

1 GNU LESSER GENERAL PUBLIC LICENSE  
2 Version 2.1, February 1999

3  
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7 of this license document, but changing it is not allowed.

8  
9 [This is the first released version of the Lesser GPL. It also counts  
10 as the successor of the GNU Library Public License, version 2, hence  
11 the version number 2.1.]

12  
13 Preamble

14  
15 The licenses for most software are designed to take away your  
16 freedom to share and change it. By contrast, the GNU General Public  
17 Licenses are intended to guarantee your freedom to share and change  
18 free software--to make sure the software is free for all its users.

19  
20 This license, the Lesser General Public License, applies to some  
21 specially designated software packages--typically libraries--of the  
22 Free Software Foundation and other authors who decide to use it. You  
23 can use it too, but we suggest you first think carefully about whether  
24 this license or the ordinary General Public License is the better  
25 strategy to use in any particular case, based on the explanations below.

26  
27 When we speak of free software, we are referring to freedom of use,  
28 not price. Our General Public Licenses are designed to make sure that  
29 you have the freedom to distribute copies of free software (and charge  
30 for this service if you wish); that you receive source code or can get  
31 it if you want it; that you can change the software and use pieces of  
32 it in new free programs; and that you are informed that you can do  
33 these things.

34  
35 To protect your rights, we need to make restrictions that forbid  
36 distributors to deny you these rights or to ask you to surrender these  
37 rights. These restrictions translate to certain responsibilities for  
38 you if you distribute copies of the library or if you modify it.

39  
40 For example, if you distribute copies of the library, whether gratis  
41 or for a fee, you must give the recipients all the rights that we gave  
42 you. You must make sure that they, too, receive or can get the source  
43 code. If you link other code with the library, you must provide  
44 complete object files to the recipients, so that they can relink them  
45 with the library after making changes to the library and recompiling  
46 it. And you must show them these terms so they know their rights.

47  
48 We protect your rights with a two-step method: (1) we copyright the  
49 library, and (2) we offer you this license, which gives you legal  
50 permission to copy, distribute and/or modify the library.

51  
52 To protect each distributor, we want to make it very clear that  
53 there is no warranty for the free library. Also, if the library is  
54 modified by someone else and passed on, the recipients should know  
55 that what they have is not the original version, so that the original  
56 author's reputation will not be affected by problems that might be  
57 introduced by others.

58  
59 Finally, software patents pose a constant threat to the existence of  
60 any free program. We wish to make sure that a company cannot  
61 effectively restrict the users of a free program by obtaining a  
62 restrictive license from a patent holder. Therefore, we insist that  
63 any patent license obtained for a version of the library must be  
64 consistent with the full freedom of use specified in this license.

65  
66 Most GNU software, including some libraries, is covered by the  
67 ordinary GNU General Public License. This license, the GNU Lesser  
68 General Public License, applies to certain designated libraries, and  
69 is quite different from the ordinary General Public License. We use  
70 this license for certain libraries in order to permit linking those  
71 libraries into non-free programs.

72  
73 When a program is linked with a library, whether statically or using

74 a shared library, the combination of the two is legally speaking a  
75 combined work, a derivative of the original library. The ordinary  
76 General Public License therefore permits such linking only if the  
77 entire combination fits its criteria of freedom. The Lesser General  
78 Public License permits more lax criteria for linking other code with  
79 the library.

80  
81 We call this license the "Lesser" General Public License because it  
82 does Less to protect the user's freedom than the ordinary General  
83 Public License. It also provides other free software developers Less  
84 of an advantage over competing non-free programs. These disadvantages  
85 are the reason we use the ordinary General Public License for many  
86 libraries. However, the Lesser license provides advantages in certain  
87 special circumstances.

88  
89 For example, on rare occasions, there may be a special need to  
90 encourage the widest possible use of a certain library, so that it becomes  
91 a de-facto standard. To achieve this, non-free programs must be  
92 allowed to use the library. A more frequent case is that a free  
93 library does the same job as widely used non-free libraries. In this  
94 case, there is little to gain by limiting the free library to free  
95 software only, so we use the Lesser General Public License.

