

1 in + \topmargin (17 pt) = 55.27 pt

Page 1

\headheight 12 pt

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The xlayouts package. *

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Abstract

Current layout packages, such as the layout and layouts packages do not easily permit, the drawing of grids. The package geometry shows a page layout, but does not make it clear what each line represents. The need for this package arose when I was developing different page layouts for chapter heads. It has a number of utilities, one of which is shown in this publication. An extensive list of styling options is provided via a key-value interface.

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*This file (xlayouts.dtx) has version number v1.0, last revised 2012/05/26.

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driver margin 1 in

$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$

Page 2

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1 How to use the package

The package is used like any other LaTeX package, by including it in the preamble:

```
\usepackage{xlayouts}
```

It is recommended that options be loaded using the `\cxset` macro.

```
% \cxset{geometry units=in}
```

2 Introduction

This package is a re-implementation of the Peter Wilson's layouts package. It follows the tradition originally implemented in the `layout.sty` of Kent McPherson. It defines the command `xlayout` that draws the page geometry on the current page. The package offers additional features, such as styling commands and diverges from tradition, in that it shows the dimension lines and value labels, making understanding of the arithmetic involved easier. It works in all the major classes.

This manual is typesets according to the conventions of the LaTeX `docstrip` utility which enables the automatic extraction of the LaTeX macro source files [GMS94].

3 Producing pages two-up

Sometimes it is instructive to view your own document in a two page view. This is probably easy with a viewer such as Acrobat Reader, but not so easy to print them on paper. We offer a facility to do this in the macros that follow:

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4 Page Layouts

There are a number of ways you can include a page layout in your document.

5 Implementation

The implementation, uses PGF to set the key value parameters and TikZ to draw the layout. We try to avoid clashes with other packages by using the suffix `@cx` for all internal macros.

5.1 Dependencies

5.1.1 latex.ltx

5.1.2 xcolor.sty

`xlayouts`'s colour handling depend on the `xcolor` package. The following internal macros are used directly: `\@declaredcolor`, `\current@color`, `\set@color`, `\set@page@color`

```
1 \IfFileExists{color.sty}{%
2 \RequirePackage{color}%
3 \let\needscolor@cx\@empty
```

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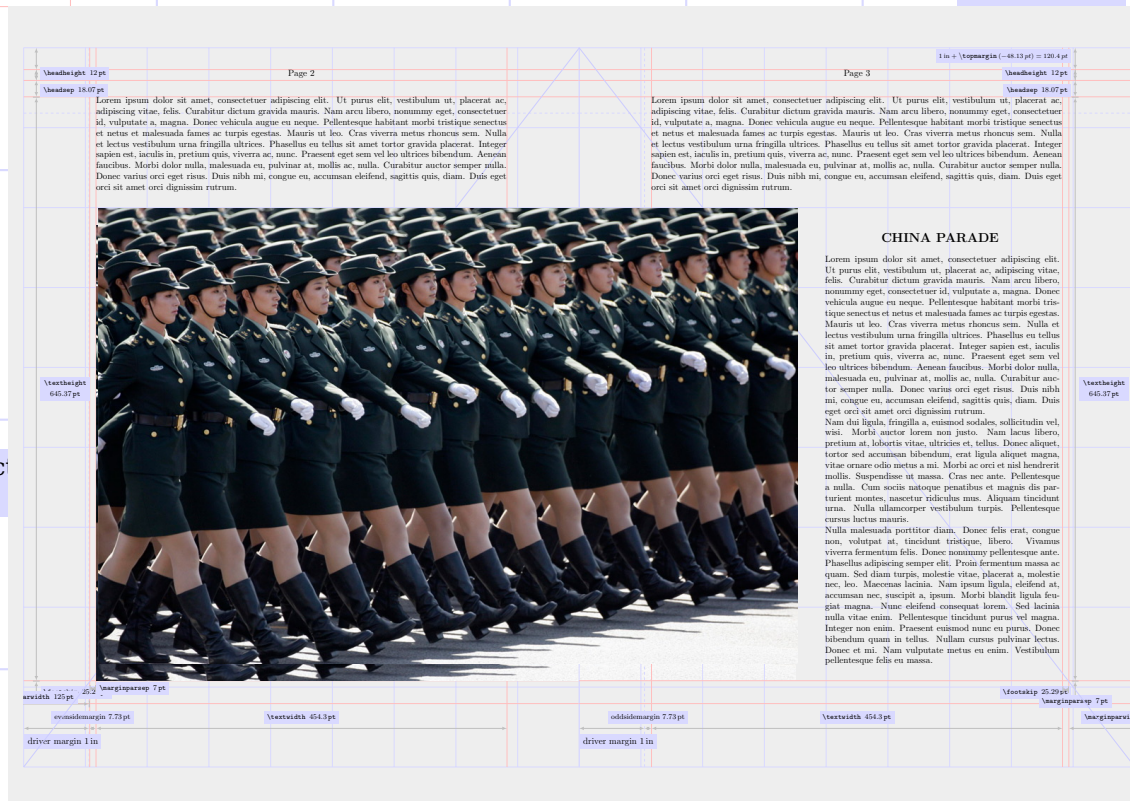
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Page 3

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\topfrac
.7

Figure 1: Test

```
4    \}}
5    \RequirePackage{fp}
```

5.1.3 changepage.sty

We use the changepage to detect reliably if we are on an odd or even page.

```
6    %\IfFileExists{changepage.sty}{%
7    \RequirePackage{xcolor}
```

The package translator from Beamer's suite is used to internationalize some strings. This can make the diagrams more useful. Unsure at this stage how to pick it automatically from babel, if babel is used.

The loading of pgf can be problematic sometimes so we try and load it here.

```
8    \RequirePackage{changepage}
9    \RequirePackage{pgf}
10   \RequirePackage{pgfpages}
11   \RequirePackage{tikz}
12   \RequirePackage{amsmath}
13   \RequirePackage{fancyhdr}
```

\footskip 30 pt

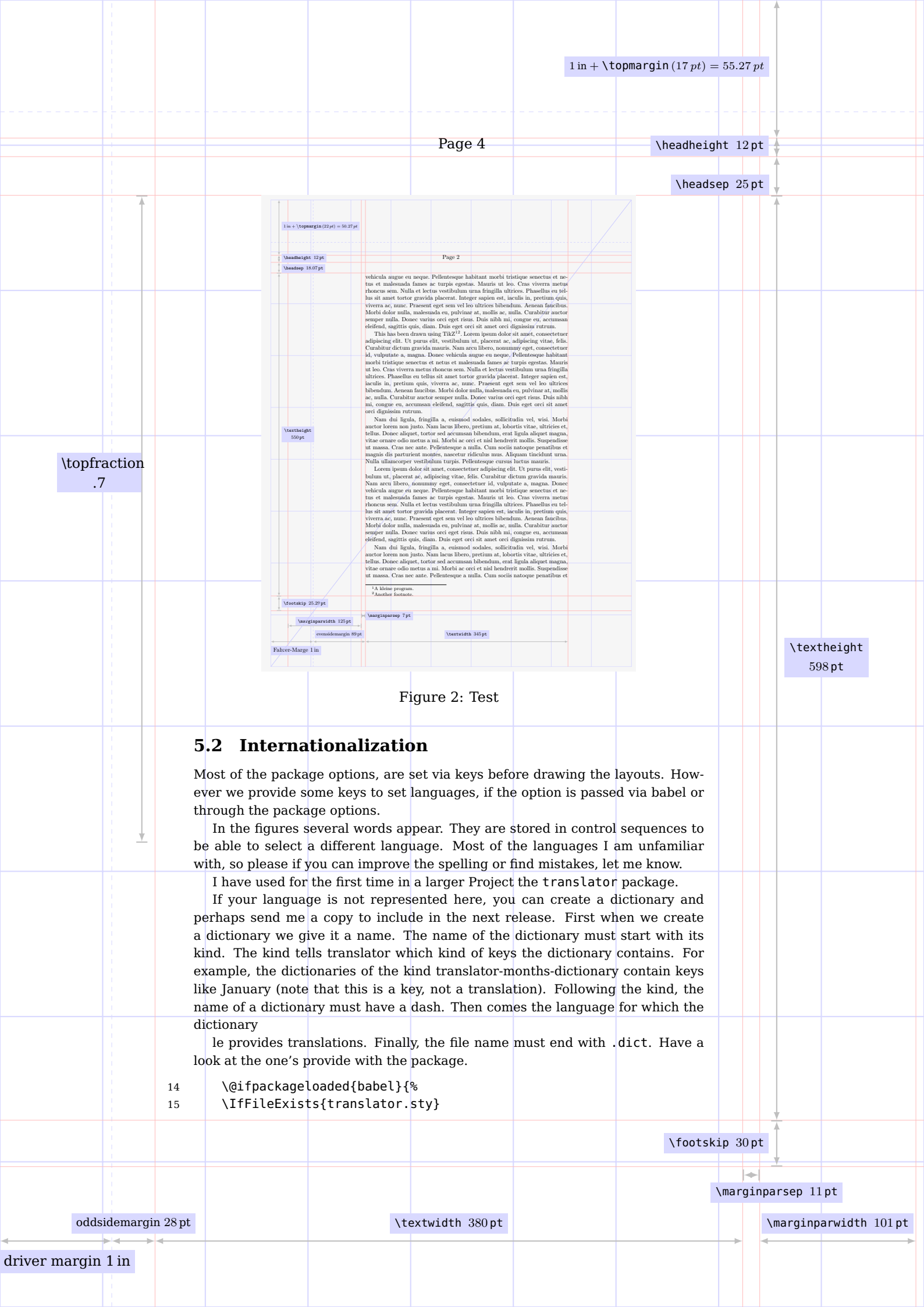
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1 in + \topmargin (17 pt) = 55.27 pt

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```
16      {\RequirePackage{translator}\typeout{Translator package loaded.}}}%
17    }%
18    {\RequirePackage[french,dutch,german,italian,english]{babel}
19    \IfFileExists{translator.sty}
20      {\RequirePackage{translator}\typeout{Translator package loaded.}}}%
21
22    \usedictionary{pages}
23    \DeclareOption{german}{\uselanguage{german}}
24    \DeclareOption{english}{\select@language{english}\uselanguage{english}}
25    \DeclareOption{italian}{\select@language{italian}\uselanguage{italian}}
26    \DeclareOption{dutch}{\select@language{dutch}\uselanguage{dutch}}
27    \DeclareOption{french}{\select@language{french}\uselanguage{french}}
28    \ProcessOptions*
```

5.3 New lengths and switches

We need a few new lengths for arranging the grid and the layout. PH = paper height PW = paper width tol=tolerance toly = ytolerance

```
29    \newlength\shiftx@cx
30    \newlength\shifty@cx
31    \newlength\tol
32    \newlength\toly
33    \newlength\innermargin
34    \newlength\PH
35    \setlength\PH{\paperheight}
36    \newlength\PW
37    \setlength\PW{\paperwidth}
38    \newlength\INNER
39    \newlength\TOP
40    \newlength\alphlength
```

\textheight
598 pt

5.4 Colors

One of the reasons that I have created the package is to provide better looking layouts to be included in tutorials and or books, as such we define a number of colors to make it easy for users to redefine and change the looks.

