Charge Amps Aura 2 Firmware 2.1.1
Open Source and Third-Party Software Licenses

Scope

This document provides license texts and copyright notices for the third-party software components listed below in Charge Amps Aura 2 firmware. Licenses apply to the identified components.

The scope is limited to the components listed in this document.

Contents

- Software components, p. 1
- Component notices, p. 23
- License identifiers, p. 24
- License texts and notices, p. 25

Component notices appear in appendices L001 onwards. Identical complete notices share an appendix; repeated sections of license terms are printed once in sections S001 onwards and referenced at their original position. Read each notice together with its referenced terms. Copyright notices, license choices, additional conditions and exceptions remain with the notice. Appendices used by multiple components have neutral headings; the component table identifies their use. Numbers apply within this report. The PDF includes page references.

Software components

Linux kernel modules and iptables extensions are listed with their parent component. Different versions and license terms are listed separately. Where no version is given, the component name and notices identify the software.

Component	Version	Licenses	Notices
avahi	0.8	LGPL-2.1-or-later	• LICENSE (L009), p. 38 • address.h (L010), p. 41 • client.h (L011), p. 41 • dns.h (L012), p. 42 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31 • main.c (L013), p. 42
base-files	3.0.14	GPL-2.0-only	• GPL-2 (L014), p. 43 • License template: GPL-2.0-only (L015), p. 44
base-passwd	3.6.1	GPL-2.0-only	• COPYING (L016), p. 46 • License template: GPL-2.0-only (L015), p. 44
bash	5.2.15	GPL-3.0-or-later	• COPYING (L017), p. 48 • License template: GPL-3.0-or-later (L018), p. 50

Component	Version	Licenses	Notices
bluez5	5.66	GPL-2.0-or-later AND LGPL-2.1-or-later	• COPYING (L016), p. 46 • COPYING.LIB (L009), p. 38 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31 • main.c (L019), p. 52
build-info-openstlinux	1.0	MIT	• License template: MIT (L020), p. 52
busybox	1.36.1	GPL-2.0-only AND bzip2-1.0.4	• LICENSE.0 (L021), p. 53 • LICENSE.1 (L022), p. 55 • License template: GPL-2.0-only (L015), p. 44 • License template: bzip2-1.0.4 (L023), p. 55
ca-certificates	20211016	GPL-2.0-or-later AND MPL-2.0	• copyright (L034), p. 60 • License template: GPL-2.0-or-later (L003), p. 29 • License template: MPL-2.0 (L035), p. 66
Charge Amps M33 firmware	Release 2.1.1	ChargeAmps AND Apache-2.0 AND BSD-3-Clause AND BSD-2-Clause AND MIT AND (BSD-2-Clause OR CC0-1.0) AND PD AND ST-SLA0044-Rev5 AND ST-SLA0044-Rev6 AND ST-SLA0048-Rev4 AND ST-SLA0048-Rev5	• FreeRTOSConfig.h (L149), p. 284 • LICENCE.md (L150), p. 284 • LICENSE.md.0 (L151), p. 286 • LICENSE.md.1 (L152), p. 287 • etharp.c (L153), p. 287 • License template: Apache-2.0 (L029), p. 58 • License template: BSD-2-Clause (L059), p. 95 • License template: BSD-3-Clause (L030), p. 58 • License template: CC0-1.0 (L090), p. 148 • License template: MIT (L020), p. 52 • License template: ST-SLA0044-Rev5 (L154), p. 287 • License template: ST-SLA0044-Rev6 (L155), p. 288 • License template: ST-SLA0048-Rev4 (L156), p. 290 • License template: ST-SLA0048-Rev5 (L157), p. 291 • iana.h (L158), p. 293 • lwipopts.h (L159), p. 293 • port.c (L160), p. 294

Component	Version	Licenses	Notices
Charge Amps MID firmware	LegalApplication 3.1; NonLegalApplication 2.1	ChargeAmps AND Apache-2.0 AND MIT AND Atmel-Microcontroller AND Microchip-Products-2018	• License template: Apache-2.0 (L029), p. 58 • License template: Atmel-Microcontroller (L161), p. 294 • License template: MIT (L020), p. 52 • License template: Microchip-Products-2018 (L162), p. 294 • qrcodegen.c (L163), p. 295
Charge Amps RCD firmware	3.0.3	ChargeAmps AND Atmel-Microcontroller AND Microchip-Products-2018	• assembler.h (L220), p. 323 • License template: Atmel-Microcontroller (L161), p. 294 • License template: Microchip-Products-2018 (L162), p. 294 • license.h (L221), p. 323 • qtm_acq_t161x_0x0017_api.h (L222), p. 324 • touch.c (L223), p. 324
coreutils	9.1	GPL-3.0-or-later	• COPYING (L036), p. 72 • License template: GPL-3.0-or-later (L018), p. 50 • ls.c (L037), p. 74
cryptodev-module	1.12	GPL-2.0-only	• COPYING (L038), p. 74 • License template: GPL-2.0-only (L015), p. 44
cryptsetup	2.6.1	GPL-2.0-with-OpenSSL-exception	• COPYING (L039), p. 76 • License template: GPL-2.0-with-OpenSSL-exception (L040), p. 78
curl	8.0.1	curl	• COPYING (L041), p. 82 • License template: curl (L042), p. 82

Component	Version	Licenses	Notices
dbus (dbus)	1.14.10	(AFL-2.1 OR GPL-2.0-or-later) AND GPL-2.0-or-later	• COPYING (L043), p. 82 • dbus-cleanup-sockets.c (L044), p. 87 • dbus-launch.c (L045), p. 88 • dbus-monitor.c (L046), p. 88 • dbus-print-message.c (L047), p. 88 • dbus-run-session.c (L048), p. 89 • dbus-send.c (L049), p. 89 • dbus-update-activation-environment.c (L050), p. 89 • dbus-uuidgen.c (L051), p. 90 • dbus.h (L052), p. 90 • License template: AFL-2.1 (L053), p. 90 • License template: GPL-2.0-or-later (L003), p. 29 • License template: MIT (L020), p. 52 • tool-common.c (L054), p. 92
dbus (dbus-common, dbus-lib)	1.14.10	AFL-2.1 OR GPL-2.0-or-later	• COPYING (L043), p. 82 • dbus-cleanup-sockets.c (L044), p. 87 • dbus-launch.c (L045), p. 88 • dbus-monitor.c (L046), p. 88 • dbus-print-message.c (L047), p. 88 • dbus-run-session.c (L048), p. 89 • dbus-send.c (L049), p. 89 • dbus-update-activation-environment.c (L050), p. 89 • dbus-uuidgen.c (L051), p. 90 • dbus.h (L052), p. 90 • License template: AFL-2.1 (L053), p. 90 • License template: GPL-2.0-or-later (L003), p. 29 • License template: MIT (L020), p. 52 • tool-common.c (L054), p. 92

Component	Version	Licenses	Notices
dbus (dbus-tools)	1.14.10	GPL-2.0-or-later AND MIT	• COPYING (L043), p. 82 • dbus-cleanup-sockets.c (L044), p. 87 • dbus-launch.c (L045), p. 88 • dbus-monitor.c (L046), p. 88 • dbus-print-message.c (L047), p. 88 • dbus-run-session.c (L048), p. 89 • dbus-send.c (L049), p. 89 • dbus-update-activation-environment.c (L050), p. 89 • dbus-uuidgen.c (L051), p. 90 • dbus.h (L052), p. 90 • License template: AFL-2.1 (L053), p. 90 • License template: GPL-2.0-or-later (L003), p. 29 • License template: MIT (L020), p. 52 • tool-common.c (L054), p. 92
dbus-broker	32	Apache-2.0	• LICENSE (L055), p. 93 • License template: Apache-2.0 (L029), p. 58
devmem2	2.0	GPL-2.0-or-later	• devmem2.c (L056), p. 93 • License template: GPL-2.0-or-later (L003), p. 29
dtc	1.7.0	GPL-2.0-only OR BSD-2-Clause	• BSD-2-Clause (L057), p. 94 • GPL (L038), p. 74 • README.license (L058), p. 94 • License template: BSD-2-Clause (L059), p. 95 • License template: GPL-2.0-only (L015), p. 44
e2fsprogs (e2fsprogs-e2fsck)	1.47.0	GPL-2.0-only	• COPYING (L060), p. 95 • NOTICE (L061), p. 96 • e2p.h (L062), p. 100 • et_name.c (L063), p. 100 • ext2fs.h (L064), p. 100 • License template: BSD-3-Clause (L030), p. 58 • License template: GPL-2.0-only (L015), p. 44 • License template: LGPL-2.0-only (L065), p. 101 • License template: MIT (L020), p. 52 • ss.h (L066), p. 104 • uuid.h.in (L067), p. 104

Component	Version	Licenses	Notices
e2fsprogs (e2fsprogs-resize2fs, libcomerr, libe2p, libext2fs)	1.47.0	GPL-2.0-only AND LGPL-2.0-only AND BSD-3-Clause AND MIT	• COPYING (L060), p. 95 • NOTICE (L061), p. 96 • e2p.h (L062), p. 100 • et_name.c (L063), p. 100 • ext2fs.h (L064), p. 100 • License template: BSD-3-Clause (L030), p. 58 • License template: GPL-2.0-only (L015), p. 44 • License template: LGPL-2.0-only (L065), p. 101 • License template: MIT (L020), p. 52 • ss.h (L066), p. 104 • uuid.h.in (L067), p. 104
ell	0.58	LGPL-2.1-only	• COPYING (L009), p. 38 • License template: LGPL-2.1-only (L070), p. 105
esp-hosted-ng	1.0.6.0.0	GPL-2.0-only	• GPL-2.0 (L093), p. 208 • License template: GPL-2.0-only (L015), p. 44

Component	Version	Licenses	Notices
Espressif ESP32-C5 firmware	1.0.6.0.1	Apache-2.0 AND MIT AND BSD-3-Clause AND BSD-2-Clause AND BSD-2-Clause-FreeBSD AND CC0-1.0 AND (Apache-2.0 OR GPL-2.0-or-later) AND (GPL-2.0-only OR Apache-2.0) AND Apache-2.0-with-LLVM-exception AND GPL-3.0-with-GCC-exception AND Newlib	• BSD-2-Clause-FreeBSD; freebsd-net80211-notice.txt; generic_BSD-2-Clause-FreeBSD (L071), p. 111 • BSD-3-Clause; generic_BSD-3-Clause (L030), p. 58 • COPYING (L072), p. 112 • COPYING.NEWLIB.0 (L073), p. 112 • COPYING.NEWLIB.1; Newlib; generic_Newlib (L074), p. 123 • COPYING.RUNTIME (L075), p. 138 • COPYING3 (L017), p. 48 • LICENSE.0 (L026), p. 55 • LICENSE.1 (L076), p. 139 • LICENSE.2 (L077), p. 140 • LICENSE.3 (L078), p. 143 • LICENSE.md (L079), p. 143 • LICENSE.txt (L080), p. 143 • NOTICE.0 (L081), p. 146 • NOTICE.1 (L082), p. 146 • README (L083), p. 146 • README.md.0 (L084), p. 146 • README.md.1 (L085), p. 146 • README.rst (L086), p. 147 • esp-idf-net80211-copyright.txt (L087), p. 147 • esp-idf-software-copyright.txt (L088), p. 147 • License template: Apache-2.0 (L029), p. 58 • License template: Apache-2.0-with-LLVM-exception (L089), p. 147 • License template: BSD-2-Clause (L059), p. 95 • License template: CC0-1.0 (L090), p. 148 • License template: GPL-2.0-only (L015), p. 44 • License template: GPL-2.0-or-later (L003), p. 29 • License template: GPL-3.0-with-GCC-exception (L091), p. 150 • License template: MIT (L020), p. 52 • source-notices.txt (L092), p. 151
esptool	4.9.1	GPL-2.0-only	• LICENSE (L038), p. 74 • License template: GPL-2.0 (L015), p. 44

Component	Version	Licenses	Notices
eth2spi	1.0	MIT	• License template: MIT (L020), p. 52 • lms_eth2spi.c (L094), p. 210
ethtool	6.2	GPL-2.0-or-later	• COPYING (L038), p. 74 • ethtool.c (L095), p. 211 • License template: GPL-2.0-or-later (L003), p. 29
expat	2.5.0	MIT	• COPYING (L096), p. 211 • License template: MIT (L020), p. 52
fip-stm32mp	5.1	BSD-3-Clause	• License template: BSD-3-Clause (L030), p. 58
github.com/go-playground/locales	v0.12.1	See notices	• LICENSE (L250), p. 335
github.com/go-playground/universal-translator	v0.16.0	See notices	• LICENSE (L250), p. 335
github.com/google/uuid	v1.6.0	See notices	• CONTRIBUTORS (L251), p. 335 • LICENSE (L252), p. 336
github.com/gorilla/mux	v1.8.1	See notices	• LICENSE (L253), p. 336
github.com/gorilla/websocket	v1.5.0	See notices	• AUTHORS (L254), p. 336 • LICENSE (L255), p. 336
github.com/gorilla/websocket	v1.5.3	See notices	• AUTHORS (L254), p. 336 • LICENSE (L255), p. 336
github.com/leodido/go-urn	v1.1.0	See notices	• LICENSE (L256), p. 336
github.com/lorenzodonini/ocpp-go	v0.19.0 (Charge Amps variant)	See notices	• LICENSE (L257), p. 337
github.com/relvacode/iso8601	v1.6.0	See notices	• LICENSE (L258), p. 337
github.com/secsy/goftp	v0.0.0-20200609142545-aa2de14babf4	See notices	• LICENSE (L259), p. 337
github.com/sirupsen/logrus	v1.9.3	See notices	• LICENSE (L260), p. 337

Component	Version	Licenses	Notices
glib-2.0	2.74.6	LGPL-2.1-or-later AND BSD-3-Clause AND PD	• COPYING.0; LGPL-2.1-or-later.txt (L099), p. 213 • COPYING.1 (L100), p. 215 • License template: BSD-3-Clause (L030), p. 58 • License template: LGPL-2.1-or-later (L004), p. 31 • glib.h; gmodule.h (L101), p. 216
glibc	2.37	GPL-2.0-only AND LGPL-2.1-only	• COPYING (L038), p. 74 • COPYING.LIB (L102), p. 216 • COPYRIGHT (L103), p. 219 • LICENSES (L104), p. 219 • License template: GPL-2.0-only (L015), p. 44 • License template: LGPL-2.1-only (L070), p. 105
gmp	6.2.1	GPL-2.0-or-later OR LGPL-3.0-or-later	• COPYING (L017), p. 48 • COPYING.LESSERv3 (L098), p. 213 • COPYINGv2 (L038), p. 74 • COPYINGv3 (L105), p. 225 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-3.0-or-later (L069), p. 105
Go runtime and standard library	go1.20.7	See notices	Go runtime and standard library — notices, p. 23
go.nanomsg.org/mangos/v3	v3.4.2	See notices	• AUTHORS (L261), p. 337 • LICENSE (L026), p. 55
golang.org/x/sys	v0.0.0-20220715151400-c0bba94af5f8	See notices	• AUTHORS (L262), p. 338 • CONTRIBUTORS (L263), p. 338 • LICENSE (L024), p. 55
golang.org/x/sys	v0.0.0-20220804214406-8e32c043e418	See notices	• LICENSE (L024), p. 55
gopkg.in/go-playground/validator.v9	v9.30.0	See notices	• LICENSE (L264), p. 338

Component	Version	Licenses	Notices
host-loading	1.0	ChargeAmps AND Lumissil AND MIT AND OpenSSL AND LGPL-2.1-or-later AND Synopsys	• Lumissil; generic_Lumissil (L106), p. 227 • Lumissil-CG5317-OpenSSL (L107), p. 227 • Synopsys; generic_Synopsys (L108), p. 229 • License template: LGPL-2.1-or-later (L004), p. 31 • License template: MIT (L020), p. 52 • License template: OpenSSL (L109), p. 229 • tasks.c (L110), p. 230
initramfs-framework	1.0	MIT	• COPYING.MIT (L111), p. 231 • License template: MIT (L020), p. 52
iproute2	6.2.0	GPL-2.0-or-later	• COPYING (L016), p. 46 • License template: GPL-2.0-or-later (L003), p. 29
iptables including supplied extensions	1.8.9	GPL-2.0-or-later	• COPYING (L038), p. 74 • License template: GPL-2.0-or-later (L003), p. 29 • iptables.c (L112), p. 231
iso15118-app	1.0	ChargeAmps AND Vector	• License template: Vector (L113), p. 231
iw	5.19	BSD-2-Clause	• COPYING (L114), p. 231 • License template: BSD-2-Clause (L059), p. 95
json-c	0.16	MIT	• COPYING (L115), p. 231 • License template: MIT (L020), p. 52
kbd	2.5.1	GPL-2.0-or-later	• COPYING (L038), p. 74 • License template: GPL-2.0-or-later (L003), p. 29
kmod (kmod)	30	GPL-2.0-or-later AND LGPL-2.1-or-later	• COPYING.0 (L009), p. 38 • COPYING.1 (L038), p. 74 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31

Component	Version	Licenses	Notices
libacl	2.3.1	LGPL-2.1-or-later	• COPYING (L001), p. 25 • COPYING.LGPL (L002), p. 27 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31
libaio	0.3.113	LGPL-2.1-or-later	• COPYING (L116), p. 231 • License template: LGPL-2.1-or-later (L004), p. 31
libattr	2.5.1	LGPL-2.1-or-later	• COPYING (L005), p. 33 • COPYING.LGPL (L006), p. 35 • attr.c (L007), p. 38 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31 • libattr.c (L008), p. 38
libbz2	1.0.8	bzip2-1.0.6	• COPYING (L017), p. 48 • LICENSE.0 (L024), p. 55 • LICENSE.1 (L025), p. 55 • LICENSE.txt (L026), p. 55 • License.txt (L027), p. 56 • License.zlib.txt (L028), p. 57 • License template: Apache-2.0 (L029), p. 58 • License template: BSD-3-Clause (L030), p. 58 • License template: GPL-3.0-or-later (L018), p. 50 • License template: MS-PL (L031), p. 59 • License template: Zlib (L032), p. 60 • License template: bzip2-1.0.6 (L033), p. 60
libcap	2.67	BSD-3-Clause OR GPL-2.0-only	• License (L117), p. 234 • License template: BSD-3-Clause (L030), p. 58 • License template: GPL-2.0-only (L015), p. 44
libdaemon	0.14	LGPL-2.1-or-later	• LICENSE (L009), p. 38 • daemon.h (L118), p. 237 • License template: LGPL-2.1-or-later (L004), p. 31

Component	Version	Licenses	Notices
libelf	0.188	GPL-2.0-only OR LGPL-3.0-or-later	• COPYING (L017), p. 48 • debuginfod-client.c (L068), p. 105 • License template: GPL-2.0-only (L015), p. 44 • License template: GPL-2.0-or-later (L003), p. 29 • License template: GPL-3.0-or-later (L018), p. 50 • License template: LGPL-3.0-or-later (L069), p. 105
libffi	3.4.4	MIT	• LICENSE (L119), p. 237 • License template: MIT (L020), p. 52
libgcc	12.3.0	GPL-3.0-with-GCC-exception	• COPYING (L097), p. 211 • COPYING.LIB (L009), p. 38 • COPYING.RUNTIME (L075), p. 138 • COPYING3 (L017), p. 48 • COPYING3.LIB (L098), p. 213 • License template: GPL-3.0-only (L120), p. 237 • License template: GPL-3.0-with-GCC-exception (L091), p. 150
libgcrypt	1.10.2	LGPL-2.1-or-later	• COPYING (L014), p. 43 • COPYING.LIB (L121), p. 245 • LICENSES (L122), p. 247 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31
libgpg-error	1.46	GPL-2.0-or-later AND LGPL-2.1-or-later	• COPYING (L097), p. 211 • COPYING.LIB (L009), p. 38 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31 • gpg-error.h.in (L123), p. 252 • init.c (L124), p. 252
libgpiod	2.0	GPL-2.0-or-later AND LGPL-2.1-or-later AND CC-BY-SA-4.0	• CC-BY-SA-4.0.txt (L125), p. 252 • GPL-2.0-or-later.txt (L038), p. 74 • LGPL-2.1-or-later.txt (L102), p. 216 • License template: CC-BY-SA-4.0 (L126), p. 258 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31

Component	Version	Licenses	Notices
libidn2	2.3.4	(GPL-2.0-or-later OR LGPL-3.0-only) AND Unicode-DFS-2016	• COPYING (L127), p. 264 • COPYING.LESSERv3 (L098), p. 213 • COPYING.unicode (L128), p. 265 • COPYINGv2 (L038), p. 74 • License template: GPL-2.0-or-later (L003), p. 29 • License template: GPL-3.0-or-later (L018), p. 50 • License template: LGPL-3.0-only (L129), p. 267 • License template: Unicode-DFS-2016 (L130), p. 269 • idn2.c (L131), p. 270 • idn2.h.in (L132), p. 270
libkmod (libkmod)	30	LGPL-2.1-or-later	• COPYING.0 (L009), p. 38 • COPYING.1 (L038), p. 74 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31
liblzma	5.4.4	PD	• COPYING (L245), p. 332 • COPYING.GPLv2 (L038), p. 74 • COPYING.GPLv3 (L036), p. 72 • COPYING.LGPLv2.1 (L102), p. 216 • License template: GPL-2.0-or-later (L003), p. 29 • License template: GPL-3.0-with-autoconf-exception (L246), p. 334 • License template: LGPL-2.1-or-later (L004), p. 31 • getopt.c (L247), p. 334
libmnl	1.0.5	LGPL-2.1-or-later	• COPYING (L102), p. 216 • License template: LGPL-2.1-or-later (L004), p. 31
libmpc	1.3.1	LGPL-3.0-only	• COPYING.LESSER (L098), p. 213 • License template: LGPL-3.0-only (L129), p. 267
libnl	3.7.0	LGPL-2.1-only	• COPYING (L102), p. 216 • License template: LGPL-2.1-only (L070), p. 105
libnsl2	2.0.0	LGPL-2.1-only	• COPYING (L102), p. 216 • License template: LGPL-2.1-only (L070), p. 105
libnss-mdns	0.15.1	LGPL-2.1-or-later	• LICENSE (L009), p. 38 • License template: LGPL-2.1-or-later (L004), p. 31

Component	Version	Licenses	Notices
libpcap	1.10.4	BSD-3-Clause	• LICENSE (L133), p. 270 • License template: BSD-3-Clause (L030), p. 58 • pcap.h (L134), p. 271
libpcre2	10.42	BSD-3-Clause	• LICENCE (L135), p. 271 • License template: BSD-3-Clause (L030), p. 58
libseccomp	2.5.4	LGPL-2.1-only	• LICENSE (L136), p. 273 • License template: LGPL-2.1-only (L070), p. 105
libssh	0.10.5	LGPL-2.1-only	• COPYING (L137), p. 274 • License template: LGPL-2.1-only (L070), p. 105
libstdc++	12.3.0	GPL-3.0-with-GCC-exception	• COPYING (L097), p. 211 • COPYING.LIB (L009), p. 38 • COPYING.RUNTIME (L075), p. 138 • COPYING3 (L017), p. 48 • COPYING3.LIB (L098), p. 213 • License template: GPL-3.0-with-GCC-exception (L091), p. 150
libtirpc	1.3.3	BSD-3-Clause	• COPYING (L138), p. 276 • License template: BSD-3-Clause (L030), p. 58 • netname.c (L139), p. 277
libubootenv	0.3.3	LGPL-2.1-or-later	• LGPL-2.1-or-later.txt (L102), p. 216 • License template: LGPL-2.1-or-later (L004), p. 31
libunistring	1.1	LGPL-3.0-or-later OR GPL-2.0-or-later	• COPYING.LIB (L098), p. 213 • README (L140), p. 277 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-3.0-or-later (L069), p. 105 • libunistring-notices.txt (L141), p. 278
libwrap	7.6	BSD-1-Clause	• DISCLAIMER (L228), p. 326 • License template: BSD-1-Clause (L229), p. 326
libxcrypt	4.4.33	LGPL-2.1-only	• COPYING.LIB (L102), p. 216 • LICENSING (L142), p. 278 • License template: LGPL-2.1-only (L070), p. 105

Component	Version	Licenses	Notices
libxml2	2.10.4	MIT	• Copyright (L143), p. 280 • License template: MIT (L020), p. 52 • hash.c (L144), p. 281 • list.c (L145), p. 281 • trio.c (L146), p. 281
libzstd	1.5.4	BSD-3-Clause AND GPL-2.0-only	• COPYING (L038), p. 74 • LICENSE (L249), p. 335 • License template: BSD-3-Clause (L030), p. 58 • License template: GPL-2.0-only (L015), p. 44
Linux kernel (linux-stm32mp) including supplied modules	6.1.82-stm32mp-r2	GPL-2.0-only	• COPYING (L147), p. 281 • License template: GPL-2.0-only (L015), p. 44
lumissil-sdk	1.0	ChargeAmps AND Lumissil AND MIT AND OpenSSL AND LGPL-2.1-or-later AND Synopsys	• Lumissil; generic_Lumissil (L106), p. 227 • License template: LGPL-2.1-or-later (L004), p. 31 • License template: MIT (L020), p. 52 • License template: OpenSSL (L109), p. 229 • License template: Synopsys (L108), p. 229
lvm2	2.03.16	GPL-2.0-only AND LGPL-2.1-only	• COPYING (L148), p. 282 • COPYING.LIB (L102), p. 216 • License template: GPL-2.0-only (L015), p. 44 • License template: LGPL-2.1-only (L070), p. 105
mmc-utils	0.1+gitAUTOINC+d4c2910981	GPL-2.0-only	• License template: GPL-2.0-only (L015), p. 44 • mmc.c (L164), p. 295
mobile-broadband-provider-info	20230416	PD	• COPYING (L165), p. 295
mpfr	4.2.1	LGPL-3.0-or-later	• COPYING (L036), p. 72 • COPYING.LESSER; generic_LGPL-3.0-or-later (L069), p. 105
ncurses	6.4	MIT	• COPYING (L166), p. 296 • License template: MIT (L020), p. 52

Component	Version	Licenses	Notices
neard	0.18	GPL-2.0-only	• COPYING (L016), p. 46 • License template: GPL-2.0-only (L015), p. 44 • near.h (L167), p. 296
net-tools	2.10	GPL-2.0-or-later	• COPYING (L038), p. 74 • License template: GPL-2.0-or-later (L003), p. 29 • ifconfig.c (L168), p. 297
netbase	6.4	GPL-2.0-only	• copyright (L169), p. 297 • License template: GPL-2.0-only (L015), p. 44
nng	1.5.2	MIT	• LICENSE.txt (L170), p. 297 • License template: MIT (L020), p. 52
ofono	2.0	GPL-2.0-only	• COPYING (L016), p. 46 • License template: GPL-2.0-only (L015), p. 44 • ofono.h (L171), p. 297
openssl	3.1.4	Apache-2.0	• LICENSE.txt (L172), p. 298 • License template: Apache-2.0 (L029), p. 58
opkg-utils	0.6.2	GPL-2.0-or-later	• COPYING (L014), p. 43 • License template: GPL-2.0-or-later (L003), p. 29 • opkg.py (L173), p. 298
optee-client	3.19.0+gitAUTOINC+140bf46304	BSD-2-Clause	• LICENSE (L174), p. 298 • License template: BSD-2-Clause (L059), p. 95
optee-os-stm32mp	3.19.0-stm32mp-r2	BSD-2-Clause AND BSD-3-Clause	• LICENSE (L175), p. 298 • License template: BSD-2-Clause (L059), p. 95 • License template: BSD-3-Clause (L030), p. 58
os-release	1.0	MIT	• License template: MIT (L020), p. 52
packagegroup-base	1.0	MIT	• License template: MIT (L020), p. 52
packagegroup-core-boot	1.0	MIT	• License template: MIT (L020), p. 52
pciutils	3.9.0	GPL-2.0-or-later	• COPYING (L038), p. 74 • License template: GPL-2.0-or-later (L003), p. 29

Component	Version	Licenses	Notices
phytool	2+gitAUTOINC+8882328c08	GPL-2.0-only	• LICENSE (L038), p. 74 • License template: GPL-2.0-only (L015), p. 44
popt	1.19	MIT	• COPYING (L176), p. 299 • License template: MIT (L020), p. 52
ppp	2.4.9	BSD-3-Clause AND BSD-3-Clause-Attribution AND GPL-2.0-or-later AND LGPL-2.0-or-later AND PD	• ccp.c (L177), p. 299 • chat.c (L178), p. 299 • License template: BSD-3-Clause (L030), p. 58 • License template: BSD-3-Clause-Attribution (L179), p. 299 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.0-or-later (L065), p. 101 • passprompt.c (L180), p. 300 • tdb.c (L181), p. 300
python3	3.11.5	PSF-2.0	• LICENSE (L182), p. 300 • License template: PSF-2.0 (L183), p. 305
python3-argcomplete	3.0.5	Apache-2.0	• LICENSE.rst (L184), p. 305 • License template: Apache-2.0 (L029), p. 58
python3-bitstring	3.1.9	MIT	• LICENSE (L185), p. 306 • License template: MIT (L020), p. 52
python3-cffi	1.15.1	MIT	• LICENSE (L186), p. 306 • License template: MIT (L020), p. 52
python3-cryptography	39.0.2	(Apache-2.0 OR BSD-3-Clause) AND PSF-2.0	• LICENSE (L187), p. 306 • LICENSE.APACHE (L188), p. 306 • LICENSE.BSD (L189), p. 307 • LICENSE.PSF (L190), p. 307 • License template: Apache-2.0 (L029), p. 58 • License template: BSD-3-Clause (L030), p. 58 • License template: PSF-2.0 (L183), p. 305
python3-ecdsa	0.18.0	MIT	• LICENSE (L191), p. 308 • License template: MIT (L020), p. 52

Component	Version	Licenses	Notices
python3-gmpy2	2.1.5	GPL-3.0-only OR LGPL-3.0-or-later	• COPYING (L017), p. 48 • COPYING.LESSER (L098), p. 213 • License template: GPL-3.0-only (L120), p. 237 • License template: LGPL-3.0-or-later (L069), p. 105
python3-intelhex	2.3.0	BSD-3-Clause	• LICENSE.txt (L192), p. 308 • License template: BSD-3-Clause (L030), p. 58
python3-pbr	5.11.1	Apache-2.0	• LICENSE (L193), p. 308 • License template: Apache-2.0 (L029), p. 58

Component	Version	Licenses	Notices
python3-pip	23.0.1	MIT AND Apache-2.0 AND MPL-2.0 AND LGPL-2.1-only AND BSD-3-Clause AND PSF-2.0 AND BSD-2-Clause	• COPYING (L194), p. 309 • LICENSE.0 (L195), p. 309 • LICENSE.1 (L102), p. 216 • LICENSE.10 (L196), p. 309 • LICENSE.11 (L197), p. 309 • LICENSE.12 (L026), p. 55 • LICENSE.13 (L198), p. 310 • LICENSE.14 (L199), p. 310 • LICENSE.2 (L055), p. 93 • LICENSE.3 (L200), p. 310 • LICENSE.4 (L201), p. 310 • LICENSE.5 (L202), p. 310 • LICENSE.6 (L203), p. 311 • LICENSE.7 (L111), p. 231 • LICENSE.8 (L204), p. 311 • LICENSE.9 (L193), p. 308 • LICENSE.APACHE (L184), p. 305 • LICENSE.md (L205), p. 311 • LICENSE.txt.0 (L206), p. 311 • LICENSE.txt.1 (L207), p. 311 • LICENSE.txt.2 (L208), p. 312 • LICENSE.txt.3 (L209), p. 312 • LICENSE.txt.4 (L210), p. 316 • License template: Apache-2.0 (L029), p. 58 • License template: BSD-2-Clause (L059), p. 95 • License template: BSD-3-Clause (L030), p. 58 • License template: LGPL-2.1-only (L070), p. 105 • License template: MIT (L020), p. 52 • License template: MPL-2.0 (L035), p. 66 • License template: PSF-2.0 (L183), p. 305 • six.LICENSE (L211), p. 316 • typing_extensions.LICENSE (L212), p. 317
python3-ply	3.11	BSD-3-Clause	• README.md (L213), p. 320 • License template: BSD-3-Clause (L030), p. 58
python3-pycparser	2.21	BSD-3-Clause	• LICENSE (L214), p. 321 • License template: BSD-3-Clause (L030), p. 58
python3-pyserial	3.5	BSD-3-Clause	• LICENSE.txt (L215), p. 321 • License template: BSD-3-Clause (L030), p. 58

Component	Version	Licenses	Notices
python3-reedsolo	1.7.0	Unlicense	• LICENSE (L216), p. 322 • License template: Unlicense (L217), p. 323
python3-setuptools	67.6.0	MIT	• LICENSE (L218), p. 323 • License template: MIT (L020), p. 52
python3-six	1.16.0	MIT	• LICENSE (L211), p. 316 • License template: MIT (L020), p. 52
qdloader	1.0.12	Quectel-QDLoader	• Quectel-QDLoader; generic_Quectel-QDLoader (L219), p. 323
Quectel Wireless Solutions Co., Ltd. — modem firmware (lte)	EG915UEUABR03A01M08_01.305.01.305	Proprietary	—
readline	8.2	GPL-3.0-or-later	• COPYING (L017), p. 48 • License template: GPL-3.0-or-later (L018), p. 50
resize-helper	1.0	GPL-2.0-or-later	• GPL-2.0-or-later; generic_GPL-2.0-or-later (L003), p. 29
run-postinsts	1.0	MIT	• COPYING.MIT (L111), p. 231 • License template: MIT (L020), p. 52
secure-storage	0.1	GPL-2.0-only	• LICENSE (L224), p. 324 • License template: GPL-2.0-only (L015), p. 44
shadow	4.13	BSD-3-Clause	• COPYING (L225), p. 324 • License template: BSD-3-Clause (L030), p. 58 • passwd.c (L226), p. 325
shadow-securetty	4.6	MIT	• COPYING.MIT (L111), p. 231 • License template: MIT (L020), p. 52
shared-mime-info	2.2	GPL-2.0-only	• COPYING (L038), p. 74 • License template: GPL-2.0-only (L015), p. 44
socat	1.7.4.4	GPL-2.0-with-OpenSSL-exception	• COPYING (L038), p. 74 • README (L227), p. 325 • License template: GPL-2.0-with-OpenSSL-exception (L040), p. 78

Component	Version	Licenses	Notices
st-initrd	1.0	MIT	• COPYING.MIT (L111), p. 231 • License template: MIT (L020), p. 52
stm32mp-extlinux	3.1.1	MIT	• MIT; generic_MIT (L020), p. 52
stm32mp1-rpmsg-netlink-kernel-module	1.0+gitAUTOINC+998f61db13	MIT	• COPYING.MIT (L111), p. 231 • License template: MIT (L020), p. 52
stm32mp1sign	1.0	GPL-2.0-only	• LICENSE (L038), p. 74 • License template: GPL-2.0-only (L015), p. 44
systemd	253.1	GPL-2.0-only AND LGPL-2.1-only	• LICENSE.GPL2 (L038), p. 74 • LICENSE.LGPL2.1 (L102), p. 216 • License template: GPL-2.0-only (L015), p. 44 • License template: LGPL-2.1-only (L070), p. 105
systemd-compat-units	1.0	MIT	• License template: MIT (L020), p. 52
systemd-conf	1.0	MIT	• COPYING.MIT (L111), p. 231 • License template: MIT (L020), p. 52
systemd-serialgetty	1.0	GPL-2.0-or-later	• GPL-2.0-only (L015), p. 44 • License template: GPL-2.0-or-later (L003), p. 29
tf-a-stm32mp	v2.8.15-stm32mp-r2	BSD-3-Clause AND Apache-2.0	• LICENSE (L026), p. 55 • License template: Apache-2.0 (L029), p. 58 • License template: BSD-3-Clause (L030), p. 58 • license.rst (L230), p. 326
tzdata	2023c	PD AND BSD-3-Clause	• LICENSE (L231), p. 326 • License template: BSD-3-Clause (L030), p. 58
u-boot-fw-config-stm32mp	2021.10	MIT	• MIT; generic_MIT (L020), p. 52
u-boot-stm32mp	v2022.10-stm32mp-r2	GPL-2.0-or-later	• README (L232), p. 326 • License template: GPL-2.0-or-later (L003), p. 29
u-boot-tools	2023.01	GPL-2.0-or-later	• README (L232), p. 326 • License template: GPL-2.0-or-later (L003), p. 29

Component	Version	Licenses	Notices
update-rc.d	0.8	GPL-2.0-or-later	• License template: GPL-2.0-or-later (L003), p. 29 • update-rc.d (L233), p. 329
util-linux (util-linux-agetty, util-linux-blkid, util-linux-findmnt, util-linux-fsck, util-linux-lsblk, util-linux-mount, util-linux-sulogin, util-linux-umount)	2.38.1	GPL-2.0-or-later AND LGPL-2.1-or-later AND BSD-3-Clause AND BSD-4-Clause	• COPYING.0; COPYING.GPL-2.0-or-later (L038), p. 74 • COPYING.1 (L234), p. 329 • COPYING.2 (L235), p. 329 • COPYING.3 (L236), p. 329 • COPYING.BSD-3-Clause (L060), p. 95 • COPYING.BSD-4-Clause-UC (L237), p. 329 • COPYING.LGPL-2.1-or-later (L102), p. 216 • README.licensing (L238), p. 330 • License template: BSD-3-Clause (L030), p. 58 • License template: BSD-4-Clause (L239), p. 330 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31
util-linux (util-linux-libblkid, util-linux-libmount, util-linux-libsmartcols)	2.38.1	LGPL-2.1-or-later	• COPYING.0; COPYING.GPL-2.0-or-later (L038), p. 74 • COPYING.1 (L234), p. 329 • COPYING.2 (L235), p. 329 • COPYING.3 (L236), p. 329 • COPYING.BSD-3-Clause (L060), p. 95 • COPYING.BSD-4-Clause-UC (L237), p. 329 • COPYING.LGPL-2.1-or-later (L102), p. 216 • README.licensing (L238), p. 330 • License template: BSD-3-Clause (L030), p. 58 • License template: BSD-4-Clause (L239), p. 330 • License template: GPL-2.0-or-later (L003), p. 29 • License template: LGPL-2.1-or-later (L004), p. 31

Component	Version	Licenses	Notices
util-linux-libuuid	2.38.1	BSD-3-Clause	• COPYING.0; COPYING.GPL-2.0-or-later (L038), p. 74 • COPYING.1 (L234), p. 329 • COPYING.2 (L235), p. 329 • COPYING.3 (L236), p. 329 • COPYING.BSD-3-Clause (L060), p. 95 • COPYING.BSD-4-Clause-UC (L237), p. 329 • COPYING.LGPL-2.1-or-later (L102), p. 216 • README.licensing (L238), p. 330 • License template: BSD-3-Clause (L030), p. 58
volatile-binds	1.0	MIT	• COPYING.MIT (L111), p. 231 • License template: MIT (L020), p. 52
wifi	a2	Apache-2.0	• Apache-2.0; generic_Apache-2.0 (L029), p. 58
wireless-regdb	2023.09.01	ISC	• LICENSE (L240), p. 331 • License template: ISC (L241), p. 331
wpa-supplicant	2.10	BSD-3-Clause	• COPYING (L242), p. 331 • README (L243), p. 332 • License template: BSD-3-Clause (L030), p. 58 • wpa_supplicant.c (L244), p. 332
zlib	1.2.13	Zlib	• License template: Zlib (L032), p. 60 • zlib.h (L248), p. 335

Component notices

Go runtime and standard library — go1.20.7

Licenses and notices: LICENSE (+3 files) (L024), p. 55, PATENTS (+3 files) (L265), p. 338, abi.go (+19 files) (L266), p. 338, cpu.go (+25 files) (L267), p. 338, bytealg.go (+30 files) (L268), p. 338, equal_generic.go (+19 files) (L269), p. 339, atomic_arm.go (+199 files) (L270), p. 339, types.go (+20 files) (L271), p. 339, atomic_arm.s (+21 files) (L272), p. 339, syscall_linux.go (+34 files) (L273), p. 339, alg.go (+30 files) (L274), p. 339, cgocallback.go (+58 files) (L275), p. 339, env_posix.go (+20 files) (L276), p. 339, error.go (+42 files) (L277), p. 339, netpoll.go (+21 files) (L278), p. 339, security_unix.go (L279), p. 339, sigaction.go (+30 files) (L280), p. 340, vlrt.go (L281), p. 340, memclr_arm.s (L282), p. 340, memmove_arm.s (L283), p. 340, vlop_arm.s (L284), p. 341, log.go (L285), p. 341, error.go (L286), p. 342, elf.go (L287), p. 342, block.go (L288), p. 343, fe.go (+2 files) (L289), p. 344, fe_amd64_noasm.go (+2 files) (L290), p. 344, fe_arm64_noasm.go (L291), p. 344, scalar.go (L292), p. 344, scalar.go (L293), p. 344, md5block_arm.s (L294), p. 344, sha1block_arm.s (L295), p. 345, xor.go (L296), p. 345, multipart.go (L297), p. 345, transport.go (L298), p. 345, transport.go (L299), p. 345, transport.go (L300), p. 345, transport.go (L301), p. 345, testing.go (L302), p. 345.

License identifiers

Generic license templates may contain placeholders or example copyright notices. They do not replace the component-specific notices referenced in this document.

- AFL-2.1: AFL-2.1 license template (L053), p. 90
- Apache-2.0: Apache-2.0 license template (L029), p. 58
- Apache-2.0-with-LLVM-exception: Apache-2.0-with-LLVM-exception license template (L089), p. 147
- Atmel-Microcontroller: Atmel-Microcontroller license template (L161), p. 294
- BSD-1-Clause: BSD-1-Clause license template (L229), p. 326
- BSD-2-Clause: BSD-2-Clause license template (L059), p. 95
- BSD-2-Clause-FreeBSD: BSD-2-Clause-FreeBSD license template (L071), p. 111
- BSD-3-Clause: BSD-3-Clause license template (L030), p. 58
- BSD-3-Clause-Attribution: BSD-3-Clause-Attribution license template (L179), p. 299
- BSD-4-Clause: BSD-4-Clause license template (L239), p. 330
- CC-BY-SA-4.0: CC-BY-SA-4.0 license template (L126), p. 258
- CC0-1.0: CC0-1.0 license template (L090), p. 148
- GPL-2.0-only: GPL-2.0-only license template (L015), p. 44
- GPL-2.0-or-later: GPL-2.0-or-later license template (L003), p. 29
- GPL-2.0-with-OpenSSL-exception: GPL-2.0-with-OpenSSL-exception license template (L040), p. 78
- GPL-3.0-only: GPL-3.0-only license template (L120), p. 237
- GPL-3.0-or-later: GPL-3.0-or-later license template (L018), p. 50
- GPL-3.0-with-GCC-exception: GPL-3.0-with-GCC-exception license template (L091), p. 150
- ISC: ISC license template (L241), p. 331
- LGPL-2.0-only: LGPL-2.0-only license template (L065), p. 101
- LGPL-2.0-or-later: LGPL-2.0-or-later license template (L065), p. 101
- LGPL-2.1-only: LGPL-2.1-only license template (L070), p. 105
- LGPL-2.1-or-later: LGPL-2.1-or-later license template (L004), p. 31
- LGPL-3.0-only: LGPL-3.0-only license template (L129), p. 267
- LGPL-3.0-or-later: LGPL-3.0-or-later license template (L069), p. 105
- Lumissil: Lumissil license template (L106), p. 227
- MIT: MIT license template (L020), p. 52
- MPL-2.0: MPL-2.0 license template (L035), p. 66
- Microchip-Products-2018: Microchip-Products-2018 license template (L162), p. 294
- Newlib: Newlib license template (L074), p. 123
- OpenSSL: OpenSSL license template (L109), p. 229
- PD
- PSF-2.0: PSF-2.0 license template (L183), p. 305
- Proprietary
- Quectel-QDLoader: Quectel-QDLoader license template (L219), p. 323
- ST-SLA0044-Rev5: ST-SLA0044-Rev5 license template (L154), p. 287
- ST-SLA0044-Rev6: ST-SLA0044-Rev6 license template (L155), p. 288
- ST-SLA0048-Rev4: ST-SLA0048-Rev4 license template (L156), p. 290
- ST-SLA0048-Rev5: ST-SLA0048-Rev5 license template (L157), p. 291
- Synopsys: Synopsys license template (L108), p. 229
- Unicode-DFS-2016: Unicode-DFS-2016 license template (L130), p. 269
- Unlicense: Unlicense license template (L217), p. 323
- Vector: Vector license template (L113), p. 231
- Zlib: Zlib license template (L032), p. 60
- bzip2-1.0.4: bzip2-1.0.4 license template (L023), p. 55
- bzip2-1.0.6: bzip2-1.0.6 license template (L033), p. 60
- curl: curl license template (L042), p. 82

License texts and notices

Index of shared license terms, p. 345

Appendix L001 — libacl — COPYING

```
Most components of the "acl" package are licensed under
Version 2.1 of the GNU Lesser General Public License (see COPYING.LGPL).

Some components (as annotated in the source) are licensed
under Version 2 of the GNU General Public License (see below),

------------------------------------------------------------------------

                    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

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.

Appendix L002 — libacl — COPYING.LGPL

Most components of the "acl" package are licensed under
Version 2.1 of the GNU Lesser General Public License (see below).
below.

Some components (as annotated in the source) are licensed
under Version 2 of the GNU General Public License (see COPYING).

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

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!

Appendix L003 — Shared license text and notices

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.

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 an idea of what it does.>

Copyright (C) <yyyy> <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.

Appendix L004 — Shared license text and notices

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.

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 an 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!

Appendix L005 — libattr — COPYING

Most components of the "attr" package are licensed under
Version 2.1 of the GNU Lesser General Public License (see COPYING.LGPL).

Some components (as annotated in the source) are licensed
under Version 2 of the GNU General Public License (see below),

---

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

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.
```

Appendix L006 — libattr — COPYING.LGPL

```
Most components of the "attr" package are licensed under
Version 2.1 of the GNU Lesser General Public License (see below).
below.

Some components (as annotated in the source) are licensed
under Version 2 of the GNU General Public License (see COPYING).

------------------------------------------------------------------------

                  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

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!
```

Appendix L007 — libattr — attr.c

```
/*
 * Copyright (c) 2000-2002,2004 Silicon Graphics, Inc.
 * All Rights Reserved.
 *
 * 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, see <http://www.gnu.org/licenses/>.
 */
```

Appendix L008 — libattr — libattr.c

```
/*
 * Copyright (c) 2001-2003,2005 Silicon Graphics, Inc.
 * All Rights Reserved.
 *
 * This program 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 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 Lesser General Public License for more details.
 *
 * You should have received a copy of the GNU Lesser General Public License
 * along with this program.  If not, see <http://www.gnu.org/licenses/>.
 */
```

Appendix L009 — Shared license text and notices

```
                  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.]

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

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 St, 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!
```

Appendix L010 — avahi — address.h

```
#ifndef fooaddresshfoo
#define fooaddresshfoo

/***
  This file is part of avahi.

  avahi 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.

  avahi 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 avahi; if not, write to the Free Software
  Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307
  USA.
***/

/** \file address.h Definitions and functions to manipulate IP addresses. */

#include <inttypes.h>
```

Appendix L011 — avahi — client.h

```
#ifndef fooclienthfoo
#define fooclienthfoo

/***
  This file is part of avahi.

  avahi 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.

  avahi 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 avahi; if not, write to the Free Software
  Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307
  USA.
***/

#include <inttypes.h>
```

Appendix L012 — avahi — dns.h

```
#ifndef foodnshfoo
#define foodnshfoo

/***
  This file is part of avahi.

  avahi 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.

  avahi 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 avahi; if not, write to the Free Software
  Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307
  USA.
***/

#include "rr.h"
```

Appendix L013 — avahi — main.c

```
/***
  This file is part of avahi.

  avahi 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.

  avahi 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 avahi; if not, write to the Free Software
  Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307
  USA.
***/

#ifdef HAVE_CONFIG_H
#include <config.h>
```

Appendix L014 — Shared license text and notices

GNU GENERAL PUBLIC LICENSE
Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.
59 Temple Place, Suite 330, Boston, MA 02111-1307 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 Library 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

GNU GPL 2.0 terms — variant 1 (S001), p. 346

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., 59 Temple Place, Suite 330, Boston, MA  02111-1307  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 Library General
Public License instead of this License.
```

Appendix L015 — Shared license text and notices

```
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.

