The `euroitc` package to use the ITC euro symbols with LaTeX2e

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Contents

1   The ITC Euro Symbol Fonts

There already exists a variety of possibilities to typeset the euro symbol[1] – some are better, some are worse (and the default `\texteuro` is the worst . . .).

This package provides an interface to yet another set of euro symbols, which is available for free from the International Typeface Corporation[2].

This set contains of 16 distinct symbols; they cover a range of four weights: Book (i.e., regular), Medium, Bold and Black (extra bold), and are provided in upright and italic shapes. There are serif and sans serif variants of each of the weights and shapes.

None of these symbols conforms to the official design of the European Community, but in my opinion they have a less obtrusive appearance. Especially the seriffed variant looks more elegant to me than Adobe's version.

Table 1 presents all euro symbols included in the font sets from ITC.

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[1] With the following packages, at least: `europs`, `eurosans` (using the free Adobe fonts), `eurosym`, `marvosym`, `china2e`, and of course `textcomp`; `eurofont` tries to combine all these packages.

[2] `http://www.itcfonts.com/`

Weight	Serif	Sans Serif
Book (`m`)	€ €	€ €
Medium (`mb`)	€ €	€ €
Bold (`b`)	**€ €**	**€ €**
Black (`eb`)	**€ €**	**€ €**

Table 1: Samples of ITC euro symbols

2 Installation

To install the ITC euro fonts, follow these steps:

1. Run LaTeX on `euroitc.ins` and move `euroitc.sty` into a directory where TeX will find it (e.g. `tex/latex/euroitc`).

2. Move all `.tfm` files into a directory where TeX expects font metrics (e.g. `fonts/tfm/ITC/Euro`).

3. Download the font packages from ITC.[3] The PC versions consists of two self-extracting `.exe` files; these can also be extracted using a standard `unzip` programme. For installation on a Unix-oid system, download the PC versions.

4. Move all `.pfb` files from these archives to the directory `fonts/type1/ITC/Euro` and all `.afm` files to the directory `fonts/afm/ITC/Euro` of the TeXMF tree.

   All other files you obtained are irrelevant for TeX and can be trashed (or recycled for the non-TeX world).

5. Add either of the map files `euroitc.map` or `euroitc-origname.map` to the PS font map file(s). How to do this depends on your TeX system, and you should consult its local guide.

6. If you are using the map file `euroitc.map`, you also have to rename all `.pfb` files according to this scheme:

(PC name)	(Mac name)		
`EURSFW__.PFB`	`EuroSerITCBoo`	*to:*	`zieuk.pfb`
`EURSFWI.PFB`	`EuroSerITCBooIta`		`zieuki.pfb`
`EURSFM__.PFB`	`EuroSerITCMed`		`zieum.pfb`
`EURSFMI.PFB`	`EuroSerITCMedIta`		`zieumi.pfb`
`EURSFB__.PFB`	`EuroSerITCBol`		`zieub.pfb`
`EURSFBI.PFB`	`EuroSerITCBolIta`		`zieubi.pfb`
`EURSFBL_.PFB`	`EuroSerITCBla`		`zieuc.pfb`
`EURSFBLI.PFB`	`EuroSerITCBlaIta`		`zieuci.pfb`
`EURSNW__.PFB`	`EuroSanITCBoo`		`zieuks.pfb`
`EURSNWI.PFB`	`EuroSanITCBooIta`		`zieukis.pfb`
`EURSNM__.PFB`	`EuroSanITCMed`		`zieums.pfb`
`EURSNMI.PFB`	`EuroSanITCMedIta`		`zieumis.pfb`
`EURSNB__.PFB`	`EuroSanITCBol`		`zieubs.pfb`
`EURSNBI.PFB`	`EuroSanITCBolIta`		`zieubis.pfb`
`EURSNBL_.PFB`	`EuroSanITCBla`		`zieucs.pfb`
`EURSNBLI.PFB`	`EuroSanITCBlaIta`		`zieucis.pfb`

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[3]http://www.itcfonts.com/About/Euro.htm

and likewise all `.afm` files.

7. Update the file name database.

You can test the installation by running LATEX on the file `testeuroitc.tex`.

3 Usage

Using the `euroitc` package is as simple as this:

```
\usepackage{euroitc}
...
\euro
```

3.1 Options

The shape of the euro symbol will correspond to the shape of the current font –
i. e., in the context of a seriffed font, the euro symbol will be seriffed, too, while
in the context of a sanserif font, it will be sanserif. You can change this with the
following two options:

sans will always use the sans serif symbols, no matter what the current font is.
(In the early days of the euro, this was recommended by the EC; nowadays,
they have yielded to the practice and aesthetics of typography.)

serif will always use the serif symbols, no matter what the current font is.