96  
97 In other cases, permission to use a particular library in non-free  
98 programs enables a greater number of people to use a large body of  
99 free software. For example, permission to use the GNU C Library in  
100 non-free programs enables many more people to use the whole GNU  
101 operating system, as well as its variant, the GNU/Linux operating  
102 system.

103  
104 Although the Lesser General Public License is Less protective of the  
105 users' freedom, it does ensure that the user of a program that is  
106 linked with the Library has the freedom and the wherewithal to run  
107 that program using a modified version of the Library.

108  
109 The precise terms and conditions for copying, distribution and  
110 modification follow. Pay close attention to the difference between a  
111 "work based on the library" and a "work that uses the library". The  
112 former contains code derived from the library, whereas the latter must  
113 be combined with the library in order to run.

114  
115 GNU LESSER GENERAL PUBLIC LICENSE  
116 TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

117  
118 0. This License Agreement applies to any software library or other  
119 program which contains a notice placed by the copyright holder or  
120 other authorized party saying it may be distributed under the terms of  
121 this Lesser General Public License (also called "this License").  
122 Each licensee is addressed as "you".

123  
124 A "library" means a collection of software functions and/or data  
125 prepared so as to be conveniently linked with application programs  
126 (which use some of those functions and data) to form executables.

127  
128 The "Library", below, refers to any such software library or work  
129 which has been distributed under these terms. A "work based on the  
130 Library" means either the Library or any derivative work under  
131 copyright law: that is to say, a work containing the Library or a  
132 portion of it, either verbatim or with modifications and/or translated  
133 straightforwardly into another language. (Hereinafter, translation is  
134 included without limitation in the term "modification".)

135  
136 "Source code" for a work means the preferred form of the work for  
137 making modifications to it. For a library, complete source code means  
138 all the source code for all modules it contains, plus any associated  
139 interface definition files, plus the scripts used to control compilation  
140 and installation of the library.

141  
142 Activities other than copying, distribution and modification are not  
143 covered by this License; they are outside its scope. The act of  
144 running a program using the Library is not restricted, and output from  
145 such a program is covered only if its contents constitute a work based  
146 on the Library (independent of the use of the Library in a tool for

147 writing it). Whether that is true depends on what the Library does  
148 and what the program that uses the Library does.  
149

150 1. You may copy and distribute verbatim copies of the Library's  
151 complete source code as you receive it, in any medium, provided that  
152 you conspicuously and appropriately publish on each copy an  
153 appropriate copyright notice and disclaimer of warranty; keep intact  
154 all the notices that refer to this License and to the absence of any  
155 warranty; and distribute a copy of this License along with the  
156 Library.  
157

158 You may charge a fee for the physical act of transferring a copy,  
159 and you may at your option offer warranty protection in exchange for a  
160 fee.  
161

162 2. You may modify your copy or copies of the Library or any portion  
163 of it, thus forming a work based on the Library, and copy and  
164 distribute such modifications or work under the terms of Section 1  
165 above, provided that you also meet all of these conditions:  
166

167 a) The modified work must itself be a software library.  
168

169 b) You must cause the files modified to carry prominent notices  
170 stating that you changed the files and the date of any change.  
171

172 c) You must cause the whole of the work to be licensed at no  
173 charge to all third parties under the terms of this License.  
174

175 d) If a facility in the modified Library refers to a function or a  
176 table of data to be supplied by an application program that uses  
177 the facility, other than as an argument passed when the facility  
178 is invoked, then you must make a good faith effort to ensure that,  
179 in the event an application does not supply such function or  
180 table, the facility still operates, and performs whatever part of  
181 its purpose remains meaningful.  
182

183 (For example, a function in a library to compute square roots has  
184 a purpose that is entirely well-defined independent of the  
185 application. Therefore, Subsection 2d requires that any  
186 application-supplied function or table used by this function must  
187 be optional: if the application does not supply it, the square  
188 root function must still compute square roots.)  
189