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 an idea of what it does.
Copyright (C) yyyy 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.

Appendix L016 — Shared license text and notices

GNU GENERAL PUBLIC LICENSE
Version 2, June 1991

Copyright (C) 1989, 1991 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.

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 Library 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

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 St, 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 Library General Public License instead of this License.

Appendix L017 — Shared license text and notices

```
                    GNU GENERAL PUBLIC LICENSE
                       Version 3, 29 June 2007

 Copyright (C) 2007 Free Software Foundation, Inc. <http://fsf.org/>
 Everyone is permitted to copy and distribute verbatim copies
 of this license document, but changing it is not allowed.

                            Preamble

  The GNU General Public License is a free, copyleft license for
software and other kinds of works.

  The licenses for most software and other practical works are designed
to take away your freedom to share and change the works.  By contrast,
the GNU General Public License is intended to guarantee your freedom to
share and change all versions of a program--to make sure it remains free
software for all its users.  We, the Free Software Foundation, use the
GNU General Public License for most of our software; it applies also to
any other work released this way by its authors.  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
them 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 prevent others from denying you
these rights or asking you to surrender the rights.  Therefore, you have
certain responsibilities if you distribute copies of the software, or if
you modify it: responsibilities to respect the freedom of others.

  For example, if you distribute copies of such a program, whether
gratis or for a fee, you must pass on to the recipients the same
freedoms that you received.  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.

  Developers that use the GNU GPL protect your rights with two steps:
(1) assert copyright on the software, and (2) offer you this License
giving you legal permission to copy, distribute and/or modify it.
```

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

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

17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

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 state 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 3 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, see <http://www.gnu.org/licenses/>.

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

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

    <program>  Copyright (C) <year>  <name of author>
    This program 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, your program's commands
might be different; for a GUI interface, you would use an "about box".

  You should also get your employer (if you work as a programmer) or school,
if any, to sign a "copyright disclaimer" for the program, if necessary.
For more information on this, and how to apply and follow the GNU GPL, see
<http://www.gnu.org/licenses/>.

  The GNU 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.  But first, please read
<http://www.gnu.org/philosophy/why-not-lgpl.html>.
```

Appendix L018 — Shared license text and notices

```
GNU GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright © 2007 Free Software Foundation, Inc. <https://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this license
document, but changing it is not allowed.

Preamble

The GNU General Public License is a free, copyleft license for software and
other kinds of works.

The licenses for most software and other practical works are designed to take
away your freedom to share and change the works. By contrast, the GNU General
Public License is intended to guarantee your freedom to share and change all
versions of a program--to make sure it remains free software for all its users.
We, the Free Software Foundation, use the GNU General Public License for most
of our software; it applies also to any other work released this way by its
authors. 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 them 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 prevent others from denying you these rights
or asking you to surrender the rights. Therefore, you have certain responsibilities
if you distribute copies of the software, or if you modify it: responsibilities
to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or
for a fee, you must pass on to the recipients the same freedoms that you received.
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.
```

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

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

GNU GPL 3.0 terms — variant 1 (S004), p. 357

17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee. 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 state 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 3 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, see <https://www.gnu.org/licenses/>.

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

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

<program> Copyright (C) <year> <name of author>

This program 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, your program's commands might
be different; for a GUI interface, you would use an "about box".

You should also get your employer (if you work as a programmer) or school,
if any, to sign a "copyright disclaimer" for the program, if necessary. For
more information on this, and how to apply and follow the GNU GPL, see <https://www.gnu.org/
licenses/>.

The GNU 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. But first, please read <https://www.gnu.org/
licenses /why-not-lgpl.html>.
```

Appendix L019 — bluez5 — main.c

```
// SPDX-License-Identifier: GPL-2.0-or-later
/*
 *
 *  BlueZ - Bluetooth protocol stack for Linux
 *
 *  Copyright (C) 2000-2001  Qualcomm Incorporated
 *  Copyright (C) 2002-2003  Maxim Krasnyansky <maxk@qualcomm.com>
 *  Copyright (C) 2002-2010  Marcel Holtmann <marcel@holtmann.org>
 *
 *
 */

#ifdef HAVE_CONFIG_H
#include <config.h>
#endif

#define _GNU_SOURCE
#include <errno.h>
#include <stdio.h>
#include <unistd.h>
#include <stdlib.h>
#include <string.h>
#include <signal.h>
#include <stdbool.h>
```

Appendix L020 — Shared license text and notices

```
MIT License

Copyright (c) <year> <copyright holders>
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L021 — busybox — LICENSE.0

```
--- A note on GPL versions

BusyBox is distributed under version 2 of the General Public License (included
in its entirety, below).  Version 2 is the only version of this license which
this version of BusyBox (or modified versions derived from this one) may be
distributed under.

----------------------------------------------------------------------
                    GNU GENERAL PUBLIC LICENSE
                       Version 2, June 1991

 Copyright (C) 1989, 1991 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.

                            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 Library 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.
```

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 St, 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 Library General Public License instead of this License.

Appendix L022 — busybox — LICENSE.1

```
bzip2 applet in busybox is based on lightly-modified source
of bzip2 version 1.0.4. bzip2 source is distributed
under the following conditions (copied verbatim from LICENSE file)
============================================================


This program, "bzip2", the associated library "libbzip2", and all
documentation, are copyright (C) 1996-2006 Julian R Seward.  All
rights reserved.
```

BSD-style redistribution terms — variant 1 (S006), p. 365

```


Julian Seward, Cambridge, UK.
jseward@bzip.org
bzip2/libbzip2 version 1.0.4 of 20 December 2006
```

Appendix L023 — busybox — License template: bzip2-1.0.4

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

This program, "bzip2", the associated library "libbzip2", and all
documentation, are copyright (C) 1996-2006 Julian R Seward.  All
rights reserved.
```

BSD-style redistribution terms — variant 1 (S006), p. 365

```


Julian Seward, Cambridge, UK.
jseward@bzip.org
bzip2/libbzip2 version 1.0.4 of 20 December 2006

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

Appendix L024 — Shared license text and notices

```
Copyright (c) 2009 The Go Authors. All rights reserved.
```

BSD-style redistribution terms — variant 2 (S007), p. 365

Appendix L025 — libbz2 — LICENSE.1

```
This program, "bzip2", the associated library "libbzip2", and all
documentation, are copyright (C) 1996-2019 Julian R Seward.  All
rights reserved.
```

BSD-style redistribution terms — variant 1 (S006), p. 365

Appendix L026 — Shared license text and notices

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

Apache 2.0 terms — variant 1 (S008), p. 366

```
   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.
```

Appendix L027 — libbz2 — License.txt

```
Microsoft Public License (Ms-PL)

This license governs use of the accompanying software, the DotNetZip library ("the software").
If you use the software, you accept this license. If you do not accept the license, do not use
the software.

1. Definitions

The terms "reproduce," "reproduction," "derivative works," and "distribution" have the same
meaning here as under U.S. copyright law.

A "contribution" is the original software, or any additions or changes to the software.

A "contributor" is any person that distributes its contribution under this license.

"Licensed patents" are a contributor's patent claims that read directly on its contribution.

2. Grant of Rights

(A) Copyright Grant- Subject to the terms of this license, including the license conditions
and limitations in section 3, each contributor grants you a non-exclusive, worldwide, royalty-
free copyright license to reproduce its contribution, prepare derivative works of its
contribution, and distribute its contribution or any derivative works that you create.

(B) Patent Grant- Subject to the terms of this license, including the license conditions and
limitations in section 3, each contributor grants you a non-exclusive, worldwide, royalty-free
license under its licensed patents to make, have made, use, sell, offer for sale, import, and/
or otherwise dispose of its contribution in the software or derivative works of the
contribution in the software.

3. Conditions and Limitations

(A) No Trademark License- This license does not grant you rights to use any contributors'
name, logo, or trademarks.

(B) If you bring a patent claim against any contributor over patents that you claim are
infringed by the software, your patent license from such contributor to the software ends
automatically.
```

(C) If you distribute any portion of the software, you must retain all copyright, patent, trademark, and attribution notices that are present in the software.

(D) If you distribute any portion of the software in source code form, you may do so only under this license by including a complete copy of this license with your distribution. If you distribute any portion of the software in compiled or object code form, you may only do so under a license that complies with this license.

(E) The software is licensed "as-is." You bear the risk of using it. The contributors give no express warranties, guarantees or conditions. You may have additional consumer rights under your local laws which this license cannot change. To the extent permitted under your local laws, the contributors exclude the implied warranties of merchantability, fitness for a particular purpose and non-infringement.

Appendix L028 — libbz2 — License.zlib.txt

The following licenses govern use of the accompanying software, the DotNetZip library ("the software"). If you use the software, you accept these licenses. If you do not accept the license, do not use the software.

The managed ZLIB code included in Ionic.Zlib.dll and Ionic.Zip.dll is modified code, based on jzlib.

The following notice applies to jzlib:

Copyright (c) 2000,2001,2002,2003 ymnk, JCraft,Inc. All rights reserved.

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

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

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. The names of the authors may not be used to endorse or promote products derived from this software without specific prior written permission.

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

---

jzlib is based on zlib-1.1.3.

The following notice applies to zlib:

Copyright (C) 1995-2004 Jean-loup Gailly and Mark Adler

  The ZLIB 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
```

Appendix L029 — Shared license text and notices

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

Apache 2.0 terms — variant 1 (S008), p. 366

```
   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.
```

Appendix L030 — Shared license text and notices

```
Copyright (c) <YEAR>, <OWNER>
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 <ORGANIZATION> 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.

Appendix L031 — libbz2 — License template: MS-PL

Microsoft Public License (Ms-PL)

This license governs use of the accompanying software. If you use the software, you accept this license. If you do not accept the license, do not use the software.

Definitions
The terms "reproduce," "reproduction," "derivative works," and "distribution" have the same meaning here as under U.S. copyright law. A "contribution" is the original software, or any additions or changes to the software. A "contributor" is any person that distributes its contribution under this license. "Licensed patents" are a contributor`s patent claims that read directly on its contribution.
Grant of Rights
(A) Copyright Grant- Subject to the terms of this license, including the license conditions and limitations in section 3, each contributor grants you a non-exclusive, worldwide, royalty-free copyright license to reproduce its contribution, prepare derivative works of its contribution, and distribute its contribution or any derivative works that you create.
(B) Patent Grant- Subject to the terms of this license, including the license conditions and limitations in section 3, each contributor grants you a non-exclusive, worldwide, royalty-free license under its licensed patents to make, have made, use, sell, offer for sale, import, and/or otherwise dispose of its contribution in the software or derivative works of the contribution in the software.
Conditions and Limitations
(A) No Trademark License- This license does not grant you rights to use any contributors` name, logo, or trademarks.
(B) If you bring a patent claim against any contributor over patents that you claim are infringed by the software, your patent license from such contributor to the software ends automatically.
(C) If you distribute any portion of the software, you must retain all copyright, patent, trademark, and attribution notices that are present in the software.
(D) If you distribute any portion of the software in source code form, you may do so only under this license by including a complete copy of this license with your distribution. If you distribute any portion of the software in compiled or object code form, you may only do so under a license that complies with this license.
(E) The software is licensed "as-is." You bear the risk of using it. The contributors give no express warranties, guarantees, or conditions. You may have additional consumer rights under your local laws which this license cannot change. To the extent permitted under your local laws, the contributors exclude the implied warranties of merchantability, fitness for a particular purpose and non-infringement.

Appendix L032 — Shared license text and notices

```
zlib License


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

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

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

Appendix L033 — libbz2 — License template: bzip2-1.0.6

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

This program, "bzip2", the associated library "libbzip2", and all
documentation, are copyright (C) 1996-2010 Julian R Seward.  All
rights reserved.
```

BSD-style redistribution terms — variant 1 (S006), p. 365

```


Julian Seward, jseward@bzip.org
bzip2/libbzip2 version 1.0.6 of 6 September 2010

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

Appendix L034 — ca-certificates — copyright

```
Format: https://www.debian.org/doc/packaging-manuals/copyright-format/1.0/
Source: http://ftp.debian.org/debian/pool/main/c/ca-certificates/

Files: debian/*
       examples/*
       Makefile
       mozilla/*
       sbin/*
Copyright: 2003 Fumitoshi UKAI <ukai@debian.or.jp>
           2009 Philipp Kern <pkern@debian.org>
           2011 Michael Shuler <michael@pbandjelly.org>
           Various Debian Contributors
License: GPL-2+
 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 St, Fifth Floor, Boston, MA 02110-1301,
 USA.
 .
 On Debian GNU/Linux systems, the complete text of the GNU General Public
 License can be found in '/usr/share/common-licenses/GPL-2'.

Files: mozilla/certdata.txt
       mozilla/nssckbi.h
Copyright: Mozilla Contributors
Comment: Original Copyright: 1994-2000 Netscape Communications Corporation
                             (certdata.txt <= CVS Revision: 1.82)
         NSS no longer contains explicit copyright. Upstream indicates
         that "Mozilla Contributors" is an appropriate attibution for the
         required Copyright: field in Debian's machine-readable format.
         https://bugzilla.mozilla.org/show_bug.cgi?id=850003
License: MPL-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 http://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.
```

Appendix L035 — Shared license text and notices

```
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 http://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.

Appendix L036 — Shared license text and notices

```
                    GNU GENERAL PUBLIC LICENSE
                       Version 3, 29 June 2007

 Copyright (C) 2007 Free Software Foundation, Inc. <https://fsf.org/>
 Everyone is permitted to copy and distribute verbatim copies
 of this license document, but changing it is not allowed.

                            Preamble

  The GNU General Public License is a free, copyleft license for
software and other kinds of works.

  The licenses for most software and other practical works are designed
to take away your freedom to share and change the works.  By contrast,
the GNU General Public License is intended to guarantee your freedom to
share and change all versions of a program--to make sure it remains free
software for all its users.  We, the Free Software Foundation, use the
GNU General Public License for most of our software; it applies also to
any other work released this way by its authors.  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
them 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 prevent others from denying you
these rights or asking you to surrender the rights.  Therefore, you have
certain responsibilities if you distribute copies of the software, or if
you modify it: responsibilities to respect the freedom of others.

  For example, if you distribute copies of such a program, whether
gratis or for a fee, you must pass on to the recipients the same
freedoms that you received.  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.

  Developers that use the GNU GPL protect your rights with two steps:
(1) assert copyright on the software, and (2) offer you this License
giving you legal permission to copy, distribute and/or modify it.

  For the developers' and authors' protection, the GPL clearly explains
that there is no warranty for this free software.  For both users' and
authors' sake, the GPL requires that modified versions be marked as
changed, so that their problems will not be attributed erroneously to
authors of previous versions.

  Some devices are designed to deny users access to install or run
modified versions of the software inside them, although the manufacturer
can do so.  This is fundamentally incompatible with the aim of
protecting users' freedom to change the software.  The systematic
pattern of such abuse occurs in the area of products for individuals to
use, which is precisely where it is most unacceptable.  Therefore, we
have designed this version of the GPL to prohibit the practice for those
products.  If such problems arise substantially in other domains, we
stand ready to extend this provision to those domains in future versions
of the GPL, as needed to protect the freedom of users.

  Finally, every program is threatened constantly by software patents.
States should not allow patents to restrict development and use of
software on general-purpose computers, but in those that do, we wish to
avoid the special danger that patents applied to a free program could
make it effectively proprietary.  To prevent this, the GPL assures that
patents cannot be used to render the program non-free.
```

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

17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

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 state 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 3 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, see <https://www.gnu.org/licenses/>.
```

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

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

```
    <program>  Copyright (C) <year>  <name of author>
    This program 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, your program's commands might be different; for a GUI interface, you would use an "about box".

You should also get your employer (if you work as a programmer) or school, if any, to sign a "copyright disclaimer" for the program, if necessary. For more information on this, and how to apply and follow the GNU GPL, see <https://www.gnu.org/licenses/>.

The GNU 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. But first, please read
<https://www.gnu.org/licenses/why-not-lgpl.html>.

Appendix L037 — coreutils — ls.c

```
/* 'dir', 'vdir' and 'ls' directory listing programs for GNU.
   Copyright (C) 1985-2022 Free Software Foundation, Inc.

   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 3 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, see <https://www.gnu.org/licenses/>.  */
```

Appendix L038 — Shared license text and notices

```
                    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

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.

Appendix L039 — cryptsetup — COPYING

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.

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.

In addition, as a special exception, the copyright holders give
permission to link the code of portions of this program with the
OpenSSL library under certain conditions as described in each
individual source file, and distribute linked combinations
including the two.

You must obey the GNU General Public License in all respects
for all of the code used other than OpenSSL. If you modify
file(s) with this exception, you may extend this exception to your
version of the file(s), but you are not obligated to do so. If you
do not wish to do so, delete this exception statement from your
version. If you delete this exception statement from all source
files in the program, then also delete it here.

Appendix L040 — Shared license text and notices

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 GPL 2.0 terms — variant 2 (S003), p. 354

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 an idea of what it does.
Copyright (C) yyyy 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.

In addition, as a special exception, the copyright holder
gives permission to link the code of this program with
any version of the OpenSSL library which is distributed
under a license identical to that listed in the included
COPYING.OpenSSL file, and distribute linked combinations
including the two. You must obey the GNU General Public
License in all respects for all of the code used other
than OpenSSL. If you modify this file, you may extend this
exception to your version of the file, but you are not
obligated to do so. If you do not wish to do so, delete
this exception statement from your version.

```
   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, version 2 of the License

   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., 675 Mass Ave, Cambridge, MA 02139, USA.


  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.

  OpenSSL License
  ---------------

/* ====================================================================
 * Copyright (c) 1998-2002 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.]
 */
```

Appendix L041 — curl — COPYING

```
COPYRIGHT AND PERMISSION NOTICE

Copyright (c) 1996 - 2023, Daniel Stenberg, <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.
```

Appendix L042 — curl — License template: curl

```
COPYRIGHT AND PERMISSION NOTICE

Copyright (c) 1996 - 2015, Daniel Stenberg, <daniel@haxx.se>.
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.
```

Appendix L043 — Shared license text and notices

```
dbus is licensed to you under your choice of the Academic Free
License version 2.1, or the GNU General Public License version 2
(or, at your option any later version).

Both licenses are included here. Some of the standalone binaries are
under the GPL only; in particular, but not limited to,
tools/dbus-cleanup-sockets.c and test/decode-gcov.c. Each source code
file is marked with the proper copyright information - if you find a
file that isn't marked please bring it to our attention.

The Academic Free License
v. 2.1

This Academic Free License (the "License") applies to any original work of authorship (the
"Original Work") whose owner (the "Licensor") has placed the following notice immediately
following the copyright notice for the Original Work:
```

Licensed under the Academic Free License version 2.1

1) Grant of Copyright License. Licensor hereby grants You a world-wide, royalty-free, non-exclusive, perpetual, sublicenseable license to do the following:

a) to reproduce the Original Work in copies;

b) to prepare derivative works ("Derivative Works") based upon the Original Work;

c) to distribute copies of the Original Work and Derivative Works to the public;

d) to perform the Original Work publicly; and

e) to display the Original Work publicly.

2) Grant of Patent License. Licensor hereby grants You a world-wide, royalty-free, non-exclusive, perpetual, sublicenseable license, under patent claims owned or controlled by the Licensor that are embodied in the Original Work as furnished by the Licensor, to make, use, sell and offer for sale the Original Work and Derivative Works.

3) Grant of Source Code License. The term "Source Code" means the preferred form of the Original Work for making modifications to it and all available documentation describing how to modify the Original Work. Licensor hereby agrees to provide a machine-readable copy of the Source Code of the Original Work along with each copy of the Original Work that Licensor distributes. Licensor reserves the right to satisfy this obligation by placing a machine-readable copy of the Source Code in an information repository reasonably calculated to permit inexpensive and convenient access by You for as long as Licensor continues to distribute the Original Work, and by publishing the address of that information repository in a notice immediately following the copyright notice that applies to the Original Work.

4) Exclusions From License Grant. Neither the names of Licensor, nor the names of any contributors to the Original Work, nor any of their trademarks or service marks, may be used to endorse or promote products derived from this Original Work without express prior written permission of the Licensor. Nothing in this License shall be deemed to grant any rights to trademarks, copyrights, patents, trade secrets or any other intellectual property of Licensor except as expressly stated herein. No patent license is granted to make, use, sell or offer to sell embodiments of any patent claims other than the licensed claims defined in Section 2. No right is granted to the trademarks of Licensor even if such marks are included in the Original Work. Nothing in this License shall be interpreted to prohibit Licensor from licensing under different terms from this License any Original Work that Licensor otherwise would have a right to license.

5) This section intentionally omitted.

6) Attribution Rights. You must retain, in the Source Code of any Derivative Works that You create, all copyright, patent or trademark notices from the Source Code of the Original Work, as well as any notices of licensing and any descriptive text identified therein as an "Attribution Notice." You must cause the Source Code for any Derivative Works that You create to carry a prominent Attribution Notice reasonably calculated to inform recipients that You have modified the Original Work.

7) Warranty of Provenance and Disclaimer of Warranty. Licensor warrants that the copyright in and to the Original Work and the patent rights granted herein by Licensor are owned by the Licensor or are sublicensed to You under the terms of this License with the permission of the contributor(s) of those copyrights and patent rights. Except as expressly stated in the immediately proceeding sentence, the Original Work is provided under this License on an "AS IS" BASIS and WITHOUT WARRANTY, either express or implied, including, without limitation,

the warranties of NON-INFRINGEMENT, MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY OF THE ORIGINAL WORK IS WITH YOU. This DISCLAIMER OF WARRANTY constitutes an essential part of this License. No license to Original Work is granted hereunder except under this disclaimer.

8) Limitation of Liability. Under no circumstances and under no legal theory, whether in tort (including negligence), contract, or otherwise, shall the Licensor be liable to any person for any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or the use of the Original Work including, without limitation, damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses. This limitation of liability shall not apply to liability for death or personal injury resulting from Licensor'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.

9) Acceptance and Termination. If You distribute copies of the Original Work or a Derivative Work, You must make a reasonable effort under the circumstances to obtain the express assent of recipients to the terms of this License. Nothing else but this License (or another written agreement between Licensor and You) grants You permission to create Derivative Works based upon the Original Work or to exercise any of the rights granted in Section 1 herein, and any attempt to do so except under the terms of this License (or another written agreement between Licensor and You) is expressly prohibited by U.S. copyright law, the equivalent laws of other countries, and by international treaty. Therefore, by exercising any of the rights granted to You in Section 1 herein, You indicate Your acceptance of this License and all of its terms and conditions.

10) Termination for Patent Action. This License shall terminate automatically and You may no longer exercise any of the rights granted to You by this License as of the date You commence an action, including a cross-claim or counterclaim, against Licensor or any licensee alleging that the Original Work infringes a patent. This termination provision shall not apply for an action alleging patent infringement by combinations of the Original Work with other software or hardware.

11) Jurisdiction, Venue and Governing Law. Any action or suit relating to this License may be brought only in the courts of a jurisdiction wherein the Licensor resides or in which Licensor conducts its primary business, and under the laws of that jurisdiction excluding its conflict-of-law provisions. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any use of the Original Work outside the scope of this License or after its termination shall be subject to the requirements and penalties of the U.S. Copyright Act, 17 U.S.C. Â§ 101 et seq., the equivalent laws of other countries, and international treaty. This section shall survive the termination of this License.

12) Attorneys Fees. In any action to enforce the terms of this License or seeking damages relating thereto, the prevailing party shall be entitled to recover its costs and expenses, including, without limitation, reasonable attorneys' fees and costs incurred in connection with such action, including any appeal of such action. This section shall survive the termination of this License.

13) 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.

14) Definition of "You" in This License. "You" throughout this License, whether in upper or lower case, means an individual or a legal entity exercising rights under, and complying with all of the

terms of, this License. For legal entities, "You" includes any entity
that controls, is controlled by, or is under common control with
you. For 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.

15) Right to Use. You may use the Original Work in all ways not
otherwise restricted or conditioned by this License or by law, and
Licensor promises not to interfere with or be responsible for such
uses by You.

This license is Copyright (C) 2003-2004 Lawrence E. Rosen. All rights
reserved. Permission is hereby granted to copy and distribute this
license without modification. This license may not be modified without
the express written permission of its copyright owner.

--
END OF ACADEMIC FREE LICENSE. The following is intended to describe the essential
differences between the Academic Free License (AFL) version 1.0 and other
open source licenses:

The Academic Free License is similar to the BSD, MIT, UoI/NCSA and Apache
licenses in many respects but it is intended to solve a few problems with
those licenses.

* The AFL is written so as to make it clear what software is being
licensed (by the inclusion of a statement following the copyright notice
in the software). This way, the license functions better than a template
license. The BSD, MIT and UoI/NCSA licenses apply to unidentified software.

* The AFL contains a complete copyright grant to the software. The BSD
and Apache licenses are vague and incomplete in that respect.

* The AFL contains a complete patent grant to the software. The BSD, MIT,
UoI/NCSA and Apache licenses rely on an implied patent license and contain
no explicit patent grant.

* The AFL makes it clear that no trademark rights are granted to the
licensor's trademarks. The Apache license contains such a provision, but the
BSD, MIT and UoI/NCSA licenses do not.

* The AFL includes the warranty by the licensor that it either owns the
copyright or that it is distributing the software under a license. None of
the other licenses contain that warranty. All other warranties are disclaimed,
as is the case for the other licenses.

* The AFL is itself copyrighted (with the right granted to copy and distribute
without modification). This ensures that the owner of the copyright to the
license will control changes. The Apache license contains a copyright notice,
but the BSD, MIT and UoI/NCSA licenses do not.
--
START OF GNU GENERAL PUBLIC LICENSE
--

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 Library 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

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 Library General
Public License instead of this License.
```

Appendix L044 — Shared license text and notices

```
/* -*- mode: C; c-file-style: "gnu"; indent-tabs-mode: nil; -*- */
/* dbus-cleanup-sockets.c  dbus-cleanup-sockets utility
 *
 * Copyright (C) 2003 Red Hat, Inc.
 * Copyright (C) 2002 Michael Meeks
 *
 * Note that this file is NOT licensed under the Academic Free License,
 * as it is based on linc-cleanup-sockets which is LGPL.
 *
 * 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
```

```
 *
 */
```

Appendix L045 — Shared license text and notices

```
/* -*- mode: C; c-file-style: "gnu"; indent-tabs-mode: nil; -*- */
/* dbus-launch.c  dbus-launch utility
 *
 * Copyright (C) 2003, 2006 Red Hat, Inc.
 * Copyright (C) 2006 Thiago Macieira <thiago@kde.org>
 *
 * Licensed under the Academic Free License version 2.1
 *
 * 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
 *
 */
```

Appendix L046 — Shared license text and notices

```
/* -*- mode: C; c-file-style: "gnu"; indent-tabs-mode: nil; -*- */
/* dbus-monitor.c  Utility program to monitor messages on the bus
 *
 * Copyright (C) 2003 Philip Blundell <philb@gnu.org>
 *
 * 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
 *
 */
```

Appendix L047 — Shared license text and notices

```
/* -*- mode: C; c-file-style: "gnu"; indent-tabs-mode: nil; -*- */
/* dbus-print-message.h  Utility function to print out a message
 *
 * Copyright (C) 2003 Philip Blundell <philb@gnu.org>
 * Copyright (C) 2003 Red Hat, Inc.
 *
 * 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
 *
 */
```

Appendix L048 — Shared license text and notices

```
/* -*- mode: C; c-file-style: "gnu"; indent-tabs-mode: nil; -*- */
/* dbus-run-session.c - run a child process in its own session
 *
 * Copyright © 2003-2006 Red Hat, Inc.
 * Copyright © 2006 Thiago Macieira <thiago@kde.org>
 * Copyright © 2011-2012 Nokia Corporation
 * Copyright © 2018, 2021 Ralf Habacker
 *
 * Licensed under the Academic Free License version 2.1
 *
 * 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
 *
 */
```

Appendix L049 — Shared license text and notices

```
/* -*- mode: C; c-file-style: "gnu"; indent-tabs-mode: nil; -*- */
/* dbus-send.c  Utility program to send messages from the command line
 *
 * Copyright (C) 2003 Philip Blundell <philb@gnu.org>
 *
 * 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
 *
 */
```

Appendix L050 — Shared license text and notices

```
/*
 * dbus-update-activation-environment - update D-Bus, and optionally
 * systemd, activation environment
 *
 * Copyright © 2014-2015 Collabora 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 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.
 */
```

Appendix L051 — Shared license text and notices

```
/* -*- mode: C; c-file-style: "gnu"; indent-tabs-mode: nil; -*- */
/* dbus-uuidgen.c  Utility program to create UUIDs
 *
 * Copyright (C) 2006 Red Hat, Inc.
 *
 * 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
 *
 */
```

Appendix L052 — Shared license text and notices

```
 * Licensed under the Academic Free License version 2.1
 *
 * 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
```

Appendix L053 — Shared license text and notices

```
The Academic Free License
v. 2.1

This Academic Free License (the "License") applies to any original work of authorship (the
```

"Original Work") whose owner (the "Licensor") has placed the following notice immediately following the copyright notice for the Original Work:

Licensed under the Academic Free License version 2.1

1) Grant of Copyright License. Licensor hereby grants You a world-wide, royalty-free, non-exclusive, perpetual, sublicenseable license to do the following:

a) to reproduce the Original Work in copies;

b) to prepare derivative works ("Derivative Works") based upon the Original Work;

c) to distribute copies of the Original Work and Derivative Works to the public;

d) to perform the Original Work publicly; and

e) to display the Original Work publicly.

2) Grant of Patent License. Licensor hereby grants You a world-wide, royalty-free, non-exclusive, perpetual, sublicenseable license, under patent claims owned or controlled by the Licensor that are embodied in the Original Work as furnished by the Licensor, to make, use, sell and offer for sale the Original Work and Derivative Works.

3) Grant of Source Code License. The term "Source Code" means the preferred form of the Original Work for making modifications to it and all available documentation describing how to modify the Original Work. Licensor hereby agrees to provide a machine-readable copy of the Source Code of the Original Work along with each copy of the Original Work that Licensor distributes. Licensor reserves the right to satisfy this obligation by placing a machine-readable copy of the Source Code in an information repository reasonably calculated to permit inexpensive and convenient access by You for as long as Licensor continues to distribute the Original Work, and by publishing the address of that information repository in a notice immediately following the copyright notice that applies to the Original Work.

4) Exclusions From License Grant. Neither the names of Licensor, nor the names of any contributors to the Original Work, nor any of their trademarks or service marks, may be used to endorse or promote products derived from this Original Work without express prior written permission of the Licensor. Nothing in this License shall be deemed to grant any rights to trademarks, copyrights, patents, trade secrets or any other intellectual property of Licensor except as expressly stated herein. No patent license is granted to make, use, sell or offer to sell embodiments of any patent claims other than the licensed claims defined in Section 2. No right is granted to the trademarks of Licensor even if such marks are included in the Original Work. Nothing in this License shall be interpreted to prohibit Licensor from licensing under different terms from this License any Original Work that Licensor otherwise would have a right to license.

5) This section intentionally omitted.

6) Attribution Rights. You must retain, in the Source Code of any Derivative Works that You create, all copyright, patent or trademark notices from the Source Code of the Original Work, as well as any notices of licensing and any descriptive text identified therein as an "Attribution Notice." You must cause the Source Code for any Derivative Works that You create to carry a prominent Attribution Notice reasonably calculated to inform recipients that You have modified the Original Work.

7) Warranty of Provenance and Disclaimer of Warranty. Licensor warrants that the copyright in and to the Original Work and the patent rights granted herein by Licensor are owned by the Licensor or are sublicensed to You under the terms of this License with the permission of the contributor(s) of those copyrights and patent rights. Except as expressly stated in the immediately proceeding sentence, the Original Work is provided under this License on an "AS IS" BASIS and WITHOUT WARRANTY, either express or implied, including, without limitation, the warranties of NON-INFRINGEMENT, MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY OF THE ORIGINAL WORK IS WITH YOU. This DISCLAIMER OF WARRANTY constitutes an essential part of this License. No license to Original Work is granted hereunder except under this disclaimer.

8) Limitation of Liability. Under no circumstances and under no legal theory, whether in tort (including negligence), contract, or otherwise, shall the Licensor be liable to any person for any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or the use of the Original Work including, without limitation, damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all

other commercial damages or losses. This limitation of liability shall not apply to liability for death or personal injury resulting from Licensor`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.

9) Acceptance and Termination. If You distribute copies of the Original Work or a Derivative Work, You must make a reasonable effort under the circumstances to obtain the express assent of recipients to the terms of this License. Nothing else but this License (or another written agreement between Licensor and You) grants You permission to create Derivative Works based upon the Original Work or to exercise any of the rights granted in Section 1 herein, and any attempt to do so except under the terms of this License (or another written agreement between Licensor and You) is expressly prohibited by U.S. copyright law, the equivalent laws of other countries, and by international treaty. Therefore, by exercising any of the rights granted to You in Section 1 herein, You indicate Your acceptance of this License and all of its terms and conditions.

10) Termination for Patent Action. This License shall terminate automatically and You may no longer exercise any of the rights granted to You by this License as of the date You commence an action, including a cross-claim or counterclaim, against Licensor or any licensee alleging that the Original Work infringes a patent. This termination provision shall not apply for an action alleging patent infringement by combinations of the Original Work with other software or hardware.

11) Jurisdiction, Venue and Governing Law. Any action or suit relating to this License may be brought only in the courts of a jurisdiction wherein the Licensor resides or in which Licensor conducts its primary business, and under the laws of that jurisdiction excluding its conflict-of-law provisions. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any use of the Original Work outside the scope of this License or after its termination shall be subject to the requirements and penalties of the U.S. Copyright Act, 17 U.S.C. Â§ 101 et seq., the equivalent laws of other countries, and international treaty. This section shall survive the termination of this License.

12) Attorneys Fees. In any action to enforce the terms of this License or seeking damages relating thereto, the prevailing party shall be entitled to recover its costs and expenses, including, without limitation, reasonable attorneys` fees and costs incurred in connection with such action, including any appeal of such action. This section shall survive the termination of this License.

13) 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.

14) Definition of "You" in This License. "You" throughout this License, whether in upper or lower case, means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License. For legal entities, "You" includes any entity that controls, is controlled by, or is under common control with you. For 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.

15) Right to Use. You may use the Original Work in all ways not otherwise restricted or conditioned by this License or by law, and Licensor promises not to interfere with or be responsible for such uses by You.

This license is Copyright (C) 2003-2004 Lawrence E. Rosen. All rights reserved. Permission is hereby granted to copy and distribute this license without modification. This license may not be modified without the express written permission of its copyright owner.

Appendix L054 — Shared license text and notices

```
/* -*- mode: C; c-file-style: "gnu"; indent-tabs-mode: nil; -*- */
/* tool-common - common functionality for dbus-test-tool modules
 *
 * Copyright © 2003 Philip Blundell <philb@gnu.org>
 * Copyright © 2011 Nokia Corporation
 * Copyright © 2014 Collabora Ltd.
 *
```

```
 * 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
 *
 */
```

Appendix L055 — Shared license text and notices

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

Apache 2.0 terms — variant 1 (S008), p. 366

```
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.
```

Appendix L056 — devmem2 — devmem2.c

```
/*
 * devmem2.c: Simple program to read/write from/to any location in memory.
 *
 *  Copyright (C) 2000, Jan-Derk Bakker (J.D.Bakker@its.tudelft.nl)
 *
 *
 * This software has been developed for the LART computing board
 * (http://www.lart.tudelft.nl/). The development has been sponsored by
 * the Mobile MultiMedia Communications (http://www.mmc.tudelft.nl/)
 * and Ubiquitous Communications (http://www.ubicom.tudelft.nl/)
 * projects.
 *
 * The author can be reached at:
```

```
 *
 *  Jan-Derk Bakker
 *  Information and Communication Theory Group
 *  Faculty of Information Technology and Systems
 *  Delft University of Technology
 *  P.O. Box 5031
 *  2600 GA Delft
 *  The Netherlands
 *
 *
 * 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., 59 Temple Place, Suite 330, Boston, MA  02111-1307  USA
 *
 */
```

Appendix L057 — dtc — BSD-2-Clause

```
Valid-License-Identifier: BSD-2-Clause
SPDX-URL: https://spdx.org/licenses/BSD-2-Clause.html
Usage-Guide:
  To use the BSD 2-clause "Simplified" License put the following SPDX
  tag/value pair into a comment according to the placement guidelines in
  the licensing rules documentation:
    SPDX-License-Identifier: BSD-2-Clause
License-Text:

Copyright (c) <year> <owner> . All rights reserved.
```

BSD-style redistribution terms — variant 3 (S009), p. 368

Appendix L058 — dtc — README.license

```
Licensing and contribution policy of dtc and libfdt
===================================================

This dtc package contains two pieces of software: dtc itself, and
libfdt which comprises the files in the libfdt/ subdirectory.  These
two pieces of software, although closely related, are quite distinct.
dtc does not incorporate or rely on libfdt for its operation, nor vice
versa.  It is important that these two pieces of software have
different license conditions.

As SPDX license tags in each source file attest, dtc is licensed
under the GNU GPL.  The full text of the GPL can be found in the file
entitled 'GPL' which should be included in this package.  dtc code,
therefore, may not be incorporated into works which do not have a GPL
compatible license.

libfdt, however, is GPL/BSD dual-licensed.  That is, it may be used
either under the terms of the GPL, or under the terms of the 2-clause
BSD license (aka the ISC license).  The full terms of that license can
be found are in the file entitled 'BSD-2-Clause'. This is, in
practice, equivalent to being BSD licensed, since the terms of the BSD
license are strictly more permissive than the GPL.
```

I made the decision to license libfdt in this way because I want to
encourage widespread and correct usage of flattened device trees,
including by proprietary or otherwise GPL-incompatible firmware or
tools. Allowing libfdt to be used under the terms of the BSD license
makes that it easier for vendors or authors of such software to do so.

This does mean that libfdt code could be "stolen" - say, included in a
proprietary fimware and extended without contributing those extensions
back to the libfdt mainline. While I hope that doesn't happen, I
believe the goal of allowing libfdt to be widely used is more
important than avoiding that. libfdt is quite small, and hardly
rocket science; so the incentive for such impolite behaviour is small,
and the inconvenience caused thereby is not dire.

Licenses such as the LGPL which would allow code to be used in non-GPL
software, but also require contributions to be returned were
considered. However, libfdt is designed to be used in firmwares and
other environments with unusual technical constraints. It's difficult
to anticipate all possible changes which might be needed to meld
libfdt into such environments and so difficult to suitably word a
license that puts the boundary between what is and isn't permitted in
the intended place. Again, I judged encouraging widespread use of
libfdt by keeping the license terms simple and familiar to be the more
important goal.

IMPORTANT It's intended that all of libfdt as released remain
permissively licensed this way. Therefore only contributions which
are released under these terms can be merged into the libfdt mainline.

David Gibson <david@gibson.dropbear.id.au>
(principal original author of dtc and libfdt)
2 November 2007

Appendix L059 — Shared license text and notices

Copyright <YEAR> <COPYRIGHT HOLDER>

BSD-style redistribution terms — variant 3 (S009), p. 368

Appendix L060 — Shared license text and notices

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, and the entire permission notice in its entirety,
   including the disclaimer of warranties.
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 ``AS IS'' AND ANY EXPRESS OR IMPLIED
WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES
OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL OF
WHICH ARE HEREBY 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 NOT ADVISED OF THE POSSIBILITY OF SUCH
DAMAGE.

Appendix L061 — Shared license text and notices

This package, the EXT2 filesystem utilities, are made available under
the GNU Public License version 2, with the exception of the lib/ext2fs
and lib/e2p libraries, which are made available under the GNU Library
General Public License Version 2, the lib/uuid library which is made
available under a BSD-style license and the lib/et and lib/ss
libraries which are made available under an MIT-style license. Please
see lib/uuid/COPYING for more details for the license for the files
comprising the libuuid library, and the source file headers of the
libet and libss libraries for more information.

The most recent officially distributed version can be found at
http://e2fsprogs.sourceforge.net. If you need to make a distribution,
that's the one you should use. If there is some reason why you'd like
a more recent version that is still in ALPHA testing (i.e., either
using the "WIP" test distributions or one from the hg or git
repository from the development branch, please contact me
(tytso@mit.edu) before you ship. The release schedules for this
package are flexible, if you give me enough lead time.

Theodore Ts'o
23-June-2007

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 Library 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

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 Library General Public License instead of this License.

GNU LIBRARY GENERAL PUBLIC LICENSE
Version 2, June 1991

Copyright (C) 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.

[This is the first released version of the library GPL. It is
numbered 2 because it goes with version 2 of the ordinary GPL.]

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 Library General Public License, applies to some specially designated Free Software Foundation software, and to any other libraries whose authors decide to use it. You can use it for your libraries, 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 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 a program 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.

  Our method of protecting your rights has two steps: (1) copyright the library, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the library.

  Also, for each distributor's protection, we want to make certain that everyone understands that there is no warranty for this free library. If the library is modified by someone else and passed on, we

want its recipients to know that what they have is not the original version, 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 companies distributing free software will individually obtain patent licenses, thus in effect transforming the program into proprietary software. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License, which was designed for utility programs. This license, the GNU Library General Public License, applies to certain designated libraries. This license is quite different from the ordinary one; be sure to read it in full, and don't assume that anything in it is the same as in the ordinary license.

The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

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, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

GNU LIBRARY GENERAL PUBLIC LICENSE

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 Library General Public
    License as published by the Free Software Foundation; either
    version 2 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
    Library General Public License for more details.

    You should have received a copy of the GNU Library 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!
```

Appendix L062 — Shared license text and notices

```
/*
 * e2p.h --- header file for the e2p library
 *
 * %Begin-Header%
 * This file may be redistributed under the terms of the GNU Library
 * General Public License, version 2.
 * %End-Header%
```

Appendix L063 — Shared license text and notices

```
/*
 * Copyright 1987 by MIT Student Information Processing Board
 *
 * Permission to use, copy, modify, and distribute this software and
 * its documentation for any purpose is hereby granted, provided that
 * the names of M.I.T. and the M.I.T. S.I.P.B. not be used in
 * advertising or publicity pertaining to distribution of the software
 * without specific, written prior permission.  M.I.T. and the
 * M.I.T. S.I.P.B. make no representations about the suitability of
 * this software for any purpose.  It is provided "as is" without
 * express or implied warranty.
```

Appendix L064 — Shared license text and notices

```
/*
 * ext2fs.h --- ext2fs
 *
 * Copyright (C) 1993, 1994, 1995, 1996 Theodore Ts'o.
 *
 * %Begin-Header%
 * This file may be redistributed under the terms of the GNU Library
```

```
 * General Public License, version 2.
 * %End-Header%
```

Appendix L065 — Shared license text and notices

GNU LIBRARY GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright (C) 1991 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 library GPL. It is

 numbered 2 because it goes with version 2 of the ordinary GPL.]

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 Library General Public License, applies to some specially designated Free Software Foundation software, and to any other libraries whose authors decide to use it. You can use it for your libraries, 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 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 a program 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.

Our method of protecting your rights has two steps: (1) copyright the library, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the library.

Also, for each distributor's protection, we want to make certain that everyone understands that there is no warranty for this free library. If the library is modified by someone else and passed on, we want its recipients to know that what they have is not the original version, 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 companies distributing free software will individually obtain patent licenses, thus in effect transforming the program into proprietary software. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License, which was designed for utility programs. This license, the GNU Library General Public License, applies to certain designated libraries. This license is quite different from the ordinary one; be sure to read it in full, and don't assume that anything in it is the same as in the ordinary license.

The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

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, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

GNU LGPL 2.0 terms — variant 1 (S010), p. 368

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 an 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 Library General Public

License as published by the Free Software Foundation; either

version 2 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

Library General Public License for more details.

You should have received a copy of the GNU Library General Public

License along with this library; if not, write to the

Free Software Foundation, Inc., 51 Franklin St, 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!
```

Appendix L066 — Shared license text and notices

```
/*
 * Copyright 1987, 1988 by MIT Student Information Processing Board
 *
 * Permission to use, copy, modify, and distribute this software and
 * its documentation for any purpose is hereby granted, provided that
 * the names of M.I.T. and the M.I.T. S.I.P.B. not be used in
 * advertising or publicity pertaining to distribution of the software
 * without specific, written prior permission.  M.I.T. and the
 * M.I.T. S.I.P.B. make no representations about the suitability of
 * this software for any purpose.  It is provided "as is" without
 * express or implied warranty.
 *
 * This quote is just too good to not pass on:
 *
 *      "BTW, I would have rejected the name Story Server because its
 *      initials are SS, the name of the secret police in Nazi
 *      Germany, probably the most despised pair of letters in western
 *      culture."  --- http://scriptingnewsarchive.userland.com/1999/12/13
 *
 * Let no one say political correctness isn't dead....
```

Appendix L067 — Shared license text and notices

```
/*
 * Public include file for the UUID library
 *
 * Copyright (C) 1996, 1997, 1998 Theodore Ts'o.
 *
 * %Begin-Header%
 * 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, and the entire permission notice in its entirety,
 *    including the disclaimer of warranties.
 * 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 ``AS IS'' AND ANY EXPRESS OR IMPLIED
 * WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES
 * OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL OF
 * WHICH ARE HEREBY 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 NOT ADVISED OF THE POSSIBILITY OF SUCH
 * DAMAGE.
 * %End-Header%
```

Appendix L068 — libelf — debuginfod-client.c

```
/* Retrieve ELF / DWARF / source files from the debuginfod.
   Copyright (C) 2019-2021 Red Hat, Inc.
   Copyright (C) 2021, 2022 Mark J. Wielaard <mark@klomp.org>
   This file is part of elfutils.

   This file is free software; you can redistribute it and/or modify
   it under the terms of either

     * the GNU Lesser General Public License as published by the Free
       Software Foundation; either version 3 of the License, or (at
       your option) any later version

   or

     * 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

   or both in parallel, as here.

   elfutils 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 copies of the GNU General Public License and
   the GNU Lesser General Public License along with this program.  If
   not, see <http://www.gnu.org/licenses/>.  */
```

Appendix L069 — Shared license text and notices

```
GNU LESSER GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright (C) 2007 Free Software Foundation, Inc. <https://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this license
document, but changing it is not allowed.

This version of the GNU Lesser General Public License incorporates the terms
and conditions of version 3 of the GNU General Public License, supplemented
by the additional permissions listed below.
```

GNU LGPL 3.0 terms — variant 1 (S011), p. 373

Appendix L070 — Shared license text and notices

```
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.

