**OPEN SOURCE SOFTWARE NOTICE**

Please note we provide an open source software notice along with this product and/or this product firmware (in the following just “this product”). The open source software licenses are granted by the respective right holders. And the open source licenses prevail all other license information with regard to the respective open source software contained in the product, including but not limited to End User Software Licensing Agreement. This notice is provided on behalf of Huawei Technologies Co. Ltd. and any of its local subsidiaries which may have provided this product to you in your local country.

**Warranty Disclaimer**

**The open source software in this product 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 applicable licenses for more details.**

**Copyright Notice and License Texts**

Software: busybox 1.31.1

**Copyright notice:**

Copyright (C) 1997-2002 Free Software Foundation, Inc.  
Copyright (C) 2002 Roman Zippel <zippel@linux-m68k.org>  
Copyright (c) 2003, 2004 Henning Brauer <henning@openbsd.org>  
Copyright (C) 2001 Manuel Novoa III <mjn3@codepoet.org>  
Vladimir Oleynik <dzo@simtreas.ru> (C) 2002  
uncompress for busybox -- (c) 2002 Robert Griebl  
Copyright (C) 2005 Kay Sievers <kay.sievers@vrfy.org>  
Copyright (C) 2015 by Ari Sundholm <ari@tuxera.com> and Tuxera Inc.  
Copyright (C) 2005, 2006 Rob Landley <rob@landley.net>  
Copyright (c) 2010 Denys Vlasenko Split from ash.c  
Copyrigjt (C) Mar 16, 2003 Manuel Novoa III (mjn3@codepoet.org)  
Copyright (C) 2000,2001 Matt Kraai  
Copyright (C) 2002 Matt Kraai  
Copyright (C) 2011 Denys Vlasenko.  
Copyright (C) 2003 Yang Xiaopeng <yxp at hanwang.com.cn>  
Copyright (c) 2002 Glenn McGrath  
Copyright (C) 2008 Natanael Copa <natanael.copa@gmail.com>  
Copyright 2006 by Rob Landley <rob@landley.net>  
Copyright (c) PeerSec Networks, 2002-2011 All Rights Reserved  
Copyright (C) 2004 by David Brownell  
Copyright (c) 1997, 1998, 1999, 2000 Frodo Looijaard <frodol@dds.nl>  
Copyright (C) 2004,2005 Enrik Berkhan <Enrik.Berkhan@inka.de>  
Copyright 1999 Dave Cinege  
Copyright (C) 2000 Arcom Control System Ltd  
Copyright 2006 Bernhard Reutner-Fischer <rep.nop@aon.at>  
Copyright (C) 2001 Hewlett-Packard Laboratories  
Copyright (C) 2005 Vladimir Oleynik  
Copyright (C) 2015 Denys Vlasenko  
Copyright (C) 1997-1999 Richard Gooch  
Copyright (C) 2008 Denys Vlasenko <vda.linux@googlemail.com>  
Copyright (C) 2006-2015 wolfSSL Inc.  
Copyright 1999 George Staikos  
Copyright (C) 1999 by Lineo, inc. and John Beppu  
Copyright (c) 2008 Vladimir Dronnikov  
Copyright (C) 1994-2000 by Tomi Ollila  
Copyright (C) 2008 by Timo Teras <timo.teras@iki.fi>  
Copyright (C) 86, 1991-1997, 1999 Free Software Foundation, Inc.  
(C) 1991, 1992 Linus Torvalds.  
Copyright (C) 2000 by Matt Kraai <kraai@alumni.carnegiemellon.edu>  
Copyright (C) 2003 Bastian Blank <waldi@tuxbox.org>  
Copyright (C) 1996..2003 Markus Franz Xaver Johannes Oberhumer All Rights Reserved.  
Copyright 2002 Laurence Anderson  
Copyright (C) 2000 by spoon <spoon@ix.netcom.com>  
Copyright (C) 2007 Denys Vlasenko.  
Copyright (C) 2004 Kay Sievers <kay.sievers@vrfy.org>  
Copyright (c) 1992, 1993 The Regents of the University of California. All rights reserved.  
Copyright (C) 2003 Erik Andersen  
Copyright (C) 1999,2000,2001 by Lineo, inc. and Mark Whitley  
Copyright (C) many different people.  
Copyright (c) 2008 Timo Teras <timo.teras@iki.fi>  
copyright (c) 1995 Ian Jackson <ian@chiark.greenend.org.uk>  
Copyright (C) 1996..2008 Markus Franz Xaver Johannes Oberhumer All Rights Reserved.  
Copyright (C) 2000 by Randolph Chung <tausq@debian.org>  
Copyright (C) 1998 Dave Cinege  
Copyright (c) 2008 Bernhard Reutner-Fischer  
Copyright 2015 Denys Vlasenko  