```
41    \definecolor{theblue}{rgb}{0.02,0.04,0.48}
42    \definecolor{thered}{rgb}{0.65,0.04,0.07}
43    \definecolor{thegreen}{rgb}{0.06,0.44,0.08}
44    \definecolor{thelightgreen}{rgb}{0.06,0.44,0.06}
45    \definecolor{thegrey}{gray}{0.5}
46    \definecolor{thegray}{gray}{0.5}
47    \definecolor{thedarkgray}{gray}{0.95}
48    \definecolor{theshade}{gray}{0.94}
49    \definecolor{theframe}{gray}{0.75}
50    \definecolor{thecream}{rgb}{1,0.95,0.4}
51    \definecolor{spot}{rgb}{0,0.2,0.6}
52    \definecolor{boxframe}{gray}{0.8}
53    \definecolor{boxfill}{rgb}{0.95,0.95,0.99}
54    \definecolor{theoption}{rgb}{0.118,0.546,0.222}
55    \definecolor{themacro}{rgb}{0.784,0.06,0.176}
```

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1 in + \topmargin (17 pt) = 55.27 pt

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```
56 \definecolor{ExampleFrame}{rgb}{0.628,0.705,0.942}
57 \definecolor{ExampleBack}{rgb}{0.963,0.971,0.994}
58 \definecolor{Hyperlink}{rgb}{0.281,0.275,0.485}
59 \colorlet{thehyperlink}{theblue}
60 \newcommand*\defaultcolor{\color{black}}
61 \newcommand*\spotcolor{\color{spot}}
```

The @diagonal switch is used to let the user choose to draw the diagonal lines for classical layout checks we set it initially at false.

```
62 \newif\if@diagonal
63 \@diagonalfalse
64
65
66 \newif\ifdrawmarginpars
67 \drawmarginparstrue
68
69
```

\printunitsof@cx This macro has been adapted from the layouts package, it sets the units to be printed in the diagrams.

```
70 \newcommand{\printinunitsof@cx}[1]{%
71 \def\l@yunitperpt{1.0}\def\l@yunits{pt}%
72 \def\l@yta{#1}\def\l@ytb{pt}%
73 \ifx \l@yta\l@ytb
74 \def\l@yunitperpt{1.0}\def\l@yunits{pt}%
75 \else
76 \def\l@ytb{pc}%
77 \ifx \l@yta\l@ytb
78 \def\l@yunitperpt{0.083333}\def\l@yunits{pc}%
79 \else
80 \def\l@ytb{in}%
81 \ifx \l@yta\l@ytb
82 \def\l@yunitperpt{0.013837}\def\l@yunits{in}%
83 \else
84 \def\l@ytb{mm}%
85 \ifx \l@yta\l@ytb
86 \def\l@yunitperpt{0.351459}\def\l@yunits{mm}%
87 \else
88 \def\l@ytb{cm}%
89 \ifx \l@yta\l@ytb
90 \def\l@yunitperpt{0.0351459}\def\l@yunits{cm}%
91 \else
92 \def\l@ytb{bp}%
93 \ifx \l@yta\l@ytb
94 \def\l@yunitperpt{0.996264}\def\l@yunits{bp}%
95 \else
96 \def\l@ytb{dd}%
97 \ifx \l@yta\l@ytb
98 \def\l@yunitperpt{0.9345718}\def\l@yunits{dd}%
99 \else
100 \def\l@ytb{cc}%
101 \ifx \l@yta\l@ytb
```

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\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

1 in + \topmargin (17 pt) = 55.27 pt

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```
102      \def\l@yunitperpt{0.0778809}\def\l@yunits{cc}%
103      %
104      \else
105      \def\l@ytb{PT}%
106      \ifx \l@yta\l@ytb
107      \def\l@yunitperpt{1.0}\def\l@yunits{PT}% gives problems with pgfmathpars
108      \fi
109      \fi
110      \fi
111      \fi
112      \fi
113      \fi
114      \fi
115      \fi
116      }
```

\convert@cx The macro \convert@cx is used internally to convert dimensions from one set of units to another. Used in dimension lines.

```
117      \newcommand\convert@cx[1]{%
118      \pgfmathparse{#1*\l@yunitperpt}
119      % use pgfmath for rounding to 2 decimals
120      \pgfmathprintnumber{\pgfmathresult}\thinspace\l@yunits
121      }
```

\calcshift@cx Helper command to reposition the grid, note it needs to run twice to position the grid properly.

```
122      \newcommand\calcshift@cx{%
123      \pgfsys@getposition{\pgfpictureid}\@basepoint
124      \pgf@process{\pgfpintorigin\@basepoint}%
125      \setlength\shiftx@cx\pgf@x
126      \setlength\shifty@cx\pgf@y}
```

\CS

```
127      \newcommand\CS[1]{\footnotesize #1}
```

\labelit@cx The macro \labelit@cx, is the main styling command for labels on dimensions this is expected to get more intelligent in future versions.

```
128      \newcommand\labelit@cx[1]{\ttfamily\CS{\string#1} \convert@cx{#1}}
```

We define its own family of keys.

\cxset The macro \cxset is used to either define a new key or set an existing one.

```
129      \newcommand\cxset{\pgfqkeys{/xlayouts}} %Notice this is pgf q keys
```

5.5 Keys

We are now ready to start defining keys. We use PGF Keys to define the keys.

```
130      \cxset{geometry units/.code=\printinunitsof@cx{#1},
131      geometry grid color/.store in=\geometrygridcolor@cx,
132      geometry lines color/.store in=\geometrylinescolor@cx,
133      geometry label color/.store in=\geometrylabelcolor@cx,
134      geometry diagonal/.is choice,
```

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driver margin 1 in

$$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$$

`\headheight 12 pt`

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```

135     geometry diagonal/true/.code=\@diagonaltrue,
136     geometry diagonal/false/.code=\@diagonalfalse,
137     geometry diagonal/none/.code=\@diagonalfalse,
138     geometry diagonal color/.store in=\diagonalcolor@cx,
139     geometry dim arrow type/.store in=\geometryarrowtype@cx,
140     geometry grid xsteps/.store in=\xsteps@cx,
141     geometry grid ysteps/.store in=\ysteps@cx,
142     geometry grid line width/.store in=\geometrygridlinewidth@cx,
143     geometry driver lines/.store in=\geometrydriverlines@cx,
144     geometry driver lines color/.store in=\geometrydriverlinescolor@cx,
145 }

```

We set some defaults to initialize the keys and prevent errors, if the user doesn't specify any parameters.

```

146     \cxset{geometry diagonal=true,
147           geometry diagonal color=blue!20,
148           geometry lines color=pink,
149           geometry label color=blue!15,
150           geometry grid color=blue!15,
151           geometry grid line width=0.8pt,
152           geometry dim arrow type=latex,
153           geometry units=pt,
154           geometry grid xsteps=9,
155           geometry grid ysteps=9,
156           geometry driver lines=dashed,
157           geometry driver lines color=blue!15}

```

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598 pt

`\agrid` The macro `\agrid` is the main drawing command. It draws the layout.

```

158
159     \newcommand\agrid{%
160     \tikzset{lines/.style={color=\geometrylinescolor@cx},
161             dim/.style={color=black!25,thick,>=\geometryarrowtype@cx},
162             dim label/.style={color=black,fill=\geometrylabelcolor@cx},
163             grid/.style={line width=\geometrygridlinewidth@cx,
164                           color=\geometrygridcolor@cx},
165             driver/.style={\geometrydriverlines@cx,
166                             \geometrydriverlinescolor@cx}}
167
168     \begin{tikzpicture}[remember picture, overlay]

```

We need to detect if the layout is on an odd or an even page. We use the macro `\checkoddpage` from the `changepage` package. For oneside documents all pages are treated as odd and we set the switch to true.

```

169     \pgfmathsetlength{\TOP}{\PH-1in-\voffset-\topmargin-\headheight-\headsep}
170     \checkoddpage%
171     % for oneside we treat them as odd
172     \if@twoside\else\oddpagetrue\fi
173     \ifoddpage
174         \innermargin\oddsidemargin
175         \pgfmathsetlength{\INNER}{1in+\innermargin+\hoffset}
176         \gdef\innermarginname{\CS{oddsidemargin}}%
177     \else

```

`\footskip 30 pt`

`\marginparsep 11 pt`

`oddsidemargin 28 pt`

`\textwidth 380 pt`

`\marginparwidth 101 pt`

`driver margin 1 in`

$$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$$

$$\text{\headheight } 12\text{ pt}$$

$$\text{\headsep } 25\text{ pt}$$

```

178         \innermargin\evensidemargin
179         \pgfmithsetlength{\INNER}{1in+\innermargin+\hoffset}
180         \gdef\innermarginname{\CS{evensidemargin}}%
181     \fi

```

We need to shift the whole layout in order to achieve an integral number of grids this is done with `\calcshift@cx`¹.

```

182     \calcshift@cx
183     \begin{scope}[xshift=-\shiftx@cx, yshift=-\shifty@cx]

```

We will first draw the grid. This is one of the main features of the package. We do this using the `grid` shape. All `\draw` commands are detailed, rather than using coordinates. This was both for me as well as future maintainers that can follow easier the steps in drawing the layout.

```

184     %
185     \draw [grid,xstep=\PW/\xsteps@cx,ystep=\PH/\ysteps@cx]
186           (current page.south west) grid ++(\PW,\PH);

```

5.6 The driver margins

Printer's cannot always print up to the edges of the paper. Knuth allowed a one inch margin for this which later got adopted into LaTeX.

`\hoffset` Adjustment to the one inch margins can be made by using `\hoffset` and `\voffset`. All major classes set these offsets at zero. Some packages such as the `crop` may use these to center a logical page onto the stock paper.

```

187     \draw [driver] (1in,0) -- (1in,\PH);
188     \draw [driver] (0,\PH-1in)-- ++(\PW,0);

```

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5.7 Crop marks

If the option `crop` is set, the package will print crop marks. These are printed at the four corners of the paper.

```

189     %\draw [line width=0.4pt,color= green]
190     %   (0+8mm,\stockheight-30mm) circle(2.5mm)++(-2.5mm,0)
191     %   -- ++(20mm,0)++(-17.5mm,-2.5mm)--++(0,5mm);
192     %
193     %\draw [line width=0.4pt,color=red,]
194     %   (8+25mm,\stockheight-30mm+2.5mm) -- ++(0,20mm)
195     %   ++ (0,-2.5mm)circle(2.5mm) ++(-2.5mm,0mm)--++(5mm,0);
196
197

```

5.8 Vertical lines

For no particular reason we first draw the vertical lines. We also define some co-ordinates to reduce the verbosity of the code.

```

198     \draw [lines] (\INNER,0) -- (\INNER,\PH);
199     \draw [lines] (\INNER+\textwidth,0) -- ++(0,\PH);
200     \ifoddpage

```

¹See [discussion](#) at `tex.sx`

$$\text{\footskip } 30\text{ pt}$$

$$\text{\marginparsep } 11\text{ pt}$$

$$\text{oddsidemargin } 28\text{ pt}$$

$$\text{\textwidth } 380\text{ pt}$$

$$\text{\marginparwidth } 101\text{ pt}$$

$$\text{driver margin } 1\text{ in}$$

1 in + \topmargin (17 pt) = 55.27 pt

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\headheight 12 pt

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```
201 \draw[lines] (\INNER+\textwidth+\marginparsep,0)
202 -- (\INNER+\marginparsep+\textwidth,\PH);
203 \draw[lines] (\INNER+\textwidth+\marginparsep+\marginparwidth,0)
204 -- (\INNER+\marginparsep+\marginparwidth+\textwidth,\PH);
205 \else
206 \draw [lines] (\INNER-\marginparsep,0) -- ++(0,\PH);
207 \draw [lines] (\INNER-\marginparsep-\marginparwidth,0) -- ++(0,\PH);
208 \fi
```

5.9 Horizontal lines

Next we draw the horizontal lines.

```
209 \draw [lines](0,\PH-1in-\topmargin)-- ++(\PW,0);
210 \draw [lines](0,\PH-1in-\topmargin-\headheight)-- ++(\PW,0)
211 node[black,above] at ++(-0.5\PW,0){Page \thepage};
212 \draw [lines](0,\TOP) -- ++(\PW,0);
213 \draw [lines](0,\TOP-\textheight) -- ++(\PW,0);
214 \draw [lines](0,\TOP-\textheight-\footskip) -- ++(\PW,0);
```

5.10 Two column document

A two column document, just subdivides the text area into two equal parts with a gutter in between. Next we draw the vertical lines and the dimensions for two column layouts. We detect if it is a twocolumn layout using the switch \if@twocolumn defined by the standard classes in source2e.

\columnwidth
\columnsep

```
215 \if@twocolumn
216 \draw [lines](\INNER+\columnwidth,\TOP)-- ++(0,-\textheight);
217 \draw [lines](1in+\innermargin+\columnwidth+\columnsep,\TOP)
218 -- ++(0,-\textheight);
219 % Draw twocolumn dimension lines
220 \draw [dim,<->](\INNER, \TOP-\textheight-1.8em)
221 -- ++(\columnwidth,0) node[above, dim label]
222 at ++(-0.5\columnwidth,3pt) {\labelit@cx{\columnwidth}};
223 \draw [dim,<->](\INNER+\columnwidth, \TOP-\textheight-1.8em)
224 -- ++(\columnsep,0) node[above, dim label] at
225 ++(-0.5\columnsep,3pt) {\labelit@cx{\columnsep}};
226 \draw [dim,<->](\INNER+\columnwidth+\columnsep,
227 \PH-1in-\topmargin-\headheight-\headsep-\textheight-1.8em)
228 -- ++(\columnwidth,0) node[above, dim label] at
229 ++(-0.5\columnwidth,3pt) {\labelit@cx{\columnwidth}};
230 \fi
```

We then position and draw the dimension lines and labels.

