

The `tablefootnote` package

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Abstract

This L^AT_EX package provides the command `\tablefootnote` to be used in a `table` or `sidewaystable` environment, where `\footnote` will not work and when using `\footnotemark` and `\footnotetext` and adjusting the counters (including `Hfootnote`) manually is either too much work or would not even work (`sidewaystable`).

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Save per page about 200 ml water, 2 g CO₂ and 2 g wood:
Therefore please print only if this is really necessary.

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1 Introduction

This L^AT_EX package provides the command `\tablefootnote{...}` to be used in a `table` or `sidewaystable` environment. In those environments `\footnote{...}` would not work and would need to be replaced by `\footnotemark` in the `(sideways)table` and `\footnotetext{...}` after the `(sideways)table` environment ended. Additionally the counters for `footnote` and (when the `hyperref` package is used) `Hfootnote` would need to be adjusted manually. Then still the hyperlinks in a `(sideways)table` would not work. Just using `\tablefootnote{...}` in the `(sideways)table` does all this automatically. (Redefining `\footnote` was *not* done as to not create conflicts with other packages.)

2 Usage

Just load the package placing

```
\usepackage{tablefootnote}
```

in the preamble of your L^AT_EX_{2 ϵ} source file and use `\tablefootnote{...}` instead of `\footnote{...}` in `(sideways)tables`. If `\tablefootnote{...}` is used in a tabular environment, which is inside of a `(sideways)table` environment, everything is fine, but when the tabular environment is not inside of a `(sideways)table`,

the `tablefootnote` will not work.

Pages with tables with footnotes, which are rotated with the `lscape`- or with the `pdfscape`-package (`\begin{landscape}`, `table`, `\end{landscape}`), are possible. But when the `footmisc`-package is used, `(pdf)lscape` should be loaded before `footmisc`.

When the `footmisc`-package is used with option `para`, this is regarded with the exception of a `sidewaystable`. There the footnotes are printed one below the other. (Well, this is better than no footnote in a `sidewaystable` at all, isn't it?)

When the `(sideways)table` floats, the footnotes are set and (when `hyperref` is used) hyperlinked, but they are not automatically adapted when the table floats over/under another footnote. Thus either do not use a footnote between original and float position of the `(sideways)table`, or place the `(sideways)table` in “here” position. `\clear(double)page`, `h(!)`, `H` from the `float` package (<http://www.ctan.org/pkg/float>), or `\FloatBarrier` from the `picins` package (<http://www.ctan.org/pkg/picins>) might help, too. (Or after finishing the document, move the `(sideways)table` in the source code near the position where it floats to.)

3 Alternatives

- The `longtable` package provides the `longtable` environment as replacement for the combined `table` and `tabular` environments. Footnotes are real footnotes (not just tablenotes), are continuously numbered and hyperlinked (when using the `hyperref` package), and the hyperlinks really work. As drawback the appearance of the caption changes slightly (e. g. distance to the table, width of the caption), which can probably be changed back manually. Furthermore, longtables are meant to break over more than one page. If that is not wished, it must be prevented by `\nopagebreak`-commands and by ending the longtable lines with `*` instead of `\\`. longtables do not float. (Therefore using the `tablefootnote` package and `\FloatBarrier` from the `picins` package before and after the table environment is similar - but `tablefootnote` does not change the table-caption!) `sidewaystable` does not work with it.
<http://www.ctan.org/pkg/longtable>
- The `supertabular` package provides the `mpsupertabular` environment as replacement for the combined `table` and `tabular` environments. Footnotes are just tablenotes (with working hyperlinks when using the `hyperref` package), i. e. numbered a, b, c and placed below the table and not at the end of the page. Therefore there is no float problem (because the tablenotes numbering is not included in the continuous numbering of the footnotes). Placing the `supertabular` inside of a `sidewaystable` breaks the hyperlinks to the tablenotes.
<http://www.ctan.org/pkg/supertabular>
- The `ctable` package has its very own notation for defining tables. It can create tablenotes and sideways-tables. The tablenotes are not automatically hyperlinked. The `ctables` float. Because the tablenotes numbering is not included in the continuous numbering of the footnotes there is no float problem.
<http://www.ctan.org/pkg/ctable>