Copyright (c) 2017 Denys Vlasenko <vda.linux@googlemail.com>  
Copyright (C) 2016 Denys Vlasenko  
(C) 2002,2003 by Vladimir Oleynik <dzo@simtreas.ru>  
Copyright 2006, Bernhard Reutner-Fischer  
Copyright (C) 2005-6, Roberto A. Foglietta <me@roberto.foglietta.name>  
Copyright (C) 2003 Paul Mundt <lethal@linux-sh.org>  
(c)2007 Yuichi Nakamura <ynakam@hitachisoft.jp>  
Copyright (c) 2000 Edward Betts <edward@debian.org>.  
Copyright (C) 2003 by Arthur van Hoff (avh@strangeberry.com)  
Copyright (C) 2008 by Tito Ragusa <farmatito@tiscali.it>  
Copyright (C) 2002 by Vladimir Oleynik <dzo@simtreas.ru>  
Copyright (C) 1998 Markus Franz Xaver Johannes Oberhumer  
Copyright (C) 1992-1993 Jean-loup Gailly This is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License, see the file COPYING.  
Copyright (C) 2001 Larry Doolittle, <ldoolitt@recycle.lbl.gov>  
Copyright (C) [YEAR] by [YOUR NAME] <YOUR EMAIL>  
Copyright (C) 1999-2005 by Erik Andersen <andersen@codepoet.org>  
Copyright (C) 2003 Russ Dill <Russ.Dill@asu.edu>  
Copyright (C) 2008 by Bernhard Reutner-Fischer  
Copyright (C) 1989-1999 Free Software Foundation, Inc.  
Copyright (C) 2002-2009 Craig Small  
Copyright (C) 2010 Denys Vlasenko  
Copyright (C) 2008 by Patricia Muscalu <patricia.muscalu@axis.com>  
Copyright (C) 1989, 1991 Free Software Foundation, Inc.  
Copyright (C) 2017 Jo-Philipp Wich <jo@mein.io>  
Copyright (C) 1999 Matthew Ramsay <matthewr@moreton.com.au>  
Copyright (C) 2008 Markus Franz Xaver Johannes Oberhumer  
Copyright (C) 86, 89, 91, 1995-2002, 2004 Free Software Foundation, Inc.  
Copyright (C) 1997 Markus Franz Xaver Johannes Oberhumer  
Copyright (C) 2008 Rob Landley <rob@landley.net>  
Copyright (C) Andreas Neuper, Sep 1998.  
Copyright (c) 2007 Bernhard Reutner-Fischer  
Copyright (C) 2013 Denys Vlasenko  
Copyright (C) 2002 Matt Kraai.  
Copyright (C) 1995, 1996 by Bruce Perens <bruce@pixar.com>.  
Copyright (c) 1989 The Regents of the University of California. All rights reserved.  
Copyright (C) 2009 Bernhard Reutner-Fischer  
Copyright (C) 2001 by Matt Kraai <kraai@alumni.carnegiemellon.edu>  
Copyright (C) 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005 by Theodore Tso.  
Copyright 2010 Rob Landley <rob@landley.net>  
Copyright (C) 2012 by Sven Oliver SvOlli Moll <svolli@svolli.de>  
Copyright (C) 2002,2003 Glenn Engel <glenne@engel.org>  
Copyright (C) 1992-1993 Jean-loup Gailly The unzip code was written and put in the public domain by Mark Adler.  
Copyright (C) 2007 by Denys Vlasenko <vda.linux@googlemail.com>  
Copyright (C) 1999,2000,2001 by John Beppu <beppu@codepoet.org>  
Copyright (C) 1998-2000 Richard Gooch  
Copyright (C) 2003-2005 Vladimir Oleynik <dzo@simtreas.ru>  
Copyright (C) 1996-2006 Julian Seward <jseward@bzip.org>  
Copyright (C) 2004, Glenn McGrath  
Copyright (C) 2001 Magnus Damm <damm@opensource.se>  
Copyright (C) 1992 A. V. Le Blanc (LeBlanc@mcc.ac.uk)  
Copyrihgt (c) 2008 Timo Teras <timo.teras@iki.fi>  
Busybox version (C) 2007 by Tito Ragusa <farmatito@tiscali.it>  
documentation, are copyright (C) 1996-2006 Julian R Seward. All rights reserved.  
Copyright (C) 1999,2000,2001 by Mark Whitley <markw@codepoet.org>  
Copyright 1991-1997 Miquel van Smoorenburg.  
Copyright (C) 2009 Maksym Kryzhanovskyy <xmaks@email.cz>  
Copyright (C) 1999 David Mosberger-Tang <davidm@hpl.hp.com>  
Copyright (C) 2001 by Glenn McGrath  
Copyright (C) 1992, 1996 Free Software Foundation, Inc.  
Copyright (c) 2004 Alexander Guy <alexander.guy@andern.org>  
Copyright 1994-1996 Donald Becker  
(C) 2006 Jac Goudsmit added -o option  
RFC1035 domain compression routines (C) 2007 Gabriel Somlo <somlo at cmu.edu>  
Copyright (C) 2006 by Rob Sullivan, with ideas from code by Walter Harms  
