The **pagegrid** package

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Abstract

The LaTeX package prints a page grid in the background.

Contents

1 Documentation

The package puts a grid on the paper. It was written for developers of a class or package who have to put elements on definite locations on a page (e.g. letter class). The grid allows a faster optical check, whether the positions are correct. If the previewer already offers features for measuring, the package might be obsolete. Otherwise it saves the developer from printing the page and measuring by hand.

1.1 Options

Options are evaluated in the following order:

1. Configuration file `pagegrid.cfg` using `\pagegridsetup` if the file exists.

2. Package options given for `\usepackage`.

3. Later calls of `\pagegridsetup`.

`\pagegridsetup{⟨option list⟩}`

The options are key value options. Boolean options are enabled by default (without value) or by using the explicit value `true`. Value `false` disable the option.

1.1.1 Options **enable, disable**

enable: This boolean option controls whether the page grid is drawn. As default the page grid drawing is activated.

disable: It is the opposite of option `enable`. It was added for convenience and allows the abbreviation `disable` for `enable=false`.

1.1.2 Grid origins

The package supports up to two grids on a page allowing measurement from opposite directions. As default two grids are drawn, the first from bottom left to top right. The origin of the second grid is at the opposite top right corner. The origins are controlled by the following options. The number of grids (one or two) depend on the number of these options in one call of `\pagegridsetup`. The following frame shows a paper and in its corners are the corresponding options. At the left and right side alias names are given for the options inside the paper.

left-top, lt, top-left	tl	tr	top-right, rt, right-top
left-bottom, lb, bottom-left	bl	br	bottom-right, rb, right-bottom

Examples:

    \pagegridsetup{bl,tr}

This is the default setting with two grids as described previously. The following setups one grid only. Its origin is the upper left corner:

    \pagegridsetup{top-left}

1.1.3 Grid unit

step This option takes a length and setups the unit for the grid. The page width and page height should be multiples of this unit. Currently the default is `1mm`. But this might change later by a heuristic based on the paper size.

1.1.4 Color options

The basic grid lines are drawn as ultra thin help lines and is only drawn for the first grid. Each tenth and fiftyth line of the basic net is drawn thicker in a special color for the two grids.

firstcolor: Color for the thicker lines and the arrows of the first grid. Default value is `red`.

secondcolor: Color for the thicker lines and the arrows of the second grid. Default value is `blue`.

Use a color specification that package `tikz` understands. (The grid is drawn with `pgf/tikz`.)

1.1.5 Arrow options

Arrows are put at the origin at the grid to show the grid start and the direction of the grid.

arrows: This boolean option turns the arrows on or off. As default arrows are enabled.

arrowlength: The length given as value is the length of the edge of a square at the origin within the arrow is put as diagonal. Default is 10 times the grid unit (10 mm). The real arrow length is this length multiplied by $\sqrt{2}$.

1.1.6 Miscellaneous options

double: The output page is doubled, one without page grid and the other with page grid. Possible values are shown in the following table:

Option	Meaning
`false`	Turns option off.
`first`	Grid page comes first.
`last`	Grid page comes after the page without grid.
`true`	Same as `last`.
⟨*no value*⟩	Same as `true`.

Note: The double output of the page has side effects. All whatits are executed twice, for example: file writing and anchor setting. Some unwanted actions are catched such as multiple `\label` definitions, duplicate entries in the table of contents. For bookmarks, use package bookmarks.

foreground: Boolean option, default is `false`. Sometimes there might be elements on the page (e.g. large images) that hide the grid. Then option foreground puts the grids over the current output page.