190 These requirements apply to the modified work as a whole. If  
191 identifiable sections of that work are not derived from the Library,  
192 and can be reasonably considered independent and separate works in  
193 themselves, then this License, and its terms, do not apply to those  
194 sections when you distribute them as separate works. But when you  
195 distribute the same sections as part of a whole which is a work based  
196 on the Library, the distribution of the whole must be on the terms of  
197 this License, whose permissions for other licensees extend to the  
198 entire whole, and thus to each and every part regardless of who wrote  
199 it.  
200

201 Thus, it is not the intent of this section to claim rights or contest  
202 your rights to work written entirely by you; rather, the intent is to  
203 exercise the right to control the distribution of derivative or  
204 collective works based on the Library.  
205

206 In addition, mere aggregation of another work not based on the Library  
207 with the Library (or with a work based on the Library) on a volume of  
208 a storage or distribution medium does not bring the other work under  
209 the scope of this License.  
210

211 3. You may opt to apply the terms of the ordinary GNU General Public  
212 License instead of this License to a given copy of the Library. To do  
213 this, you must alter all the notices that refer to this License, so  
214 that they refer to the ordinary GNU General Public License, version 2,  
215 instead of to this License. (If a newer version than version 2 of the  
216 ordinary GNU General Public License has appeared, then you can specify  
217 that version instead if you wish.) Do not make any other change in  
218 these notices.  
219

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

223  
224 This option is useful when you wish to copy part of the code of  
225 the Library into a program that is not a library.

226  
227 4. You may copy and distribute the Library (or a portion or  
228 derivative of it, under Section 2) in object code or executable form  
229 under the terms of Sections 1 and 2 above provided that you accompany  
230 it with the complete corresponding machine-readable source code, which  
231 must be distributed under the terms of Sections 1 and 2 above on a  
232 medium customarily used for software interchange.

233  
234 If distribution of object code is made by offering access to copy  
235 from a designated place, then offering equivalent access to copy the  
236 source code from the same place satisfies the requirement to  
237 distribute the source code, even though third parties are not  
238 compelled to copy the source along with the object code.

239  
240 5. A program that contains no derivative of any portion of the  
241 Library, but is designed to work with the Library by being compiled or  
242 linked with it, is called a "work that uses the Library". Such a  
243 work, in isolation, is not a derivative work of the Library, and  
244 therefore falls outside the scope of this License.

245  
246 However, linking a "work that uses the Library" with the Library  
247 creates an executable that is a derivative of the Library (because it  
248 contains portions of the Library), rather than a "work that uses the  
249 library". The executable is therefore covered by this License.  
250 Section 6 states terms for distribution of such executables.

251  
252 When a "work that uses the Library" uses material from a header file  
253 that is part of the Library, the object code for the work may be a  
254 derivative work of the Library even though the source code is not.  
255 Whether this is true is especially significant if the work can be  
256 linked without the Library, or if the work is itself a library. The  
257 threshold for this to be true is not precisely defined by law.

258  
259 If such an object file uses only numerical parameters, data  
260 structure layouts and accessors, and small macros and small inline  
261 functions (ten lines or less in length), then the use of the object  
262 file is unrestricted, regardless of whether it is legally a derivative  
263 work. (Executables containing this object code plus portions of the  
264 Library will still fall under Section 6.)

265  
266 Otherwise, if the work is a derivative of the Library, you may  
267 distribute the object code for the work under the terms of Section 6.  
268 Any executables containing that work also fall under Section 6,  
269 whether or not they are linked directly with the Library itself.

270  
271 6. As an exception to the Sections above, you may also combine or  
272 link a "work that uses the Library" with the Library to produce a  
273 work containing portions of the Library, and distribute that work  
274 under terms of your choice, provided that the terms permit  
275 modification of the work for the customer's own use and reverse  
276 engineering for debugging such modifications.