While the symbols match in size with the Computer Modern font, other fonts
might appear bigger or smaller; therefore, the

scaled option has been introduced. If called without an argument, it will scale
the symbols to 95% of their size. If you want to scale them at a different
ratio, call the option as: `scale=`⟨*ratio*⟩, e. g. `scale=1.05`.

When using a font with a bolder semblance than the Computer Modern font
(Utopia for instance), you may want to use the following option:

bolder will use the Medium series instead of the Book series as the normal weight.
All other weights will be defined accordingly:

NFSS code	default	`bolder` option
`l`	–	Book
`m`	Book	Medium
`mb`	Medium	Bold
`b`	Bold	Black
`eb`	Black	–

3.2 Typesetting the euro symbol

`\euro` To typeset the euro symbol, type `\euro`.
     If the euro symbol is defined in the input encoding you are using (e. g. `ansinew`,
`latin9`), you might also want to add the line

```
\let\texteuro\euro
```

to your preamble, so that you are able to produce the euro symbol by simply pressing the euro symbol key on your keyboard.

Should this prove necessary, you can also typeset the sanserif variants (regardless of any options or the current font family) by typing \sanseuro; to typeset the seriffed variants, use \serifeuro.

\sanseuro
\serifeuro

4 Implementation

4.1 Options

```
1 ⟨*package⟩
2 \NeedsTeXFormat{LaTeX2e}
3 \RequirePackage{keyval}
4 \RequirePackage{ifthen}
5 \newif\ifEuroitc@sans
6 \newif\ifEuroitc@serif
7 \newif\ifEuroitc@bolder
8 \define@key{Euroitc}{sans}[true]{\csname Euroitc@sans#1\endcsname}
9 \define@key{Euroitc}{serif}[true]{\csname Euroitc@serif#1\endcsname}
10 \define@key{Euroitc}{bolder}[true]{\csname Euroitc@bolder#1\endcsname}
11 \let\euroitc@@Scale\@empty
12 \define@key{Euroitc}{scaled}[.95]{\def\euroitc@@Scale{s*[#1]}}
13 \def\ProcessOptionsWithKV#1{%
14   \let\@tempc\relax
15   \let\Euroitc@tempa\@empty
16   \@for\CurrentOption:=\@classoptionslist\do{%
17     \@ifundefined{KV@#1@\CurrentOption}%
18     {}%
19     {\edef\Euroitc@tempa{\Euroitc@tempa,\CurrentOption,}}%
20   }%
21   \edef\Euroitc@tempa{%
22     \noexpand\setkeys{#1}{%
23       \Euroitc@tempa\@ptionlist{\@currname.\@currext}%
24     }%
25   }%
26   \Euroitc@tempa
27 }
28 \ProcessOptionsWithKV{Euroitc}
29 \AtEndOfPackage{\let\@unprocessedoptions\relax}
30 \ifEuroitc@serif\ifEuroitc@sans
31   \PackageWarningNoLine{euroitc}{%
32     You cannot use both options 'sans' and 'serif' at the\MessageBreak
33     same time! I will pretend you meant to say nothing}%
34   \Euroitc@seriffalse
35   \Euroitc@sansfalse
36 \fi\fi
```

