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

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#### APPENDIX A

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*
* @(#)queue.h 8.5 (Berkeley) 8/20/94*/

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* http://www.ncsa.uiuc.edu
*
-----
*
* stdio.c
* by Mark Gates <mgates@nlanr.net>
* and Ajay Tirumalla <tirumalla@ncsa.uiuc.edu>
* -----
* input and output numbers, converting with kilo, mega, giga
* ----- */

```

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|

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```
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ASM: /* SPDX-License-Identifier: <SPDX License Expression> */
scripts: # SPDX-License-Identifier: <SPDX License
Expression> .rst: .. SPDX-License-Identifier: <SPDX License
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```

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|

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Other examples using WITH exceptions found in the 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. For details see the point `Exceptions`\_ in the chapter `License identifiers`\_.

OR should be used if the file is dual licensed and only one license is to be selected. For example, some dtso files are available under dual licenses::

```
// SPDX-License-Identifier: GPL-2.0 OR BSD-3-Clause
```

Examples from the kernel for license expressions in dual licensed files::

```
// SPDX-License-Identifier: GPL-2.0 OR MIT
// SPDX-License-Identifier: GPL-2.0 OR BSD-2-Clause
// SPDX-License-Identifier: GPL-2.0 OR Apache-2.0
// SPDX-License-Identifier: GPL-2.0 OR MPL-1.1
// SPDX-License-Identifier: (GPL-2.0 WITH Linux-syscall-note) OR MIT
// SPDX-License-Identifier: GPL-1.0+ OR BSD-3-Clause OR OpenSSL
```

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 the kernel, 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+
```

License identifiers  
-----

The licenses currently used, as well as the licenses for code added to the kernel, can be broken down into:

#### 1. `\_Preferred licenses`:

Whenever possible these licenses should be used as they are known to be fully compatible and widely used. These licenses are available from the directory:: LICENSES/preferred/ in the kernel source tree.

The files in this directory contain the full license text and `Metatags`\_. The file names are identical to the SPDX license identifier which shall be used for the license in source files.

Examples::

```
LICENSES/preferred/GPL-2.0
```

Contains the GPL version 2 license text and the required metatags::

```
LICENSES/preferred/MIT
```

Contains the MIT license text and the required metatags

`__Metatags`:`

The following meta tags must be available in a license file:

- Valid-License-Identifier:

One or more lines which declare which License Identifiers are valid inside the project to reference this particular license text. Usually this is a single valid identifier, but e.g. for licenses with the 'or later' options two identifiers are valid.

- SPDX-URL:

The URL of the SPDX page which contains additional information related to the license.

- Usage-Guidance:

Freeform text for usage advice. The text must include correct examples for the SPDX license identifiers as they should be put into source files according to the ``License identifier syntax`__ guidelines.` -

License-Text:

All text after this tag is treated as the original license text

File format examples::

Valid-License-Identifier: GPL-2.0

Valid-License-Identifier: GPL-2.0+

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

For 'GNU General Public License (GPL) version 2 or any later version' use: `SPDX-License-Identifier: GPL-2.0+`

License-Text:

Full license text

::

SPDX-License-Identifier: MIT

SPDX-URL: <https://spdx.org/licenses/MIT.html>

Usage-Guide:

To use this license in source code, put the following SPDX tag/value pair into a comment according to the placement guidelines in the licensing rules documentation. `SPDX-License-`

`Identifier: MIT`

License-Text:

Full license text

|

2. Deprecated licenses:

These licenses should only be used for existing code or for importing code from a different project. These licenses are available from the directory:: `LICENSES/deprecated/` in the kernel source tree.

The files in this directory contain the full license text and ``Metatags`__`. The file names are identical to the SPDX license identifier which shall be used for the license in source files.

Examples::

LICENSES/deprecated/ISC

Contains the Internet Systems Consortium license text and the required metatags::

LICENSES/deprecated/GPL-1.0

Contains the GPL version 1 license text and the required metatags.

Metatags:

The metatag requirements for 'other' licenses are identical to the requirements of the `Preferred licenses`\_.

File format example::

Valid-License-Identifier: ISC

SPDX-URL: <https://spdx.org/licenses/ISC.html>

Usage-Guide:

Usage of this license in the kernel for new code is discouraged and it should solely be used for importing code from an already existing project.