- The `footnote` package provides `\makesavenoteenv{table}`. After loading the package and using that command in the preamble, in tables `\footnote{...}` can be used. Using `\makesavenoteenv{tabular}` and `\makesavenoteenv{sidewaystable}` is possible, but it neither solves the float problem, nor do the created hyperlinks work (i.e. they aim at wrong locations). The `mdwtab` from the same bundle is incompatible with other table-related packages (e.g. `supertabular`, `array`) and not 100% compatible with the `tabular` environment.
<http://www.ctan.org/pkg/footnote>
<http://www.ctan.org/pkg/mdwtab>
- The `tabularx` package does produce footnotes for `sidewaystable`s, but uses a, b, c instead of 1, 2, 3. The hyperlinks to the footnotes do not work. Because the footnotes numbering is not included in the continuous numbering of the other footnotes there is no float problem.
<http://www.ctan.org/pkg/tabularx>
- Placing a `tabular` inside a `minipage` inside a table produces `tablenotes`. Therefore there is no float problem (because the footnotes are not continuously numbered). The hyperlinks to the table notes indeed work.
- The `threeparttable` package creates `tablenotes` again. Therefore there is no float problem (because the `tablenotes` are not continuously numbered with the footnotes). There are no hyperlinks to the table notes (at least not automatically). Using `sidewaystable` (with table notes) works.
<http://www.ctan.org/pkg/threeparttable>
- The `threeparttablex` package creates `tablenotes` again. Therefore there is no float problem (because the `tablenotes` are not continuously numbered with the footnotes). With option `referable` the `tablenotes` are hyperlinked. Use of a `sidewaystable` (with table notes) did not work for me. When using the `referable` option according to the example in the `threeparttablex` manual the `longtable` package is used, therefore that package could be used directly without `threeparttablex` (see above).
<http://www.ctan.org/pkg/threeparttablex>
- One can manually use `\footnotemark` in the table and `\footnotetext{...}` after the table environment ended and manually change the `footnote` and (when the `hyperref` package is used) `Hfootnote` counters and needs to insert

```

\makeatletter
\global\let\Hy@saved@currentHref\@currentHref
\hyper@makecurrent{Hfootnote}%
\global\let\Hy@footnote@currentHref\@currentHref
\global\let\@currentHref\Hy@saved@currentHref
\makeatother

```

before each `\footnotetext{...}`, but with more than very few footnotes this can become much work (and prone to produce errors). And this does not even work with `sidewaystable`s.

(You programmed or found another alternative, which is available at [CTAN](#)? OK, send an e-mail to me with the name, location at [CTAN](#):, and a short notice, and I will probably include it in the list above.)

4 Example

```

1 (*example)
2 \documentclass[british]{article}[2007/10/19]% v1.4h
3 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4 \usepackage{float}[2001/11/08]% v1.3d
5 \usepackage{placeins}[2005/04/18]% v2.2 ; for \FloatBarrier
6 \usepackage{rotating}[2009/03/28]% v2.16a; for sidewaysstable-environment
7 \usepackage[%
8 extension=pdf,%
9 plainpages=false,%
10 pdfpagelabels=true,%
11 hyperindex=false,%
12 pdflang={en},%
13 pdftitle={tablefootnote package example},%
14 pdfauthor={H.-Martin Muench},%
15 pdfsubject={Example for the tablefootnote package},%
16 pdfkeywords={LaTeX, tablefootnote, footnote, table, H.-Martin Muench},%
17 % pdfview=FitH and FitBH do not work: hyperlinks in sidewaysstable
18 % do no lead to the footnotes, due to a bug in pdfTeX,
19 % computing wrong anchor coordinates (Heiko Oberdiek, 29. October 2011)
20 % pdfview=Fit, FitV, FitR, FitB, FitBV work
21 % print is OK for all those options
22 pdfstartview=FitH,%
23 pdfpagelayout=OneColumn%
24 ]{hyperref}[2011/12/04]% v6.82m
25 % Due to the urls used in the example, either the hyperref or the url
26 % package are needed (or the urls must be removed before compiling).
27
28 \usepackage{tablefootnote}[2012/01/01]% v1.0f
29
30 \gdef\unit#1{\mathord{\thinspace\mathrm{#1}}}%
31 \listfiles
32 \begin{document}
33 \pagenumbering{arabic}
34 \section*{Example for tablefootnote}
35
36 This example demonstrates the use of package\newline
37 \textsf{tablefootnote}, v1.0f as of 2012/01/01 (HMM).\newline
38 There were no options used. (The package provides no options.)\newline
39
40 \textbf{The \texttt{tablefootnote-example.tex} needs to be compiled}
41 \textbf{at least twice to get the references right!}\newline
42
43 If the etoolbox-package is found, it is automatically used.\newline
44
45 For more details please see the documentation!\newline
46
47 \noindent Save per page about $200\unit{ml}$ water,
48 $2\unit{g}$ CO$_2$ and $2\unit{g}$ wood:\newline
49 Therefore please print only if this is really necessary.\newline
50
51 Here is some text.\footnote{And this is a text footnote.}\newline
52
53 Tables \ref{tab.symbol}, \ref{tab.normal}, \ref{tab.another} and
54 \ref{tab.floatH} show normal tables, table~\ref{tab.sideways} depicts
55 a sidewaysstable. Table~\ref{tab.floatH} uses the float
56 specifier~\texttt{H} from the float package.\newline

