
* Jim Mussared <jim.mussared@gmail.com>
* Dirk Vanden Boer <dirk.vdb@gmail.com>
* Mitchell Foley <mitchfoley@google.com> (copyright owned by Google, Inc.)
* Oleksandr Chekhovskiy <oleksandr.chekhovskiy@gmail.com>
* Michael Siebert <michael.siebert2k@gmail.com>
* Jonathan Hale <squareys@googlemail.com>
* Etienne Brateau <etienne.brateau@gmail.com>
* Zhiming Wang <zmwangx@gmail.com>
* Jameson Ernst <jameson@jpernst.com>
* Yoan Lecoq <yoanlecoq.io@gmail.com>
* Jiajie Hu <jiajie.hu@intel.com> (copyright owned by Intel Corporation)
* Kamil Klimek <naresh@tlen.pl>
* José Carlos Pujol <josecpujol@gmail.com>
* Dannii Willis <curiousdannii@gmail.com>
* Erik Dubbelboer <erik@dubbelboer.com>
* Sergey Tsatsulin <tsatsulin@gmail.com>
* varkor <github@varkor.com>
* Stuart Knightley <website@stuartk.com>
* Amadeus Guo <gliheng@foxmail.com>
* Nathan Froyd <froydnj@gmail.com> (copyright owned by Mozilla Foundation)
* Daniel Wirtz <dcode@dcode.io>
* Kibeom Kim <kk1674@nyu.edu>
* Marcel Klammer <m.klammer@tastenkunst.com>
* Axel Forsman <axelsfor@gmail.com>
* Ebrahim Byagowi <ebrahim@gnu.org>
* Thorsten Möller <thorsten.moeller@sbi.ch>
* Michael Droettboom <mdroettboom@mozilla.com>
* Nicolas Bouquet <hgy01@hieroglyphe.net>
* Miguel Saldivar <miguel.saldivar22@hotmail.com>
* Gert Van Hoey <gert.vanhoey@gmail.com>
* Valtteri Heikkilä <rnd@nic.fi>
* Daniel McNab <daniel.mcnab6+emccgmail.com>
* Tyler Limkemann <tslimkemann42@gmail.com>
* Ben Smith <binji@google.com> (copyright owned by Google, Inc.)
* Sylvain Beucler <beuc@beuc.net>
* Patrik Weiskircher <patrik@weiskircher.name>
* Tobias Widlund <widlundtobias@gmail.com>
* Rob Fors <mail@robfors.com>
* Mike Frysinger <vapier@chromium.org> (copyright owned by Google, Inc.)
* Sébasiten Crozet <developer@crozet.re>
* Andrey Nagikh <andrey@nagih.ru>
* Dmitry Malyshau <dmalyshau@mozilla.com> (copyright owned by Mozilla Foundation)
* Bjorn Swenson <tie.372@gmail.com>
* Ryhor Spivak <grisha@rusteddreams.net>
* Jan Schär <jscissr@gmail.com>
* Ryhor Spivak <grisha@rusteddreams.net>
* Alexander Bich <quyse0@gmail.com>
* Ashleigh Thomas <ashleighbcthomas@gmail.com>
* Veniamin Petrenko <bjbpbjbpbj10@gmail.com>
* Ian Henderson <ian@ianhenderson.org>
* Siim Kallas <siimkallas@gmail.com>
* Carl Woffenden <cwoffenden@gmail.com> (copyright owned by Numfum GmbH)
* Patrick Berger <patrick.berger@xmail.net> (copyright owned by Compusoft Group)
```

\* Alexander Frank Lehmann <alexander.frank.lehmann@compusoftgroup.com>  
(copyright owned by Compusoft Group)

\* Tommy Nguyen <tn0502@gmail.com>

\* Thomas Schander <info@thomasschander.com> (copyright owned by Enscape GmbH)

\* Benjamin S. Rodgers <acdimallev@gmail.com>

\* Paul Shapiro <paul@mymonero.com>

\* Elmo Todurov <elmo.todurov@eesti.ee>

\* Zoltán Žarkov <zeko@freecivweb.org>

\* Roman Yurchak <rth.yurchak@pm.me>

\* Hampton Maxwell <me@hamptonmaxwell.com>

\* Eric Fiselier <ericwf@google.com> (copyright owned by Google, Inc.)

\* Sirapop Wongstapornpat <sirapop.wongstapornpat@student.oulu.fi>

\* Matt Kane <m@mk.gg>

\* Altan Özlü <altanozlu7@gmail.com>

\* Mary S <ipadlover8322@gmail.com>

\* Martin Birks <mbirks@gmail.com>

\* Kirill Smelkov <kirr@nexedi.com> (copyright owned by Nexedi)

\* Lutz Hören <laitch383@gmail.com>

\* Pedro K Custodio <git@pedrokcustodio.com>

\* Nicolas Allemand <contact@nicolasallemand.com>

\* Gabriel Cuvillier <contact@gabrielcuvillier.pro>

\* Thomas Lively <tlively@google.com> (copyright owned by Google, Inc.)

\* Brandon Surmanski <b.surmanski@gmail.com>

\* Rian Hunter <rian@alum.mit.edu>

\* Kai Ninomiya <kainino@chromium.org> (copyright owned by Google, Inc.)

\* Mickaël Schoentgen <contact@tiger-222.fr>

\* Renaud Leroy <capitnflam@gmail.com>

\* Florian Stellbrink <florian@stellbr.ink>

\* Shane Peelar <lookatyouhacker@gmail.com>

\* Alessandro Pignotti <alessandro@leaningtech.com>

\* Zheng Tao Lee <zhengtao.lee@autodesk.com> (copyright owned by Autodesk, Inc.)

\* Martina Kraus <kraus.martina.m@googlemail.com>

\* Jacob Adelgren <jake@eevo.com>

\* Ingvar Stepanyan <me@rrreverser.com>

\* Ben Trapani <ben.trapani1995@gmail.com> (copyright owned by Microsoft, Inc.)

\* Tim Lander <tim57282@hotmail.com>

\* Jacob Greenfield <jacob@jacobgreenfield.me>

\* Joseph Kogut <joseph.kogut@gmail.com>

\* Yi Zhang <milizhang@gmail.com>

\* Marc Abramowitz <msabramo@gmail.com>

\* Daniel Ruf <daniel@daniel-ruf.de>

\* Timothy Trindle <titrindl@microsoft.com> (copyright owned by Microsoft, Inc.)

\* Matthew Andres Moreno <m.more500@gmail.com>

\* Eric Mandel <eric@cfa.harvard.edu>

\* Anthony Catel <paraboul@gmail.com>

\* Simon Cooper <simon.d.cooper@hotmail.co.uk>

\* Amir Rasouli <arasouli91@gmail.com>

\* Nico Weber <thakis@chromium.org>

\* Bas Doorn <code@keyn.app> (copyright owned by Keyn B.V.)

\* Adam Bujalski <a.bujalski@samsung.com> (copyright owned by Samsung Electronics)

\* Guanzhong Chen <gzchen@google.com> (copyright owned by Google, Inc.)

\* Denis Serebro <densilver3000@gmail.com>

\* Lucas Ramage <ramage.lucas@protonmail.com>

\* Andy Wingo <wingo@igalia.com> (copyright owned by Igalia)

\* Philipp Gloor <philipp.gloor@pdf-tools.com> (copyright owned by PDF Tools AG)

\* Jasmine Minter <jasmine@minteronline.com> (copyright owned by Clipchamp Pty Ltd.)

\* Ferris Kwaijtaal <ferrispc@hotmail.com>

\* Konstantin Podsvirov <konstantin@podsvirov.pro>

\* Eduardo Bart <edub4rt@gmail.com>

\* Zoltan Varga <vargaz@gmail.com> (copyright owned by Microsoft, Inc.)

\* Fernando Serboncini <fserb@google.com>

\* Christian Clauss <cclauss@me.com> (copyright owned by IBM)

\* Henry Kleynhans <hkleynhans@bloomberg.net> (copyright owned by Bloomberg L.P.)

\* FUJI Goro <g.psy.va@gmail.com>

\* Egor Suvorov <esuvorov@think-cell.com> (copyright owned by think-cell Software GmbH)

\* James Kuszmaul <jabukuszmaul@gmail.com>

\* Wei Mingzhi <whistler\_wmz@users.sourceforge.net>