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 an 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!
```

Appendix L071 — Espressif ESP32-C5 firmware — BSD-2-Clause-FreeBSD; freebsd-net80211-notice.txt; generic_BSD-2-Clause-FreeBSD

```
/*-
 * SPDX-License-Identifier: BSD-2-Clause-FreeBSD
 *
 * Copyright (c) 2004-2008 Sam Leffler, Errno Consulting
 * 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.
 */
```

Appendix L072 — Espressif ESP32-C5 firmware — COPYING

```
Copyright (c) 2001, 2002 Swedish Institute of Computer Science.
All rights reserved.
```

BSD-style redistribution terms — variant 4 (S012), p. 375

Appendix L073 — Espressif ESP32-C5 firmware — COPYING.NEWLIB.0

Sections in this notice collection (the notice text retains its source order):

(1) Red Hat Incorporated, p. 113
(2) University of California, Berkeley, p. 113
(3) David M. Gay (AT&T 1991, Lucent 1998), p. 113
(4) Advanced Micro Devices, p. 114
(5), p. 114
(6), p. 114
(7) Sun Microsystems, p. 114
(8) Hewlett Packard, p. 114
(9) Hans-Peter Nilsson, p. 115
(10) Stephane Carrez (m68hc11-elf/m68hc12-elf targets only), p. 115
(11) Christopher G. Demetriou, p. 115
(12) SuperH, Inc., p. 115
(13) Royal Institute of Technology, p. 116
(14) Alexey Zelkin, p. 116
(15) Andrey A. Chernov, p. 116
(16) FreeBSD, p. 116
(17) S. L. Moshier, p. 117
(18) Citrus Project, p. 117
(19) Todd C. Miller, p. 117
(20) DJ Delorie (i386), p. 117
(21) Free Software Foundation LGPL License (*-linux* targets only), p. 117
(22) Xavier Leroy LGPL License (i[3456]86-*-linux* targets only), p. 118
(23) Intel (i960), p. 118
(24) Hewlett-Packard (hppa targets only), p. 119
(25) Henry Spencer (only *-linux targets), p. 119
(26) Mike Barcroft, p. 119
(27) Konstantin Chuguev (--enable-newlib-iconv), p. 119
(28) Artem Bityuckiy (--enable-newlib-iconv), p. 120
(29) IBM, Sony, Toshiba (only spu-* targets), p. 120
(30) - Alex Tatmanjants (targets using libc/posix), p. 120
(31) - M. Warner Losh (targets using libc/posix), p. 120
(32) - Andrey A. Chernov (targets using libc/posix), p. 120
(33) - Daniel Eischen (targets using libc/posix), p. 121
(34) - Jon Beniston (only lm32-* targets), p. 121
(35) - ARM Ltd (arm and thumb variant targets only), p. 121
(36) - Xilinx, Inc. (microblaze-* and powerpc-* targets), p. 121
(37) Texas Instruments Incorporated (tic6x-*, *-tirtos targets), p. 122
(38) National Semiconductor (cr16-* and crx-* targets), p. 122
(39) - Adapteva, Inc. (epiphany-* targets), p. 122
(40) - Altera Corportion (nios2-* targets), p. 122
(41) Ed Schouten - Free BSD, p. 122

```
The newlib subdirectory is a collection of software from several sources.

Each file may have its own copyright/license that is embedded in the source
file.  Unless otherwise noted in the body of the source file(s), the following copyright
notices will apply to the contents of the newlib subdirectory:
```

(1) Red Hat Incorporated

Copyright (c) 1994-2009 Red Hat, Inc. All rights reserved.

This copyrighted material is made available to anyone wishing to use,
modify, copy, or redistribute it subject to the terms and conditions
of the BSD License.   This program is distributed in the hope that
it will be useful, but WITHOUT ANY WARRANTY expressed or implied,
including the implied warranties of MERCHANTABILITY or FITNESS FOR
A PARTICULAR PURPOSE. A copy of this license is available at
http://www.opensource.org/licenses. Any Red Hat trademarks that are
incorporated in the source code or documentation are not subject to
the BSD License and may only be used or replicated with the express
permission of Red Hat, Inc.

(2) University of California, Berkeley

Copyright (c) 1981-2000 The Regents of the University of California.
All rights reserved.

BSD-style redistribution terms — variant 5 (S013), p. 376

(3) David M. Gay (AT&T 1991, Lucent 1998)

The author of this software is David M. Gay.

Copyright (c) 1991 by AT&T.

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 AT&T MAKES ANY
REPRESENTATION OR WARRANTY OF ANY KIND CONCERNING THE MERCHANTABILITY
OF THIS SOFTWARE OR ITS FITNESS FOR ANY PARTICULAR PURPOSE.

The author of this software is David M. Gay.

Copyright (C) 1998-2001 by Lucent Technologies
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 the copyright notice and this
permission notice and warranty disclaimer appear in supporting
documentation, and that the name of Lucent or any of its entities
not be used in advertising or publicity pertaining to
distribution of the software without specific, written prior
permission.

LUCENT DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE,

INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS.
IN NO EVENT SHALL LUCENT OR ANY OF ITS ENTITIES 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.

(4) Advanced Micro Devices

Copyright 1989, 1990 Advanced Micro Devices, Inc.

This software is the property of Advanced Micro Devices, Inc (AMD) which specifically grants the user the right to modify, use and distribute this software provided this notice is not removed or altered. All other rights are reserved by AMD.

AMD MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THIS SOFTWARE. IN NO EVENT SHALL AMD BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING FROM THE FURNISHING, PERFORMANCE, OR USE OF THIS SOFTWARE.

So that all may benefit from your experience, please report any problems or suggestions about this software to the 29K Technical Support Center at 800-29-29-AMD (800-292-9263) in the USA, or 0800-89-1131 in the UK, or 0031-11-1129 in Japan, toll free. The direct dial number is 512-462-4118.

Advanced Micro Devices, Inc.
29K Support Products
Mail Stop 573
5900 E. Ben White Blvd.
Austin, TX 78741
800-292-9263

(5)

(6)

(7) Sun Microsystems

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

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

(8) Hewlett Packard

(c) Copyright 1986 HEWLETT-PACKARD COMPANY

```
To anyone who acknowledges that this file is provided "AS IS"
without any express or implied warranty:
    permission to use, copy, modify, and distribute this file
for any purpose is hereby granted without fee, provided that
the above copyright notice and this notice appears in all
copies, and that the name of Hewlett-Packard Company not be
used in advertising or publicity pertaining to distribution
of the software without specific, written prior permission.
Hewlett-Packard Company makes no representations about the
suitability of this software for any purpose.
```

(9) Hans-Peter Nilsson

```
Copyright (C) 2001 Hans-Peter Nilsson

Permission to use, copy, modify, and distribute this software is
freely granted, provided that the above copyright notice, this notice
and the following disclaimer are preserved with no changes.

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.
```

(10) Stephane Carrez (m68hc11-elf/m68hc12-elf targets only)

```
Copyright (C) 1999, 2000, 2001, 2002 Stephane Carrez (stcarrez@nerim.fr)

The authors hereby grant permission to use, copy, modify, distribute,
and license this software and its documentation for any purpose, provided
that existing copyright notices are retained in all copies and that this
notice is included verbatim in any distributions. No written agreement,
license, or royalty fee is required for any of the authorized uses.
Modifications to this software may be copyrighted by their authors
and need not follow the licensing terms described here, provided that
the new terms are clearly indicated on the first page of each file where
they apply.
```

(11) Christopher G. Demetriou

```
Copyright (c) 2001 Christopher G. Demetriou
All rights reserved.
```

BSD-style redistribution terms — variant 4 (S012), p. 375

(12) SuperH, Inc.

```
Copyright 2002 SuperH, Inc. All rights reserved

This software is the property of SuperH, Inc (SuperH) which specifically
grants the user the right to modify, use and distribute this software
provided this notice is not removed or altered.  All other rights are
```

reserved by SuperH.

SUPERH MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO
THIS SOFTWARE. IN NO EVENT SHALL SUPERH BE LIABLE FOR INDIRECT, SPECIAL,
INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING FROM
THE FURNISHING, PERFORMANCE, OR USE OF THIS SOFTWARE.

So that all may benefit from your experience, please report any problems
or suggestions about this software to the SuperH Support Center via
e-mail at softwaresupport@superh.com .

SuperH, Inc.
405 River Oaks Parkway
San Jose
CA 95134
USA

(13) Royal Institute of Technology

Copyright (c) 1999 Kungliga Tekniska Högskolan
(Royal Institute of Technology, Stockholm, Sweden).
All rights reserved.

BSD-style redistribution terms — variant 6 (S014), p. 376

(14) Alexey Zelkin

Copyright (c) 2000, 2001 Alexey Zelkin <phantom@FreeBSD.org>
All rights reserved.

BSD-style redistribution terms — variant 7 (S015), p. 377

(15) Andrey A. Chernov

Copyright (C) 1997 by Andrey A. Chernov, Moscow, Russia.
All rights reserved.

BSD-style redistribution terms — variant 8 (S016), p. 377

(16) FreeBSD

Copyright (c) 1997-2002 FreeBSD Project.
All rights reserved.

BSD-style redistribution terms — variant 7 (S015), p. 377

(17) S. L. Moshier

```
Author:  S. L. Moshier.

Copyright (c) 1984,2000 S.L. Moshier

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,  THE AUTHOR MAKES NO REPRESENTATION
OR WARRANTY OF ANY KIND CONCERNING THE MERCHANTABILITY OF THIS
SOFTWARE OR ITS FITNESS FOR ANY PARTICULAR PURPOSE.
```

(18) Citrus Project

```
Copyright (c)1999 Citrus Project,
All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(19) Todd C. Miller

```
Copyright (c) 1998 Todd C. Miller <Todd.Miller@courtesan.com>
All rights reserved.
```

BSD-style redistribution terms — variant 9 (S017), p. 377

(20) DJ Delorie (i386)

```
Copyright (C) 1991 DJ Delorie
All rights reserved.

Redistribution, modification, and use in source and binary forms is permitted
provided that the above copyright notice and following paragraph are
duplicated in all such forms.

This file is distributed WITHOUT ANY WARRANTY; without even the implied
warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
```

(21) Free Software Foundation LGPL License (*-linux* targets only)

```
   Copyright (C) 1990-1999, 2000, 2001    Free Software Foundation, Inc.
   This file is part of the GNU C Library.
   Contributed by Mark Kettenis <kettenis@phys.uva.nl>, 1997.

   The GNU C 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 GNU C 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 GNU C Library; if not, write to the Free
   Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA
   02110-1301 USA.
```

(22) Xavier Leroy LGPL License (i[3456]86-*-linux* targets only)

```
Copyright (C) 1996 Xavier Leroy (Xavier.Leroy@inria.fr)

This program is free software; you can redistribute it and/or
modify it under the terms of the GNU Library 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 Library General Public License for more details.
```

(23) Intel (i960)

```
Copyright (c) 1993 Intel Corporation

Intel hereby grants you permission to copy, modify, and distribute this
software and its documentation.  Intel grants this permission provided
that the above copyright notice appears in all copies and that both the
copyright notice and this permission notice appear in supporting
documentation.  In addition, Intel grants this permission provided that
you prominently mark as "not part of the original" any modifications
made to this software or documentation, and that the name of Intel
Corporation not be used in advertising or publicity pertaining to
distribution of the software or the documentation without specific,
written prior permission.

Intel Corporation provides this AS IS, WITHOUT ANY WARRANTY, EXPRESS OR
IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY
OR FITNESS FOR A PARTICULAR PURPOSE.  Intel makes no guarantee or
representations regarding the use of, or the results of the use of,
the software and documentation in terms of correctness, accuracy,
reliability, currentness, or otherwise; and you rely on the software,
documentation and results solely at your own risk.

IN NO EVENT SHALL INTEL BE LIABLE FOR ANY LOSS OF USE, LOSS OF BUSINESS,
LOSS OF PROFITS, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES
OF ANY KIND.  IN NO EVENT SHALL INTEL'S TOTAL LIABILITY EXCEED THE SUM
PAID TO INTEL FOR THE PRODUCT LICENSED HEREUNDER.
```

(24) Hewlett-Packard (hppa targets only)

```
(c) Copyright 1986 HEWLETT-PACKARD COMPANY

To anyone who acknowledges that this file is provided "AS IS"
without any express or implied warranty:
    permission to use, copy, modify, and distribute this file
for any purpose is hereby granted without fee, provided that
the above copyright notice and this notice appears in all
copies, and that the name of Hewlett-Packard Company not be
used in advertising or publicity pertaining to distribution
of the software without specific, written prior permission.
Hewlett-Packard Company makes no representations about the
suitability of this software for any purpose.
```

(25) Henry Spencer (only *-linux targets)

```
Copyright 1992, 1993, 1994 Henry Spencer.  All rights reserved.
This software is not subject to any license of the American Telephone
and Telegraph Company or of the Regents of the University of California.

Permission is granted to anyone to use this software for any purpose on
any computer system, and to alter it and redistribute it, subject
to the following restrictions:

1. The author is not responsible for the consequences of use of this
   software, no matter how awful, even if they arise from flaws in it.

2. The origin of this software must not be misrepresented, either by
   explicit claim or by omission.  Since few users ever read sources,
   credits must appear in the documentation.

3. Altered versions must be plainly marked as such, and must not be
   misrepresented as being the original software.  Since few users
   ever read sources, credits must appear in the documentation.

4. This notice may not be removed or altered.
```

(26) Mike Barcroft

```
Copyright (c) 2001 Mike Barcroft <mike@FreeBSD.org>
All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(27) Konstantin Chuguev (--enable-newlib-iconv)

```
Copyright (c) 1999, 2000
   Konstantin Chuguev.  All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

```
   iconv (Charset Conversion Library) v2.0
```

(28) Artem Bityuckiy (--enable-newlib-iconv)

```
Copyright (c) 2003, Artem B. Bityuckiy, SoftMine Corporation.
Rights transferred to Franklin Electronic Publishers.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(29) IBM, Sony, Toshiba (only spu-* targets)

```
  (C) Copyright 2001,2006,
  International Business Machines Corporation,
  Sony Computer Entertainment, Incorporated,
  Toshiba Corporation,

  All rights reserved.
```

BSD-style redistribution terms — variant 10 (S018), p. 378

(30) - Alex Tatmanjants (targets using libc/posix)

```
  Copyright (c) 1995 Alex Tatmanjants <alex@elvisti.kiev.ua>
                at Electronni Visti IA, Kiev, Ukraine.
                        All rights reserved.
```

BSD-style redistribution terms — variant 11 (S019), p. 378

(31) - M. Warner Losh (targets using libc/posix)

```
  Copyright (c) 1998, M. Warner Losh <imp@freebsd.org>
  All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(32) - Andrey A. Chernov (targets using libc/posix)

```
  Copyright (C) 1996 by Andrey A. Chernov, Moscow, Russia.
  All rights reserved.
```

BSD-style redistribution terms — variant 8 (S016), p. 377

(33) - Daniel Eischen (targets using libc/posix)

```
  Copyright (c) 2001 Daniel Eischen <deischen@FreeBSD.org>.
  All rights reserved.
```

BSD-style redistribution terms — variant 12 (S020), p. 378

(34) - Jon Beniston (only lm32-* targets)

```
 Contributed by Jon Beniston <jon@beniston.com>
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(35) - ARM Ltd (arm and thumb variant targets only)

```
 Copyright (c) 2009 ARM Ltd
 All rights reserved.
```

BSD-style redistribution terms — variant 13 (S021), p. 379

(36) - Xilinx, Inc. (microblaze-* and powerpc-* targets)

```
Copyright (c) 2004, 2009 Xilinx, Inc.  All rights reserved.
```

BSD-style redistribution terms — variant 14 (S022), p. 379

(37) Texas Instruments Incorporated (tic6x-*, *-tirtos targets)

```
Copyright (c) 1996-2010,2014 Texas Instruments Incorporated
http://www.ti.com/
```

BSD-style redistribution terms — variant 15 (S023), p. 379

(38) National Semiconductor (cr16-* and crx-* targets)

```
Copyright (c) 2004 National Semiconductor Corporation

The authors hereby grant permission to use, copy, modify, distribute,
and license this software and its documentation for any purpose, provided
that existing copyright notices are retained in all copies and that this
notice is included verbatim in any distributions. No written agreement,
license, or royalty fee is required for any of the authorized uses.
Modifications to this software may be copyrighted by their authors
and need not follow the licensing terms described here, provided that
the new terms are clearly indicated on the first page of each file where
they apply.
```

(39) - Adapteva, Inc. (epiphany-* targets)

```
Copyright (c) 2011, Adapteva, Inc.
All rights reserved.
```

BSD-style redistribution terms — variant 16 (S024), p. 380

(40) - Altera Corportion (nios2-* targets)

```
Copyright (c) 2003 Altera Corporation
All rights reserved.
```

BSD-style redistribution terms — variant 17 (S025), p. 380

(41) Ed Schouten - Free BSD

```
Copyright (c) 2008 Ed Schouten <ed@FreeBSD.org>
All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

Appendix L074 — Espressif ESP32-C5 firmware — COPYING.NEWLIB.1; Newlib; generic_Newlib

Sections in this notice collection (the notice text retains its source order):

(1) Red Hat Incorporated, p. 124
(2) University of California, Berkeley, p. 124
(3) David M. Gay (AT&T 1991, Lucent 1998), p. 124
(4) Advanced Micro Devices, p. 125
(5), p. 125
(6), p. 125
(7) Sun Microsystems, p. 125
(8) Hewlett Packard, p. 126
(9) Hans-Peter Nilsson, p. 126
(10) Stephane Carrez (m68hc11-elf/m68hc12-elf targets only), p. 126
(11) Christopher G. Demetriou, p. 126
(12) SuperH, Inc., p. 127
(13) Royal Institute of Technology, p. 127
(14) Alexey Zelkin, p. 127
(15) Andrey A. Chernov, p. 127
(16) FreeBSD, p. 128
(17) S. L. Moshier, p. 128
(18) Citrus Project, p. 128
(19) Todd C. Miller, p. 128
(20) DJ Delorie (i386 / arm), p. 128
(21) Free Software Foundation LGPL License (*-linux* targets only), p. 129
(22) Xavier Leroy LGPL License (i[3456]86-*-linux* targets only), p. 129
(23) Intel (i960), p. 129
(24) Hewlett-Packard (hppa targets only), p. 130
(25) Henry Spencer (only *-linux targets), p. 130
(26) Mike Barcroft, p. 130
(27) Konstantin Chuguev (--enable-newlib-iconv), p. 131
(28) Artem Bityuckiy (--enable-newlib-iconv), p. 131
(29) IBM, Sony, Toshiba (only spu-* targets), p. 131
(30) - Alex Tatmanjants (targets using libc/posix), p. 131
(31) - M. Warner Losh (targets using libc/posix), p. 131
(32) - Andrey A. Chernov (targets using libc/posix), p. 132
(33) - Daniel Eischen (targets using libc/posix), p. 132
(34) - Jon Beniston (only lm32-* targets), p. 132
(35) - Arm Ltd, p. 132
(36) - Xilinx, Inc. (microblaze-* and powerpc-* targets), p. 132
(37) Texas Instruments Incorporated (tic6x-*, *-tirtos targets), p. 133
(38) National Semiconductor (cr16-* and crx-* targets), p. 133
(39) - Adapteva, Inc. (epiphany-* targets), p. 133
(40) - Altera Corportion (nios2-* targets), p. 133
(41) Ed Schouten - Free BSD, p. 134
(42) - Rolls-Royce Controls and Data Services Limited (visium-* targets), p. 134
(43) - FTDI (ft32-* targets), p. 134
(44) - Synopsys Inc (arc-* targets), p. 134
(45) embedded brains - RTEMS targets, p. 135
(46) John Baldwin - RTEMS targets, p. 135
(47) Jeffrey Roberson - RTEMS targets, p. 136
(48) - SiFive Inc. (riscv-* targets), p. 136
(49) Michael R. Neilly (riscv-* targets), p. 136
(50) Mentor Graphics (amdgcn-* targets), p. 136
(51) BSD-2-Clause-FreeBSD (pru-* targets), p. 137
(52) Andrew Turner (arm-* targets), p. 137
(53) BSD-2-Clause-FreeBSD David Schultz (arm-* targets), p. 137
(54) - C-SKY Microsystems (csky-* targets), p. 137
(55) BSD-3-Clause-FreeBSD Peter Wemm (rtems targets), p. 138

The newlib subdirectory is a collection of software from several sources.

Each file may have its own copyright/license that is embedded in the source
file. Unless otherwise noted in the body of the source file(s), the following copyright
notices will apply to the contents of the newlib subdirectory:

(1) Red Hat Incorporated

Copyright (c) 1994-2009 Red Hat, Inc. All rights reserved.

This copyrighted material is made available to anyone wishing to use,
modify, copy, or redistribute it subject to the terms and conditions
of the BSD License.   This program is distributed in the hope that
it will be useful, but WITHOUT ANY WARRANTY expressed or implied,
including the implied warranties of MERCHANTABILITY or FITNESS FOR
A PARTICULAR PURPOSE. A copy of this license is available at
http://www.opensource.org/licenses. Any Red Hat trademarks that are
incorporated in the source code or documentation are not subject to
the BSD License and may only be used or replicated with the express
permission of Red Hat, Inc.

(2) University of California, Berkeley

Copyright (c) 1981-2000 The Regents of the University of California.
All rights reserved.

BSD-style redistribution terms — variant 5 (S013), p. 376

(3) David M. Gay (AT&T 1991, Lucent 1998)

The author of this software is David M. Gay.

Copyright (c) 1991 by AT&T.

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 AT&T MAKES ANY
REPRESENTATION OR WARRANTY OF ANY KIND CONCERNING THE MERCHANTABILITY
OF THIS SOFTWARE OR ITS FITNESS FOR ANY PARTICULAR PURPOSE.

The author of this software is David M. Gay.

Copyright (C) 1998-2001 by Lucent Technologies
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 the copyright notice and this

permission notice and warranty disclaimer appear in supporting
documentation, and that the name of Lucent or any of its entities
not be used in advertising or publicity pertaining to
distribution of the software without specific, written prior
permission.

LUCENT DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE,
INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS.
IN NO EVENT SHALL LUCENT OR ANY OF ITS ENTITIES 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.

(4) Advanced Micro Devices

Copyright 1989, 1990 Advanced Micro Devices, Inc.

This software is the property of Advanced Micro Devices, Inc (AMD) which specifically grants the user the right to modify, use and distribute this software provided this notice is not removed or altered. All other rights are reserved by AMD.

AMD MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THIS SOFTWARE. IN NO EVENT SHALL AMD BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING FROM THE FURNISHING, PERFORMANCE, OR USE OF THIS SOFTWARE.

So that all may benefit from your experience, please report any problems or suggestions about this software to the 29K Technical Support Center at 800-29-29-AMD (800-292-9263) in the USA, or 0800-89-1131 in the UK, or 0031-11-1129 in Japan, toll free. The direct dial number is 512-462-4118.

Advanced Micro Devices, Inc.
29K Support Products
Mail Stop 573
5900 E. Ben White Blvd.
Austin, TX 78741
800-292-9263

(5)

(6)

(7) Sun Microsystems

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

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

(8) Hewlett Packard

```
(c) Copyright 1986 HEWLETT-PACKARD COMPANY

To anyone who acknowledges that this file is provided "AS IS"
without any express or implied warranty:
    permission to use, copy, modify, and distribute this file
for any purpose is hereby granted without fee, provided that
the above copyright notice and this notice appears in all
copies, and that the name of Hewlett-Packard Company not be
used in advertising or publicity pertaining to distribution
of the software without specific, written prior permission.
Hewlett-Packard Company makes no representations about the
suitability of this software for any purpose.
```

(9) Hans-Peter Nilsson

```
Copyright (C) 2001 Hans-Peter Nilsson

Permission to use, copy, modify, and distribute this software is
freely granted, provided that the above copyright notice, this notice
and the following disclaimer are preserved with no changes.

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.
```

(10) Stephane Carrez (m68hc11-elf/m68hc12-elf targets only)

```
Copyright (C) 1999, 2000, 2001, 2002 Stephane Carrez (stcarrez@nerim.fr)

The authors hereby grant permission to use, copy, modify, distribute,
and license this software and its documentation for any purpose, provided
that existing copyright notices are retained in all copies and that this
notice is included verbatim in any distributions. No written agreement,
license, or royalty fee is required for any of the authorized uses.
Modifications to this software may be copyrighted by their authors
and need not follow the licensing terms described here, provided that
the new terms are clearly indicated on the first page of each file where
they apply.
```

(11) Christopher G. Demetriou

```
Copyright (c) 2001 Christopher G. Demetriou
All rights reserved.
```

BSD-style redistribution terms — variant 4 (S012), p. 375

(12) SuperH, Inc.

```
Copyright 2002 SuperH, Inc. All rights reserved

This software is the property of SuperH, Inc (SuperH) which specifically
grants the user the right to modify, use and distribute this software
provided this notice is not removed or altered.  All other rights are
reserved by SuperH.

SUPERH MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO
THIS SOFTWARE.  IN NO EVENT SHALL SUPERH BE LIABLE FOR INDIRECT, SPECIAL,
INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING FROM
THE FURNISHING, PERFORMANCE, OR USE OF THIS SOFTWARE.

So that all may benefit from your experience, please report any problems
or suggestions about this software to the SuperH Support Center via
e-mail at softwaresupport@superh.com .

SuperH, Inc.
405 River Oaks Parkway
San Jose
CA 95134
USA
```

(13) Royal Institute of Technology

```
Copyright (c) 1999 Kungliga Tekniska Högskolan
(Royal Institute of Technology, Stockholm, Sweden).
All rights reserved.
```

BSD-style redistribution terms — variant 6 (S014), p. 376

(14) Alexey Zelkin

```
Copyright (c) 2000, 2001 Alexey Zelkin <phantom@FreeBSD.org>
All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(15) Andrey A. Chernov

```
Copyright (C) 1997 by Andrey A. Chernov, Moscow, Russia.
All rights reserved.
```

BSD-style redistribution terms — variant 8 (S016), p. 377

(16) FreeBSD

```
Copyright (c) 1997-2002 FreeBSD Project.
All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(17) S. L. Moshier

```
Author:  S. L. Moshier.

Copyright (c) 1984,2000 S.L. Moshier

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,  THE AUTHOR MAKES NO REPRESENTATION
OR WARRANTY OF ANY KIND CONCERNING THE MERCHANTABILITY OF THIS
SOFTWARE OR ITS FITNESS FOR ANY PARTICULAR PURPOSE.
```

(18) Citrus Project

```
Copyright (c)1999 Citrus Project,
All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(19) Todd C. Miller

```
Copyright (c) 1998 Todd C. Miller <Todd.Miller@courtesan.com>
All rights reserved.
```

BSD-style redistribution terms — variant 9 (S017), p. 377

(20) DJ Delorie (i386 / arm)

```
Copyright (C) 1991 DJ Delorie
All rights reserved.

Redistribution, modification, and use in source and binary forms is permitted
provided that the above copyright notice and following paragraph are
duplicated in all such forms.
```

This file is distributed WITHOUT ANY WARRANTY; without even the implied
warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

(21) Free Software Foundation LGPL License (*-linux* targets only)

```
Copyright (C) 1990-1999, 2000, 2001    Free Software Foundation, Inc.
This file is part of the GNU C Library.
Contributed by Mark Kettenis <kettenis@phys.uva.nl>, 1997.

The GNU C 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 GNU C 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 GNU C Library; if not, write to the Free
Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA
02110-1301 USA.
```

(22) Xavier Leroy LGPL License (i[3456]86-*-linux* targets only)

```
Copyright (C) 1996 Xavier Leroy (Xavier.Leroy@inria.fr)

This program is free software; you can redistribute it and/or
modify it under the terms of the GNU Library 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 Library General Public License for more details.
```

(23) Intel (i960)

```
Copyright (c) 1993 Intel Corporation

Intel hereby grants you permission to copy, modify, and distribute this
software and its documentation.  Intel grants this permission provided
that the above copyright notice appears in all copies and that both the
copyright notice and this permission notice appear in supporting
documentation.  In addition, Intel grants this permission provided that
you prominently mark as "not part of the original" any modifications
made to this software or documentation, and that the name of Intel
Corporation not be used in advertising or publicity pertaining to
distribution of the software or the documentation without specific,
written prior permission.

Intel Corporation provides this AS IS, WITHOUT ANY WARRANTY, EXPRESS OR
IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY
OR FITNESS FOR A PARTICULAR PURPOSE.  Intel makes no guarantee or
representations regarding the use of, or the results of the use of,
```

```
the software and documentation in terms of correctness, accuracy,
reliability, currentness, or otherwise; and you rely on the software,
documentation and results solely at your own risk.

IN NO EVENT SHALL INTEL BE LIABLE FOR ANY LOSS OF USE, LOSS OF BUSINESS,
LOSS OF PROFITS, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES
OF ANY KIND.  IN NO EVENT SHALL INTEL'S TOTAL LIABILITY EXCEED THE SUM
PAID TO INTEL FOR THE PRODUCT LICENSED HEREUNDER.
```

(24) Hewlett-Packard (hppa targets only)

```
(c) Copyright 1986 HEWLETT-PACKARD COMPANY

To anyone who acknowledges that this file is provided "AS IS"
without any express or implied warranty:
    permission to use, copy, modify, and distribute this file
for any purpose is hereby granted without fee, provided that
the above copyright notice and this notice appears in all
copies, and that the name of Hewlett-Packard Company not be
used in advertising or publicity pertaining to distribution
of the software without specific, written prior permission.
Hewlett-Packard Company makes no representations about the
suitability of this software for any purpose.
```

(25) Henry Spencer (only *-linux targets)

```
Copyright 1992, 1993, 1994 Henry Spencer.  All rights reserved.
This software is not subject to any license of the American Telephone
and Telegraph Company or of the Regents of the University of California.

Permission is granted to anyone to use this software for any purpose on
any computer system, and to alter it and redistribute it, subject
to the following restrictions:

1. The author is not responsible for the consequences of use of this
   software, no matter how awful, even if they arise from flaws in it.

2. The origin of this software must not be misrepresented, either by
   explicit claim or by omission.  Since few users ever read sources,
   credits must appear in the documentation.

3. Altered versions must be plainly marked as such, and must not be
   misrepresented as being the original software.  Since few users
   ever read sources, credits must appear in the documentation.

4. This notice may not be removed or altered.
```

(26) Mike Barcroft

```
Copyright (c) 2001 Mike Barcroft <mike@FreeBSD.org>
All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(27) Konstantin Chuguev (--enable-newlib-iconv)

```
Copyright (c) 1999, 2000
   Konstantin Chuguev.  All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

```
   iconv (Charset Conversion Library) v2.0
```

(28) Artem Bityuckiy (--enable-newlib-iconv)

```
Copyright (c) 2003, Artem B. Bityuckiy, SoftMine Corporation.
Rights transferred to Franklin Electronic Publishers.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(29) IBM, Sony, Toshiba (only spu-* targets)

```
  (C) Copyright 2001,2006,
  International Business Machines Corporation,
  Sony Computer Entertainment, Incorporated,
  Toshiba Corporation,

  All rights reserved.
```

BSD-style redistribution terms — variant 10 (S018), p. 378

(30) - Alex Tatmanjants (targets using libc/posix)

```
  Copyright (c) 1995 Alex Tatmanjants <alex@elvisti.kiev.ua>
                at Electronni Visti IA, Kiev, Ukraine.
                        All rights reserved.
```

BSD-style redistribution terms — variant 11 (S019), p. 378

(31) - M. Warner Losh (targets using libc/posix)

```
  Copyright (c) 1998, M. Warner Losh <imp@freebsd.org>
  All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(32) - Andrey A. Chernov (targets using libc/posix)

```
Copyright (C) 1996 by Andrey A. Chernov, Moscow, Russia.
All rights reserved.
```

BSD-style redistribution terms — variant 8 (S016), p. 377

(33) - Daniel Eischen (targets using libc/posix)

```
Copyright (c) 2001 Daniel Eischen <deischen@FreeBSD.org>.
All rights reserved.
```

BSD-style redistribution terms — variant 12 (S020), p. 378

(34) - Jon Beniston (only lm32-* targets)

```
Contributed by Jon Beniston <jon@beniston.com>
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(35) - Arm Ltd

```
SPDX-License-Identifier: BSD-3-Clause

Copyright (c) 2009-2022 Arm Ltd
All rights reserved.
```

BSD-style redistribution terms — variant 13 (S021), p. 379

(36) - Xilinx, Inc. (microblaze-* and powerpc-* targets)

```
Copyright (c) 2004, 2009 Xilinx, Inc.  All rights reserved.
```

BSD-style redistribution terms — variant 14 (S022), p. 379

(37) Texas Instruments Incorporated (tic6x-*, *-tirtos targets)

```
Copyright (c) 1996-2010,2014 Texas Instruments Incorporated
http://www.ti.com/
```

BSD-style redistribution terms — variant 15 (S023), p. 379

(38) National Semiconductor (cr16-* and crx-* targets)

```
Copyright (c) 2004 National Semiconductor Corporation

The authors hereby grant permission to use, copy, modify, distribute,
and license this software and its documentation for any purpose, provided
that existing copyright notices are retained in all copies and that this
notice is included verbatim in any distributions. No written agreement,
license, or royalty fee is required for any of the authorized uses.
Modifications to this software may be copyrighted by their authors
and need not follow the licensing terms described here, provided that
the new terms are clearly indicated on the first page of each file where
they apply.
```

(39) - Adapteva, Inc. (epiphany-* targets)

```
Copyright (c) 2011, Adapteva, Inc.
All rights reserved.
```

BSD-style redistribution terms — variant 16 (S024), p. 380

(40) - Altera Corportion (nios2-* targets)

```
Copyright (c) 2003 Altera Corporation
All rights reserved.
```

BSD-style redistribution terms — variant 17 (S025), p. 380

(41) Ed Schouten - Free BSD

```
Copyright (c) 2008 Ed Schouten <ed@FreeBSD.org>
All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(42) - Rolls-Royce Controls and Data Services Limited (visium-* targets)

```
Copyright (c) 2015 Rolls-Royce Controls and Data Services Limited.
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 Rolls-Royce Controls and Data Services Limited 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.
```

(43) - FTDI (ft32-* targets)

```
Copyright (C) 2014 FTDI (support@ftdichip.com)

The authors hereby grant permission to use, copy, modify, distribute,
and license this software and its documentation for any purpose, provided
that existing copyright notices are retained in all copies and that this
notice is included verbatim in any distributions. No written agreement,
license, or royalty fee is required for any of the authorized uses.
Modifications to this software may be copyrighted by their authors
and need not follow the licensing terms described here, provided that
the new terms are clearly indicated on the first page of each file where
they apply.
```

(44) - Synopsys Inc (arc-* targets)

```
Copyright (c) 2015, Synopsys, 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 Synopsys, 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.

(45) embedded brains - RTEMS targets

Copyright (c) 2017 embedded brains GmbH
All rights reserved.

BSD-style redistribution terms — variant 7 (S015), p. 377

(46) John Baldwin - RTEMS targets

Copyright (c) 2015 John Baldwin <jhb@FreeBSD.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:
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 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 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.

(47) Jeffrey Roberson - RTEMS targets

Copyright (c) 2008, Jeffrey Roberson <jeff@freebsd.org>
All rights reserved.

Copyright (c) 2008 Nokia 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 unmodified, 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.

(48) - SiFive Inc. (riscv-* targets)

Copyright (c) 2017 SiFive Inc. All rights reserved.

This copyrighted material is made available to anyone wishing to use,
modify, copy, or redistribute it subject to the terms and conditions
of the FreeBSD License.   This program is distributed in the hope that
it will be useful, but WITHOUT ANY WARRANTY expressed or implied,
including the implied warranties of MERCHANTABILITY or FITNESS FOR
A PARTICULAR PURPOSE. A copy of this license is available at
http://www.opensource.org/licenses.

(49) Michael R. Neilly (riscv-* targets)

(c) Copyright 2017 Michael R. Neilly
All rights reserved.

BSD-style redistribution terms — variant 10 (S018), p. 378

(50) Mentor Graphics (amdgcn-* targets)

```
Copyright (c) 2014-2017 Mentor Graphics.

The authors hereby grant permission to use, copy, modify, distribute,
and license this software and its documentation for any purpose, provided
that existing copyright notices are retained in all copies and that this
notice is included verbatim in any distributions. No written agreement,
license, or royalty fee is required for any of the authorized uses.
Modifications to this software may be copyrighted by their authors
and need not follow the licensing terms described here, provided that
the new terms are clearly indicated on the first page of each file where
they apply.
```

(51) BSD-2-Clause-FreeBSD (pru-* targets)

```
SPDX-License-Identifier: BSD-2-Clause-FreeBSD

Copyright (c) 2018-2019 Dimitar Dimitrov <dimitar@dinux.eu>
All rights reserved.
```

BSD-style redistribution terms — variant 11 (S019), p. 378

(52) Andrew Turner (arm-* targets)

```
Copyright (c) 2013 Andrew Turner <andrew@FreeBSD.ORG>
All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(53) BSD-2-Clause-FreeBSD David Schultz (arm-* targets)

```
SPDX-License-Identifier: BSD-2-Clause-FreeBSD

Copyright (c) 2004-2011 David Schultz <das@FreeBSD.ORG>
All rights reserved.
```

BSD-style redistribution terms — variant 7 (S015), p. 377

(54) - C-SKY Microsystems (csky-* targets)

```
Copyright (c) 2020  C-SKY Microsystems All rights reserved.

This copyrighted material is made available to anyone wishing to use,
modify, copy, or redistribute it subject to the terms and conditions
of the FreeBSD License.   This program is distributed in the hope that
it will be useful, but WITHOUT ANY WARRANTY expressed or implied,
including the implied warranties of MERCHANTABILITY or FITNESS FOR
A PARTICULAR PURPOSE.  A copy of this license is available at
```

http://www.opensource.org/licenses.

(55) BSD-3-Clause-FreeBSD Peter Wemm (rtems targets)

```
SPDX-License-Identifier: BSD-3-Clause

Copyright (c) 1997 Peter Wemm <peter@freebsd.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:
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 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.
```

Appendix L075 — Shared license text and notices

```
GCC RUNTIME LIBRARY EXCEPTION

Version 3.1, 31 March 2009

Copyright (C) 2009 Free Software Foundation, Inc. <http://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this
license document, but changing it is not allowed.

This GCC Runtime Library Exception ("Exception") is an additional
permission under section 7 of the GNU General Public License, version
3 ("GPLv3"). It applies to a given file (the "Runtime Library") that
bears a notice placed by the copyright holder of the file stating that
the file is governed by GPLv3 along with this Exception.

When you use GCC to compile a program, GCC may combine portions of
certain GCC header files and runtime libraries with the compiled
program. The purpose of this Exception is to allow compilation of
non-GPL (including proprietary) programs to use, in this way, the
header files and runtime libraries covered by this Exception.

0. Definitions.

A file is an "Independent Module" if it either requires the Runtime
Library for execution after a Compilation Process, or makes use of an
interface provided by the Runtime Library, but is not otherwise based
on the Runtime Library.

"GCC" means a version of the GNU Compiler Collection, with or without
modifications, governed by version 3 (or a specified later version) of
```

the GNU General Public License (GPL) with the option of using any
subsequent versions published by the FSF.

"GPL-compatible Software" is software whose conditions of propagation,
modification and use would permit combination with GCC in accord with
the license of GCC.

"Target Code" refers to output from any compiler for a real or virtual
target processor architecture, in executable form or suitable for
input to an assembler, loader, linker and/or execution
phase. Notwithstanding that, Target Code does not include data in any
format that is used as a compiler intermediate representation, or used
for producing a compiler intermediate representation.

The "Compilation Process" transforms code entirely represented in
non-intermediate languages designed for human-written code, and/or in
Java Virtual Machine byte code, into Target Code. Thus, for example,
use of source code generators and preprocessors need not be considered
part of the Compilation Process, since the Compilation Process can be
understood as starting with the output of the generators or
preprocessors.

A Compilation Process is "Eligible" if it is done using GCC, alone or
with other GPL-compatible software, or if it is done without using any
work based on GCC. For example, using non-GPL-compatible Software to
optimize any GCC intermediate representations would not qualify as an
Eligible Compilation Process.

1. Grant of Additional Permission.

You have permission to propagate a work of Target Code formed by
combining the Runtime Library with Independent Modules, even if such
propagation would otherwise violate the terms of GPLv3, provided that
all Target Code was generated by Eligible Compilation Processes. You
may then convey such a combination under terms of your choice,
consistent with the licensing of the Independent Modules.

2. No Weakening of GCC Copyleft.

The availability of this Exception does not imply any general
presumption that third-party software is unaffected by the copyleft
requirements of the license of GCC.

Appendix L076 — Espressif ESP32-C5 firmware — LICENSE.1

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

Apache 2.0 terms — variant 1 (S008), p. 366

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.

This product bundles queue.h 8.5, which is available under the "3-clause BSD"
license.  For details, see porting/nimble/include/os/queue.h

This product partly derives from FreeBSD, which is available under the
"3-clause BSD" license.  For details, see:
    * porting/nimble/src/os_mbuf.c

This product bundles Gary S. Brown's CRC32 implementation, which is available
under the following license:
    COPYRIGHT (C) 1986 Gary S. Brown.  You may use this program, or
    code or tables extracted from it, as desired without restriction.

This product bundles tinycrypt, which is available under the "3-clause BSD"
license. For details, and bundled files see:
    * ext/tinycrypt/LICENSE

This product bundles and partly derives from parts of the Nordic nRF52 SDK,
which are available under a BSD style license.  Relevant files are:
    * babblesim/hw/mcu/nordic/nrf52_bsim/src/system_nrf52.c

This product bundles additional files from CMSIS-CORE, but these files are
missing licensing information.  The BSD license was subsequently added to
these files in later releases.  These files are:
    * babblesim/hw/mcu/nordic/nrf52_bsim/include/mcu/cmsis_nvic.h
```

Appendix L077 — Espressif ESP32-C5 firmware — LICENSE.2

References in this notice:
Apache-2.0 — https://spdx.org/licenses/Apache-2.0.html
GPL-2.0-or-later — https://spdx.org/licenses/GPL-2.0-or-later.html

```
Mbed TLS files are provided under a dual [Apache-2.0](https://spdx.org/licenses/
Apache-2.0.html)
OR [GPL-2.0-or-later](https://spdx.org/licenses/GPL-2.0-or-later.html) license.
This means that users may choose which of these licenses they take the code
under.

The full text of each of these licenses is given below.


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

Apache 2.0 terms — variant 1 (S008), p. 366

```
   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 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

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.
```

Appendix L078 — Espressif ESP32-C5 firmware — LICENSE.3

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

Apache 2.0 terms — variant 1 (S008), p. 366

```
   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 2023 idf / apache

   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.
```

Appendix L079 — Espressif ESP32-C5 firmware — LICENSE.md

```
MIT License
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L080 — Espressif ESP32-C5 firmware — LICENSE.txt

Sections in this notice collection (the notice text retains its source order):

The LLVM Project is under the Apache License v2.0 with LLVM Exceptions:, p. 144
---- LLVM Exceptions to the Apache 2.0 License ----, p. 144
Software from third parties included in the LLVM Project:, p. 144
Legacy LLVM License (https://llvm.org/docs/DeveloperPolicy.html#legacy):, p. 145

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

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/

Apache 2.0 terms — variant 1 (S008), p. 366

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):

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

The software contained in this directory tree is dual licensed under both the
University of Illinois "BSD-Like" license and the MIT license.  As a user of
this code you may choose to use it under either license.  As a contributor,
you agree to allow your code to be used under both.

Full text of the relevant licenses is included below.

==============================================================================

University of Illinois/NCSA
Open Source License

Copyright (c) 2017-2019 by the contributors listed in CREDITS.TXT

All rights reserved.

Developed by:
    Threading Runtimes Team
    Intel Corporation
    http://www.intel.com

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 Intel Corporation Threading Runtimes Team 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.