```

```

57
58 \texttt{Hyperref} option \verb|pdfview=FitH| and \verb|FitBH| do
59 not work due to a bug in pdf\TeX{}, computing wrong
60 anchor coordinates (\textsc{Heiko Oberdiek}, 29. October 2011).
61 Depending on used pdf-viewer, hyperlinks in sideways tables lead
62 e.\,g.~at the end of the document, not at the footnote.
63 \verb|pdfview=Fit|, \verb|FitV|, \verb|FitR|, \verb|FitB|,
64 \verb|FitBV| work, print is OK for all those options.
65
66 \bigskip
67
68 \listoftables
69
70 \pagebreak
71
72 \renewcommand{\thefootnote}{\fnsymbol{footnote}}
73 \verb|\renewcommand{\thefootnote}{\fnsymbol{footnote}}|
74 causes footnote-symbol-footnotes, which are possible
75 (see Table~\ref{tab.symbol}).
76
77 \begin{table}
78 \centering
79 \begin{tabular}{ccc}
80 Another\tablefootnote{A table footnote.} & & %
81 text\tablefootnote{Another table footnote.} & & %
82 in a table\tablefootnote{A third table footnote.} \\
83 \end{tabular}
84 \caption[A footnotesymbol table]{%
85 A table with footnote-symbol-footnotes.\label{tab.symbol}}
86 \end{table}
87
88 Some text.\footnote{A text footnote.}
89
90 \renewcommand{\thefootnote}{\arabic{footnote}}
91 \verb|\renewcommand{\thefootnote}{\arabic{footnote}}|
92 switches back to normal footnote numbers again.
93
94 \pagebreak
95
96 \begin{table}
97 \centering
98 \begin{tabular}{ccc}
99 Some\tablefootnote{A table footnote.} & & %
100 text\tablefootnote{Another table footnote.} & & %
101 in a table\tablefootnote{A third table footnote.} \\
102 \end{tabular}
103 \caption[A table]{A normal table.\label{tab.normal}}
104 \end{table}
105
106 Some text.\footnote{Another text footnote.}
107
108 \pagebreak
109

```

```

110 More text.\footnote{And yet another text footnote.}
111
112 \begin{table}[t]
113 \centering
114 \begin{tabular}{|c|c|c|}
115 \hline
116 Another\tablefootnote{A $3^{rd}$ table footnote.} & %
117 text\tablefootnote{Another $3^{rd}$ table footnote.} & %
118 in a table\tablefootnote{A $3^{rd}$ third table footnote.}\\ \hline
119 \end{tabular}
120 \caption[Another table]{Another table (third one)\label{tab.another}}
121 \end{table}
122
123 Please note that Table~\ref{tab.another} floated to the top of the page.
124 While the footnotes are set and (when hyperref is used) hyperlinked,
125 they are not automatically adapted. Thus either do not use a footnote
126 at the same page before the table, or place the table in
127 \textquotedblleft here\textquotedblright\ or
128 \textquotedblleft bottom\textquotedblright\ position.
129 \verb|\clear(double)page|, \verb|h(!)|, \verb|H|~from the
130 \texttt{float} package, or \verb|\FloatBarrier| from the
131 \texttt{picins} package might help, too. (Or move the table in the
132 source code near the position where it floats to.)
133
134 Table~\ref{tab.floatH} (page~\pageref{tab.floatH}) uses float specifier
135 \texttt{H} from the float package and does not float.
136
137 Some text.\footnote{This is just another text footnote.}
138
139 \pagebreak
140
141 \FloatBarrier
142
143 \begin{sidewaystable}
144 \centering%
145 \begin{tabular}{ccc}
146 Text\tablefootnote{Please rotate the view for testing the %
147 hyperlinks.} & %
148 in a\tablefootnote{Another sidewaystable footnote.} & %
149 sidewaystable%
150 \tablefootnote{Sidewaystable-environment provided by %
151 \url{http://CTAN.org/pkg/rotating} package.}
152 \end{tabular}
153 \caption[A sideways table]{A table in the \texttt{sideways} %
154 environment\label{tab.sideways}}%
155 \end{sidewaystable}%
156
157 \FloatBarrier
158
159 \pagebreak
160

```

```

161 A last table, here with float specifier \texttt{H} from the
162 float\footnote{\url{http://CTAN.org/pkg/float}} package.
163
164 \begin{table}[H]
165 \centering
166 \begin{tabular}{ccc}
167 Another\tablefootnote{A  $5^{\text{th}}$  table footnote.} & & %
168 text\tablefootnote{Another  $5^{\text{th}}$  table footnote.} & & %
169 in a table\tablefootnote{A  $5^{\text{th}}$  third table footnote.}
170 \end{tabular}
171 \caption[A last table]{A very last table\label{tab.floatH}}
172 \end{table}
173
174 Some text.\footnote{This is just another text footnote.}
175
176 \pagebreak
177
178 End of the example for the
179 tablefootnote\footnote{\url{http://CTAN.org/pkg/tablefootnote}} package.
180
181 \end{document}
182 \end{example}

```


5 The implementation

We start off by checking that we are loading into L^AT_EX 2_ε and announcing the name and version of this package.

```
183 (*package)
184 \NeedsTeXFormat{LaTeX2e}[2011/06/27]
185 \ProvidesPackage{tablefootnote}[2012/01/01 v1.0f
186         Table foot notes (HMM)]
```

A short description of the tablefootnote package:

```
187 %% Provides the \tablefootnote{...} command
188 %% for footnotes in (sideways)tables.
189
```

We need the ltxcmds package by HEIKO OBERDIEK:

```
190 \RequirePackage{ltxcmds}[2011/04/18]%      v1.20
```

A last information for the user:

```
191 %% tablefootnote may work with earlier versions of LaTeX and that
192 %% package, but this was not tested. Please consider updating
193 %% your LaTeX and packages to the most recent version
194 %% (if they are not already the most recent version).
195
```

See subsection 6.1 about how to get them.