```
* Sergey karchevsky <sergey.ext@gmail.com>
* Ajay Patel <patel.ajay285@gmail.com>
* Adrien Devresse <adev@adev.name>
* Petr Penzin <petr.penzin@intel.com> (copyright owned by Intel Corporation)
* Tayeb Al Karim <tay@google.com> (copyright owned by Google, Inc.)
* Andrei Alexeyev <akari@taisei-project.org>
* Cesar Guirao Robles <cesar@no2.es>
* Ricky Claven <ricksterhd123@gmail.com>
* Mehdi Sabwat <mehdisabwat@gmail.com>
* MinganMuon <mingan-muon@outlook.com>
* Jonathan Feinberg <feinberg@google.com>
* Osman Turan <osman@osmanturan.com>
* Jaikanth J <jaikanthjay46@gmail.com>
* Gernot Lassnig <gernot.lassnig@gmail.com>
* Christian Boos <cboos@bct-technology.com>
* Erik Scholz <greenNO@SPAMg-s.xyz>
* Michael de Lang <kingoipo@gmail.com>
* Gergely Nagy <ngg@tresorit.com>
* Jan Habermann <jan@habermann.io>
* John Granström <granstrom.john@gmail.com>
* Clemens Backes <clemensb@google.com> (copyright owned by Google, Inc.)
* Tibor Klajnscek <tiborkl@numfum.com>
* Benjamin Golinvaux <benjamin@golinvaux.com>
* Peter Salomonsen <pjsalomonsen@gmail.com>
* Niklas Fiekas <niklas.fiekas@backscattering.de>
* Martin Lucas Golini <spartanj@gmail.com>
* Bumsik Kim <k.bumsik@gmail.com>
* Corentin Wallez <cwallez@chromium.org> (copyright owned by Google, Inc.)
* Austin Eng <enga@chromium.org> (copyright owned by Google, Inc.)
* Hugo Amiard <hugo.amiard@laposte.net>
* Diego Casorran <dcasorran@gmail.com>
* ssssooonnggg <ssssooonnggg111@gmail.com>
* Guillaume Racicot <gufideg@gmail.com>
* SK Min <oranke@gmail.com>
* Fabio Alessandrelli <fabio.alessandrelli@gmail.com>
* Kirill Gavrilov <kirill@sview.ru>
* Karl Semich <0xloem@gmail.com>
* Louis DeScioli <descioli@google.com> (copyright owned by Google, LLC)
* Kleis Auke Wolthuizen <info@kleisauke.nl>
* Michael Potthoff <michael@potthoff.eu>
* Abigail Bunyan <abigail@bold.claims> (copyright owned by Microsoft Corporation)
* David Garcia Paredes <davidgparedes@gmail.com>
* Dan Field <dfield@gmail.com> (copyright owned by Google, Inc.)
* Mike Swierczek <mike@swierczek.io>
* Vasily <just.one.man@yandex.ru>
* Janis Rucis <parasti@gmail.com>
* rssidian <rssidian@gmail.com>
* Shachar Langbeheim <nihohit@gmail.com>
* Laurin Agostini <thevolut@gmail.com>
* David Carlier <devnexen@gmail.com>
* Paul Du <du.paul136@gmail.com> (copyright owned by ARSKAN)
* Piotr Doan <doanpiotr@gmail.com>
* Stuart Schechter <stuart.schechter@gmail.com>
* Brett Paterson <brett@fmod.com>
* Robert Aboukhalil <robert.aboukhalil@gmail.com>
* Jonathan Poelen <jonathan.poelen@gmail.com>
* Ashley Hauck <github@khyperia.com>
* Junyue Cao <junyuecao@gmail.com>
* Elias Serrano <feserr3@gmail.com>
* Philip Pfafe <pfafe@google.com> (copyright owned by Google, LLC)
* Troy Tae <tjy970721@gmail.com>
* Sky Wang <sky-wang@qq.com>
* popomen <nz_nuaa@163.com>
* Artyom Lebedev <vagran.ast@gmail.com>
* Sebastián Gurin (cancerberoSgx) <sebastigurin@gmail.com>
* Benedikt Meurer <bmeurer@google.com> (copyright owned by Google, LLC)
* Jiulong Wang <jiulongw@gmail.com>
```

\* pudinha <rogi@skylittlesystem.org>  
\* Nicholas Phillips <nwp2@illinois.edu>  
\* Colin Guyon <colin.guyon@insimo.fr> (copyright owned by InSimo, SAS)  
\* Mathias Westerdahl <mwesterdahl76@gmail.com>  
\* Philip Rideout <prideout@google.com> (copyright owned by Google, LLC)  
\* Shrek Shao <shrekshao@google.com> (copyright owned by Google, LLC)  
\* Arran Ireland <ion92@protonmail.com>  
\* Jia Yuan Lo <jylo06g@gmail.com>  
\* Philip Lassen <philiplassen@gmail.com>  
\* Antoine du Hamel <duhamelantoine1995@gmail.com>  
\* Alexander Köplinger <alex.koeplinger@outlook.com>  
(copyright owned by Microsoft, Inc.)  
\* Kenneth Pouncey <kepounce@microsoft.com>  
(copyright owned by Microsoft, Inc.)  
\* Mitchell Hwang <mihw@microsoft.com>  
(copyright owned by Microsoft, Inc.)  
\* Sean Maher <seanptmaher@gmail.com>  
(copyright owned by Google, LLC)  
\* Paul Peny <pmpp.pub@gmail.com>  
\* Prashanth Nethi <prashant@adobe.com>  
\* Max Weisel <max@maxweisel.com>  
\* Georg Rottensteiner <georg@georg-rottensteiner.de>  
\* Tristan Griffin <tristan.griffin@hcl.com> (Copyright owned by HCL)  
\* Julien Jorge <julien.jorge@gmx.fr>  
\* Benjamin Lee <bnllee@ucdavis.edu>  
\* Attila Oláh <atl@google.com> (copyright owned by Google, LLC)  
\* Marat Dukhan <maratek@google.com> (copyright owned by Google, LLC)  
\* Raphael Siegel <siegel.raaphael@gmail.com>  
\* Stephan Reiter <reste@google.com> (copyright owned by Google, LLC)  
\* kamenokonyokonyoko <kamenokonokotan@gmail.com>  
\* Lectem <lectem@gmail.com>  
\* Henrik Algestam <henrik@algestam.se>  
\* Rocco Musolino <roccomusolino92@gmail.com>  
\* Pawel Czarnecki <pawel@8thwall.com> (copyright owned by 8th Wall, Inc.)  
\* Dhairya Bahl <dhairyabahl5@gmail.com>  
\* Sam Gao <gaoshan274@gmail.com>  
\* Sebastian Mayr <me@sam.st>  
\* Vladimir Gamalyan <vladimir.gamalyan@gmail.com>  
\* Jean-Sébastien Nadeau <mundusnine@gmail.com>  
(copyright owned by Foundry Interactive Inc.)  
\* Wouter van Oortmerssen <wvo@google.com> (copyright owned by Google, LLC)  
\* Alexey Sokolov <sokolov@google.com> (copyright owned by Google, LLC)  
\* Lukas Rieger <rieger@progress-psd.com>  
\* Ivan Romanovski <ivan.romanovski@gmail.com>  
\* Max Brunsfeld <maxbrunsfeld@gmail.com>  
\* Basil Fierz <basil.fierz@hotmail.com>  
\* Rod Hyde <rod@badlydrawngames.com>  
\* Aleksey Kliger <aleksey@lambdageek.org>  
(copyright owned by Microsoft, Inc.)  
\* Nicolas Ollinger <nopid@free.fr>  
\* Michael R. Crusoe <crusoe@debian.org>  
\* Dexter Chua <dec41@srcf.net>  
\* Thomas Ballinger <thomasballinger@gmail.com>  
\* Mehdi Sadeghi <mehdi@mehdix.org>  
\* Amin Yahyaabadi <aminyahyaabadi74@gmail.com>  
\* Adam Leskis <leskis@gmail.com>  
\* Raffaele Pertile <raffarti@zoho.com>  
\* Patric Stout <github@truebrain.nl>  
\* Jinoh Kang <jinoh.kang.kr@gmail.com>  
\* Jorge Prendes <jorge.prendes@gmail.com>  
\* Alexey Shamrin <shamrin@gmail.com>  
\* Wirtos <wirtos.new@gmail.com>  
\* Ben den Hollander <bdenhollander@dynascape.com>  
(copyright owned by DynaScape Software Inc.)  
\* Akul Penugonda <akulvp@gmail.com>  
\* Jan Wolff <contact@jancc.de>  
\* Pawel Czarnecki <pawel@8thwall.com> (copyright owned by 8th Wall, Inc.)

```

* Camil Staps <info@camilstaps.nl>
* Michael Kircher <michael.kircher.github@gmail.com>
* Sharad Saxena <sharad.saxena@autodesk.com>
  (copyright owned by Autodesk, Inc.)
* Vasili Skurydzin <vasili.skurydzin@ibm.com>
* Jakub Nowakowski <jn925+emcc@o2.pl>
* Michael Taylor <mitaylor@adobe.com>
* Andrew Brown <andrew.brown@intel.com>
  (copyright owned by Intel Corporation)
* Benjamin Puzycki <bpuzycki@umich.edu>
* Marco Buono <marcobuono@invisionapp.com>
  (copyright owned by InVisionApp, Inc.)
* Philip Gossweiler <philip.gossweiler@outlook.com>
* Rafael Brune <mail@rbrune.de>
* Aleksi Sapon <aleksi.sapon@faro.com>
  (copyright owned by FARO Technologies, Inc.)
* Radek Doulik <radek.doulik@gmail.com>
  (copyright owned by Microsoft, Inc.)
* Érico Porto <ericporto2008@gmail.com>
* Albert Vaca Cintora <albertvaca@gmail.com>
* Zhi An Ng <zhin@google.com> (copyright owned by Google, Inc.)
* Ian Jackson <ijackson@chiark.greenend.org.uk>
* Brian Gontowski <brian@gontowski.com>
* Bobbie Chen <bobbie.chen75@gmail.com>
* Nicholas Hollander <nhollander98@gmail.com>
* Camillo Lugaresi <camillol@google.com>
  (copyright owned by Google LLC)
* Chris Craig <emscripten@goldwave.com>
* Le Yao <le.yao@intel.com> (copyright owned by Intel Corporation)
* José Cadete <crudelios@gmail.com>
* Cynthia K. Rey <cynthia@cynthia.dev>
* Andrew Shaitorov <andrew.shaitorov@gmail.com>
* on-keyday <rokenboo47803@gmail.com>
* Matthew Balch <matt5sean3@gmail.com>
* James Price <jrprice@google.com> (copyright owned by Google, Inc.)
* Nathan Rugg <nmrugg@gmail.com> (copyright owned by Chess.com, LLC)
* Alexander O'Mara <me@alexomara.com>
* Kamaron Peterson <kamaron.peterson@gmail.com>
* Márton Marczell <mmarczell.graphisoft@gmail.com>
  (copyright owned by GRAPHISOFT SE)
* Alexander Vestin <alex.vestin@gmail.com>
* Xiaobing Yang <yangxiaobing@jwzg.com>
* Alexandra Cherdantseva <neluhus.vagus@gmail.com>
* Michael Schmuki <michael@schmuki.io>
* Skye Gibney <skyejgibney@gmail.com>

```

```
=====
```

```

flatbuffers
Copyright 2017 Google Inc. All rights reserved.

```

```

Apache License v2.0, January 2004.
See the 'Standard Licenses' section for license text.
=====

```

```
googlebenchmark
```

```

Apache License v2.0, January 2004.
See the 'Standard Licenses' section for license text.

```

```
AUTHORS file
```

```

# This is the official list of benchmark authors for copyright purposes.
# This file is distinct from the CONTRIBUTORS files.
# See the latter for an explanation.
#
# Names should be added to this file as:

```



```

# Name or Organization <email address>
# The email address is not required for organizations.
#
# Please keep the list sorted.