==============================================================================

Copyright (c) 2017-2019 by the contributors listed in CREDITS.TXT
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L081 — Espressif ESP32-C5 firmware — NOTICE.0

```
Apache Mynewt NimBLE
Copyright 2015-2021 The Apache Software Foundation
Modifications Copyright 2017-2024 Espressif Systems (Shanghai) CO., LTD.

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

Portions of this software were developed at
Runtime Inc, copyright 2015.
```

Appendix L082 — Espressif ESP32-C5 firmware — NOTICE.1

```
Apache Mynewt NimBLE
Copyright 2015-2022 The Apache Software Foundation
Modifications Copyright 2017-2022 Espressif Systems (Shanghai) CO., LTD.

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

Portions of this software were developed at
Runtime Inc, copyright 2015.
```

Appendix L083 — Espressif ESP32-C5 firmware — README

```
wpa_supplicant and hostapd
--------------------------

Copyright (c) 2002-2019, Jouni Malinen <j@w1.fi> and contributors
All Rights Reserved.

These programs are licensed under the BSD license (the one with
advertisement clause removed).

License
-------

This software may be distributed, used, and modified under the terms of
BSD license:
```

BSD-style redistribution terms — variant 18 (S026), p. 381

Appendix L084 — Espressif ESP32-C5 firmware — README.md.0

References in this notice:
NOTICE (L081), p. 146

```
This software includes portions of code derived from mynewt-nimble project. See [NOTICE]
(NOTICE) file for details.
```

Appendix L085 — Espressif ESP32-C5 firmware — README.md.1

References in this notice:
Espressif IoT Development Framework — https://github.com/espressif/esp-idf

```
ESP32 Coexist Libraries
=======================

This repository contains binary libraries supporting the ESP32 series Wi-Fi/Bluetooth/802.15.4
coexistence subsystems. It is used as a submodule within [Espressif IoT Development Framework]
(https://github.com/espressif/esp-idf).
```

```
Files in this repository are Copyright (C) 2015-2023 Espressif Systems.

These binary libraries are provided under the same license as the parent esp-idf project - the
Apache License 2.0 as provided in the file LICENSE. (The license text refers to this as
"Object" form.)
```

Appendix L086 — Espressif ESP32-C5 firmware — README.rst

References in this notice:
Espressif IoT Development Framework — https://github.com/espressif/esp-idf

```
ESP PHY Libraries
====================

This repository contains binary libraries supporting the ESP32 series RF subsystems. It is
used as a submodule within `Espressif IoT Development Framework`_ (ESP-IDF).

Files in this repository are Copyright (C) 2015-2021 Espressif Systems.

These binary libraries are provided under the same license as the parent esp-idf project - the
Apache License 2.0 as provided in the file LICENSE. (The license text refers to this as
"Object" form.)

.. _Espressif IoT Development Framework: https://github.com/espressif/esp-idf
```

Appendix L087 — Espressif ESP32-C5 firmware — esp-idf-net80211-copyright.txt

References in this notice:
FreeBSD net80211 — https://github.com/freebsd/freebsd-src/tree/master/sys/net80211
freebsd-net80211-notice.txt (L071), p. 111

```
* `FreeBSD net80211`_, Copyright (C) 2004-2008 Sam Leffler, Errno Consulting and licensed
under the BSD License.


.. _FreeBSD net80211: https://github.com/freebsd/freebsd-src/tree/master/sys/net80211
```

Appendix L088 — Espressif ESP32-C5 firmware — esp-idf-software-copyright.txt

```
Software Copyrights
====================

All original source code in this repository is Copyright (C) 2015-2023 Espressif Systems. This
source code is licensed under the Apache License 2.0 as described in the file LICENSE.

Additional third party copyrighted code is included under the following licenses.

Where source code headers specify Copyright & License information, this information takes
precedence over the summaries made here.

Some examples use external components which are not Apache licensed, please check the
copyright description in each example source code.
```

Appendix L089 — Espressif ESP32-C5 firmware — License template: Apache-2.0-with-LLVM-exception

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

Apache 2.0 terms — variant 1 (S008), p. 366

```
    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.
```

Appendix L090 — Shared license text and notices

```
Creative Commons Zero 1.0 Universal (CC0)

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:

the right to reproduce, adapt, distribute, perform, display, communicate, and translate a Work;
moral rights retained by the original author(s) and/or performer(s);
publicity and privacy rights pertaining to a person`s image or likeness depicted in a Work;
rights protecting against unfair competition in regards to a Work, subject to the limitations in paragraph 4(a), below;
rights protecting the extraction, dissemination, use and reuse of data in a Work;
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
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.

No trademark or patent rights held by Affirmer are waived, abandoned, surrendered, licensed or otherwise affected by this document.
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.
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.
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.

Appendix L091 — Shared license text and notices

insert GPL v3 text here

GCC RUNTIME LIBRARY EXCEPTION
Version 3.1, 31 March 2009

General information:
http://www.gnu.org/licenses/gcc-exception.html
Copyright (C) 2009 Free Software Foundation, Inc. <http://fsf.org/>
Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.
This GCC Runtime Library Exception ("Exception") is an additional permission under section 7 of the GNU General Public License, version 3 ("GPLv3"). It applies to a given file (the "Runtime Library") that bears a notice placed by the copyright holder of the file stating that the file is governed by GPLv3 along with this Exception.
When you use GCC to compile a program, GCC may combine portions of certain GCC header files and runtime libraries with the compiled program. The purpose of this Exception is to allow compilation of non-GPL (including proprietary) programs to use, in this way, the header files and runtime libraries covered by this Exception.

0. Definitions.
A file is an "Independent Module" if it either requires the Runtime Library for execution after a Compilation Process, or makes use of an interface provided by the Runtime Library, but is not otherwise based on the Runtime Library.
"GCC" means a version of the GNU Compiler Collection, with or without modifications, governed by version 3 (or a specified later version) of the GNU General Public License (GPL) with the option of using any subsequent versions published by the FSF.
"GPL-compatible Software" is software whose conditions of propagation, modification and use would permit combination with GCC in accord with the license of GCC.
"Target Code" refers to output from any compiler for a real or virtual target processor architecture, in executable form or suitable for input to an assembler, loader, linker and/or execution phase. Notwithstanding that, Target Code does not include data in any format that is used as a compiler intermediate representation, or used for producing a compiler intermediate representation.
The "Compilation Process" transforms code entirely represented in non-intermediate languages designed for human-written code, and/or in Java Virtual Machine byte code, into Target Code. Thus, for example, use of source code generators and preprocessors need not be considered part of the Compilation Process, since the Compilation Process can be understood as starting with the output of the generators or preprocessors.
A Compilation Process is "Eligible" if it is done using GCC, alone or with other GPL-compatible software, or if it is done without using any work based on GCC. For example, using non-GPL-compatible Software to optimize any GCC intermediate representations would not qualify as an Eligible Compilation Process.

1. Grant of Additional Permission.
You have permission to propagate a work of Target Code formed by combining the Runtime Library with Independent Modules, even if such propagation would otherwise violate the terms of GPLv3, provided that all Target Code was generated by Eligible Compilation Processes. You may then convey such a combination under terms of your choice, consistent with the licensing of the Independent Modules.

2. No Weakening of GCC Copyleft.
The availability of this Exception does not imply any general presumption that third-party software is unaffected by the copyleft requirements of the license of GCC.

Appendix L092 — Espressif ESP32-C5 firmware — source-notices.txt

Sections in this notice collection (the notice text retains its source order):

Other source notices: Notices 1–7, p. 151; Notices 40–44, p. 158; Notices 46–48, p. 159; Notices 50–53, p. 160; Notices 55–85, p. 160; Notices 90–100, p. 168; Notices 102–105, p. 170; Notices 109–113, p. 171; Notices 176–191, p. 177; Notices 193–207, p. 180; Notices 209–222, p. 182; Notices 225–235, p. 185; Notice 237, p. 188; Notices 239–242, p. 188; Notices 260–264, p. 192; Notices 271–278, p. 197; Notices 283–332, p. 199; Notices 337–342, p. 208
SPDX: Apache-2.0 OR GPL-2.0-or-later: Notices 8–9, p. 153; Notices 11–35, p. 154; Notice 39, p. 157; Notice 49, p. 159; Notice 54, p. 160; Notice 224, p. 185; Notice 238, p. 188; Notice 249, p. 189; Notices 254–259, p. 191
SPDX: Apache-2.0: Notice 10, p. 154; Notices 36–38, p. 156; Notice 45, p. 159; Notice 89, p. 168; Notice 101, p. 170; Notices 106–108, p. 170; Notices 119–123, p. 172; Notices 125–171, p. 173; Notices 173–175, p. 177; Notice 192, p. 180; Notice 208, p. 182; Notices 243–248, p. 189; Notices 250–253, p. 189; Notices 333–336, p. 207
SPDX: MIT: Notices 86–88, p. 167
SPDX: BSD-3-Clause: Notices 114–118, p. 172; Notice 172, p. 177; Notice 223, p. 184; Notices 267–270, p. 195
SPDX: CC0-1.0: Notice 124, p. 173
SPDX: GPL-2.0-only OR Apache-2.0: Notice 236, p. 188
SPDX: BSD-2-Clause-FreeBSD AND Apache-2.0: Notice 265, p. 194
SPDX: BSD-2-Clause-FreeBSD: Notice 266, p. 195
SPDX: Apache-2.0 WITH LLVM-exception: Notices 279–282, p. 198

Notices 1–7 — Other source notices

```
    // give BOD mode1 control permission to the software


/*
 *
 * Copyright (c) 1994
 * Hewlett-Packard Company
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Hewlett-Packard Company makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 *
 *
 * Copyright (c) 1996
 * Silicon Graphics Computer Systems, Inc.
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Silicon Graphics makes no
 * representations about the suitability of this  software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 */

/*
 *
 * Copyright (c) 1994
 * Hewlett-Packard Company
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Hewlett-Packard Company makes no
 * representations about the suitability of this software for any
```

```
 * purpose.  It is provided "as is" without express or implied warranty.
 *
 *
 * Copyright (c) 1996
 * Silicon Graphics Computer Systems, Inc.
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Silicon Graphics makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 */

/*
 *
 * Copyright (c) 1994
 * Hewlett-Packard Company
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Hewlett-Packard Company makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 *
 *
 * Copyright (c) 1996,1997
 * Silicon Graphics Computer Systems, Inc.
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Silicon Graphics makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 */

/*
 *
 * Copyright (c) 1994
 * Hewlett-Packard Company
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Hewlett-Packard Company makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 *
 *
 * Copyright (c) 1996-1998
 * Silicon Graphics Computer Systems, Inc.
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Silicon Graphics makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 */

/*
 *
 * Copyright (c) 1994
```

```
 * Hewlett-Packard Company
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Hewlett-Packard Company makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 *
 *
 * Copyright (c) 1996-1999
 * Silicon Graphics Computer Systems, Inc.
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Silicon Graphics makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 */

/*
 *
 * Copyright (c) 1994
 * Hewlett-Packard Company
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Hewlett-Packard Company makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 *
 * Copyright (c) 1997
 * Silicon Graphics Computer Systems, Inc.
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Silicon Graphics makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 */
```

Notices 8–9 — SPDX: Apache-2.0 OR GPL-2.0-or-later

```
/*
 *  ARIA implementation
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  CTR_DRBG implementation based on AES-256 (NIST SP 800-90)
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */
```

Notice 10 — SPDX: Apache-2.0

```
/*
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0
 *
 * This set of compile-time options may be used to enable
 * or disable features selectively, and reduce the global
 * memory footprint.
 *
 * SPDX-FileCopyrightText: The Mbed TLS Contributors
 *
 *  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.
 */
```

Notices 11–35 — SPDX: Apache-2.0 OR GPL-2.0-or-later

```
/*
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 *
 */

/*
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Core bignum functions
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  ECC setters for PK.
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Elliptic curve DSA
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Elliptic curve Diffie-Hellman
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Elliptic curves over GF(p): curve-specific data and functions
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */
```

```
/*
 *  Elliptic curves over GF(p): generic functions
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Entropy accumulator implementation
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  FIPS-180-1 compliant SHA-1 implementation
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  FIPS-180-2 compliant SHA-256 implementation
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  FIPS-180-2 compliant SHA-384/512 implementation
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Generic ASN.1 parsing
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  HMAC_DRBG implementation (NIST SP 800-90)
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Helper functions for the RSA module
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 *
 */

/*
 *  Multi-precision integer library
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  NIST SP800-38C compliant CCM implementation
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */
```

```
/*
 *  NIST SP800-38D compliant GCM implementation
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Platform abstraction layer
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Privacy Enhanced Mail (PEM) decoding
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Public Key abstraction layer
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Public Key abstraction layer: wrapper functions
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  Public Key layer for parsing key files and structures
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  RFC 1321 compliant MD5 implementation
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/*
 *  RFC 1521 base64 encoding/decoding
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */
```

Notices 36–38 — SPDX: Apache-2.0

```
/*
 *  SHA-1 implementation with hardware ESP32 support added.
 *  Uses mbedTLS software implementation for failover when concurrent
 *  SHA operations are in use.
 *
 *  Copyright (C) 2006-2015, ARM Limited, All Rights Reserved
 *  Additions Copyright (C) 2016, Espressif Systems (Shanghai) PTE LTD
 *  SPDX-License-Identifier: Apache-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.
 *
 */

/*
 *  SHA-256 implementation with hardware ESP32 support added.
 *  Uses mbedTLS software implementation for failover when concurrent
 *  SHA operations are in use.
 *
 *  Copyright (C) 2006-2015, ARM Limited, All Rights Reserved
 *  Additions Copyright (C) 2016, Espressif Systems (Shanghai) PTE LTD
 *  SPDX-License-Identifier: Apache-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.
 *
 */

/*
 *  SHA-512 implementation with hardware ESP32 support added.
 *  Uses mbedTLS software implementation for failover when concurrent
 *  SHA operations are in use.
 *
 *  Copyright (C) 2006-2015, ARM Limited, All Rights Reserved
 *  Additions Copyright (C) 2016, Espressif Systems (Shanghai) PTE LTD
 *  SPDX-License-Identifier: Apache-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.
 *
 */
```

Notice 39 — SPDX: Apache-2.0 OR GPL-2.0-or-later

```
/*
 *  The RSA public-key cryptosystem
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
```

```
 */
```

Notices 40–44 — Other source notices

```
/*
 *  Written by Joel Sherrill <joel.sherrill@OARcorp.com>.
 *
 *  COPYRIGHT (c) 1989-2013, 2015.
 *  On-Line Applications Research Corporation (OAR).
 *
 *  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.
 *
 *  THIS SOFTWARE IS BEING PROVIDED "AS IS", WITHOUT ANY EXPRESS OR IMPLIED
 *  WARRANTY.  IN PARTICULAR,  THE AUTHOR MAKES NO REPRESENTATION
 *  OR WARRANTY OF ANY KIND CONCERNING THE MERCHANTABILITY OF THIS
 *  SOFTWARE OR ITS FITNESS FOR ANY PARTICULAR PURPOSE.
 */

/*
 *  Written by Joel Sherrill <joel@OARcorp.com>.
 *
 *  COPYRIGHT (c) 1989-2010.
 *  On-Line Applications Research Corporation (OAR).
 *
 *  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.
 *
 *  THIS SOFTWARE IS BEING PROVIDED "AS IS", WITHOUT ANY EXPRESS OR IMPLIED
 *  WARRANTY.  IN PARTICULAR,  THE AUTHOR MAKES NO REPRESENTATION
 *  OR WARRANTY OF ANY KIND CONCERNING THE MERCHANTABILITY OF THIS
 *  SOFTWARE OR ITS FITNESS FOR ANY PARTICULAR PURPOSE.
 *
 *  $Id$
 */

/*
 *  Written by Joel Sherrill <joel@OARcorp.com>.
 *
 *  COPYRIGHT (c) 1989-2014.
 *
 *  On-Line Applications Research Corporation (OAR).
 *
 *  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.
 *
 *  THIS SOFTWARE IS BEING PROVIDED "AS IS", WITHOUT ANY EXPRESS OR IMPLIED
 *  WARRANTY.  IN PARTICULAR,  THE AUTHOR MAKES NO REPRESENTATION
 *  OR WARRANTY OF ANY KIND CONCERNING THE MERCHANTABILITY OF THIS
 *  SOFTWARE OR ITS FITNESS FOR ANY PARTICULAR PURPOSE.
 *
 *  $Id$
 */

/*
 * AES Key Wrap Algorithm (RFC3394)
 *
 * Copyright (c) 2003-2007, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

```
/*
 * AES SIV (RFC 5297)
 * Copyright (c) 2013 Cozybit, Inc.
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

Notice 45 — SPDX: Apache-2.0

```
/*
 * AES block cipher, ESP hardware accelerated version, common
 * Based on mbedTLS FIPS-197 compliant version.
 *
 * SPDX-FileCopyrightText: The Mbed TLS Contributors
 *
 * SPDX-License-Identifier: Apache-2.0
 *
 * SPDX-FileContributor: 2016-2024 Espressif Systems (Shanghai) CO LTD
 */
```

Notices 46–48 — Other source notices

```
/*
 * AES functions
 * Copyright (c) 2003-2006, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * AES key unwrap (RFC3394)
 *
 * Copyright (c) 2003-2007, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * AES-based functions
 *
 * - AES Key Wrap Algorithm (RFC3394)
 * - One-Key CBC MAC (OMAC1) hash with AES-128 and AES-256
 * - AES-128/192/256 CTR mode encryption
 * - AES-128 EAX mode encryption/decryption
 * - AES-128 CBC
 * - AES-GCM
 * - AES-CCM
 *
 * Copyright (c) 2003-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

Notice 49 — SPDX: Apache-2.0 OR GPL-2.0-or-later

```
/*
 * ASN.1 buffer writing functionality
 *
 *  Copyright The Mbed TLS Contributors
```

```
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */
```

Notices 50–53 — Other source notices

```
/*
 * All the code below is a rework of
 * https://github.com/freebsd/freebsd/blob/master/sys/sys/endian.h
 * to import symbols defining non-standard endian handling functions.
 * The aforementioned source code license terms are included here.
 * For further license info, please look at https://github.com/freebsd/freebsd
 */

/*
 * BSS table
 * Copyright (c) 2009-2019, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Base64 encoding/decoding (RFC1341)
 * Copyright (c) 2005, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * CTR with CBC-MAC Protocol (CCMP)
 * Copyright (c) 2010-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

Notice 54 — SPDX: Apache-2.0 OR GPL-2.0-or-later

```
/*
 * Common and shared functions used by multiple modules in the Mbed TLS
 * library.
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */
```

Notices 55–85 — Other source notices

```
/*
 * Copyright (c) 1988, 1993
 *      The 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.
 *
 *      @(#)syslimits.h 8.1 (Berkeley) 6/2/93
 * $FreeBSD: src/sys/sys/syslimits.h,v 1.10 2001/06/18 20:24:54 wollman Exp $
 */

/*
 * Copyright (c) 1990 The Regents of the University of California.
 * All rights reserved.
 *
 * Redistribution and use in source and binary forms are permitted
 * provided that the above copyright notice and this paragraph are
 * duplicated in all such forms and that any documentation,
 * and/or other materials related to such
 * distribution and use acknowledge that the software was developed
 * by the University of California, Berkeley.  The name of the
 * University may not be used to endorse or promote products derived
 * from this software without specific prior written permission.
 * THIS SOFTWARE IS PROVIDED ``AS IS'' AND WITHOUT ANY EXPRESS OR
 * IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED
 * WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
 *
 *      @(#)stdio.h     5.3 (Berkeley) 3/15/86
 */

/*
 * Copyright (c) 1996-1997
 * Silicon Graphics Computer Systems, Inc.
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Silicon Graphics makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 */

/*
 * Copyright (c) 1997
 * Silicon Graphics Computer Systems, Inc.
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Silicon Graphics makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 *
 */

/*
 * Copyright (c) 1997-1999
 * Silicon Graphics Computer Systems, Inc.
 *
 * Permission to use, copy, modify, distribute and sell this software
 * and its documentation for any purpose is hereby granted without fee,
 * provided that the above copyright notice appear in all copies and
```

```
 * that both that copyright notice and this permission notice appear
 * in supporting documentation.  Silicon Graphics makes no
 * representations about the suitability of this software for any
 * purpose.  It is provided "as is" without express or implied warranty.
 *
 */

/*
 * Copyright (c) 2001-2004 Swedish Institute of Computer Science.
 * 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.
 *
 * This file is part of the lwIP TCP/IP stack.
 *
 * Author: Adam Dunkels <adam@sics.se>
 *
 */

/*
 * Copyright (c) 2004, 2005 by
 * Ralf Corsepius, Ulm/Germany. All rights reserved.
 *
 * Permission to use, copy, modify, and distribute this software
 * is freely granted, provided that this notice is preserved.
 */

/*
 * Copyright (c) 2010 Inico Technologies 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. 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.
 *
 * This file is part of the lwIP TCP/IP stack.
 *
 * Author: Ivan Delamer <delamer@inicotech.com>
 *
 * Structs and macros for handling IPv6 addresses.
 *
 * Please coordinate changes and requests with Ivan Delamer
 * <delamer@inicotech.com>
 */

/*
 * Copyright (c) 2017 Joel Cunningham, Garmin International, Inc. <joel.cunningham@garmin.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:
 *
 * 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.
 *
 * This file is part of the lwIP TCP/IP stack.
 *
 * Author: Joel Cunningham <joel.cunningham@me.com>
 *
 */

/*
 * Copyright (c) 2017 The MINIX 3 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. 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.
```

```
 *
 * This file is part of the lwIP TCP/IP stack.
 *
 * Author: David van Moolenbroek <david@minix3.org>
 *
 */

/*
 * Copyright (c) 2018 Swedish Institute of Computer Science.
 * 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.
 *
 * This file is part of the lwIP TCP/IP stack.
 *
 * Author: Simon Goldschmidt <goldsimon@gmx.de>
 *
 */

/*
 * Counter with CBC-MAC (CCM) with AES
 *
 * Copyright (c) 2010-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * DPP functionality shared between hostapd and wpa_supplicant
 * Copyright (c) 2017, Qualcomm Atheros, Inc.
 * Copyright (c) 2018-2019, The Linux Foundation
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Diffie-Hellman group 5 operations
 * Copyright (c) 2009, 2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Diffie-Hellman groups
 * Copyright (c) 2007, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
```

```
 * See README for more details.
 */

/*
 * Doubly-linked list
 * Copyright (c) 2009, Jouni Malinen <j@w1.fi>
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License version 2 as
 * published by the Free Software Foundation.
 *
 * Alternatively, this software may be distributed under the terms of BSD
 * license.
 *
 * See README and COPYING for more details.
 */

/*
 * Driver interface definition
 * Copyright (c) 2003-2017, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 *
 * This file defines a driver interface used by both %wpa_supplicant and
 * hostapd. The first part of the file defines data structures used in various
 * driver operations. This is followed by the struct wpa_driver_ops that each
 * driver wrapper will beed to define with callback functions for requesting
 * driver operations. After this, there are definitions for driver event
 * reporting with wpa_supplicant_event() and some convenience helper functions
 * that can be used to report events.
 */

/*
 * Dynamic data buffer
 * Copyright (c) 2007-2012, Jouni Malinen <j@w1.fi>
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License version 2 as
 * published by the Free Software Foundation.
 *
 * Alternatively, this software may be distributed under the terms of BSD
 * license.
 *
 * See README and COPYING for more details.
 */

/*
 * EAP common peer/server definitions
 * Copyright (c) 2004-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * EAP peer configuration data
 * Copyright (c) 2003-2013, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * EAP peer state machine functions (RFC 4137)
 * Copyright (c) 2004-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

```
/*
 * EAP peer state machines internal structures (RFC 4137)
 * Copyright (c) 2004-2007, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * EAP peer: EAP-TLS/PEAP/TTLS/FAST common functions
 * Copyright (c) 2004-2009, 2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * EAP peer: Method registration
 * Copyright (c) 2004-2007, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * EAP server method registration
 * Copyright (c) 2004-2009, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * EAP server/peer: Shared EAP definitions
 * Copyright (c) 2004-2014, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * EAP-WSC definitions for Wi-Fi Protected Setup
 * Copyright (c) 2007, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * EAPOL definitions shared between hostapd and wpa_supplicant
 * Copyright (c) 2002-2007, Jouni Malinen <j@w1.fi>
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License version 2 as
 * published by the Free Software Foundation.
 *
 * Alternatively, this software may be distributed under the terms of BSD
 * license.
 *
 * See README and COPYING for more details.
 */

/*
 * Event loop
 * Copyright (c) 2002-2006, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 *
```

```
 * This file defines an event loop interface that supports processing events
 * from registered timeouts (i.e., do something after N seconds), sockets
 * (e.g., a new packet available for reading), and signals. eloop.c is an
 * implementation of this interface using select() and sockets. This is
 * suitable for most UNIX/POSIX systems. When porting to other operating
 * systems, it may be necessary to replace that implementation with OS specific
 * mechanisms.
 */

/*
 * Event loop based on select() loop
 * Copyright (c) 2002-2009, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * External password backend
 * Copyright (c) 2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

Notices 86–88 — SPDX: MIT

```
/*
 * FreeRTOS Kernel V10.5.1 (ESP-IDF SMP modified)
 * Copyright (C) 2021 Amazon.com, Inc. or its affiliates.  All Rights Reserved.
 *
 * SPDX-FileCopyrightText: 2021 Amazon.com, Inc. or its affiliates
 *
 * SPDX-License-Identifier: MIT
 *
 * SPDX-FileContributor: 2023 Espressif Systems (Shanghai) CO LTD
 *
 *
```

MIT-style terms — variant 2 (SO27), p. 381

```
 *
 * https://www.FreeRTOS.org
 * https://github.com/FreeRTOS
 *
 */

/*
 * FreeRTOS Kernel V10.5.1 (ESP-IDF SMP modified)
 * Copyright (C) 2021 Amazon.com, Inc. or its affiliates.  All Rights Reserved.
 *
 * SPDX-FileCopyrightText: 2021 Amazon.com, Inc. or its affiliates
 *
 * SPDX-License-Identifier: MIT
 *
 * SPDX-FileContributor: 2023-2024 Espressif Systems (Shanghai) CO LTD
 *
 *
```

MIT-style terms — variant 2 (SO27), p. 381

```
 *
 * https://www.FreeRTOS.org
 * https://github.com/FreeRTOS
 *
 */
```

```
/*
 * FreeRTOS Kernel V10.5.1 (ESP-IDF SMP modified)
 * Copyright (C) 2021 Amazon.com, Inc. or its affiliates.  All Rights Reserved.
 *
 * SPDX-FileCopyrightText: 2021 Amazon.com, Inc. or its affiliates
 *
 * SPDX-License-Identifier: MIT
 *
 * SPDX-FileContributor: 2023-2025 Espressif Systems (Shanghai) CO LTD
 *
 *
```

MIT-style terms — variant 2 (S027), p. 381

```
 *
 * https://www.FreeRTOS.org
 * https://github.com/FreeRTOS
 *
 */
```

Notice 89 — SPDX: Apache-2.0

```
/*
 * GCM block cipher, ESP DMA hardware accelerated version
 * Based on mbedTLS FIPS-197 compliant version.
 *
 * SPDX-FileCopyrightText: The Mbed TLS Contributors
 *
 * SPDX-License-Identifier: Apache-2.0
 *
 * SPDX-FileContributor: 2016-2024 Espressif Systems (Shanghai) CO LTD
 */
```

Notices 90–100 — Other source notices

```
/*
 * Galois/Counter Mode (GCM) and GMAC with AES
 *
 * Copyright (c) 2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * HMAC-SHA256 KDF (RFC 5295) and HKDF-Expand(SHA256) (RFC 5869)
 * Copyright (c) 2014-2017, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Helper functions for constant time operations
 * Copyright (c) 2019, The Linux Foundation
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 *
 * These helper functions can be used to implement logic that needs to minimize
 * externally visible differences in execution path by avoiding use of branches,
 * avoiding early termination or other time differences, and forcing same memory
 * access pattern regardless of values.
 */

/*
```

```
 * IEEE 802.11 Common routines
 * Copyright (c) 2002-2019, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * IEEE 802.11 Frame type definitions
 * Copyright (c) 2002-2019, Jouni Malinen <j@w1.fi>
 * Copyright (c) 2007-2008 Intel Corporation
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * IEEE 802.11 RSN / WPA Authenticator
 * Copyright (c) 2004-2011, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * IEEE 802.11v WNM related functions and structures
 * Copyright (c) 2011-2012, Qualcomm Atheros, Inc.
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * IEEE 802.1X-2004 Authenticator - EAPOL state machine
 * Copyright (c) 2002-2015, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Internal WPA/RSN supplicant state machine definitions
 * Copyright (c) 2004-2018, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Licensed to the Apache Software Foundation (ASF) under one
 * or more contributor license agreements.  See the NOTICE file
 * distributed with this work for additional information
 * regarding copyright ownership.  The ASF licenses this file
 * to you under the Apache License, Version 2.0 (the
 * "License"); you may not use this file except in compliance
 * with the License.  You may obtain a copy of the License at
 *
 *  http://www.apache.org/licenses/LICENSE-2.0
 *
 * Unless required by applicable law or agreed to in writing,
 * software distributed under the License is distributed on an
 * "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY
 * KIND, either express or implied.  See the License for the
 * specific language governing permissions and limitations
 * under the License.
 */

/*
 * MD5 hash implementation and interface functions
 * Copyright (c) 2003-2009, Jouni Malinen <j@w1.fi>
```

```
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

Notice 101 — SPDX: Apache-2.0

```
/*
 * Multi-precision integer library
 * ESP-IDF hardware accelerated parts based on mbedTLS implementation
 *
 * SPDX-FileCopyrightText: The Mbed TLS Contributors
 *
 * SPDX-License-Identifier: Apache-2.0
 *
 * SPDX-FileContributor: 2016-2024 Espressif Systems (Shanghai) CO LTD
 */
```

Notices 102–105 — Other source notices

```
/*
 * OS specific functions
 * Copyright (c) 2005-2009, Jouni Malinen <j@w1.fi>
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License version 2 as
 * published by the Free Software Foundation.
 *
 * Alternatively, this software may be distributed under the terms of BSD
 * license.
 *
 * See README and COPYING for more details.
 */

/*
 * RC4 stream cipher
 * Copyright (c) 2002-2005, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Random number generator
 * Copyright (c) 2010-2011, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * SAE-PK
 * Copyright (c) 2020, The Linux Foundation
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

Notices 106–108 — SPDX: Apache-2.0

```
/*
 * SHA-1 implementation with hardware ESP support added.
 *
 * SPDX-FileCopyrightText: The Mbed TLS Contributors
```

```
 *
 * SPDX-License-Identifier: Apache-2.0
 *
 * SPDX-FileContributor: 2016-2025 Espressif Systems (Shanghai) CO LTD
 */

/*
 * SHA-256 implementation with hardware ESP support added.
 *
 * SPDX-FileCopyrightText: The Mbed TLS Contributors
 *
 * SPDX-License-Identifier: Apache-2.0
 *
 * SPDX-FileContributor: 2016-2025 Espressif Systems (Shanghai) CO LTD
 */

/*
 * SHA-512 implementation with hardware ESP support added.
 *
 * SPDX-FileCopyrightText: The Mbed TLS Contributors
 *
 * SPDX-License-Identifier: Apache-2.0
 *
 * SPDX-FileContributor: 2016-2025 Espressif Systems (Shanghai) CO LTD
 */
```

Notices 109–113 — Other source notices

```
/*
 * SHA1 hash implementation and interface functions
 * Copyright (c) 2003-2009, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * SHA1-based PRF
 * Copyright (c) 2003-2005, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * SHA256 hash implementation and interface functions
 * Copyright (c) 2003-2016, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * SHA256-based PRF (IEEE 802.11r)
 * Copyright (c) 2003-2016, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * SHA384 hash implementation and interface functions
 * Copyright (c) 2015-2017, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

Notices 114–118 — SPDX: BSD-3-Clause

```
/*
 * SPDX-FileCopyrightText: 2001 Swedish Institute of Computer Science
 *
 * SPDX-License-Identifier: BSD-3-Clause
 *
 * SPDX-FileContributor: 2018-2022 Espressif Systems (Shanghai) CO LTD
 */

/*
 * SPDX-FileCopyrightText: 2001-2003 Swedish Institute of Computer Science
 *
 * SPDX-License-Identifier: BSD-3-Clause
 *
 * SPDX-FileContributor: 2015-2024 Espressif Systems (Shanghai) CO LTD
 */

/*
 * SPDX-FileCopyrightText: 2001-2003 Swedish Institute of Computer Science
 *
 * SPDX-License-Identifier: BSD-3-Clause
 *
 * SPDX-FileContributor: 2018-2024 Espressif Systems (Shanghai) CO LTD
 */

/*
 * SPDX-FileCopyrightText: 2001-2004 Swedish Institute of Computer Science
 *
 * SPDX-License-Identifier: BSD-3-Clause
 *
 * SPDX-FileContributor: 2018-2022 Espressif Systems (Shanghai) CO LTD
 */

/*
 * SPDX-FileCopyrightText: 2006-2016 Matthew Conte
 *
 * SPDX-License-Identifier: BSD-3-Clause
 */
```

Notices 119–123 — SPDX: Apache-2.0

```
/*
 * SPDX-FileCopyrightText: 2010-2021 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2010-2022 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2010-2023 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2010-2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
```

```
 * SPDX-FileCopyrightText: 2010-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */
```

Notice 124 — SPDX: CC0-1.0

```
/*
 * SPDX-FileCopyrightText: 2015 Joseph Birr-Pixton <jpixton@gmail.com>
 *
 * SPDX-License-Identifier: CC0-1.0
 */
```

Notices 125–171 — SPDX: Apache-2.0

```
/*
 * SPDX-FileCopyrightText: 2015-2021 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2015-2022 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2015-2022 The Apache Software Foundation (ASF)
 *
 * SPDX-License-Identifier: Apache-2.0
 *
 * SPDX-FileContributor: 2019-2022 Espressif Systems (Shanghai) CO LTD
 */

/*
 * SPDX-FileCopyrightText: 2015-2023 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2015-2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2015-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2016-2021 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2016-2022 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
```

```
 * SPDX-FileCopyrightText: 2016-2023 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2016-2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2016-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2017-2021 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2017-2022 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2017-2023 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2017-2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2017-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2018-2021 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2018-2022 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2018-2023 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2018-2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */
```

```
/*
 * SPDX-FileCopyrightText: 2018-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2019-2021 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2019-2022 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2019-2023 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2019-2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2019-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2020-2021 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2020-2022 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2020-2023 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2020-2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2020-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2021 Espressif Systems (Shanghai) CO LTD
 *
```

```
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2021-2022 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2021-2022 Espressif Systems (Shanghai) CO LTD
*
* SPDX-License-Identifier: Apache-2.0
*/

/*
 * SPDX-FileCopyrightText: 2021-2023 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2021-2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2021-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2021-22 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2022 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2022-2023 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2022-2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2022-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2023 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
```

```
 * SPDX-FileCopyrightText: 2023-2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2023-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2023-2025 Espressif Systems (Shanghai) CO LTD
*
* SPDX-License-Identifier: Apache-2.0
*/

/*
 * SPDX-FileCopyrightText: 2024 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */
```

Notice 172 — SPDX: BSD-3-Clause

```
/*
 * SPDX-FileCopyrightText: 2024 Matthew Conte
 *
 * SPDX-License-Identifier: BSD-3-Clause
 */
```

Notices 173–175 — SPDX: Apache-2.0

```
/*
 * SPDX-FileCopyrightText: 2024-2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/*
 * SPDX-FileCopyrightText: 2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 *
 * ESP hardware accelerated SHA1/256/512 implementation
 * based on mbedTLS FIPS-197 compliant version.
 *
 */

/*
 * SPDX-FileCopyrightText: 2025 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */
```

Notices 176–191 — Other source notices

```
/*
 * SSL/TLS interface definition
 * Copyright (c) 2004-2013, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

```
/*
 * Shared Dragonfly functionality
 * Copyright (c) 2012-2016, Jouni Malinen <j@w1.fi>
 * Copyright (c) 2019, The Linux Foundation
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Simultaneous authentication of equals
 * Copyright (c) 2012-2013, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Simultaneous authentication of equals
 * Copyright (c) 2012-2016, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * WPA Supplicant - Common definitions
 * Copyright (c) 2004-2015, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * WPA Supplicant - RSN PMKSA cache
 * Copyright (c) 2004-2009, 2011-2015, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * WPA Supplicant - WPA state machine and EAPOL-Key processing
 * Copyright (c) 2003-2010, Jouni Malinen <j@w1.fi>
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License version 2 as
 * published by the Free Software Foundation.
 *
 * Alternatively, this software may be distributed under the terms of BSD
 * license.
 *
 * See README and COPYING for more details.
 */

/*
 * WPA definitions shared between hostapd and wpa_supplicant
 * Copyright (c) 2002-2018, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * WPA/RSN - Shared functions for supplicant and authenticator
 * Copyright (c) 2002-2018, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
```

```
 */

/*
 * Wi-Fi Protected Setup
 * Copyright (c) 2007-2016, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Wi-Fi Protected Setup - attribute parsing
 * Copyright (c) 2008-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Wi-Fi Protected Setup - device attributes
 * Copyright (c) 2008, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Wi-Fi Protected Setup - internal definitions
 * Copyright (c) 2008-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Wi-Fi Protected Setup - message definitions
 * Copyright (c) 2008, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * Wrapper functions for crypto libraries
 * Copyright (c) 2004-2017, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 *
 * This file defines the cryptographic functions that need to be implemented
 * for wpa_supplicant and hostapd. When TLS is not used, internal
 * implementation of MD5, SHA1, and AES is used and no external libraries are
 * required. When TLS is enabled (e.g., by enabling EAP-TLS or EAP-PEAP), the
 * crypto library used by the TLS implementation is expected to be used for
 * non-TLS needs, too, in order to save space by not implementing these
 * functions twice.
 *
 * Wrapper code for using each crypto library is in its own file (crypto*.c)
 * and one of these files is build and linked in to provide the functions
 * defined here.
 */

/*
 * fastpbkdf2 - Faster PBKDF2-HMAC calculation
 * Written in 2015 by Joseph Birr-Pixton <jpixton@gmail.com>
 *
 * To the extent possible under law, the author(s) have dedicated all
 * copyright and related and neighboring rights to this software to the
 * public domain worldwide. This software is distributed without any
 * warranty.
```

```
 *
 * You should have received a copy of the CC0 Public Domain Dedication
 * along with this software. If not, see
 * <http://creativecommons.org/publicdomain/zero/1.0/>.
 */
```

Notice 192 — SPDX: Apache-2.0

```
/*
 * gcm_alt.h: AES block cipher
 *
 * SPDX-FileCopyrightText: The Mbed TLS Contributors
 *
 * SPDX-License-Identifier: Apache-2.0
 *
 * SPDX-FileContributor: 2016-2022 Espressif Systems (Shanghai) CO LTD
 */
```

Notices 193–207 — Other source notices

```
/*
 * hostapd - IEEE 802.11i-2004 / WPA Authenticator
 * Copyright (c) 2004-2007, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd - IEEE 802.11i-2004 / WPA Authenticator: Internal definitions
 * Copyright (c) 2004-2015, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd - PMKSA cache for IEEE 802.11i RSN
 * Copyright (c) 2004-2008, 2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd - PMKSA cache for IEEE 802.11i RSN
 * Copyright (c) 2004-2008, 2012-2015, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd - WPA/RSN IE and KDE definitions
 * Copyright (c) 2004-2007, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd - WPA/RSN IE and KDE definitions
 * Copyright (c) 2004-2008, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
```

```
 */

/*
 * hostapd / Comeback token mechanism for SAE
 * Copyright (c) 2002-2017, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd / Configuration definitions and helpers functions
 * Copyright (c) 2003-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd / Configuration helper functions
 * Copyright (c) 2003-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd / EAP Full Authenticator state machine (RFC 4137)
 * Copyright (c) 2004-2014, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd / IEEE 802.11 Management
 * Copyright (c) 2002-2009, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd / IEEE 802.11 Management
 * Copyright (c) 2002-2017, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd / IEEE 802.1X-2004 Authenticator
 * Copyright (c) 2002-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd / Initialization and configuration
 * Copyright (c) 2002-2009, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * hostapd / Station table
 * Copyright (c) 2002-2017, Jouni Malinen <j@w1.fi>
 *
```

```
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

Notice 208 — SPDX: Apache-2.0

```
/*
 * md5_alt.h: MD5 block cipher
 *
 * SPDX-FileCopyrightText: The Mbed TLS Contributors
 *
 * SPDX-License-Identifier: Apache-2.0
 *
 * SPDX-FileContributor: 2016-2022 Espressif Systems (Shanghai) CO LTD
 */
```

Notices 209–222 — Other source notices

```
/*
 * rand48 family support
 *
 * Copyright (c) 1993 Martin Birgmeier
 * All rights reserved.
 *
 * You may redistribute unmodified or modified versions of this source
 * code provided that the above copyright notice and this and the
 * following conditions are retained.
 *
 * This software is provided ``as is'', and comes with no warranties
 * of any kind. I shall in no event be liable for anything that happens
 * to anyone/anything when using this software.
 */

/*
 * wlantest - IEEE 802.11 protocol monitoring and testing tool
 * Copyright (c) 2010-2013, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * wpa_supplicant - Internal definitions
 * Copyright (c) 2003-2014, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * wpa_supplicant - WPA definitions
 * Copyright (c) 2003-2015, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * wpa_supplicant - WPA/RSN IE and KDE definitions
 * Copyright (c) 2004-2007, Jouni Malinen <j@w1.fi>
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License version 2 as
 * published by the Free Software Foundation.
 *
 * Alternatively, this software may be distributed under the terms of BSD
```

```
 * license.
 *
 * See README and COPYING for more details.
 */

/*
 * wpa_supplicant - WPA/RSN IE and KDE processing
 * Copyright (c) 2003-2008, Jouni Malinen <j@w1.fi>
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License version 2 as
 * published by the Free Software Foundation.
 *
 * Alternatively, this software may be distributed under the terms of BSD
 * license.
 *
 * See README and COPYING for more details.
 */

/*
 * wpa_supplicant - WPA2/RSN PMKSA cache functions
 * Copyright (c) 2003-2009, 2011-2012, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * wpa_supplicant/hostapd - Default include files
 * Copyright (c) 2005-2006, Jouni Malinen <j@w1.fi>
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License version 2 as
 * published by the Free Software Foundation.
 *
 * Alternatively, this software may be distributed under the terms of BSD
 * license.
 *
 * See README and COPYING for more details.
 *
 * This header file is included into all C files so that commonly used header
 * files can be selected with OS specific ifdef blocks in one place instead of
 * having to have OS/C library specific selection in many files.
 */

/*
 * wpa_supplicant/hostapd - State machine definitions
 * Copyright (c) 2002-2005, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 *
 * This file includes a set of pre-processor macros that can be used to
 * implement a state machine. In addition to including this header file, each
 * file implementing a state machine must define STATE_MACHINE_DATA to be the
 * data structure including state variables (enum machine_state,
 * Boolean changed), and STATE_MACHINE_DEBUG_PREFIX to be a string that is used
 * as a prefix for all debug messages. If SM_ENTRY_MA macro is used to define
 * a group of state machines with shared data structure, STATE_MACHINE_ADDR
 * needs to be defined to point to the MAC address used in debug output.
 * SM_ENTRY_M macro can be used to define similar group of state machines
 * without this additional debug info.
 */

/*
 * wpa_supplicant/hostapd / Debug prints
 * Copyright (c) 2002-2007, Jouni Malinen <j@w1.fi>
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License version 2 as
```

```
 * published by the Free Software Foundation.
 *
 * Alternatively, this software may be distributed under the terms of BSD
 * license.
 *
 * See README and COPYING for more details.
 */

/*
 * wpa_supplicant/hostapd / Internal implementation of OS specific functions
 * Copyright (c) 2005-2006, Jouni Malinen <j@w1.fi>
 *
 * This program is free software; you can redistribute it and/or modify
 * it under the terms of the GNU General Public License version 2 as
 * published by the Free Software Foundation.
 *
 * Alternatively, this software may be distributed under the terms of BSD
 * license.
 *
 * See README and COPYING for more details.
 *
 * This file is an example of operating system specific  wrapper functions.
 * This version implements many of the functions internally, so it can be used
 * to fill in missing functions from the target system C libraries.
 *
 * Some of the functions are using standard C library calls in order to keep
 * this file in working condition to allow the functions to be tested on a
 * Linux target. Please note that OS_NO_C_LIB_DEFINES needs to be defined for
 * this file to work correctly. Note that these implementations are only
 * examples and are not optimized for speed.
 */

/*
 * wpa_supplicant/hostapd / common helper functions, etc.
 * Copyright (c) 2002-2007, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * wpa_supplicant/hostapd / common helper functions, etc.
 * Copyright (c) 2002-2019, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */

/*
 * wpa_supplicant/hostapd control interface library
 * Copyright (c) 2004-2006, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 */
```

Notice 223 — SPDX: BSD-3-Clause

```
/*
 * SPDX-FileCopyrightText: 2006-2016 Matthew Conte
 *
 * SPDX-License-Identifier: BSD-3-Clause
 */
```

Notice 224 — SPDX: Apache-2.0 OR GPL-2.0-or-later

```
/*  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */
```

Notices 225–235 — Other source notices

```
/* Accelerated SHA-512 implementation originally written by Simon Tatham for PuTTY,
 * under the MIT licence; dual-licensed as Apache 2 with his kind permission.
 */

/* Copyright (C) 1989-2024 Free Software Foundation, Inc.

This file is part of GCC.

GCC 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 3, or (at your option)
any later version.

GCC 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.

Under Section 7 of GPL version 3, you are granted additional
permissions described in the GCC Runtime Library Exception, version
3.1, as published by the Free Software Foundation.

You should have received a copy of the GNU General Public License and
a copy of the GCC Runtime Library Exception along with this program;
see the files COPYING3 and COPYING.RUNTIME respectively.  If not, see
<http://www.gnu.org/licenses/>.  */

/* Copyright (C) 1991-2024 Free Software Foundation, Inc.

This file is part of GCC.

GCC 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 3, or (at your option) any later
version.

GCC 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.

Under Section 7 of GPL version 3, you are granted additional
permissions described in the GCC Runtime Library Exception, version
3.1, as published by the Free Software Foundation.

You should have received a copy of the GNU General Public License and
a copy of the GCC Runtime Library Exception along with this program;
see the files COPYING3 and COPYING.RUNTIME respectively.  If not, see
<http://www.gnu.org/licenses/>.  */

/* Copyright (C) 1992-2024 Free Software Foundation, Inc.

This file is part of GCC.

GCC 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 3, or (at your option) any later
version.
```

```
GCC 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.

Under Section 7 of GPL version 3, you are granted additional
permissions described in the GCC Runtime Library Exception, version
3.1, as published by the Free Software Foundation.

You should have received a copy of the GNU General Public License and
a copy of the GCC Runtime Library Exception along with this program;
see the files COPYING3 and COPYING.RUNTIME respectively.  If not, see
<http://www.gnu.org/licenses/>.  */

/* Copyright (C) 1997-2024 Free Software Foundation, Inc.

This file is part of GCC.

GCC 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 3, or (at your option) any later
version.

GCC 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.

Under Section 7 of GPL version 3, you are granted additional
permissions described in the GCC Runtime Library Exception, version
3.1, as published by the Free Software Foundation.

You should have received a copy of the GNU General Public License and
a copy of the GCC Runtime Library Exception along with this program;
see the files COPYING3 and COPYING.RUNTIME respectively.  If not, see
<http://www.gnu.org/licenses/>.  */

/* Copyright (C) 1998-2024 Free Software Foundation, Inc.

This file is part of GCC.

GCC 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 3, or (at your option)
any later version.

GCC 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.

Under Section 7 of GPL version 3, you are granted additional
permissions described in the GCC Runtime Library Exception, version
3.1, as published by the Free Software Foundation.

You should have received a copy of the GNU General Public License and
a copy of the GCC Runtime Library Exception along with this program;
see the files COPYING3 and COPYING.RUNTIME respectively.  If not, see
<http://www.gnu.org/licenses/>.  */

/* Copyright (C) 2013-2024 Free Software Foundation, Inc.

This file is part of GCC.

GCC 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 3, or (at your option)
any later version.

GCC 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.

Under Section 7 of GPL version 3, you are granted additional
permissions described in the GCC Runtime Library Exception, version
3.1, as published by the Free Software Foundation.

You should have received a copy of the GNU General Public License and
a copy of the GCC Runtime Library Exception along with this program;
see the files COPYING3 and COPYING.RUNTIME respectively.  If not, see
<http://www.gnu.org/licenses/>.  */

/* Copyright (c) 2010-2017, The Regents of the University of California
   (Regents).  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 Regents nor the
      names of its contributors may be used to endorse or promote products
      derived from this software without specific prior written permission.

      IN NO EVENT SHALL REGENTS BE LIABLE TO ANY PARTY FOR DIRECT, INDIRECT,
      SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS, ARISING
      OUT OF THE USE OF THIS SOFTWARE AND ITS DOCUMENTATION, EVEN IF REGENTS HAS
      BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

      REGENTS SPECIFICALLY DISCLAIMS ANY WARRANTIES, INCLUDING, BUT NOT LIMITED TO,
      THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
      PURPOSE. THE SOFTWARE AND ACCOMPANYING DOCUMENTATION, IF ANY, PROVIDED
      HEREUNDER IS PROVIDED "AS IS". REGENTS HAS NO OBLIGATION TO PROVIDE
      MAINTENANCE, SUPPORT, UPDATES, ENHANCEMENTS, OR MODIFICATIONS.
*/

/* Copyright (c) 2017  SiFive Inc. All rights reserved.

   This copyrighted material is made available to anyone wishing to use,
   modify, copy, or redistribute it subject to the terms and conditions
   of the FreeBSD License.   This program is distributed in the hope that
   it will be useful, but WITHOUT ANY WARRANTY expressed or implied,
   including the implied warranties of MERCHANTABILITY or FITNESS FOR
   A PARTICULAR PURPOSE.  A copy of this license is available at
   http://www.opensource.org/licenses.
*/

/* Copyright Joyent, Inc. and other Node contributors. 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.
 */
```

```
/* DMA master whose access permission to be configured.*/
```

Notice 236 — SPDX: GPL-2.0-only OR Apache-2.0

```
/* SPDX-License-Identifier: GPL-2.0-only OR Apache-2.0 */
```

Notice 237 — Other source notices

```
/* time.h -- An implementation of the standard Unix <sys/time.h> file.
   Written by Geoffrey Noer <noer@cygnus.com>
   Public domain; no rights reserved. */
```

Notice 238 — SPDX: Apache-2.0 OR GPL-2.0-or-later

```
/**
 *  Constant-time functions
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */
```

Notices 239–242 — Other source notices

```
/**
 * @brief Configure DMA configurable address range read permission.
 *
 * @param pms_data DMA configurable region configuration data.
 * @param dma_master DMA master whose access permission to be configured.
 * @param regn_mask  32-bits field, each bit for corresponding DMA configurable address range
permission.
 *                   0: Disable read permission.
 *                   1: Enable read permission.
 */

/**
 * @brief Configure HP peripherals access permission for the HP CPU0/1.
 *
 * @param master_id  HP CPU0/1
 * @param hp_peri    HP peripheral whose access permission to be configured.
 * @param enable     Permission enable/disable
 */

/**
 * @brief Configure LP peripherals access permission for the LP CPU.
 *
 * @param lp_peri    LP peripheral whose access permission to be configured.
 * @param enable     Permission enable/disable
 */

/**
 * Enable the verified implementations of ECDH primitives from Project Everest
 * (currently only Curve25519). This feature changes the layout of ECDH
 * contexts and therefore is a compatibility break for applications that access
 * fields of a mbedtls_ecdh_context structure directly. See also
 * MBEDTLS_ECDH_LEGACY_CONTEXT in include/mbedtls/ecdh.h.
 *
 * The Everest code is provided under the Apache 2.0 license only; therefore enabling this
 * option is not compatible with taking the library under the GPL v2.0-or-later license.
 */
```

Notices 243–248 — SPDX: Apache-2.0

```
/**
 * Mbedtls entropy_poll.h file
 * SPDX-FileCopyrightText: 2022 Espressif Systems (Shanghai) CO LTD
 *
 * SPDX-License-Identifier: Apache-2.0
 */

/**
 * SPDX-FileCopyrightText: 2022-2024 Espressif Systems (Shanghai) CO LTD
 *
 *  SPDX-License-Identifier: Apache-2.0
 */

/**
 * SPDX-FileCopyrightText: 2023-2024 Espressif Systems (Shanghai) CO LTD
 *
 *  SPDX-License-Identifier: Apache-2.0
 */

/**
 * SPDX-FileCopyrightText: 2024 Espressif Systems (Shanghai) CO LTD
 *
 *  SPDX-License-Identifier: Apache-2.0
 */

/**
 * SPDX-FileCopyrightText: 2024-2025 Espressif Systems (Shanghai) CO LTD
 *
 *  SPDX-License-Identifier: Apache-2.0
 */

/**
 * SPDX-FileCopyrightText: 2025 Espressif Systems (Shanghai) CO LTD
 *
 *  SPDX-License-Identifier: Apache-2.0
 */
```