```
231 \ifoddpage
232 \pgfmithsetlength\tol{1in+\innermargin+\textwidth+2\marginparsep}
233 \draw [dim, <->](\tol,\PH)-- ++(0,-1in-\topmargin);
234 \else
235 \pgfmithsetlength\tol{2\marginparsep}
236 \draw [dim, <->](\tol,\PH)-- ++(0,-1in-\topmargin);
237 \fi
```

\textheight
598 pt

\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

$$1\text{ in} + \text{\topmargin} (17\text{ pt}) = 55.27\text{ pt}$$

$$\text{\headheight} 12\text{ pt}$$

$$\text{\headsep} 25\text{ pt}$$

The top margin (not to be confused with the length `\topmargin`, is the total length given by the driver margin (which is `1in` + the `\topmargin` length + the `headheight` and `headsep`).

```

238 \pgfmathsetlength\@tempdima{1in-\topmargin}
239 \ifoddpage
240 \draw [dim](\tol,\PH-1in-\topmargin)-- ++(0,-\headheight)
241 node[left, dim label] at
242 ++(-lex,0.5in+0.5\topmargin+1.5em)
243 {\scriptsize$1\thinspace \text{\in}+\texttt{\footnotesize\textbackslash topmargin}\},
244 (\convert@cx{\topmargin})= \convert@cx{\@tempdima}$};
245 \else
246 \draw [dim, <->](\tol,\PH-1in-\topmargin)-- ++(0,-\headheight)
247 node[right, dim label] at ++(lex,1in-0.5\topmargin)
248 {\scriptsize$1\thinspace \text{\in}+\texttt{\footnotesize\textbackslash topmargin}\},
249 (\convert@cx{\topmargin})= \convert@cx{\@tempdima}$};
250 \fi

```

5.11 headheight and headsep

The `\headheight` is normally a fixed amount that varies with the baseline of the the font. In the standard classes it is defined in the `.clo` files. We position the lines and labels on the right for odd pages and on the left for even pages.

```

251 \ifoddpage
252 \draw [dim,<->](\tol,\PH-1in-\topmargin)-- ++(0,-\headheight)
253 node[above left, dim label] at ++(-lex,0){ \labelit@cx{\headheight}};
254 % draw headsep
255 \draw [dim,<->](\tol,\PH-1in-\topmargin-\headheight)-- ++(0,-\headsep)
256 node[above left,dim label] at ++(-lex,0){\labelit@cx{\headsep}};
257 \else
258 \draw [dim,<->](\tol,\PH-1in-\topmargin)-- ++(0,-\headheight)
259 node[above right,dim label] at ++(lex,0){ \labelit@cx{\headheight}};
260 % draw headsep
261 \draw [dim,<->](\tol,\PH-1in-\topmargin-\headheight)-- ++(0,-\headsep)
262 node[above right, dim label] at ++(lex,0){\labelit@cx{\headsep}};
263 \fi

```

$$\text{\textheight} 598\text{ pt}$$

5.12 Text height

The `\textheight` is normally calculated to have an exact number of lines to avoid warning messages from the TeX engine.

```

264 \draw [dim, |<->](\tol,\TOP)
265 -- ++(0,-\textheight) node[right,text width=1.7cm,text centered, dim label]
266 at ++(lex,0.5\textheight){\labelit@cx{\textheight}};

```

5.13 The footskip

The `\footskip` is also a fixed number set by the classes. We position it left or right to minimize clashes with other elements.

```

267 \ifoddpage
268 \draw [dim, |<->](\tol,\TOP-\textheight)

```

$$\text{\footskip} 30\text{ pt}$$

$$\text{\marginparsep} 11\text{ pt}$$

$$\text{oddsidemargin} 28\text{ pt}$$

$$\text{\textwidth} 380\text{ pt}$$

$$\text{\marginparwidth} 101\text{ pt}$$

$$\text{driver margin} 1\text{ in}$$

1 in + \topmargin (17 pt) = 55.27 pt

Page 12

\headheight 12 pt

\headsep 25 pt

```
269     -- ++(0,-\footskip)
270     node[left, dim label] at ++(-1ex,0.5\footskip){\labelit@cx{\footskip}};
271 \else
272     \draw [dim, |<->|](\tol,\TOP-\textheight)
273     -- ++(0,-\footskip)
274     node[right, dim label] at ++(1ex,0.5\footskip){\labelit@cx{\footskip}};
275 \fi
276
277 % Float parameters
278 % topfraction on left margin
279
280 \iftopfloat{%
281 \draw [dim,|<->|] (\INNER-0.3cm, \TOP)-- ++(0,-\topfraction\textheight)
282     node[left,text width=1.7cm,text centered, dim label]
283     at ++ (0,0.4\textheight) {\textbackslash topfraction\ \topfraction};
284 }{}
285 % bottom fraction
286 \ifbotfloat{%
287 \draw [dim,|<->|] (\INNER, \TOP) ++(0,-\textheight)
288     -- ++(0,\bottomfraction\textheight)
289     node[left, text width=1.2cm, dim label] at
290     ++(-1ex,-\bottomfraction*0.5\textheight){\textbackslash bottom\ \fraction\ \
291     \bottomfraction};
292 }{}
293 % HORIZONTAL DIMENSIONS
294 \setlength\toly{1.5cm}
295 \draw[dim,<->](0,\toly)--++(1in,0)node [dim label] at ++(-0.4in,-1.5em)
296 {\translate{drivermarginname} 1\thinspace in};
297
```

\textheight
598 pt

If innermargin 0pt we do not show the dimension line. Tufte-book has innermargin=0pt

```
298 \ifdim\innermargin=0pt
299     \draw[dim,](0+1in,\toly)--++(\innermargin,0) node [above, dim label]
300     at ++(-0.5\innermargin,0.5em)
301     {\innermarginname\convert@cx{\innermargin}};
302 \else
303     \draw[dim,<->](0+1in,\toly)--++(\innermargin,0) node [above, dim label]
304     at ++(-0.5\innermargin,0.5em)
305     {\innermarginname\ \convert@cx{\innermargin}};
306 \fi
307
308 \draw[dim,<->](0+1in+\innermargin,\toly)--++(\textwidth,0)
309     node[above, dim label] at ++(-0.5\textwidth,0.5em)
310     {\labelit@cx{\textwidth}};
```

5.14 Marginpar dimensions

\marginparwidth There are three controlling lengths that position the marginpar block. The marginparwidth is troublesome, in that some classes don't really worry about marginpars and they left the dimensions unchanged. For Octavo for some papers they will overflow outside the paper boundaries.

\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

1 in + \topmargin (17 pt) = 55.27 pt

Page 13

\headheight 12 pt

\headsep 25 pt

```
311 \ifoddpage
312   \draw[dim,<->](\INNER+\textwidth, \toly+1.5cm)--++(\marginparsep,0)
313     node [below, dim label] at ++(\marginparsep,-0.5em)
314     {\labelit@cx{\marginparsep}};
315   \draw[dim,<->](\INNER+\textwidth+\marginparsep, \toly)
316     --++(\marginparwidth,0)
317     node [above, dim label] at ++(-0.5\marginparwidth,0.5em)
318     {\labelit@cx{\marginparwidth}};
319 \else
320   \draw[dim,<->](\INNER, \toly+1.55cm)--++(-\marginparsep,0)
321     node [right, dim label] at ++(\marginparsep,0em)
322     {\labelit@cx{\marginparsep}};
323   \ifdim\marginparwidth<3cm % try be a more intelligent for placement
324     \draw[dim,<->](0+1in+\innermargin-\marginparsep-\marginparwidth,
325       \toly+.95cm)--++(\marginparwidth,0)node [right, dim label]
326       at ++(0,0em)
327       {\labelit@cx{\marginparwidth}};
328   \else
329     \draw[dim,<->](\INNER-\marginparsep-\marginparwidth, \toly+.95cm)
330       --++(\marginparwidth,0)node [above, dim label] at
331       ++(-0.5\marginparwidth,0em){\labelit@cx{\marginparwidth}};
332 \fi
333 \fi
```

5.15 Classic layout diagonal lines

\textheight
598 pt

We do not attempt to draw out a full classical layout, but only to draw the diagonal lines to check. This feature can be switched off. The direction of the line depends if we have an odd or even page.

```
334 \if@diagonal
335   \ifoddpage
336     \draw [\diagonalcolor@cx,thick] (\PW,0)--(0,\PH);
337   \else
338     \draw [\diagonalcolor@cx,thick] (0,0)--(\PW,\PH);
339   \fi
340 \fi
341 \end{scope}
342 \end{tikzpicture}}
```

6 Running head definitions

We define a page layout, grid to position the grid. We use the same for both evenhead and oddhead.

\ps@grid In LaTeX a running header is defined using a \ps@<name> macro. We define a pagestyle that can be use to draw the layout.

```
343 \def\ps@grid{%
344   \let\@oddfoot\@empty\let\@evenfoot\@empty
345   \def\@evenhead{\agrid}%
346   \let\@oddhead\@evenhead
```

\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

1 in + \topmargin (17 pt) = 55.27 pt

Page 14

\headheight 12 pt

\headsep 25 pt

```
347 \let\mkboth\@gobbletwo
348 \let\chaptermark\@gobble
349 \let\sectionmark\@gobble
350 }
```

7 Float parameters

\figureparambot The macros \figureparambot attempt to draw dimension lines in figures. This is very much work in progress, as to draw them properly will need to redefine some of the internals of the output routine.

```
351 \def\figureparamsbot{%
352 \begin{tikzpicture}[remember picture, overlay]
353 \pgfmathsetlength\@tempdima{-\textfloatsep}
354 \draw[>=latex,|<->|] (0,0) --++(0,-\@tempdima)
355 node [right]
356 at ++ (1ex,-0.5\textfloatsep)
357 {\CS{textfloatsep} \convert@cx{\textfloatsep}};
358 \end{tikzpicture}%
359 \par
360 }
361 \def\figureparamstop{%
362 \par
363 \begin{tikzpicture}%[remember picture, overlay]
364 \pgfmathsetlength\@tempdima{-\textfloatsep}
365 \draw[>=latex,|<->|] (0,0) --++(0,\@tempdima)
366 node [right,fill=\geometrylabelcolor@cx]
367 at ++ (1ex,0.5\textfloatsep)
368 {\CS{textfloatsep} \convert@cx{\textfloatsep}};
369 \end{tikzpicture}%
370 }
```

\textheight
598 pt

8 Spread

The package provides a command to draw a two page spread as per the canons of page construction.

This is aimed at producing stand alone diagrams for inclusion into other packages or LaTeX notes, such a diagram is shown in Figure 3

```
371 \newlength\paperwidth@cx
372 \newlength\paperheight@cx
373 \newlength\lefttrim
374 \newlength\bottomtrim
375 \newlength\bindingcorrection
376 \setlength\paperwidth@cx{12in}
377 \setlength\paperheight@cx{18in}
378 \setlength\bindingcorrection{0.5in}
379
380 \cxset{spread xsteps/.store in=\spreadxsteps@cx,
381 spread scale/.store in=\spreadscales@cx,
382 spread width/.store in=\spreadwidth@cx}
```

\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$

Page 15

$\text{\headheight } 12\text{ pt}$

$\text{\headsep } 25\text{ pt}$

\topfraction
.7

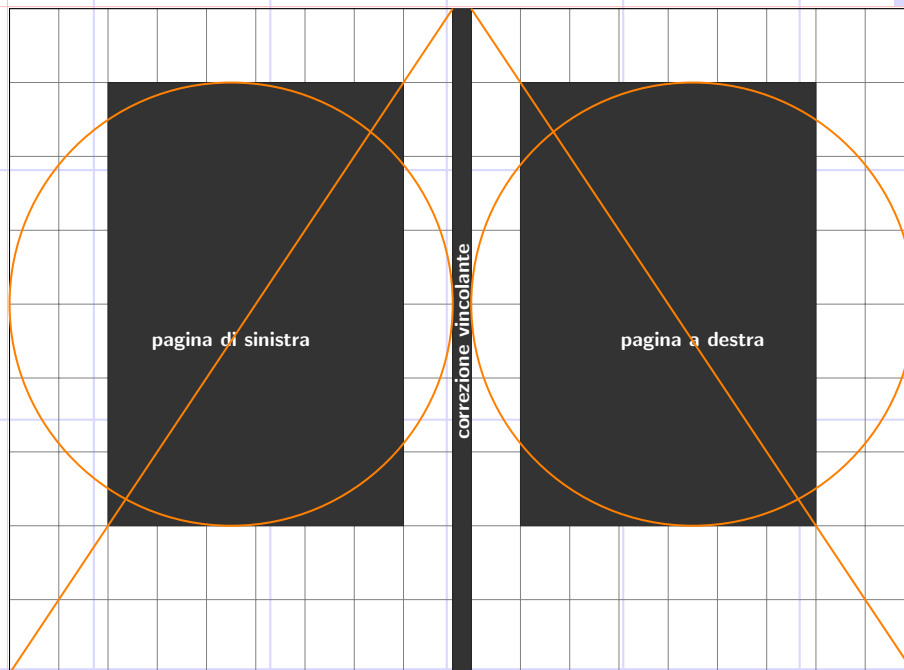


Figure 3: Diagram illustrating page geometry as per the Canons of Page Construction.

\textheight
598 pt

```
383 %
384 %
385 \cxset{spread xsteps=9,
386         spread scale=0.25,
387         spread width=0.5\textwidth}% does not work
388
389 \tikzset{typearea/.style={color=black!85,fill=black!80,
390                             font={\sffamily\bfseries}}}
391 %
```

\drawcanons The macro \drawcanons draws a spread, showing all lines and divisions as per classical rules.