Albert Pretorius <pretoalb@gmail.com>
Alex Steele <steeleal123@gmail.com>
Andriy Berestovskyy <berestovskyy@gmail.com>
Arne Beer <arne@twobeer.de>
Carto
Cezary Skrzynski <czars1988@gmail.com>
Christian Wassermann <christian_wassermann@web.de>
Christopher Seymour <chris.j.seymour@hotmail.com>
Colin Braley <braley.colin@gmail.com>
Daniel Harvey <danielharvey458@gmail.com>
David Coeurjolly <david.coeurjolly@liris.cnrs.fr>
Deniz Evrenci <denizevrenci@gmail.com>
Dirac Research
Dominik Czarnota <dominik.b.czarnota@gmail.com>
Dominik Korman <kormandominik@gmail.com>
Donald Aingworth <donalds_junk_mail@yahoo.com>
Eric Backus <eric_backus@alum.mit.edu>
Eric Fiselier <eric@efcs.ca>
Eugene Zhuk <eugene.zhuk@gmail.com>
Evgeny Safronov <division494@gmail.com>
Federico Ficarelli <federico.ficarelli@gmail.com>
Felix Homann <linuxaudio@showlabor.de>
Gergo Szitár <szitar.gergo@gmail.com>
Google Inc.
International Business Machines Corporation
Ismael Jimenez Martinez <ismael.jimenez.martinez@gmail.com>
Jern-Kuan Leong <jernkuan@gmail.com>
JianXiong Zhou <zhoujianxiong2@gmail.com>
Joao Paulo Magalhaes <joaoppmagalhaes@gmail.com>
Jordan Williams <jwillikers@protonmail.com>
Jussi Knuuttila <jussi.knuuttila@gmail.com>
Kaito Udagawa <umireon@gmail.com>
Kishan Kumar <kumar.kishan@outlook.com>
Lei Xu <eddyxu@gmail.com>
Matt Clarkson <mattyclarkson@gmail.com>
Maxim Vafin <maxvafin@gmail.com>
MongoDB Inc.
Nick Hutchinson <nshutchinson@gmail.com>
Norman Heino <norman.heino@gmail.com>
Oleksandr Sochka <sasha.sochka@gmail.com>
Ori Livneh <ori.livneh@gmail.com>
Paul Redmond <paul.redmond@gmail.com>
Raghu Raja <raghu@enfabrica.net>
Radoslav Yovchev <radoslav.tm@gmail.com>
Rainer Orth <ro@cebitec.uni-bielefeld.de>
Roman Lebedev <lebedev.ri@gmail.com>
Sayan Bhattacharjee <aero.sayan@gmail.com>
Shapr3D <google-contributors@shapr3d.com>
Shuo Chen <chenshuo@chenshuo.com>
Staffan Tjernstrom <staffantj@gmail.com>
Steinar H. Gunderson <sgunderson@bigfoot.com>
Stripe, Inc.
Tobias Schmidt <tobias.schmidt@in.tum.de>
Yixuan Qiu <yixuanq@gmail.com>
Yusuke Suzuki <utatane.tea@gmail.com>
Zbigniew Skowron <zbychs@gmail.com>
Min-Yih Hsu <yihshyng223@gmail.com>
=====

googletest
BSD-3-Clause License as listed above
Copyright 2008, Google Inc.

```

All rights reserved.

#### CONTRIBUTORS

# This file contains a list of people who've made non-trivial  
# contribution to the Google C++ Testing Framework project. People  
# who commit code to the project are encouraged to add their names  
# here. Please keep the list sorted by first names.

Ajay Joshi <jaj@google.com>  
Balázs Dán <balazs.dan@gmail.com>  
Benoit Sigoure <tsuna@google.com>  
Bharat Mediratta <bharat@menalto.com>  
Bogdan Piloca <boo@google.com>  
Chandler Carruth <chandlerc@google.com>  
Chris Prince <cprince@google.com>  
Chris Taylor <taylorc@google.com>  
Dan Egnor <egnor@google.com>  
Dave MacLachlan <dmaclach@gmail.com>  
David Anderson <danderson@google.com>  
Dean Sturtevant  
Eric Roman <eroman@chromium.org>  
Gene Volovich <gv@cite.com>  
Hady Zalek <hady.zalek@gmail.com>  
Hal Burch <gmock@hburch.com>  
Jeffrey Yasskin <jyasskin@google.com>  
Jim Keller <jimkeller@google.com>  
Joe Walnes <joe@truemesh.com>  
Jon Wray <jwray@google.com>  
Jói Sigurðsson <joi@google.com>  
Keir Mierle <mierle@gmail.com>  
Keith Ray <keith.ray@gmail.com>  
Kenton Varda <kenton@google.com>  
Kostya Serebryany <kcc@google.com>  
Krystian Kuzniarek <krystian.kuzniarek@gmail.com>  
Lev Makhlis  
Manuel Klimek <klimek@google.com>  
Mario Tanev <radix@google.com>  
Mark Paskin  
Markus Heule <markus.heule@gmail.com>  
Martijn Vels <mvels@google.com>  
Matthew Simmons <simmonmt@acm.org>  
Mika Raento <mikie@iki.fi>  
Mike Bland <mbland@google.com>  
Miklós Fazekas <mfazekas@szemafor.com>  
Neal Norwitz <nnorwitz@gmail.com>  
Nermin Ozkiranartli <nermin@google.com>  
Owen Carlsen <ocarlsen@google.com>  
Paneendra Ba <paneendra@google.com>  
Pasi Valminen <pasi.valminen@gmail.com>  
Patrick Hanna <phanna@google.com>  
Patrick Riley <pfr@google.com>  
Paul Menage <menage@google.com>  
Peter Kaminski <piotrk@google.com>  
Piotr Kaminski <piotrk@google.com>  
Preston Jackson <preston.a.jackson@gmail.com>  
Rainer Klaffenboeck <rainer.klaffenboeck@dynatrace.com>  
Russ Cox <rsc@google.com>  
Russ Rufer <russ@pentad.com>  
Sean McAfee <eefacm@gmail.com>  
Sigurður Asgeirsson <siggi@google.com>  
Sverre Sundsdal <sundsdal@gmail.com>  
Szymon Sobik <sobik.szymon@gmail.com>  
Takeshi Yoshino <tyoshino@google.com>  
Tracy Bialik <tracy@pentad.com>  
Vadim Berman <vadimb@google.com>  
Vlad Losev <vladl@google.com>  
Wolfgang Klier <wklier@google.com>  
Zhanyong Wan <wan@google.com>

```

=====

json
The MIT License as listed above
Copyright (c) 2013-2022 Niels Lohmann

=====

libprotobuf-mutator
Apache License v2.0, January 2004.
See the 'Standard Licenses' section for license text.
Copyright 2017 Google Inc. All rights reserved.
=====

mimalloc
MIT License as listed above
Copyright (c) 2018-2021 Microsoft Corporation, Daan Leijen
=====

mp11
Copyright 2019 Peter Dimov

The Boost Software License, Version 1.0. (http://boost.org/LICENSE_1_0.txt)
Boost Software License - Version 1.0 - August 17th, 2003

Permission is hereby granted, free of charge, to any person or organization
obtaining a copy of the software and accompanying documentation covered by
this license (the "Software") to use, reproduce, display, distribute,
execute, and transmit the Software, and to prepare derivative works of the
Software, and to permit third-parties to whom the Software is furnished to
do so, all subject to the following:

The copyright notices in the Software and this entire statement, including
the above license grant, this restriction and the following disclaimer,
must be included in all copies of the Software, in whole or in part, and
all derivative works of the Software, unless such copies or derivative
works are solely in the form of machine-executable object code generated by
a source language processor.

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, TITLE AND NON-INFRINGEMENT. IN NO EVENT
SHALL THE COPYRIGHT HOLDERS OR ANYONE DISTRIBUTING THE SOFTWARE BE LIABLE
FOR ANY DAMAGES OR OTHER LIABILITY, WHETHER IN CONTRACT, TORT OR OTHERWISE,
ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER
DEALINGS IN THE SOFTWARE.
=====

nsync
Copyright 2016 Google Inc.

Apache License v2.0, January 2004.
See the 'Standard Licenses' section for license text.