277  
278 You must give prominent notice with each copy of the work that the  
279 Library is used in it and that the Library and its use are covered by  
280 this License. You must supply a copy of this License. If the work  
281 during execution displays copyright notices, you must include the  
282 copyright notice for the Library among them, as well as a reference  
283 directing the user to the copy of this License. Also, you must do one  
284 of these things:

- 285  
286 a) Accompany the work with the complete corresponding  
287 machine-readable source code for the Library including whatever  
288 changes were used in the work (which must be distributed under  
289 Sections 1 and 2 above); and, if the work is an executable linked  
290 with the Library, with the complete machine-readable "work that  
291 uses the Library", as object code and/or source code, so that the  
292 user can modify the Library and then relink to produce a modified

293 executable containing the modified Library. (It is understood  
294 that the user who changes the contents of definitions files in the  
295 Library will not necessarily be able to recompile the application  
296 to use the modified definitions.)  
297

298 b) Use a suitable shared library mechanism for linking with the  
299 Library. A suitable mechanism is one that (1) uses at run time a  
300 copy of the library already present on the user's computer system,  
301 rather than copying library functions into the executable, and (2)  
302 will operate properly with a modified version of the library, if  
303 the user installs one, as long as the modified version is  
304 interface-compatible with the version that the work was made with.  
305

306 c) Accompany the work with a written offer, valid for at  
307 least three years, to give the same user the materials  
308 specified in Subsection 6a, above, for a charge no more  
309 than the cost of performing this distribution.  
310

311 d) If distribution of the work is made by offering access to copy  
312 from a designated place, offer equivalent access to copy the above  
313 specified materials from the same place.  
314

315 e) Verify that the user has already received a copy of these  
316 materials or that you have already sent this user a copy.  
317

318 For an executable, the required form of the "work that uses the  
319 Library" must include any data and utility programs needed for  
320 reproducing the executable from it. However, as a special exception,  
321 the materials to be distributed need not include anything that is  
322 normally distributed (in either source or binary form) with the major  
323 components (compiler, kernel, and so on) of the operating system on  
324 which the executable runs, unless that component itself accompanies  
325 the executable.  
326

327 It may happen that this requirement contradicts the license  
328 restrictions of other proprietary libraries that do not normally  
329 accompany the operating system. Such a contradiction means you cannot  
330 use both them and the Library together in an executable that you  
331 distribute.  
332

333 7. You may place library facilities that are a work based on the  
334 Library side-by-side in a single library together with other library  
335 facilities not covered by this License, and distribute such a combined  
336 library, provided that the separate distribution of the work based on  
337 the Library and of the other library facilities is otherwise  
338 permitted, and provided that you do these two things:  
339

340 a) Accompany the combined library with a copy of the same work  
341 based on the Library, uncombined with any other library  
342 facilities. This must be distributed under the terms of the  
343 Sections above.  
344

345 b) Give prominent notice with the combined library of the fact  
346 that part of it is a work based on the Library, and explaining  
347 where to find the accompanying uncombined form of the same work.  
348

349 8. You may not copy, modify, sublicense, link with, or distribute  
350 the Library except as expressly provided under this License. Any  
351 attempt otherwise to copy, modify, sublicense, link with, or  
352 distribute the Library is void, and will automatically terminate your  
353 rights under this License. However, parties who have received copies,  
354 or rights, from you under this License will not have their licenses  
355 terminated so long as such parties remain in full compliance.  
356

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360 prohibited by law if you do not accept this License. Therefore, by  
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364 the Library or works based on it.  
365

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367 Library), the recipient automatically receives a license from the  
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370 restrictions on the recipients' exercise of the rights granted herein.  
371 You are not responsible for enforcing compliance by third parties with  
372 this License.

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

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

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

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

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

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

418 Each version is given a distinguishing version number. If the Library  
419 specifies a version number of this License which applies to it and  
420 "any later version", you have the option of following the terms and  
421 conditions either of that version or of any later version published by  
422 the Free Software Foundation. If the Library does not specify a  
423 license version number, you may choose any version ever published by  
424 the Free Software Foundation.

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427 programs whose distribution conditions are incompatible with these,  
428 write to the author to ask for permission. For software which is  
429 copyrighted by the Free Software Foundation, write to the Free  
430 Software Foundation; we sometimes make exceptions for this. Our  
431 decision will be guided by the two goals of preserving the free status  
432 of all derivatives of our free software and of promoting the sharing  
433 and reuse of software generally.


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444 LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME  
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446

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454 FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF  
455 SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH  
456 DAMAGES.  
457

458 END OF TERMS AND CONDITIONS

459   
460