Notice 249 — SPDX: Apache-2.0 OR GPL-2.0-or-later

```
/**
 * Translation between MD and PSA identifiers (algorithms, errors).
 *
 *  Note: this internal module will go away when everything becomes based on
 *  PSA Crypto; it is a helper for the transition period.
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */
```

Notices 250–253 — SPDX: Apache-2.0

```
/**
 * \brief AES block cipher, ESP DMA hardware accelerated version
 * Based on mbedTLS FIPS-197 compliant version.
 *
 *  Copyright (C) 2006-2015, ARM Limited, All Rights Reserved
 *  Additions Copyright (C) 2016-2020, Espressif Systems (Shanghai) PTE Ltd
 *  SPDX-License-Identifier: Apache-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.
 *
 */

/**
 * \brief AES block cipher, ESP hardware accelerated version
 * Based on mbedTLS FIPS-197 compliant version.
 *
 *  Copyright (C) 2006-2015, ARM Limited, All Rights Reserved
 *  Additions Copyright (C) 2016, Espressif Systems (Shanghai) PTE Ltd
 *  SPDX-License-Identifier: Apache-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.
 *
 *
 */

/**
 * \brief AES block cipher, ESP32-S2 hardware accelerated version
 * Based on mbedTLS FIPS-197 compliant version.
 *
 *  Copyright (C) 2006-2015, ARM Limited, All Rights Reserved
 *  Additions Copyright (C) 2016-2020, Espressif Systems (Shanghai) PTE Ltd
 *  SPDX-License-Identifier: Apache-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.
 *
 */

/**
 * \file aes_alt.h
 *
 * \brief AES block cipher
 *
 *  Copyright (C) 2006-2015, ARM Limited, All Rights Reserved
 *  SPDX-License-Identifier: Apache-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.
 *
 *
 */
```

Notices 254–259 — SPDX: Apache-2.0 OR GPL-2.0-or-later

```
/**
 * \file cipher.c
 *
 * \brief Generic cipher wrapper for Mbed TLS
 *
 * \author Adriaan de Jong <dejong@fox-it.com>
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/**
 * \file cipher_wrap.c
 *
 * \brief Generic cipher wrapper for Mbed TLS
 *
 * \author Adriaan de Jong <dejong@fox-it.com>
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/**
 * \file cmac.c
 *
 * \brief NIST SP800-38B compliant CMAC implementation for AES and 3DES
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/**
 * \file ctr.h
 *
 * \brief    This file contains common functionality for counter algorithms.
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/**
 * \file md.c
 *
 * \brief Generic message digest wrapper for Mbed TLS
 *
 * \author Adriaan de Jong <dejong@fox-it.com>
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
 */

/**
 * \file oid.c
 *
 * \brief Object Identifier (OID) database
 *
 *  Copyright The Mbed TLS Contributors
 *  SPDX-License-Identifier: Apache-2.0 OR GPL-2.0-or-later
```

```
 */
```

Notices 260–264 — Other source notices

```
/** Open a handle to an existing persistent key.
 *
 * Open a handle to a persistent key. A key is persistent if it was created
 * with a lifetime other than #PSA_KEY_LIFETIME_VOLATILE. A persistent key
 * always has a nonzero key identifier, set with psa_set_key_id() when
 * creating the key. Implementations may provide additional pre-provisioned
 * keys that can be opened with psa_open_key(). Such keys have an application
 * key identifier in the vendor range, as documented in the description of
 * #psa_key_id_t.
 *
 * The application must eventually close the handle with psa_close_key() or
 * psa_destroy_key() to release associated resources. If the application dies
 * without calling one of these functions, the implementation should perform
 * the equivalent of a call to psa_close_key().
 *
 * Some implementations permit an application to open the same key multiple
 * times. If this is successful, each call to psa_open_key() will return a
 * different key handle.
 *
 * \note This API is not part of the PSA Cryptography API Release 1.0.0
 * specification. It was defined in the 1.0 Beta 3 version of the
 * specification but was removed in the 1.0.0 released version. This API is
 * kept for the time being to not break applications relying on it. It is not
 * deprecated yet but will be in the near future.
 *
 * \note Applications that rely on opening a key multiple times will not be
 * portable to implementations that only permit a single key handle to be
 * opened. See also :ref:\`key-handles\`.
 *
 *
 * \param key           The persistent identifier of the key.
 * \param[out] handle   On success, a handle to the key.
 *
 * \retval #PSA_SUCCESS
 *         Success. The application can now use the value of `*handle`
 *         to access the key.
 * \retval #PSA_ERROR_INSUFFICIENT_MEMORY
 *         The implementation does not have sufficient resources to open the
 *         key. This can be due to reaching an implementation limit on the
 *         number of open keys, the number of open key handles, or available
 *         memory.
 * \retval #PSA_ERROR_DOES_NOT_EXIST
 *         There is no persistent key with key identifier \p key.
 * \retval #PSA_ERROR_INVALID_ARGUMENT
 *         \p key is not a valid persistent key identifier.
 * \retval #PSA_ERROR_NOT_PERMITTED
 *         The specified key exists, but the application does not have the
 *         permission to access it. Note that this specification does not
 *         define any way to create such a key, but it may be possible
 *         through implementation-specific means.
 * \retval #PSA_ERROR_COMMUNICATION_FAILURE \emptydescription
 * \retval #PSA_ERROR_CORRUPTION_DETECTED \emptydescription
 * \retval #PSA_ERROR_STORAGE_FAILURE \emptydescription
 * \retval #PSA_ERROR_DATA_INVALID \emptydescription
 * \retval #PSA_ERROR_DATA_CORRUPT \emptydescription
 * \retval #PSA_ERROR_BAD_STATE
 *         The library has not been previously initialized by psa_crypto_init().
 *         It is implementation-dependent whether a failure to initialize
 *         results in this error code.
 */

/*-
 * Copyright (c) 1982, 1986, 1989, 1991, 1993
 *      The Regents of the University of California.  All rights reserved.
```

```
 * (c) UNIX System Laboratories, Inc.
 * All or some portions of this file are derived from material licensed
 * to the University of California by American Telephone and Telegraph
 * Co. or Unix System Laboratories, Inc. and are reproduced herein with
 * the permission of UNIX System Laboratories, 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.
 * 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.
 *
 *      @(#)signal.h    8.4 (Berkeley) 5/4/95
 * $FreeBSD$
 */

/*-
 * Copyright (c) 1982, 1986, 1993
 *      The 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.
 * 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.
 *
 *      @(#)time.h      8.5 (Berkeley) 5/4/95
 * from: FreeBSD: src/sys/sys/time.h,v 1.43 2000/03/20 14:09:05 phk Exp
 *      $FreeBSD$
 */

/*-
 * Copyright (c) 1991, 1993
 *      The 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.
 *
 *      @(#)queue.h     8.5 (Berkeley) 8/20/94
 * $FreeBSD$
 */

/*-
 * Copyright (c) 2002 Mike Barcroft <mike@FreeBSD.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:
 * 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.
 *
 * $FreeBSD: head/include/strings.h 272673 2014-10-07 04:54:11Z delphij $
 */
```

Notice 265 — SPDX: BSD-2-Clause-FreeBSD AND Apache-2.0

```
/*-
 * SPDX-FileCopyrightText: 2018-2024 Espressif Systems (Shanghai) CO LTD
 * SPDX-FileCopyrightText: 2020 Francesco Giancane <francesco.giancane@accenture.com>
 * SPDX-FileCopyrightText: 2002 Thomas Moestl <tmm@FreeBSD.org>
 * SPDX-License-Identifier: BSD-2-Clause-FreeBSD AND Apache-2.0
 *
 * Copyright (c) 2002 Thomas Moestl <tmm@FreeBSD.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:
 * 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.
 *
 * $FreeBSD$
 */
```

Notice 266 — SPDX: BSD-2-Clause-FreeBSD

```
/*-
 * SPDX-License-Identifier: BSD-2-Clause-FreeBSD
 *
 * Copyright (c) 2002 Mike Barcroft <mike@FreeBSD.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:
 * 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.
 *
 * $FreeBSD: head/sys/sys/_timeval.h 326256 2017-11-27 15:01:59Z pfg $
 */
```

Notices 267–270 — SPDX: BSD-3-Clause

```
/*-
 * SPDX-License-Identifier: BSD-3-Clause
 *
 * Copyright (c) 1982, 1986, 1993
 *      The 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.
 *
 *      @(#)time.h      8.5 (Berkeley) 5/4/95
 * $FreeBSD: head/sys/sys/time.h 346176 2019-04-13 04:46:35Z imp $
 */

/*-
 * SPDX-License-Identifier: BSD-3-Clause
 *
 * Copyright (c) 1982, 1986, 1993
 *      The 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.
 *
 *      @(#)time.h      8.5 (Berkeley) 5/4/95
 * from: FreeBSD: src/sys/sys/time.h,v 1.43 2000/03/20 14:09:05 phk Exp
 *      $FreeBSD: head/sys/sys/_timespec.h 326023 2017-11-20 19:43:44Z pfg $
 */

/*-
 * SPDX-License-Identifier: BSD-3-Clause
 *
 * Copyright (c) 1989, 1993
 *      The 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.
 *
 *      @(#)dirent.h    8.3 (Berkeley) 8/10/94
 * $FreeBSD: head/include/dirent.h 326024 2017-11-20 19:45:28Z pfg $
 */

/*-
 * SPDX-License-Identifier: BSD-3-Clause
 *
 * Copyright (c) 1991, 1993
 *      The Regents of the University of California.  All rights reserved.
 *
 * This code is derived from software contributed to Berkeley by
 * Berkeley Software Design, 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.
 * 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.
 *
 *      @(#)cdefs.h     8.8 (Berkeley) 1/9/95
 * $FreeBSD$
 */
```

Notices 271–278 — Other source notices

```
//
// This header file is based on the termios header of
// "The Single UNIX (r) Specification, Version 2, Copyright (c)  1997 The Open Group".
```

```
//     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.


//     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.
//


//     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.
//
//


//  enable_shared_from_this.hpp
//  Copyright (C) 2002 Peter Dimov


//  shared_count.hpp
//  Copyright (c) 2001, 2002, 2003 Peter Dimov and Multi Media Ltd.


//  shared_ptr.hpp
//  Copyright (C) 1998, 1999 Greg Colvin and Beman Dawes.
//  Copyright (C) 2001, 2002, 2003 Peter Dimov


//  weak_ptr.hpp
//  Copyright (C) 2001, 2002, 2003 Peter Dimov
```

Notices 279–282 — SPDX: Apache-2.0 WITH LLVM-exception

```
// -*- C++ -*-
//===-- execution_defs.h ---------------------------------------------===//
//
// Part of the LLVM Project, under the Apache License v2.0 with LLVM Exceptions.
// See https://llvm.org/LICENSE.txt for license information.
// SPDX-License-Identifier: Apache-2.0 WITH LLVM-exception
//
//===----------------------------------------------------------------------===//


// -*- C++ -*-
//===-- glue_algorithm_defs.h ----------------------------------------===//
//
// Part of the LLVM Project, under the Apache License v2.0 with LLVM Exceptions.
// See https://llvm.org/LICENSE.txt for license information.
// SPDX-License-Identifier: Apache-2.0 WITH LLVM-exception
//
//===----------------------------------------------------------------------===//
```

```
// -*- C++ -*-
//===-- glue_memory_defs.h ---------------------------------------------===//
//
// Part of the LLVM Project, under the Apache License v2.0 with LLVM Exceptions.
// See https://llvm.org/LICENSE.txt for license information.
// SPDX-License-Identifier: Apache-2.0 WITH LLVM-exception
//
//===----------------------------------------------------------------------===//


// -*- C++ -*-
//===-- pstl_config.h --------------------------------------------------===//
//
// Part of the LLVM Project, under the Apache License v2.0 with LLVM Exceptions.
// See https://llvm.org/LICENSE.txt for license information.
// SPDX-License-Identifier: Apache-2.0 WITH LLVM-exception
//
//===----------------------------------------------------------------------===//
```

Notices 283–332 — Other source notices

```
// Copyright (C) 1994-2024 Free Software Foundation, Inc.


// Copyright (C) 1995-2024 Free Software Foundation, Inc.
//
// This file is part of GCC.
//
// GCC 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 3, or (at your option)
// any later version.
//
// GCC 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.
//
// Under Section 7 of GPL version 3, you are granted additional
// permissions described in the GCC Runtime Library Exception, version
// 3.1, as published by the Free Software Foundation.


// Copyright (C) 1997-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 1999-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2000-2024 Free Software Foundation, Inc.
//
// This file is part of GCC.
//
```

```
// GCC 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 3, or (at your option)
// any later version.
//
// GCC 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.
//
// Under Section 7 of GPL version 3, you are granted additional
// permissions described in the GCC Runtime Library Exception, version
// 3.1, as published by the Free Software Foundation.


// Copyright (C) 2000-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2001-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2001-2024 Free Software Foundation, Inc.
// Copyright The GNU Toolchain Authors.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2002-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2003-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2004-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.
```

```
// Copyright (C) 2005-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2005-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option) any later
// version.


// Copyright (C) 2007-2024 Free Software Foundation, Inc.
//
// This file is part of GCC.
//
// GCC 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 3, or (at your option)
// any later version.
//
// GCC 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.
//
// Under Section 7 of GPL version 3, you are granted additional
// permissions described in the GCC Runtime Library Exception, version
// 3.1, as published by the Free Software Foundation.


// Copyright (C) 2007-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2007-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option) any later
// version.


// Copyright (C) 2008-2024 Free Software Foundation, Inc.
//
// This file is part of GCC.
//
// GCC 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 3, or (at your option)
// any later version.
//
// GCC 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.
//
// Under Section 7 of GPL version 3, you are granted additional
```

```
// permissions described in the GCC Runtime Library Exception, version
// 3.1, as published by the Free Software Foundation.


// Copyright (C) 2008-2024 Free Software Foundation, Inc.
//
// This file is part of GCC.
//
// GCC 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 3, or (at your option)
// any later version.
//
// GCC 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.
//
// Under Section 7 of GPL version 3, you are granted additional
// permissions described in the GCC Runtime Library Exception, version
// 3.1, as published by the Free Software Foundation.


// Copyright (C) 2008-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2009-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2010-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2011-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2013-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2013-2024 Free Software Foundation, Inc.
// Copyright The GNU Toolchain Authors.
```

```
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2014-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2015-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2016-2024 Free Software Foundation, Inc.
//
// This file is part of GCC.
//
// GCC 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 3, or (at your option)
// any later version.
//
// GCC 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.
//
// Under Section 7 of GPL version 3, you are granted additional
// permissions described in the GCC Runtime Library Exception, version
// 3.1, as published by the Free Software Foundation.


// Copyright (C) 2016-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2017-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2018-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.
```

```
// Copyright (C) 2019-2024 Free Software Foundation, Inc.
//
// This file is part of GCC.
//
// GCC 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 3, or (at your option)
// any later version.
//
// GCC 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.
//
// Under Section 7 of GPL version 3, you are granted additional
// permissions described in the GCC Runtime Library Exception, version
// 3.1, as published by the Free Software Foundation.


// Copyright (C) 2019-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2020-2024 Free Software Foundation, Inc.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Copyright (C) 2023-2024 Free Software Foundation, Inc.


// Copyright (c) 2013, The Regents of the University of California (Regents).
// Copyright (c) 2018-2019, The libfemto authors
// Copyright (c) 2020 Espressif Systems (Shanghai) PTE LTD
// All Rights Reserved.


// Copyright (c) 2016, Linaro Limited
// Modified for HelenOS use by Jiří Zárevúcky.
// Adaptations for ESP-IDF Copyright (c) 2020 Espressif Systems (Shanghai) Co. Ltd.
//
// 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 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 2010-2020 Espressif Systems (Shanghai) PTE LTD
//
// 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.


// Copyright 2015-2016 Espressif Systems (Shanghai) PTE LTD
//
// 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


// Copyright 2015-2017 Espressif Systems (Shanghai) PTE LTD
//
// 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.


// Copyright 2015-2019 Espressif Systems (Shanghai) PTE LTD
//
// 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.


// Copyright 2015-2021 Espressif Systems (Shanghai) PTE LTD
//
// 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


// Copyright 2015-2021 Espressif Systems (Shanghai) PTE LTD
//
// 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.


// Copyright 2015-2024 Espressif Systems (Shanghai) PTE LTD


// Copyright 2019 Espressif Systems (Shanghai) PTE LTD
//
// 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.


// Copyright 2019 Espressif Systems (Shanghai) PTE LTD
//
// 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.


// Copyright 2024 Espressif Systems (Shanghai) PTE LTD


// Copyright The GNU Toolchain Authors.
//
// This file is part of the GNU ISO C++ Library.  This library 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 3, or (at your option)
// any later version.


// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)


// RTTI support for -*- C++ -*-
// Copyright (C) 1994-2024 Free Software Foundation, Inc.
//
// This file is part of GCC.
//
// GCC 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 3, or (at your option)
// any later version.
//
// GCC 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.
//
// Under Section 7 of GPL version 3, you are granted additional
// permissions described in the GCC Runtime Library Exception, version
// 3.1, as published by the Free Software Foundation.


// 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 Regents nor the
//    names of its contributors may be used to endorse or promote products
//    derived from this software without specific prior written permission.
```

Notices 333–336 — SPDX: Apache-2.0

```
// SPDX-License-Identifier: Apache-2.0
// Copyright 2015-2021 Espressif Systems (Shanghai) PTE LTD
//
// 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


// SPDX-License-Identifier: Apache-2.0
// Copyright 2015-2021 Espressif Systems (Shanghai) PTE LTD
//
// 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.


// SPDX-License-Identifier: Apache-2.0
// Copyright 2015-2022 Espressif Systems (Shanghai) PTE LTD
//
// 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


// SPDX-License-Identifier: Apache-2.0
// Copyright 2015-2023 Espressif Systems (Shanghai) PTE LTD
//
// 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
```

Notices 337–342 — Other source notices

```
// This file is part of GCC.
//
// GCC 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 3, or (at your option)
// any later version.
//
// GCC 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.
//
// Under Section 7 of GPL version 3, you are granted additional
// permissions described in the GCC Runtime Library Exception, version
// 3.1, as published by the Free Software Foundation.


// This file is part of the GNU ISO C++ Library.  This library 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 3, 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 General Public License for more details.


// 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
// General Public License for more details.


// Under Section 7 of GPL version 3, you are granted additional
// permissions described in the GCC Runtime Library Exception, version
// 3.1, as published by the Free Software Foundation.


// You should have received a copy of the GNU General Public License and
// a copy of the GCC Runtime Library Exception along with this program;
// see the files COPYING3 and COPYING.RUNTIME respectively.  If not, see
// <http://www.gnu.org/licenses/>.
```

Appendix L093 — esp-hosted-ng — GPL-2.0

```
Valid-License-Identifier: GPL-2.0
Valid-License-Identifier: GPL-2.0-only
Valid-License-Identifier: GPL-2.0+
Valid-License-Identifier: GPL-2.0-or-later
SPDX-URL: https://spdx.org/licenses/GPL-2.0.html
Usage-Guide:
  To use this license in source code, put one of the following SPDX
  tag/value pairs into a comment according to the placement
  guidelines in the licensing rules documentation.
  For 'GNU General Public License (GPL) version 2 only' use:
    SPDX-License-Identifier: GPL-2.0
  or
    SPDX-License-Identifier: GPL-2.0-only
  For 'GNU General Public License (GPL) version 2 or any later version' use:
    SPDX-License-Identifier: GPL-2.0+
  or
    SPDX-License-Identifier: GPL-2.0-or-later
License-Text:
```

GNU GENERAL PUBLIC LICENSE
Version 2, June 1991

Copyright (C) 1989, 1991 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.

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 Library 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

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 St, 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 Library General
Public License instead of this License.
```

Appendix L094 — eth2spi — lms_eth2spi.c

```
// SPDX-License-Identifier: MIT
/*
 * Copyright (C) 2021 Silicon Solution ISRAEL 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
 * 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.
 *
 ****************************************************************************/
```

Appendix L095 — ethtool — ethtool.c

```
 * Copyright (C) 1998 David S. Miller (davem@dm.cobaltmicro.com)
 * Portions Copyright 2001 Sun Microsystems
 * Kernel 2.4 update Copyright 2001 Jeff Garzik <jgarzik@mandrakesoft.com>
 * Wake-on-LAN,natsemi,misc support by Tim Hockin <thockin@sun.com>
 * Portions Copyright 2002 Intel
 * Portions Copyright (C) Sun Microsystems 2008
 * do_test support by Eli Kupermann <eli.kupermann@intel.com>
 * ETHTOOL_PHYS_ID support by Chris Leech <christopher.leech@intel.com>
 * e1000 support by Scott Feldman <scott.feldman@intel.com>
 * e100 support by Wen Tao <wen-hwa.tao@intel.com>
 * ixgb support by Nicholas Nunley <Nicholas.d.nunley@intel.com>
 * amd8111e support by Reeja John <reeja.john@amd.com>
 * long arguments by Andi Kleen.
 * SMSC LAN911x support by Steve Glendinning <steve.glendinning@smsc.com>
```

Appendix L096 — expat — COPYING

```
Copyright (c) 1998-2000 Thai Open Source Software Center Ltd and Clark Cooper
Copyright (c) 2001-2022 Expat maintainers
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L097 — Shared license text and notices

```
                    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 Library 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

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 Library General
Public License instead of this License.
```

Appendix L098 — Shared license text and notices

```
                  GNU LESSER GENERAL PUBLIC LICENSE
                      Version 3, 29 June 2007

 Copyright (C) 2007 Free Software Foundation, Inc. <http://fsf.org/>
 Everyone is permitted to copy and distribute verbatim copies
 of this license document, but changing it is not allowed.


  This version of the GNU Lesser General Public License incorporates
the terms and conditions of version 3 of the GNU General Public
License, supplemented by the additional permissions listed below.
```

GNU LGPL 3.0 terms — variant 1 (S011), p. 373

Appendix L099 — glib-2.0 — COPYING.0; LGPL-2.1-or-later.txt

```
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.

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 an 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!

Appendix L100 — glib-2.0 — COPYING.1

This work may be reproduced and distributed in whole or in part, in
any medium, physical or electronic, so as long as this copyright
notice remains intact and unchanged on all copies. Commercial
redistribution is permitted and encouraged, but you may not
redistribute, in whole or in part, under terms more restrictive than
those under which you received it. If you redistribute a modified or
translated version of this work, you must also make the source code to
the modified or translated version available in electronic form
without charge. However, mere aggregation as part of a larger work
shall not count as a modification for this purpose.

```
All code examples in this work are placed into the public domain,
and may be used, modified and redistributed without restriction.

BECAUSE THIS WORK IS LICENSED FREE OF CHARGE, THERE IS NO
WARRANTY FOR THE WORK, TO THE EXTENT PERMITTED BY APPLICABLE LAW.
EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR
OTHER PARTIES PROVIDE THE WORK "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.  SHOULD THE WORK PROVE DEFECTIVE, YOU ASSUME
THE COST OF ALL NECESSARY REPAIR OR CORRECTION.

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 WORK 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
WORK, EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE
POSSIBILITY OF SUCH DAMAGES.
```

Appendix L101 — glib-2.0 — glib.h; gmodule.h

```
 * SPDX-License-Identifier: LGPL-2.1-or-later
 *
 * 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, see <http://www.gnu.org/licenses/>.
```

Appendix L102 — Shared license text and notices

```
                  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

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!

Appendix L103 — glibc — COPYRIGHT

```
Copyright 1992, 1993, 1994, 1997 Henry Spencer.  All rights reserved.
This software is not subject to any license of the American Telephone
and Telegraph Company or of the Regents of the University of California.

Permission is granted to anyone to use this software for any purpose on
any computer system, and to alter it and redistribute it, subject
to the following restrictions:

1. The author is not responsible for the consequences of use of this
   software, no matter how awful, even if they arise from flaws in it.

2. The origin of this software must not be misrepresented, either by
   explicit claim or by omission.  Since few users ever read sources,
   credits must appear in the documentation.

3. Altered versions must be plainly marked as such, and must not be
   misrepresented as being the original software.  Since few users
   ever read sources, credits must appear in the documentation.

4. This notice may not be removed or altered.
```

Appendix L104 — glibc — LICENSES

```
This file contains the copying permission notices for various files in the
GNU C Library distribution that have copyright owners other than the Free
Software Foundation.  These notices all require that a copy of the notice
be included in the accompanying documentation and be distributed with
binary distributions of the code, so be sure to include this file along
with any binary distributions derived from the GNU C Library.


All code incorporated from 4.4 BSD is distributed under the following
license:

Copyright (C) 1991 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. [This condition was removed.]
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.

The DNS resolver code, taken from BIND 4.9.5, is copyrighted by UC
Berkeley, by Digital Equipment Corporation and by Internet Software
Consortium.  The DEC portions are under the following license:
```

Portions Copyright (C) 1993 by Digital Equipment Corporation.

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, and
that the name of Digital Equipment Corporation not be used in
advertising or publicity pertaining to distribution of the document or
software without specific, written prior permission.

THE SOFTWARE IS PROVIDED ``AS IS'' AND DIGITAL EQUIPMENT CORP.
DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL
IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL
DIGITAL EQUIPMENT CORPORATION 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 ISC portions are under the following license:

Portions Copyright (c) 1996-1999 by Internet Software Consortium.

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 INTERNET SOFTWARE CONSORTIUM DISCLAIMS
ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES
OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL INTERNET SOFTWARE
CONSORTIUM 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 Sun RPC support (from rpcsrc-4.0) is covered by the following
license:

Copyright (c) 2010, Oracle America, 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 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.

The following CMU license covers some of the support code for Mach,
derived from Mach 3.0:

Mach Operating System
Copyright (C) 1991,1990,1989 Carnegie Mellon University
All Rights Reserved.

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, and that both notices appear in supporting documentation.

CARNEGIE MELLON ALLOWS FREE USE OF THIS SOFTWARE IN ITS ``AS IS''
CONDITION. CARNEGIE MELLON DISCLAIMS ANY LIABILITY OF ANY KIND FOR
ANY DAMAGES WHATSOEVER RESULTING FROM THE USE OF THIS SOFTWARE.

Carnegie Mellon requests users of this software to return to

 Software Distribution Coordinator
 School of Computer Science
 Carnegie Mellon University
 Pittsburgh PA 15213-3890

or Software.Distribution@CS.CMU.EDU any improvements or
extensions that they make and grant Carnegie Mellon the rights to
redistribute these changes.

The file if_ppp.h is under the following CMU 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 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 CARNEGIE MELLON UNIVERSITY 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 UNIVERSITY 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 license covers the files from Intel's "Highly Optimized
Mathematical Functions for Itanium" collection:

Intel License Agreement

Copyright (c) 2000, 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.

* The name of Intel Corporation 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 INTEL 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 files inet/getnameinfo.c and sysdeps/posix/getaddrinfo.c are copyright
(C) by Craig Metz and are distributed under the following license:

/* The Inner Net License, Version 2.00

  The author(s) grant permission for redistribution and use in source and
binary forms, with or without modification, of the software and documentation
provided that the following conditions are met:

0. If you receive a version of the software that is specifically labelled
   as not being for redistribution (check the version message and/or README),
   you are not permitted to redistribute that version of the software in any
   way or form.
1. All terms of the all other applicable copyrights and licenses must be
   followed.
2. Redistributions of source code must retain the authors' copyright
   notice(s), this list of conditions, and the following disclaimer.
3. Redistributions in binary form must reproduce the authors' copyright
   notice(s), this list of conditions, and the following disclaimer in the
   documentation and/or other materials provided with the distribution.
4. [The copyright holder has authorized the removal of this clause.]
5. Neither the name(s) of the author(s) 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 ITS AUTHORS 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 AUTHORS 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.

  If these license terms cause you a real problem, contact the author. */

The file sunrpc/des_impl.c is copyright Eric Young:

Copyright (C) 1992 Eric Young
Collected from libdes and modified for SECURE RPC by Martin Kuck 1994
This file is distributed under the terms of the GNU Lesser General
Public License, version 2.1 or later - see the file COPYING.LIB for details.
If you did not receive a copy of the license with this program, please
see <https://www.gnu.org/licenses/> to obtain a copy.

The file inet/rcmd.c is under a UCB copyright and the following:

Copyright (C) 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.

The file posix/runtests.c is copyright Tom Lord:

Copyright 1995 by Tom Lord

                        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 the copyright holder not be
used in advertising or publicity pertaining to distribution of the
software without specific, written prior permission.

Tom Lord DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE,
INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO
EVENT SHALL TOM LORD 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.

The posix/rxspencer tests are copyright Henry Spencer:

Copyright 1992, 1993, 1994, 1997 Henry Spencer. All rights reserved.
This software is not subject to any license of the American Telephone
and Telegraph Company or of the Regents of the University of California.

Permission is granted to anyone to use this software for any purpose on
any computer system, and to alter it and redistribute it, subject
to the following restrictions:

1. The author is not responsible for the consequences of use of this
   software, no matter how awful, even if they arise from flaws in it.

2. The origin of this software must not be misrepresented, either by
   explicit claim or by omission. Since few users ever read sources,
   credits must appear in the documentation.

3. Altered versions must be plainly marked as such, and must not be
   misrepresented as being the original software. Since few users
   ever read sources, credits must appear in the documentation.

4. This notice may not be removed or altered.

The file posix/PCRE.tests is copyright University of Cambridge:

Copyright (c) 1997-2003 University of Cambridge

Permission is granted to anyone to use this software for any purpose on any
computer system, and to redistribute it freely, subject to the following
restrictions:

1. This software 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.

2. The origin of this software must not be misrepresented, either by
   explicit claim or by omission. In practice, this means that if you use
   PCRE in software that you distribute to others, commercially or
   otherwise, you must put a sentence like this

     Regular expression support is provided by the PCRE library package,
     which is open source software, written by Philip Hazel, and copyright
     by the University of Cambridge, England.

   somewhere reasonably visible in your documentation and in any relevant
   files or online help data or similar. A reference to the ftp site for
   the source, that is, to

     ftp://ftp.csx.cam.ac.uk/pub/software/programming/pcre/

   should also be given in the documentation. However, this condition is not
   intended to apply to whole chains of software. If package A includes PCRE,
   it must acknowledge it, but if package B is software that includes package
   A, the condition is not imposed on package B (unless it uses PCRE
   independently).

3. Altered versions must be plainly marked as such, and must not be
   misrepresented as being the original software.

4. If PCRE is embedded in any software that is released under the GNU
  General Purpose Licence (GPL), or Lesser General Purpose Licence (LGPL),
  then the terms of that licence shall supersede any condition above with
  which it is incompatible.

Files from Sun fdlibm are copyright Sun Microsystems, Inc.:

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

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

Various long double libm functions are copyright Stephen L. Moshier:

Copyright 2001 by Stephen L. Moshier <moshier@na-net.ornl.gov>

 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, see
 <https://www.gnu.org/licenses/>. */

Appendix L105 — gmp — COPYINGv3

```
                    GNU GENERAL PUBLIC LICENSE
                       Version 3, 29 June 2007

 Copyright (C) 2007 Free Software Foundation, Inc. <http://fsf.org/>
 Everyone is permitted to copy and distribute verbatim copies
 of this license document, but changing it is not allowed.

                            Preamble

  The GNU General Public License is a free, copyleft license for
software and other kinds of works.

  The licenses for most software and other practical works are designed
to take away your freedom to share and change the works.  By contrast,
the GNU General Public License is intended to guarantee your freedom to
share and change all versions of a program--to make sure it remains free
software for all its users.  We, the Free Software Foundation, use the
GNU General Public License for most of our software; it applies also to
any other work released this way by its authors.  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
them 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 prevent others from denying you
these rights or asking you to surrender the rights.  Therefore, you have
certain responsibilities if you distribute copies of the software, or if
you modify it: responsibilities to respect the freedom of others.

  For example, if you distribute copies of such a program, whether
gratis or for a fee, you must pass on to the recipients the same
freedoms that you received.  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.

  Developers that use the GNU GPL protect your rights with two steps:
(1) assert copyright on the software, and (2) offer you this License
giving you legal permission to copy, distribute and/or modify it.

  For the developers' and authors' protection, the GPL clearly explains
that there is no warranty for this free software.  For both users' and
authors' sake, the GPL requires that modified versions be marked as
changed, so that their problems will not be attributed erroneously to
authors of previous versions.

  Some devices are designed to deny users access to install or run
modified versions of the software inside them, although the manufacturer
can do so.  This is fundamentally incompatible with the aim of
protecting users' freedom to change the software.  The systematic
pattern of such abuse occurs in the area of products for individuals to
use, which is precisely where it is most unacceptable.  Therefore, we
have designed this version of the GPL to prohibit the practice for those
products.  If such problems arise substantially in other domains, we
stand ready to extend this provision to those domains in future versions
of the GPL, as needed to protect the freedom of users.

  Finally, every program is threatened constantly by software patents.
States should not allow patents to restrict development and use of
software on general-purpose computers, but in those that do, we wish to
avoid the special danger that patents applied to a free program could
make it effectively proprietary.  To prevent this, the GPL assures that
patents cannot be used to render the program non-free.
```

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

17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

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 state 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 3 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, see <https://www.gnu.org/licenses/>.
```

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

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

```
    <program>  Copyright (C) <year>  <name of author>
    This program 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, your program's commands might be different; for a GUI interface, you would use an "about box".

You should also get your employer (if you work as a programmer) or school, if any, to sign a "copyright disclaimer" for the program, if necessary. For more information on this, and how to apply and follow the GNU GPL, see <https://www.gnu.org/licenses/>.

The GNU 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.  But first, please read
<https://www.gnu.org/philosophy/why-not-lgpl.html>.
```

Appendix L106 — Shared license text and notices

```
Use of the Lumissil software constitutes your acceptance of the terms of the Lumissil Software
License Agreement.
A link to the agreement is incorporated as follows:
https://www.lumissil.com/assets/pdf/support/
2023%20Lumissil%20IS3xCG5317%20Software%20License%20Agreement%20NXP.pdf

The Run-Time Software and Boot ROM Code are without warranty of any kind from NXP or Lumissil,
either express or implied, including without limitation the implied warranties of
merchantability, fitness for a particular purpose, or non-infringement. You assume the entire
risk arising out of the use or performance of the Lumissil software, or any systems you design
using the such, if any.  For the use of Lumissil software, Lumissil is as a third-party
beneficiary of the this Agreement with authority to enforce its rights in the Run-Time
Software and Boot ROM Code.
```

Appendix L107 — host-loading — Lumissil-CG5317-OpenSSL

```
LICENSE ISSUES
  ==============
  The OpenSSL toolkit stays under a double 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.
  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.]
 */
```

Appendix L108 — Shared license text and notices

Synopsys End-User Software License and Maintenance Agreement

See Lumissil IS32CG5317 SDK Third Party Software License Agreement:
https://www.lumissil.com/assets/pdf/support/
IS32CG5317%20SDK%20Third%20Party%20Software%20Agreement.pdf

Appendix L109 — Shared license text and notices

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.]
```

Appendix L110 — host-loading — tasks.c

```
 * FreeRTOS Kernel V10.3.1
 * Copyright (C) 2020 Amazon.com, Inc. or its affiliates.  All Rights Reserved.
 *
 *
```

MIT-style terms — variant 2 (S027), p. 381

Appendix L111 — Shared license text and notices

MIT-style terms — variant 1 (S005), p. 364

Appendix L112 — iptables including supplied extensions — iptables.c

```
 *      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., 675 Mass Ave, Cambridge, MA 02139, USA.
```

Appendix L113 — iso15118-app — License template: Vector

```
vSECClib: (c) 2012-2025 all rights reserved by Vector informatik GmbH.
A link to the terms and conditions is incorporated as follows:
https://cdn.vector.com/cms/content/corporate/terms-and-conditions/TC_vSECClib_EN.pdf
```

Appendix L114 — iw — COPYING

```
Copyright (c) 2007, 2008Johannes Berg
Copyright (c) 2007              Andy Lutomirski
Copyright (c) 2007              Mike Kershaw
Copyright (c) 2008-2009         Luis R. Rodriguez
```

ISC-style terms — variant 1 (S028), p. 381

Appendix L115 — json-c — COPYING

```
Copyright (c) 2009-2012 Eric Haszlakiewicz
```

MIT-style terms — variant 1 (S005), p. 364

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

Copyright (c) 2004, 2005 Metaparadigm Pte Ltd
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L116 — libaio — COPYING

```
                  GNU LESSER GENERAL PUBLIC LICENSE
                       Version 2.1, February 1999

 Copyright (C) 1991, 1999 Free Software Foundation, Inc.
     59 Temple Place, Suite 330, Boston, MA  02111-1307  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.
^L
  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.
^L
                  GNU LESSER GENERAL PUBLIC LICENSE

GNU LGPL 2.1 terms — variant 2 (S029), p. 382

                     END OF TERMS AND CONDITIONS
^L
           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 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., 59 Temple Place, Suite 330, Boston, MA 02111-1307  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!
```

Appendix L117 — libcap — License

```
/* SPDX-License-Identifier: BSD-3-Clause OR GPL-2.0-only */

Unless otherwise *explicitly* stated, the following text describes the
licensed conditions under which the contents of this libcap release
may be used and distributed.

The licensed conditions are one or the other of these two Licenses:

  - BSD 3-clause
  - GPL v2.0

------------------------------------------------------------------------------
BSD 3-clause:
-------------

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

1. Redistributions of source code must retain any existing copyright
   notice, and this entire permission notice in its entirety,
   including the disclaimer of warranties.

2. Redistributions in binary form must reproduce all prior and current
   copyright notices, this list of conditions, and the following
   disclaimer in the documentation and/or other materials provided
   with the distribution.

3. The name of any author may not be used to endorse or promote
   products derived from this software without their 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 AUTHOR(S) 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.

GPL v2.0:

ALTERNATIVELY, this product may be distributed under the terms of the
GNU General Public License (v2.0 - see below), in which case the
provisions of the GNU GPL are required INSTEAD OF the above
restrictions.

Full text of gpl-2.0.txt:

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

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.

Appendix L118 — libdaemon — daemon.h

```
  libdaemon 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.

  libdaemon 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 libdaemon. If not, see
  <http://www.gnu.org/licenses/>.
```

Appendix L119 — 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.
```

Appendix L120 — Shared license text and notices

```
GNU GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright © 2007 Free Software Foundation, Inc. <http://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this license document, but
changing it is not allowed.
Preamble

The GNU General Public License is a free, copyleft license for software and other kinds of
works.

The licenses for most software and other practical works are designed to take away your
freedom to share and change the works. By contrast, the GNU General Public License is intended
to guarantee your freedom to share and change all versions of a program--to make sure it
remains free software for all its users. We, the Free Software Foundation, use the GNU General
Public License for most of our software; it applies also to any other work released this way
by its authors. 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 them 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 prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. 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.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.
TERMS AND CONDITIONS
0. Definitions.

“This License” refers to version 3 of the GNU General Public License.

“Copyright” also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

“The Program” refers to any copyrightable work licensed under this License. Each licensee is addressed as “you”. “Licensees” and “recipients” may be individuals or organizations.

To “modify” a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a “modified version” of the earlier work or a work “based on” the earlier work.

A “covered work” means either the unmodified Program or a work based on the Program.

To “propagate” a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To “convey” a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays “Appropriate Legal Notices” to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the

extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.
1. Source Code.

The “source code” for a work means the preferred form of the work for making modifications to it. “Object code” means any non-source form of a work.

A “Standard Interface” means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The “System Libraries” of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A “Major Component”, in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The “Corresponding Source” for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.
2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.
3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.
4. Conveying Verbatim Copies.

You may convey 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; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.
5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

    * a) The work must carry prominent notices stating that you modified it, and giving a relevant date.
    * b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to “keep intact all notices”.
    * c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.
    * d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an “aggregate” if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.
6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

    * a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
    * b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
    * c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
    * d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
    * e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A “User Product” is either (1) a “consumer product”, which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, “normally used” refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

“Installation Information” for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.
7. Additional Terms.

“Additional permissions” are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

    * a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or
    * b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or
    * c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or
    * d) Limiting the use for publicity purposes of names of licensors or authors of the material; or
    * e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or
    * f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered “further restrictions” within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.
8. Termination.

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.
9. Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.
10. Automatic Licensing of Downstream Recipients.

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License.

An “entity transaction” is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it.
11. Patents.

A “contributor” is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed is called the contributor's “contributor version”.

A contributor's “essential patent claims” are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, “control” includes the right to grant patent sublicenses in a manner consistent with the requirements of this License.

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

In the following three paragraphs, a “patent license” is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To “grant” such a patent license to a party means to make such an agreement or commitment not to enforce a patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. “Knowingly relying” means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

A patent license is “discriminatory” if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

12. No Surrender of Others' Freedom.

If 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 convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

13. Use with the GNU Affero General Public License.

Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU Affero General Public License into a single combined work, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work, but the special requirements of the GNU Affero General Public License, section 13, concerning interaction through a network will apply to the combination as such.

14. Revised Versions of this License.

The Free Software Foundation may publish revised and/or new versions of the GNU 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 that a certain numbered version of the GNU General Public License “or any later version” applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU General Public License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program.

Later license versions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version.

15. Disclaimer of Warranty.

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.

16. Limitation of Liability.

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS 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.

17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

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 state 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 3 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, see <http://www.gnu.org/licenses/>.
```

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

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

```
    <program>  Copyright (C) <year>  <name of author>
    This program 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, your program's commands might be different; for a GUI interface, you would use an “about box”.

You should also get your employer (if you work as a programmer) or school, if any, to sign a “copyright disclaimer” for the program, if necessary. For more information on this, and how to apply and follow the GNU GPL, see <http://www.gnu.org/licenses/>.

The GNU 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. But first, please read <http://www.gnu.org/philosophy/why-not-lgpl.html>.

Appendix L121 — libgcrypt — COPYING.LIB

```
                  GNU LESSER GENERAL PUBLIC LICENSE
                       Version 2.1, February 1999

 Copyright (C) 1991, 1999 Free Software Foundation, Inc.
     59 Temple Place, Suite 330, Boston, MA  02111-1307  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.
^L
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.

^L
GNU LESSER GENERAL PUBLIC LICENSE

END OF TERMS AND CONDITIONS

^L
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., 59 Temple Place, Suite 330, Boston, MA 02111-1307  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!

Appendix L122 — libgcrypt — LICENSES

```
Additional license notices for Libgcrypt.                    -*- org -*-

This file contains the copying permission notices for various files in
the Libgcrypt distribution which are not covered by the GNU Lesser
General Public License (LGPL) or the GNU General Public License (GPL).

These notices all require that a copy of the notice be included
in the accompanying documentation and be distributed with binary
distributions of the code, so be sure to include this file along
```

with any binary distributions derived from the GNU C Library.

* BSD_3Clause

  For files:
  - cipher/sha256-avx-amd64.S
  - cipher/sha256-avx2-bmi2-amd64.S
  - cipher/sha256-ssse3-amd64.S
  - cipher/sha512-avx-amd64.S
  - cipher/sha512-avx2-bmi2-amd64.S
  - cipher/sha512-ssse3-amd64.S
  - cipher/sha512-ssse3-i386.c

#+begin_quote
  Copyright (c) 2012, 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 the 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 INTEL CORPORATION "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 INTEL CORPORATION 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.
#+end_quote

  For files:
  - random/jitterentropy-base.c
  - random/jitterentropy-gcd.c
  - random/jitterentropy-gcd.h
  - random/jitterentropy-health.c
  - random/jitterentropy-health.h
  - random/jitterentropy-noise.c
  - random/jitterentropy-noise.h
  - random/jitterentropy-sha3.c
  - random/jitterentropy-sha3.h
  - random/jitterentropy-timer.c
  - random/jitterentropy-timer.h
  - random/jitterentropy.h
  - random/rndjent.c (plus common Libgcrypt copyright holders)

#+begin_quote
 Copyright (C) 2017 - 2021, Stephan Mueller <smueller@chronox.de>

 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, and the entire permission notice in its entirety,
    including the disclaimer of warranties.
 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.

 ALTERNATIVELY, this product may be distributed under the terms of
 the GNU General Public License, in which case the provisions of the GPL2
 are required INSTEAD OF the above restrictions.  (This clause is
 necessary due to a potential bad interaction between the GPL and
 the restrictions contained in a BSD-style copyright.)

 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, ALL OF
 WHICH ARE HEREBY 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 NOT ADVISED OF THE POSSIBILITY OF SUCH
 DAMAGE.
#+end_quote

  For files:
  - cipher/cipher-gcm-ppc.c

#+begin_quote
 Copyright (c) 2006, CRYPTOGAMS by <appro@openssl.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 copyright notices,
         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 CRYPTOGAMS nor the names of its
         copyright holder and contributors may be used to endorse or
         promote products derived from this software without specific
         prior written permission.

 ALTERNATIVELY, provided that this notice is retained in full, this
 product may be distributed under the terms of the GNU General Public
 License (GPL), in which case the provisions of the GPL apply INSTEAD OF
 those given above.

 THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDER 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.
#+end_quote
```

* X License

  For files:
  - install.sh

#+begin_quote
  Copyright (C) 1994 X Consortium

  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
  X CONSORTIUM BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN
  AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNEC-
  TION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

  Except as contained in this notice, the name of the X Consortium shall not
  be used in advertising or otherwise to promote the sale, use or other deal-
  ings in this Software without prior written authorization from the X Consor-
  tium.
#+end_quote

* Public domain

  For files:
  - cipher/arcfour-amd64.S

#+begin_quote
 Author: Marc Bevand <bevand_m (at) epita.fr>
 Licence: I hereby disclaim the copyright on this code and place it
 in the public domain.
#+end_quote

* OCB license 1

  For files:
  - cipher/cipher-ocb.c

#+begin_quote
  OCB is covered by several patents but may be used freely by most
  software. See http://web.cs.ucdavis.edu/~rogaway/ocb/license.htm .
  In particular license 1 is suitable for Libgcrypt: See
  http://web.cs.ucdavis.edu/~rogaway/ocb/license1.pdf for the full
  license document; it basically says:

    License 1 – License for Open-Source Software Implementations of OCB
                (Jan 9, 2013)

    Under this license, you are authorized to make, use, and
    distribute open-source software implementations of OCB. This
    license terminates for you if you sue someone over their
    open-source software implementation of OCB claiming that you have
    a patent covering their implementation.

 License for Open Source Software Implementations of OCB
 January 9, 2013

 1 Definitions

1.1 “Licensor” means Phillip Rogaway.

1.2 “Licensed Patents” means any patent that claims priority to United States Patent Application No. 09/918,615 entitled “Method and Apparatus for Facilitating Efficient Authenticated Encryption,” and any utility, divisional, provisional, continuation, continuations-in-part, reexamination, reissue, or foreign counterpart patents that may issue with respect to the aforesaid patent application. This includes, but is not limited to, United States Patent No. 7,046,802; United States Patent No. 7,200,227; United States Patent No. 7,949,129; United States Patent No. 8,321,675 ; and any patent that issues out of United States Patent Application No. 13/669,114.

1.3 “Use” means any practice of any invention claimed in the Licensed Patents.

1.4 “Software Implementation” means any practice of any invention claimed in the Licensed Patents that takes the form of software executing on a user-programmable, general-purpose computer or that takes the form of a computer-readable medium storing such software. Software Implementation does not include, for example, application-specific integrated circuits (ASICs), field-programmable gate arrays (FPGAs), embedded systems, or IP cores.

1.5 “Open Source Software” means software whose source code is published and made available for inspection and use by anyone because either (a) the source code is subject to a license that permits recipients to copy, modify, and distribute the source code without payment of fees or royalties, or (b) the source code is in the public domain, including code released for public use through a CC0 waiver. All licenses certified by the Open Source Initiative at opensource.org as of January 9, 2013 and all Creative Commons licenses identified on the creativecommons.org website as of January 9, 2013, including the Public License Fallback of the CC0 waiver, satisfy these requirements for the purposes of this license.

1.6 “Open Source Software Implementation” means a Software Implementation in which the software implicating the Licensed Patents is Open Source Software. Open Source Software Implementation does not include any Software Implementation in which the software implicating the Licensed Patents is combined, so as to form a larger program, with software that is not Open Source Software.

2 License Grant

2.1 License. Subject to your compliance with the term s of this license, including the restriction set forth in Section 2.2, Licensor hereby grants to you a perpetual, worldwide, non-exclusive, non-transferable, non-sublicenseable, no-charge, royalty-free, irrevocable license to practice any invention claimed in the Licensed Patents in any Open Source Software Implementation.

2.2 Restriction. If you or your affiliates institute patent litigation (including, but not limited to, a cross-claim or counterclaim in a lawsuit) against any entity alleging that any Use authorized by this license infringes another patent, then any rights granted to you under this license automatically terminate as of the date such litigation is filed.

3 Disclaimer
YOUR USE OF THE LICENSED PATENTS IS AT YOUR OWN RISK AND UNLESS REQUIRED BY APPLICABLE LAW, LICENSOR MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE LICENSED PATENTS OR ANY PRODUCT EMBODYING ANY LICENSED PATENT, EXPRESS OR IMPLIED, STATUT ORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF TITLE, MERCHANTIBILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. IN NO EVENT WILL LICENSOR BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN CONTRACT, TORT OR OTHERWISE, ARISING FROM OR RELATED TO ANY USE OF THE LICENSED PATENTS, INCLUDING, WITHOUT LIMITATION, DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR SPECIAL DAMAGES, EVEN IF LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES PRIOR TO SUCH AN OCCURRENCE.
#+end_quote

Appendix L123 — libgpg-error — gpg-error.h.in

```
 * Copyright (C) 2001-2020 g10 Code GmbH
 *
 * This file is part of libgpg-error (aka libgpgrt).
 *
 * libgpg-error 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.
 *
 * libgpg-error 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 program; if not, see <https://www.gnu.org/licenses/>.
 * SPDX-License-Identifier: LGPL-2.1+
```

Appendix L124 — libgpg-error — init.c

```
   Copyright (C) 2005, 2010 g10 Code GmbH

   This file is part of libgpg-error.

   libgpg-error 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.

   libgpg-error 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 program; if not, see <https://www.gnu.org/licenses/>.
```

Appendix L125 — libgpiod — CC-BY-SA-4.0.txt

```
Attribution-ShareAlike 4.0 International

=======================================================================

Creative Commons Corporation ("Creative Commons") is not a law firm and
does not provide legal services or legal advice. Distribution of
Creative Commons public licenses does not create a lawyer-client or
other relationship. Creative Commons makes its licenses and related
information available on an "as-is" basis. Creative Commons gives no
warranties regarding its licenses, any material licensed under their
terms and conditions, or any related information. Creative Commons
disclaims all liability for damages resulting from their use to the
fullest extent possible.