=====

onnx
Apache License v2.0, January 2004.
See the 'Standard Licenses' section for license text.

=====

onnx-tensorrt
Apache License v2.0, January 2004.
See the 'Standard Licenses' section for license text.

```

=====

onnxruntime-extensions  
Copyright (c) Microsoft Corporation.  
MIT License as above

THIRDPARTYLICENSES.TXT for onnxruntime-extensions as listed on Github  
THIRD PARTY SOFTWARE NOTICES AND INFORMATION

Do Not Translate or Localize

This software incorporates material from third parties. Microsoft makes certain open source code available at <http://3rdpartysource.microsoft.com>, or you may send a check or money order for US \$5.00, including the product name, the open source component name, and version number, to:

Source Code Compliance Team  
Microsoft Corporation  
One Microsoft Way  
Redmond, WA 98052  
USA

Notwithstanding any other terms, you may reverse engineer this software to the extent required to debug changes to any libraries licensed under the GNU Lesser General Public License.

blingfire 0831265c1aca95ca02eca5bf1155e4251e545328

MIT License

Copyright (c) Microsoft Corporation. All rights reserved.

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

dlib v19.22

Boost Software License - Version 1.0 - August 17th, 2003

Permission is hereby granted, free of charge, to any person or organization obtaining a copy of the software and accompanying documentation covered by this license (the "Software") to use, reproduce, display, distribute, execute, and transmit the Software, and to prepare derivative works of the Software, and to permit third-parties to whom the Software is furnished to do so, all subject to the following:

The copyright notices in the Software and this entire statement, including the above license grant, this restriction and the following disclaimer,

must be included in all copies of the Software, in whole or in part, and all derivative works of the Software, unless such copies or derivative works are solely in the form of machine-executable object code generated by a source language processor.

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, TITLE AND NON-INFRINGEMENT. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR ANYONE DISTRIBUTING THE SOFTWARE BE LIABLE FOR ANY DAMAGES OR OTHER LIABILITY, WHETHER IN CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

---

google/re2 2020-11-01

Copyright (c) 2009 The RE2 Authors. 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 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.

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.

Google Inc.  
Samsung Electronics  
Stefano Rivera <stefano.rivera@gmail.com>

Dominic Battré <battre@chromium.org>  
Doug Kwan <dougkwan@google.com>  
Dmitriy Vyukov <dvyukov@google.com>  
John Millikin <jmillikin@gmail.com>  
Mike Nazarewicz <mpn@google.com>  
Nico Weber <thakis@chromium.org>  
Pawel Hajdan <phajdan.jr@gmail.com>  
Rob Pike <r@google.com>  
Russ Cox <rsc@swtch.com>  
Sanjay Ghemawat <sanjay@google.com>  
Stefano Rivera <stefano.rivera@gmail.com>  
Srinivasan Venkatachary <vsri@google.com>  
Viatcheslav Ostapenko <sl.ostapenko@samsung.com>

---

nlohmnn/json

MIT License

Copyright (c) 2013-2019 Niels Lohmann

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.

-----

opencv 4.5.4

Apache License  
Version 2.0, January 2004  
<http://www.apache.org/licenses/>

Copyright (C) 2000-2022, Intel Corporation, all rights reserved.  
Copyright (C) 2009-2011, Willow Garage Inc., all rights reserved.  
Copyright (C) 2009-2016, NVIDIA Corporation, all rights reserved.  
Copyright (C) 2010-2013, Advanced Micro Devices, Inc., all rights reserved.  
Copyright (C) 2015-2023, OpenCV Foundation, all rights reserved.  
Copyright (C) 2008-2016, Itseez Inc., all rights reserved.  
Copyright (C) 2019-2023, Xperience AI, all rights reserved.  
Copyright (C) 2019-2022, Shenzhen Institute of Artificial Intelligence and Robotics for Society, all rights reserved.  
Copyright (C) 2022-2023, Southern University of Science And Technology, all rights reserved.

Third party copyrights are property of their respective owners.

[Apache License v2.0, January 2004.](#)

See the 'Standard Licenses' section for license text.

-----

sentencepiece 0.1.96

This component is licensed under  
[Apache License v2.0, January 2004.](#)  
See the 'Standard Licenses' section for license text.  
=====

protobuf

Copyright 2008 Google 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 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.

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.

Code generated by the Protocol Buffer compiler is owned by the owner of the input file used when generating it. This code is not standalone and requires a support library to be linked with it. This support library is itself covered by the above license.

-----

CONTRIBUTORS.txt file content

This file contains a list of people who have made large contributions to the public version of Protocol Buffers.

Original Protocol Buffers design and implementation:

Sanjay Ghemawat <sanjay@google.com>  
 Jeff Dean <jeff@google.com>  
 Daniel Dulitz <daniel@google.com>  
 Craig Silverstein  
 Paul Haahr <haahr@google.com>  
 Corey Anderson <corin@google.com>  
 (and many others)

Proto2 C++ and Java primary author:

Kenton Varda <kenton@google.com>

Proto2 Python primary authors:

Will Robinson <robinson@google.com>  
 Petar Petrov <petar@google.com>

Java Nano primary authors:

Brian Duff <bduff@google.com>  
 Tom Chao <chaot@google.com>  
 Max Cai <maxtroy@google.com>  
 Ulas Kirezci <ulas@google.com>

Large code contributions:

Jason Hsueh <jasonh@google.com>  
 Joseph Schorr <jschorr@google.com>  
 Wenbo Zhu <wenboz@google.com>

Large quantity of code reviews:

Scott Bruce <sbruce@google.com>  
 Frank Yellin  
 Neal Norwitz <nnorwitz@google.com>  
 Jeffrey Yasskin <jyasskin@google.com>  
 Ambrose Feinstein <ambrose@google.com>

Documentation:

Lisa Carey <lcarey@google.com>

Maven packaging:

Gregory Kick <gak@google.com>

```

Patch contributors:
Kevin Ko <kevin.s.ko@gmail.com>
    * Small patch to handle trailing slashes in --proto_path flag.
Johan Euphrosine <propy@aminche.com>
    * Small patch to fix Python CallMethod().
Ulrich Kunitz <kune@deine-taler.de>
    * Small optimizations to Python serialization.
Leandro Lucarella <llucax@gmail.com>
    * VI syntax highlighting tweaks.
    * Fix compiler to not make output executable.
Dilip Joseph <dilip.antony.joseph@gmail.com>
    * Heuristic detection of sub-messages when printing unknown fields in
      text format.
Brian Atkinson <nairb774@gmail.com>
    * Added @Override annotation to generated Java code where appropriate.
Vincent Choinière <Choiniere.Vincent@hydro.qc.ca>
    * Tru64 support.
Monty Taylor <monty.taylor@gmail.com>
    * Solaris 10 + Sun Studio fixes.
Alek Storm <alek.storm@gmail.com>
    * Slicing support for repeated scalar fields for the Python API.
Oleg Smolsky <oleg.smolsky@gmail.com>
    * MS Visual Studio error format option.
    * Detect unordered_map in stl_hash.m4.
Brian Olson <brianolson@google.com>
    * gzip/zlib I/O support.
Michael Poole <mdpoole@troilus.org>
    * Fixed warnings about generated constructors not explicitly initializing
      all fields (only present with certain compiler settings).
    * Added generation of field number constants.
Wink Saville <wink@google.com>
    * Fixed initialization ordering problem in logging code.
Will Pierce <willp@nuclei.com>
    * Small patch improving performance of in Python serialization.
Alexandre Vassalotti <alexandre@peadrop.com>
    * Emacs mode for Protocol Buffers (editors/protobuf-mode.el).
Scott Stafford <scott.stafford@gmail.com>
    * Added Swap(), SwapElements(), and RemoveLast() to Reflection interface.
Alexander Melnikov <alm@sibmail.ru>
    * HPUX support.
Oliver Jowett <oliver.jowett@gmail.com>
    * Detect whether zlib is new enough in configure script.
    * Fixes for Solaris 10 32/64-bit confusion.
Evan Jones <evanj@mit.edu>
    * Optimize Java serialization code when writing a small message to a stream.
    * Optimize Java serialization of strings so that UTF-8 encoding happens
      only once per string per serialization call.
    * Clean up some Java warnings.
    * Fix bug with permanent callbacks that delete themselves when run.
Michael Kucharski <m.kucharski@gmail.com>
    * Added CodedInputStream.getTotalBytesRead().
Kacper Kowalik <xarthisius.kk@gmail.com>
    * Fixed m4/acx_pthread.m4 problem for some Linux distributions.
William Orr <will@worrbase.com>
    * Fixed detection of sched_yield on Solaris.
    * Added atomicops for Solaris
Andrew Paprocki <andrew@ishiboo.com>
    * Fixed minor IBM xLC compiler build issues
    * Added atomicops for AIX (POWER)
Nipun Koorapati <nipun1313@gmail.com>
    * Provide a type alias field ValueType on EnumTypeWrapper
    * Match service argument names to abstract interface

```

```

=====

```

```

pthreadpool

```



```

BSD-2-Clause License
Copyright 2019 Google LLC
Copyright (c) 2017 Facebook Inc.
Copyright (c) 2015-2017 Georgia Institute of Technology
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.

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.
=====

pytorch_cpuinfo
BSD-2-Clause License as listed above
Copyright (c) 2019 Google LLC
Copyright (c) 2017-2018 Facebook Inc.
Copyright (C) 2012-2017 Georgia Institute of Technology
Copyright (C) 2010-2012 Marat Dukhan
=====

re2
BSD-3-Clause License same as listed above
=====

tensorboard
Copyright 2017 The TensorFlow Authors. All rights reserved.
Apache License v2.0, January 2004.
See the 'Standard Licenses' section for license text.