```
392 \def\drawcanons{%
393   \begin{tikzpicture}[scale=\spreadscale@cx]
394     % draw the two pages
395     \draw[xstep=(\paperwidth@cx)/\spreadxsteps@cx,
396           ystep=(\paperheight@cx)/\spreadxsteps@cx,color=gray] (0,0)
397       grid (\paperwidth@cx, \paperheight@cx);
398     \draw (0,0) rectangle (\paperwidth@cx,\paperheight@cx);
399
400     \begin{scope}[xshift=\paperwidth@cx+\bindingcorrection]
401       \draw[xstep=(\paperwidth@cx)/9,
402             ystep=(\paperheight@cx)/9,color=thegray] ++(0,0)
403         grid (\paperwidth@cx, \paperheight@cx);
404       \draw[color=black] (0,0) rectangle (\paperwidth@cx,\paperheight@cx);
```

$\text{\footskip } 30\text{ pt}$

$\text{\marginparsep } 11\text{ pt}$

$\text{\oddsidemargin } 28\text{ pt}$

$\text{\textwidth } 380\text{ pt}$

$\text{\marginparwidth } 101\text{ pt}$

driver margin 1 in

$$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$$

$$\text{\headheight} 12\text{ pt}$$

$$\text{\headsep} 25\text{ pt}$$

```

405     \end{scope}

Next we draw the binding correction. This is drawn as a rectangle. We fill it
with the same style shading as the type area.

406     \draw[typearea, draw] (\paperwidth@cx,0)
407         rectangle ++(\bindingcorrection, \paperheight@cx);

The typed area blocks are added next.

408     \draw[typearea] (2\paperwidth@cx/\spreadxsteps@cx,
409                     2\paperheight@cx/\spreadxsteps@cx)
410         rectangle ++(6/9*\paperwidth@cx,6*\paperheight@cx/\spreadxsteps@cx);
411
412     \draw[typearea] (\paperwidth@cx+\paperwidth@cx/9+\bindingcorrection,
413                     2\paperheight@cx/9) rectangle ++(6\paperwidth@cx/9,6\paperheight@cx/9);
414
415     \ifdim\bindingcorrection>0pt
416     \begin{scope}[typearea,color=white]
417     \draw node at
418         (\paperwidth@cx+0.5\bindingcorrection,
419         0.5\paperheight@cx)[rotate=90,inner sep=0pt,outer sep=0pt]
420         {\translate{bindingcorrectionname}};
421     \fi
422     \node at
423         (0.5\paperwidth@cx,0.5\paperheight@cx){\translate{leftpagename}};
424     \node at
425         (1.5\paperwidth@cx+\bindingcorrection,
426         0.5\paperheight@cx){\translate{rightpagename}};
427     \end{scope}

```

$$\text{\textheight} 598\text{ pt}$$

Next we draw the diagonals and the circles. We draw them within a scope to separate the styling from the drafting.

```

428     \begin{scope}[color=orange, line width=1pt]
429     \draw (0,0)-- (\paperwidth@cx,\paperheight@cx);
430     \draw (2\paperwidth@cx+\bindingcorrection,0)--
431         ++(-\paperwidth@cx,\paperheight@cx);

```

The circles are drawn in the same style as the diagonals. We do not provide an option to change this, as it will produce ugly diagrams.

```

432     \draw (0.5\paperwidth@cx,5\paperheight@cx/9)
433         circle (0.5\paperwidth@cx);
434     \draw [xshift=\paperwidth@cx+\bindingcorrection]
435         (0.5\paperwidth@cx,5\paperheight@cx/9)
436         circle (0.5\paperwidth@cx);
437     \end{scope}
438     \end{tikzpicture}
439 }

```

9 Try Layouts

The try layouts code, are helper macros to draw dimension lines on a diagram to experiment with different dimensions and layouts. In addition to this some helper commands are incorporated for readability.

$$\text{\footskip} 30\text{ pt}$$

$$\text{\marginparsep} 11\text{ pt}$$

$$\text{oddsidemargin} 28\text{ pt}$$

$$\text{\textwidth} 380\text{ pt}$$

$$\text{\marginparwidth} 101\text{ pt}$$

$$\text{driver margin} 1\text{ in}$$

10 Readability

In general the width of the typed area should not exceed 45-65 characters. This is language and reader dependent.

`\alphabet` The macro `\alphabet` returns the twenty six letters of the English language. This is used later on to calculate the length of an alphabet and provide related metrics for the readability of the text.

```
440 \def\alphabet{%
441   \normalfont\selectfont\raggedleft%
442   abcdefghijklmnopqrstuvwxyz}
```

`\charactersperline` The macro `charactersperline` typesets the number of characters in a line of text. We use `\pgfmithprintnumber` to format and print the number.

```
443 \newcommand\charactersperline{%
444   \settowidth{\@tempdima}{\alphabet}
445   \pgfmithparse{\textwidth/\@tempdima*26}
446   \pgfmithprintnumber{\pgfmithresult}
447 }
```

`\alphabetsperline` Some people are more familiar with the metric alphabets per line rather than characters per line. We provide the macro `\alphabetsperline`.

```
448 \newcommand\alphabetsperline{%
449   \settowidth{\@tempdima}{\alphabet}
450   \pgfmithparse{\textwidth/\@tempdima}
451   \pgfmithresult
452 }
```

\textheight
598 pt

`\alphabetlength` The macro `\alphabetlength` prints the length of the alphabet.

```
453 \newcommand\alphabetlength{%
454   \settowidth{\alphlength}{\alphabet}
455   \pgfmithparse{\alphlength}
456   \pgfmithprintnumber{\pgfmithresult}pt
457 }
```

We need to use the `fp` package to calculate the ratios, as PGF has problems with large dimensions or I am making an error

```
458 \newcommand\textarearatio{%
459   \FPMul{\result}{\strip@pt\textwidth}{\strip@pt\textheight}
460   \FPMul{\resultii}{\strip@pt\paperwidth}{\strip@pt\paperheight}
461   \FPdiv{\resultii}{\result}{\resultii}
462   \pgfmithprintnumber{\resultii}
463 }
464
465 % Calculate the ratio textheight/paperheight
466 \newcommand\textheightratio{%
467   \FPdiv{\result}{\strip@pt\textheight}{\strip@pt\paperheight}
468   \FPround{\result}{\result}{2}
469   \result
470 }
471
```

1 in + \topmargin (17 pt) = 55.27 pt

Page 18

\headheight 12 pt

\headsep 25 pt

```
472 % Calculate textheight/paperwidth
473
474 \newcommand\textheighttopaperwidth{%
475     \pgfmathparse{\textheight/\paperwidth}
476     \pgfkeys{/pgf/number format/.cd,fixed,precision=2}
477     \pgfmathprintnumber{\pgfmathresult}
478 }
479 \newcommand\numbertextlines{%
480 % baselineskip to be corrected
481     \pgfmathparse{(\textheight-\topskip)/(12)-1}\pgfmathresult
482 }
```

\printreadability

```
483 \def\printreadability{%
484 \begin{tabular}{lr}
485 Characters per line & \charactersperline\\
486 Alphabets per line & \alphabetsperline\\
487 Alphabet length & \alphabetlength\\
488 Baselineskip & \the\baselineskip\\
489 Number of text lines & \numbertextlines\\
490 \end{tabular}}
```

11 Page Layout Diagrams

This is one of the most important features of the package. Drawing and annotating a page diagram, so that you can view new geometry or use them for notes.

\textheight
598 pt

11.1 New lengths

We need to isolate the current page dimensions from the new trial sizes for the diagram. We redefine new lengths for all parameters with the prefix try and the suffix @cx.

```
491 \newlength\trypaperwidth@cx
492 \newlength\trypaperheight@cx
493 \newlength\trytextheight@cx
494 \newlength\tryheadheight@cx
495 \newlength\tryheadsep@cx
496 \newlength\tryfootskip@cx
497 \newlength\trymargintop@cx
498 \newlength\trymarginbottom@cx
499 \newlength\trytopmargin@cx
500 \newlength\trimtop@cx
501 \setlength\trimtop@cx{0pt}
502 \newlength\trytextwidth@cx
503 \newlength\trymarginparwidth@cx
504 \newlength\trymarginparsep@cx
505 \newlength\tryleftmargin@cx
506 \newlength\tryinner@cx
```

The stockheight and stockwidth are used when the paper is to be trimmed they default to the dimensions for paper width and paper height, if not specified.

\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

$$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$$

$$\text{\headheight} 12\text{ pt}$$

$$\text{\headsep} 25\text{ pt}$$

The memoir class also defines them. If they are defined, we use the values from the class.

```
\stockheight
\stockwidth
507 \ifundefined{stockheight}{\global\newlength\stockheight}{\fi
508 \ifundefined{stockwidth}{\global\newlength\stockwidth}{\fi
509
510 \ifdim\stockheight=0pt\addtolength\stockheight{\paperheight}\fi
511 \addtolength\stockheight{0mm}
512 \ifdim\stockwidth=0pt\addtolength\stockwidth{\paperwidth}\fi
513 \addtolength\stockwidth{0mm}
514
515 \newlength\trystockheight@cx
516 \newlength\trystockwidth@cx
517 \cxset{try stockwidth/.code=\setlength\trystockwidth@cx{#1},
518       try stockheight/.code=\setlength\trystockheight@cx{#1},
519       try stock/.code=} % a4paper etc to be developed toninght
520 \cxset{try stockwidth=\paperwidth}
521 \cxset{try stockheight=\paperheight}
```

We set all the trims to zero to start with.

```
522 %
523 \newlength\trimtop
524 \newlength\triedge
525 \setlength\lefttrim{5mm}
526 \setlength\bottomtrim{10pt}
527 \setlength\trimtop{0pt}
528 \setlength\triedge{0pt}
529 %
530 %
531 % set defaults
532 \setlength\trymargintop@cx{0pt}
533 \setlength\trymarginparsep@cx{\marginparsep}
534 \setlength\trymarginparwidth@cx{\marginparwidth}
535 \setlength\trytextwidth@cx{0pt}
536 \newlength\trytriedge@cx
537 \setlength\trytriedge@cx{10pt}
538
539 \newlength\tryoddsidemargin@cx
540 \setlength\tryoddsidemargin@cx{\oddsidemargin}
541 \newlength\tryevensidemargin@cx
542 \setlength\tryevensidemargin@cx{\evensidemargin}
543 \newlength\tryinnermargin@cx
544 % convenience lengths for drawing the layouts.
545 \newlength\tryINNER
546 \newlength\tryTOP
547
548 \newlength\margintop
549
550 \newcommand\thetop{%
551 \pgfmathparse{1in+\topmargin+\headheight+\headsep}
552 \pgfmathsetlength{\margintop}{\pgfmathresult}
```

$$\text{\textheight} 598\text{ pt}$$

$$\text{\footskip} 30\text{ pt}$$

$$\text{\marginparsep} 11\text{ pt}$$

$$\text{oddsidemargin} 28\text{ pt}$$

$$\text{\textwidth} 380\text{ pt}$$

$$\text{\marginparwidth} 101\text{ pt}$$

$$\text{driver margin} 1\text{ in}$$

$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$

Page 20

$\text{\headheight } 12\text{ pt}$

$\text{\headsep } 25\text{ pt}$

```
553 }
554 %
555
556 \thetop
557
558 \newlength\marginbottom
559 \newcommand\thebottom{%
560   \pgfmathparse{\stockheight-(1in+\topmargin+\headheight+\headsep+\textheight)}
561   \pgfmathsetlength{\marginbottom}{\pgfmathresult}
562 }
563
564 \thebottom
```

We provide keys to set all trial dimensions. These default to the current document, dimensions.