When the rotating package (for sideways tables) is used, it must be loaded before the tablefootnote package and it must be a recent version:

```
196 \@ifpackageloaded{rotating}{%
197   \gdef\tfn@rotating{1}
198   \@ifpackagelater{rotating}{2009/03/28}% v2.16a
199   {% >= 2009/03/28, OK
200   }{% else
201     \PackageWarningNoLine{tablefootnote}{%
202       It is required version\MessageBreak%
203       2009/03/28 v2.16a (or later) of package rotating,\MessageBreak%
204       but only version\MessageBreak%
205       ‘\csname ver@rotating.sty\endcsname’\MessageBreak%
206       is available}%
207   }%
208 }{% else
209   \gdef\tfn@rotating{0}%
210 }
211
```

There are no options to be processed.

We need some definitions:

```
212 \def\tfn@footnotetablecount{0}
213 \def\tfn@footnotetableprint{0}
214 \def\tfn@footnotezero{0}
215 \def\tfn@fnt{0}
216 \def\tfn@swt{0}% _s_ide_w_ays_t_able
217 \def\tfn@fmpw{\relax}% f_oot_m_isc_p_ara_w_arn-switch
218
```

`\tfn@footnotemarks` `\tfn@footnotemarks` uses the `\footnotemark` command to place a foot note mark and decreases the `\tfn@footnotetablecount` (i.e. increases the negative value) of the number of footnote(marks) in the table.

```
219 \newcommand{\tfn@footnotemarks}{%
220   \footnotemark%
221   \@tempcnta=\tfn@footnotetablecount\relax%
222   \advance\@tempcnta by -1%
223   \xdef\tfn@footnotetablecount{\the\@tempcnta}%
224 }
225
```

`\tfn@footmiscparawarn` When the `footmisc` package is used with option `para`, we need to issue a warning. (Any idea how to resolve this issue?) It must be given inside of it's own command, because `\ifFN@para` is not defined when `footmisc` has not been loaded, and then the `\fi` would be a `\fi` without `\if` (and `TEX` does not like single `\fis`).

```
226 \newcommand{\tfn@footmiscparawarn}{%
227   \ifFN@para%
228     \PackageWarning{tablefootnote}{%
229       Package footmisc with option para used.\MessageBreak%
230       Unfortunately package tablefootnote is not yet\MessageBreak%
231       able to regard this in sideways tables.\MessageBreak%
232       Here the footnotes are printed one below\MessageBreak%
233       the other. Sorry.\MessageBreak%
234     }%
235   \fi%
236 }
237
```

`\tfn@footnotetext` `\tfn@footnotetext` contains the `\footnotetext{...}` command and handles the numbering. `\tfn@footnotetext` will be executed after the table. The foot note counter has been increased automatically with each `\footnotemark`, therefore it must be reset to its value before the table began.

```
238 \newcommand{\tfn@footnotetext}[1]{%
239   \ifx\tfn@footnotetableprint\tfn@footnotezero%
240     % This is the first footnotetext after the (sideways)table.
241     \addtocounter{footnote}{\tfn@footnotetablecount}%

```

When the `hyperref` package is used, also its `Hfootnote` counter must be reset.

```
242   \ltx@ifpackageloaded{hyperref}{%
243     \addtocounter{Hfootnote}{\tfn@footnotetablecount}%
244   }{}%
245   \fi%

```

For issuing the text for the next footnote the footnote-counter (and `Hfootnote` counter) are increased by one.

```
246   \addtocounter{footnote}{+1}%
247   \ltx@ifpackageloaded{hyperref}{%
248     \addtocounter{Hfootnote}{+1}%

```

The `hyperref` package was not expecting this kind of change of the (H)footnote numbers, therefore some code-lines are missing here which can be found at other places in that same package.

```
249   % Code form the hyperref package, 2011/10/01, v6.82j, newer versions available
250   % by Heiko Oberdiek
251   \global\let\Hy@saved@currentHref\@currentHref%
252   \hyper@makecurrent{Hfootnote}%

```

```

253 \global\let\Hy@footnote@currentHref\@currentHref%
254 \global\let\@currentHref\Hy@saved@currentHref%
255 % End of code form the hyperref package

```

When hyperref is not loaded, nothing is to be done here.

```

256 }{}% else \relax

```

The `\footnotetext{...}` places the foot note text as usual.

```

257 \ifx\tfn@swt\tfn@footnotezero%
258 \footnotetext{#1}%
259 \else%

```

If there is more than one tablefootnote in the `sidewaystable`, the `\tfn@footmiscparawarn` shall be given,

```

260 \ifx\tfn@footnotetableprint\tfn@footnotezero%
261 \gdef\tfn@fmpw{\tfn@footmiscparawarn}%
262 \else%
263 \ltx@ifpackageloaded{footmisc}{\tfn@fmpw}{\relax}%