AUTHORS file
Google Inc.
Yuan Tang terrytangyuan@gmail.com
=====

wil
Copyright (c) Microsoft Corporation. All rights reserved.
MIT License as listed above
=====

zlib
Copyright notice:

(C) 1995-2022 Jean-loup Gailly and Mark Adler

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.

Jean-loup Gailly  
jloup@gzip.org

Mark Adler  
madler@alumni.caltech.edu

## Musl-libc

musl as a whole is licensed under the following standard MIT license:

-----  
Copyright © 2005-2019 Rich Felker, et al.

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.

-----  
Authors/contributors include:

A. Wilcox  
Alex Dowad  
Alex Suykov  
Alexander Monakov  
Andre McCurdy  
Andrew Kelley  
Anthony G. Basile  
Aric Belsito  
Arvid Picciani  
Bartosz Brachaczek  
Benjamin Peterson  
Bobby Bingham  
Boris Brezillon  
Brent Cook  
Chris Spiegel  
Clément Vasseur  
Daniel Micay  
Daniel Sabogal  
Daurnimator  
David Carlier  
David Edelsohn  
Denys Vlasenko  
Dmitry Ivanov  
Dmitry V. Levin  
Drew DeVault  
Emil Renner Berthing

Fangrui Song  
 Felix Fietkau  
 Felix Janda  
 Gianluca Anzolin  
 Hauke Mehrtens  
 He X  
 Hiltjo Posthuma  
 Isaac Dunham  
 Jaydeep Patil  
 Jens Gustedt  
 Jeremy Huntwork  
 Jo-Philipp Wich  
 Joakim Sindholt  
 John Spencer  
 Josiah Worcester  
 Julien Ramseier  
 Justin Cormack  
 Kaarle Ritvanen  
 Khem Raj  
 Kylie McClain  
 Leah Neukirchen  
 Luca Barbato  
 Luka Perkov  
 M Farkas-Dyck (Strake)  
 Mahesh Bodapati  
 Markus Wichmann  
 Masanori Ogino  
 Michael Clark  
 Michael Forney  
 Mikhail Kremnyov  
 Natanael Copa  
 Nicholas J. Kain  
 orc  
 Pascal Cuoq  
 Patrick Oppenlander  
 Petr Hosek  
 Petr Skocik  
 Pierre Carrier  
 Reini Urban  
 Rich Felker  
 Richard Pennington  
 Ryan Fairfax  
 Samuel Holland  
 Segev Finer  
 Shiz  
 sin  
 Solar Designer  
 Stefan Kristiansson  
 Stefan O'Rear  
 Szabolcs Nagy  
 Timo Teräs  
 Trutz Behn  
 Valentin Ochs  
 Will Dietz  
 William Haddon  
 William Pitcock

Portions of this software are derived from third-party works licensed under terms compatible with the above MIT license:

The TRE regular expression implementation (src/regex/reg\* and src/regex/tre\*) is Copyright © 2001-2008 Ville Laurikari and licensed under a 2-clause BSD license (license text in the source files). The included version has been heavily modified by Rich Felker in 2012, in the interests of size, simplicity, and namespace cleanliness.

Much of the math library code (src/math/\* and src/complex/\*) is

Copyright © 1993,2004 Sun Microsystems or  
Copyright © 2003-2011 David Schultz or  
Copyright © 2003-2009 Steven G. Kargl or  
Copyright © 2003-2009 Bruce D. Evans or  
Copyright © 2008 Stephen L. Moshier or  
Copyright © 2017-2018 Arm Limited  
and labelled as such in comments in the individual source files. All  
have been licensed under extremely permissive terms.

The ARM memcpy code (src/string/arm/memcpy\_el.S) is Copyright © 2008  
The Android Open Source Project and is licensed under a two-clause BSD  
license. It was taken from Bionic libc, used on Android.

The implementation of DES for crypt (src/crypt/crypt\_des.c) is  
Copyright © 1994 David Burren. It is licensed under a BSD license.

The implementation of blowfish crypt (src/crypt/crypt\_blowfish.c) was  
originally written by Solar Designer and placed into the public  
domain. The code also comes with a fallback permissive license for use  
in jurisdictions that may not recognize the public domain.

The smoothsort implementation (src/stdlib/qsort.c) is Copyright © 2011  
Valentin Ochs and is licensed under an MIT-style license.

The x86\_64 port was written by Nicholas J. Kain and is licensed under  
the standard MIT terms.

The mips and microblaze ports were originally written by Richard  
Pennington for use in the ellcc project. The original code was adapted  
by Rich Felker for build system and code conventions during upstream  
integration. It is licensed under the standard MIT terms.

The mips64 port was contributed by Imagination Technologies and is  
licensed under the standard MIT terms.

The powerpc port was also originally written by Richard Pennington,  
and later supplemented and integrated by John Spencer. It is licensed  
under the standard MIT terms.

All other files which have no copyright comments are original works  
produced specifically for use as part of this library, written either  
by Rich Felker, the main author of the library, or by one or more  
contributors listed above. Details on authorship of individual files  
can be found in the git version control history of the project. The  
omission of copyright and license comments in each file is in the  
interest of source tree size.

In addition, permission is hereby granted for all public header files  
(include/\* and arch/\*/bits/\*) and crt files intended to be linked into  
applications (crt/\*, ldso/dlstart.c, and arch/\*/crt\_arch.h) to omit  
the copyright notice and permission notice otherwise required by the  
license, and to use these files without any requirement of  
attribution. These files include substantial contributions from:

Bobby Bingham  
John Spencer  
Nicholas J. Kain  
Rich Felker  
Richard Pennington  
Stefan Kristiansson  
Szabolcs Nagy

all of whom have explicitly granted such permission.

This file previously contained text expressing a belief that most of  
the files covered by the above exception were sufficiently trivial not  
to be subject to copyright, resulting in confusion over whether it

negated the permissions granted in the license. In the spirit of permissive licensing, and of not having licensing issues being an obstacle to adoption, that text has been removed.

## ANTLR4

```
antlr4
COPYRIGHT and LICENSE:

[The "BSD 3-clause license"]
Copyright (c) 2012-2022 The ANTLR Project. 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. Neither name of copyright holders 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 REGENTS 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.

=====
4th Party Dependencies:

com.ibm.icu » icu4j
COPYRIGHT and LICENSE:
UNICODE, INC. LICENSE AGREEMENT - DATA FILES AND SOFTWARE

See Terms of Use <https://www.unicode.org/copyright.html>
for definitions of Unicode Inc.'s Data Files and Software.

NOTICE TO USER: Carefully read the following legal agreement.
BY DOWNLOADING, INSTALLING, COPYING OR OTHERWISE USING UNICODE INC.'S
DATA FILES ("DATA FILES"), AND/OR SOFTWARE ("SOFTWARE"),
YOU UNEQUIVOCALLY ACCEPT, AND AGREE TO BE BOUND BY, ALL OF THE
TERMS AND CONDITIONS OF THIS AGREEMENT.
IF YOU DO NOT AGREE, DO NOT DOWNLOAD, INSTALL, COPY, DISTRIBUTE OR USE
THE DATA FILES OR SOFTWARE.

COPYRIGHT AND PERMISSION NOTICE

Copyright © 1991-2022 Unicode, Inc. All rights reserved.
Distributed under the Terms of Use in https://www.unicode.org/copyright.html.

Permission is hereby granted, free of charge, to any person obtaining
a copy of the Unicode data files and any associated documentation
(the "Data Files") or Unicode software and any associated documentation
(the "Software") to deal in the Data Files or Software
without restriction, including without limitation the rights to use,
```

copy, modify, merge, publish, distribute, and/or sell copies of the Data Files or Software, and to permit persons to whom the Data Files or Software are furnished to do so, provided that either  
 (a) this copyright and permission notice appear with all copies of the Data Files or Software, or  
 (b) this copyright and permission notice appear in associated Documentation.

THE DATA FILES AND SOFTWARE ARE 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 OF THIRD PARTY RIGHTS.

IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE DATA FILES OR SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in these Data Files or Software without prior written authorization of the copyright holder.

```
=====
org.abego.treelayout » org.abego.treelayout.core
COPYRIGHT and LICENSE:
BSD 3-Clause License
```

Copyright (c) 2011, abego Software GmbH, Germany (<http://www.abego.org>)  
 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 copyright holder 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.

```
=====
org.antlr » antlr4-runtime
org.antlr » antlr-runtime
COPYRIGHT and LICENSE:
[The "BSD 3-clause license"]
Copyright (c) 2012-2022 The ANTLR Project. 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. Neither name of copyright holders 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 REGENTS 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.

```
=====
org.antlr » ST4
COPYRIGHT and LICENSE:
[The "BSD license"]
Copyright (c) 2011-2022 Terence Parr
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 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.

## JSON in Java

Public Domain.

## JLine

```
*****
***** Copied from BA Public License *****
```

Copyright (c) 2002-2018, the original author or authors.  
All rights reserved.  
<https://opensource.org/licenses/BSD-3-Clause>  
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 JLine 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.