2 Implementation

```
1 ⟨*package⟩
```

Reload check, especially if the package is not used with LaTeX.

```
2 \begingroup\catcode61\catcode48\catcode32=10\relax%
3   \catcode13=5 % ^^M
4   \endlinechar=13 %
5   \catcode35=6 % #
6   \catcode39=12 % '
7   \catcode44=12 % ,
8   \catcode45=12 % -
9   \catcode46=12 % .
10  \catcode58=12 % :
11  \catcode64=11 % @
12  \catcode123=1 % {
13  \catcode125=2 % }
14  \expandafter\let\expandafter\x\csname ver@pagegrid.sty\endcsname
15  \ifx\x\relax % plain-TeX, first loading
16  \else
17    \def\empty{}%
18    \ifx\x\empty % LaTeX, first loading,
19      % variable is initialized, but \ProvidesPackage not yet seen
20    \else
21      \expandafter\ifx\csname PackageInfo\endcsname\relax
22        \def\x#1#2{%
23          \immediate\write-1{Package #1 Info: #2.}%
24        }%
25      \else
```

```
26        \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
27      \fi
28      \x{pagegrid}{The package is already loaded}%
29      \aftergroup\endinput
30    \fi
31  \fi
32 \endgroup%
```

Package identification:

```
33 \begingroup\catcode61\catcode48\catcode32=10\relax%
34  \catcode13=5 % ^^M
35  \endlinechar=13 %
36  \catcode35=6 % #
37  \catcode39=12 % '
38  \catcode40=12 % (
39  \catcode41=12 % )
40  \catcode44=12 % ,
41  \catcode45=12 % -
42  \catcode46=12 % .
43  \catcode47=12 % /
44  \catcode58=12 % :
45  \catcode64=11 % @
46  \catcode91=12 % [
47  \catcode93=12 % ]
48  \catcode123=1 % {
49  \catcode125=2 % }
50  \expandafter\ifx\csname ProvidesPackage\endcsname\relax
51    \def\x#1#2#3[#4]{\endgroup
52      \immediate\write-1{Package: #3 #4}%
53      \xdef#1{#4}%
54    }%
55  \else
56    \def\x#1#2[#3]{\endgroup
57      #2[{#3}]%
58      \ifx#1\@undefined
59        \xdef#1{#3}%
60      \fi
61      \ifx#1\relax
62        \xdef#1{#3}%
63      \fi
64    }%
65  \fi
66 \expandafter\x\csname ver@pagegrid.sty\endcsname
67 \ProvidesPackage{pagegrid}%
68   [2009/12/04 v1.4 Print page grid in background (HO)]%
69 \begingroup\catcode61\catcode48\catcode32=10\relax%
70  \catcode13=5 % ^^M
71  \endlinechar=13 %
72  \catcode123=1 % {
73  \catcode125=2 % }
74  \catcode64=11 % @
75  \def\x{\endgroup
76    \expandafter\edef\csname pagegrid@AtEnd\endcsname{%
77      \endlinechar=\the\endlinechar\relax
78      \catcode13=\the\catcode13\relax
79      \catcode32=\the\catcode32\relax
80      \catcode35=\the\catcode35\relax
81      \catcode61=\the\catcode61\relax
82      \catcode64=\the\catcode64\relax
83      \catcode123=\the\catcode123\relax
84      \catcode125=\the\catcode125\relax
85    }%
86  }%
```

```
 87 \x\catcode61\catcode48\catcode32=10\relax%
 88 \catcode13=5 % ^^M
 89 \endlinechar=13 %
 90 \catcode35=6 % #
 91 \catcode64=11 % @
 92 \catcode123=1 % {
 93 \catcode125=2 % }
 94 \def\TMP@EnsureCode#1#2{%
 95   \edef\pagegrid@AtEnd{%
 96     \pagegrid@AtEnd
 97     \catcode#1=\the\catcode#1\relax
 98   }%
 99   \catcode#1=#2\relax
100 }
101 \TMP@EnsureCode{9}{10}% (tab)
102 \TMP@EnsureCode{10}{12}% ^^J
103 \TMP@EnsureCode{33}{12}% !