```

but we do not want to repeat the message for a third(, forth,...) tablefootnote in the `sidewaystable`.

```

264 \gdef\tfn@fmpw{relax}%
265 \fi%

```

`\@makefnmark` is

`\hbox {\@textsuperscript {\normalfont \@thefnmark }}`, but according to `\show\@thefnmark` here `\@thefnmark` is `{\protect \itshape}` instead of `\thefootnote` (Why?!).

```

266 \footnotetext{\hbox {\@textsuperscript {\normalfont \thefootnote %
267 }}\thinspace #1}%
268 \fi%

```

For further footnotes in the table the

`\ifx\tfn@footnotetableprint\tfn@footnotezero... \fi` form the beginning of this `\tfn@footnotetext` macro must not be repeated, therefore we deactivate this by defining `\tfn@footnotetableprint` to something other than 0 (here 1 is used).

```

269 \gdef\tfn@footnotetableprint{1}%

```

`\tfn@footnotetablecount` contains the negative number of footnote texts to be printed, therefore it is increase by one (i.e. the negative number decreases, i.e. -3 becomes -2).

```

270 \@tempcnta=\tfn@footnotetablecount\relax%
271 \advance\@tempcnta by +1%
272 \xdef\tfn@footnotetablecount{\the\@tempcnta}%

```

When it is zero, all footnote texts have been placed, and

`\tfn@footnotetableprint` can be reset to zero and

`\tfn@tablefootnoteprintout` can be cleared.

```

273 \ifx\tfn@footnotetablecount\tfn@footnotezero% all footnotes placed
274 \gdef\tfn@footnotetableprint{0}%
275 \global\let\tfn@tablefootnoteprintout\relax% brute force
276 %\else there is at least one \footnotemark which needs \footnotetext
277 \fi
278 }
279

```

`\tfn@tablefootnoteprintout` When something shall be cleared or redefined, it is a good idea to define it. It will be later filled with the foot note text to be printed.

```
280 \newcommand{\tfn@tablefootnoteprintout}{\relax}
281
```

`\tablefootnote` `\tablefootnote{...}` is the command to be used by the user instead of `\footnote{...}` in the table. It places a foot note mark via `\tfn@footnotemarks` and appends a `\tfn@footnotetext{#1}` to the `\tfn@tablefootnoteprintout` macro. (And remembers that table foot notes have been used.)

```
282 \newcommand{\tablefootnote}[1]{%
283 \tfn@footnotemarks%
284 \ltx@GlobalAppendToMacro{%
285 \tfn@tablefootnoteprintout}{\tfn@footnotetext{#1}}%
286 \gdef\tfn@fnt{1}%
287 }
288
```

`\tfn@swtbox` For `sidewaystable`s the `\tfn@tablefootnoteprintout` is placed in a `\parbox`, which can be placed at the end of the `sidewaystable`:

```
289 \newcommand{\tfn@swtbox}{%
290 \ifvoid \footins%
291 \vskip 2\baselineskip%
292 \else%
293 \vskip \skip\footins%
294 \fi%
295 \parbox[b][][t]{\linewidth}{\raggedright \tfn@tablefootnoteprintout}%
296 }
297
```

`\tfn@tablefootnoteprintout` shall be executed after the end of the table environment. The `etoolbox` package provides very easy syntax for this:

```
298 \IfFileExists{etoolbox.sty}{%
299 \RequirePackage{etoolbox}[2011/01/03]% v2.1
300 \AfterEndEnvironment{table}{%
301 \tfn@tablefootnoteprintout%
302 \gdef\tfn@fnt{0}%
303 }

```

When the rotating package has been loaded, we need to detect whether the `\tablefootnote` is placed inside of a `sidewaystable`.

```
304 \ltx@ifpackageloaded{rotating}{%
305 \AtBeginEnvironment{sidewaystable}{%
306 \gdef\tfn@swt{1}%
307 }

```

At the end of `sidewaystable` environments `\tfn@swtbox` shall be placed (if there was any `\tablefootnote` in that `sidewaystable` at all). And `\tfn@swt` as well as `\tfn@fnt` must be reset to 0.

```
308 \AtEndEnvironment{sidewaystable}{%
309 \ifx\tfn@fnt\tfn@footnotezero% \relax
310 \else%
311 \tfn@swtbox%
312 \fi%
313 \gdef\tfn@swt{0}%
314 \gdef\tfn@fnt{0}%
315 }%
316 }{}% else \relax
317 }{%