```
565 \cxset{try textheight/.code=\global\setlength\trytextheight@cx{#1},
566        try textheight/.default=\textheight,
567        try headheight/.code=\global\setlength\tryheadheight@cx{#1},
568        try headheight/.default=\headheight, % TO CHECK
569        try headsep/.code=\global\setlength\tryheadsep@cx{#1},
570        try headsep/.default=\headsep, %TODO CHECK
571        try footskip/.code=\global\setlength\tryfootskip@cx{#1},
572        try footskip/.default=\footskip,
573        try topmargin/.code=\global\setlength\trytopmargin@cx{#1},
574        try topmargin/.default=\topmargin,
575 }
576
577 \cxset{try trimtop/.code=\global\setlength\trimtop@cx{#1},
578        try trimtop/.default=\global\setlength\trimtop{0pt},}
579
580 % set all the defaults
581
582 \cxset{try textheight,
583        try headheight,
584        try headsep,
585        try footskip,
586        try topmargin=0pt, % compensate for trim
587        try trimtop=10pt}
588
589 \setlength\trytopmargin@cx{\topmargin}
590
591
592 \cxset{try textwidth/.code=\global\setlength{\trytextwidth@cx}{#1},
593        try trimedge/.code=\global\setlength{\trytrimedge@cx}{#1},
594 }
595
596 \cxset{try textwidth=\textwidth,
597        try trimedge=10pt}
```

$\text{\textheight } 598\text{ pt}$

\@trydiagonal The switch \@trydiagonal is used in keys to draw or skip the Page Construction Canon, diagonal line.

```
598 \newif\if@trydiagonal
```

$\text{\footskip } 30\text{ pt}$

$\text{\marginparsep } 11\text{ pt}$

$\text{oddsidemargin } 28\text{ pt}$

$\text{\textwidth } 380\text{ pt}$

$\text{\marginparwidth } 101\text{ pt}$

$\text{driver margin } 1\text{ in}$

$$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$$

$$\text{\headheight} 12\text{ pt}$$

$$\text{\headsep} 25\text{ pt}$$

```

599 \@trydiagonalfalse
600
601 \cxset{try diagonal/.is choice,
602         try diagonal/true/.code=\@trydiagonaltrue,
603         try diagonal/false/.code=\@trydiagonalfalse,
604         try diagonal/none/.code=\@trydiagonalfalse}
605
606 \cxset{try diagonal=false}

```

`\trygrid` The try grid conditional provides a switch to switch the grid on or off. We set it initially to true.

```

607 \newif\iftrygrid
608 \trygridfalse
609
610 \cxset{try grid/.is choice,
611         try grid/true/.code=\trygridtrue,
612         try grid/false/.code=\trygridfalse,
613         try grid/none/.code=\trygridfalse}
614
615 \cxset{try grid=true}

```

11.2 Allowances for trims

Throughout we are focusing on the average LaTeX user than might want to for example use A4 paper and trim down to a different size. We start from the stockwidth and stockheight and we set the paperwidth and paperheight to a smaller size to cater for these trims.

I call this process trimming in, whereas other packages such as the crop increase the paper size to allow for the trims, thus displaying a larger page. The memoir class has something similar.

$$\text{\textheight} 598\text{ pt}$$

```

\trypaperwidth@cx We set the length to stocksize-trimedge.
\trypaperheight@cx
616 % set the trial paper sizes as per trim sizes
617 \addtolength\trypaperwidth@cx{\trystockwidth@cx}
618 \addtolength\trypaperwidth@cx{-\trytrimedge@cx}
619 \addtolength\trypaperheight@cx{\trystockheight@cx}
620 \addtolength\trypaperheight@cx{-\trimtop@cx}
621 \addtolength\trypaperheight@cx{-\bottomtrim}

```

11.2.1 Calculating the Top Margin and Bottom Margin

We calculate the top and bottom margins for convenience. Remember that so far we are only dealing with default settings. If the user changes the dimensions, these will have to be recalculated.

```

622 %\addtolength\trymargin@cx{1in+\voffset+\trimtop@cx}
623 %\addtolength\trymargin@cx{\dimexpr(\tryheadsep@cx+
624 % \tryheadheight@cx+\trytopmargin@cx)}

```

11.2.2 Adjustments to text height

Since we are trimming-in, our paper height will end up being smaller than the stock paper height. One is thus faced with the decision to either make the top

$$\text{\footskip} 30\text{ pt}$$

$$\text{\marginparsep} 11\text{ pt}$$

$$\text{oddsidemargin} 28\text{ pt}$$

$$\text{\textwidth} 380\text{ pt}$$

$$\text{\marginparwidth} 101\text{ pt}$$

$$\text{driver margin} 1\text{ in}$$

$$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$$

`\headheight 12 pt`

`\headsep 25 pt`

and bottom margins smaller to allow for the trimming or to reduce the text height accordingly.

Most people and publishers are fussy about margins, so perhaps it is better to reduce the text-height. We offer a method to the user to specify preferences later on. In the meantime for the purpose of defaults, we will take all the adjustment at the bottom margin and leave the text-height untouched.

```
\trytextheight@cx Let trytextheight@cx equal to the current document \textheight value.
625 \setlength\trytextheight@cx{\textheight}
626 \setlength\trymarginbottom@cx{%
627 \dimexpr(\trystockheight@cx-1in-\trimtop@cx-\trytopmargin@cx
628 -\tryheadheight@cx-\tryheadsep@cx-\trytextheight@cx)\relax}
629
630
631 \newlength\stepx
```

11.3 Drawing the Trial Layout

The trial layout is drawn in a lengthy TikZ picture. If no new dimensions are provided by the user it will default to the values we have set it previously. That is the current layout values.

`\drawtriallayout` The macro `\drawtriallayout` draws the page diagram. It uses throughout trial dimensions.

```
632 \tikzset{dim/.style = {color=black,>=latex}}
633 \def\drawtriallayout{%
    We first need to check if we are on an odd or even page and set the geometry
    accordingly. If the document is one-side we default to drawing everything as an
    odd-side page.
634 \checkoddpage%
635 \if@twoside\else\oddpagetrue\fi
636 \ifoddpage
637 \global\setlength\tryinnermargin@cx{\tryoddsidemargin@cx}
638 \setlength\tryINNER{\dimexpr(1in+\tryinnermargin@cx+\hoffset)}
639 \else
640 \global\setlength\tryinnermargin@cx{\tryevensidemargin@cx}
641 \setlength\tryINNER{\dimexpr(1in+\tryinnermargin@cx+\hoffset)}
642 \fi
643
644 \hspace*{-2cm}\begin{tikzpicture}[scale=0.42,font={\scriptsize\rmfamily},line width=.8pt,
645 every node={color=black},
646 book trim/.style={color=theblue,fill=white},
647 dim text/.style={color=black},
648 textblock/.style={fill=gray,opacity=0.3}]
649
650 \edef\tol{-2.5\baselineskip}
651 %
652 \def\drawpaperwidthdim{%
653 \coordinate (A) at (0,\tol);
```

`\textheight`
598 pt

`\footskip 30 pt`

`\marginparsep 11 pt`

`oddsidemargin 28 pt`

`\textwidth 380 pt`

`\marginparwidth 101 pt`

`driver margin 1 in`

1 in + \topmargin (17 pt) = 55.27 pt

Page 23

\headheight 12 pt

\headsep 25 pt

```
654 \coordinate (B) at (\trystockwidth@cx - \trytrimedge@cx, \tol);
655 \coordinate (C) at (0.5\trystockwidth@cx, \tol);
656 \draw [dim, |<->|] (A) -- (B);
657 \node at (C) [yshift=0.5\baselineskip]]
658 {paper width = \convert@cx{\trypaperwidth@cx} $(W_p)$};
659
660 % Draw paper width dimension
661 \def\drawpaperwidththevendim{%
662 \coordinate (A) at (0+\trytrimedge@cx, \tol);
663 \coordinate (B) at (\trystockwidth@cx, \tol);
664 \coordinate (C) at (0.5\trystockwidth@cx, \tol);
665 \draw [dim, |<->|] (A) -- (B);
666 \node at (C) [yshift=0.5\baselineskip]]
667 {paper width = \convert@cx{\trypaperwidth@cx} $(W_p)$};
668 }
```

11.3.1 Draw stock paper

First we draw the stockwidth and stockheight

```
669 \draw [color=thegray] (0,0) rectangle
670 ++(\trystockwidth@cx, \trystockheight@cx);
671
672 % draw the paper if trims are defined and no book size given
673 % the paper width is then defined by the dashed blue line
674 \ifoddpage
675 \draw [book trim] (0+\lefttrim, \trystockheight@cx - \trimtop@cx)
676 rectangle ++(\trystockwidth@cx - \lefttrim - \trytrimedge@cx,
677 -\trystockheight@cx + \trimtop@cx + \bottomtrim);
678 \drawpaperwidthdim
679 \else
680 \draw [book trim] (0+\lefttrim + \trytrimedge@cx, \trystockheight@cx - \trimtop@cx)
681 rectangle ++(\trystockwidth@cx - \lefttrim - \trytrimedge@cx,
682 -\trystockheight@cx + \trimtop@cx + \bottomtrim);
683 \drawpaperwidththevendim
684 \fi
685
```

\textheight
598 pt

11.3.2 Draw grid

Unlike the grid on page spreads we provide a conditional to switch it off if necessary. It set to true by default.

```
686 \pgfmathsetmacro{\gridx}{10}
687 \iftrygrid
688 \ifoddpage
689 \draw[xstep=(\trypaperwidth@cx - \lefttrim)/\gridx,
690 ystep=\trypaperheight@cx/\gridx, color=thegreen!50,
691 line width=0.4pt, yshift=\bottomtrim, xshift=\lefttrim]
692 (0,0) grid (\trypaperwidth@cx - \lefttrim, \trypaperheight@cx);
693 \else
694 \draw[xstep=(\trypaperwidth@cx)/\gridx,
695 ystep=\trypaperheight@cx/\gridx, color=thegreen,
```

\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

$$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$$

$$\text{\headheight} 12\text{ pt}$$

$$\text{\headsep} 25\text{ pt}$$

```

696         line width=0.4pt,yshift=\bottomtrim,xshift=\trytrimesedge@cx]
697         (0,0) grid ++(\trypaperwidth@cx,\trypaperheight@cx);
698     \fi
699 \fi

```

11.3.3 Drawing the binding correction

The binding correction is added to the stockheight. It will appear on the opposite site in the even page.