Copyright (c) 2011 Pere Orga <gotrunks@gmail.com>  
Copyright (C) 1998-2002 Richard Gooch  
Copyright 2005 Frank Sorenson <frank@tuxrocks.com>  
Copyright (C) 2017 by Denys Vlasenko <vda.linux@googlemail.com>  
Copyright (C) 2011 Marek Bečka <yuen@klacno.sk>  
Copyright 1997,.. by Peter Hanecak <hanecak@megaloman.sk>.  
Copyright (C) 1993, 1994 Remy Card <card@masi.ibp.fr>  
Copyright (C) 2006 by Yoshinori Sato <ysato@users.sourceforge.jp>  
Copyright (C) 2006 Michael Opdenacker <michael@free-electrons.com>  
Copyright 2005 Rob Landley <rob@landley.net>  
Copyright (c) 1990 The Regents of the University of California. All rights reserved.  
Copyright (c) 2008 Nuovation System Designs, LLC Grant Erickson <gerickson@nuovations.com>  
SELinux support: (c) 2007 by Yuichi Nakamura <ynakam@hitachisoft.jp>  
Copyright (C) 2010 Malek Degachi <malek-degachi@laposte.net>  
Copyright 1994 Matthew Dillon (dillon@apollo.west.oic.com)  
Copyright (C) 2007 Natanael Copa <natanael.copa@gmail.com>  
Copyright 2006, Rob Landley <rob@landley.net>  
Copyright (C) 89, 91, 1995-2006 Free Software Foundation, Inc.  
Copyright (C) 2007 Tito Ragusa <farmatito@tiscali.it>  
Copyright (C) 2002 Edward Betts <edward@debian.org>  
Busybox port by Vladimir Oleynik (C) 2001-2005 <dzo@simtreas.ru>  
copyright (C) 1990-1996 Free Software Foundation, Inc.  
Copyright (C) 2014 Tito Ragusa <farmatito@tiscali.it>  
Copyright (C) 1996-2002 Free Software Foundation, Inc.  
Copyright 2008-2009 Matt Mackall <mpm@selenic.com>  
Copyright (C) 1995 Bruce Perens  
Copyright (C) 1994-1998 Andries E. Brouwer <aeb@cwi.nl>  
Copyright (c) 2002 AYR Networks, Inc.  
Copyright (C) 2001 Manuel Novoa III  
Copyright (C) 2003 Glenn McGrath  
IPv6 support, many bug fixes by Denys Vlasenko (c) 2008  
Copyright (C) 1998 Enrique Zanardi <ezanardi@ull.es>  
Copyright (C) 2005 by Rob Landley <rob@landley.net>  
Busybox port by Vladimir Oleynik (C) 2005 <dzo@simtreas.ru>  
Copyright (c) 1986-2003 may safely be consumed by a BSD or GPL license.  
Copyright (C) 2017 Denys Vlasenko  
Copyright (C) 1999 Hewlett-Packard Co  
Copyright (C) 2007 Denys Vlasenko <vda.linux@googlemail.com>  
Copyright (c) 2006-2007 Bernhard Reutner-Fischer  
Copyright (C) 1994-1996 Charles L. Blake.  
Original code (c) 2018 Gavin D. Howard and contributors  
Copyright (C) 1991,92,95,96,97,98,99,2001 Free Software Foundation, Inc.  
Copyright (C) 1995-1999 Free Software Foundation, Inc.  
Copyright (c) 1988, 1989, 1991, 1994, 1995, 1996, 1997, 1998, 1999, 2000 The Regents of the University of California. All rights reserved.  
Copyright (C) 2014 Isaac Dunham <ibid.ag@gmail.com>  
Copyright (C) 2000, Jan-Derk Bakker (J.D.Bakker@its.tudelft.nl)  
Copyright (C) 2002-2005 Free Software Foundation, Inc.  
Copyright (C) 2002-2005 Roman Zippel <zippel@linux-m68k.org>  
Copyright (C) 1998, 1999 Charles P. Wright  
Copyright (C) tons of folks. Tracking down who wrote what isnt something Im going to worry about... If you wrote something here, please feel free to acknowledge your work.  
Copyright (C) 2017 Denys Vlasenko <vda.linux@googlemail.com>  
Added -G option Tito Ragusa (C) 2008 for SUSv3.  
Copyright (C) 2006 Rob Landley <rob@landley.net>  
Copyright (c) 1987, 1988 Regents of the University of California.  
Copyright (c) 1989, 1993, 1994 The Regents of the University of California. All rights reserved.  
Copyright (C) 2018 Denys Vlasenko  
utftp: Copyright (C) 1999 Uwe Ohse <uwe@ohse.de>  
Copyright 2005 Rob Landley <rob@landley.net  
Copyright (C) 2007 Markus Franz Xaver Johannes Oberhumer  
Copyright (C) 1987, 1989, 1991 Free Software Foundation, Inc.  
Copyright (C) 1999,2000,2001 by Lineo, inc.  
Copyright (C) 2008 Tito Ragusa <farmatito@tiscali.it>  
Copyright (C) 2005 Odd Arild Olsen (oao at fibula dot no)  