```

When the etoolbox package is not available (e.g. because of missing ε -TeX) we do a workaround:

```

318 \PackageWarning{tablefootnote}{%
319   Package etoolbox not available, therefore\MessageBreak%
320   substituting commands \string\AtEndEnvironment\space %
321   and\MessageBreak%
322   \string\AfterEndEnvironment\space for tablefootnotes%
323   \MessageBreak%
324 }%
325 \RequirePackage{letltxmacro}[2010/09/02]% v1.4
326 \@ifpackagelater{letltxmacro}{2010/09/02}%
327 {% >= 2010/09/02, OK
328   \GlobalLetLtxMacro{\tfnorigtable}{\table}
329   \GlobalLetLtxMacro{\tfnendorigtable}{\endtable}

\GlobalLetLtxMacro was introduced in version 2010/09/02 v1.4 of the letltx-
macro package.

330 }{% else
331   \PackageError{tablefootnote}{%
332     Outdated version of letltxmacro package used%
333     \{Version 2010/09/02 v1.4 or newer needed but not found!%
334     \MessageBreak%
335     Update the used letltxmacro package.\}
336     \LetLtxMacro{\tfnorigtable}{\table}
337     \LetLtxMacro{\tfnendorigtable}{\endtable}
338   }
339 \ltx@ifpackageloaded{float}{%
340   \@ifpackagelater{float}{2001/11/08}% v1.3d
341   {% >= 2001/11/08, OK
342   }{% else
343     \PackageWarningNoLine{tablefootnote}{%
344       It is required version\MessageBreak
345       2001/11/08 v1.3d (or later) of package float,\MessageBreak
346       but only version\MessageBreak
347       ‘\csname ver@float.sty\endcsname’\MessageBreak
348       is available}%
349     }%
350   }\relax}
351 \renewenvironment{table}{%
352   \ltx@ifpackageloaded{float}{%

```

When etoolbox.sty was not found, and the float package has been loaded, and the float specifier is H, then `\endtable` was let to `\float@endH` by the float package (line 79 of float.sty, 2001/11/08 v1.3d:

`\expandafter\let\csname end#1\endcsname\float@endH`), i.e. appending `\tfn@tablefootnoteprintout \gdef\tfn@fnt{0}` to `\endtable` is useless. Instead of this, it must be appended to `\float@endH`.

(Why is this not necessary when etoolbox is used? That is a good question, answers are welcome.)

```

353   \ltx@LocalAppendToMacro{\float@endH}{%
354     \tfn@tablefootnoteprintout%
355     \gdef\tfn@fnt{0}%
356   }%
357   }\relax}
358   \tfnorigtable%
359 }{%

```

```

360 \tfnendorigtable%
361 \tfn@tablefootnoteprintout%
362 \gdef\tfn@fnt{0}%
363 }%

```

The `sidewaystable`-environment must be treated separately:

```

364 \ltx@ifpackageloaded{rotating}{%
365 \let\tfnorigsidewaystable\sidewaystable
366 \let\tfnendorigsidewaystable\endsidewaystable
367 \renewenvironment{sidewaystable}{%
368 \gdef\tfn@swt{1}%
369 \tfnorigsidewaystable%
370 }{%
371 \ifx\tfn@fnt\tfn@footnotezero% \relax
372 \else%
373 \tfn@swtbox%
374 \fi%
375 \gdef\tfn@swt{0}%
376 \gdef\tfn@fnt{0}%
377 \tfnendorigsidewaystable%
378 }%
379 }{}%
380 }
381

```

`\AtBeginDocument` When the rotating package (for `sidewaystables`) is used, it must be loaded before the `tablefootnote` package. (If it is loaded `\AtBeginDocument` after this check, the error message will not be given, but packages really should be loaded before `\AtBeginDocument`.)

```

382 \AtBeginDocument{%
383 \ltx@ifpackageloaded{rotating}{%
384 \ifx\tfn@rotating\tfn@footnotezero%
385 \PackageError{tablefootnote}{%
386 Package rotating loaded after tablefootnote}{%
387 When using both the rotating and the tablefootnote package,%
388 \MessageBreak%
389 the rotating package MUST be loaded before the tablefootnote%
390 \space package!\MessageBreak%
391 }%
392 \fi%
393 }{% else \relax
394 }

```

When the document is compiled with Lua^AT_EX, hyperlinks in rotated content will be misplaced, regardless of the use of the `tablefootnote` package (or of tables or footnotes). The text to be printed will be OK. This problem of Lua^AT_EX (not `tablefootnote`) was found and reported by ARNO TRAUTMANN, 2011/11/15 - thanks!

```

395 \ltx@ifpackageloaded{hyperref}{%
396   \ifluatex%
397     \PackageWarningNoLine{tablefootnote}{%
398       LuaTeX & hyperref used:\MessageBreak%
399       Hyperreferences in rotated content\MessageBreak%
400       will be misplaced\MessageBreak%
401       regardless of tablefootnote package.\MessageBreak%
402       The text to be printed will be OK%
403     }%
404   \fi%
405 }{% else \relax
406 }%
407 }
408
409 \end{package}

```

6 Installation

6.1 Downloads

Everything is available on CTAN: <http://www.ctan.org/tex-archive/>, but may need additional packages themselves.