4.2 Font families

The ITC euro symbols are provided in four series (weights), each of them in upright and italic. We will declare two sets of families: One, in which the 'Medium' weight is the default, and one, which uses the 'Book' weight as mddefault. First the bolder sets:

```
37 \ifEuroitc@bolder
38   \DeclareFontFamily{U}{euroitcs}{}
39   \DeclareFontShape{U}{euroitcs}{l} {n} {<-> \euroitc@@Scale zieuks}{}
40   \DeclareFontShape{U}{euroitcs}{l} {it}{<-> \euroitc@@Scale zieukis}{}
41   \DeclareFontShape{U}{euroitcs}{l} {sl}{<->ssub * euroitcs/l/it}{}
42   \DeclareFontShape{U}{euroitcs}{m} {n} {<-> \euroitc@@Scale zieums}{}
43   \DeclareFontShape{U}{euroitcs}{m} {it}{<-> \euroitc@@Scale zieumis}{}
44   \DeclareFontShape{U}{euroitcs}{m} {sl}{<->ssub * euroitcs/m/it}{}
45   \DeclareFontShape{U}{euroitcs}{mb}{n} {<-> \euroitc@@Scale zieubs}{}
46   \DeclareFontShape{U}{euroitcs}{mb}{it}{<-> \euroitc@@Scale zieubis}{}
47   \DeclareFontShape{U}{euroitcs}{mb}{sl}{<->ssub * euroitcs/mb/it}{}
48   \DeclareFontShape{U}{euroitcs}{b} {n} {<-> \euroitc@@Scale zieucs}{}
49   \DeclareFontShape{U}{euroitcs}{b} {it}{<-> \euroitc@@Scale zieucis}{}
50   \DeclareFontShape{U}{euroitcs}{b} {sl}{<->ssub * euroitcs/b/it}{}
51   \DeclareFontShape{U}{euroitcs}{bx}{n} {<->ssub * euroitcs/b/n}{}
52   \DeclareFontShape{U}{euroitcs}{bx}{sl}{<->ssub * euroitcs/b/it}{}
53   \DeclareFontShape{U}{euroitcs}{bx}{it}{<->ssub * euroitcs/b/it}{}
54   \DeclareFontShape{U}{euroitcs}{eb}{n} {<->sub * euroitcs/b/n}{}
55   \DeclareFontShape{U}{euroitcs}{eb}{it}{<->sub * euroitcs/b/it}{}
56   \DeclareFontShape{U}{euroitcs}{eb}{sl}{<->ssub * euroitcs/eb/it}{}
57   \DeclareFontFamily{U}{euroitc}{}
58   \DeclareFontShape{U}{euroitc} {l} {n} {<-> \euroitc@@Scale zieuk}{}
59   \DeclareFontShape{U}{euroitc} {l} {it}{<-> \euroitc@@Scale zieuki}{}
60   \DeclareFontShape{U}{euroitc} {l} {sl}{<->ssub * euroitc/l/it}{}
61   \DeclareFontShape{U}{euroitc} {m} {n} {<-> \euroitc@@Scale zieum}{}
62   \DeclareFontShape{U}{euroitc} {m} {it}{<-> \euroitc@@Scale zieumi}{}
63   \DeclareFontShape{U}{euroitc} {m} {sl}{<->ssub * euroitc/m/it}{}
64   \DeclareFontShape{U}{euroitc} {mb}{n} {<-> \euroitc@@Scale zieub}{}
65   \DeclareFontShape{U}{euroitc} {mb}{it}{<-> \euroitc@@Scale zieubi}{}
66   \DeclareFontShape{U}{euroitc} {mb}{sl}{<->ssub * euroitc/mb/it}{}
67   \DeclareFontShape{U}{euroitc} {b} {n} {<-> \euroitc@@Scale zieuc}{}
68   \DeclareFontShape{U}{euroitc} {b} {it}{<-> \euroitc@@Scale zieuci}{}
69   \DeclareFontShape{U}{euroitc} {b} {sl}{<->ssub * euroitc/b/it}{}
70   \DeclareFontShape{U}{euroitc} {bx}{n} {<->ssub * euroitc/b/n}{}
71   \DeclareFontShape{U}{euroitc} {bx}{sl}{<->ssub * euroitc/b/it}{}
72   \DeclareFontShape{U}{euroitc} {bx}{it}{<->ssub * euroitc/b/it}{}
73   \DeclareFontShape{U}{euroitc} {eb}{n} {<->sub * euroitc/b/n}{}
74   \DeclareFontShape{U}{euroitc} {eb}{it}{<->sub * euroitc/b/it}{}
75   \DeclareFontShape{U}{euroitc} {eb}{sl}{<->ssub * euroitc/eb/it}{}
```