```

700 \ifoddpage
701 \draw (0, \trystockheight@cx + 3mm) -- ++ (0,1cm)
702      ++ (\lefttrim,-1cm) -- ++(0,1cm) ++(-1cm-\lefttrim,-0.5cm)[->,>=latex]
703      -- ++(0.5cm+\lefttrim,0);
704 \draw (0, \trystockheight@cx + 3mm)
705      ++ (0,0.5cm) -- ++ (\lefttrim,0)
706      ++(1cm,0cm)[|>,>=latex]-- ++(-1cm,0cm)
707      node[right] at ++(1cm,0)
708      {\translate{bindingcorrectionname}\ \convert@cx{\lefttrim} {\delta_b}$ };
709 \fi
710
711 % stockwidth dimension lines
712 \edef\tol{-5\baselineskip}
713 \coordinate (BD) at (0,\tol);
714 \coordinate (BD2) at (\stockwidth,-5\baselineskip);
715 \draw[dim,|<->|] (BD) -- (BD2);
716 \draw (BD) ++ (0.5\stockwidth,0)
717      node [yshift=0.5\baselineskip]
718      {stockwidth=\convert@cx{\stockwidth} {\W_s}$} ;
719
720 % top dimension at left
721 \coordinate (H1) at (-5mm,\trystockheight@cx-\trimtop@cx);
722 \coordinate (H2) at (-5mm,
723      \trystockheight@cx-1in-\trimtop@cx-\trytopmargin@cx-
724      \tryheadheight@cx-\tryheadsep@cx);
725 \draw [dim,|<->|] (H1) -- (H2);
726 \node[left,text width=1.0cm, text centered,dim text] at
727      (-5mm,\trystockheight@cx-0.5*\margintop)
728      {top\ \convert@cx{\the\margintop}\ {\h_t}$};
729
730 % bottom dimension at left
731 \coordinate (H3) at (-5mm,0+\bottomtrim);
732 \coordinate (H4) at (-5mm,\trymarginbottom@cx);
733 \draw [dim,|<->|] (H3) -- (H4);
734 \node[left,text width=1.5cm,text ragged left]
735      at (-5mm,0.5*\trymarginbottom@cx)
736      {bottom\ \convert@cx{\the\trymarginbottom@cx}\
737      {\h_b}$};
738
739 % textheight at left
740 \draw[dim,<->] (-5mm, \trymarginbottom@cx)
741      -- ++ (0,\trytextheight@cx);

```

$$\text{\textheight} 598\text{ pt}$$

$$\text{\footskip} 30\text{ pt}$$

$$\text{\marginparsep} 11\text{ pt}$$

$$\text{oddsidemargin} 28\text{ pt}$$

$$\text{\textwidth} 380\text{ pt}$$

$$\text{\marginparwidth} 101\text{ pt}$$

$$\text{driver margin} 1\text{ in}$$

1 in + \topmargin (17 pt) = 55.27 pt

Page 25

\headheight 12 pt

\headsep 25 pt

```
742 \node[left,text width=1.6cm,text centered,dim text]
743 at (-5mm,\trymarginbottom@cx+0.5\trytextheight@cx)
744 {\CS{textheight} \convert@cx{\trytextheight@cx}\
745 $(h_x)$ };
746
```

11.3.4 Book height

Book sizes are specified by the size of the final trimmed sizes. for most users there is no need to worry about trims and binding corrections, however we provide these for consistency and for books that are perhaps to be sent to an on-line bureau for printing.

```
747 \draw [dim,<->] (-4.7cm,\bottomtrim) --
748 (-4.7cm,0.5\trystockheight@cx-0.5\trimtop@cx)
749 node[left,text width=1.2cm,text centered,dim text]
750 {\translate{bookheightname}\ \convert@cx{\trypaperheight@cx}} --
751 (-4.7cm,\trystockheight@cx-0.5\trimtop@cx) ;
```

11.3.5 Draw the edge trim

The paper is always assumed to be trimmed at top bottom and the edge margin. We first draw the edge trim and its dimension.

```
752 \ifdim\trytrimedged@cx>0pt
753 \ifoddpage
754 \coordinate (D) at (\trystockwidth@cx-4\trytrimedged@cx,
755 0.10\trytextheight@cx);
756 \coordinate (E) at (\trystockwidth@cx,0.10\trytextheight@cx);
757 \draw [dim,->] (D) -- ++(3\trytrimedged@cx,0);
758 \draw [dim,<-] (E) -- ++(3\trytrimedged@cx,0)
759 node at ++(0,0) [right,text width=2cm,dim text]
760 {\translate{trimedgename}\
761 \convert@cx{\the\trytrimedged@cx}
762 $(\Delta_e)$};
763 \else
764 \coordinate (D1) at (0, \trystockheight@cx+ 5mm);
765 \coordinate (E1) at ++ (\trytrimedged@cx,\stockheight+\trimtop@cx);
766 \draw (D1) -- ++ (0, 10mm) ++(\trytrimedged@cx,0) -- ++(0,-10mm) ;
767 \fi
768 \fi
```

\textheight
598 pt

11.3.6 The top trim

The top trim is drawn next. As it is very small normally we try not to crowd the label and the dimension lines. We will only show it if it has a value.

```
769
770 %\ifdim\trimtop>0pt
771 \coordinate (F) at (0.9\trystockwidth@cx,\trystockheight@cx-\trimtop@cx-8mm);
772 \coordinate (G) at (0.9\trystockwidth@cx,\trystockheight@cx-\trimtop@cx);
773 \coordinate (H) at (0.9\trystockwidth@cx,\trystockheight@cx);
774 \draw (F)[dim,->|,>=latex] -- (G);
775 \draw (H) -- ++ (0,8mm) -- ++ (5mm,0)[<-|,>=latex]
```

\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

$$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$$

$$\text{\headheight } 12\text{ pt}$$

$$\text{\headsep } 25\text{ pt}$$

```

776      node [text width=2cm, right] at ++ (0,3pt) {\translate{\trimtopname}\
777      \ \convert@cx{\the\trimtop@cx} {\Delta_t}$};
778      %\fi

```

11.3.7 Driver offsets

Next we draw the driver offsets. The lines are drawn at the left side of the paper both for even and for odd paper. Of course they are meaningless if the printer is going to print them on an A3 paper for example, and then the paper is trimmed.

```

779      \draw[fill=olive] (lin,\trystockheight@cx-lin) circle (1.5mm);
780      \draw[dashed,color=olive] (lin,0) -- (lin,\trystockheight@cx);
781      \draw[dashed,color=olive] (0in,\trystockheight@cx-lin)-- ++ (\trystockwidth@cx,0);
782      \draw [dim,|<->|] (0,0.3cm) -- (lin,0.3cm) node at (0.5in,0.6)[dim text] {\translate{\oneinch

```

Draw the inner margin. We use innermargin which has already been set to either oddsidemargin or evensidemargin

```

783
784      % Draw left = lin + innermargin
785      \setlength\tryleftmargin@cx{\dimexpr(lin+\innermargin)}
786      \draw [dim,|<->|] (0in,1.9cm) -- (lin+\innermargin,1.9cm)
787      node at (0.6in,3.2cm)[text width=lin,dim text,text centered]
788      {\(w_i)\$ \ \convert@cx{\tryleftmargin@cx}\inner margin};
789
790      \draw (lin,1.2cm)[|<->|] -- ++(\innermargin,0) node[right,dim text]
791      {\innermarginname\ \convert@cx{\the\innermargin} {\Delta_i}$};
792
793
794      % add topmargin dimension
795
796      \setlength{\@tempdimc}{\dimexpr(lin-\trimtop@cx+\trytopmargin@cx)\relax}
797      \coordinate (S1) at (\trystockwidth@cx+3ex,\trystockheight@cx-\trimtop@cx);
798      \draw [dim,|<->|] (S1)
799      -- ++ (0,-\@tempdimc-\trimtop@cx)
800      node [right, dim text, text width=3.5cm] at
801      ++(2ex,0.5\@tempdimc) {\convert@cx{\@tempdimc} {\delta_t}$
802      \ \textbackslash topmargin \convert@cx{\trytopmargin@cx}};

```

$$\text{\textheight } 598\text{ pt}$$

11.3.8 Draw the running head

The running head is drawn measuring from the top of the page.

```

803      \pgfmathsetlength{\@tempdimb}{\trystockheight@cx-
804      \trimtop@cx-lin-\trytopmargin@cx}
805
806      \draw[textblock] (\tryINNER, \@tempdimb)
807      rectangle ++ (\trytextwidth@cx,-\tryheadheight@cx);
808
809      % add headheight dimension
810      \draw [dim,-|,>=stealth] (\trystockwidth@cx+3ex, \@tempdimb)
811      -- ++(0,-\tryheadheight@cx) node [right,dim text] at
812      ++(2ex,0.3\tryheadheight@cx)
813      {\CS{headheight} \convert@cx{\the\tryheadheight@cx} {\(h_{h,h})$};
814      %

```

$$\text{\footskip } 30\text{ pt}$$

$$\text{\marginparsep } 11\text{ pt}$$

$$\text{oddsidemargin } 28\text{ pt}$$

$$\text{\textwidth } 380\text{ pt}$$

$$\text{\marginparwidth } 101\text{ pt}$$

$$\text{driver margin } 1\text{ in}$$

$$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$$

$$\text{\headheight } 12\text{ pt}$$

$$\text{\headsep } 25\text{ pt}$$

```

815 % add headsep dimension
816 \draw [dim,|-] (\trystockwidth@cx+3ex,
817   \@tempdimb-\tryheadheight@cx-\tryheadsep@cx)
818   -- ++(0,\tryheadsep@cx) node [right, dim text] at
819     ++(2ex,-0.8\tryheadsep@cx){\CS{headsep}}
820     \convert@cx{\the\tryheadsep@cx} {\h_{h,s}}$);

```

11.3.9 Type area

Next we add the type area and its dimension.

```

821 \coordinate (J) at (\tryINNER,
822   \@tempdimb-\tryheadsep@cx-\tryheadheight@cx);
823 \draw[textblock] (J) rectangle ++ (\trytextwidth@cx,-\trytextheight@cx);
824 \draw[dim,<->] (dim text) (\tryINNER,0.75\trytextheight@cx)
825   -- ++(\trytextwidth@cx, 0)
826   node at ++(-0.5\trytextwidth@cx,0.8\baselineskip){\labelit@cx{\textwidth}};
827
828 % add textheight dimension
829 \draw [dim,<->] (\trystockwidth@cx+3ex,
830   \@tempdimb-\tryheadsep@cx-\tryheadheight@cx) --
831   ++(0,-\trytextheight@cx) node [right, dim text, text width=2.5cm]
832   at ++(2ex,0.5\trytextheight@cx)
833   {\CS{textheight}}\ \convert@cx{\the\trytextheight@cx}{\h_x}$);

```

11.3.10 Footer

Add the footer and its dimension.

$$\text{\textheight } 598\text{ pt}$$

```

834 \coordinate (I) at (\tryINNER,
835   \@tempdimb-\tryheadsep@cx-
836   \tryheadheight@cx-\trytextheight@cx-\tryfootskip@cx);
837 \draw[textblock] (I) rectangle ++ (\trytextwidth@cx,\tryheadheight@cx);
838 \draw [dim,<->|,>=stealth] (\trystockwidth@cx+3ex,\@tempdimb-\tryheadsep@cx-
839   \tryheadheight@cx-\trytextheight@cx) --
840   ++(0,-\tryfootskip@cx) node [right, dim text] at
841     ++(2ex,0.5\tryfootskip@cx){%
842       \labelit@cx{\tryfootskip@cx}{\h_f}}$);
843 %
844 %
845 % marginpar
846 \def\leftmarginpar{%
847   \draw [textblock] (\tryINNER+\trytextwidth@cx+\trymarginparsep@cx,
848     \@tempdimb-\tryheadsep@cx-\tryheadheight@cx) rectangle ++(\trymarginparwidth@cx,-\tr
849   \draw [dim,<->|] (\tryINNER+\trytextwidth@cx+\trymarginparsep@cx
850     +\trymarginparwidth@cx,0.75\trytextheight@cx)
851     -- ++ (-\trymarginparwidth@cx,0) node at
852       ++(0.5\trymarginparwidth@cx,0.7\baselineskip)
853       {\marginparwidth} node at ++(0.5\trymarginparwidth@cx,-\baselineskip)
854       {\convert@cx{\the\trymarginparwidth@cx} {\w_{m,w}}}$);
855
856 % Draw the marginsep dimension above
857 \draw [dim,|-] (\tryINNER+\trytextwidth@cx,0.85\trytextheight@cx)

```

$$\text{\footskip } 30\text{ pt}$$

$$\text{\marginparsep } 11\text{ pt}$$

$$\text{oddsidemargin } 28\text{ pt}$$

$$\text{\textwidth } 380\text{ pt}$$

$$\text{\marginparwidth } 101\text{ pt}$$

$$\text{driver margin } 1\text{ in}$$

1 in + \topmargin (17 pt) = 55.27 pt

Page 28

\headheight 12 pt

\headsep 25 pt

```
858      -- ++ (\trymarginparsep@cx,0)
859      node[right,dim text,text width=2cm,text centered] at
860      ++(-3ex,12pt) {marginparsep\ \convert@cx{\trymarginparsep@cx} ${w_{m,s}}$ };
861  }
862  %
863  \def\rightmarginpar{%
864    \draw [textblock] (\tryINNER-\trymarginparsep@cx,
865      \@tempdimb-\tryheadsep@cx-\tryheadheight@cx)
866      rectangle ++(-\trymarginparwidth@cx,-\trytextheight@cx);
867    \draw [dim,<->] (\tryINNER-\trymarginparsep@cx-\trymarginparwidth@cx,
868      0.75\trytextheight@cx) -- ++ (\trymarginparwidth@cx,0) node at
869      ++(-0.5\trymarginparwidth@cx,0.5\baselineskip) {marginparwidth.} node at
870      ++(-0.5\marginparwidth,-\baselineskip){\convert@cx{\the\marginparwidth}};
871  }
872  %
873  %
874  \drawmarginparstrue
875  \ifdrawmarginpars
876    \ifoddpages
877      \leftmarginpar
878    \else
879      \rightmarginpar
880    \fi
881  \fi
```

11.3.11 Page Construction Canon Diagonal Lines

\textheight
598 pt

If the conditional @trydiagonal is set to true draw the diagonal lines. At false or none skip.