To use this license in source code, put the following SPDX tag/value pair into a comment according to the placement guidelines in the licensing rules documentation. SPDX-License-Identifier: ISC

License-Text:

Full license text

|

### 3. Dual Licensing Only

These licenses should only be used to dual license code with another license in addition to a preferred license. These licenses are available from the directory:: LICENSES/dual/ in the kernel source tree.

The files in this directory contain the full license text and `Metatags`\_. The file names are identical to the SPDX license identifier which shall be used for the license in source files.

Examples::

LICENSES/dual/MPL-1.1

Contains the Mozilla Public License version 1.1 license text and the required metatags::

LICENSES/dual/Apache-2.0

Contains the Apache License version 2.0 license text and the required metatags. Metatags:

The metatag requirements for 'other' licenses are identical to the requirements of the `Preferred licenses`\_.

File format example::

Valid-License-Identifier: MPL-1.1

SPDX-URL: <https://spdx.org/licenses/MPL-1.1.html>

Usage-Guide:

Do NOT use. The MPL-1.1 is not GPL2 compatible. It may only be used for dual-licensed files where the other license is GPL2 compatible. If you end up using this it MUST be used together with a GPL2 compatible license using "OR".



To use the Mozilla Public License version 1.1 put the following SPDX tag/value pair into a comment according to the placement guidelines in the licensing rules documentation: SPDX-License-Identifier: MPL-1.1  
License-Text:  
Full license text

|

#### 4. `_`Exceptions``:

Some licenses can be amended with exceptions which grant certain rights which the original license does not. These exceptions are available from the directory:: LICENSES/exceptions/

in the kernel source tree. The files in this directory contain the full exception text and the required ``Exception Metatags`_``.

Examples::

LICENSES/exceptions/Linux-syscall-note

Contains the Linux syscall exception as documented in the COPYING file of the Linux kernel, which is used for UAPI header files.

e.g. `/* SPDX-License-Identifier: GPL-2.0 WITH Linux-syscall-note */::`

LICENSES/exceptions/GCC-exception-2.0

Contains the GCC 'linking exception' which allows to link any binary independent of its license against the compiled version of a file marked with this exception. This is required for creating runnable executables from source code which is not compatible with the GPL.

`_`Exception Metatags``:

The following meta tags must be available in an exception file:

- `SPDX-Exception-Identifier`:

One exception identifier which can be used with SPDX license identifiers.

- `SPDX-URL`:

The URL of the SPDX page which contains additional information related to the exception.

- `SPDX-Licenses`:

A comma separated list of SPDX license identifiers for which the exception can be used.

- `Usage-Guidance`:

Freeform text for usage advice. The text must be followed by correct examples for the SPDX license identifiers as they should be put into source files according to the ``License identifier syntax`_` guidelines`. -  
`Exception-Text`:

All text after this tag is treated as the original exception text

File format examples::

`SPDX-Exception-Identifier: Linux-syscall-note`

`SPDX-URL: https://spdx.org/licenses/Linux-syscall-note.html`

`SPDX-Licenses: GPL-2.0, GPL-2.0+, GPL-1.0+, LGPL-2.0, LGPL-2.0+, LGPL-2.1, LGPL-2.1+`

`Usage-Guidance:`

This exception is used together with one of the above SPDX-Licenses to mark user-space API (uapi) header files so they can be included into non GPL compliant user-space application code. To use this exception add it with the keyword WITH to one of the identifiers in the SPDX-Licenses tag:  
SPDX-License-Identifier: <SPDX-License> WITH Linux-syscall-note  
Exception-Text:  
Full exception text

::

SPDX-Exception-Identifier: GCC-exception-2.0  
SPDX-URL: <https://spdx.org/licenses/GCC-exception-2.0.html> SPDX-Licenses: GPL-2.0, GPL-2.0+  
Usage-Guidance:  
The "GCC Runtime Library exception 2.0" is used together with one of the above SPDX-Licenses for code imported from the GCC runtime library.  
To use this exception add it with the keyword WITH to one of the identifiers in the SPDX-Licenses tag:  
SPDX-License-Identifier: <SPDX-License> WITH GCC-exception-2.0  
Exception-Text:  
Full exception text

All SPDX license identifiers and exceptions must have a corresponding file in the LICENSES subdirectories. This is required to allow tool verification (e.g. checkpatch.pl) and to have the licenses ready to read and extract right from the source, which is recommended by various FOSS organizations, e.g. the `FSFE REUSE initiative <<https://reuse.software/>>`\_.