Copyright (C) 2001 Matt Kraai <kraai@alumni.carnegiemellon.edu>.  
Copyright (C) 2007 by Tito Ragusa <farmatito@tiscali.it>  
Copyright 2006 Bernhard Reutner-Fischer  
Copyright (C) 2003 by Rob Landley <rob@landley.net>, Joey Hess  
Copyright (C) 2003-2006 Vladimir Oleynik <dzo@simtreas.ru>  
Copyright (C) 2010 Bradley M. Kuhn <bkuhn@ebb.org>  
Copyright (C) 1991,92,95,96,97,98,99,2000,01 Free Software Foundation, Inc.  
Copyright (c) 1980 The Regents of the University of California. All rights reserved.  
Copyright (C) 2010 Denys Vlasenko <vda.linux@googlemail.com>  
Copyright (C) 2000,2001 Matt Kraai <kraai@alumni.carnegiemellon.edu>  
Copyright (C) 2001 by Emanuele Aina <emanuele.aina@tiscali.it>  
Copyright (c) 1983,1991 The Regents of the University of California.  
Copyright (C) 2008 Denys Vlasenko  
Copyright (C) 2003 Glenn L. McGrath  
Copyright (C) 2006 Rob Landley  
Copyright (C) 2010 by Grigory Batalov <bga@altlinux.org>  
Copyright (C) 1996, 1997, 1998, 1999 Free Software Foundation, Inc.  
Port to BusyBox (c) 2007 by Yuichi Nakamura <ynakam@hitachisoft.jp>  
circular buffer Copyright (C) 2000 by Gennady Feldman <gfeldman@gena01.com>  
Copyright (C) 1991, 1992 Linus Torvalds  
Copyright (C) 2005 Bernhard Reutner-Fischer  
Copyright 1996, 1997 Linux International.  
Copyright (c) 1999 Anthony Towns <aj@azure.humbug.org.au>  
Copyright 2003, Glenn McGrath  
Copyright (C) 1993-2002 Werner Almesberger  
Copyright (C) 2001 Matt Kraai <kraai@alumni.carnegiemellon.edu>  
Copyright (C) 1999 by Randolph Chung <tausq@debian.org>  
Copyright (C) 2005 by Erik Andersen <andersen@codepoet.org>  
Copyright 2011, Denys Vlasenko  
Copyright (C) 2008,2009 Denys Vlasenko <vda.linux@googlemail.com>  
Copyright (C) 2000 by Karl M. Hegbloom <karlheg@debian.org>  
Copyright (C) 2017 by <assafgordon@gmail.com>  
Copyright (C) 1999,2000 by Lineo, inc. and John Beppu  
Copyright (c) 2009 Bernhard Reutner-Fischer  
Copyright 1998 by Albert Cahalan; all rights reserved.  
Copyright (C) 2007 by Stephane Billiart <stephane.billiart@gmail.com>  
Copyright (c) University of Delaware 1992-2009  
Copyright (C) 2006 - 2007 KaiGai Kohei <kaigai@kaigai.gr.jp>  
Copyright (C) 2008 Bernhard Reutner-Fischer  
Copyright (C) 2002 by Bart Visscher <magick@linux-fan.com>  
Copyright (C) 2004 Erik Andersen <andersen@codepoet.org>  
Copyright (C) 2000 by Gennady Feldman <gfeldman@gena01.com>  
Copyright (C) 2004 by Rob Landley <rob@landley.net>  
Copyright (C) 92, 1995-2004 Free Software Foundation, Inc.  
Copyright (C) 91, 1995-2002 Free Software Foundation, Inc.  
Jakub Jelinek (c) 1995 Erik Andersen <andersen@codepoet.org> (Majorly adjusted for busybox)  
Copyright (C) 2015 by Ari Sundholm <ari@tuxera.com>  
Copyright (C) 2003 Bernardo Innocenti <bernie@develer.com>  
Copyright (C) 2000,2001 Larry Doolittle <larry@doolittle.boa.org>  
Copyright (c) 1997-2005 Herbert Xu <herbert@gondor.apana.org.au>  
Copyright (C) (C) 2003 Vladimir Oleynik <dzo@simtreas.ru>  
Copyright (C) 2005 by Rob Sullivan <cogito.ergo.cogito@gmail.com>  
Copyright (C) 1992-1998 Michael K. Johnson  
Copyright (C) 2017 Markus Gothe <nietzsche@lysator.liu.se>  
Copyright (C) 2006 Denys Vlasenko  
Copyright (C) 2002 by Glenn McGrath  
Copyright (C) 2004 Markus Franz Xaver Johannes Oberhumer  
Modified by Vladimir Oleynik <dzo@simtreas.ru> (C) 2003 - correct - option usage - multiple -u unsetenv support - GNU long option support - use xfuncerrorretval  
Copyright (C) 2000,2001 by Matt Kraai <kraai@alumni.carnegiemellon.edu>  
Copyright 2007 Rob Landley <rob@landley.net>  
Copyright (C) 1995, 1996, 1997, 1998, 2000 Free Software Foundation, Inc.  
Copyright (C) Vladimir N. Oleynik <dzo@simtreas.ru>  
Copyright (C) 2008 Nokia Corporation. All rights reserved.  