104 \TMP@EnsureCode{34}{12}% "
105 \TMP@EnsureCode{36}{3}% $
106 \TMP@EnsureCode{38}{4}% &
107 \TMP@EnsureCode{39}{12}% '
108 \TMP@EnsureCode{40}{12}% (
109 \TMP@EnsureCode{41}{12}% )
110 \TMP@EnsureCode{42}{12}% *
111 \TMP@EnsureCode{43}{12}% +
112 \TMP@EnsureCode{44}{12}% ,
113 \TMP@EnsureCode{45}{12}% -
114 \TMP@EnsureCode{46}{12}% .
115 \TMP@EnsureCode{47}{12}% /
116 \TMP@EnsureCode{58}{12}% :
117 \TMP@EnsureCode{59}{12}% ;
118 \TMP@EnsureCode{60}{12}% <
119 \TMP@EnsureCode{62}{12}% >
120 \TMP@EnsureCode{63}{12}% ?
121 \TMP@EnsureCode{91}{12}% [
122 \TMP@EnsureCode{93}{12}% ]
123 \TMP@EnsureCode{94}{7}% ^ (superscript)
124 \TMP@EnsureCode{95}{8}% _ (subscript)
125 \TMP@EnsureCode{96}{12}% `
126 \TMP@EnsureCode{124}{12}% |
127 \edef\pagegrid@AtEnd{\pagegrid@AtEnd\noexpand\endinput}

128 \RequirePackage{tikz}
129 \RequirePackage{atbegshi}[2009/12/02]
130 \RequirePackage{kvoptions}[2009/07/17]

131 \begingroup\expandafter\expandafter\expandafter\endgroup
132 \expandafter\ifx\csname stockwidth\endcsname\relax
133   \def\pagegrid@width{\paperwidth}%
134   \def\pagegrid@height{\paperheight}%
135 \else
136   \def\pagegrid@width{\stockwidth}%
137   \def\pagegrid@height{\stockheight}%
138 \fi

139 \SetupKeyvalOptions{%
140   family=pagegrid,%
141   prefix=pagegrid@,%
142 }
143 \def\pagegrid@init{%
144   \let\pagegrid@origin@a\@empty
145   \let\pagegrid@origin@b\@empty
146   \let\pagegrid@init\relax
147 }
148 \let\pagegrid@@init\pagegrid@init
```

```
149 \def\pagegrid@origin@a{bl}
150 \def\pagegrid@origin@b{tr}
151 \def\pagegrid@SetOrigin#1{%
152   \pagegrid@init
153   \ifx\pagegrid@origin@a\@empty
154     \def\pagegrid@origin@a{#1}%
155   \else
156     \ifx\pagegrid@origin@b\@empty
157     \else
158       \let\pagegrid@origin@a\pagegrid@origin@b
159     \fi
160     \def\pagegrid@origin@b{#1}%
161   \fi
162 }
163 \def\pagegrid@temp#1{%
164   \DeclareVoidOption{#1}{\pagegrid@SetOrigin{#1}}%
165   \@namedef{pagegrid@N@#1}{#1}%
166 }
167 \pagegrid@temp{bl}
168 \pagegrid@temp{br}
169 \pagegrid@temp{tl}
170 \pagegrid@temp{tr}
171 \def\pagegrid@temp#1#2{%
172   \DeclareVoidOption{#2}{\pagegrid@SetOrigin{#1}}%
173 }%
174 \pagegrid@temp{bl}{lb}
175 \pagegrid@temp{br}{rb}
176 \pagegrid@temp{tl}{lt}
177 \pagegrid@temp{tr}{rt}
178 \pagegrid@temp{bl}{bottom-left}
179 \pagegrid@temp{br}{bottom-right}
180 \pagegrid@temp{tl}{top-left}
181 \pagegrid@temp{tr}{top-right}
182 \pagegrid@temp{bl}{left-bottom}
183 \pagegrid@temp{br}{right-bottom}
184 \pagegrid@temp{tl}{left-top}
185 \pagegrid@temp{tr}{right-top}

186 \DeclareBoolOption[true]{enable}
187 \DeclareComplementaryOption{disable}{enable}

188 \DeclareBoolOption{foreground}

189 \newlength{\pagegrid@step}
190 \define@key{pagegrid}{step}{%
191   \setlength{\pagegrid@step}{#1}%
192 }

193 \DeclareStringOption[red]{firstcolor}
194 \DeclareStringOption[blue]{secondcolor}

195 \DeclareBoolOption[true]{arrows}
196 \newlength\pagegrid@arrowlength
197 \pagegrid@arrowlength=\z@
198 \define@key{pagegrid}{arrowlength}{%