Using Creative Commons Public Licenses

Creative Commons public licenses provide a standard set of terms and
conditions that creators and other rights holders may use to share
original works of authorship and other material subject to copyright
and certain other rights specified in the public license below. The
following considerations are for informational purposes only, are not
exhaustive, and do not form part of our licenses.

     Considerations for licensors: Our public licenses are
     intended for use by those authorized to give the public
     permission to use material in ways otherwise restricted by
     copyright and certain other rights. Our licenses are
```

irrevocable. Licensors should read and understand the terms and conditions of the license they choose before applying it. Licensors should also secure all rights necessary before applying our licenses so that the public can reuse the material as expected. Licensors should clearly mark any material not subject to the license. This includes other CC-licensed material, or material used under an exception or limitation to copyright. More considerations for licensors:
wiki.creativecommons.org/Considerations_for_licensors

Considerations for the public: By using one of our public licenses, a licensor grants the public permission to use the licensed material under specified terms and conditions. If the licensor's permission is not necessary for any reason--for example, because of any applicable exception or limitation to copyright--then that use is not regulated by the license. Our licenses grant only permissions under copyright and certain other rights that a licensor has authority to grant. Use of the licensed material may still be restricted for other reasons, including because others have copyright or other rights in the material. A licensor may make special requests, such as asking that all changes be marked or described. Although not required by our licenses, you are encouraged to respect those requests where reasonable. More_considerations for the public:
wiki.creativecommons.org/Considerations_for_licensees

==========

Creative Commons Attribution-ShareAlike 4.0 International Public License

By exercising the Licensed Rights (defined below), You accept and agree to be bound by the terms and conditions of this Creative Commons Attribution-ShareAlike 4.0 International Public License ("Public License"). To the extent this Public License may be interpreted as a contract, You are granted the Licensed Rights in consideration of Your acceptance of these terms and conditions, and the Licensor grants You such rights in consideration of benefits the Licensor receives from making the Licensed Material available under these terms and conditions.

Section 1 -- Definitions.

a. Adapted Material means material subject to Copyright and Similar Rights that is derived from or based upon the Licensed Material and in which the Licensed Material is translated, altered, arranged, transformed, or otherwise modified in a manner requiring permission under the Copyright and Similar Rights held by the Licensor. For purposes of this Public License, where the Licensed Material is a musical work, performance, or sound recording, Adapted Material is always produced where the Licensed Material is synched in timed relation with a moving image.

b. Adapter's License means the license You apply to Your Copyright and Similar Rights in Your contributions to Adapted Material in accordance with the terms and conditions of this Public License.

c. BY-SA Compatible License means a license listed at creativecommons.org/compatiblelicenses, approved by Creative Commons as essentially the equivalent of this Public License.

d. Copyright and Similar Rights means copyright and/or similar rights closely related to copyright including, without limitation, performance, broadcast, sound recording, and Sui Generis Database Rights, without regard to how the rights are labeled or categorized. For purposes of this Public License, the rights specified in Section 2(b)(1)-(2) are not Copyright and Similar Rights.

e. Effective Technological Measures means those measures that, in the absence of proper authority, may not be circumvented under laws fulfilling obligations under Article 11 of the WIPO Copyright Treaty adopted on December 20, 1996, and/or similar international agreements.

f. Exceptions and Limitations means fair use, fair dealing, and/or any other exception or limitation to Copyright and Similar Rights that applies to Your use of the Licensed Material.

g. License Elements means the license attributes listed in the name of a Creative Commons Public License. The License Elements of this Public License are Attribution and ShareAlike.

h. Licensed Material means the artistic or literary work, database, or other material to which the Licensor applied this Public License.

i. Licensed Rights means the rights granted to You subject to the terms and conditions of this Public License, which are limited to all Copyright and Similar Rights that apply to Your use of the Licensed Material and that the Licensor has authority to license.

j. Licensor means the individual(s) or entity(ies) granting rights under this Public License.

k. Share means to provide material to the public by any means or process that requires permission under the Licensed Rights, such as reproduction, public display, public performance, distribution, dissemination, communication, or importation, and to make material available to the public including in ways that members of the public may access the material from a place and at a time individually chosen by them.

l. Sui Generis Database Rights means rights other than copyright resulting from Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, as amended and/or succeeded, as well as other essentially equivalent rights anywhere in the world.

m. You means the individual or entity exercising the Licensed Rights under this Public License. Your has a corresponding meaning.

Section 2 -- Scope.

a. License grant.

1. Subject to the terms and conditions of this Public License, the Licensor hereby grants You a worldwide, royalty-free, non-sublicensable, non-exclusive, irrevocable license to exercise the Licensed Rights in the Licensed Material to:

a. reproduce and Share the Licensed Material, in whole or in part; and

b. produce, reproduce, and Share Adapted Material.

2. Exceptions and Limitations. For the avoidance of doubt, where Exceptions and Limitations apply to Your use, this Public License does not apply, and You do not need to comply with its terms and conditions.

3. Term. The term of this Public License is specified in Section 6(a).

4. Media and formats; technical modifications allowed. The Licensor authorizes You to exercise the Licensed Rights in all media and formats whether now known or hereafter created,

and to make technical modifications necessary to do so. The Licensor waives and/or agrees not to assert any right or authority to forbid You from making technical modifications necessary to exercise the Licensed Rights, including technical modifications necessary to circumvent Effective Technological Measures. For purposes of this Public License, simply making modifications authorized by this Section 2(a)(4) never produces Adapted Material.

5. Downstream recipients.

   a. Offer from the Licensor -- Licensed Material. Every recipient of the Licensed Material automatically receives an offer from the Licensor to exercise the Licensed Rights under the terms and conditions of this Public License.

   b. Additional offer from the Licensor -- Adapted Material. Every recipient of Adapted Material from You automatically receives an offer from the Licensor to exercise the Licensed Rights in the Adapted Material under the conditions of the Adapter's License You apply.

   c. No downstream restrictions. You may not offer or impose any additional or different terms or conditions on, or apply any Effective Technological Measures to, the Licensed Material if doing so restricts exercise of the Licensed Rights by any recipient of the Licensed Material.

6. No endorsement. Nothing in this Public License constitutes or may be construed as permission to assert or imply that You are, or that Your use of the Licensed Material is, connected with, or sponsored, endorsed, or granted official status by, the Licensor or others designated to receive attribution as provided in Section 3(a)(1)(A)(i).

b. Other rights.

1. Moral rights, such as the right of integrity, are not licensed under this Public License, nor are publicity, privacy, and/or other similar personality rights; however, to the extent possible, the Licensor waives and/or agrees not to assert any such rights held by the Licensor to the limited extent necessary to allow You to exercise the Licensed Rights, but not otherwise.

2. Patent and trademark rights are not licensed under this Public License.

3. To the extent possible, the Licensor waives any right to collect royalties from You for the exercise of the Licensed Rights, whether directly or through a collecting society under any voluntary or waivable statutory or compulsory licensing scheme. In all other cases the Licensor expressly reserves any right to collect such royalties.

Section 3 -- License Conditions.

Your exercise of the Licensed Rights is expressly made subject to the following conditions.

a. Attribution.

1. If You Share the Licensed Material (including in modified form), You must:

   a. retain the following if it is supplied by the Licensor with the Licensed Material:

i. identification of the creator(s) of the Licensed Material and any others designated to receive attribution, in any reasonable manner requested by the Licensor (including by pseudonym if designated);

ii. a copyright notice;

iii. a notice that refers to this Public License;

iv. a notice that refers to the disclaimer of warranties;

v. a URI or hyperlink to the Licensed Material to the extent reasonably practicable;

b. indicate if You modified the Licensed Material and retain an indication of any previous modifications; and

c. indicate the Licensed Material is licensed under this Public License, and include the text of, or the URI or hyperlink to, this Public License.

2. You may satisfy the conditions in Section 3(a)(1) in any reasonable manner based on the medium, means, and context in which You Share the Licensed Material. For example, it may be reasonable to satisfy the conditions by providing a URI or hyperlink to a resource that includes the required information.

3. If requested by the Licensor, You must remove any of the information required by Section 3(a)(1)(A) to the extent reasonably practicable.

b. ShareAlike.

In addition to the conditions in Section 3(a), if You Share Adapted Material You produce, the following conditions also apply.

1. The Adapter's License You apply must be a Creative Commons license with the same License Elements, this version or later, or a BY-SA Compatible License.

2. You must include the text of, or the URI or hyperlink to, the Adapter's License You apply. You may satisfy this condition in any reasonable manner based on the medium, means, and context in which You Share Adapted Material.

3. You may not offer or impose any additional or different terms or conditions on, or apply any Effective Technological Measures to, Adapted Material that restrict exercise of the rights granted under the Adapter's License You apply.

Section 4 -- Sui Generis Database Rights.

Where the Licensed Rights include Sui Generis Database Rights that apply to Your use of the Licensed Material:

a. for the avoidance of doubt, Section 2(a)(1) grants You the right to extract, reuse, reproduce, and Share all or a substantial portion of the contents of the database;

b. if You include all or a substantial portion of the database contents in a database in which You have Sui Generis Database Rights, then the database in which You have Sui Generis Database Rights (but not its individual contents) is Adapted Material,

including for purposes of Section 3(b); and

c. You must comply with the conditions in Section 3(a) if You Share all or a substantial portion of the contents of the database.

For the avoidance of doubt, this Section 4 supplements and does not replace Your obligations under this Public License where the Licensed Rights include other Copyright and Similar Rights.

Section 5 -- Disclaimer of Warranties and Limitation of Liability.

a. UNLESS OTHERWISE SEPARATELY UNDERTAKEN BY THE LICENSOR, TO THE EXTENT POSSIBLE, THE LICENSOR OFFERS THE LICENSED MATERIAL AS-IS AND AS-AVAILABLE, AND MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE LICENSED MATERIAL, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHER. THIS INCLUDES, WITHOUT LIMITATION, WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, ABSENCE OF LATENT OR OTHER DEFECTS, ACCURACY, OR THE PRESENCE OR ABSENCE OF ERRORS, WHETHER OR NOT KNOWN OR DISCOVERABLE. WHERE DISCLAIMERS OF WARRANTIES ARE NOT ALLOWED IN FULL OR IN PART, THIS DISCLAIMER MAY NOT APPLY TO YOU.

b. TO THE EXTENT POSSIBLE, IN NO EVENT WILL THE LICENSOR BE LIABLE TO YOU ON ANY LEGAL THEORY (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE) OR OTHERWISE FOR ANY DIRECT, SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY, OR OTHER LOSSES, COSTS, EXPENSES, OR DAMAGES ARISING OUT OF THIS PUBLIC LICENSE OR USE OF THE LICENSED MATERIAL, EVEN IF THE LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES, COSTS, EXPENSES, OR DAMAGES. WHERE A LIMITATION OF LIABILITY IS NOT ALLOWED IN FULL OR IN PART, THIS LIMITATION MAY NOT APPLY TO YOU.

c. The disclaimer of warranties and limitation of liability provided above shall be interpreted in a manner that, to the extent possible, most closely approximates an absolute disclaimer and waiver of all liability.

Section 6 -- Term and Termination.

a. This Public License applies for the term of the Copyright and Similar Rights licensed here. However, if You fail to comply with this Public License, then Your rights under this Public License terminate automatically.

b. Where Your right to use the Licensed Material has terminated under Section 6(a), it reinstates:

   1. automatically as of the date the violation is cured, provided it is cured within 30 days of Your discovery of the violation; or

   2. upon express reinstatement by the Licensor.

   For the avoidance of doubt, this Section 6(b) does not affect any right the Licensor may have to seek remedies for Your violations of this Public License.

c. For the avoidance of doubt, the Licensor may also offer the Licensed Material under separate terms or conditions or stop distributing the Licensed Material at any time; however, doing so will not terminate this Public License.

d. Sections 1, 5, 6, 7, and 8 survive termination of this Public License.

Section 7 -- Other Terms and Conditions.

a. The Licensor shall not be bound by any additional or different terms or conditions communicated by You unless expressly agreed.

  b. Any arrangements, understandings, or agreements regarding the
     Licensed Material not stated herein are separate from and
     independent of the terms and conditions of this Public License.

Section 8 -- Interpretation.

  a. For the avoidance of doubt, this Public License does not, and
     shall not be interpreted to, reduce, limit, restrict, or impose
     conditions on any use of the Licensed Material that could lawfully
     be made without permission under this Public License.

  b. To the extent possible, if any provision of this Public License is
     deemed unenforceable, it shall be automatically reformed to the
     minimum extent necessary to make it enforceable. If the provision
     cannot be reformed, it shall be severed from this Public License
     without affecting the enforceability of the remaining terms and
     conditions.

  c. No term or condition of this Public License will be waived and no
     failure to comply consented to unless expressly agreed to by the
     Licensor.

  d. Nothing in this Public License constitutes or may be interpreted
     as a limitation upon, or waiver of, any privileges and immunities
     that apply to the Licensor or You, including from the legal
     processes of any jurisdiction or authority.

===

Creative Commons is not a party to its public
licenses. Notwithstanding, Creative Commons may elect to apply one of
its public licenses to material it publishes and in those instances
will be considered the “Licensor.” The text of the Creative Commons
public licenses is dedicated to the public domain under the CC0 Public
Domain Dedication. Except for the limited purpose of indicating that
material is shared under a Creative Commons public license or as
otherwise permitted by the Creative Commons policies published at
creativecommons.org/policies, Creative Commons does not authorize the
use of the trademark "Creative Commons" or any other trademark or logo
of Creative Commons without its prior written consent including,
without limitation, in connection with any unauthorized modifications
to any of its public licenses or any other arrangements,
understandings, or agreements concerning use of licensed material. For
the avoidance of doubt, this paragraph does not form part of the
public licenses.

Creative Commons may be contacted at creativecommons.org.

Appendix L126 — libgpiod — License template: CC-BY-SA-4.0

Attribution-ShareAlike 4.0 International

===

Creative Commons Corporation ("Creative Commons") is not a law firm and
does not provide legal services or legal advice. Distribution of
Creative Commons public licenses does not create a lawyer-client or
other relationship. Creative Commons makes its licenses and related
information available on an "as-is" basis. Creative Commons gives no
warranties regarding its licenses, any material licensed under their
terms and conditions, or any related information. Creative Commons
disclaims all liability for damages resulting from their use to the
fullest extent possible.

Using Creative Commons Public Licenses

Creative Commons public licenses provide a standard set of terms and conditions that creators and other rights holders may use to share original works of authorship and other material subject to copyright and certain other rights specified in the public license below. The following considerations are for informational purposes only, are not exhaustive, and do not form part of our licenses.

> Considerations for licensors: Our public licenses are intended for use by those authorized to give the public permission to use material in ways otherwise restricted by copyright and certain other rights. Our licenses are irrevocable. Licensors should read and understand the terms and conditions of the license they choose before applying it. Licensors should also secure all rights necessary before applying our licenses so that the public can reuse the material as expected. Licensors should clearly mark any material not subject to the license. This includes other CC-licensed material, or material used under an exception or limitation to copyright. More considerations for licensors:
> wiki.creativecommons.org/Considerations_for_licensors
>
> Considerations for the public: By using one of our public licenses, a licensor grants the public permission to use the licensed material under specified terms and conditions. If the licensor's permission is not necessary for any reason--for example, because of any applicable exception or limitation to copyright--then that use is not regulated by the license. Our licenses grant only permissions under copyright and certain other rights that a licensor has authority to grant. Use of the licensed material may still be restricted for other reasons, including because others have copyright or other rights in the material. A licensor may make special requests, such as asking that all changes be marked or described. Although not required by our licenses, you are encouraged to respect those requests where reasonable. More considerations for the public:
> wiki.creativecommons.org/Considerations_for_licensees

==========

Creative Commons Attribution-ShareAlike 4.0 International Public License

By exercising the Licensed Rights (defined below), You accept and agree to be bound by the terms and conditions of this Creative Commons Attribution-ShareAlike 4.0 International Public License ("Public License"). To the extent this Public License may be interpreted as a contract, You are granted the Licensed Rights in consideration of Your acceptance of these terms and conditions, and the Licensor grants You such rights in consideration of benefits the Licensor receives from making the Licensed Material available under these terms and conditions.

Section 1 -- Definitions.

a. Adapted Material means material subject to Copyright and Similar Rights that is derived from or based upon the Licensed Material and in which the Licensed Material is translated, altered, arranged, transformed, or otherwise modified in a manner requiring permission under the Copyright and Similar Rights held by the Licensor. For purposes of this Public License, where the Licensed Material is a musical work, performance, or sound recording, Adapted Material is always produced where the Licensed Material is synched in timed relation with a moving image.

b. Adapter's License means the license You apply to Your Copyright and Similar Rights in Your contributions to Adapted Material in accordance with the terms and conditions of this Public License.

c. BY-SA Compatible License means a license listed at creativecommons.org/compatiblelicenses, approved by Creative Commons as essentially the equivalent of this Public License.

d. Copyright and Similar Rights means copyright and/or similar rights closely related to copyright including, without limitation, performance, broadcast, sound recording, and Sui Generis Database Rights, without regard to how the rights are labeled or categorized. For purposes of this Public License, the rights specified in Section 2(b)(1)-(2) are not Copyright and Similar Rights.

e. Effective Technological Measures means those measures that, in the absence of proper authority, may not be circumvented under laws fulfilling obligations under Article 11 of the WIPO Copyright Treaty adopted on December 20, 1996, and/or similar international agreements.

f. Exceptions and Limitations means fair use, fair dealing, and/or any other exception or limitation to Copyright and Similar Rights that applies to Your use of the Licensed Material.

g. License Elements means the license attributes listed in the name of a Creative Commons Public License. The License Elements of this Public License are Attribution and ShareAlike.

h. Licensed Material means the artistic or literary work, database, or other material to which the Licensor applied this Public License.

i. Licensed Rights means the rights granted to You subject to the terms and conditions of this Public License, which are limited to all Copyright and Similar Rights that apply to Your use of the Licensed Material and that the Licensor has authority to license.

j. Licensor means the individual(s) or entity(ies) granting rights under this Public License.

k. Share means to provide material to the public by any means or process that requires permission under the Licensed Rights, such as reproduction, public display, public performance, distribution, dissemination, communication, or importation, and to make material available to the public including in ways that members of the public may access the material from a place and at a time individually chosen by them.

l. Sui Generis Database Rights means rights other than copyright resulting from Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, as amended and/or succeeded, as well as other essentially equivalent rights anywhere in the world.

m. You means the individual or entity exercising the Licensed Rights under this Public License. Your has a corresponding meaning.

Section 2 -- Scope.

a. License grant.

1. Subject to the terms and conditions of this Public License, the Licensor hereby grants You a worldwide, royalty-free, non-sublicensable, non-exclusive, irrevocable license to exercise the Licensed Rights in the Licensed Material to:

a. reproduce and Share the Licensed Material, in whole or in part; and

b. produce, reproduce, and Share Adapted Material.

2. Exceptions and Limitations. For the avoidance of doubt, where Exceptions and Limitations apply to Your use, this Public License does not apply, and You do not need to comply with its terms and conditions.

3. Term. The term of this Public License is specified in Section 6(a).

4. Media and formats; technical modifications allowed. The Licensor authorizes You to exercise the Licensed Rights in all media and formats whether now known or hereafter created, and to make technical modifications necessary to do so. The Licensor waives and/or agrees not to assert any right or authority to forbid You from making technical modifications necessary to exercise the Licensed Rights, including technical modifications necessary to circumvent Effective Technological Measures. For purposes of this Public License, simply making modifications authorized by this Section 2(a)(4) never produces Adapted Material.

5. Downstream recipients.

   a. Offer from the Licensor -- Licensed Material. Every recipient of the Licensed Material automatically receives an offer from the Licensor to exercise the Licensed Rights under the terms and conditions of this Public License.

   b. Additional offer from the Licensor -- Adapted Material. Every recipient of Adapted Material from You automatically receives an offer from the Licensor to exercise the Licensed Rights in the Adapted Material under the conditions of the Adapter's License You apply.

   c. No downstream restrictions. You may not offer or impose any additional or different terms or conditions on, or apply any Effective Technological Measures to, the Licensed Material if doing so restricts exercise of the Licensed Rights by any recipient of the Licensed Material.

6. No endorsement. Nothing in this Public License constitutes or may be construed as permission to assert or imply that You are, or that Your use of the Licensed Material is, connected with, or sponsored, endorsed, or granted official status by, the Licensor or others designated to receive attribution as provided in Section 3(a)(1)(A)(i).

b. Other rights.

1. Moral rights, such as the right of integrity, are not licensed under this Public License, nor are publicity, privacy, and/or other similar personality rights; however, to the extent possible, the Licensor waives and/or agrees not to assert any such rights held by the Licensor to the limited extent necessary to allow You to exercise the Licensed Rights, but not otherwise.

2. Patent and trademark rights are not licensed under this Public License.

3. To the extent possible, the Licensor waives any right to collect royalties from You for the exercise of the Licensed Rights, whether directly or through a collecting society under any voluntary or waivable statutory or compulsory licensing scheme. In all other cases the Licensor expressly reserves any right to collect such royalties.

Section 3 -- License Conditions.

Your exercise of the Licensed Rights is expressly made subject to the following conditions.

a. Attribution.

1. If You Share the Licensed Material (including in modified form), You must:

a. retain the following if it is supplied by the Licensor with the Licensed Material:

i. identification of the creator(s) of the Licensed Material and any others designated to receive attribution, in any reasonable manner requested by the Licensor (including by pseudonym if designated);

ii. a copyright notice;

iii. a notice that refers to this Public License;

iv. a notice that refers to the disclaimer of warranties;

v. a URI or hyperlink to the Licensed Material to the extent reasonably practicable;

b. indicate if You modified the Licensed Material and retain an indication of any previous modifications; and

c. indicate the Licensed Material is licensed under this Public License, and include the text of, or the URI or hyperlink to, this Public License.

2. You may satisfy the conditions in Section 3(a)(1) in any reasonable manner based on the medium, means, and context in which You Share the Licensed Material. For example, it may be reasonable to satisfy the conditions by providing a URI or hyperlink to a resource that includes the required information.

3. If requested by the Licensor, You must remove any of the information required by Section 3(a)(1)(A) to the extent reasonably practicable.

b. ShareAlike.

In addition to the conditions in Section 3(a), if You Share Adapted Material You produce, the following conditions also apply.

1. The Adapter's License You apply must be a Creative Commons license with the same License Elements, this version or later, or a BY-SA Compatible License.

2. You must include the text of, or the URI or hyperlink to, the Adapter's License You apply. You may satisfy this condition in any reasonable manner based on the medium, means, and context in which You Share Adapted Material.

3. You may not offer or impose any additional or different terms or conditions on, or apply any Effective Technological Measures to, Adapted Material that restrict exercise of the rights granted under the Adapter's License You apply.

Section 4 -- Sui Generis Database Rights.

Where the Licensed Rights include Sui Generis Database Rights that apply to Your use of the Licensed Material:

a. for the avoidance of doubt, Section 2(a)(1) grants You the right to extract, reuse, reproduce, and Share all or a substantial portion of the contents of the database;

b. if You include all or a substantial portion of the database contents in a database in which You have Sui Generis Database Rights, then the database in which You have Sui Generis Database Rights (but not its individual contents) is Adapted Material,

including for purposes of Section 3(b); and

c. You must comply with the conditions in Section 3(a) if You Share all or a substantial portion of the contents of the database.

For the avoidance of doubt, this Section 4 supplements and does not replace Your obligations under this Public License where the Licensed Rights include other Copyright and Similar Rights.

Section 5 -- Disclaimer of Warranties and Limitation of Liability.

a. UNLESS OTHERWISE SEPARATELY UNDERTAKEN BY THE LICENSOR, TO THE EXTENT POSSIBLE, THE LICENSOR OFFERS THE LICENSED MATERIAL AS-IS AND AS-AVAILABLE, AND MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE LICENSED MATERIAL, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHER. THIS INCLUDES, WITHOUT LIMITATION, WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, ABSENCE OF LATENT OR OTHER DEFECTS, ACCURACY, OR THE PRESENCE OR ABSENCE OF ERRORS, WHETHER OR NOT KNOWN OR DISCOVERABLE. WHERE DISCLAIMERS OF WARRANTIES ARE NOT ALLOWED IN FULL OR IN PART, THIS DISCLAIMER MAY NOT APPLY TO YOU.

b. TO THE EXTENT POSSIBLE, IN NO EVENT WILL THE LICENSOR BE LIABLE TO YOU ON ANY LEGAL THEORY (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE) OR OTHERWISE FOR ANY DIRECT, SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY, OR OTHER LOSSES, COSTS, EXPENSES, OR DAMAGES ARISING OUT OF THIS PUBLIC LICENSE OR USE OF THE LICENSED MATERIAL, EVEN IF THE LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES, COSTS, EXPENSES, OR DAMAGES. WHERE A LIMITATION OF LIABILITY IS NOT ALLOWED IN FULL OR IN PART, THIS LIMITATION MAY NOT APPLY TO YOU.

c. The disclaimer of warranties and limitation of liability provided above shall be interpreted in a manner that, to the extent possible, most closely approximates an absolute disclaimer and waiver of all liability.

Section 6 -- Term and Termination.

a. This Public License applies for the term of the Copyright and Similar Rights licensed here. However, if You fail to comply with this Public License, then Your rights under this Public License terminate automatically.

b. Where Your right to use the Licensed Material has terminated under Section 6(a), it reinstates:

   1. automatically as of the date the violation is cured, provided it is cured within 30 days of Your discovery of the violation; or

   2. upon express reinstatement by the Licensor.

   For the avoidance of doubt, this Section 6(b) does not affect any right the Licensor may have to seek remedies for Your violations of this Public License.

c. For the avoidance of doubt, the Licensor may also offer the Licensed Material under separate terms or conditions or stop

distributing the Licensed Material at any time; however, doing so
will not terminate this Public License.

d. Sections 1, 5, 6, 7, and 8 survive termination of this Public
License.

Section 7 -- Other Terms and Conditions.

a. The Licensor shall not be bound by any additional or different
terms or conditions communicated by You unless expressly agreed.

b. Any arrangements, understandings, or agreements regarding the
Licensed Material not stated herein are separate from and
independent of the terms and conditions of this Public License.

Section 8 -- Interpretation.

a. For the avoidance of doubt, this Public License does not, and
shall not be interpreted to, reduce, limit, restrict, or impose
conditions on any use of the Licensed Material that could lawfully
be made without permission under this Public License.

b. To the extent possible, if any provision of this Public License is
deemed unenforceable, it shall be automatically reformed to the
minimum extent necessary to make it enforceable. If the provision
cannot be reformed, it shall be severed from this Public License
without affecting the enforceability of the remaining terms and
conditions.

c. No term or condition of this Public License will be waived and no
failure to comply consented to unless expressly agreed to by the
Licensor.

d. Nothing in this Public License constitutes or may be interpreted
as a limitation upon, or waiver of, any privileges and immunities
that apply to the Licensor or You, including from the legal
processes of any jurisdiction or authority.

===

Creative Commons is not a party to its public
licenses. Notwithstanding, Creative Commons may elect to apply one of
its public licenses to material it publishes and in those instances
will be considered the “Licensor.” The text of the Creative Commons
public licenses is dedicated to the public domain under the CC0 Public
Domain Dedication. Except for the limited purpose of indicating that
material is shared under a Creative Commons public license or as
otherwise permitted by the Creative Commons policies published at
creativecommons.org/policies, Creative Commons does not authorize the
use of the trademark "Creative Commons" or any other trademark or logo
of Creative Commons without its prior written consent including,
without limitation, in connection with any unauthorized modifications
to any of its public licenses or any other arrangements,
understandings, or agreements concerning use of licensed material. For
the avoidance of doubt, this paragraph does not form part of the
public licenses.

Creative Commons may be contacted at creativecommons.org.

Appendix L127 — libidn2 — COPYING

Libidn2 COPYING -- Licensing information.   -*- outline -*-
Copyright (C) 2011-2016 Simon Josefsson
See the end for copying conditions.

The source code for the C library (libidn2.a or libidn.so) are
licensed under the terms of either the GNU General Public License
version 2.0 or later (see the file COPYINGv2) or the GNU Lesser
General Public License version 3.0 or later (see the file
COPYING.LESSERv3), or both in parallel as here.

The command line tool, self tests, examples, and other auxiliary
files, are licensed under the GNU General Public License version 3.0
or later.

The license of the Unicode character data files (which are parsed into
static storage in the library) are documented in COPYING.unicode.

Other files are licensed as indicated in each file.

There may be exceptions to these general rules, see each file for
precise information.

This file 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 3 of the License, or (at your
option) any later version.

This file 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 file. If not, see <http://www.gnu.org/licenses/>.

Appendix L128 — libidn2 — COPYING.unicode

A. Unicode Copyright.

    Copyright © 1991-2016 Unicode, Inc. All rights reserved.
    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 solely for informational purposes and in the creation of products supporting the Unicode Standard, subject to the Terms and Conditions herein.
    Further specifications of rights and restrictions pertaining to the use of the particular set of data files known as the "Unicode Character Database" can be found in the 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 online code charts carry specific restrictions. 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.

B. 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.

C. 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 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 C.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 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.

D. Waiver of Damages.

In no event shall Unicode or its licensors be liable for any special, incidental, indirect or consequential damages of any kind, or any damages whatsoever, whether or not Unicode 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.

E. 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.

F. Miscellaneous.

Jurisdiction and Venue. This server is operated from a location in the State of California, United States of America. Unicode makes no representation that the materials are appropriate for use in other locations. If you access this server from other locations, you are responsible for compliance with local laws. This Agreement, all use of this site and any claims and damages resulting from use of this site 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 site 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 Unicode shall have the right to modify this Agreement at any time by posting it to this site. The user may not assign any part of this Agreement without Unicode’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.

EXHIBIT 1
Unicode Data Files include all data files under the directories
http://www.unicode.org/Public/, http://www.unicode.org/reports/,
http://www.unicode.org/cldr/data/, http://source.icu-project.org/repos/icu/, and
http://www.unicode.org/utility/trac/browser/.

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

Software includes any source code published in the Unicode Standard
or under the directories
http://www.unicode.org/Public/, http://www.unicode.org/reports/,
http://www.unicode.org/cldr/data/, http://source.icu-project.org/repos/icu/, and
http://www.unicode.org/utility/trac/browser/.

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 © 1991-2016 Unicode, Inc. All rights reserved.
Distributed under the Terms of Use in http://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.

Appendix L129 — Shared license text and notices

GNU LESSER GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright © 2007 Free Software Foundation, Inc. <http://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public License, supplemented by the additional permissions listed below.
0. Additional Definitions.

As used herein, “this License” refers to version 3 of the GNU Lesser General Public License, and the “GNU GPL” refers to version 3 of the GNU General Public License.

“The Library” refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An “Application” is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A “Combined Work” is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the “Linked Version”.

The “Minimal Corresponding Source” for a Combined Work means the Corresponding Source for the

Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The “Corresponding Application Code” for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.
1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.
2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

    * a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or
    * b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

    * a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.
    * b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

    * a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.
    * b) Accompany the Combined Work with a copy of the GNU GPL and this license document.
    * c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.
    * d) Do one of the following:
        o 0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.
        o 1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.
    * e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

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 that are not Applications and are not covered

by this License, and convey such a combined library under terms of your choice, if you do both of the following:

    * a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.
    * b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU 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 as you received it specifies that a certain numbered version of the GNU Lesser General Public License “or any later version” applies to it, you have the option of following the terms and conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

Appendix L130 — libidn2 — License template: Unicode-DFS-2016

UNICODE, INC. LICENSE AGREEMENT - DATA FILES AND SOFTWARE

Unicode Data Files include all data files under the directories http://www.unicode.org/Public/, http://www.unicode.org/reports/, http://www.unicode.org/cldr/data/, http://source.icu-project.org/repos/icu/, and http://www.unicode.org/utility/trac/browser/.

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

Software includes any source code published in the Unicode Standard or under the directories http://www.unicode.org/Public/, http://www.unicode.org/reports/, http://www.unicode.org/cldr/data/, http://source.icu-project.org/repos/icu/, and http://www.unicode.org/utility/trac/browser/.

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 © 1991-2016 Unicode, Inc. All rights reserved. Distributed under the Terms of Use in http://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.
```

Appendix L131 — libidn2 — idn2.c

```
/* idn2.c - command line interface to libidn2
   Copyright (C) 2011-2022 Simon Josefsson, Tim Ruehsen

   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 3 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, see <http://www.gnu.org/licenses/>.
*/
```

Appendix L132 — libidn2 — idn2.h.in

```
/* idn2.h - header file for idn2
   Copyright (C) 2011-2022 Simon Josefsson

   Libidn2 is free software: you can redistribute it and/or modify it
   under the terms of either:

     * the GNU Lesser General Public License as published by the Free
       Software Foundation; either version 3 of the License, or (at
       your option) any later version.

   or

     * 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.

   or both in parallel, as here.

   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 copies of the GNU General Public License and
   the GNU Lesser General Public License along with this program.  If
   not, see <http://www.gnu.org/licenses/>.
*/
```

Appendix L133 — libpcap — LICENSE

```
License: BSD

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

  1. Redistributions of source code must retain the above copyright
     notice, this list of conditions and the following disclaimer.
  2. Redistributions in binary form must reproduce the above copyright
     notice, this list of conditions and the following disclaimer in
```

```
     the documentation and/or other materials provided with the
     distribution.
  3. The names of the authors may not be used to endorse or promote
     products derived from this software without specific prior
     written permission.

THIS SOFTWARE IS PROVIDED ``AS IS'' AND WITHOUT ANY EXPRESS OR
IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED
WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
```

Appendix L134 — libpcap — pcap.h

```
/*
 * Copyright (c) 1993, 1994, 1995, 1996, 1997
 *      The 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. All advertising materials mentioning features or use of this software
 *    must display the following acknowledgement:
 *      This product includes software developed by the Computer Systems
 *      Engineering Group at Lawrence Berkeley Laboratory.
 * 4. Neither the name of the University nor of the Laboratory 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.
 */
```

Appendix L135 — libpcre2 — LICENCE

```
PCRE2 LICENCE
-------------

PCRE2 is a library of functions to support regular expressions whose syntax
and semantics are as close as possible to those of the Perl 5 language.

Releases 10.00 and above of PCRE2 are distributed under the terms of the "BSD"
licence, as specified below, with one exemption for certain binary
redistributions. The documentation for PCRE2, supplied in the "doc" directory,
is distributed under the same terms as the software itself. The data in the
testdata directory is not copyrighted and is in the public domain.

The basic library functions are written in C and are freestanding. Also
included in the distribution is a just-in-time compiler that can be used to
optimize pattern matching. This is an optional feature that can be omitted when
the library is built.


THE BASIC LIBRARY FUNCTIONS
---------------------------

Written by:       Philip Hazel
```

Email local part: Philip.Hazel
Email domain: gmail.com

Retired from University of Cambridge Computing Service,
Cambridge, England.

Copyright (c) 1997-2022 University of Cambridge
All rights reserved.

PCRE2 JUST-IN-TIME COMPILATION SUPPORT

Written by: Zoltan Herczeg
Email local part: hzmester
Email domain: freemail.hu

Copyright(c) 2010-2022 Zoltan Herczeg
All rights reserved.

STACK-LESS JUST-IN-TIME COMPILER

Written by: Zoltan Herczeg
Email local part: hzmester
Email domain: freemail.hu

Copyright(c) 2009-2022 Zoltan Herczeg
All rights reserved.

THE "BSD" LICENCE

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 notices,
      this list of conditions and the following disclaimer.

    * Redistributions in binary form must reproduce the above copyright
      notices, this list of conditions and the following disclaimer in the
      documentation and/or other materials provided with the distribution.

    * Neither the name of the University of Cambridge nor the names of any
      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.

EXEMPTION FOR BINARY LIBRARY-LIKE PACKAGES

The second condition in the BSD licence (covering binary redistributions) does
not apply all the way down a chain of software. If binary package A includes
PCRE2, it must respect the condition, but if package B is software that
includes package A, the condition is not imposed on package B unless it uses
PCRE2 independently.

End

Appendix L136 — libseccomp — 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

GNU LGPL 2.1 terms — variant 1 (S002), p. 349

Appendix L137 — libssh — COPYING

GNU LESSER GENERAL PUBLIC LICENSE
Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.
59 Temple Place, Suite 330, Boston, MA 02111-1307 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

GNU LGPL 2.1 terms — variant 1 (S002), p. 349

                                Linking with OpenSSL

  17. In addition, as a special exception, we give permission to link the code
of its release of libssh with the OpenSSL project's "OpenSSL" library (or with
modified versions of it that use the same license as the "OpenSSL" library),
and distribute the linked executables. You must obey the GNU Lesser General
Public License in all respects for all of the code used other than "OpenSSL".
If you modify this file, you may extend this exception to your version of the
file, but you are not obligated to do so. If you do not wish to do so, delete
this exception statement from your version.

                        END OF TERMS AND CONDITIONS

Appendix L138 — libtirpc — COPYING

```
/*
 * Copyright (c) Copyright (c) Bull S.A.  2005  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.
 */
```

Appendix L139 — libtirpc — netname.c

```
/*
 * Copyright (c) 2009, 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.
 * - 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 Sun Microsystems, 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.
 */
```

Appendix L140 — libunistring — README

```
Copyright
---------

The libunistring library and its header files are dual-licensed under
"the GNU LGPLv3+ or the GNU GPLv2+". This means, you can use it under either
  - the terms of the GNU Lesser General Public License (LGPL) version 3 or
    (at your option) any later version, or
  - the terms of the GNU General Public License (GPL) version 2 or
    (at your option) any later version, or
  - the same dual license "the GNU LGPLv3+ or the GNU GPLv2+".

You find the GNU LGPL version 3 in the file COPYING.LIB.  This license is
based on the GNU GPL version 3, see file COPYING.

You can find the GNU GPL version 2 at
<https://www.gnu.org/licenses/old-licenses/gpl-2.0.html>.

Note: This dual license makes it possible for the libunistring library
to be used by packages under GPLv2 or GPLv2+ licenses, in particular. See
the table in <https://www.gnu.org/licenses/gpl-faq.html#AllCompatibility>.
```

Appendix L141 — libunistring — libunistring-notices.txt

```
This manual is for GNU libunistring.

Author: Bruno Haible

Copyright (C) 2001-2022 Free Software Foundation, Inc.

This manual is free documentation.  It is dually licensed under the
GNU FDL and the GNU GPL.  This means that you can redistribute this
manual under either of these two licenses, at your choice.

This manual is covered by the GNU FDL.  Permission is granted to copy,
distribute and/or modify this document under the terms of the
GNU Free Documentation License (FDL), either version 1.2 of the
License, or (at your option) any later version published by the
Free Software Foundation (FSF); with no Invariant Sections, with no
Front-Cover Text, and with no Back-Cover Texts.
A copy of the license is included in GNU FDL.

This manual is covered by the GNU GPL.  You can redistribute it and/or
modify it under the terms of the GNU General Public License (GPL), either
version 3 of the License, or (at your option) any later version published
by the Free Software Foundation (FSF).
A copy of the license is included in GNU GPL.

The files of this package are covered by the licenses indicated in each
particular file or directory.  Here is a summary:



The libunistring library and its header files are dual-licensed under
"the GNU LGPLv3+ or the GNU GPLv2+". This means, you can use it under either

- the terms of the GNU Lesser General Public License (LGPL) version 3 or
(at your option) any later version, or
- the terms of the GNU General Public License (GPL) version 2 or
(at your option) any later version, or
- the same dual license "the GNU LGPLv3+ or the GNU GPLv2+".

You find the GNU LGPL version 3 in GNU LGPL.  This license is
based on the GNU GPL version 3, see GNU GPL.

You can find the GNU GPL version 2 at
https://www.gnu.org/licenses/old-licenses/gpl-2.0.html.

Note: This dual license makes it possible for the libunistring library
to be used by packages under GPLv2 or GPLv2+ licenses, in particular. See
the table in https://www.gnu.org/licenses/gpl-faq.html#AllCompatibility.
```

Appendix L142 — libxcrypt — LICENSING

```
# Detailed copyright and licensing information for libxcrypt

The overall license for libxcrypt is the GNU Lesser General Public
License, version 2.1 (or, at your option, any later version); see
the file COPYING.LIB for the full terms of this license.

Many individual files are under other licenses.  This file provides an
inventory of the copyright holders and licenses of all files in the
source tree.  For specific licensing terms consult the files themselves.

 * Copyright Thorsten Kukuk, Björn Esser, Zack Weinberg; LGPL (v2.1 or later):
   crypt.c, crypt-static.c, crypt-gensalt-static.c, crypt-port.h

 * Copyright Free Software Foundation, Inc.; LGPL (v2.1 or later):
   crypt.h, crypt-obsolete.h, crypt-md5.c,
   test-badsalt.c, test-crypt-nonnull.c, test-explicit-bzero.c
```

```
* Copyright David Burren et al.; 3-clause BSD:
  alg-des.h, alg-des.c, alg-des-tables.c,
  crypt-des.c, crypt-des-obsolete.c, gen-des-tables.c

* Public domain, written by Ulrich Drepper et al.:
  crypt-sha256.c, crypt-sha512.c

* Public domain, written by Solar Designer et al.:
  alg-md4.h, alg-md4.c, alg-md5.h, alg-md5.c,
  crypt-bcrypt.c, crypt-gensalt.c, test-crypt-bcrypt.c

* Copyright Solar Designer, Colin Percival; 0-clause BSD:
  alg-yescrypt-common.c, alg-yescrypt-platform.c

* Copyright Solar Designer, Colin Percival; 2-clause BSD:
  alg-sha256.c, alg-sha256.h, alg-yescrypt.h, alg-yescrypt-opt.c

* Copyright Colin Percival; 2-clause BSD:
  alg-sha512.h, alg-sha512.c

* Copyright Alexey Degtyarev; 2-clause BSD:
  alg-gost3411-2012-const.h, alg-gost3411-2012-core.c,
  alg-gost3411-2012-core.h, alg-gost3411-2012-precalc.h,
  alg-gost3411-2012-ref.h

* Copyright Vitaly Chikunov, Björn Esser; 0-clause BSD:
  alg-gost3411-2012-hmac.c, alg-gost3411-2012-hmac.h,
  crypt-gost-yescrypt.c, test-alg-gost3411-2012.c,
  test-alg-gost3411-2012-hmac.c, test-crypt-gost-yescrypt.c,
  test-crypt-scrypt.c

* Copyright Alexander Peslyak; 0-clause BSD:
  test-alg-yescrypt.c

* Copyright Alexander Peslyak, Björn Esser; 0-clause BSD:
  crypt-scrypt.c

* Copyright Björn Esser; 0-clause BSD:
  crypt-common.c, test-checksalt.c, test-compile-strong-alias.c,
  test-gensalt-nthash.c, test-short-outbuf.c, test-special-char-salt.c

* Copyright Michael Bretterklieber, Björn Esser et al.; 2-clause BSD:
  crypt-nthash.c

* Copyright Zack Weinberg; 2-clause BSD:
  crypt-sunmd5.c

* Public domain, written by Steve Reid et al.:
  alg-sha1.c, alg-sha1.h, test-alg-sha1.c

* Copyright Juniper Networks, Inc.; 3-clause BSD:
  crypt-pbkdf1-sha1.c, crypt-pbkdf1-sha1.c

* Copyright Björn Esser; 2-clause BSD:
  alg-hmac-sha1.c, alg-hmac-sha1.h, test-alg-hmac-sha1.c

* Public domain, written by Zack Weinberg et al.:
  byteorder.h, randombytes.c, test-byteorder.c
  test-alg-pbkdf-hmac-sha256.c
  test-badsetting.c, test-crypt-badargs.c, test-getrandom-fallbacks.c,
  test-getrandom-interface.c, test-symbols-compat.sh,
  test-symbols-renames.sh, test-symbols-static.sh,
  build-aux/scripts/gen-crypt-h,
  build-aux/scripts/gen-crypt-symbol-vers-h,
  build-aux/scripts/gen-libcrypt-map,
  build-aux/scripts/skip-if-exec-format-error,
  build-aux/m4/zw_alignment.m4, build-aux/m4/zw_static_assert.m4,
  build-aux/m4/zw_endianness.m4, build-aux/m4/zw_ld_wrap.m4

* Copyright Zack Weinberg and Free Software Foundation, Inc;
```

```
   GPL (v3 or later), with Autoconf exception:
   build-aux/m4/zw_automodern.m4, build-aux/m4/zw_simple_warnings.m4

 * Copyright <vt at altlinux.org>; 0-clause BSD:
   crypt-yescrypt.c, test-crypt-yescrypt.c

 * Copyright Kevin Cernekee; FSF All Permissive License:
   build-aux/m4/ax_check_vscript.m4

 * Copyright Maarten Bosmans; FSF All Permissive License:
   build-aux/m4/ax_append_compile_flags.m4

 * Copyright Guido U. Draheim, Maarten Bosmans;
   FSF All Permissive License:
   build-aux/m4/ax_append_flag.m4, build-aux/m4/ax_check_compile_flag.m4

 * Copyright Mike Frysinger; FSF All Permissive License:
   build-aux/m4/ax_require_defined.m4

 * Copyright Gabriele Svelto; FSF All Permissive License:
   build-aux/m4/ax_gcc_func_attribute.m4

 * Copyright Scott James Remnant, Dan Nicholson;
   GPL (v2 or later), with Autoconf exception:
   build-aux/m4/pkg_installdir_compat.m4

 * Copyright Tim Toolan; FSF All Permissive License:
   build-aux/m4/ax_compare_version.m4

 * Copyright Philip Withnall; FSF All Permissive License:
   build-aux/m4/ax_valgrind_check.m4

 * Copyright Steven G. Johnson, Daniel Richard G.;
   GPL (v3 or later), with Autoconf exception:
   build-aux/m4/ax_pthread.m4

 * Copyright Francesco Salvestrini; FSF All Permissive License:
   build-aux/m4/ax_prog_python_version.m4

 * Copyright Andrew Collier; FSF All Permissive License:
   build-aux/m4/ax_python_module.m4

 * Copyright holders unknown, no statement of license (all of these
   files are part of the testsuite and do not contribute to the
   installed library or its headers):
   test-alg-des.c, test-alg-md4.c (adaption of test-alg-md5.c),
   test-alg-md5.c, test-alg-sha256.c, test-alg-sha512.c, test-crypt-des.c,
   test-crypt-md5.c, test-crypt-sha256.c, test-crypt-sha512.c,
   test-des-cases.h, test-des-obsolete{,_r}.c, test-gensalt.c,
   test-crypt-nthash.c (adaption of test-crypt-des.c),
   test-crypt-sunmd5.c (adaption of test-crypt-des.c),
   test-crypt-pbkdf1-sha1.c (adaption of test-crypt-des.c)

 * The NEWS file formerly contained the following copyright assertions:

     Copyright 2002, 2003, 2004 SuSE Linux AG, Germany
     Copyright 2005, 2008, 2009 2011 SUSE LINUX Products GmbH, Germany
     Copyright 2015 Björn Esser

   These were meant to apply to the library as a whole rather than
   specific files or portions of files.
```