```
882  \if@trydiagonal
883    \ifoddpages
884      \draw [color=blue!30](\trystockwidth@cx-\trytrimedge@cx,\bottomtrim)
885      -- (\lefttrim, \trystockheight@cx-\trimtop@cx);
886    \else
887      \draw [color=blue!30] (\trytrimedge@cx,0)
888      -- (\paperwidth,\paperheight-\trimtop@cx);
889    \fi
890  \fi
891  \end{tikzpicture}
892  }
893
```

12 Lists

List diagrams are developed using the techniques we have used so far for the pages. We define layouts to visualize them.

\drawlist The macro \drawlist draws an outline of an enumerated or any type of list illustrating the main parameters affecting its layout. It is based on ideas presented originally in the layouts package and a sample is shown in figure 4

```
894  \newlength\tempa@cx
```

\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

$$1\text{ in} + \text{\topmargin}(17\text{ pt}) = 55.27\text{ pt}$$

$$\text{\headheight} 12\text{ pt}$$

$$\text{\headsep} 25\text{ pt}$$

$$\text{\topfraction} .7$$

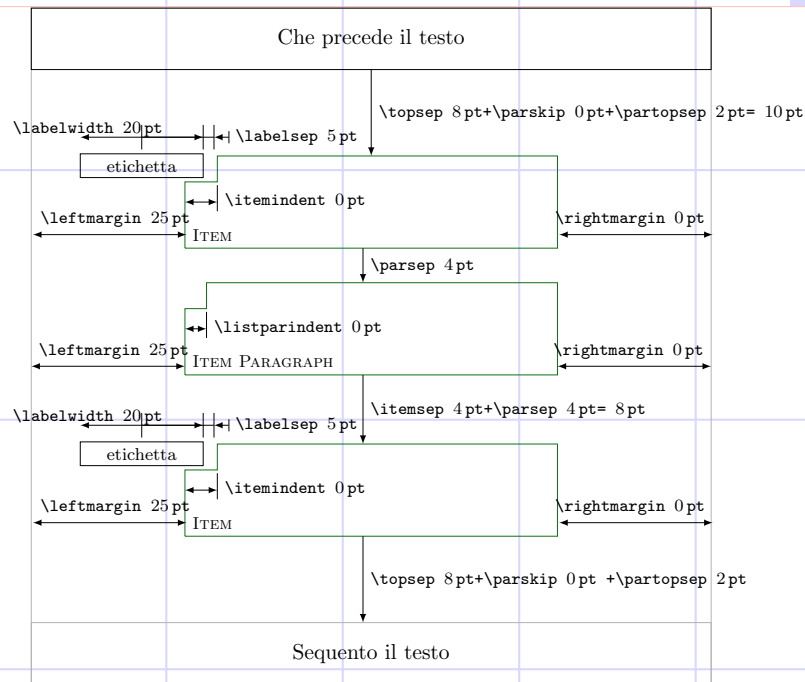


Figure 4: List diagram, showing LaTeX geometry definitions.

$$\text{\textheight} 598\text{ pt}$$

```

895 \newlength\tempb@cx
896 \newlength\tempc@cx
897 \newlength\listdiagramheight
898 \newlength\listdiagramwidth
899
900 \def\drawlistdiagram{%
901   \begin{tikzpicture}[scale=0.5,dim/.style={font={\footnotesize}},
902                     block/.style={color=thegreen}]
903     \pgfmathsetmacro{\yscale}{8}
904     \pgfmathsetlength{\tempa@cx}{\yscale*(\topsep+\parskip+\partopsep)}
905     \pgfmathsetlength{\tempb@cx}{\yscale*(\itemsep+\parsep)}
906     \pgfmathsetlength{\tempc@cx}{\yscale*(\parsep)}
907     \pgfmathsetlength{\listdiagramheight}{13cm+2*\tempa@cx+\tempb@cx+\tempc@cx}
908     \pgfmathsetlength{\listdiagramwidth}{\textwidth+10cm}

```

We first draw a block to reprsentsome text and the block on a page.

```

909 \draw[color=thegray!60] (0,0) rectangle (\listdiagramwidth,\listdiagramheight);
910 \draw[color=thegray!60] (0,0) rectangle (\listdiagramwidth, 2cm);
911 \draw (0,\listdiagramheight) rectangle (\listdiagramwidth,\listdiagramheight-2cm)
912       node at ++ (-0.5\listdiagramwidth,1cm){\translate{precedingtextname}};
913 \node at (0.5\listdiagramwidth,1cm){\translate{followingtextname}};

```

Next we are going to draw the item shape. First we draw the rectangle with the indentation.

\putlistblock@cx

```

914 \def\putlistblock@cx##1##2{%

```

$$\text{\footskip} 30\text{ pt}$$

$$\text{\marginparsep} 11\text{ pt}$$

$$\text{oddsidemargin} 28\text{ pt}$$

$$\text{\textwidth} 380\text{ pt}$$

$$\text{\marginparwidth} 101\text{ pt}$$

$$\text{driver margin} 1\text{ in}$$

1 in + \topmargin (17 pt) = 55.27 pt

Page 30

\headheight 12 pt

\headsep 25 pt

```
915 \coordinate (A) at (##1,##2);
916 \coordinate (B) at (##1-40pt,##2-20pt);
917 \draw[block] (A) -- ++ (\textwidth,0pt)
918 -- ++ (0, 3cm)
919 -- ++ (-\textwidth+ 30pt,0)
920 -- ++ (0, -24pt)
921 -- ++ (-30pt,0)
922 -- ++ (0,-3cm+24pt);
923 % draw the label rectangle
924 \draw[block,color=black] (B) ++ (-2cm, 3cm) rectangle ++ (4cm, 22pt )
925 node[dim] at ++(-2cm,-11pt) {\translate{labelname}};
926 % draw dimension lines
927 \draw (B) ++ (0, 3cm+26pt) -- ++ (0,0.8cm) ++ (2cm,-0.8cm)---++(0,0.8cm) ++ (10pt,-0.8cm)
928 ---++ (0,0.8cm); %labelsep
929 % draw arrows
930 \settowidth\@tempdima{\labelwidth}
931 \draw[dim] [<->,>=latex] (B) ++ (-2cm, 3cm+26pt)++(0,0.4cm)-- ++(4cm,0)
932 node[dim] at ++ (- 2cm-\@tempdima-50pt,8pt)
933 {\labelit@cx{\labelwidth}};
934
935 \draw[dim] (B) ++ (0, 3cm+26pt+0.4cm) -- ++ (2cm+10pt,0)
936 ++ (0.5cm,0)---++(-0.5cm,0)[<->,>=latex]
937 node[right] at ++(0.45cm,0) {\labelit@cx{\labelsep}};
938 % draw itemsep
939
940 \draw[<->,>=latex] (A)++(0,1.5cm) -- ++(30pt,0) ;
941 \draw (A)++(30pt,1.20cm)---++ (0pt,1.8cm-27pt) node at ++(0,0)[below right]
942 {\labelit@cx{\itemindent}}; % draw dimline
943 \node[dim] (A) at (##1,##2)[above right] {\textsc{Item}};
944
945 % draw leftmargin and right margin
946
947 \draw[<->,>=latex] (A) ++ (-24pt,0pt) -- ++(-5cm,0pt)
948 node at ++(0,0)[above right] {\labelit@cx{\leftmargin}};
949 \draw[<->,>=latex] (A) ++ (-24pt+\textwidth,0pt) -- ++(5cm,0pt)
950 node at ++(0,0)[above left] {\labelit@cx{\rightmargin}};
951 }
952 %
953 %
954 \def\putlistparblock@cx##1##2{%
955 \coordinate (A) at (##1,##2);
956 \coordinate (B) at (##1-40pt,##2-20pt);
957 \draw[block] (A) -- ++ (\textwidth,0pt)
958 -- ++ (0, 3cm)
959 -- ++ (-\textwidth+ 20pt,0)
960 -- ++ (0, -24pt)
961 -- ++ (-20pt,0)
962 -- ++ (0,-3cm+24pt);
963
964 \draw[<->,>=latex] (A)++(0,1.5cm) -- ++(20pt,0) ;
965 \draw (A)++(20pt,1.20cm)---++ (0pt,1.8cm-27pt) node at ++(0,0)[below right]
```

\textheight
598 pt

\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

1 in + \topmargin (17 pt) = 55.27 pt

Page 31

\headheight 12 pt

\headsep 25 pt

```
966         {\labelit@cx{\listparindent}};
967
968     \draw[<->,>=latex] (A) ++ (-0pt,8pt) -- ++(-5cm,0pt)
969         node at ++(0,0)[above right] {\labelit@cx{\leftmargin}};
970     \draw[<->,>=latex] (A) ++ (0pt+\textwidth,8pt) -- ++(5cm,0pt)
971         node at ++(0,0)[above left] {\labelit@cx{\rightmargin}};
972
973     \node[dim] (A) at (##1,##2)[above right] {\textsc{Item Paragraph}};
974 }
975
976 %
977 % We start by drawing the blocks. We draw three blocks, the first and last show items, wherea
978 % the middle one shows a paragraph within an item.
979 % Since values for list parameters are small, we scale everything up.
980 %   |\tempa@cx = scaled topsep + parskip + partopsep|
981 %   |\tempb@cx = scaled itemsep + parsep|
982 %
983 % \end{macrocode}
984 % \begin{macrocode}
985 \putlistblock@cx{5cm}{2cm+\tempa@cx} % 8cm
986 \draw [ <->,>=latex ] (0.5\paperwidth, 2cm)-
987     -++(0,\tempa@cx) node at ++(0,-0.5\tempa@cx) [right]
988     {\labelit@cx{\topsep}+\labelit@cx{\parskip} +\labelit@cx{\partopsep}};
989
990 % second block
991 \putlistparblock@cx{5cm}{2cm+\tempa@cx+3cm+\tempb@cx}
992 \draw [ <->,>=latex ] (0.5\paperwidth, 2cm+\tempa@cx+3cm+\tempb@cx) - - ++ (0, - \tempb@cx)
993     node at ++(0,0.5\tempb@cx) [right]
994     {\labelit@cx{\itemsep}+\labelit@cx{\parsep}=
995     \pgfmathparse{\itemsep+\parsep}\convert@cx{\pgfmathresult}};
996
997 %% third block
998 \putlistblock@cx{5cm}{2cm+\tempa@cx+6cm+\tempb@cx +\tempc@cx}
999 \draw [ <->,>=latex ] (0.5\paperwidth, 2cm+\tempa@cx+6cm+\tempb@cx +\tempc@cx )
1000     - - ++ (0, - \tempc@cx)
1001     node at ++(0,0.5\tempc@cx) [right] {\labelit@cx{\parsep}};
1002
1003 % add finally the top arrow
1004 \draw [ <->,>=latex ] (0.5\listdiagramwidth, \listdiagramheight-2cm) - - ++ (0, - \tempa@cx)
1005     node at ++(0,0.5\tempa@cx) [right]
1006     {\labelit@cx{\topsep}+\labelit@cx{\parskip}+\labelit@cx{\partopsep}=
1007     \pgfmathparse{\topsep+\parskip+\partopsep}\convert@cx{\pgfmathresult}};
1008
1009 %
1010 \end{tikzpicture}
1011 }
```

\textheight
508 pt

12.1 Tabulating List values

`\printlistvalues` The command `\printlistvalues` produces a short table showing the list parameters and their values (see Table 1 for an example).

\footskip 30 pt

\marginparsep 11 pt

oddsidemargin 28 pt

\textwidth 380 pt

\marginparwidth 101 pt

driver margin 1 in

$1\text{ in} + \backslash\text{topmargin}(1.42\text{ pc}) = 4.61\text{ pc}$

$\backslash\text{headheight } 1\text{ pc}$

$\backslash\text{headsep } 2.08\text{ pc}$

$\backslash\text{topfraction}$
 $.7$

Parameter	Value
leftmargin	1.83 pc
rightmargin	1.83 pc
itemindent	0 pc
labelwidth	1.42 pc
labelsep	0.42 pc
listparindent	0 pc
topsep	0.33 pc
partopsep	0.17 pc
parsep	0.17 pc
itemsep	0.17 pc

Table 1: Tabulation of LaTeX list values, for the *quotation* environment.

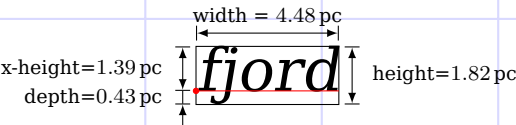
```
1012 \def\printlistvalues{%
1013   \begin{tabular}{lr}
1014     \toprule
1015     Parameter & Value\\
1016     \midrule
1017     leftmargin & \convert@cx{\the\leftmargin}\\
1018     rightmargin & \convert@cx{\the\rightmargin}\\
1019     itemindent & \convert@cx{\itemindent}\\
1020     labelwidth & \convert@cx{\labelwidth}\\
1021     labelsep & \convert@cx{\labelsep}\\
1022     listparindent & \convert@cx{\listparindent}\\
1023     topsep & \convert@cx{\topsep}\\
1024     partopsep & \convert@cx{\partopsep}\\
1025     parsep & \convert@cx{\parsep}\\
1026     itemsep & \convert@cx{\itemsep}\\
1027     \bottomrule
1028   \end{tabular}
1029 }
```

$\backslash\text{textheight}$
 49.83 pc

13 Draw a Font box

We provide a command that can draw a box and font dimensions. We will use TikZ for drafting and styling. We also provide the macro `\printfontparams` to print font parameters. This will produce a table as shown in Table 2 and Table 3.

To draw a fontbox, we use



This draws `\font{werty}`.

$\backslash\text{footskip } 2.5\text{ pc}$

$\backslash\text{marginparsep } 0.92\text{ pc}$

$\text{oddsidemargin } 2.33\text{ pc}$

$\backslash\text{textwidth } 31.66\text{ pc}$

$\backslash\text{marginparwidth } 8.42\text{ pc}$

$\text{driver margin } 1\text{ in}$

1 in + \topmargin (1.42 pc) = 4.61 pc

\headheight 1 pc

\headsep 2.08 pc

Parameter	Value
Font encoding	T1
font family	fve
font series	m
font shape	n
font size	10
baselineskip	12.0pt

Table 2: Font details for the current document font.

Parameter	Value
fontdimen1 (slant per point) is	0.0pt
fontdimen2 (interword space)	2.86197pt
fontdimen3 (interword stretch)	1.71898pt
fontdimen4 (interword shrink)	0.68399pt
fontdimen5 (x-height)	4.67096pt
fontdimen6 (quad width)	8.99994pt
fontdimen7 (extra space)	0.68399pt

Table 3: Font dimension details for the current document font.

\topfraction
.7

\printfontparams