199   \setlength{\pagegrid@arrowlength}{#1}%
200 }

201 \define@key{pagegrid}{double}[true]{%
202   \@ifundefined{pagegrid@double@#1}{%
203     \PackageWarning{pagegrid}{%
204       Unsupported value `#1' for option `double'.\MessageBreak
205       Known values are:\MessageBreak
206       `false', `first', `last', `true'.\MessageBreak
207       Now `false' is used%
208     }%
```

```
209     \chardef\pagegrid@double\z@
210   }{%
211     \chardef\pagegrid@double\csname pagegrid@double@#1\endcsname\relax
212   }%
213 }
214 \@namedef{pagegrid@double@false}{0}
215 \@namedef{pagegrid@double@first}{1}
216 \@namedef{pagegrid@double@last}{2}
217 \@namedef{pagegrid@double@true}{2}
218 \chardef\pagegrid@double\z@

219 \newcommand*{\pagegridsetup}{%
220   \let\pagegrid@init\pagegrid@@init
221   \setkeys{pagegrid}%
222 }

223 \pagegridsetup{%
224   step=1mm%
225 }
226 \InputIfFileExists{pagegrid.cfg}{}%
227 \ProcessKeyvalOptions*\relax
228 \AtBeginDocument{%
229   \ifdim\pagegrid@arrowlength>\z@
230   \else
231     \pagegrid@arrowlength=10\pagegrid@step
232   \fi
233 }

234 \def\pagegridShipoutDoubleBegin{%
235   \begingroup
236   \let\newlabel\@gobbletwo
237   \let\zref@newlabel\@gobbletwo
238   \let\@writefile\@gobbletwo
239   \let\select@language\@gobble
240 }
241 \def\pagegridShipoutDoubleEnd{%
242   \endgroup
243 }
244 \def\pagegrid@WriteDouble#1#2{%
245   \immediate\write#1{%
246     \@backslashchar csname %
247     pagegridShipoutDouble#2%
248     \@backslashchar endcsname%
249   }%
250 }
251 \def\pagegrid@ShipoutDouble#1{%
252   \begingroup
253     \if@filesw
254       \pagegrid@WriteDouble\@mainaux{Begin}%
255       \ifx\@auxout\@partaux
256         \pagegrid@WriteDouble\@partaux{Begin}%
257         \def\pagegrid@temp{%
258           \pagegrid@WriteDouble\@mainaux{End}%
259           \pagegrid@WriteDouble\@partaux{End}%
260         }%
261       \else
262         \def\pagegrid@temp{%
263           \pagegrid@WriteDouble\@mainaux{End}%
264         }%
265       \fi
266     \else
267       \def\pagegrid@temp{}%
268     \fi
269     \let\protect\noexpand
270     \AtBeginShipoutOriginalShipout\copy#1\relax
```

```
271     \pagegrid@temp
272   \endgroup
273 }
274 \AtBeginShipout{%
275   \ifdim\pagegrid@step>\z@
276   \else
277     \pagegrid@enablefalse
278   \fi
279   \ifpagegrid@enable
280     \ifnum\pagegrid@double=\@ne
281       \pagegrid@ShipoutDouble\AtBeginShipoutBox
282     \else
283     \ifnum\pagegrid@double=\tw@
284       \@ifundefined{pagegrid@DoubleBox}{%
285         \newbox\pagegrid@DoubleBox
286       }{}%
287       \setbox\pagegrid@DoubleBox=\copy\AtBeginShipoutBox
288     \fi
289   \fi
290   \ifpagegrid@foreground
291     \expandafter\AtBeginShipoutUpperLeftForeground
292   \else
293     \expandafter\AtBeginShipoutUpperLeft
294   \fi
295   {%
296     \put(0,0){%
297       \makebox(0,0)[lt]{%
298         \begin{tikzpicture}[%
299           bl/.style={},%
300           br/.style={xshift=\pagegrid@width,xscale=-1},%
301           tl/.style={yshift=\pagegrid@height,yscale=-1},%