Appendix L143 — libxml2 — Copyright

```
Except where otherwise noted in the source code (e.g. the files hash.c,
list.c and the trio files, which are covered by a similar licence but
with different Copyright notices) all the files are:

 Copyright (C) 1998-2012 Daniel Veillard.  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 fur-
nished 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, FIT-
NESS 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.
```

Appendix L144 — libxml2 — hash.c

```
 * Copyright (C) 2000,2012 Bjorn Reese and Daniel Veillard.
 *
 * 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.
 *
 * 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 AUTHORS AND
 * CONTRIBUTORS ACCEPT NO RESPONSIBILITY IN ANY CONCEIVABLE MANNER.
```

Appendix L145 — libxml2 — list.c

```
 * Copyright (C) 2000 Gary Pennington and Daniel Veillard.
 *
 * 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.
 *
 * 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 AUTHORS AND
 * CONTRIBUTORS ACCEPT NO RESPONSIBILITY IN ANY CONCEIVABLE MANNER.
```

Appendix L146 — libxml2 — trio.c

```
 * Copyright (C) 1998 Bjorn Reese and Daniel Stenberg.
 *
 *
 * 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.
 *
 * 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 AUTHORS AND
 * CONTRIBUTORS ACCEPT NO RESPONSIBILITY IN ANY CONCEIVABLE MANNER.
```

Appendix L147 — Linux kernel (linux-stm32mp) including supplied modules — COPYING

```
The Linux Kernel is provided under:

        SPDX-License-Identifier: GPL-2.0 WITH Linux-syscall-note

Being under the terms of the GNU General Public License version 2 only,
according with:
```

```
        LICENSES/preferred/GPL-2.0

With an explicit syscall exception, as stated at:

        LICENSES/exceptions/Linux-syscall-note

In addition, other licenses may also apply. Please see:

        Documentation/process/license-rules.rst

for more details.

All contributions to the Linux Kernel are subject to this COPYING file.
```

Appendix L148 — lvm2 — COPYING

```
                    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 Library 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

                     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 Library General
Public License instead of this License.
```

Appendix L149 — Charge Amps M33 firmware — FreeRTOSConfig.h

```
/* USER CODE BEGIN Header */
/*
 * FreeRTOS Kernel V11.2.0
 * Portion Copyright (C) 2017 Amazon.com, Inc. or its affiliates.  All Rights Reserved.
 * Portion Copyright (C) 2019 StMicroelectronics, Inc.  All Rights Reserved.
 *
 *
```

MIT-style terms — variant 2 (S027), p. 381

```
 *
 * http://www.FreeRTOS.org
 * http://aws.amazon.com/freertos
 *
 * 1 tab == 4 spaces!
 */
/* USER CODE END Header */
```

Appendix L150 — Charge Amps M33 firmware — LICENCE.md

```
Monocypher as a whole is dual-licensed.  Choose whichever licence you
want from the two licences listed below.

The first licence is a regular 2-clause BSD licence.  The second licence
is the CC-0 from Creative Commons. It is intended to release Monocypher
to the public domain.  The BSD licence serves as a fallback option.

See the individual files for specific information about who contributed
to what file during which years.  See below for special notes.

Licence 1 (2-clause BSD)
------------------------

Copyright (c) 2017-2023, Loup Vaillant
Copyright (c) 2017-2019, Michael Savage
Copyright (c) 2017-2023, Fabio Scotoni
All rights reserved.
```

BSD-style redistribution terms — variant 3 (S009), p. 368

```
Licence 2 (CC-0)
----------------

> 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:

   - the right to reproduce, adapt, distribute, perform, display, communicate, and translate a Work;
   - moral rights retained by the original author(s) and/or performer(s); publicity and privacy rights pertaining to a person's image or likeness depicted in a Work;
   - rights protecting against unfair competition in regards to a Work, subject to the limitations in paragraph 4(a), below;
   - rights protecting the extraction, dissemination, use and reuse of data in a Work;
   - 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
   - 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.**

   - No trademark or patent rights held by Affirmer are waived, abandoned, surrendered, licensed or otherwise affected by this document.
   - 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.
   - 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.
   - 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.

Appendix L151 — Charge Amps M33 firmware — LICENSE.md.0

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

Apache 2.0 terms — variant 1 (S008), p. 366

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 2021 STMicroelectronics

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.
```

Appendix L152 — Charge Amps M33 firmware — LICENSE.md.1

```
Copyright 2021 STMicroelectronics.
All rights reserved.
```

BSD-style redistribution terms — variant 19 (S030), p. 387

Appendix L153 — Charge Amps M33 firmware — etharp.c

```
/*
 * Copyright (c) 2001-2003 Swedish Institute of Computer Science.
 * Copyright (c) 2003-2004 Leon Woestenberg <leon.woestenberg@axon.tv>
 * Copyright (c) 2003-2004 Axon Digital Design B.V., The Netherlands.
 * 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.
 *
 * This file is part of the lwIP TCP/IP stack.
 *
 */
```

Appendix L154 — Charge Amps M33 firmware — License template: ST-SLA0044-Rev5

```
SLA0044 Rev5/February 2018

## Software license agreement

### __ULTIMATE LIBERTY SOFTWARE LICENSE AGREEMENT__

BY INSTALLING, COPYING, DOWNLOADING, ACCESSING OR OTHERWISE USING THIS SOFTWARE
OR ANY PART THEREOF (AND THE RELATED DOCUMENTATION) FROM STMICROELECTRONICS
INTERNATIONAL N.V, SWISS BRANCH AND/OR ITS AFFILIATED COMPANIES
(STMICROELECTRONICS), THE RECIPIENT, ON BEHALF OF HIMSELF OR HERSELF, OR ON
BEHALF OF ANY ENTITY BY WHICH SUCH RECIPIENT IS EMPLOYED AND/OR ENGAGED AGREES
TO BE BOUND BY THIS SOFTWARE LICENSE AGREEMENT.

Under STMicroelectronics’ intellectual property rights, the redistribution,
reproduction and use in source and binary forms of the software or any part
thereof, with or without modification, are permitted provided that the following
conditions are met:
```

1. Redistribution of source code (modified or not) must retain any copyright notice, this list of conditions and the disclaimer set forth below as items 10 and 11.

2. Redistributions in binary form, except as embedded into microcontroller or microprocessor device manufactured by or for STMicroelectronics or a software update for such device, must reproduce any copyright notice provided with the binary code, this list of conditions, and the disclaimer set forth below as items 10 and 11, in documentation and/or other materials provided with the distribution.

3. Neither the name of STMicroelectronics nor the names of other contributors to this software may be used to endorse or promote products derived from this software or part thereof without specific written permission.

4. This software or any part thereof, including modifications and/or derivative works of this software, must be used and execute solely and exclusively on or in combination with a microcontroller or microprocessor device manufactured by or for STMicroelectronics.

5. No use, reproduction or redistribution of this software partially or totally may be done in any manner that would subject this software to any Open Source Terms. “Open Source Terms” shall mean any open source license which requires as part of distribution of software that the source code of such software is distributed therewith or otherwise made available, or open source license that substantially complies with the Open Source definition specified at www.opensource.org and any other comparable open source license such as for example GNU General Public License (GPL), Eclipse Public License (EPL), Apache Software License, BSD license or MIT license.

6. STMicroelectronics has no obligation to provide any maintenance, support or updates for the software.

7. The software is and will remain the exclusive property of STMicroelectronics and its licensors. The recipient will not take any action that jeopardizes STMicroelectronics and its licensors' proprietary rights or acquire any rights in the software, except the limited rights specified hereunder.

8. The recipient shall comply with all applicable laws and regulations affecting the use of the software or any part thereof including any applicable export control law or regulation.

9. Redistribution and use of this software or any part thereof other than as permitted under this license is void and will automatically terminate your rights under this license.

10. THIS SOFTWARE IS PROVIDED BY STMICROELECTRONICS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS, IMPLIED OR STATUTORY WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS, WHICH ARE DISCLAIMED TO THE FULLEST EXTENT PERMITTED BY LAW. IN NO EVENT SHALL STMICROELECTRONICS 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.

11. EXCEPT AS EXPRESSLY PERMITTED HEREUNDER, NO LICENSE OR OTHER RIGHTS, WHETHER EXPRESS OR IMPLIED, ARE GRANTED UNDER ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS OF STMICROELECTRONICS OR ANY THIRD PARTY.

Appendix L155 — Charge Amps M33 firmware — License template: ST-SLA0044-Rev6

This software component is provided to you as part of a software package and applicable license terms are in the Package_license file. If you received this

software component outside of a package or without applicable license terms,
the terms of the SLA0044 license shall apply and are fully reproduced below:

SLA0044 Rev6/October 2025

Software license agreement

__ULTIMATE LIBERTY SOFTWARE LICENSE AGREEMENT__

BY CLICKING ON THE "I ACCEPT" BUTTON OR BY UNZIPPING, INSTALLING, COPYING,
DOWNLOADING, ACCESSING OR OTHERWISE USING THIS SOFTWARE OR ANY PART THEREOF,
INCLUDING ANY RELATED DOCUMENTATION (collectively the “SOFTWARE”)
FROM STMICROELECTRONICS INTERNATIONAL N.V, SWISS BRANCH AND/OR
ITS AFFILIATED COMPANIES (collectively “STMICROELECTRONICS”),
YOU (hereinafter referred also to as “THE RECIPIENT”), ON BEHALF OF YOURSELF,
OR ON BEHALF OF ANY ENTITY BY WHICH YOU ARE EMPLOYED AND/OR ENGAGED,
AGREE TO BE BOUND BY THIS AGREEMENT.

Under STMICROELECTRONICS’ intellectual property rights, the redistribution,
reproduction and use in source and binary forms of the SOFTWARE or any part
thereof, with or without modification, are permitted provided that the following
conditions are met:

1. Redistribution of source code (modified or not) must retain any copyright
notice accompanying the SOFTWARE, this list of conditions and the disclaimer below.

2. Redistributions in binary form, except as embedded into a processing unit device
manufactured by or for STMicroelectronics or a software update for any such device,
must reproduce the accompanying copyright notice, this list of conditions,
and the below disclaimer in capital type, in the documentation and/or
other materials provided with the distribution.

3. Neither the name of STMicroelectronics nor the names of other contributors
to the SOFTWARE may be used to endorse or promote products derived
from the SOFTWARE or part thereof without specific written permission.

4. The SOFTWARE or any part thereof, including modifications and/or
derivative works of the SOFTWARE, must be used and execute solely
and exclusively on or in combination with a processing unit device
manufactured by or for STMicroelectronics.

5. No use, reproduction or redistribution of the SOFTWARE partially
or totally may be done in any manner that would subject the SOFTWARE
to any Open Source Terms. “Open Source Terms” shall mean
any open source license which requires as part of distribution
of software that the source code of such software is distributed
therewith or otherwise made available, or open source license
that substantially complies with the Open Source definition specified
at www.opensource.org and any other comparable open source license
such as for example GNU General Public License (GPL),
Eclipse Public License (EPL), Apache Software License, BSD license
or MIT license.

6. STMicroelectronics has no obligation to provide any maintenance,
support or updates for the SOFTWARE.

7. The SOFTWARE is and will remain the exclusive property of
STMicroelectronics and its licensors. The RECIPIENT will not take
any action that jeopardizes STMicroelectronics and its
licensors' proprietary rights or acquire any rights in the SOFTWARE,
except the limited rights specified hereunder.

8. The RECIPIENT shall comply with all applicable laws and regulations
affecting the use of the SOFTWARE or any part thereof including
any applicable export control law or regulation.

9. Redistribution and use of the SOFTWARE or any part thereof other
than as permitted under this AGREEMENT is void and will automatically
terminate RECIPIENT’s rights under this AGREEMENT.

10. The RECIPIENT shall be solely liable to determine and verify that the SOFTWARE is fit for the RECIPIENT intended use, environment or application and comply with all regulatory, safety and security related requirements concerning any use.

DISCLAIMER:

THE SOFTWARE IS PROVIDED BY STMICROELECTRONICS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS, IMPLIED OR STATUTORY WARRANTIES, INCLUDING,BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS, ARE DISCLAIMED TO THE FULLEST EXTENT PERMITTED BY LAW.
IN NO EVENT SHALL STMICROELECTRONICS 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 THE SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
EXCEPT AS EXPRESSLY PERMITTED HEREUNDER, NO LICENSE OR OTHER RIGHTS, WHETHER EXPRESS OR IMPLIED, ARE GRANTED UNDER ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS OF STMICROELECTRONICS OR ANY THIRD PARTY.

Appendix L156 — Charge Amps M33 firmware — License template: ST-SLA0048-Rev4

SOFTWARE PACKAGE LICENSE AGREEMENT
Please indicate your acceptance or NON-acceptance by selecting "I ACCEPT" or "I DO NOT ACCEPT" as indicated below in the media.

BY INSTALLING COPYING, DOWNLOADING, ACCESSING OR OTHERWISE USING THIS SOFTWARE PACKAGE OR ANY PART THEREOF (AND THE RELATED DOCUMENTATION) FROM STMICROELECTRONICS INTERNATIONAL N.V, SWISS BRANCH AND/OR ITS AFFILIATED COMPANIES (STMICROELECTRONICS), THE RECIPIENT, ON BEHALF OF HIMSELF OR HERSELF, OR ON BEHALF OF ANY ENTITY BY WHICH SUCH RECIPIENT IS EMPLOYED AND/OR ENGAGED AGREES TO BE BOUND BY THIS SOFTWARE PACKAGE LICENSE AGREEMENT.

Under STMicroelectronics' intellectual property rights and subject to applicable licensing terms for any third-party software incorporated in this software package and applicable Open Source Terms (as defined here below), the redistribution, reproduction and use in source and binary forms of the software package or any part thereof, with or without modification, are permitted provided that the following conditions are met:
1. Redistribution of source code (modified or not) must retain any copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form, except as embedded into microcontroller or microprocessor device manufactured by or for STMicroelectronics or a software update for such device, 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 STMicroelectronics nor the names of other contributors to this software package may be used to endorse or promote products derived from this software package or part thereof without specific written permission.

4. This software package or any part thereof, including modifications and/or derivative works of this software package, must be used and execute solely and exclusively on or in combination with a microcontroller or a microprocessor devices manufactured by or for STMicroelectronics.

5. No use, reproduction or redistribution of this software package partially or totally may be done in any manner that would subject this software package to any Open Source Terms (as defined below).

6. Some portion of the software package may contain software subject to Open Source Terms (as defined below) applicable for each such portion ("Open Source Software"), as further specified in the software package. Such Open Source Software is supplied under the applicable Open Source Terms and is not subject to the terms and conditions of license hereunder. "Open Source Terms" shall mean any open source license which requires as part of distribution of software that the source code of such software is distributed therewith or otherwise made available, or open source license that substantially complies with the Open Source definition specified at www.opensource.org and any other comparable open source license such as for example GNU

General Public License (GPL), Eclipse Public License (EPL), Apache Software License, BSD license and MIT license.

7. This software package may also include third party software as expressly specified in the software package subject to specific license terms from such third parties. Such third party software is supplied under such specific license terms and is not subject to the terms and conditions of license hereunder. By installing copying, downloading, accessing or otherwise using this software package, the recipient agrees to be bound by such license terms with regard to such third party software.

8. STMicroelectronics has no obligation to provide any maintenance, support or updates for the software package.

9. The software package is and will remain the exclusive property of STMicroelectronics and its licensors. The recipient will not take any action that jeopardizes STMicroelectronics and its licensors' proprietary rights or acquire any rights in the software package, except the limited rights specified hereunder.

10. The recipient shall comply with all applicable laws and regulations affecting the use of the software package or any part thereof including any applicable export control law or regulation.

11. Redistribution and use of this software package partially or any part thereof other than as permitted under this license is void and will automatically terminate your rights under this license.

THIS SOFTWARE PACKAGE IS PROVIDED BY STMICROELECTRONICS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS, IMPLIED OR STATUTORY WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS ARE DISCLAIMED TO THE FULLEST EXTENT PERMITTED BY LAW. IN NO EVENT SHALL STMICROELECTRONICS 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 PACKAGE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

EXCEPT AS EXPRESSLY PERMITTED HEREUNDER AND SUBJECT TO THE APPLICABLE LICENSING TERMS FOR ANY THIRD-PARTY SOFTWARE INCORPORATED IN THE SOFTWARE PACKAGE AND OPEN SOURCE TERMS AS APPLICABLE, NO LICENSE OR OTHER RIGHTS, WHETHER EXPRESS OR IMPLIED, ARE GRANTED UNDER ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS OF STMICROELECTRONICS OR ANY THIRD PARTY.

SLA0048 - Rev 4 - March 2018 For further information contact your local STMicroelectronics sales office. www.st.com

Appendix L157 — Charge Amps M33 firmware — License template: ST-SLA0048-Rev5

Copyright (c) 2023 STMicroelectronics. All rights reserved.

SLA0048 Rev5/October 2025

Software license agreement

__SOFTWARE PACKAGE LICENSE AGREEMENT (“AGREEMENT”)__

BY CLICKING ON THE "I ACCEPT" BUTTON OR BY UNZIPPING, INSTALLING, COPYING, DOWNLOADING, ACCESSING OR OTHERWISE USING THIS SOFTWARE PACKAGE OR ANY PART THEREOF, INCLUDING ANY RELATED DOCUMENTATION (collectively the “SOFTWARE PACKAGE”) FROM STMICROELECTRONICS INTERNATIONAL N.V, SWISS BRANCH AND/OR ITS AFFILIATED COMPANIES (collectively "STMICROELECTRONICS”), YOU (hereinafter referred also to as “THE RECIPIENT”), ON BEHALF OF YOURSELF, OR ON BEHALF OF ANY ENTITY BY WHICH YOU ARE EMPLOYED AND/OR ENGAGED, AGREE TO BE BOUND BY THIS AGREEMENT.

Under STMICROELECTRONICS’ intellectual property rights and subject to applicable licensing terms for any third-party software incorporated in the SOFTWARE PACKAGE and applicable Open Source Terms (as defined here below), the redistribution, reproduction and use in source and binary forms of the SOFTWARE PACKAGE or any part thereof, with or without modification, are permitted provided that the following conditions are met:

1. Redistribution of source code (modified or not) must retain any copyright notice accompanying the SOFTWARE PACKAGE, this list of conditions and the disclaimer below.

2. Redistributions in binary form, except as embedded into a processing unit device manufactured by or for STMicroelectronics or a software update for any such device, must reproduce the accompanying copyright notice, this list of conditions and the below disclaimer in capital type, in the documentation and/or other materials provided with the distribution.

3. Neither the name of STMicroelectronics nor the names of other contributors to the SOFTWARE PACKAGE may be used to endorse or promote products derived from the SOFTWARE PACKAGE or part thereof without specific written permission.

4. The SOFTWARE PACKAGE or any part thereof, including modifications and/or derivative works of the SOFTWARE PACKAGE, must be used and execute solely and exclusively on or in combination with a processing unit device manufactured by or for STMicroelectronics.

5. No use, reproduction or redistribution of the SOFTWARE PACKAGE partially or totally may be done in any manner that would subject the SOFTWARE PACKAGE to any Open Source Terms (as defined below).

6. Some portion of the SOFTWARE PACKAGE may contain software subject to Open Source Terms (as defined below) applicable for each such portion (“Open Source Software”), as further specified in the SOFTWARE PACKAGE. Such Open Source Software is supplied under the applicable Open Source Terms and is not subject to the terms and conditions of this AGREEMENT. “Open Source Terms” shall mean any open source license which requires as part of distribution of software that the source code of such software is distributed therewith or otherwise made available, or open source license that substantially complies with the Open Source definition specified at www.opensource.org and any other comparable open source license such as for example GNU General Public License (GPL), Eclipse Public License (EPL), Apache Software License, BSD license and MIT license.

7. The SOFTWARE PACKAGE may also include third party software as expressly specified in the SOFTWARE PACKAGE subject to specific license terms from such third parties. Such third-party software is supplied under such specific license terms and is not subject to the terms and conditions of this AGREEMENT. By installing copying, downloading, accessing or otherwise using the SOFTWARE PACKAGE, the RECIPIENT agrees to be bound by such license terms with regard to such third-party software.

8. STMicroelectronics has no obligation to provide any maintenance, support or updates for the SOFTWARE PACKAGE.

9. The SOFTWARE PACKAGE is and will remain the exclusive property of STMicroelectronics and its licensors. The RECIPIENT will not take any action that jeopardizes STMicroelectronics and its licensors' proprietary rights or acquire any rights in the SOFTWARE PACKAGE, except the limited rights specified hereunder.

10. The RECIPIENT shall comply with all applicable laws and regulations affecting the use of the SOFTWARE PACKAGE or any part thereof including any applicable export control law or regulation.

11. Redistribution and use of the SOFTWARE PACKAGE partially or any part thereof other than as permitted under this AGREEMENT is void and will automatically terminate RECIPIENT’s rights under this AGREEMENT.

12. The RECIPIENT shall be solely liable to determine and verify that the SOFTWARE PACKAGE is fit for the RECIPIENT intended use, environment or application and comply with all regulatory, safety and security related requirements concerning any use.

DISCLAIMER:

THE SOFTWARE PACKAGE IS PROVIDED BY STMICROELECTRONICS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS, IMPLIED OR STATUTORY WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS ARE DISCLAIMED TO THE FULLEST EXTENT PERMITTED BY LAW. IN NO EVENT SHALL STMICROELECTRONICS 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

```
THE SOFTWARE PACKAGE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
EXCEPT AS EXPRESSLY PERMITTED HEREUNDER AND SUBJECT TO THE APPLICABLE LICENSING TERMS FOR ANY
THIRD-PARTY SOFTWARE INCORPORATED IN THE SOFTWARE PACKAGE AND OPEN SOURCE TERMS AS APPLICABLE,
NO LICENSE OR OTHER RIGHTS, WHETHER EXPRESS OR IMPLIED, ARE GRANTED UNDER ANY PATENT OR OTHER
INTELLECTUAL PROPERTY RIGHTS OF STMICROELECTRONICS OR ANY THIRD PARTY.
```

Appendix L158 — Charge Amps M33 firmware — iana.h

```
/*
 * Copyright (c) 2017 Dirk Ziegelmeier.
 * 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.
 *
 * This file is part of the lwIP TCP/IP stack.
 *
 * Author: Dirk Ziegelmeier <dziegel@gmx.de>
 *
 */
```

Appendix L159 — Charge Amps M33 firmware — lwipopts.h

```
/**
 * Copyright (C) 2019, STMicroelectronics, all right reserved.
 * Copyright (c) 2001-2004 Swedish Institute of Computer Science.
 * 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.
 *
```

```
 * This file is part of the lwIP TCP/IP stack.
 *
 * Author: Adam Dunkels <adam@sics.se>
 ******************************************************************************
 */
```

Appendix L160 — Charge Amps M33 firmware — port.c

```
/*
 * FreeRTOS Kernel V11.2.0
 * Copyright (C) 2021 Amazon.com, Inc. or its affiliates. All Rights Reserved.
 * Copyright 2024 Arm Limited and/or its affiliates
 * <open-source-office@arm.com>
 *
 * SPDX-License-Identifier: MIT
 *
 *
```

MIT-style terms — variant 2 (S027), p. 381

```
 *
 * https://www.FreeRTOS.org
 * https://github.com/FreeRTOS
 *
 */
```

Appendix L161 — Shared license text and notices

```
Copyright (c) 2012 Atmel 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. The name of Atmel may not be used to endorse or promote products derived
   from this software without specific prior written permission.

4. This software may only be redistributed and used in connection with an
   Atmel microcontroller product.

THIS SOFTWARE IS PROVIDED BY ATMEL "AS IS" AND ANY EXPRESS OR IMPLIED
WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF
MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT ARE
EXPRESSLY AND SPECIFICALLY DISCLAIMED. IN NO EVENT SHALL ATMEL 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.
```

Appendix L162 — Shared license text and notices

```
Copyright (c) 2014-2018 Microchip Technology Inc. and its subsidiaries.

Subject to your compliance with these terms, you may use Microchip
software and any derivatives exclusively with Microchip products.
It is your responsibility to comply with third party license terms applicable
to your use of third party software (including open source software) that
may accompany Microchip software.
```

```
THIS SOFTWARE IS SUPPLIED BY MICROCHIP "AS IS". NO WARRANTIES,
WHETHER EXPRESS, IMPLIED OR STATUTORY, APPLY TO THIS SOFTWARE,
INCLUDING ANY IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY,
AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL MICROCHIP BE
LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL
LOSS, DAMAGE, COST OR EXPENSE OF ANY KIND WHATSOEVER RELATED TO THE
SOFTWARE, HOWEVER CAUSED, EVEN IF MICROCHIP HAS BEEN ADVISED OF THE
POSSIBILITY OR THE DAMAGES ARE FORESEEABLE.  TO THE FULLEST EXTENT
ALLOWED BY LAW, MICROCHIP'S TOTAL LIABILITY ON ALL CLAIMS IN ANY WAY
RELATED TO THIS SOFTWARE WILL NOT EXCEED THE AMOUNT OF FEES, IF ANY,
THAT YOU HAVE PAID DIRECTLY TO MICROCHIP FOR THIS SOFTWARE.
```

Appendix L163 — Charge Amps MID firmware — qrcodegen.c

```
 * Copyright (c) Project Nayuki. (MIT License)
 * https://www.nayuki.io/page/qr-code-generator-library
 *
 * 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.
 */
```

Appendix L164 — mmc-utils — mmc.c

```
/*
 * This program is free software; you can redistribute it and/or
 * modify it under the terms of the GNU General Public
 * License v2 as published by the Free Software Foundation.
 *
 * 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., 59 Temple Place - Suite 330,
 * Boston, MA 021110-1307, USA.
 *
 * Modified to add field firmware update support,
 * those modifications are Copyright (c) 2016 SanDisk Corp.
 *
 * (This code is based on btrfs-progs/btrfs.c.)
 */
```

Appendix L165 — mobile-broadband-provider-info — COPYING

```
THIS WORK IS IN PUBLIC DOMAIN:
The person or persons who have associated work with this document
(the "Dedicator" or "Certifier") hereby either (a) certifies that, to the best
of his knowledge, the work of authorship identified is in the public domain of
the country from which the work is published, or (b) hereby dedicates whatever
copyright the dedicators holds in the work of authorship identified below
(the "Work") to the public domain. A certifier, moreover, dedicates any
copyright interest he may have in the associated work, and for these purposes,
```

```
is described as a "dedicator" below.

A certifier has taken reasonable steps to verify the copyright status of this
work. Certifier recognizes that his good faith efforts may not shield him from
liability if in fact the work certified is not in the public domain.

Dedicator makes this dedication for the benefit of the public at large and to
the detriment of the Dedicator's heirs and successors. Dedicator intends this
dedication to be an overt act of relinquishment in perpetuity of all present
and future rights under copyright law, whether vested or contingent, in the
Work. Dedicator understands that such relinquishment of all rights includes the
relinquishment of all rights to enforce (by lawsuit or otherwise) those
copyrights in the Work.

Dedicator recognizes that, once placed in the public domain, the Work may be
freely reproduced, distributed, transmitted, used, modified, built upon, or
otherwise exploited by anyone for any purpose, commercial or non-commercial,
and in any way, including by methods that have not yet been invented or
conceived.
```

Appendix L166 — ncurses — COPYING

```
Copyright 2018-2021,2022 Thomas E. Dickey
Copyright 1998-2017,2018 Free Software Foundation, 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, distribute with modifications, 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 ABOVE 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(s) of the above copyright
holders shall not be used in advertising or otherwise to promote the
sale, use or other dealings in this Software without prior written
authorization.
```

Appendix L167 — neard — near.h

```
/*
 *
 *  neard - Near Field Communication manager
 *
 *  Copyright (C) 2011  Intel Corporation. All rights reserved.
 *
 *  This program is free software; you can redistribute it and/or modify
 *  it under the terms of the GNU General Public License version 2 as
 *  published by the Free Software Foundation.
 *
 *  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 St, Fifth Floor, Boston, MA  02110-1301  USA
 *
 */
```

Appendix L168 — net-tools — ifconfig.c

```
 *              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.
```

Appendix L169 — netbase — copyright

```
Format: https://www.debian.org/doc/packaging-manuals/copyright-format/1.0/
Comment:
 This package was created by Peter Tobias tobias@et-inf.fho-emden.de on
 Wed, 24 Aug 1994 21:33:28 +0200 and maintained by Anthony Towns
 <ajt@debian.org> until 2001.
 It is currently maintained by Marco d'Itri <md@linux.it>.

Files: *
Copyright:
 Copyright (c) 1994-1998 Peter Tobias
 Copyright (c) 1998-2001 Anthony Towns
 Copyright (c) 2002-2022 Marco d'Itri
License: GPL-2
 This program is free software; you can redistribute it and/or modify
 it under the terms of the GNU General Public License, version 2, as
 published by the Free Software Foundation.
 .
 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.
 .
 On Debian systems, the complete text of the GNU General Public License
 version 2 can be found in '/usr/share/common-licenses/GPL-2'.
```

Appendix L170 — nng — LICENSE.txt

```
The MIT License

Copyright 2021 Staysail Systems, Inc. <info@staysail.tech>
Copyright 2018 Capitar IT Group BV <info@capitar.com>
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L171 — ofono — ofono.h

```
/*
 *
 *  oFono - Open Source Telephony
 *
 *  Copyright (C) 2008-2011  Intel Corporation. All rights reserved.
 *
 *  This program is free software; you can redistribute it and/or modify
 *  it under the terms of the GNU General Public License version 2 as
 *  published by the Free Software Foundation.
 *
 *  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 St, Fifth Floor, Boston, MA  02110-1301  USA
 *
 */
```

Appendix L172 — openssl — LICENSE.txt

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

Apache 2.0 terms — variant 1 (S008), p. 366

```
   END OF TERMS AND CONDITIONS
```

Appendix L173 — opkg-utils — opkg.py

```
# SPDX-License-Identifier: GPL-2.0-or-later
#   Copyright (C) 2001 Alexander S. Guy <a7r@andern.org>
#                      Andern Research Labs
#
#   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, 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., 59 Temple Place - Suite 330,
```

Appendix L174 — optee-client — LICENSE

```
Unless it has its own copyright/license embedded in its body, each source file
is subject to the following license terms:

Copyright (c) 2015, Linaro Limited
All rights reserved.
```

BSD-style redistribution terms — variant 3 (S009), p. 368

Appendix L175 — optee-os-stm32mp — LICENSE

```
Unless it has its own copyright/license embedded in its body, each file
is subject to the following license terms:

Copyright (c) 2015, Linaro Limited
All rights reserved.
```

BSD-style redistribution terms — variant 3 (S009), p. 368

Appendix L176 — popt — COPYING

```
Copyright (c) 1998  Red Hat Software
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L177 — ppp — ccp.c

```
/*
 * ccp.c - PPP Compression Control Protocol.
 *
 * Copyright (c) 1994-2002 Paul Mackerras. 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. The name(s) of the authors of this software must not be used to
 *    endorse or promote products derived from this software without
 *    prior written permission.
 *
 * 3. Redistributions of any form whatsoever must retain the following
 *    acknowledgment:
 *    "This product includes software developed by Paul Mackerras
 *     <paulus@samba.org>".
 *
 * THE AUTHORS OF THIS SOFTWARE DISCLAIM ALL WARRANTIES WITH REGARD TO
 * THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY
 * AND FITNESS, IN NO EVENT SHALL THE AUTHORS 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.
 */
```

Appendix L178 — ppp — chat.c

```
/*
 *      Chat -- a program for automatic session establishment (i.e. dial
 *              the phone and log in).
 *
 * Standard termination codes:
 *  0 - successful completion of the script
 *  1 - invalid argument, expect string too large, etc.
 *  2 - error on an I/O operation or fatal error condition.
 *  3 - timeout waiting for a simple string.
 *  4 - the first string declared as "ABORT"
 *  5 - the second string declared as "ABORT"
 *  6 - ... and so on for successive ABORT strings.
 *
 *      This software is in the public domain.
 *
```

Appendix L179 — ppp — License template: BSD-3-Clause-Attribution

```
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.

     4. Redistributions of any form whatsoever must retain the following acknowledgment: 'This
product includes software developed by the "Universidad de Palermo, Argentina" (http://
www.palermo.edu/).'

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.
```

Appendix L180 — ppp — passprompt.c

```
/*
 * passprompt.c - pppd plugin to invoke an external PAP password prompter
 *
 * Copyright 1999 Paul Mackerras, Alan Curry.
 *
 *  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.
 */
```

Appendix L181 — ppp — tdb.c

```
 /*
   Unix SMB/CIFS implementation.

   trivial database library

   Copyright (C) Andrew Tridgell              1999-2004
   Copyright (C) Paul `Rusty' Russell              2000
   Copyright (C) Jeremy Allison                    2000-2003

     ** NOTE! The following LGPL license applies to the tdb
     ** library. This does NOT imply that all of Samba is released
     ** under the LGPL

   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 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., 59 Temple Place, Suite 330, Boston, MA  02111-1307  USA
*/
```

Appendix L182 — python3 — LICENSE

```
A. 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, which became
Zope Corporation. 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 was 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? (1)
0.9.0 thru 1.2		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	yes (2)
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

Footnotes:

(1) 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.

(2) According to Richard Stallman, 1.6.1 is not GPL-compatible,
    because its license has a choice of law clause. According to
    CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1
    is "not incompatible" with the GPL.

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

B. TERMS AND CONDITIONS FOR ACCESSING OR OTHERWISE USING PYTHON
===

Python software and documentation are licensed under the
Python Software Foundation License Version 2.

Starting with Python 3.8.6, examples, recipes, and other code in
the documentation are dual licensed under the PSF License Version 2
and the Zero-Clause BSD license.

Some software incorporated into Python is under different licenses.
The licenses are listed with code falling under that license.

PYTHON SOFTWARE FOUNDATION LICENSE VERSION 2

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

1. This LICENSE AGREEMENT is between the Python Software Foundation
("PSF"), and the Individual or Organization ("Licensee") accessing and
otherwise using this software ("Python") 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 alone or in any derivative version,
provided, however, that PSF's License Agreement and PSF's notice of copyright,
i.e., "Copyright (c) 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010,
2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023 Python Software
Foundation;
All Rights Reserved" are retained in Python 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 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.

4. PSF is making Python 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 WILL NOT
INFRINGE ANY THIRD PARTY RIGHTS.

5. PSF SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON
FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS
A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON,
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, 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 (c)
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.

        ACCEPT

CWI LICENSE AGREEMENT FOR PYTHON 0.9.0 THROUGH 1.2

Copyright (c) 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.

ZERO-CLAUSE BSD LICENSE FOR CODE IN THE PYTHON DOCUMENTATION

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.

Appendix L183 — Shared license text and notices

```
PYTHON SOFTWARE FOUNDATION LICENSE VERSION 2
--------------------------------------------

1. This LICENSE AGREEMENT is between the Python Software Foundation
("PSF"), and the Individual or Organization ("Licensee") accessing and
otherwise using this software ("Python") 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
alone or in any derivative version, provided, however, that PSF's
License Agreement and PSF's notice of copyright, i.e., "Copyright (c)
2001, 2002, 2003, 2004, 2005, 2006 Python Software Foundation; All Rights
Reserved" are retained in Python 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 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.

4. PSF is making Python 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 WILL NOT
INFRINGE ANY THIRD PARTY RIGHTS.

5. PSF SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON
FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS
A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON,
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, Licensee
agrees to be bound by the terms and conditions of this License
Agreement.
```

Appendix L184 — Shared license text and notices

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

Apache 2.0 terms — variant 1 (S008), p. 366

```
   END OF TERMS AND CONDITIONS
```

Appendix L185 — python3-bitstring — LICENSE

```
The MIT License

Copyright (c) 2006 Scott Griffiths (dr.scottgriffiths@gmail.com)
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L186 — python3-cffi — LICENSE

```
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
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L187 — python3-cryptography — LICENSE

```
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.
```

Appendix L188 — python3-cryptography — LICENSE.APACHE

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

Apache 2.0 terms — variant 1 (S008), p. 366

```
   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

       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.

Appendix L189 — python3-cryptography — 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.

Appendix L190 — python3-cryptography — 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.
```

Appendix L191 — python3-ecdsa — LICENSE

```
"python-ecdsa" Copyright (c) 2010 Brian Warner

Portions written in 2005 by Peter Pearson and placed in the public domain.
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L192 — python3-intelhex — LICENSE.txt

```
Copyright (c) 2005-2018, Alexander Belchenko
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 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.
```

Appendix L193 — Shared license text and notices

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

Apache 2.0 terms — variant 1 (S008), p. 366

Appendix L194 — python3-pip — COPYING

```
Copyright (C) 2008-2011 INADA Naoki <songofacandy@gmail.com>

   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.
```

Appendix L195 — python3-pip — LICENSE.0

```
This package contains a modified version of ca-bundle.crt:

ca-bundle.crt -- 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 $
```

Appendix L196 — python3-pip — LICENSE.10

```
Copyright (c) 2018, Tzu-ping Chung <uranusjr@gmail.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.
```

Appendix L197 — python3-pip — LICENSE.11

```
Copyright (c) 2020 Will McGugan
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L198 — python3-pip — LICENSE.13

```
MIT License

Copyright (c) 2021 Taneli Hukkinen
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L199 — python3-pip — LICENSE.14

```
Copyright (c) 2012 by Simon Sapin.

Some 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 names of the 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.
```

Appendix L200 — python3-pip — LICENSE.3

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

Appendix L201 — python3-pip — LICENSE.4

```
Copyright (C) 2016 Jason R Coombs <jaraco@jaraco.com>
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L202 — python3-pip — LICENSE.5

```
MIT License

Copyright (c) 2010-202x The platformdirs developers
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L203 — python3-pip — LICENSE.6

```
Copyright (c) 2006-2022 by the respective authors (see AUTHORS file).
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
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.
```

Appendix L204 — python3-pip — LICENSE.8

```
The MIT License (MIT)

Copyright (c) 2017 Thomas Kluyver
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L205 — python3-pip — LICENSE.md

```
BSD 3-Clause License

Copyright (c) 2013-2021, Kim Davies
All rights reserved.
```

BSD-style redistribution terms — variant 19 (S030), p. 387

Appendix L206 — python3-pip — LICENSE.txt.0

```
Copyright (c) 2008-present The pip developers (see AUTHORS.txt file)
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L207 — python3-pip — LICENSE.txt.1

```
Copyright 2012-2021  Eric Larson

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.
```

Appendix L208 — python3-pip — LICENSE.txt.2

```
Copyright (c) 2010 Jonathan Hartley
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 holders, nor those 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.
```

Appendix L209 — python3-pip — LICENSE.txt.3

```
A. HISTORY OF THE SOFTWARE
==========================

Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://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 http://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 http://www.zope.com).  In 2001, the Python Software
Foundation (PSF, see http://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 http://www.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     Year        Owner       GPL-
```

	from			compatible? (1)
0.9.0 thru 1.2		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	yes (2)
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
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes
3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

Footnotes:

(1) 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.

(2) According to Richard Stallman, 1.6.1 is not GPL-compatible,
because its license has a choice of law clause. According to
CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1
is "not incompatible" with the GPL.

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

B. TERMS AND CONDITIONS FOR ACCESSING OR OTHERWISE USING PYTHON

PYTHON SOFTWARE FOUNDATION LICENSE VERSION 2

1. This LICENSE AGREEMENT is between the Python Software Foundation
("PSF"), and the Individual or Organization ("Licensee") accessing and
otherwise using this software ("Python") 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 alone or in any derivative version,
provided, however, that PSF's License Agreement and PSF's notice of copyright,
i.e., "Copyright (c) 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010
Python Software Foundation; All Rights Reserved" are retained in Python 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 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.

4. PSF is making Python 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 WILL NOT
INFRINGE ANY THIRD PARTY RIGHTS.

5. PSF SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON
FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS
A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON,
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, 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 (c) 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.

        ACCEPT

CWI LICENSE AGREEMENT FOR PYTHON 0.9.0 THROUGH 1.2

Copyright (c) 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.

Appendix L210 — python3-pip — LICENSE.txt.4

MIT License

Copyright (c) 2008-2020 Andrey Petrov and contributors (see CONTRIBUTORS.txt)

MIT-style terms — variant 1 (S005), p. 364

Appendix L211 — Shared license text and notices

Copyright (c) 2010-2020 Benjamin Peterson

MIT-style terms — variant 1 (S005), p. 364

Appendix L212 — python3-pip — typing_extensions.LICENSE

```
A. HISTORY OF THE SOFTWARE
==========================

Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://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 http://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, which became
Zope Corporation.  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 was a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.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     Year        Owner       GPL-
                    from                                compatible? (1)

    0.9.0 thru 1.2              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        yes (2)
    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

Footnotes:

(1) 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.

(2) According to Richard Stallman, 1.6.1 is not GPL-compatible,
    because its license has a choice of law clause.  According to
    CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1
    is "not incompatible" with the GPL.

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


B. TERMS AND CONDITIONS FOR ACCESSING OR OTHERWISE USING PYTHON
===============================================================

PYTHON SOFTWARE FOUNDATION LICENSE VERSION 2
--------------------------------------------

1. This LICENSE AGREEMENT is between the Python Software Foundation
("PSF"), and the Individual or Organization ("Licensee") accessing and
otherwise using this software ("Python") 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 alone or in any derivative version,
provided, however, that PSF's License Agreement and PSF's notice of copyright,
i.e., "Copyright (c) 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010,
2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022 Python Software
Foundation;
All Rights Reserved" are retained in Python 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 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.

4. PSF is making Python 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 WILL NOT
INFRINGE ANY THIRD PARTY RIGHTS.

5. PSF SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER USERS OF PYTHON
FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR LOSS AS
A RESULT OF MODIFYING, DISTRIBUTING, OR OTHERWISE USING PYTHON,
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, 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 (c) 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.

        ACCEPT

CWI LICENSE AGREEMENT FOR PYTHON 0.9.0 THROUGH 1.2

Copyright (c) 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.

Appendix L213 — python3-ply — README.md

Copyright (C) 2001-2018
David M. Beazley (Dabeaz LLC)
All rights reserved.

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

* Redistributions of source code must retain the above copyright notice,
  this list of conditions and the following disclaimer.
* Redistributions in binary form must reproduce the above copyright notice,
  this list of conditions and the following disclaimer in the documentation
  and/or other materials provided with the distribution.
* Neither the name of the David Beazley or Dabeaz LLC 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.
```

Appendix L214 — python3-pycparser — LICENSE

```
pycparser -- 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.
```

Appendix L215 — python3-pyserial — LICENSE.txt

```
Copyright (c) 2001-2020 Chris Liechti <cliechti@gmx.net>
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.

-------------------------------------------------------------------------
Note:
Individual files contain the following tag instead of the full license text.

    SPDX-License-Identifier:    BSD-3-Clause

This enables machine processing of license information based on the SPDX
License Identifiers that are here available: http://spdx.org/licenses/
```

Appendix L216 — python3-reedsolo — LICENSE

```
The software is available under your choice of
Unlicense (SPDX short identifier: Unlicense) or
MIT No Attribution License (SPDX short identifier: MIT-0):

-----

<<START OF UNLICENSE>>
This is free and unencumbered software released into the public domain.

Anyone is free to copy, modify, publish, use, compile, sell, or
distribute this software, either in source code form or as a compiled
binary, for any purpose, commercial or non-commercial, and by any
means.

In jurisdictions that recognize copyright laws, the author or authors
of this software dedicate any and all copyright interest in the
software to the public domain. We make this dedication for the benefit
of the public at large and to the detriment of our heirs and
successors. We intend this dedication to be an overt act of
relinquishment in perpetuity of all present and future rights to this
software under copyright law.

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 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.

For more information, please refer to <http://unlicense.org/>
<<END OF UNLICENSE>>

-----

<<START OF MIT-0 LICENSE>>
Copyright 2013-2023 Tomer Filiba & Stephen Larroque

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.

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.
<<END OF MIT-0 LICENSE>>
```

Appendix L217 — python3-reedsolo — License template: Unlicense

```
This is free and unencumbered software released into the public domain.

Anyone is free to copy, modify, publish, use, compile, sell, or
distribute this software, either in source code form or as a compiled
binary, for any purpose, commercial or non-commercial, and by any
means.

In jurisdictions that recognize copyright laws, the author or authors
of this software dedicate any and all copyright interest in the
software to the public domain. We make this dedication for the benefit
of the public at large and to the detriment of our heirs and
successors. We intend this dedication to be an overt act of
relinquishment in perpetuity of all present and future rights to this
software under copyright law.

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 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.

For more information, please refer to <http://unlicense.org/>
```

Appendix L218 — python3-setuptools — LICENSE

```
Copyright Jason R. Coombs
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L219 — qdloader — Quectel-QDLoader; generic_Quectel-QDLoader

```
Copyright 2023 Quectel Wireless Solutions Co.,Ltd

Quectel hereby grants customers of Quectel a license to use, modify,
distribute and publish the Software in binary form provided that
customers shall have no right to reverse engineer, reverse assemble,
decompile or reduce to source code form any portion of the Software.
Under no circumstances may customers modify, demonstrate, use, deliver
or disclose any portion of the Software in source code form.
```

Appendix L220 — Charge Amps RCD firmware — assembler.h

```
 * Copyright (C) 2016 Atmel Corporation. All rights reserved.
```

Appendix L221 — Charge Amps RCD firmware — license.h

```
/*
    (c) 2020 Microchip Technology Inc. and its subsidiaries.

    Subject to your compliance with these terms, you may use Microchip software and any
    derivatives exclusively with Microchip products. It is your responsibility to comply with
third party
    license terms applicable to your use of third party software (including open source
software) that
    may accompany Microchip software.

    THIS SOFTWARE IS SUPPLIED BY MICROCHIP "AS IS". NO WARRANTIES, WHETHER
    EXPRESS, IMPLIED OR STATUTORY, APPLY TO THIS SOFTWARE, INCLUDING ANY
    IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY, AND FITNESS
    FOR A PARTICULAR PURPOSE.
```

```
    IN NO EVENT WILL MICROCHIP BE LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE,
    INCIDENTAL OR CONSEQUENTIAL LOSS, DAMAGE, COST OR EXPENSE OF ANY KIND
    WHATSOEVER RELATED TO THE SOFTWARE, HOWEVER CAUSED, EVEN IF MICROCHIP
    HAS BEEN ADVISED OF THE POSSIBILITY OR THE DAMAGES ARE FORESEEABLE. TO
    THE FULLEST EXTENT ALLOWED BY LAW, MICROCHIP'S TOTAL LIABILITY ON ALL
    CLAIMS IN ANY WAY RELATED TO THIS SOFTWARE WILL NOT EXCEED THE AMOUNT
    OF FEES, IF ANY, THAT YOU HAVE PAID DIRECTLY TO MICROCHIP FOR THIS
    SOFTWARE.
*/
```

Appendix L222 — Charge Amps RCD firmware — qtm_acq_t161x_0x0017_api.h

```
Copyright (C) 2019 Microchip. All rights reserved.
```

Appendix L223 — Charge Amps RCD firmware — touch.c

```
Copyright (c) 2021 Microchip. All rights reserved.
```

Appendix L224 — secure-storage — LICENSE

```
Unless it has its own copyright/license embedded in its body, each source file
is subject to the following license terms:

Copyright (c) 2018, Linaro Limited
All rights reserved.
```

BSD-style redistribution terms — variant 3 (S009), p. 368

Appendix L225 — shadow — COPYING

```
SPDX-License-Identifier: BSD-3-Clause

All files under this project either

1. fall under the BSD 3 clause license (by default).

