

The file `cbfonts-fd.fdd` for use with $\text{\LaTeX} 2_{\epsilon}$.*

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1 Introduction

This file `cbfonts-fd.fdd` provides font definitions files for typesetting Greek texts with the LGR encoded `cb` fonts.

The font definition files produced from this documented source file deal with both the `cb` fonts as LGR encoded (Greek) variant to match the European Computer Modern (T1 encoded EC fonts) and the Latin Modern fonts. This file derives from the `greek.fdd` one, originally prepared by myself and Apostolos Syropoulos, under the supervision of Johannes Braams.

Please, take notice that the actual fonts are the same ones with both incarnations of the font description files; the EC version, with fixed sizes, mimics the Latin EC font description files, that were set up in the early nineties and referred themselves to the bitmapped fonts that were (and still are) the only format available for such fonts. Their vector versions were produced either for benefit of commercial versions of the \TeX system, for example for the commercial \VTeX distribution, or were superseded by differently named font collections, such as the `CM-super` one. For compatibility reasons the font description files were not modified.

The Latin Modern font collection was created with the vector format in mind; therefore their font description files contain definitions that allow continuous scaling of such fonts; in practice the optical sizes are reduced in number and each scaled version of every font is used for a range of font sizes, not for a single font size, as it happens with the EC fonts. This same approach was used here, since the `cb` fonts are normally distributed as both bitmapped and vector fonts, the latter ones being preferred when typesetting with `pdfLaTeX`.

I rewrote this file in order to detach it from the `babel-greek` bundle that is intended to deal with the Greek language irrespective of which fonts are used and possibly also from their encoding, so as to make it compatible with the `UNICODE` encoding. At the same time this documentation file and the derived font description files are specific for the `cb` fonts, so that the new Greek language `babel-greek` package maintainer does not have to maintain also the font description files, while I take care of the `cb` fonts.

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The LGR font encoding is declared and set up by the encoding definition file `lgrenc.def` from the `greek-fontenc` package (<http://www.ctan.org/pkg/greek-fontenc>).

It is useful to recall that while typesetting Greek text intermixed with other languages in Latin script, the change of script takes place just by changing the encoding, at least when Type 1 fonts are used. When using `XeLaTeX` or `LuaLaTeX`, that employ OpenType fonts, this encoding shift is not necessary, because OpenType fonts include many hundreds glyphs, among which the Greek ones. I should remark that the Greek glyph collection of OpenType fonts is wider than the glyph collection of the `cb` Greek ones, but OT fonts generally lack certain `cb` glyphs often used in philology documents.

Moreover composers sometimes would like to use other fonts, different from the EC or LM ones; they can do so by calling suitable font packages; for example Antonis Tsolomitis made available the package `txfontsb` that contains the Greek glyphs arranged according to the LGR encoding, and that mach the design and style of the Latin Times eXtended fonts (package `txfonts`); they come with their suitable font description files that use the same family names as the Latin ones. Beware, though, that these Greek fonts match pretty well my fonts, but lack some important glyphs.

It is possible to use the `cb` fonts with other font families, as well as with the `TX` fonts, in spite of the availability of the fonts by Antonis Tsolomitis; may be they don't match as well the design and style of the Latin font families, but at least the `cb` fonts are more complete. The `teubner` package (<http://www.ctan.org/pkg/teubner>) contains suitable macros for creating the necessary font description files. The interested user is invited to refer him/her self to the extended `teubner` package documentation in file `teubner-doc.pdf`.

2 Font samples

Some font samples in medium series are shown in table ??.

As the above examples show, in spite the fact that not all shapes have been displayed, the Greek `cb` fonts contain more families and shapes that the corresponding EC and LM fonts. The necessary macros to change families, series, and shapes are either the usual ones already available for the EC and LM fonts, or are explicitly defined in the Greek language description file or in package `teubner`.

The outline family was requested at the very beginning of my work on Greek fonts by Apostolos Syropoulos who needed them for a slide show he typeset in Greek with the very first fonts available in provvisional form.