302           tr/.style={xshift=\pagegrid@width,%
303                      yshift=\pagegrid@height,scale=-1}
304         ]%
305           \useasboundingbox
306             (0mm,\pagegrid@height) rectangle (0mm,\pagegrid@height);%
307           \draw[%
308             \pagegrid@origin@a,%
309             step=\pagegrid@step,%
310             style=help lines,%
311             ultra thin%
312           ] (0mm,0mm) grid (\pagegrid@width,\pagegrid@height);%
313           \ifx\pagegrid@origin@b\@empty
314           \else
315             \draw[%
316               \pagegrid@origin@b,%
317               step=10\pagegrid@step,%
318               {\pagegrid@secondcolor},%
319               very thin%
320             ] (0mm,0mm) grid (\pagegrid@width,\pagegrid@height);%
321           \fi
322           \draw[%
323             \pagegrid@origin@a,%
324             step=10\pagegrid@step,%
325             {\pagegrid@firstcolor},%
326             very thin%
327           ] (0mm,0mm) grid (\pagegrid@width,\pagegrid@height);%
328           \ifx\pagegrid@origin@b\@empty
329           \else
330             \draw[%
331               \pagegrid@origin@b,%
332               step=50\pagegrid@step,%
```

```
333              {\pagegrid@secondcolor},%
334                thick%
335              ] (0mm,0mm) grid (\pagegrid@width,\pagegrid@height);%
336            \fi
337            \draw[%
338              \pagegrid@origin@a,%
339              step=50\pagegrid@step,%
340              {\pagegrid@firstcolor},%
341              thick%
342            ] (0mm,0mm) grid (\pagegrid@width,\pagegrid@height);%
343            \ifpagegrid@arrows
344              \ifx\pagegrid@origin@b\@empty
345              \else
346                \draw[%
347                  \pagegrid@origin@b,%
348                  {\pagegrid@secondcolor},%
349                  stroke,%
350                  line width=1pt,%
351                  line cap=round%
352                ] (0mm,0mm) %
353                -- (\pagegrid@arrowlength,\pagegrid@arrowlength) %
354                   (\pagegrid@arrowlength,.5\pagegrid@arrowlength) %
355                -- (\pagegrid@arrowlength,\pagegrid@arrowlength) %
356                -- (.5\pagegrid@arrowlength,\pagegrid@arrowlength);%
357              \fi
358              \draw[%
359                \pagegrid@origin@a,%
360                {\pagegrid@firstcolor},%
361                stroke,%
362                line width=1pt,%
363                line cap=round%
364              ] (0mm,0mm) %
365              -- (\pagegrid@arrowlength,\pagegrid@arrowlength) %
366                 (\pagegrid@arrowlength,.5\pagegrid@arrowlength) %
367              -- (\pagegrid@arrowlength,\pagegrid@arrowlength) %
368              -- (.5\pagegrid@arrowlength,\pagegrid@arrowlength);%
369            \fi
370          \end{tikzpicture}%
371        }%
372      }%
373    }%
374    \ifnum\pagegrid@double=\tw@
375      \pagegrid@ShipoutDouble\pagegrid@DoubleBox
376    \fi
377  \fi
378 }

379 \pagegrid@AtEnd%
380 ⟨/package⟩
```