Copyright 2005 H. Peter Anvin Busyboxed (2014) by Pascal Bellard <pascal.bellard@ads-lu.com>  
Copyright (C) 2005 by Robert Sullivan <cogito.ergo.cogito@gmail.com>  
Copyright 2007 KaiGai Kohei <kaigai@kaigai.gr.jp>  
Copyright (C) 2003 Markus Franz Xaver Johannes Oberhumer  
Copyright (C) 2008 Denys Vlasenko.  
Copyright (C) 2004 by Ed Clark  
Copyright (C) 2001,2002 Vladimir Oleynik <dzo@simtreas.ru> (initial bb port)  
Copyright (c) by a whole pile of folks:  
Copyright (C) 2002-2005 Sam Ravnborg <sam@ravnborg.org>  
Copyright 2007 Tito Ragusa <farmatito@tiscali.it>  
Copyright 2003 Tito Ragusa <farmatito@tiscali.it>  
Copyright (C) 2006 by Robert Sullivan <cogito.ergo.cogito@hotmail.com>  
Copyright 2004 Tony J. White  
Copyright (c) 1992 Roger Binns  
Copyright (C) 2005 Manuel Novoa III <mjn3@codepoet.org>  
Copyright (C) 2003-2004 Erik Andersen  
Copyright (C) 2002 Jeff Angielski, The PTR Group <jeff@theptrgroup.com>  
Copyright (C) 2005 Roberto A. Foglietta (me@roberto.foglietta.name)  
Copyright (C) 2007 Loic Grenie <loic.grenie@gmail.com>  
Copyright (c) 1992 Branko Lankester  
Copyright 1997, 2000, 2001 Larry Doolittle <LRDoolittle@lbl.gov>  
Copyright 1999-2003 Donald Becker and Scyld Computing Corporation.  
Copyright (C) 2009 by Dan Fandrich <dan@coneharvesters.com>, et. al.  
Copyright (C) 2006 Bernhard Reutner-Fischer <busybox@busybox.net>  
Copyright 2005 by Rob Landley  
Copyright (C) 2005 Tito Ragusa <farmatito@tiscali.it>  
Copyright (c) 1988, 1993, 1994 The Regents of the University of California. All rights reserved.  
Copyright (C) 2005 by Mike Frysinger <vapier@gentoo.org>  
Copyright (C) 2019 Denys Vlasenko <vda.linux@googlemail.com>  
Copyright (c) 2008 Pascal Bellard  
Copyright (C) 2014 by Bartosz Golaszewski <bartekgola@gmail.com>  
Copyright (C) 2008 Michele Sanges <michele.sanges@gmail.com>  
Copyright (C) 2000 Markus Franz Xaver Johannes Oberhumer  
(C) 1991 Linus Torvalds.  
Copyright (C) 2005 W. Michael Petullo <mike@flyn.org>  
Copyright (C) 1999-2005 Igor Pavlov  
Copyright (C) 2001 by Gennady Feldman <gfeldman@gena01.com>.  
Copyright (C) 2002 Robert Griebl <griebl@gmx.de>  
Copyright (C) 2002 by Dmitry Zakharov <dmit@crp.bank.gov.ua>  
Copyright (C) 2011-2017 Denys Vlasenko.  
Copyright (C) 2018 Sven-Göran Bergh <sgb@systemaxion.se>  
Copyright (C) 2008 by Denys Vlasenko <vda.linux@gmail.com>  
Copyright (c) 2013 INSIDE Secure Corporation  
Copyright (C) 2000 Edward Betts <edward@debian.org>.  
Copyright (c) 2017 Denys Vlasenko <vda.linux@gmail.com>  
Copyright (C) 2006 by Jason Schoon <floydpink@gmail.com>  
Copyright (c) 2002 Manuel Novoa III <mjn3@codepoet.org>  
Copyright (c) 2003 Todd C. Miller <Todd.Miller@courtesan.com>  
Copyright (C) 1999-2004 by Erik Andersen <andersen@codepoet.org>  
Copyright (C) 2006 by Jan Kiszka <jan.kiszka@web.de>  
Copyright (C) 2001 by Michael Habermann <mhabermann@gmx.de>  
Copyright (C) 1999,2000,2001 by Lineo, inc. and John Beppu  
Copyright (C) Manuel Novoa III <mjn3@codepoet.org>  
Copyright (c) Michiel Huisjes  
Copyright 2010, Denys Vlasenko  
Copyright (c) 2001 Aaron Lehmann <aaronl@vitelus.com>  
Copyright (C) 2003,2004 by Rob Landley <rob@landley.net>  
Copyright (C) 1991-2, RSA Data Security, Inc. Created 1991. All rights reserved.  
Copyright (c) 1987,1997, Prentice Hall All rights reserved.  
Copyright (C) 2001 Matt Krai  
Based in part on code from sash, Copyright (c) 1999 by David I. Bell Permission has been granted to redistribute this code under GPL.  
Copyright (C) 2005-2006 by Rob Landley <rob@landley.net>  
circular buffer Copyright (C) 2001 by Gennady Feldman <gfeldman@gena01.com>  
Copyright (C) 2010 Sergey Naumov <sknaumov@gmail.com>  