The Lipsian shape was requested by the users of package `teubner` who, being mostly philologists, were accustomed to this particular font shape used the Teubner Typography in Lipsia. This font is available in three series, medium, bold, and extended bold. The bold version is particularly desired when using this font with blacker Latin fonts, so that it substitutes easily the medium series in order to match the blacker Latin fonts in a better way.

Table 1: Some samples of Greek fonts

Family and shape	Sample glyphs
Regular upright	αβγδεζηθικλμνξοπρστυφχψω ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ
Regular slanted	<i>αβγδεζηθικλμνξοπρστυφχψω</i> <i>ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ</i>
Regular italics	<i>αβγδεζηθικλμνξοπρστυφχψω</i> <i>ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ</i>
Regular lipsian	<i>αβγδεζηθικλμνξοπρστυφχψω</i> <i>ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ</i>
Regular caps and small caps	ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ
Regular serified	αβγδεζηθικλμνξοπρστυφχψω ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ
Regular unslanted italics	<i>αβγδεζηθικλμνξοπρστυφχψω</i> <i>ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ</i>
Outline upright	αβγδεζηθικλμνξοπρστυφχψω ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ
Sans serif upright	αβγδεζηθικλμνξοπρστυφχψω ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ
Sans serif italics	<i>αβγδεζηθικλμνξοπρστυφχψω</i> <i>ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ</i>
Sans serif variant italics	<i>αβγδεζηθικλμνξοπρστυφχψω</i> <i>ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ</i>
Typewriter type	αβγδεζηθικλμνξοπρστυφχψω ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ
Typewriter type italics	<i>αβγδεζηθικλμνξοπρστυφχψω</i> <i>ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ</i>
Typewriter type caps and small caps	ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ
Slides sans serif	αβγδεζηθικλμνξοπρστυφχψω ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ
Slides typewriter	αβγδεζηθικλμνξοπρστυφχψω ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ

The upright versions of the italic shape are more or less traditional with standard T_EX system fonts, but explicit selection commands for the LM fonts are available, to my best knowledge, only in package `cfr-lm`.

The sans serif italic variant differs from the regular one only in the shape of lower case epsilon; it was asked for by Greek users of the `cb` fonts.

This documented file contains the necessary information within the very description of the various families, series and shapes, so as to let the user to define him/her self the macros needed to select every family, series and shape s/he wants to use.

3 The docstrip modules

The following modules are used to direct `docstrip` in generating external files and for delimiting the driver file:

<code>driver</code>	guard for this documentation driver file
<code>LGRcmr</code>	The Roman font shapes
<code>LGRcmro</code>	The Outline Roman font shapes
<code>LGRcmss</code>	The Sans Serif font shapes
<code>LGRcmtt</code>	The typewriter font shapes
<code>LGRlcmss</code>	The slide size Sans Serif font shapes
<code>LGRlcmstt</code>	The slide size typewriter fonts
<code>LGRlmr</code>	The Roman font shapes
<code>LGRlmro</code>	The Outline Roman font shapes
<code>LGRlmss</code>	The Sans Serif font shapes
<code>LGRlmstt</code>	The typewriter font shapes

A typical DOCSTRIP command file would then have entries like:

```
\generateFile{lgrcmr.fd}{t}{\from{cbgreek.fdd}{LGRcmr}}
```

4 The font definition files

The `cb` fonts that I prepared are complete, in any sense of the word, and moreover fit nicely with the Computer Modern font family and the Latin Modern ones.