## LibFFI Library

```
### LibFFI License
...

libffi - Copyright (c) 1996-2022 Anthony Green, Red Hat, Inc and others.
See source files for details.

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.

Copyright (C) 2007-2010 Free Software Foundation, Inc
Copyright (C) 1996-2014 Red Hat, Inc.
Copyright (C) 2009-2012 ARM Ltd.
Copyright (C) 2011 Plausible Labs Cooperative, Inc.
Copyright (C) 2002 Ranjit Mathew
Copyright (C) 2002 Bo Thorsen
Copyright (C) 2002 Roger Sayle
Copyright (C) 2013 The Written Word, Inc.
Copyright (C) 2002-2007 Bo Thorsen <bo@suse.de>

...

### AUTHORS File Information
...

libffi was originally written by Anthony Green <green@moxielogic.com>.
```



The developers of the GNU Compiler Collection project have made innumerable valuable contributions. See the ChangeLog file for details.

Some of the ideas behind libffi were inspired by Gianni Mariani's free gencall library for Silicon Graphics machines.

The closure mechanism was designed and implemented by Kresten Krab Thorup.

Major processor architecture ports were contributed by the following developers:

|         |                                    |
|---------|------------------------------------|
| aarch64 | Marcus Shawcroft, James Greenhalgh |
| x86     | Anthony Green, Jon Beniston        |
| x86-64  | Bo Thorsen                         |

Jesper Skov and Andrew Haley both did more than their fair share of stepping through the code and tracking down bugs.

Thanks also to Tom Tromey for bug fixes, documentation and configuration help.

Thanks to Jim Blandy, who provided some useful feedback on the libffi interface.

Alex Oliva solved the executable page problem for SELinux.

## Java-WebSocket

Copyright (c) 2010-2020 Nathan Rajlich

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.

## ASM

<https://gitlab.ow2.org/asm/asm/blob/master/LICENSE.txt>

ASM: a very small and fast Java bytecode manipulation framework  
Copyright (c) 2000-2011 INRIA, France Telecom  
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. Neither the name of the copyright holders 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.

## ICU4J

### UNICODE, INC. LICENSE AGREEMENT - DATA FILES AND SOFTWARE

See Terms of Use <<https://www.unicode.org/copyright.html>> for definitions of Unicode Inc.'s Data Files and Software.

NOTICE TO USER: Carefully read the following legal agreement. BY DOWNLOADING, INSTALLING, COPYING OR OTHERWISE USING UNICODE INC.'S DATA FILES ("DATA FILES"), AND/OR SOFTWARE ("SOFTWARE"), YOU UNEQUIVOCALLY ACCEPT, AND AGREE TO BE BOUND BY, ALL OF THE TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU DO NOT AGREE, DO NOT DOWNLOAD, INSTALL, COPY, DISTRIBUTE OR USE THE DATA FILES OR SOFTWARE.

#### COPYRIGHT AND PERMISSION NOTICE

Copyright © 1991-2022 Unicode, Inc. All rights reserved. Distributed under the Terms of Use in <https://www.unicode.org/copyright.html>.

Permission is hereby granted, free of charge, to any person obtaining a copy of the Unicode data files and any associated documentation (the "Data Files") or Unicode software and any associated documentation (the "Software") to deal in the Data Files or Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, and/or sell copies of the Data Files or Software, and to permit persons to whom the Data Files or Software are furnished to do so, provided that either (a) this copyright and permission notice appear with all copies of the Data Files or Software, or (b) this copyright and permission notice appear in associated Documentation.

THE DATA FILES AND SOFTWARE ARE 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 OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE DATA FILES OR SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in these Data Files or Software without prior written authorization of the copyright holder.

-----

### Third-Party Software Licenses

This section contains third-party software notices and/or additional terms for licensed third-party software components included within ICU libraries.

#### 1. ICU License - ICU 1.8.1 to ICU 57.1

##### COPYRIGHT AND PERMISSION NOTICE

Copyright (c) 1995-2016 International Business Machines Corporation and others  
All rights reserved.

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, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, provided that the above copyright notice(s) and this permission notice appear in all copies of the Software and that both the above copyright notice(s) and this permission notice appear in supporting documentation.

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 OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.

All trademarks and registered trademarks mentioned herein are the property of their respective owners.

#### 2. Chinese/Japanese Word Break Dictionary Data (cjdict.txt)

```
# The Google Chrome software developed by Google is licensed under
# the BSD license. Other software included in this distribution is
# provided under other licenses, as set forth below.
#
# The BSD License
# http://opensource.org/licenses/bsd-license.php
# Copyright (C) 2006-2008, Google 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 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.
#
#
# 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.
#
#
# The word list in cjdict.txt are generated by combining three word lists
# listed below with further processing for compound word breaking. The
# frequency is generated with an iterative training against Google web
# corpora.
#
# * Libtabe (Chinese)
#   - https://sourceforge.net/project/?group\_id=1519
#   - Its license terms and conditions are shown below.
#
# * IPADIC (Japanese)
#   - http://chasen.aist-nara.ac.jp/chasen/distribution.html
#   - Its license terms and conditions are shown below.
#
# -----COPYING.libtabe ---- BEGIN-----
#
# /*
#  * Copyright (c) 1999 TaBE Project.
#  * Copyright (c) 1999 Pai-Hsiang Hsiao.
#  * 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 TaBE Project 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
#  * REGENTS 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.
#  */
#
# /*
#  * Copyright (c) 1999 Computer Systems and Communication Lab,

```

```

# *           Institute of Information Science, Academia
# *           Sinica. 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 Computer Systems and Communication Lab
# * 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
# * REGENTS 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.
# */
#
# Copyright 1996 Chih-Hao Tsai @ Beckman Institute,
# University of Illinois
# c-tsai4@uiuc.edu http://casper.beckman.uiuc.edu/~c-tsai4
#
# -----COPYING.libtabe-----END-----
#
# -----COPYING.ipadic-----BEGIN-----
#
# Copyright 2000, 2001, 2002, 2003 Nara Institute of Science
# and Technology. All Rights Reserved.
#
# Use, reproduction, and distribution of this software is permitted.
# Any copy of this software, whether in its original form or modified,
# must include both the above copyright notice and the following
# paragraphs.
#
# Nara Institute of Science and Technology (NAIST),
# the copyright holders, disclaims all warranties with regard to this
# software, including all implied warranties of merchantability and
# fitness, in no event shall NAIST be liable for
# any special, indirect or consequential damages or any damages
# whatsoever resulting from loss of use, data or profits, whether in an
# action of contract, negligence or other tortuous action, arising out
# of or in connection with the use or performance of this software.
#
# A large portion of the dictionary entries
# originate from ICOT Free Software. The following conditions for ICOT
# Free Software applies to the current dictionary as well.
#
# Each User may also freely distribute the Program, whether in its
# original form or modified, to any third party or parties, PROVIDED
# that the provisions of Section 3 ("NO WARRANTY") will ALWAYS appear
# on, or be attached to, the Program, which is distributed substantially
# in the same form as set out herein and that such intended

```

```

# distribution, if actually made, will neither violate or otherwise
# contravene any of the laws and regulations of the countries having
# jurisdiction over the User or the intended distribution itself.
#
# NO WARRANTY
#
# The program was produced on an experimental basis in the course of the
# research and development conducted during the project and is provided
# to users as so produced on an experimental basis. Accordingly, the
# program is provided without any warranty whatsoever, whether express,
# implied, statutory or otherwise. The term "warranty" used herein
# includes, but is not limited to, any warranty of the quality,
# performance, merchantability and fitness for a particular purpose of
# the program and the nonexistence of any infringement or violation of
# any right of any third party.
#
# Each user of the program will agree and understand, and be deemed to
# have agreed and understood, that there is no warranty whatsoever for
# the program and, accordingly, the entire risk arising from or
# otherwise connected with the program is assumed by the user.
#
# Therefore, neither ICOT, the copyright holder, or any other
# organization that participated in or was otherwise related to the
# development of the program and their respective officials, directors,
# officers and other employees shall be held liable for any and all
# damages, including, without limitation, general, special, incidental
# and consequential damages, arising out of or otherwise in connection
# with the use or inability to use the program or any product, material
# or result produced or otherwise obtained by using the program,
# regardless of whether they have been advised of, or otherwise had
# knowledge of, the possibility of such damages at any time during the
# project or thereafter. Each user will be deemed to have agreed to the
# foregoing by his or her commencement of use of the program. The term
# "use" as used herein includes, but is not limited to, the use,
# modification, copying and distribution of the program and the
# production of secondary products from the program.
#
# In the case where the program, whether in its original form or
# modified, was distributed or delivered to or received by a user from
# any person, organization or entity other than ICOT, unless it makes or
# grants independently of ICOT any specific warranty to the user in
# writing, such person, organization or entity, will also be exempted
# from and not be held liable to the user for any such damages as noted
# above as far as the program is concerned.
#
# -----COPYING.ipadic-----END-----

```

### 3. Lao Word Break Dictionary Data (laodict.txt)

```

# Copyright (C) 2016 and later: Unicode, Inc. and others.
# License & terms of use: http://www.unicode.org/copyright.html
# Copyright (c) 2015 International Business Machines Corporation
# and others. All Rights Reserved.
#
# Project: https://github.com/rober42539/lao-dictionary
# Dictionary: https://github.com/rober42539/lao-dictionary/laodict.txt
# License: https://github.com/rober42539/lao-dictionary/LICENSE.txt
#         (copied below)
#
# This file is derived from the above dictionary version of Nov 22, 2020
# -----
# Copyright (C) 2013 Brian Eugene Wilson, Robert Martin Campbell.
# 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 ther materials
# provided with the distribution.
#
# 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.
# -----
```

