GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

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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.

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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.

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GNU LESSER GENERAL PUBLIC LICENSE

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other

program which contains a notice placed by the copyright holder or

other authorized party saying it may be distributed under the terms of

this Lesser General Public License (also called "this License").

Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data

prepared so as to be conveniently linked with application programs

(which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work

which has been distributed under these terms. A "work based on the

Library" means either the Library or any derivative work under

copyright law: that is to say, a work containing the Library or a

portion of it, either verbatim or with modifications and/or translated

straightforwardly into another language. (Hereinafter, translation is

included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for

making modifications to it. For a library, complete source code means

all the source code for all modules it contains, plus any associated

interface definition files, plus the scripts used to control

compilation

and installation of the library.

Activities other than copying, distribution and modification are not

covered by this License; they are outside its scope. The act of

running a program using the Library is not restricted, and output from

such a program is covered only if its contents constitute a work based

on the Library (independent of the use of the Library in a tool for

writing it). Whether that is true depends on what the Library does

and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's

complete source code as you receive it, in any medium, provided that

you conspicuously and appropriately publish on each copy an

appropriate copyright notice and disclaimer of warranty; keep intact

all the notices that refer to this License and to the absence of any

warranty; and distribute a copy of this License along with the

Library.

You may charge a fee for the physical act of transferring a copy,

and you may at your option offer warranty protection in exchange for a

fee.

2. You may modify your copy or copies of the Library or any portion

of it, thus forming a work based on the Library, and copy and

distribute such modifications or work under the terms of Section 1

above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices

stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no

charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a

table of data to be supplied by an application program that uses

the facility, other than as an argument passed when the facility

is invoked, then you must make a good faith effort to ensure that,

in the event an application does not supply such function or

table, the facility still operates, and performs whatever part of

its purpose remains meaningful.

(For example, a function in a library to compute square roots has

a purpose that is entirely well-defined independent of the

application. Therefore, Subsection 2d requires that any

application-supplied function or table used by this function must

be optional: if the application does not supply it, the square

root function must still compute square roots.)

These requirements apply to the modified work as a whole. If

identifiable sections of that work are not derived from the Library,

and can be reasonably considered independent and separate works in

themselves, then this License, and its terms, do not apply to those

sections when you distribute them as separate works. But when you

distribute the same sections as part of a whole which is a work based

on the Library, the distribution of the whole must be on the terms of

this License, whose permissions for other licensees extend to the

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

it.

Thus, it is not the intent of this section to claim rights or contest

your rights to work written entirely by you; rather, the intent is to

exercise the right to control the distribution of derivative or

collective works based on the Library.

In addition, mere aggregation of another work not based on the Library

with the Library (or with a work based on the Library) on a volume of

a storage or distribution medium does not bring the other work under

the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public

License instead of this License to a given copy of the Library. To do

this, you must alter all the notices that refer to this License, so

that they refer to the ordinary GNU General Public License, version 2,

instead of to this License. (If a newer version than version 2 of the

ordinary GNU General Public License has appeared, then you can specify

that version instead if you wish.) Do not make any other change in

these notices.

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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.

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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.

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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.

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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.

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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

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PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE

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THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

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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

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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!