We begin with the definitions for the Greek European Computer font families.

```
1 \providecommand{\EC@family}[5]{%
2   \DeclareFontShape{#1}{#2}{#3}{#4}
3     {<5><6><7><8><9><10><10.95><12><14.4>%
4     <17.28><20.74><24.88><29.86><35.83>genb*#5}{}}
5 \DeclareFontFamily{LGR}{cmr}{}
6 \EC@family{LGR}{cmr}{m}{n}   {grmn}
7 \EC@family{LGR}{cmr}{m}{sl}  {grmo}
8 \EC@family{LGR}{cmr}{m}{it}  {grmi}
9 \EC@family{LGR}{cmr}{m}{sc}  {grmc}
10 \EC@family{LGR}{cmr}{m}{ui}  {grmu}
```

```

11 \EC@family{LGR}{cmr}{m}{li} {grml}
12 \EC@family{LGR}{cmr}{m}{rs} {gmnn}
13 \EC@family{LGR}{cmr}{m}{ro} {gmno}
14 %
15 \EC@family{LGR}{cmr}{bx}{sc} {grxc}
16 \EC@family{LGR}{cmr}{bx}{n} {grxn}
17 \EC@family{LGR}{cmr}{bx}{sl} {grxo}
18 \EC@family{LGR}{cmr}{bx}{it} {grxi}
19 \EC@family{LGR}{cmr}{bx}{ui} {grxu}
20 \EC@family{LGR}{cmr}{bx}{li} {grxl}
21 \EC@family{LGR}{cmr}{bx}{rs} {gmxn}
22 \EC@family{LGR}{cmr}{bx}{ro} {gmxo}
23 \EC@family{LGR}{cmr}{b}{li} {grbl}
24 \DeclareFontShape{LGR}{cmr}{b}{n}
25     {<->ssub*cmr/bx/n}{}
26 \DeclareFontShape{LGR}{cmr}{b}{sc}
27     {<->ssub*cmr/bx/sc}{}

```

The Greek outline family is complete with the same five shapes and the two series as the roman family.

```

28 \providecommand{\EC@family}[5]{%
29   \DeclareFontShape{#1}{#2}{#3}{#4}
30     {<5><6><7><8><9><10><10.95><12><14.4>%
31       <17.28><20.74><24.88><29.86><35.83>genb*#5}{}
32 \DeclareFontFamily{LGR}{cmro}{}
33 \EC@family{LGR}{cmro}{m}{n} {gomn}
34 \EC@family{LGR}{cmro}{m}{sl} {gomo}
35 \EC@family{LGR}{cmro}{m}{it} {gomi}
36 \EC@family{LGR}{cmro}{m}{sc} {gomc}
37 \EC@family{LGR}{cmro}{m}{ui} {gomu}
38 \EC@family{LGR}{cmro}{bx}{sc} {goxc}
39 \EC@family{LGR}{cmro}{bx}{n} {goxn}
40 \EC@family{LGR}{cmro}{bx}{sl} {goxo}
41 \EC@family{LGR}{cmro}{bx}{it} {goxi}
42 \EC@family{LGR}{cmro}{bx}{ui} {goxu}
43 \DeclareFontShape{LGR}{cmro}{b}{n}
44     {<->ssub*cmro/bx/n}{}
45 \DeclareFontShape{LGR}{cmro}{b}{sc}
46     {<->ssub*cmro/bx/sc}{}

```

Then we have the typewriter fonts.

```

47 \providecommand{\EC@family}[5]{%
48   \DeclareFontShape{#1}{#2}{#3}{#4}
49     {<5><6><7><8><9><10><10.95><12><14.4>%
50       <17.28><20.74><24.88><29.86><35.83>genb*#5}{}
51 \DeclareFontFamily{LGR}{cmtt}{\hyphenchar\font\m@ne}
52 \EC@family{LGR}{cmtt}{m}{n} {gttn}
53 \EC@family{LGR}{cmtt}{m}{sl} {gtto}
54 \EC@family{LGR}{cmtt}{m}{sc} {gttc}
55 \EC@family{LGR}{cmtt}{m}{it} {gtti}

```

```

56 \EC@family{LGR}{cmtt}{m}{ui} {gttu}
57 \DeclareFontShape{LGR}{cmtt}{bx}{n}
58     {<->ssub*cmtt/m/n}{}
59 \DeclareFontShape{LGR}{cmtt}{bx}{sl}
60     {<->ssub*cmtt/m/sl}{}
61 \DeclareFontShape{LGR}{cmtt}{bx}{it}
62     {<->ssub*cmtt/m/it}{}
63 \DeclareFontShape{LGR}{cmtt}{bx}{sc}
64     {<->ssub*cmtt/m/sc}{}
65 \DeclareFontShape{LGR}{cmtt}{bx}{ui}
66     {<->ssub*cmtt/m/ui}{}