\_\_MODULE\_LICENSE`  
-----

Loadable kernel modules also require a MODULE\_LICENSE() tag. This tag is neither a replacement for proper source code license information (SPDX-License-Identifier) nor in any way relevant for expressing or determining the exact license under which the source code of the module is provided.

The sole purpose of this tag is to provide sufficient information whether the module is free software or proprietary for the kernel module loader and for user space tools.

The valid license strings for MODULE\_LICENSE() are:

=====  
"GPL" Module is licensed under GPL version 2. This does not express any distinction between GPL-2.0-only or GPL-2.0-or-later. The exact license information can only be determined via the license information in the corresponding source files.

"GPL v2" Same as "GPL". It exists for historic reasons.

"GPL and additional rights" Historical variant of expressing that the module source is dual licensed under a GPL v2 variant and MIT license. Please do not use in new code.

"Dual MIT/GPL" The correct way of expressing that the module is dual licensed under a GPL v2 variant or MIT license choice.

"Dual BSD/GPL" The module is dual licensed under a GPL v2 variant or BSD license choice. The exact variant of the BSD license can only be determined via the license information in the corresponding source files.

"Dual MPL/GPL" The module is dual licensed under a GPL v2 variant or Mozilla Public License (MPL) choice. The exact variant of the MPL license can only be determined via the license information in the corresponding source files.

"Proprietary" The module is under a proprietary license. This string is solely for proprietary third party modules and cannot be used for modules which have their source code in the kernel tree. Modules tagged that way are tainting the kernel with the 'P' flag when loaded and the kernel module loader refuses to link such modules against symbols which are exported with EXPORT\_SYMBOL\_GPL().

=====

## [lpwr-int 0.1](#)

### **GPLv2**

Home page: [NOASSERTION](#)

Download: [NOASSERTION](#)

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## [lrzsz 0.12.20](#)

### **GPL-2.0-or-later**

Home page: <http://www.ohse.de/uwe/software/lrzsz.html>

Download: <http://www.ohse.de/uwe/releases/lrzsz-0.12.20.tar.gz>

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## [Isof 4.94.0](#)

### **Spencer-94**

Home page: <http://people.freebsd.org/~abe/>

Download: <git://github.com/Isof-org/Isof;branch=master;protocol=https>

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```

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 *
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 */

```

## [lzo 2.10](#)

### **GPL-2.0-or-later**

Home page: <http://www.oberhumer.com/opensource/lzo/>

Download: <http://www.oberhumer.com/opensource/lzo/download/lzo-2.10.tar.gz>

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## [m4 1.4.9](#)

### **GPL-3.0-only**

Home page: <https://www.gnu.org/software/m4/m4.html>

Download: <https://ftp.gnu.org/gnu/m4/m4-1.4.19.tar.gz>

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## [make 4.3](#)

### **GPL-3.0-only**

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## [memtester 4.5.1](#)

### **GPL-2.0-only**

Home page: <http://pyropus.ca/software/memtester/>

Download: <http://pyropus.ca/software/memtester/old-versions/memtester-4.5.1.tar.gz>

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## [mmc-utils 0.1](#)

### **GPL-2.0-only**

Home page: <http://git.kernel.org/cgit/linux/kernel/git/cjb/mmc-utils.git/>

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*
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* 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.)
```

## [mtd-utils 2.1.4](#)

### **GPL-2.0-or-later**

Home page: <http://www.linux-mtd.infradead.org/>

Download: <git://git.infradead.org/mtd-utils.git;branch=master>

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```
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```

## [nano 6.2](#)

### **GPL-3.0-only**

Home page: <http://www.nano-editor.org/>

Download: <https://nano-editor.org/dist/v6/nano-6.2.tar.xz>

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## [ncurses 6.3.20220423](#)

### **MIT**

Home page: <http://www.gnu.org/software/ncurses/ncurses.html>

### **Download:**

<git://salsa.debian.org/debian/ncurses.git;protocol=https;branch=master>

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Home page: <http://www.perl.org/>

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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.

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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
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2.1.1 2.1+2.0.1	2001	PSF	yes
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2.2 and above	2.1.1 2001-now	PSF	yes

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

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Version 2, June 1991

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

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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.

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(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.

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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.

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Version 2.1, February 1999

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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.

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