2. carry an SPDX header declaring what license applies.

or

3. list a full custom license

This software is originally

 * Copyright (c) 1989 - 1994, Julianne Frances Haugh

 * 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 copyright holders or 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
 * HOLDERS 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.
```

Appendix L226 — shadow — passwd.c

```
 * SPDX-FileCopyrightText: 1989 - 1994, Julianne Frances Haugh
 * SPDX-FileCopyrightText: 1996 - 2000, Marek Michałkiewicz
 * SPDX-FileCopyrightText: 2001 - 2006, Tomasz Kłoczko
 * SPDX-FileCopyrightText: 2007 - 2011, Nicolas François
 *
 * SPDX-License-Identifier: BSD-3-Clause
 */

#include <config.h>

#ident "$Id$"

#include <errno.h>
#include <fcntl.h>
#include <getopt.h>
#include <pwd.h>
#include <signal.h>
#include <stdio.h>
#include <sys/types.h>
#include <time.h>
#include "defines.h"
#include "getdef.h"
#include "nscd.h"
#include "sssd.h"
#include "prototypes.h"
#include "pwauth.h"
#include "pwio.h"
#include "shadowio.h"
#include "shadowlog.h"
```

Appendix L227 — socat — README

```
smoothly also under RedHat Linux. After yodl 1.31 installation, the following
correction must be performed in /usr/share/yodl/shared.yo in two places:
< whenhtml(htmlcommand(<!)ARG1+htmlcommand(>)))
> whenhtml(htmlcommand(<!--)ARG1+htmlcommand(-->)))


license
-------

socat is distributed under the terms of the GNU GPLv2;
except for install-sh, which is copyright MIT, with its own license;

In addition, as a special exception, the copyright holder
gives permission to link the code of this program with
any version of the OpenSSL library which is distributed
under a license identical to that listed in the included
COPYING.OpenSSL file, and distribute linked combinations
including the two. You must obey the GNU General Public
License in all respects for all of the code used other
than OpenSSL. If you modify this file, you may extend this
exception to your version of the file, but you are not
obligated to do so. If you do not wish to do so, delete
this exception statement from your version.


    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, version 2 of the License
```

```
    This program is distributed in the hope that it will be useful,
    but WITHOUT ANY WARRANTY; without even the implied warranty of
```

Appendix L228 — libwrap — DISCLAIMER

```
/************************************************************************
* Copyright 1995 by Wietse Venema.  All rights reserved.  Some individual
* files may be covered by other copyrights.
*
* This material was originally written and compiled by Wietse Venema at
* Eindhoven University of Technology, The Netherlands, in 1990, 1991,
* 1992, 1993, 1994 and 1995.
*
* Redistribution and use in source and binary forms are permitted
* provided that this entire copyright notice is duplicated in all such
* copies.
*
* This software is provided "as is" and without any expressed or implied
* warranties, including, without limitation, the implied warranties of
* merchantibility and fitness for any particular purpose.
************************************************************************/
```

Appendix L229 — libwrap — License template: BSD-1-Clause

```
Copyright (c) <YEAR>, <OWNER>
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.
THIS SOFTWARE IS PROVIDED BY Berkeley Software Design, Inc. "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 Berkeley Software Design,
Inc. 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.
```

Appendix L230 — tf-a-stm32mp — license.rst

```
See docs/license.rst
```

Appendix L231 — tzdata — LICENSE

```
Unless specified below, all files in the tz code and data (including
this LICENSE file) are in the public domain.

If the files date.c, newstrftime.3, and strftime.c are present, they
contain material derived from BSD and use the BSD 3-clause license.
```

Appendix L232 — Shared license text and notices

```
SPDX-License-Identifier: GPL-2.0

  U-Boot is Free Software.  It is copyrighted by Wolfgang Denk and
many others who contributed code (see the actual source code and the
git commit messages for details).  You can redistribute U-Boot and/or
modify it under the terms of version 2 of the GNU General Public
License as published by the Free Software Foundation.  Most of it can
also be distributed, at your option, under any later version of the
GNU General Public License -- see individual files for exceptions.
```

```
  NOTE! This license does *not* cover the so-called "standalone"
applications that use U-Boot services by means of the jump table
provided by U-Boot exactly for this purpose - this is merely
considered normal use of U-Boot, and does *not* fall under the
heading of "derived work" -- see file  Licenses/Exceptions  for
details.

  Also note that the GPL and the other licenses are copyrighted by
the Free Software Foundation and other organizations, but the
instance of code that they refer to (the U-Boot source code) is
copyrighted by me and others who actually wrote it.
-- Wolfgang Denk


Like many other projects, U-Boot has a tradition of including big
blocks of License headers in all files.  This not only blows up the
source code with mostly redundant information, but also makes it very
difficult to generate License Clearing Reports.  An additional problem
is that even the same licenses are referred to by a number of
slightly varying text blocks (full, abbreviated, different
indentation, line wrapping and/or white space, with obsolete address
information, ...) which makes automatic processing a nightmare.

To make this easier, such license headers in the source files will be
replaced with a single line reference to Unique License Identifiers
as defined by the Linux Foundation's SPDX project [1].

If a "SPDX-License-Identifier:" line references more than one Unique
License Identifier, then this means that the respective file can be
used under the terms of either of these licenses, i. e. with

        SPDX-License-Identifier: GPL-2.0+ OR BSD-3-Clause

you can choose between GPL-2.0+ and BSD-3-Clause licensing.

We use the SPDX Unique License Identifiers here; these are available
at [2].

License identifier syntax
-------------------------

1. Placement:

   The SPDX license identifier in U-Boot files shall be added at the first
   possible line in a file which can contain a comment.  For the majority
   or files this is the first line, except for scripts which require the
   '#!PATH_TO_INTERPRETER' in the first line.  For those scripts the SPDX
   identifier goes into the second line.

|

2. Style:

   The SPDX license identifier is added in form of a comment.  The comment
   style depends on the file type::

      C source: // SPDX-License-Identifier: <SPDX License Expression>
      C header: /* SPDX-License-Identifier: <SPDX License Expression> */
      ASM:      /* SPDX-License-Identifier: <SPDX License Expression> */
      scripts:  # SPDX-License-Identifier: <SPDX License Expression>
      .rst:     .. SPDX-License-Identifier: <SPDX License Expression>
      .dts{i}:  // SPDX-License-Identifier: <SPDX License Expression>

   If a specific tool cannot handle the standard comment style, then the
   appropriate comment mechanism which the tool accepts shall be used. This
   is the reason for having the "/\* \*/" style comment in C header
   files. There was build breakage observed with generated .lds files where
   'ld' failed to parse the C++ comment. This has been fixed by now, but
   there are still older assembler tools which cannot handle C++ style
   comments.
```

|

3. Syntax:

   A <SPDX License Expression> is either an SPDX short form license
   identifier found on the SPDX License List, or the combination of two
   SPDX short form license identifiers separated by "WITH" when a license
   exception applies. When multiple licenses apply, an expression consists
   of keywords "AND", "OR" separating sub-expressions and surrounded by
   "(", ")" .

   License identifiers for licenses like [L]GPL with the 'or later' option
   are constructed by using a "+" for indicating the 'or later' option.::

      // SPDX-License-Identifier: GPL-2.0+
      // SPDX-License-Identifier: LGPL-2.1+

   WITH should be used when there is a modifier to a license needed.
   For example, the linux kernel UAPI files use the expression::

      // SPDX-License-Identifier: GPL-2.0 WITH Linux-syscall-note
      // SPDX-License-Identifier: GPL-2.0+ WITH Linux-syscall-note

   Other examples using WITH exceptions found in the linux kernel are::

      // SPDX-License-Identifier: GPL-2.0 WITH mif-exception
      // SPDX-License-Identifier: GPL-2.0+ WITH GCC-exception-2.0

   Exceptions can only be used with particular License identifiers. The
   valid License identifiers are listed in the tags of the exception text
   file.

   OR should be used if the file is dual licensed and only one license is
   to be selected. For example, some dtsi files are available under dual
   licenses::

      // SPDX-License-Identifier: GPL-2.0 OR BSD-3-Clause

   Examples from U-Boot for license expressions in dual licensed files::

      // SPDX-License-Identifier: GPL-2.0 OR MIT
      // SPDX-License-Identifier: GPL-2.0+ OR BSD-3-Clause

   AND should be used if the file has multiple licenses whose terms all
   apply to use the file. For example, if code is inherited from another
   project and permission has been given to put it in U-Boot, but the
   original license terms need to remain in effect::

      // SPDX-License-Identifier: (GPL-2.0 WITH Linux-syscall-note) AND MIT

   Another other example where both sets of license terms need to be
   adhered to is::

      // SPDX-License-Identifier: GPL-1.0+ AND LGPL-2.1+

[1] http://spdx.org/
[2] http://spdx.org/licenses/

Full name   SPDX Identifier OSI Approved   File name
URI
==
==
bzip2 and libbzip2 License v1.0.6   bzip2-1.0.6
bzip2-1.0.6.txt   https://spdx.org/licenses/bzip2-1.0.6.html
GNU General Public License v2.0 only   GPL-2.0   Y   gpl-2.0.txt
http://www.gnu.org/licenses/gpl-2.0.txt
GNU General Public License v2.0 or laterGPL-2.0+Y   gpl-2.0.txt
http://www.gnu.org/licenses/gpl-2.0.txt
GNU Library General Public License v2 or later LGPL-2.0+   Y   lgpl-2.0.txt

```
http://www.gnu.org/licenses/old-licenses/lgpl-2.0.txt
GNU Lesser General Public License v2.1 or later LGPL-2.1+       Y               lgpl-2.1.txt
http://www.gnu.org/licenses/old-licenses/lgpl-2.1.txt
eCos license version 2.0                eCos-2.0                eCos-2.0.txt
http://www.gnu.org/licenses/ecos-license.html
BSD 2-Clause License                            BSD-2-Clause    Y               bsd-2-
clause.txt      http://spdx.org/licenses/BSD-2-Clause
BSD 3-clause "New" or "Revised" License         BSD-3-Clause    Y               bsd-3-
clause.txt      http://spdx.org/licenses/BSD-3-Clause#licenseText
IBM PIBS (PowerPC Initialization and            IBM-pibs                ibm-pibs.txt
        Boot Software) license
ISC License                                      ISC             Y               isc.txt
https://spdx.org/licenses/ISC
MIT License                                      MIT             Y               mit.txt
https://spdx.org/licenses/MIT.html
SIL OPEN FONT LICENSE (OFL-1.1)                 OFL-1.1         Y               OFL.txt
https://spdx.org/licenses/OFL-1.1.html
X11 License                                      X11                             x11.txt
https://spdx.org/licenses/X11.html
```

Appendix L233 — update-rc.d — update-rc.d

```
# (c) 2003, 2004 Phil Blundell <pb@handhelds.org>
#
# SPDX-License-Identifier: GPL-2.0-or-later
#

initd="/etc/init.d"
etcd="/etc/rc"
notreally=0
force=0
dostart=0
verbose=0
```

Appendix L234 — Shared license text and notices

```
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.

The complete text of the license is available in the
../Documentation/licenses/COPYING.LGPL-2.1-or-later file.
```

Appendix L235 — Shared license text and notices

```
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.

The complete text of the license is available in the
../Documentation/licenses/COPYING.LGPL-2.1-or-later
```

Appendix L236 — Shared license text and notices

```
This library is free software; you can redistribute it and/or
modify it under the terms of the Modified BSD License.

The complete text of the license is available in the
../Documentation/licenses/COPYING.BSD-3-Clause file.
```

Appendix L237 — Shared license text and notices

```
/*
 * Copyright (c) 1989 The 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. 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.
 */
```

Appendix L238 — Shared license text and notices

```
The project util-linux doesn't use the same license for all of the code.
There is code under:

   * GPL-3.0-or-later   - GNU General Public License version 3, or any later version

   * GPL-2.0-or-later   - GNU General Public License version 2, or any later version

   * GPL-2.0            - GNU General Public License version 2

   * LGPL-2.1-or-later  - GNU Lesser General Public License 2.1 or any later version

   * BSD-3-Clause       - BSD 3-Clause "New" or "Revised" License

   * BSD-4-Clause-UC    - BSD 4-Clause University of California-Specific

   * Public Domain

Please, check the source code for more details. A license is usually at the start
of each source file.

The ./COPYING file (GPL-2.0-or-later) is the default license for code without
an explicitly defined license.
```

Appendix L239 — Shared license text and notices

```
Copyright (c) <year>, <copyright holder>
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 acknowledgement:
   This product includes software developed by the <organization>.
4. Neither the name of the <organization> 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 <COPYRIGHT HOLDER> ``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 <COPYRIGHT HOLDER> 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.
```

Appendix L240 — wireless-regdb — LICENSE

```
Copyright (c) 2008, Luis R. Rodriguez <mcgrof@gmail.com>
Copyright (c) 2008, Johannes Berg <johannes@sipsolutions.net>
Copyright (c) 2008, Michael Green <Michael.Green@Atheros.com>
```

ISC-style terms — variant 1 (S028), p. 381

Appendix L241 — wireless-regdb — License template: ISC

```
ISC License:

Copyright &#169; 2004-2010 by Internet Systems Consortium, Inc. ("ISC")
Copyright &#169; 1995-2003 by Internet Software Consortium

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 ISC DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE
INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL ISC 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.
```

Appendix L242 — wpa-supplicant — COPYING

```
wpa_supplicant and hostapd
--------------------------

Copyright (c) 2002-2022, Jouni Malinen <j@w1.fi> and contributors
All Rights Reserved.


See the README file for the current license terms.

This software was previously distributed under BSD/GPL v2 dual license
terms that allowed either of those license alternatives to be
selected. As of February 11, 2012, the project has chosen to use only
the BSD license option for future distribution. As such, the GPL v2
license option is no longer used. It should be noted that the BSD
```

```
license option (the one with advertisement clause removed) is compatible
with GPL and as such, does not prevent use of this software in projects
that use GPL.

Some of the files may still include pointers to GPL version 2 license
terms. However, such copyright and license notifications are maintained
only for attribution purposes and any distribution of this software
after February 11, 2012 is no longer under the GPL v2 option.
```

Appendix L243 — wpa-supplicant — README

```
wpa_supplicant and hostapd
--------------------------

Copyright (c) 2002-2022, Jouni Malinen <j@w1.fi> and contributors
All Rights Reserved.

These programs are licensed under the BSD license (the one with
advertisement clause removed).

If you are submitting changes to the project, please see CONTRIBUTIONS
file for more instructions.


This package may include either wpa_supplicant, hostapd, or both. See
README file respective subdirectories (wpa_supplicant/README or
hostapd/README) for more details.

Source code files were moved around in v0.6.x releases and compared to
earlier releases, the programs are now built by first going to a
subdirectory (wpa_supplicant or hostapd) and creating build
configuration (.config) and running 'make' there (for Linux/BSD/cygwin
builds).


License
-------

This software may be distributed, used, and modified under the terms of
BSD license:
```

BSD-style redistribution terms — variant 18 (S026), p. 381

Appendix L244 — wpa-supplicant — wpa_supplicant.c

```
/*
 * WPA Supplicant
 * Copyright (c) 2003-2022, Jouni Malinen <j@w1.fi>
 *
 * This software may be distributed under the terms of the BSD license.
 * See README for more details.
 *
 * This file implements functions for registering and unregistering
 * %wpa_supplicant interfaces. In addition, this file contains number of
 * functions for managing network connections.
 */
```

Appendix L245 — liblzma — COPYING

```
XZ Utils Licensing
==================

    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.
```

Appendix L246 — liblzma — License template: GPL-3.0-with-autoconf-exception

```
insert GPL v3 text here

AUTOCONF CONFIGURE SCRIPT EXCEPTION

Version 3.0, 18 August 2009

Copyright &#169; 2009 Free Software Foundation, Inc. <http://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this license document, but
changing it is not allowed.

This Exception is an additional permission under section 7 of the GNU General Public License,
version 3 ("GPLv3"). It applies to a given file that bears a notice placed by the copyright
holder of the file stating that the file is governed by GPLv3 along with this Exception.

The purpose of this Exception is to allow distribution of Autoconf`s typical output under
terms of the recipient`s choice (including proprietary).

0. Definitions.
"Covered Code" is the source or object code of a version of Autoconf that is a covered work
under this License.

"Normally Copied Code" for a version of Autoconf means all parts of its Covered Code which
that version can copy from its code (i.e., not from its input file) into its minimally
verbose, non-debugging and non-tracing output.

"Ineligible Code" is Covered Code that is not Normally Copied Code.

1. Grant of Additional Permission.
You have permission to propagate output of Autoconf, even if such propagation would otherwise
violate the terms of GPLv3. However, if by modifying Autoconf you cause any Ineligible Code of
the version you received to become Normally Copied Code of your modified version, then you
void this Exception for the resulting covered work. If you convey that resulting covered work,
you must remove this Exception in accordance with the second paragraph of Section 7 of GPLv3.

2. No Weakening of Autoconf Copyleft.
The availability of this Exception does not imply any general presumption that third-party
software is unaffected by the copyleft requirements of the license of Autoconf.
```

Appendix L247 — liblzma — getopt.c

```
/* Getopt for GNU.
   NOTE: getopt is now part of the C library, so if you don't know what
   "Keep this file name-space clean" means, talk to drepper@gnu.org
   before changing it!
   Copyright (C) 1987,88,89,90,91,92,93,94,95,96,98,99,2000,2001,2002,2003,2004,2006
        Free Software Foundation, Inc.
   This file is part of the GNU C Library.

   This program 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, 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 Lesser General Public License for more details.

   You should have received a copy of the GNU Lesser 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.  */

#ifndef _LIBC
```

Appendix L248 — zlib — zlib.h

```
  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
```

Appendix L249 — libzstd — LICENSE

```
BSD License

For Zstandard software

Copyright (c) Meta Platforms, Inc. and affiliates. 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 Facebook, nor Meta, 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.
```

Appendix L250 — Shared license text and notices

```
The MIT License (MIT)

Copyright (c) 2016 Go Playground
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L251 — github.com/google/uuid — CONTRIBUTORS

```
Paul Borman <borman@google.com>
bmatsuo
shawnps
```

```
theory
jboverfelt
dsymonds
cd1
wallclockbuilder
dansouza
```

Appendix L252 — github.com/google/uuid — LICENSE

```
Copyright (c) 2009,2014 Google Inc. All rights reserved.
```

BSD-style redistribution terms — variant 2 (S007), p. 365

Appendix L253 — github.com/gorilla/mux — LICENSE

```
Copyright (c) 2023 The Gorilla Authors. All rights reserved.
```

BSD-style redistribution terms — variant 2 (S007), p. 365

Appendix L254 — github.com/gorilla/websocket — AUTHORS

```
# This is the official list of Gorilla WebSocket authors for copyright
# purposes.
#
# Please keep the list sorted.

Gary Burd <gary@beagledreams.com>
Google LLC (https://opensource.google.com/)
Joachim Bauch <mail@joachim-bauch.de>
```

Appendix L255 — github.com/gorilla/websocket — LICENSE

```
Copyright (c) 2013 The Gorilla WebSocket 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.

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.
```

Appendix L256 — github.com/leodido/go-urn — LICENSE

```
MIT License

Copyright (c) 2018- Leonardo Di Donato
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L257 — github.com/lorenzodonini/ocpp-go — LICENSE

```
MIT License

Copyright (c) 2019
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L258 — github.com/relvacode/iso8601 — LICENSE

```
MIT License

Copyright (c) 2017-2020 Jason Kingsbury
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L259 — github.com/secsy/goftp — LICENSE

```
The MIT License (MIT)

Copyright (c) 2015 Muir Manders
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L260 — github.com/sirupsen/logrus — LICENSE

```
The MIT License (MIT)

Copyright (c) 2014 Simon Eskildsen
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L261 — go.nanomsg.org/mangos/v3 — AUTHORS

```
List of mangos contributors and authors; these are the copyright holders
for mangos, referred to as The Mangos Authors.

Garrett D'Amore <garrett@damore.org>
Stuart Wallace <stuart@wapbot.co.uk>
Tyler Treat <ttreat31@gmail.com>
Ryan Zezeski <ryan@zinascii.com>
Eugene Korenevsky <ekorenevsky@gmail.com>
Dustin Hiatt <hiatt.dustin@gmail.com>
wenfang <wangwenfang@gmail.com>
Anner van Hardenbroek <anner@xsnews.nl>
Gerrit Renker <Gerrit.Renker@ctl.io>
Rene Kaufmann <kaufmann.r@gmail.com>
Ben Krieger <blitzrk@gmail.com>
Hasan Pekdemir <hpekdemir.smart@googlemail.com>
Sega Okhiria <sega.okhiria@gmail.com>
Staysail Systems, Inc. <info@staysail.tech>
Capitar IT Group BV <info@capitar.com>
Calvin Lobo <calvinvlobo@gmail.com>
```

Appendix L262 — golang.org/x/sys — AUTHORS

```
# This source code refers to The Go Authors for copyright purposes.
# The master list of authors is in the main Go distribution,
# visible at http://tip.golang.org/AUTHORS.
```

Appendix L263 — golang.org/x/sys — CONTRIBUTORS

```
# This source code was written by the Go contributors.
# The master list of contributors is in the main Go distribution,
# visible at http://tip.golang.org/CONTRIBUTORS.
```

Appendix L264 — gopkg.in/go-playground/validator.v9 — LICENSE

```
The MIT License (MIT)

Copyright (c) 2015 Dean Karn
```

MIT-style terms — variant 1 (S005), p. 364

Appendix L265 — Go runtime and standard library — PATENTS (+3 files)

```
Additional IP Rights Grant (Patents)

"This implementation" means the copyrightable works distributed by
Google as part of the Go project.

Google 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,
transfer and otherwise run, modify and propagate the contents of this
implementation of Go, where such license applies only to those patent
claims, both currently owned or controlled by Google and acquired in
the future, licensable by Google that are necessarily infringed by this
implementation of Go.  This grant does not include claims that would be
infringed only as a consequence of further modification of this
implementation.  If you or your agent or exclusive licensee institute or
order or agree to the institution of patent litigation against any
entity (including a cross-claim or counterclaim in a lawsuit) alleging
that this implementation of Go or any code incorporated within this
implementation of Go constitutes direct or contributory patent
infringement, or inducement of patent infringement, then any patent
rights granted to you under this License for this implementation of Go
shall terminate as of the date such litigation is filed.
```

Appendix L266 — Go runtime and standard library — abi.go (+19 files)

```
// Copyright 2020 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L267 — Go runtime and standard library — cpu.go (+25 files)

```
// Copyright 2017 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L268 — Go runtime and standard library — bytealg.go (+30 files)

```
// Copyright 2018 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L269 — Go runtime and standard library — equal_generic.go (+19 files)

```
// Copyright 2019 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L270 — Go runtime and standard library — atomic_arm.go (+199 files)

```
// Copyright 2009 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L271 — Go runtime and standard library — types.go (+20 files)

```
// Copyright 2021 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L272 — Go runtime and standard library — atomic_arm.s (+21 files)

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

Appendix L273 — Go runtime and standard library — syscall_linux.go (+34 files)

```
// Copyright 2022 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L274 — Go runtime and standard library — alg.go (+30 files)

```
// Copyright 2014 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L275 — Go runtime and standard library — cgocallback.go (+58 files)

```
// Copyright 2011 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L276 — Go runtime and standard library — env_posix.go (+20 files)

```
// Copyright 2012 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L277 — Go runtime and standard library — error.go (+42 files)

```
// Copyright 2010 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L278 — Go runtime and standard library — netpoll.go (+21 files)

```
// Copyright 2013 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L279 — Go runtime and standard library — security_unix.go

```
// Copyright 2023 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L280 — Go runtime and standard library — sigaction.go (+30 files)

```
// Copyright 2016 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L281 — Go runtime and standard library — vlrt.go

```
// Inferno's libkern/vlrt-arm.c
// https://bitbucket.org/inferno-os/inferno-os/src/master/libkern/vlrt-arm.c
//
//         Copyright © 1994-1999 Lucent Technologies Inc. All rights reserved.
//         Revisions Copyright © 2000-2007 Vita Nuova Holdings Limited (www.vitanuova.com).
All rights reserved.
//         Portions Copyright 2009 The Go Authors. 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.
```

Appendix L282 — Go runtime and standard library — memclr_arm.s

```
// Inferno's libkern/memset-arm.s
// https://bitbucket.org/inferno-os/inferno-os/src/master/libkern/memset-arm.s
//
//         Copyright © 1994-1999 Lucent Technologies Inc. All rights reserved.
//         Revisions Copyright © 2000-2007 Vita Nuova Holdings Limited (www.vitanuova.com).
All rights reserved.
//         Portions Copyright 2009 The Go Authors. 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.
```

Appendix L283 — Go runtime and standard library — memmove_arm.s

```
// Inferno's libkern/memmove-arm.s
// https://bitbucket.org/inferno-os/inferno-os/src/master/libkern/memmove-arm.s
//
//         Copyright © 1994-1999 Lucent Technologies Inc. All rights reserved.
```

```
//         Revisions Copyright © 2000-2007 Vita Nuova Holdings Limited (www.vitanuova.com).
All rights reserved.
//         Portions Copyright 2009 The Go Authors. 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.
```

Appendix L284 — Go runtime and standard library — vlop_arm.s

```
// Inferno's libkern/vlop-arm.s
// https://bitbucket.org/inferno-os/inferno-os/src/master/libkern/vlop-arm.s
//
//         Copyright © 1994-1999 Lucent Technologies Inc. All rights reserved.
//         Revisions Copyright © 2000-2007 Vita Nuova Holdings Limited (www.vitanuova.com).
All rights reserved.
//         Portions Copyright 2009 The Go Authors. 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.
```

Appendix L285 — Go runtime and standard library — log.go

```
// The original C code, the long comment, and the constants
// below are from FreeBSD's /usr/src/lib/msun/src/e_log.c
// and came with this notice. The go code is a simpler
// version of the original C.
//
// ====================================================
// Copyright (C) 1993 by Sun Microsystems, Inc. All rights reserved.
//
// Developed at SunPro, a Sun Microsystems, Inc. business.
// Permission to use, copy, modify, and distribute this
// software is freely granted, provided that this notice
// is preserved.
// ====================================================
//
// __ieee754_log(x)
// Return the logarithm of x
//
```

```
// Method :
//   1. Argument Reduction: find k and f such that
//                       x = 2**k * (1+f),
//         where  sqrt(2)/2 < 1+f < sqrt(2) .
//
//   2. Approximation of log(1+f).
//      Let s = f/(2+f) ; based on log(1+f) = log(1+s) - log(1-s)
//               = 2s + 2/3 s**3 + 2/5 s**5 + .....,
//               = 2s + s*R
//      We use a special Reme algorithm on [0,0.1716] to generate
//      a polynomial of degree 14 to approximate R.  The maximum error
//      of this polynomial approximation is bounded by 2**-58.45. In
//      other words,
//                      2      4      6      8      10      12      14
//          R(z) ~ L1*s +L2*s +L3*s +L4*s +L5*s  +L6*s  +L7*s
//      (the values of L1 to L7 are listed in the program) and
//          |      2          14          |     -58.45
//          | L1*s +...+L7*s    -  R(z) | <= 2
//          |                             |
//      Note that 2s = f - s*f = f - hfsq + s*hfsq, where hfsq = f*f/2.
//      In order to guarantee error in log below 1ulp, we compute log by
//              log(1+f) = f - s*(f - R)        (if f is not too large)
//              log(1+f) = f - (hfsq - s*(hfsq+R)).     (better accuracy)
//
//      3. Finally,  log(x) = k*Ln2 + log(1+f).
//                           = k*Ln2_hi+(f-(hfsq-(s*(hfsq+R)+k*Ln2_lo)))
//         Here Ln2 is split into two floating point number:
//                      Ln2_hi + Ln2_lo,
//         where n*Ln2_hi is always exact for |n| < 2000.
//
// Special cases:
//      log(x) is NaN with signal if x < 0 (including -INF) ;
//      log(+INF) is +INF; log(0) is -INF with signal;
//      log(NaN) is that NaN with no signal.
//
// Accuracy:
//      according to an error analysis, the error is always less than
//      1 ulp (unit in the last place).
//
// Constants:
// The hexadecimal values are the intended ones for the following
// constants. The decimal values may be used, provided that the
// compiler will convert from decimal to binary accurately enough
// to produce the hexadecimal values shown.
```

Appendix L286 — Go runtime and standard library — error.go

```
// IsPermission returns a boolean indicating whether the error is known to
// report that permission is denied. It is satisfied by ErrPermission as well
// as some syscall errors.
//
// This function predates errors.Is. It only supports errors returned by
// the os package. New code should use errors.Is(err, fs.ErrPermission).
```

Appendix L287 — Go runtime and standard library — elf.go

```
/*
 * ELF constants and data structures
 *
 * Derived from:
 * $FreeBSD: src/sys/sys/elf32.h,v 1.8.14.1 2005/12/30 22:13:58 marcel Exp $
 * $FreeBSD: src/sys/sys/elf64.h,v 1.10.14.1 2005/12/30 22:13:58 marcel Exp $
 * $FreeBSD: src/sys/sys/elf_common.h,v 1.15.8.1 2005/12/30 22:13:58 marcel Exp $
 * $FreeBSD: src/sys/alpha/include/elf.h,v 1.14 2003/09/25 01:10:22 peter Exp $
 * $FreeBSD: src/sys/amd64/include/elf.h,v 1.18 2004/08/03 08:21:48 dfr Exp $
 * $FreeBSD: src/sys/arm/include/elf.h,v 1.5.2.1 2006/06/30 21:42:52 cognet Exp $
 * $FreeBSD: src/sys/i386/include/elf.h,v 1.16 2004/08/02 19:12:17 dfr Exp $
 * $FreeBSD: src/sys/powerpc/include/elf.h,v 1.7 2004/11/02 09:47:01 ssouhlal Exp $
 * $FreeBSD: src/sys/sparc64/include/elf.h,v 1.12 2003/09/25 01:10:26 peter Exp $
```

```
 * "System V ABI" (http://www.sco.com/developers/gabi/latest/ch4.eheader.html)
 * "ELF for the ARM® 64-bit Architecture (AArch64)" (ARM IHI 0056B)
 * "RISC-V ELF psABI specification" (https://github.com/riscv/riscv-elf-psabi-doc/blob/master/
riscv-elf.md)
 * llvm/BinaryFormat/ELF.h - ELF constants and structures
 *
 * Copyright (c) 1996-1998 John D. Polstra.  All rights reserved.
 * Copyright (c) 2001 David E. O'Brien
 * Portions Copyright 2009 The Go 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:
 * 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.
 */
```

Appendix L288 — Go runtime and standard library — block.go

```
// This Go implementation is derived in part from the reference
// ANSI C implementation, which carries the following notice:
//
//      rijndael-alg-fst.c
//
//      @version 3.0 (December 2000)
//
//      Optimised ANSI C code for the Rijndael cipher (now AES)
//
//      @author Vincent Rijmen <vincent.rijmen@esat.kuleuven.ac.be>
//      @author Antoon Bosselaers <antoon.bosselaers@esat.kuleuven.ac.be>
//      @author Paulo Barreto <paulo.barreto@terra.com.br>
//
//      This code is hereby placed in the public domain.
//
//      THIS SOFTWARE IS PROVIDED BY THE AUTHORS ''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 AUTHORS 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.
//
// See FIPS 197 for specification, and see Daemen and Rijmen's Rijndael submission
// for implementation details.
//      https://csrc.nist.gov/csrc/media/publications/fips/197/final/documents/fips-197.pdf
//      https://csrc.nist.gov/archive/aes/rijndael/Rijndael-ammended.pdf
```

Appendix L289 — Go runtime and standard library — fe.go (+2 files)

```
// Copyright (c) 2017 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L290 — Go runtime and standard library — fe_amd64_noasm.go (+2 files)

```
// Copyright (c) 2019 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L291 — Go runtime and standard library — fe_arm64_noasm.go

```
// Copyright (c) 2021 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L292 — Go runtime and standard library — scalar.go

```
// Copyright (c) 2016 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
```

Appendix L293 — Go runtime and standard library — scalar.go

```
// The field implementation in scalar_fiat.go is generated by the fiat-crypto
// project (https://github.com/mit-plv/fiat-crypto) at version v0.0.9 (23d2dbc)
// from a formally verified model.
//
// fiat-crypto code comes under the following license.
//
//     Copyright (c) 2015-2020 The fiat-crypto 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:
//
//         1. Redistributions of source code must retain the above copyright
//         notice, this list of conditions and the following disclaimer.
//
//     THIS SOFTWARE IS PROVIDED BY the fiat-crypto authors "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 Berkeley Software Design,
//     Inc. 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.
//
```

Appendix L294 — Go runtime and standard library — md5block_arm.s

```
// Copyright 2013 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
//
// ARM version of md5block.go
```

Appendix L295 — Go runtime and standard library — sha1block_arm.s

```
// Copyright 2014 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
//
// ARM version of md5block.go
```

Appendix L296 — Go runtime and standard library — xor.go

```
// Copyright 2018 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found src the LICENSE file.
```

Appendix L297 — Go runtime and standard library — multipart.go

```
// Copyright 2010 The Go Authors. All rights reserved.
// Use of this source code is governed by a BSD-style
// license that can be found in the LICENSE file.
//
```

Appendix L298 — Go runtime and standard library — transport.go

```
// Queue for permission to dial.
```

Appendix L299 — Go runtime and standard library — transport.go

```
// queueForDial queues w to wait for permission to begin dialing.
// Once w receives permission to dial, it will do so in a separate goroutine.
```

Appendix L300 — Go runtime and standard library — transport.go

```
// dialConnFor dials on behalf of w and delivers the result to w.
// dialConnFor has received permission to dial w.cm and is counted in t.connCount[w.cm.key()].
// If the dial is canceled or unsuccessful, dialConnFor decrements t.connCount[w.cm.key()].
```

Appendix L301 — Go runtime and standard library — transport.go

```
// decConnsPerHost decrements the per-host connection count for key,
// which may in turn give a different waiting goroutine permission to dial.
```

Appendix L302 — Go runtime and standard library — testing.go

```
// removeAll is like os.RemoveAll, but retries Windows "Access is denied."
// errors up to an arbitrary timeout.
//
// Those errors have been known to occur spuriously on at least the
// windows-amd64-2012 builder (https://go.dev/issue/50051), and can only occur
// legitimately if the test leaves behind a temp file that either is still open
// or the test otherwise lacks permission to delete. In the case of legitimate
// failures, a failing test may take a bit longer to fail, but once the test is
// fixed the extra latency will go away.
```

Shared license terms

Each section below replaces the corresponding reference in an L appendix. Read it together with the surrounding text in that appendix, including copyright notices, license choices, additional conditions and exceptions. Only sections with identical wording are shared. Titles describe the terms; variant numbers distinguish wording and formatting, not license versions. The component notices specify the applicable licenses.

GNU GPL 2.0 terms — variant 1 (S001), p. 346
GNU LGPL 2.1 terms — variant 1 (S002), p. 349
GNU GPL 2.0 terms — variant 2 (S003), p. 354

GNU GPL 3.0 terms — variant 1 (S004), p. 357
MIT-style terms — variant 1 (S005), p. 364
BSD-style redistribution terms — variant 1 (S006), p. 365
BSD-style redistribution terms — variant 2 (S007), p. 365
Apache 2.0 terms — variant 1 (S008), p. 366
BSD-style redistribution terms — variant 3 (S009), p. 368
GNU LGPL 2.0 terms — variant 1 (S010), p. 368
GNU LGPL 3.0 terms — variant 1 (S011), p. 373
BSD-style redistribution terms — variant 4 (S012), p. 375
BSD-style redistribution terms — variant 5 (S013), p. 376
BSD-style redistribution terms — variant 6 (S014), p. 376
BSD-style redistribution terms — variant 7 (S015), p. 377
BSD-style redistribution terms — variant 8 (S016), p. 377
BSD-style redistribution terms — variant 9 (S017), p. 377
BSD-style redistribution terms — variant 10 (S018), p. 378
BSD-style redistribution terms — variant 11 (S019), p. 378
BSD-style redistribution terms — variant 12 (S020), p. 378
BSD-style redistribution terms — variant 13 (S021), p. 379
BSD-style redistribution terms — variant 14 (S022), p. 379
BSD-style redistribution terms — variant 15 (S023), p. 379
BSD-style redistribution terms — variant 16 (S024), p. 380
BSD-style redistribution terms — variant 17 (S025), p. 380
BSD-style redistribution terms — variant 18 (S026), p. 381
MIT-style terms — variant 2 (S027), p. 381
ISC-style terms — variant 1 (S028), p. 381
GNU LGPL 2.1 terms — variant 2 (S029), p. 382
BSD-style redistribution terms — variant 19 (S030), p. 387

Shared terms S001 — GNU GPL 2.0 terms — variant 1

```
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.

Shared terms S002 — GNU LGPL 2.1 terms — variant 1

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.

Shared terms S003 — GNU GPL 2.0 terms — variant 2

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.

Shared terms S004 — GNU GPL 3.0 terms — variant 1

TERMS AND CONDITIONS

  0. Definitions.

  "This License" refers to version 3 of the GNU General Public License.

  "Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

  "The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as "you". "Licensees" and "recipients" may be individuals or organizations.

  To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

  A "covered work" means either the unmodified Program or a work based on the Program.

  To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

  To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

  An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

  1. Source Code.

  The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

  A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

  The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

  The "Corresponding Source" for a work in object code form means all

the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.

3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

4. Conveying Verbatim Copies.

You may convey 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; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

a) The work must carry prominent notices stating that you modified it, and giving a relevant date.

b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".

c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.

b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

d) Convey the object code by offering access from a designated
place (gratis or for a charge), and offer equivalent access to the
Corresponding Source in the same way through the same place at no
further charge. You need not require recipients to copy the
Corresponding Source along with the object code. If the place to
copy the object code is a network server, the Corresponding Source
may be on a different server (operated by you or a third party)
that supports equivalent copying facilities, provided you maintain
clear directions next to the object code saying where to find the
Corresponding Source. Regardless of what server hosts the
Corresponding Source, you remain obligated to ensure that it is
available for as long as needed to satisfy these requirements.

e) Convey the object code using peer-to-peer transmission, provided
you inform other peers where the object code and Corresponding
Source of the work are being offered to the general public at no
charge under subsection 6d.

A separable portion of the object code, whose source code is excluded
from the Corresponding Source as a System Library, need not be
included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any
tangible personal property which is normally used for personal, family,
or household purposes, or (2) anything designed or sold for incorporation
into a dwelling. In determining whether a product is a consumer product,
doubtful cases shall be resolved in favor of coverage. For a particular
product received by a particular user, "normally used" refers to a
typical or common use of that class of product, regardless of the status
of the particular user or of the way in which the particular user
actually uses, or expects or is expected to use, the product. A product
is a consumer product regardless of whether the product has substantial
commercial, industrial or non-consumer uses, unless such uses represent
the only significant mode of use of the product.

"Installation Information" for a User Product means any methods,
procedures, authorization keys, or other information required to install
and execute modified versions of a covered work in that User Product from
a modified version of its Corresponding Source. The information must
suffice to ensure that the continued functioning of the modified object
code is in no case prevented or interfered with solely because
modification has been made.

If you convey an object code work under this section in, or with, or
specifically for use in, a User Product, and the conveying occurs as
part of a transaction in which the right of possession and use of the
User Product is transferred to the recipient in perpetuity or for a
fixed term (regardless of how the transaction is characterized), the
Corresponding Source conveyed under this section must be accompanied
by the Installation Information. But this requirement does not apply
if neither you nor any third party retains the ability to install
modified object code on the User Product (for example, the work has
been installed in ROM).

The requirement to provide Installation Information does not include a
requirement to continue to provide support service, warranty, or updates
for a work that has been modified or installed by the recipient, or for
the User Product in which it has been modified or installed. Access to a
network may be denied when the modification itself materially and
adversely affects the operation of the network or violates the rules and
protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided,
in accord with this section must be in a format that is publicly
documented (and with an implementation available to the public in
source code form), and must require no special password or key for
unpacking, reading or copying.

7. Additional Terms.

"Additional permissions" are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or

b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or

c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or

d) Limiting the use for publicity purposes of names of licensors or authors of the material; or

e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or

f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered "further restrictions" within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.

8. Termination.

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.

9. Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.

10. Automatic Licensing of Downstream Recipients.

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License.

An "entity transaction" is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it.

11. Patents.

A "contributor" is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed is called the contributor's "contributor version".

A contributor's "essential patent claims" are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, "control" includes the right to grant patent sublicenses in a manner consistent with the requirements of

this License.

  Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

  In the following three paragraphs, a "patent license" is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To "grant" such a patent license to a party means to make such an agreement or commitment not to enforce a patent against the party.

  If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. "Knowingly relying" means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

  If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

  A patent license is "discriminatory" if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

  Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

  12. No Surrender of Others' Freedom.

  If 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 convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

  13. Use with the GNU Affero General Public License.

  Notwithstanding any other provision of this License, you have

permission to link or combine any covered work with a work licensed
under version 3 of the GNU Affero General Public License into a single
combined work, and to convey the resulting work. The terms of this
License will continue to apply to the part which is the covered work,
but the special requirements of the GNU Affero General Public License,
section 13, concerning interaction through a network will apply to the
combination as such.

  14. Revised Versions of this License.

  The Free Software Foundation may publish revised and/or new versions of
the GNU 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 that a certain numbered version of the GNU General
Public License "or any later version" applies to it, you have the
option of following the terms and conditions either of that numbered
version or of any later version published by the Free Software
Foundation. If the Program does not specify a version number of the
GNU General Public License, you may choose any version ever published
by the Free Software Foundation.

  If the Program specifies that a proxy can decide which future
versions of the GNU General Public License can be used, that proxy's
public statement of acceptance of a version permanently authorizes you
to choose that version for the Program.

  Later license versions may give you additional or different
permissions. However, no additional obligations are imposed on any
author or copyright holder as a result of your choosing to follow a
later version.

  15. Disclaimer of Warranty.

  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.

  16. Limitation of Liability.

  IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING
WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS
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.

Shared terms S005 — MIT-style terms — variant 1

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.

Shared terms S006 — BSD-style redistribution terms — variant 1

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

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

2. The origin of this software must not be misrepresented; you must
   not claim that you wrote the original software. If you use this
   software in a product, an acknowledgment in the product
   documentation would be appreciated but is not required.

3. Altered source versions must be plainly marked as such, and must
   not be misrepresented as being the original software.

4. The name of the author may not be used to endorse or promote
   products derived from this software without specific prior written
   permission.

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

Shared terms S007 — BSD-style redistribution terms — variant 2

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.

Shared terms S008 — Apache 2.0 terms — variant 1

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.

Shared terms S009 — BSD-style redistribution terms — variant 3

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 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.

Shared terms S010 — GNU LGPL 2.0 terms — variant 1

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

  0. This License Agreement applies to any software library which
contains a notice placed by the copyright holder or other authorized
party saying it may be distributed under the terms of this Library
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 compile 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) 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.

c) 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.

d) 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 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.

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 to 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 Library 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.

Shared terms S011 — GNU LGPL 3.0 terms — variant 1

0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser General Public License, and the "GNU GPL" refers to version 3 of the GNU General Public License.

"The Library" refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or

b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.

b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.

b) Accompany the Combined Work with a copy of the GNU GPL and this license document.

c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.

d) Do one of the following:

0) Convey the Minimal Corresponding Source under the terms of this License,
and the Corresponding Application Code in a form suitable for, and under terms
that permit, the user to recombine or relink the Application with a modified
version of the Linked Version to produce a modified Combined Work, in the
manner specified by section 6 of the GNU GPL for conveying Corresponding Source.

1) Use a suitable shared library mechanism for linking with the Library. A
suitable mechanism is one that (a) uses at run time a copy of the Library
already present on the user's computer system, and (b) will operate properly
with a modified version of the Library that is interface-compatible with the
Linked Version.

e) Provide Installation Information, but only if you would otherwise be required
to provide such information under section 6 of the GNU GPL, and only to the
extent that such information is necessary to install and execute a modified
version of the Combined Work produced by recombining or relinking the Application
with a modified version of the Linked Version. (If you use option 4d0, the
Installation Information must accompany the Minimal Corresponding Source and
Corresponding Application Code. If you use option 4d1, you must provide the
Installation Information in the manner specified by section 6 of the GNU GPL
for conveying Corresponding Source.)

   5. Combined Libraries.

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 that are
not Applications and are not covered by this License, and convey such a combined
library under terms of your choice, if you do both of the following:

a) Accompany the combined library with a copy of the same work based on the
Library, uncombined with any other library facilities, conveyed under the
terms of this License.

b) Give prominent notice with the combined library that part of it is a work
based on the Library, and explaining where to find the accompanying uncombined
form of the same work.

   6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the
GNU 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 as you
received it specifies that a certain numbered version of the GNU Lesser General
Public License "or any later version" applies to it, you have the option of
following the terms and conditions either of that published version or of
any later version published by the Free Software Foundation. If the Library
as you received it does not specify a version number of the GNU Lesser General
Public License, you may choose any version of the GNU Lesser General Public
License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether
future versions of the GNU Lesser General Public License shall apply, that
proxy's public statement of acceptance of any version is permanent authorization
for you to choose that version for the Library.

Shared terms S012 — BSD-style redistribution terms — variant 4

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.

Shared terms S013 — BSD-style redistribution terms — variant 5

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 University nor the names of its contributors
      may be used to endorse or promote products derived from this software
      without specific prior written permission.

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

Shared terms S014 — BSD-style redistribution terms — variant 6

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.

Shared terms S015 — BSD-style redistribution terms — variant 7

```
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.
```

Shared terms S016 — BSD-style redistribution terms — variant 8

```
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 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.
```

Shared terms S017 — BSD-style redistribution terms — variant 9

```
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 ``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.
```

Shared terms S018 — BSD-style redistribution terms — variant 10

```
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 names of the copyright holders nor the names of their
      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.
```

Shared terms S019 — BSD-style redistribution terms — variant 11

```
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.
```

Shared terms S020 — BSD-style redistribution terms — variant 12

```
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 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.
```

Shared terms S021 — BSD-style redistribution terms — variant 13

```
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 company may not be used to endorse or promote
    products derived from this software without specific prior written
    permission.

 THIS SOFTWARE IS PROVIDED BY ARM LTD ``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 ARM LTD 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.
```

Shared terms S022 — BSD-style redistribution terms — variant 14

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

1.  Redistributions 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 Xilinx 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 HOLDER 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.
```

Shared terms S023 — BSD-style redistribution terms — variant 15

```
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 Texas Instruments Incorporated 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.

Shared terms S024 — BSD-style redistribution terms — variant 16

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 Adapteva 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.

Shared terms S025 — BSD-style redistribution terms — variant 17

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 Altera 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 ALTERA CORPORATION, THE COPYRIGHT HOLDER, 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 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.
```

Shared terms S026 — BSD-style redistribution terms — variant 18

```
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(s) of the above-listed copyright holder(s) 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.
```

Shared terms S027 — MIT-style terms — variant 2

```
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.
```

Shared terms S028 — ISC-style terms — variant 1

```
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.
```

Shared terms S029 — GNU LGPL 2.1 terms — variant 2

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.
^L
  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.
^L
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.
^L

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.
^L

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.
^L
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.

Shared terms S030 — BSD-style redistribution terms — variant 19

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.