#### 4. Burmese Word Break Dictionary Data (burmesedict.txt)

```
# Copyright (c) 2014 International Business Machines Corporation
# and others. All Rights Reserved.
#
# This list is part of a project hosted at:
#   github.com/kanyawtech/myanmar-karen-word-lists
#
# -----
# Copyright (c) 2013, LeRoy Benjamin Sharon
# 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 Myanmar Karen Word Lists, 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.
# -----
```

#### 5. Time Zone Database

ICU uses the public domain data and code derived from Time Zone Database for its time zone support. The ownership of the TZ database is explained in BCP 175: Procedure for Maintaining the Time Zone Database section 7.

```
# 7. Database Ownership
#
# The TZ database itself is not an IETF Contribution or an IETF
# document. Rather it is a pre-existing and regularly updated work
# that is in the public domain, and is intended to remain in the
# public domain. Therefore, BCPs 78 [RFC5378] and 79 [RFC3979] do
# not apply to the TZ Database or contributions that individuals make
# to it. Should any claims be made and substantiated against the TZ
# Database, the organization that is providing the IANA
# Considerations defined in this RFC, under the memorandum of
# understanding with the IETF, currently ICANN, may act in accordance
# with all competent court orders. No ownership claims will be made
# by ICANN or the IETF Trust on the database or the code. Any person
# making a contribution to the database or code waives all rights to
# future claims in that contribution or in the TZ Database.
```

## 6. Google double-conversion

Copyright 2006-2011, the V8 project authors. 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 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.

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.

=====

Unicode® Copyright and Terms of Use  
For the general privacy policy governing access to this site, see the  
Unicode Privacy Policy.

Unicode Copyright  
Copyright © 1991-2022 Unicode, Inc. All rights reserved.  
Definitions  
Unicode Data Files ("DATA FILES") include all data files under the directories:  
<https://www.unicode.org/Public/>  
<https://www.unicode.org/reports/>  
<https://www.unicode.org/ivd/data/>

Unicode Data Files do not include PDF online code charts under the directory:  
<https://www.unicode.org/Public/>

Unicode Software ("SOFTWARE") includes any source code published in the  
Unicode Standard or any source code or compiled code under the directories:  
<https://www.unicode.org/Public/PROGRAMS/>  
<https://www.unicode.org/Public/cldr/>  
<http://site.icu-project.org/download/>



#### Terms of Use

Certain documents and files on this website contain a legend indicating that "Modification is permitted." Any person is hereby authorized, without fee, to modify such documents and files to create derivative works conforming to the Unicode® Standard, subject to Terms and Conditions herein.

Any person is hereby authorized, without fee, to view, use, reproduce, and distribute all documents and files, subject to the Terms and Conditions herein.

Further specifications of rights and restrictions pertaining to the use of the Unicode DATA FILES and SOFTWARE can be found in the Unicode Data Files and Software License.

Each version of the Unicode Standard has further specifications of rights and restrictions of use. For the book editions (Unicode 5.0 and earlier), these are found on the back of the title page.

The Unicode PDF online code charts carry specific restrictions. Those restrictions are incorporated as the first page of each PDF code chart. All other files, including online documentation of the core specification for Unicode 6.0 and later, are covered under these general Terms of Use.

No license is granted to "mirror" the Unicode website where a fee is charged for access to the "mirror" site.

Modification is not permitted with respect to this document.

All copies of this document must be verbatim.

#### Restricted Rights Legend

Any technical data or software which is licensed to the United States of America, its agencies and/or instrumentalities under this Agreement is commercial technical data or commercial computer software developed exclusively at private expense as defined in FAR 2.101, or DFARS 252.227-7014 (June 1995), as applicable. For technical data, use, duplication, or disclosure by the Government is subject to restrictions as set forth in DFARS 202.227-7015 Technical Data, Commercial and Items (Nov 1995) and this Agreement. For Software, in accordance with FAR 12-212 or DFARS 227-7202, as applicable, use, duplication or disclosure by the Government is subject to the restrictions set forth in this Agreement.

#### Warranties and Disclaimers

This publication and/or website may include technical or typographical errors or other inaccuracies. Changes are periodically added to the information herein; these changes will be incorporated in new editions of the publication and/or website. Unicode, Inc. may make improvements and/or changes in the product(s) and/or program(s) described in this publication and/or website at any time.

If this file has been purchased on magnetic or optical media from Unicode, Inc. the sole and exclusive remedy for any claim will be exchange of the defective media within ninety (90) days of original purchase.

EXCEPT AS PROVIDED IN SECTION E.2, THIS PUBLICATION AND/OR SOFTWARE IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND EITHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. UNICODE, INC. AND ITS LICENSORS ASSUME NO RESPONSIBILITY FOR ERRORS OR OMISSIONS IN THIS PUBLICATION AND/OR SOFTWARE OR OTHER DOCUMENTS WHICH ARE REFERENCED BY OR LINKED TO THIS PUBLICATION OR THE UNICODE WEBSITE.

#### Waiver of Damages

In no event shall Unicode, Inc. or its licensors be liable for any special, incidental, indirect or consequential damages of any kind, or any damages whatsoever, whether or not Unicode, Inc. was advised of the possibility of the damage, including, without limitation, those resulting from the following: loss of use, data or profits, in connection with the use, modification or distribution of this information or its derivatives.

#### Trademarks & Logos

The Unicode Word Mark and the Unicode Logo are trademarks of Unicode, Inc. "The Unicode Consortium" and "Unicode, Inc." are trade names of Unicode, Inc. Use of the information and materials found on this website

indicates your acknowledgement of Unicode, Inc.'s exclusive worldwide rights in the Unicode Word Mark, the Unicode Logo, and the Unicode trade names.

The Unicode Consortium Name and Trademark Usage Policy ("Trademark Policy") are incorporated herein by reference and you agree to abide by the provisions of the Trademark Policy, which may be changed from time to time in the sole discretion of Unicode, Inc.

All third party trademarks referenced herein are the property of their respective owners.

#### Miscellaneous

**Jurisdiction and Venue.** This website is operated from a location in the State of California, United States of America. Unicode, Inc. makes no representation that the materials are appropriate for use in other locations. If you access this website from other locations, you are responsible for compliance with local laws. This Agreement, all use of this website and any claims and damages resulting from use of this website are governed solely by the laws of the State of California without regard to any principles which would apply the laws of a different jurisdiction. The user agrees that any disputes regarding this website shall be resolved solely in the courts located in Santa Clara County, California. The user agrees said courts have personal jurisdiction and agree to waive any right to transfer the dispute to any other forum.

**Modification by Unicode, Inc.** Unicode, Inc. shall have the right to modify this Agreement at any time by posting it to this website. The user may not assign any part of this Agreement without Unicode, Inc.'s prior written consent.

**Taxes.** The user agrees to pay any taxes arising from access to this website or use of the information herein, except for those based on Unicode's net income.

**Severability.** If any provision of this Agreement is declared invalid or unenforceable, the remaining provisions of this Agreement shall remain in effect.

**Entire Agreement.** This Agreement constitutes the entire agreement between the parties.

=====

## Standard Licenses

### Apache License v2.0, January 2004

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.

=====  
=====

## GNU Lesser General Public License v2.1, February 1999

The following applies to all products licensed under the GNU Lesser General Public License, Version 2.1: You may not use the identified files except in compliance with the GNU Lesser General Public License, Version 2.1 (the "License"). You may obtain a copy of the License at <http://www.gnu.org/licenses/lgpl-2.1.html>. 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.

GNU LESSER GENERAL PUBLIC LICENSE  
Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.  
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA  
Everyone is permitted to copy and distribute verbatim copies  
of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts  
as the successor of the GNU Library Public License, version 2, hence  
the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be

consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE  
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under

copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the



entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
- b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that

system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

#### NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### END OF TERMS AND CONDITIONS

#### How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting

redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year>  <name of author>
```

```
This library is free software; you can redistribute it and/or
modify it under the terms of the GNU Lesser General Public
License as published by the Free Software Foundation; either
version 2.1 of the License, or (at your option) any later version.
```

```
This library is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY; without even the implied warranty of
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.  See the GNU
Lesser General Public License for more details.
```

```
You should have received a copy of the GNU Lesser General Public
License along with this library; if not, write to the Free Software
Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA
02110-1301  USA
```

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright interest in the
library `Frob' (a library for tweaking knobs) written by James
Random Hacker.
```

```
<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice
```

That's all there is to it!

```
=====
=====
```

## Mozilla Public License 2.0

```

                                MOZILLA PUBLIC LICENSE
                                Version 2.0
                                -----
1. Definitions
-----
1.1. "Contributor"
    means each individual or legal entity that creates, contributes to
    the creation of, or owns Covered Software.

1.2. "Contributor Version"
    means the combination of the Contributions of others (if any) used
    by a Contributor and that particular Contributor's Contribution.

1.3. "Contribution"
    means Covered Software of a particular Contributor.

1.4. "Covered Software"
    means Source Code Form to which the initial Contributor has attached
```

the notice in Exhibit A, the Executable Form of such Source Code Form, and Modifications of such Source Code Form, in each case including portions thereof.

1.5. "Incompatible With Secondary Licenses"

means

- (a) that the initial Contributor has attached the notice described in Exhibit B to the Covered Software; or
- (b) that the Covered Software was made available under the terms of version 1.1 or earlier of the License, but not also under the terms of a Secondary License.

1.6. "Executable Form"

means any form of the work other than Source Code Form.

1.7. "Larger Work"

means a work that combines Covered Software with other material, in a separate file or files, that is not Covered Software.