`tablefootnote.dtx` For unpacking the `tablefootnote.dtx` file and constructing the documentation it is required:

- T_EX Format L^AT_EX 2_ε: <http://www.CTAN.org/>
- document class `ltxdoc`, 2007/11/11, v2.0u, <http://ctan.org/pkg/ltxdoc>
- package `hltxdoc`, 2011/02/04, v0.21, <http://ctan.org/pkg/hltxdoc>
- package `hypdoc`, 2010/03/26, v1.9, <http://ctan.org/pkg/hypdoc>

`tablefootnote.sty` The `tablefootnote.sty` for L^AT_EX 2_ε (i. e. each document using the `tablefootnote` package) requires:

- T_EX Format L^AT_EX 2_ε, <http://www.CTAN.org/>
- package `ltxcmds`, 2011/04/18, v1.20, <http://ctan.org/pkg/ltxcmds>

When the `hyperref` package is used, also the `ifluatex` package is needed, but it is already loaded automatically by the `hyperref` package.

When the `etoolbox` package is available, it is used, otherwise the `letltxmacro` package is used:

- package `letltxmacro`, 2010/09/02, v1.4, <http://ctan.org/pkg/letltxmacro>.

`tablefootnote-example.tex` The `tablefootnote-example.tex` requires the same files as all documents using the `tablefootnote` package and additionally:

- class `article`, 2007/10/19, v1.4h, from `classes.dtx`:
[CTAN:macros/latex/base/classes.dtx](http://www.ctan.org/macros/latex/base/classes.dtx)
- package `rotating`, 2009/03/28, v2.16a, <http://ctan.org/pkg/rotating>
- package `float`, 2001/11/08, v1.3d, <http://ctan.org/pkg/float>
- package `placeins`, 2005/04/18, v2.2, <http://ctan.org/pkg/placeins>
for `\FloatBarrier`
- package `hyperref`, 2011/12/04, v6.82m, <http://ctan.org/pkg/hyperref>
- package `tablefootnote`, 2012/01/01, v1.0f,

<http://ctan.org/pkg/tablefootnote>

(Well, it is the example file for this package, and because you are reading the documentation for the `tablefootnote` package, it can be assumed that you already have some version of it – is it the current one?)

`Oberdiek` All packages of HEIKO OBERDIEK's bundle 'oberdiek' (especially `hltxdoc`, `ifluatex`, `letltxmacro`, and `ltxcmds`) are also available in a TDS compliant ZIP archive:
`hltxdoc` [CTAN:install/macros/latex/contrib/oberdiek.tds.zip](http://www.ctan.org/install/macros/latex/contrib/oberdiek.tds.zip).
`ifluatex` It is probably best to download and use this, because the packages in there are
`letltxmacro` quite probably both recent and compatible among themselves.
`ltxcmds`

hyperref hyperref is not included in that bundle and needs to be downloaded separately,
<http://mirror.ctan.org/install/macros/latex/contrib/hyperref.tds.zip>.

Münch A hyperlinked list of my (other) packages can be found at <http://www.Uni-Bonn.de/~uzs5pv/LaTeX.html>.

6.2 Package, unpacking TDS

Package. This package is available on **CTAN**:

CTAN:macros/latex/contrib/tablefootnote/tablefootnote.dtx
The source file.

CTAN:macros/latex/contrib/tablefootnote/tablefootnote.pdf
The documentation.

CTAN:macros/latex/contrib/tablefootnote/tablefootnote-example.pdf
The compiled example file, as it should look like.

CTAN:macros/latex/contrib/tablefootnote/README
The README file.

There is also a tablefootnote.tds.zip available:

CTAN:install/macros/latex/contrib/tablefootnote.tds.zip
Everything in TDS compliant, compiled format.

which additionally contains

tablefootnote.ins	The installation file.
tablefootnote.drv	The driver to generate the documentation.
tablefootnote.sty	The .sty file.
tablefootnote-example.tex	The example file.

For required other packages, please see the preceding subsection.

Unpacking. The .dtx file is a self-extracting docstrip archive. The files are extracted by running the .dtx through plain T_EX:

```
tex tablefootnote.dtx
```

About generating the documentation see paragraph 6.4 below.

TDS. Now the different files must be moved into the different directories in your installation TDS tree (also known as **texmf** tree):

tablefootnote.sty	→ tex/latex/tablefootnote/tablefootnote.sty
tablefootnote.pdf	→ doc/latex/tablefootnote/tablefootnote.pdf
tablefootnote-example.tex	→ doc/latex/tablefootnote/tablefootnote-example.tex
tablefootnote-example.pdf	→ doc/latex/tablefootnote/tablefootnote-example.pdf
tablefootnote.dtx	→ source/latex/tablefootnote/tablefootnote.dtx

If you have a docstrip.cfg that configures and enables docstrip's TDS installing feature, then some files can already be in the right place, see the documentation of docstrip.

6.3 Refresh file name databases

If your $\text{T}_{\text{E}}\text{X}$ distribution ($\text{t}_{\text{E}}\text{X}$, $\text{m}_{\text{ik}}\text{T}_{\text{E}}\text{X}$,...) relies on file name databases, you must refresh these. For example, $\text{t}_{\text{E}}\text{X}$ users run `texhash` or `mktextlsr`.

6.4 Some details for the interested

Unpacking with $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$. The `.dtx` chooses its action depending on the format:

plain $\text{T}_{\text{E}}\text{X}$: Run `docstrip` and extract the files.

$\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$: Generate the documentation.