Copyright (c) 1999 by David I. Bell Permission is granted to use, distribute, or modify this source, provided that this copyright notice remains intact.  
Copyright (C) 2003 Manuel Novoa III <mjn3@codepoet.org>  
Copyright (c) 1991, 1993 The Regents of the University of California. All rights reserved.  
Copyright (C) 1984, 1989, 1990, 2000, 2001, 2002, 2003, 2004 Free Software Foundation, Inc.  
Copyright (C) 2001, 2002 Matt Kraai  
Copyright (C) 2005 Tobias Klauser <tklauser@access.unizh.ch>  
Copyright (C) 2000 by Daniel Jacobowitz Written by Daniel Jacobowitz <dan@debian.org>  
Copyright (C) 2003 by Tito Ragusa <farmatito@tiscali.it>  
Copyright (C) 2004 Free Software Foundation, Inc.  
Copyright (C) 2010 Marek Polacek <mmpolacek@gmail.com>  
Copyright (C) Arne Bernin <arne@matrix.loopback.org>  
Copyright (C) 2001,2002 by Laurence Anderson  
Copyright (C) 2014 Bartosz Golaszewski <bartekgola@gmail.com>  
Based on GNU gzip Copyright (C) 1992-1993 Jean-loup Gailly.  
Copyright (C) 2002-2003 Romain Lievin <roms@tilp.info>  
Copyright (C) 2001, 2002, 2003, 2004, 2005 Free Software Foundation.  
Copyright (C) 2006-2017 wolfSSL Inc.  
- by Mark Lord (C) 1994-2002 -- freely distributable  
Copyright (C) 2016 by Bartosz Golaszewski <bartekgola@gmail.com>  
copyright (c) 2001 by glenn mcgrath  
Modified by Vladimir Oleynik <dzo@simtreas.ru> (c) 2001-2005 to be used in busybox and size optimizations, rewrote arith (see notes to this), added locale support, rewrote dynamic variables.  
Copyright (C) 2003 by Glenn McGrath SELinux support: by Yuichi Nakamura <ynakam@hitachisoft.jp>  
Copyright (C) 2005 Markus Franz Xaver Johannes Oberhumer  
Copyright (C) KaiGai Kohei <kaigai@ak.jp.nec.com>  
Fix for SELinux Support:(c)2007 Hiroshi Shinji <shiroshi@my.email.ne.jp>  
Copyright (C) 1993 Rick Sladkey <jrs@world.std.com>  
Copyright (C) 2010 by Matheus Izvekov <mizvekov@gmail.com>  
Copyright (C) 2008 by Vladimir Dronnikov <dronnikov@gmail.com>  
Copyright (C) 2006 Gabriel Somlo <somlo at cmu.edu>  
Copyright (C) 2006 Tito Ragusa <farmatito@tiscali.it>  
Copyright (C) 2000, 2001 Sterling Huxley <sterling@europa.com>  
Copyright (C) 2010 Timo Teras <timo.teras@iki.fi>  
Busybox port author: Adam Tkac (C) 2009 <vonsch@gmail.com>  
Copyright (C) 2003 by Glenn McGrath  
mounted partition. Code adapted from e2fsck, Copyright (C) 1993, 1994 Theodore Tso. Also licensed under GPL.  
Copyright (C) 2002 Mario Strasser <mast@gmx.net>, Zuercher Hochschule Winterthur, Netbeat AG Upstream has GPL v2 or later  
(C) Copyright 2000, Axis Communications AB, LUND, SWEDEN  
Copyright (C) 2010 Lauri Kasanen  
Copyright (C) 2001 by Laurence Anderson  
Copyright 2001 Glenn McGrath.  
Copyright (C) 2012 S-G Bergh <sgb@systemasis.org>  
Copyright (C) 2005 by Marc Leeman <marc.leeman@barco.com>  
Copyright (C) 1990, 91, 92, 93, 96 Free Software Foundation, Inc.  
Copyright (C) 2008 Darius Augulis <augulis.darius@gmail.com>  
Copyright (C) 2006 Aurelien Jacobs <aurel@gnuage.org>  
Copyright (C) 2002 Glenn McGrath  
Patrick McHardy <kaber@trash.net>  
Copyright (c) 2008 Denys Vlasenko  
Copyright (C) 2006 by Rob Sullivan <cogito.ergo.cogito@gmail.com>  
Copyright (C) Andre Masella <andre@masella.no-ip.org>  
Copyright (c) 1989, 1991, 1993, 1994 The Regents of the University of California. All rights reserved.  
Copyright 2002 by Kai Germaschewski <kai.germaschewski@gmx.de>  
Copyright (C) 2003 Paul Sheer  
Copyright (c) 2007 Denys Vlasenko <vda.linux@googlemail.com>  
2004,2006 (C) Vladimir Oleynik <dzo@simtreas.ru> -  
Copyright (C) 2003-2005 Vladimir Oleynik <dzo@simtreas.ru>  
Uncompress applet for busybox (c) 2002 Glenn McGrath  
Copyright (C) 2009 Malek Degachi <malek-degachi@laposte.net>  
Copyright (C) 1996-1999 Guy Maor <maor@debian.org>  
Copyright (C) 2006 Bernhard Reutner-Fischer  