1.8. "License"

means this document.

1.9. "Licensable"

means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently, any and all of the rights conveyed by this License.

1.10. "Modifications"

means any of the following:

- (a) any file in Source Code Form that results from an addition to, deletion from, or modification of the contents of Covered Software; or
- (b) any new file in Source Code Form that contains any Covered Software.

1.11. "Patent Claims" of a Contributor

means any patent claim(s), including without limitation, method, process, and apparatus claims, in any patent Licensable by such Contributor that would be infringed, but for the grant of the License, by the making, using, selling, offering for sale, having made, import, or transfer of either its Contributions or its Contributor Version.

1.12. "Secondary License"

means either the GNU General Public License, Version 2.0, the GNU Lesser General Public License, Version 2.1, the GNU Affero General Public License, Version 3.0, or any later versions of those licenses.

1.13. "Source Code Form"

means the form of the work preferred for making modifications.

1.14. "You" (or "Your")

means an individual or a legal entity exercising rights under this License. For legal entities, "You" includes any entity that 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 and Conditions

-----

## 2.1. Grants

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 such Contributor to use, reproduce, make available, modify, display, perform, distribute, and otherwise exploit its Contributions, either on an unmodified basis, with Modifications, or as part of a Larger Work; and
- (b) under Patent Claims of such Contributor to make, use, sell, offer for sale, have made, import, and otherwise transfer either its Contributions or its Contributor Version.

## 2.2. Effective Date

The licenses granted in Section 2.1 with respect to any Contribution become effective for each Contribution on the date the Contributor first distributes such Contribution.

## 2.3. Limitations on Grant Scope

The licenses granted in this Section 2 are the only rights granted under this License. No additional rights or licenses will be implied from the distribution or licensing of Covered Software under this License. Notwithstanding Section 2.1(b) above, no patent license is granted by a Contributor:

- (a) for any code that a Contributor has removed from Covered Software; or
- (b) for infringements caused by: (i) Your and any other third party's modifications of Covered Software, or (ii) the combination of its Contributions with other software (except as part of its Contributor Version); or
- (c) under Patent Claims infringed by Covered Software in the absence of its Contributions.

This License does not grant any rights in the trademarks, service marks, or logos of any Contributor (except as may be necessary to comply with the notice requirements in Section 3.4).

## 2.4. Subsequent Licenses

No Contributor makes additional grants as a result of Your choice to distribute the Covered Software under a subsequent version of this License (see Section 10.2) or under the terms of a Secondary License (if permitted under the terms of Section 3.3).

## 2.5. Representation

Each Contributor represents that the Contributor believes its Contributions are its original creation(s) or it has sufficient rights to grant the rights to its Contributions conveyed by this License.

## 2.6. Fair Use

This License is not intended to limit any rights You have under applicable copyright doctrines of fair use, fair dealing, or other equivalents.

## 2.7. Conditions

Sections 3.1, 3.2, 3.3, and 3.4 are conditions of the licenses granted in Section 2.1.

### 3. Responsibilities

#### 3.1. Distribution of Source Form

All distribution of Covered Software in Source Code Form, including any Modifications that You create or to which You contribute, must be under the terms of this License. You must inform recipients that the Source Code Form of the Covered Software is governed by the terms of this License, and how they can obtain a copy of this License. You may not attempt to alter or restrict the recipients' rights in the Source Code Form.

#### 3.2. Distribution of Executable Form

If You distribute Covered Software in Executable Form then:

- (a) such Covered Software must also be made available in Source Code Form, as described in Section 3.1, and You must inform recipients of the Executable Form how they can obtain a copy of such Source Code Form by reasonable means in a timely manner, at a charge no more than the cost of distribution to the recipient; and
- (b) You may distribute such Executable Form under the terms of this License, or sublicense it under different terms, provided that the license for the Executable Form does not attempt to limit or alter the recipients' rights in the Source Code Form under this License.

#### 3.3. Distribution of a Larger Work

You may create and distribute a Larger Work under terms of Your choice, provided that You also comply with the requirements of this License for the Covered Software. If the Larger Work is a combination of Covered Software with a work governed by one or more Secondary Licenses, and the Covered Software is not Incompatible With Secondary Licenses, this License permits You to additionally distribute such Covered Software under the terms of such Secondary License(s), so that the recipient of the Larger Work may, at their option, further distribute the Covered Software under the terms of either this License or such Secondary License(s).

#### 3.4. Notices

You may not remove or alter the substance of any license notices (including copyright notices, patent notices, disclaimers of warranty, or limitations of liability) contained within the Source Code Form of the Covered Software, except that You may alter any license notices to the extent required to remedy known factual inaccuracies.

#### 3.5. Application of Additional Terms

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 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 every Contributor for any liability incurred by such Contributor as a result of warranty, support, indemnity or liability terms You offer. You may include additional disclaimers of warranty and limitations of liability specific to any jurisdiction.

### 4. Inability to Comply Due to Statute or Regulation



If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Covered Software due to statute, judicial order, or regulation then You must: (a) comply with the terms of this License to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be placed in a text file included with all distributions of the Covered Software under this License. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

## 5. Termination

-----

5.1. The rights granted under this License will terminate automatically if You fail to comply with any of its terms. However, if You become compliant, then the rights granted under this License from a particular Contributor are reinstated (a) provisionally, unless and until such Contributor explicitly and finally terminates Your grants, and (b) on an ongoing basis, if such Contributor fails to notify You of the non-compliance by some reasonable means prior to 60 days after You have come back into compliance. Moreover, Your grants from a particular Contributor are reinstated on an ongoing basis if such Contributor notifies You of the non-compliance by some reasonable means, this is the first time You have received notice of non-compliance with this License from such Contributor, and You become compliant prior to 30 days after Your receipt of the notice.

5.2. If You initiate litigation against any entity by asserting a patent infringement claim (excluding declaratory judgment actions, counter-claims, and cross-claims) alleging that a Contributor Version directly or indirectly infringes any patent, then the rights granted to You by any and all Contributors for the Covered Software under Section 2.1 of this License shall terminate.

5.3. In the event of termination under Sections 5.1 or 5.2 above, all end user license agreements (excluding distributors and resellers) which have been validly granted by You or Your distributors under this License prior to termination shall survive termination.

\*\*\*\*\*

```
*
* 6. Disclaimer of Warranty
* -----
*
* Covered Software is provided under this License on an "as is"
* basis, without warranty of any kind, either expressed, implied, or
* statutory, including, without limitation, warranties that the
* Covered Software is free of defects, merchantable, fit for a
* particular purpose or non-infringing. 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 any 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 under this License except under this disclaimer.
*
```

\*\*\*\*\*

\*\*\*\*\*

```
*
* 7. Limitation of Liability
* -----
*
* Under no circumstances and under no legal theory, whether tort
* (including negligence), contract, or otherwise, shall any
* Contributor, or anyone who distributes Covered Software as
```

```
* permitted above, be liable to You for any direct, 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. Litigation

-----

Any litigation relating to this License may be brought only in the courts of a jurisdiction where the defendant maintains its principal place of business and such litigation shall be governed by laws of that jurisdiction, without reference to its conflict-of-law provisions. Nothing in this Section shall prevent a party's ability to bring cross-claims or counter-claims.

## 9. Miscellaneous

-----

This License represents the complete agreement concerning the 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. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not be used to construe this License against a Contributor.

## 10. Versions of the License

-----

### 10.1. New Versions

Mozilla Foundation is the license steward. Except as provided in Section 10.3, no one other than the license steward has the right to modify or publish new versions of this License. Each version will be given a distinguishing version number.

### 10.2. Effect of New Versions

You may distribute the Covered Software under the terms of the version of the License under which You originally received the Covered Software, or under the terms of any subsequent version published by the license steward.

### 10.3. Modified Versions

If you create software not governed by this License, and you want to create a new license for such software, you may create and use a modified version of this License if you rename the license and remove any references to the name of the license steward (except to note that such modified license differs from this License).

### 10.4. Distributing Source Code Form that is Incompatible With Secondary Licenses

If You choose to distribute Source Code Form that is Incompatible With Secondary Licenses under the terms of this version of the License, the notice described in Exhibit B of this License must be attached.

Exhibit A - Source Code Form License Notice

-----  
This Source Code Form is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this file, You can obtain one at <https://mozilla.org/MPL/2.0/>.

If it is not possible or desirable to put the notice in a particular file, then You may include the notice in a location (such as a LICENSE file in a relevant directory) where a recipient would be likely to look for such a notice.

You may add additional accurate notices of copyright ownership.

Exhibit B - "Incompatible With Secondary Licenses" Notice

-----  
This Source Code Form is "Incompatible With Secondary Licenses", as defined by the Mozilla Public License, v. 2.0.

=====

## Written Offer for Source Code

For any software 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 by visiting <http://www.oracle.com/goto/opensourcecode>. If the source code for the binary 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 the address listed below or by sending an email to Oracle using the following link: <http://www.oracle.com/goto/opensourcecode/request>.

Oracle America, Inc.  
Attn: Senior Vice President  
Development and Engineering Legal  
500 Oracle Parkway, 10th Floor  
Redwood Shores, CA 94065

Your request should include:

- The name of the binary for which you are requesting the source code
- The name and version number of the Oracle product containing the binary
- The date you received the Oracle product
- Your name
- Your company name (if applicable)
- Your return mailing address and email, and
- 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

- a. within three (3) years of the date you received the Oracle product that included the binary that is the subject of your request, or

- b. 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.