If you insist on using $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ for `docstrip` (really, `docstrip` does not need $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$), then inform the `autodetect` routine about your intention:

```
latex \let\install=y\input{tablefootnote.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

Generating the documentation. You can use both the `.dtx` or the `.drv` to generate the documentation. The process can be configured by a configuration file `ltxdoc.cfg`. For instance, put the following line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with $\text{pdfL}^{\text{A}}\text{T}_{\text{E}}\text{X}$:

```
pdflatex tablefootnote.dtx
makeindex -s gind.ist tablefootnote.idx
pdflatex tablefootnote.dtx
makeindex -s gind.ist tablefootnote.idx
pdflatex tablefootnote.dtx
```

6.5 Compiling the example

The example file, `tablefootnote-example.tex`, can be compiled via

```
latex tablefootnote-example.tex,
lualatex tablefootnote-example.tex,
```

or (recommended)

```
pdflatex thumbs-example.tex
```

and will need at least two compiler runs to get everything right.

7 Acknowledgements

I would like to thank HEIKO OBERDIEK for providing the `hyperref`, `ifluatex`, `letltxmacro`, `ltxcmds`, as well as a lot (!) of other useful packages (from which I also got everything I know about creating a file in `.dtx` format, ok, say it: copying), and for information about the $\text{pdfT}_{\text{E}}\text{X}$ -bug, ARNO TRAUTMANN for reporting the bug (misplaced hyperreferences in `sidewaystables` using $\text{LuaT}_{\text{E}}\text{X}$, independently of the `tablefootnote` package or footnotes at all)¹ and the `news:comp.text.tex` and `news:de.comp.text.tex` newsgroups for their help in all things $\text{T}_{\text{E}}\text{X}$.

¹The `tablefootnote` package seems to be helpful to detect issues in other things (which does not mean that it does not create its own bugs!).

8 History

[2011/10/26 v1.0a, tabfootn]

- Upload to CTAN:macros/latex/contrib/tablefootnote/.

[2011/10/29 v1.0b]

- Renamed to `tablefootnote`.
- Added support for the `sidewaystable`-environment of the rotating package.
- Diverse changes in documentation and README.

[2011/11/06 v1.0c]

- Replaced `^{\text{\thefootnote}}` by `{\text{\textup{\thefootnote}}}`.
- Bug fix: When `etoolbox.sty` was not found, and the `float` package had been loaded, and the float specifier was `H`, then the `\tablefootnotes` were not printed for that table. Fixed.
- Minor details.

[2011/11/19 v1.0d]

- Replaced `{\text{\textup{\thefootnote}}}` by `\thefootnote`, therefore the `amstext` package is no longer required by the `tablefootnote` package.
- `lscape` and `pdflscape` package now work with `tablefootnote` (except for using a `sidewaystable` on a landscape page).
- Added information about footnotes in `sidewaystable` being printed one below the other, even if `footmisc` package with option `para` is used.
- Redefined `\tfn@swtbox` from

```
\vspace{0.8cm}%  
\begin{spacing}{0.1}%  
\subcaptionbox*{}[\linewidth][1]{\tfn@tablefootnoteprintout}%  
\end{spacing}%
```

to

```
\vspace{2\baselineskip}%  
\parbox[b][t][t]{\linewidth}{\raggedright \tfn@tablefootnoteprintout}%
```

, therefore the `setspace` and `subcaption` packages are no longer required by the `tablefootnote` package.

- No longer uses `\numexpr`, therefore also usable without ε -TeX.

- Replaced `\thefootnote` by `\hbox {\@textsuperscript {\normalfont \thefootnote } }`, which is next to the original definition of `\@makefnmark` (`\hbox {\@textsuperscript {\normalfont \@thefnmark } }`), but according to `\show\@thefnmark` here `\@thefnmark` is `{\protect \itshape}` instead of `\thefootnote`).
- Added an error message, when Lua_T_EX, rotating package, and hyperref package are used together. (Hyperreferences in `sidewaystables` are misplaced, independently of the `tablefootnote` package or footnotes at all. (Bug reported by ARNO TRAUTMANN, 2011/11/15 - thanks!))
- Added `footnotesymbol-footnote-numbers` in the example.
- Several details.

[2011/11/26 v1.0e]

- Check for hyperref is only done once.
- Message regarding the misplacement of hyperlinks by Lua_L_A_T_EX changed from error to warning.
- Replaced `\vspace{2\baselineskip}` by

```
\ifvoid \footins%
\vskip 2\baselineskip%
\else%
\vskip \skip\footins%
\fi%
```

between the `sidewaystables` and their footnotes.

- The warning about un-regarded `para`-option of `footmisc` package is only given at the second `tablefootnote` in a `sidewaystable`, not repeatedly for every `tablefootnote` in a `sidewaystable`.
- Minor details.

[2012/01/01 v1.0f]

- Bugfix: Wrong installation path given in the documentation, fixed.
- Minor details.
- Update of documentation, README, and `dtx` internals.

When you find a mistake or have a suggestion for an improvement of this package, please send an e-mail to the maintainer, thanks! (Please see BUG REPORTS in the README.)

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