3   Test

3.1   Catcode checks for loading

```
381 ⟨*test1⟩

382 \catcode`\{=1 %
383 \catcode`\}=2 %
384 \catcode`\#=6 %
385 \catcode`\@=11 %
386 \expandafter\ifx\csname count@\endcsname\relax
387   \countdef\count@=255 %
388 \fi
389 \expandafter\ifx\csname @gobble\endcsname\relax
```

9

```
390  \long\def\@gobble#1{}%
391 \fi
392 \expandafter\ifx\csname @firstofone\endcsname\relax
393   \long\def\@firstofone#1{#1}%
394 \fi
395 \expandafter\ifx\csname loop\endcsname\relax
396   \expandafter\@firstofone
397 \else
398   \expandafter\@gobble
399 \fi
400 {%
401   \def\loop#1\repeat{%
402     \def\body{#1}%
403     \iterate
404   }%
405   \def\iterate{%
406     \body
407       \let\next\iterate
408     \else
409       \let\next\relax
410     \fi
411     \next
412   }%
413   \let\repeat=\fi
414 }%
415 \def\RestoreCatcodes{}
416 \count@=0 %
417 \loop
418   \edef\RestoreCatcodes{%
419     \RestoreCatcodes
420     \catcode\the\count@=\the\catcode\count@\relax
421   }%
422 \ifnum\count@<255 %
423   \advance\count@ 1 %
424 \repeat
425
426 \def\RangeCatcodeInvalid#1#2{%
427   \count@=#1\relax
428   \loop
429     \catcode\count@=15 %
430   \ifnum\count@<#2\relax
431     \advance\count@ 1 %
432   \repeat
433 }
434 \def\RangeCatcodeCheck#1#2#3{%
435   \count@=#1\relax
436   \loop
437     \ifnum#3=\catcode\count@
438     \else
439       \errmessage{%
440         Character \the\count@\space
441         with wrong catcode \the\catcode\count@\space
442         instead of \number#3%
443       }%
444     \fi
445   \ifnum\count@<#2\relax
446     \advance\count@ 1 %
447   \repeat
448 }
449 \def\space{ }
450 \expandafter\ifx\csname LoadCommand\endcsname\relax
451   \def\LoadCommand{\input pagegrid.sty\relax}%
```

```
452 \fi
453 \def\Test{%
454   \RangeCatcodeInvalid{0}{47}%
455   \RangeCatcodeInvalid{58}{64}%
456   \RangeCatcodeInvalid{91}{96}%
457   \RangeCatcodeInvalid{123}{255}%
458   \catcode`\@=12 %
459   \catcode`\\=0 %
460   \catcode`\%=14 %
461   \LoadCommand
462   \RangeCatcodeCheck{0}{36}{15}%
463   \RangeCatcodeCheck{37}{37}{14}%
464   \RangeCatcodeCheck{38}{47}{15}%
465   \RangeCatcodeCheck{48}{57}{12}%
466   \RangeCatcodeCheck{58}{63}{15}%
467   \RangeCatcodeCheck{64}{64}{12}%
468   \RangeCatcodeCheck{65}{90}{11}%
469   \RangeCatcodeCheck{91}{91}{15}%
470   \RangeCatcodeCheck{92}{92}{0}%
471   \RangeCatcodeCheck{93}{96}{15}%
472   \RangeCatcodeCheck{97}{122}{11}%
473   \RangeCatcodeCheck{123}{255}{15}%
474   \RestoreCatcodes
475 }
476 \Test
477 \csname @@end\endcsname
478 \end
479 ⟨/test1⟩
```

4 Installation

4.1 Download

Package.   This package is available on CTAN[1]:

CTAN:macros/latex/contrib/oberdiek/pagegrid.dtx The source file.

CTAN:macros/latex/contrib/oberdiek/pagegrid.pdf Documentation.

Bundle.   All the packages of the bundle 'oberdiek' are also available in a TDS compliant ZIP archive. There the packages are already unpacked and the documentation files are generated. The files and directories obey the TDS standard.

CTAN:install/macros/latex/contrib/oberdiek.tds.zip

TDS refers to the standard "A Directory Structure for TeX Files" (**CTAN:tds/tds.pdf**). Directories with `texmf` in their name are usually organized this way.