```

Now we come to the Sans Serif font families to be used in Greek texts.

```

67 \providecommand{\EC@family}[5]{%
68   \DeclareFontShape{#1}{#2}{#3}{#4}
69     {<5><6><7><8><9><10><10.95><12><14.4>%
70     <17.28><20.74><24.88><29.86><35.83>genb*#5}{}}
71 \DeclareFontFamily{LGR}{cmss}{}
72 \EC@family{LGR}{cmss}{m}{n} {gsmn}
73 \EC@family{LGR}{cmss}{m}{sl} {gsmo}
74 \EC@family{LGR}{cmss}{m}{sc} {gsmc}
75 \EC@family{LGR}{cmss}{m}{it} {gsmi}
76 \EC@family{LGR}{cmss}{m}{ui} {gsmu}
77 \EC@family{LGR}{cmss}{m}{iv} {gsme}
78 \EC@family{LGR}{cmss}{m}{uv} {gsma}
79 %
80 \EC@family{LGR}{cmss}{bx}{n} {gsxn}
81 \EC@family{LGR}{cmss}{bx}{sl} {gsxo}
82 \EC@family{LGR}{cmss}{bx}{sc} {gsxc}
83 \EC@family{LGR}{cmss}{bx}{it} {gsxi}
84 \EC@family{LGR}{cmss}{bx}{ui} {gsxu}
85 \EC@family{LGR}{cmss}{bx}{iv} {gsxe}
86 \EC@family{LGR}{cmss}{bx}{uv} {gsxa}

```

We have finished with the “regular” fonts. We now provide the fonts definition files for the fonts used only in slides. First comes the typewriter font.

```

87 \DeclareFontFamily{LGR}{lcmtt}{\hyphenchar\font\m@ne}
88 \DeclareFontShape{LGR}{lcmtt}{m}{n}{%
89   <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
90   genb * gltn}{}
91 \DeclareFontShape{LGR}{lcmtt}{m}{In}{%
92   <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
93   genb * gljn}{}
94 \DeclareFontShape{LGR}{lcmtt}{m}{it}{%
95   <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
96   genb * glto}{}
97 \DeclareFontShape{LGR}{lcmtt}{m}{Iit}{%
98   <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
99   genb * gljo}{}
100 \DeclareFontShape{LGR}{lcmtt}{m}{sl}{%

```

```

101 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
102 ssub * lcmtt/m/it}{
103 \DeclareFontShape{LGR}{lcmtt}{m}{Is1}{%
104 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
105 ssub * lcmtt/m/Iit}{
106 \DeclareFontShape{LGR}{lcmtt}{m}{sc}{%
107 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
108 genb * gltc}{
109 \DeclareFontShape{LGR}{lcmtt}{m}{Isc}{%
110 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
111 genb * gljc}{
    And then the Sans Serif font.
112 \DeclareFontFamily{LGR}{lcmss}{
113 \DeclareFontShape{LGR}{lcmss}{m}{n}{%
114 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
115 genb * glmn}{
116 \DeclareFontShape{LGR}{lcmss}{m}{In}{%
117 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
118 genb * glin}{
119 \DeclareFontShape{LGR}{lcmss}{m}{s1}{%
120 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
121 genb * glmo}{
122 \DeclareFontShape{LGR}{lcmss}{m}{Is1}{%
123 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
124 genb * glio}{
125 \DeclareFontShape{LGR}{lcmss}{m}{it}{%
126 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
127 genb * glmi}{
128 \DeclareFontShape{LGR}{lcmss}{m}{Iit}{%
129 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
130 genb * glii}{
131 \DeclareFontShape{LGR}{lcmss}{m}{ui}{%
132 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
133 genb * glmu}{
134 \DeclareFontShape{LGR}{lcmss}{bx}{n}{%
135 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
136 genb * glxn}{
137 \DeclareFontShape{LGR}{lcmss}{bx}{In}{%
138 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
139 genb * glwn}{
140 \DeclareFontShape{LGR}{lcmss}{bx}{s1}{%
141 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
142 genb * glxo}{
143 \DeclareFontShape{LGR}{lcmss}{bx}{Is1}{%
144 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
145 genb * glwo}{
146 \DeclareFontShape{LGR}{lcmss}{bx}{it}{%
147 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
148 genb * glxi}{