Copyright (C) 2008 Timo Teras <timo.teras@iki.fi>  
Hacked by Tito Ragusa (C) 2004 to handle usernames of whatever length and to be more similar to GNU id.  
Copyright (C) 2007 Bernhard Reutner-Fischer  
the GPL, and is (c) 1995-1999 by: Geert Uytterhoeven (Geert.Uytterhoeven@cs.kuleuven.ac.be)  
Copyright 2002 Andi Kleen, SuSE Labs.  
Copyright (C) 2009 Denys Vlasenko  
Port to Busybox Copyright (C) 2006 Jesse Dutton <jessedutton@gmail.com>  
Based on GNU gzip v1.2.4 Copyright (C) 1992-1993 Jean-loup Gailly.  
Copyright (c) 2004 Nicholas Miell ported from procps by Pere Orga <gotrunks@gmail.com> 2011  
Original code copyright (c) 2018 Gavin D. Howard and contributors.  
Copyright (c) 1994 David Burren All rights reserved.  
Copyright (C) [2003] by [Matteo Croce] <3297627799@wind.it>  
Copyright (C) 1996 Brian Candler <B.Candler@pobox.com>  
Copyright 2012, Denys Vlasenko  
Copyright (c) 1999, 2000 The ht://Dig Group char FASTFUNC strcasestr(const char s, const char pattern)  
Copyright 2006 Rob Landley <rob@landley.net>  
Copyright (C) 2010 Kevin Cernekee <cernekee@gmail.com>  
Copyright (C) 2005 by Tito Ragusa <tito-wolit@tiscali.it>  
Copyright (c) 2006 Bernhard Reutner-Fischer  
Copyright (c) 2001-2006, Gerrit Pape All rights reserved.  
Copyright (C) many different people. If you wrote this, please acknowledge your work.  
Copyright (c) 1983, 1993 The Regents of the University of California. All rights reserved.  
Copyright (C) 1990-1999 Free Software Foundation, Inc.  
Copyright 1989 - 1991, Julianne Frances Haugh <jockgrrl@austin.rr.com>  
Copyright (C) 2003 Vladimir Oleynik <dzo@simtreas.ru>  
Copyright (C) 2009 Denys Vlasenko.  
Copyright (C) 2014 by Fugro Intersite B.V. <m.stam@fugro.nl>  
Copyright (C) 1996 Jeff Noxon <jeff@router.patch.net>,  
Copyright (C) 2008 by Denys Vlasenko <vda.linux@googlemail.com>  
Copyright (C) 2010 Nokia Corporation. All rights reserved.  
Copyright (C) 2008, BusyBox Team. -solar 4/26/08  
Copyright (C) 2000 by Glenn McGrath  
Copyright (C) 2000-2001 Jeff Tranter (tranter@pobox.com)  
Copyright (C) 1992, 1993, 1994, 1995 Remy Card (card@masi.ibp.fr)  
atftp: Copyright (C) 2000 Jean-Pierre Lefebvre <helix@step.polymtl.ca>  
Copyright (c) 1989 The Regents of the University of California.  
Copyright (C) 2000 Lennert Buytenhek  
Copyright (C) 2005 Free Software Foundation, Inc.  
Copyright (C) 2007 Denys Vlasenko  
Copyright (C) 1994,1996 Alessandro Rubini (rubini@ipvvis.unipv.it)  
Copyright (C) 1996 Markus Franz Xaver Johannes Oberhumer All Rights Reserved.  
Copyright (C) 2006 Markus Franz Xaver Johannes Oberhumer  
Copyright (C) 2001 Markus Franz Xaver Johannes Oberhumer  
Copyright (C) 2002 Markus Franz Xaver Johannes Oberhumer  
Copyright (c) 2013-2015 INSIDE Secure Corporation  
Copyright (c) 2003-2004 Erik Andersen <andersen@codepoet.org>  
(C) 2003 Vladimir Oleynik <dzo@simtreas.ru>  
Copyright (C) 2008 by <u173034@informatik.uni-oldenburg.de>  
Copyright (c) 2008 Bernhard Reutner-Fischer (initial depmod code)  
(C) 2009 Stefan Seyfried <seife@sphairon.com>  
Copyright (C) 2003-2004 by Erik Andersen <andersen@codepoet.org>  
Copyright (C) 2009 Vladimir Dronnikov <dronnikov@gmail.com>  
Copyright (C) 2013 Rolf Fokkens <rolf@fokkens.nl>  
Copyright (c) 2002 by David I. Bell Permission is granted to use, distribute, or modify this source, provided that this copyright notice remains intact.  
Reworked by (C) 2002 Vladimir Oleynik <dzo@simtreas.ru>  
Copyright (C) 2004 Peter Willis <psyphreak@phreaker.net>  
Copyright (c) 1990 The Regents of the University of California.  
Copyright (c) 2009 Denys Vlasenko <vda.linux@googlemail.com>  
Modified by Paul Mundt <lethal@linux-sh.org> (c) 2004 to support dynamic variables.  
Copyright (C) 1999 Markus Franz Xaver Johannes Oberhumer