4.2 Bundle installation

Unpacking.   Unpack the `oberdiek.tds.zip` in the TDS tree (also known as `texmf` tree) of your choice. Example (linux):

```
unzip oberdiek.tds.zip -d ~/texmf
```

Script installation.   Check the directory `TDS:scripts/oberdiek/` for scripts that need further installation steps. Package **attachfile2** comes with the Perl script `pdfatfi.pl` that should be installed in such a way that it can be called as `pdfatfi`. Example (linux):

```
chmod +x scripts/oberdiek/pdfatfi.pl
cp scripts/oberdiek/pdfatfi.pl /usr/local/bin/
```

---

[1]ftp://ftp.ctan.org/tex-archive/

4.3 Package installation

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

```
tex pagegrid.dtx
```

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

```
pagegrid.sty            → tex/latex/oberdiek/pagegrid.sty
pagegrid.pdf            → doc/latex/oberdiek/pagegrid.pdf
test/pagegrid-test1.tex → doc/latex/oberdiek/test/pagegrid-test1.tex
pagegrid.dtx            → source/latex/oberdiek/pagegrid.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`.

4.4 Refresh file name databases

If your TeX distribution (teTeX, mikTeX, …) relies on file name databases, you must refresh these. For example, teTeX users run `texhash` or `mktexlsr`.

4.5 Some details for the interested

Attached source. The PDF documentation on CTAN also includes the `.dtx` source file. It can be extracted by AcrobatReader 6 or higher. Another option is `pdftk`, e.g. unpack the file into the current directory:

```
pdftk pagegrid.pdf unpack_files output .
```

Unpacking with LaTeX. The `.dtx` chooses its action depending on the format:

plain TeX: Run `docstrip` and extract the files.

LaTeX: Generate the documentation.

If you insist on using LaTeX for `docstrip` (really, `docstrip` does not need LaTeX), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{pagegrid.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 the configuration file `ltxdoc.cfg`. For instance, put this 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 pdfLaTeX:

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

5 Catalogue

The following XML file can be used as source for the [TeX Catalogue](). The elements `caption` and `description` are imported from the original XML file from the Catalogue. The name of the XML file in the Catalogue is `pagegrid.xml`.

```
480 ⟨*catalogue⟩
481 <?xml version='1.0' encoding='us-ascii'?>
482 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
483 <entry datestamp='$Date$' modifier='$Author$' id='pagegrid'>
484   <name>pagegrid</name>
485   <caption>Print page grid in background.</caption>
486   <authorref id='auth:oberdiek'/>
487   <copyright owner='Heiko Oberdiek' year='2009'/>
488   <license type='lppl1.3'/>
489   <version number='1.4'/>
490   <description>
491     This package puts a grid on the paper. It was written for
492     developers of a class or package
493     who have to put elements on definite locations on a page
494     (e.g. letter class). The grid allows a faster optical check,
495     whether the positions are correct. If the previewer already
496     offers features for measuring, the package might be unnecessary.
497     Otherwise it saves the developer from printing the page and
498     measuring by hand.
499     <p/>
500     The package is part of the <xref refid='oberdiek'>oberdiek</xref> bundle.
501   </description>
502   <documentation details='Package documentation'
503       href='ctan:/macros/latex/contrib/oberdiek/pagegrid.pdf'/>
504   <ctan file='true' path='/macros/latex/contrib/oberdiek/pagegrid.dtx'/>
505   <miktex location='oberdiek'/>
506   <texlive location='oberdiek'/>
507   <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
508 </entry>
509 ⟨/catalogue⟩
```

6 Acknowledgement

Klaus Braune: He provided the idea and the first tikz code.

7 History

[2009/11/06 v1.0]

- The first version.

[2009/11/06 v1.1]

- Option foreground added.

[2009/12/02 v1.2]

- Color options, arrow options added.

- Names for origin options changed.

[2009/12/03 v1.3]

- Option double added.

- First CTAN release.

[2009/12/04 v1.4]

- Option double: Some unwanted side effects removed.

8 Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; plain numbers refer to the code lines where the entry is used.