```

```

149 \DeclareFontShape{LGR}{lcmss}{bx}{It}{%
150 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
151 genb * glwi}{}
152 \DeclareFontShape{LGR}{lcmss}{m}{sc}{%
153 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
154 genb * glmc}{}
155 \DeclareFontShape{LGR}{lcmss}{m}{Isc}{%
156 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
157 genb * glic}{}
158 \DeclareFontShape{LGR}{lcmss}{bx}{sc}{%
159 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
160 genb * glxc}{}
161 \DeclareFontShape{LGR}{lcmss}{bx}{Isc}{%
162 <7><8><10><12><13.82><16.59><19.91><23.89><28.66><34.4><41.28>
163 genb * glwc}{}

```

And now come the font definition files compatible with the Latin Modern family names and sizes; notice that the Latin Modern fonts are available only as scalable PostScript fonts, therefore they cope with (stepwise) continuous scaling; also the `cb` fonts are distributed as scalable PostScript fonts, so it makes sense to use the same size and family specifications as the LM fonts.

We start with the Latin Modern Regular.

```

164 \DeclareFontFamily{LGR}{lmr}{}
165 \DeclareFontShape{LGR}{lmr}{m}{n}%
166   {<-5.5> grmn0500 <5.5-6.5> grmn0600
167   <6.5-7.5> grmn0700 <7.5-8.5> grmn0800
168   <8.5-9.5> grmn0900 <9.5-11> grmn1000
169   <11-15> grmn1200 <15-> grmn1728}{}
170 \DeclareFontShape{LGR}{lmr}{m}{rs}%
171   {<-5.5> gmmn0500 <5.5-6.5> gmmn0600
172   <6.5-7.5> gmmn0700 <7.5-8.5> gmmn0800
173   <8.5-9.5> gmmn0900 <9.5-11> gmmn1000
174   <11-15> gmmn1200 <15-> gmmn1728}{}
175 \DeclareFontShape{LGR}{lmr}{m}{sl}%
176   {<-8.5> grmo0800 <8.5-9.5> grmo0900
177   <9.5-11> grmo1000 <11-15> grmo1200
178   <15-> grmo1728}{}
179 \DeclareFontShape{LGR}{lmr}{m}{ro}%
180   {<-8.5> gmmo0800 <8.5-9.5> gmmo0900
181   <9.5-11> gmmo1000 <11-15> gmmo1200
182   <15-> gmmo1728}{}
183 \DeclareFontShape{LGR}{lmr}{m}{it}%
184   {<-7.5> grmi0700
185   <7.5-8.5> grmi0800 <8.5-9.5> grmi0900
186   <9.5-11> grmi1000 <11-15> grmi1200
187   <15-> grmi1728}{}
188 \DeclareFontShape{LGR}{lmr}{m}{li}%
189   {<-7.5> grml0700
190   <7.5-8.5> grml0800 <8.5-9.5> grml0900
191   <9.5-11> grml1000 <11-15> grml1200