**License:** GPLv2

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.  
  
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION  
  
0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".  
Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.  
  
1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.  
You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.  
  
2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:  
a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.  
b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.  
c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)  
These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.  
  
Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.  
  
In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.  
  
3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:  
a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,  
b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,  
c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)  
The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.  
  
If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.  
  
4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.  
5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.  
6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.  
7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.  
If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.  
  
It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.  
  
This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.  
  
8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.  
9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.  
Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.  
  
10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.  
NO WARRANTY  
  
11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.  
12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.  
END OF TERMS AND CONDITIONS  
  
How to Apply These Terms to Your New Programs  
  
If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.  
  
To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.  
  
<one line to give the program's name and 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.

**Written Offer**

This product contains software whose rights holders license it on the terms of the GNU General Public License, version 2 (GPLv2) and/or other open source software licenses. We will provide you and any third party with the source code of the software licensed under an open source software license if you send us a written request by mail or email to the following addresses:

foss@huawei.com

detailing the name of the product and the firmware version for which you need the source code and indicating how we can contact you.

Please note you need to make a payment before you obtain the complete Corresponding Source Code from us. For how much you will pay and how we will deliver the complete Corresponding Source Code to you, we will further discuss it by mail or email.

This offer is valid to anyone in receipt of this information.

**This offer is valid for three years from the moment we distributed the product or firmware .**