Otherwise the default:

```
76 \else
77   \DeclareFontFamily{U}{euroitcs}{}
78   \DeclareFontShape{U}{euroitcs}{l} {n} {<->sub * euroitcs/m/n}{}
79   \DeclareFontShape{U}{euroitcs}{l} {it}{<->sub * euroitcs/m/it}{}
80   \DeclareFontShape{U}{euroitcs}{l} {sl}{<->sub * euroitcs/l/it}{}
81   \DeclareFontShape{U}{euroitcs}{m} {n} {<-> \euroitc@@Scale zieuks}{}
82   \DeclareFontShape{U}{euroitcs}{m} {it}{<-> \euroitc@@Scale zieukis}{}
83   \DeclareFontShape{U}{euroitcs}{m} {sl}{<->ssub * euroitcs/m/it}{}
84   \DeclareFontShape{U}{euroitcs}{mb}{n} {<-> \euroitc@@Scale zieums}{}
85   \DeclareFontShape{U}{euroitcs}{mb}{it}{<-> \euroitc@@Scale zieumis}{}
86   \DeclareFontShape{U}{euroitcs}{mb}{sl}{<->ssub * euroitcs/mb/it}{}
87   \DeclareFontShape{U}{euroitcs}{b} {n} {<-> \euroitc@@Scale zieubs}{}
88   \DeclareFontShape{U}{euroitcs}{b} {it}{<-> \euroitc@@Scale zieubis}{}
89   \DeclareFontShape{U}{euroitcs}{b} {sl}{<->ssub * euroitcs/b/it}{}
```

```
 90    \DeclareFontShape{U}{euroitcs}{bx}{n} {<->ssub * euroitcs/b/n}{}
 91    \DeclareFontShape{U}{euroitcs}{bx}{sl}{<->ssub * euroitcs/b/it}{}
 92    \DeclareFontShape{U}{euroitcs}{bx}{it}{<->ssub * euroitcs/b/it}{}
 93    \DeclareFontShape{U}{euroitcs}{eb}{n} {<-> \euroitc@@Scale zieucs}{}
 94    \DeclareFontShape{U}{euroitcs}{eb}{it}{<-> \euroitc@@Scale zieucis}{}
 95    \DeclareFontShape{U}{euroitcs}{eb}{sl}{<->ssub * euroitcs/eb/it}{}
 96  \DeclareFontFamily{U}{euroitc}{}
 97    \DeclareFontShape{U}{euroitc}{l} {n} {<->sub * euroitc/m/n}{}
 98    \DeclareFontShape{U}{euroitc}{l} {it}{<->sub * euroitc/m/it}{}
 99    \DeclareFontShape{U}{euroitc}{l} {sl}{<->ssub * euroitc/l/it}{}
100    \DeclareFontShape{U}{euroitc}{m} {n} {<-> \euroitc@@Scale zieuk}{}
101    \DeclareFontShape{U}{euroitc}{m} {it}{<-> \euroitc@@Scale zieuki}{}
102    \DeclareFontShape{U}{euroitc}{m} {sl}{<->ssub * euroitc/m/it}{}
103    \DeclareFontShape{U}{euroitc}{mb}{n} {<-> \euroitc@@Scale zieum}{}
104    \DeclareFontShape{U}{euroitc}{mb}{it}{<-> \euroitc@@Scale zieumi}{}
105    \DeclareFontShape{U}{euroitc}{mb}{sl}{<->ssub * euroitc/mb/it}{}
106    \DeclareFontShape{U}{euroitc}{b} {n} {<-> \euroitc@@Scale zieub}{}
107    \DeclareFontShape{U}{euroitc}{b} {it}{<-> \euroitc@@Scale zieubi}{}
108    \DeclareFontShape{U}{euroitc}{b} {sl}{<->ssub * euroitc/b/it}{}
109    \DeclareFontShape{U}{euroitc}{bx}{n} {<->ssub * euroitc/b/n}{}
110    \DeclareFontShape{U}{euroitc}{bx}{sl}{<->ssub * euroitc/b/it}{}
111    \DeclareFontShape{U}{euroitc}{bx}{it}{<->ssub * euroitc/b/it}{}
112    \DeclareFontShape{U}{euroitc}{eb}{n} {<-> \euroitc@@Scale zieuc}{}
113    \DeclareFontShape{U}{euroitc}{eb}{it}{<-> \euroitc@@Scale zieuci}{}
114    \DeclareFontShape{U}{euroitc}{eb}{sl}{<->ssub * euroitc/eb/it}{}
115 \fi
```

4.3   User Commands

\sanseuro The sanserif and seriffed variants of the Euro symbols will always be available as
\serifeuro \sanseuro resp. \serifeuro:

```
116 \DeclareRobustCommand*{\sanseuro}{%
117    {\fontencoding{U}\fontfamily{euroitcs}\selectfont E}%
118 }
119 \DeclareRobustCommand*{\serifeuro}{%
120    {\fontencoding{U}\fontfamily{euroitc}\selectfont E}%
121 }
```

\euro Finally the macro that will actually typeset the euro symbol, depending on the
current font and the package options:

```
122 \DeclareRobustCommand*{\euro}{%
123    \ifthenelse{\equal{\f@family}{\rmdefault}}%
124       {\ifEuroitc@sans\sanseuro\else\serifeuro\fi}%
125       {\ifEuroitc@serif\serifeuro\else\sanseuro\fi}%
126 }
127 ⟨/package⟩
```

5   Testing the Installation

```
128 ⟨*test⟩
129 \documentclass{article}
130 \usepackage{euroitc}
```

```
131 \newcommand{\showeuro}[2]{#1 ({\ttfamily#2}) &
132    \usefont{U}{euroitc} {#2}{n}\euro\ \textit{\euro} &
133    \usefont{U}{euroitcs}{#2}{n}\euro\ \textit{\euro} \\}
134 \begin{document}
135 \centering
136 {\LARGE Testing the {\ttfamily euroitc} package\par}
137
138 \bigskip
139 \begin{tabular}{lll}
140    Weight & Serif & Sans Serif\\
141 \hline\\[-1em]
142    \showeuro{Book}  {m}
143    \showeuro{Medium}{mb}
144    \showeuro{Bold}  {b}
145    \showeuro{Black} {eb}
146 \end{tabular}
147 \end{document}
148 ⟨/test⟩
```