```



```

192     <15->     grml1728}{-}
193 \DeclareFontShape{LGR}{lmr}{m}{ui}%
194     {<-7.5>     grmu0700
195     <7.5-8.5> grmu0800     <8.5-9.5> grmu0900
196     <9.5-11>  grmu1000    <11-15>  grmu1200
197     <15->     grmu1728}{-}
198 \DeclareFontShape{LGR}{lmr}{m}{sc}%
199     {<-7.5>     grmc0700
200     <7.5-8.5> grmc0800     <8.5-9.5> grmc0900
201     <9.5-11>  grmc1000    <11-15>  grmc1200
202     <15->     grmc1728}{-}
203 % slanted CSC is changed to unslanted CSC
204 \DeclareFontShape{LGR}{lmr}{m}{scsl}%
205     {<->  ssub*lmr/m/sc}{-}
206 %%%%%%%%% bold and bold extended series
207 \DeclareFontShape{LGR}{lmr}{bx}{n}
208     {<-5.5>     grxn0500     <5.5-6.5> grx0600
209     <6.5-7.5> grxn0700     <7.5-8.5> grxn0800
210     <8.5-9.5> grxn0900     <9.5-11>  grxn1000
211     <11-15>  grxn1200     <15->     grxn1728}{-}
212 \DeclareFontShape{LGR}{lmr}{bx}{rs}
213     {<-5.5>     gmxn0500     <5.5-6.5> gmx0600
214     <6.5-7.5> gmxn0700     <7.5-8.5> gmxn0800
215     <8.5-9.5> gmxn0900     <9.5-11>  gmxn1000
216     <11-15>  gmxn1200     <15->     gmxn1728}{-}
217 \DeclareFontShape{LGR}{lmr}{bx}{it}
218     {<-7.5>     grxi0700
219     <7.5-8.5> grxi0800     <8.5-9.5> grxi0900
220     <9.5-11>  grxi1000    <11-15>  grxi1200
221     <15->     grxi1728}{-}
222 \DeclareFontShape{LGR}{lmr}{b}{li}
223     {<-7.5>     grbl0700
224     <7.5-8.5> grbl0800     <8.5-9.5> grbl0900
225     <9.5-11>  grbl1000    <11-15>  grbl1200
226     <15->     grbl1728}{-}
227 \DeclareFontShape{LGR}{lmr}{bx}{li}
228     {<-7.5>     grxl0700
229     <7.5-8.5> grxl0800     <8.5-9.5> grxl0900
230     <9.5-11>  grxl1000    <11-15>  grxl1200
231     <15->     grxl1728
232     }{-}
233 \DeclareFontShape{LGR}{lmr}{bx}{ui}
234     {<-7.5>     grxu0700
235     <7.5-8.5> grxu0800     <8.5-9.5> grxu0900
236     <9.5-11>  grxu1000    <11-15>  grxu1200
237     <15->     grxu1728}{-}
238 \DeclareFontShape{LGR}{lmr}{bx}{sl}
239     {<-8.5>     grxo0800     <8.5-9.5> grxo0900
240     <9.5-11>  grxo1000    <11-15>  grxo1200
241     <15->     grxo1728}{-}

```

```

242 \DeclareFontShape{LGR}{lmr}{bx}{ro}
243     {<-8.5>   gmxo0800   <8.5-9.5> gmxo0900
244     <9.5-11> gmxo1000   <11-15>   gmxo1200
245     <15->     gmxo1728}{-}
246 \DeclareFontShape{LGR}{lmr}{bx}{sc}%
247     {<-7.5>   grxc0700
248     <7.5-8.5> grxc0800   <8.5-9.5> grxc0900
249     <9.5-11> grxc1000   <11-15>   grxc1200
250     <15->     grxc1728}{-}

```

Then the Latin Modern Regular Outline:

```

251 \DeclareFontFamily{LGR}{lmro}{-}
252 \DeclareFontShape{LGR}{lmro}{m}{n}%
253     {<-5.5>   gomn0500   <5.5-6.5> gomn0600
254     <6.5-7.5> gomn0700   <7.5-8.5> gomn0800
255     <8.5-9.5> gomn0900   <9.5-11>   gomn1000
256     <11-15>   gomn1200   <15->     gmr1728}{-}
257 \DeclareFontShape{LGR}{lmro}{m}{sl}%
258     {<-8.5>   gomo0800   <8.5-9.5> gomo0900
259     <9.5-11> gomo1000   <11-15>   gomo1200
260     <15->     gomo1728}{-}
261 \DeclareFontShape{LGR}{lmro}{m}{it}%
262     {<-7.5>   gomi0700
263     <7.5-8.5> gomi0800   <8.5-9.5> gomi0900
264     <9.5-11> gomi1000   <11-15>   gomi1200
265     <15->     gomi1728}{-}
266 \DeclareFontShape{LGR}{lmro}{m}{ui}%
267     {<-7.5>   gomu0700
268     <7.5-8.5> gomu0800   <8.5-9.5> gomu0900
269     <9.5-11> gomu1000   <11-15>   gomu1200
270     <15->     gomu1728}{-}
271 \DeclareFontShape{LGR}{lmro}{m}{sc}%
272     {<-7.5>   gomc0700
273     <7.5-8.5> gomc0800   <8.5-9.5> gomc0900
274     <9.5-11> gomc1000   <11-15>   gomc1200
275     <15->     gomc1728}{-}
276 % slanted CSC is changed to unslanted CSC
277 \DeclareFontShape{LGR}{lmro}{m}{scsl}%
278     {<-> ssub*lmr/m/sc}{-}
279 %%%%%%%%%% bold extended series
280 \DeclareFontShape{LGR}{lmro}{bx}{n}
281     {<-5.5>   goxn0500   <5.5-6.5> goxn0600
282     <6.5-7.5> goxn0700   <7.5-8.5> goxn0800
283     <8.5-9.5> goxn0900   <9.5-11>   goxn1000
284     <11-15>   goxn1200   <15->     goxn1728}{-}
285 \DeclareFontShape{LGR}{lmro}{bx}{it}
286     {<-7.5>   goxi0700
287     <7.5-8.5> goxi0800   <8.5-9.5> goxi0900
288     <9.5-11> goxi1000   <11->     goxi1200
289     <15->     goxi1728}{-}

```

```

290 \DeclareFontShape{LGR}{lmro}{bx}{ui}
291     {<-7.5> goxu0700
292     <7.5-8.5> goxu0800 <8.5-9.5> goxu0900
293     <9.5-11> goxu1000 <11-> goxu1200
294     <15-> goxu1728}{}
295 \DeclareFontShape{LGR}{lmro}{bx}{sl}
296     {<-8.5> goxo0800 <8.5-9.5> goxo0900
297     <9.5-11> goxo1000 <11-15> goxo1200
298     <15-> goxo1728}{}
299 \DeclareFontShape{LGR}{lmro}{bx}{sc}%
300     {<-7.5> goxc0700
301     <7.5-8.5> goxc0800 <8.5-9.5> goxc0900
302     <9.5-11> goxc1000 <11-15> goxc1200
303     <15-> goxc1728}{}

```

Now the Latin Modern Sans Serif

```

304 \DeclareFontFamily{LGR}{lmss}{}
305 \DeclareFontShape{LGR}{lmss}{m}{n}
306     {<-8.5> gsmn0800
307     <8.5-9.5> gsmn0900 <9.5-11> gsmn1000
308     <11-15.5> gsmn1200 <15.5-> gsmn1728}{}
309 \DeclareFontShape{LGR}{lmss}{m}{it}
310     {<-8.5> gsmi0800
311     <8.5-9.5> gsmi0900 <9.5-11> gsmi1000
312     <11-15.5> gsmi1200 <15.5-> gsmi1728}{}
313 \DeclareFontShape{LGR}{lmss}{m}{iv}
314     {<-8.5> gsme0800
315     <8.5-9.5> gsme0900 <9.5-11> gsme1000
316     <11-15.5> gsme1200 <15.5-> gsme1728}{}
317 \DeclareFontShape{LGR}{lmss}{m}{ui}
318     {<-8.5> gsmu0800
319     <8.5-9.5> gsmu0900 <9.5-11> gsmu1000
320     <11-15.5> gsmu1200 <15.5-> gsmu1728}{}
321 \DeclareFontShape{LGR}{lmss}{m}{uv}
322     {<-8.5> gsma0800
323     <8.5-9.5> gsma0900 <9.5-11> gsma1000
324     <11-15.5> gsma1200 <15.5-> gsma1728}{}
325 \DeclareFontShape{LGR}{lmss}{m}{sl}
326     {<-8.5> gsmo0800
327     <8.5-9.5> gsmo0900 <9.5-11> gsmo1000
328     <11-15.5> gsmo1200 <15.5-> gsmo1728}{}
329 \DeclareFontShape{LGR}{lmss}{m}{sc}
330     {<-8.5> gsmc0800
331     <8.5-9.5> gsmc0900 <9.5-11> gsmc1000
332     <11-15.5> gsmc1200 <15.5-> gsmc1728}{}
333 %%% semibold condensed series substituted with medium series
334 \DeclareFontShape{LGR}{lmss}{sbc}{n}
335 {<-> ssub*lmss/m/n}{}
336 \DeclareFontShape{LGR}{lmss}{sbc}{sl}
337 {<-> ssub*/lmss/m/sl}{}

```

```

338 \DeclareFontShape{LGR}{lmss}{sbc}{it}
339 {<->ssub*lmss/m/sl}{-}
340 %%%%%%%%% bold extended series
341 \DeclareFontShape{LGR}{lmss}{bx}{n}
342   {<-8.5> gsxn0800
343   <8.5-9.5> gsxn0900 <9.5-11> gsxn1000
344   <11-15.5> gsxn1200 <15.5-> gsxn1728}{-}
345 \DeclareFontShape{LGR}{lmss}{bx}{sl}
346   {<-8.5> gsxo0800
347   <8.5-9.5> gsxo0900 <9.5-11> gsxo1000
348   <11-15.5> gsxo1200 <15.5-> gsxo1728}{-}
349 \DeclareFontShape{LGR}{lmss}{bx}{it}
350   {<-8.5> gsxi0800
351   <8.5-9.5> gsxi0900 <9.5-11> gsxi1000
352   <11-15.5> gsxi1200 <15.5-> gsxi1728}{-}
353 \DeclareFontShape{LGR}{lmss}{bx}{iv}
354   {<-8.5> gsxe0800
355   <8.5-9.5> gsxe0900 <9.5-11> gsxe1000
356   <11-15.5> gsxe1200 <15.5-> gsxe1728}{-}
357 \DeclareFontShape{LGR}{lmss}{bx}{ui}
358   {<-8.5> gsxu0800
359   <8.5-9.5> gsxu0900 <9.5-11> gsxu1000
360   <11-15.5> gsxu1200 <15.5-> gsxu1728}{-}
361 \DeclareFontShape{LGR}{lmss}{bx}{uv}
362   {<-8.5> gsxa0800
363   <8.5-9.5> gsxa0900 <9.5-11> gsxa1000
364   <11-15.5> gsxa1200 <15.5-> gsxa1728}{-}
365 \DeclareFontShape{LGR}{lmss}{bx}{sc}
366   {<-8.5> gsxc0800
367   <8.5-9.5> gsxc0900 <9.5-11> gsxc1000
368   <11-15.5> gsxc1200 <15.5-> gsxc1728}{-}

```

And finally the Latin Modern typewriter font.

```

369 \DeclareFontFamily{LGR}{lmtt}{\hyphenchar\font\m@ne}
370 \DeclareFontShape{LGR}{lmtt}{m}{n}
371   {<-8.5> gttn0800 <8.5-9.5> gttn0900
372   <9.5-11> gttn1000 <11-15> gttn1200
373   <15-> gttn1728}{-}
374 \DeclareFontShape{LGR}{lmtt}{m}{it}
375   {<-> ssub*lmtt/m/sl}{-}
376 \DeclareFontShape{LGR}{lmtt}{m}{sl}
377   {<-8.5> gtto0800 <8.5-9.5> gtto0900
378   <9.5-11> gtto1000 <11-15> gtto1200
379   <15-> gtto1728}{-}
380 \DeclareFontShape{LGR}{lmtt}{m}{sc}
381   {<-8.5> gttc0800 <8.5-9.5> gttc0900
382   <9.5-11> gttc1000 <11-15> gttc1200
383   <15-> gttc1728}{-}
384 % shape undefined, substituted with unslanted
385 \DeclareFontShape{LGR}{lmtt}{m}{scsl}{<-> ssub*lmtt/m/sc}{-}

```

The slide fonts have not been mapped to the Latin Modern families and sizes, because there are no slide fonts in the LM collection. Moreover nowadays the traditional slide fonts are very seldom used, since slides are produced with other classes different from the class `slides`, and they use different fonts.

The next line goes into all files and in addition prevents DOCSTRIP from adding any further code from the main source file (such as a character table.

```
386 \endinput
```