```
1030 \newcommand{\printfontparams}{%
1031 \begin{tabular}{lc}
1032 \toprule
1033 Parameter & Value\\
1034 \midrule
1035 Font encoding & \f@encoding\\
1036 font family & \f@family\\
1037 font series & \f@series\\
1038 font shape & \f@shape\\
1039 font size & \f@size\\
1040 baselineskip & \f@baselineskip\\
1041 \bottomrule
1042 \end{tabular}
1043 }
```

\textheight
49.83 pc

\printfontdimensions

```
1044 \newcommand{\printfontdimensions}{%
1045 \begin{tabular}{lc}
1046 \toprule
1047 Parameter & Value\\
1048 \midrule
1049 fontdimen1 (slant per point) is & \the\fontdimen1\font\\
1050 fontdimen2 (interword space) & \the\fontdimen2\font\\
1051 fontdimen3 (interword stretch) & \the\fontdimen3\font\\
1052 fontdimen4 (interword shrink) & \the\fontdimen4\font\\
1053 fontdimen5 (x-height) & \the\fontdimen5\font\\
```

\footskip 2.5 pc

\marginparsep 0.92 pc

oddsidemargin 2.33 pc

\textwidth 31.66 pc

\marginparwidth 8.42 pc

driver margin 1 in

$$1\text{ in} + \backslash\text{topmargin}(1.42\text{ pc}) = 4.61\text{ pc}$$

$$\backslash\text{headheight } 1\text{ pc}$$

$$\backslash\text{headsep } 2.08\text{ pc}$$

```

1054      fontdimen6 (quad width)& \the\fontdimen6\font\
1055      fontdimen7 (extra space) & \the\fontdimen7\font\
1056      \bottomrule
1057      \end{tabular}
1058  }

```

`\drawfontframe` The macro `\drawfontbox{<text>}` draws text in a box and annotates it with dimensions. A very similar macro is defined in Peter Wilson's layouts. I thought with TikZ it can be drawn more easily than the tens of lines of put in the original macros.

We define some new length to hold temporary values for the fontbox dimensions, although PGF provides its own methods.

```

1059      \newlength\xheight@cx
1060      \newlength\xwidth@cx
1061      \newlength\xdepth@cx
1062      \newlength\xtotal@cx
1063      \newsavebox{\fontbox}

```

We set a number of keys to enable styling the box.

```

1064      \cxset{fontbox font/.store in=\fontboxfont@cx,
1065              fontbox line color/.store in=\fontboxlinecolor@cx,
1066              fontbox label font/.store in=\fontboxlabelfont@cx}
1067
1068      % Set reasonable defaults
1069      %
1070      \cxset{fontbox font={\itshape\Huge},
1071              fontbox line color=thered,
1072              fontbox label font={\upshape\footnotesize}}

```

$$\backslash\text{textheight } 49.83\text{ pc}$$

Define a macro to draw a tight frame around text. This can be used for inline text and hence we use `\tikz` to define it. We align it using `baseline=(X.base)`. See ([How to align a series of tikz pictures at the baseline.](#))

See also [how to determine the vector between two co-ordinates.](#)

```

1073      \newcommand\drawfontframe[1]{%
1074          \tikz[baseline=(X.base), font=\fontboxlabelfont@cx]{%
1075              \node[rectangle,draw,inner sep=0pt,outer sep=0pt,
1076                  color=\fontboxlinecolor@cx] (X)[black]{#1};
1077              \draw[\fontboxlinecolor@cx, line width=0.4pt] (X.text)
1078                  circle(0.4pt)[fill=red] -- (X.base east);}
1079      }
1080      %
1081      \def\drawfontbox#1{%
1082          {\itshape\fontboxfont@cx
1083           \savebox{\fontbox}{#1}
1084           \pgfmathsetlength{\xheight@cx}{\ht\fontbox}
1085           \pgfmathsetlength{\xwidth@cx}{\wd\fontbox}
1086           \pgfmathsetlength{\xdepth@cx}{\dp\fontbox}
1087           \pgfmathsetlength{\xtotal@cx}{\xdepth@cx+\xheight@cx}
1088           \begin{tikzpicture}[scale=1,label/.style={font={\fontboxlabelfont@cx}}]
1089               \node[rectangle,draw,inner sep=0pt,outer sep=0pt] (X){#1};
1090               \draw[red, line width=0.4pt,label] (X.text) circle(1pt)[fill=red] -- (X.base east);
1091               \draw[|<->|,>=latex] ([yshift=5pt] X.north west)

```

$$\backslash\text{footskip } 2.5\text{ pc}$$

$$\backslash\text{marginparsep } 0.92\text{ pc}$$

$$\text{oddsidemargin } 2.33\text{ pc}$$

$$\backslash\text{textwidth } 31.66\text{ pc}$$

$$\backslash\text{marginparwidth } 8.42\text{ pc}$$

$$\text{driver margin } 1\text{ in}$$

1 in + \topmargin (1.42 pc) = 4.61 pc

Page 35

\headheight 1 pc

\headsep 2.08 pc

```
1092      --([yshift=5pt] X.north east) node [label,above=-5pt,midway]{width = \convert@cx{\xwidth}}
We next draw the x-height of the text
1093      % draw the xheight
1094      \draw[|<->|,>=latex,label]([xshift=-5pt]X.base west)
1095      --([xshift=-5pt] X.north west)
1096      node [left,midway,label] {x-height=\convert@cx{\xheight@cx}};
1097      % draw depth
1098      \draw[|>=|,>=latex,label]([xshift=-5pt]X.base west)
1099      --([xshift=-5pt] X.south west)
1100      node [left,midway,label] {depth=\convert@cx{\xdepth@cx}};
1101      \draw[|<->|,>=latex]([xshift=-5pt]X.south west)
1102      --++(0,-8pt);
1103      % draw total height
1104      %
1105      \draw[|<->|,>=latex,label]([xshift=5pt]X.north east)
1106      --([xshift=5pt] X.south east)
1107      node [right,midway] {height=\convert@cx{\xtotal@cx}};
1108
1109      \end{tikzpicture}}
1110  }
```

13.1 Sundry

Here are assorted macro definitions.

`\lineloop` The (document-level) command `\lineloop` sets numbered lines until the specified count is reached. The command `\linefoot` sets a single, automatically numbered line, but with a footnote (with the specified label); it automatically increments the line counter. These commands are typically used to construct test documents.

Because the counter is globally advanced and never reset, successive calls to `\lineloop` should have an argument ever larger. The formatted output will have each line labeled with its ordinal number.

```
1111      \newcounter{linecount}
1112      \def\loop@line#1#2{%
1113      \par
1114      \hb@xt@\hszize{%
1115      \global\advance#1\@ne
1116      \edef\@tempa{\@ifnum{100>#1}{0}{}\@ifnum{10>#1}{0}{}\@number#1}%
1117      \@tempa\edef\@tempa{\special{line:\@tempa}}\@tempa
1118      \vrule depth2.5\p@#2\leaders\hrule\hfil
1119      }%
1120      }%
1121      \def\lineloop#1{%
1122      \loopwhile{\loop@line\c@linecount}{\@ifnum{#1>\c@linecount}}%
1123      }%
1124      \def\linefoot#1{%
1125      \loop@line\c@linecount{%
1126      \footnote{%
1127      #1\special{foot:#1}\vrule depth2.5\p@\leaders\hrule\hfill
1128      }%
1129      }
```

\textheight
49.83 pc

\footskip 2.5 pc

\marginparsep 0.92 pc

oddsidemargin 2.33 pc

\textwidth 31.66 pc

\marginparwidth 8.42 pc

driver margin 1 in

1 in + \topmargin (1.42 pc) = 4.61 pc

Page 36

\headheight 1 pc

\headsep 2.08 pc

1129 }%
1130 }%

14 Minimal Working Examples (MWE)

We generate a number of examples to illustrate usage and to test the code. The first example test-01.tex, uses the standard book class. It also uses a number of pictures to illustrate float parameter placement.

```
1131 \documentclass[twoside,10pt]{book}
1132 \usepackage{tikz,changepage,fancyhdr,amsmath,booktabs}
1133 \usepgflibrary{arrows}
1134 \usepackage{lipsum}
1135 \usepackage[german]{babel}
1136 \usepackage[german]{xlayouts}
1137 \renewcommand{\topfraction}{.6}
1138 \renewcommand{\bottomfraction}{.8}
1139 \renewcommand{\textfraction}{.04}
1140 \renewcommand{\floatpagefraction}{.9} % have a high one don't encourage it
1141 \renewcommand{\dbltopfraction}{.5}
1142 \renewcommand{\dblfloatpagefraction}{.8}
1143 \setcounter{topnumber}{9}
1144 \setcounter{bottomnumber}{9}
1145 \setcounter{totalnumber}{2}
1146 \setcounter{dbltopnumber}{1}
1147 \pagestyle{grid}
1148 \begin{document}
1149 \section{Introduction}
1150 \thispagestyle{grid}
1151 \begin{figure}[b]
1152 \ifbotfloat{\figureparamsbot}{%
1153 \iftopfloat{\figureparamstop}{}}
1154
1155 \centering
1156 \includegraphics[height=0.9\columnwidth]{./images/hine04-x}
1157 \caption{Example image to demonstrate top fraction.}
1158 \end{figure}
1159 \lipsum[1]
1160
1161 \lipsum[1]
1162
1163 This has been drawn using TikZ\footnote{A kleine program.}\footnote{Another footnote.}.
1164 \lipsum[1-2]
1165 \begin{figure}[t]
1166 \caption{Example image to demonstrate top.}
1167 \includegraphics[width=\columnwidth]{./images/hine02}%
1168 \iftopfloat{\figureparamstop}{}
1169 \end{figure}
1170 \begin{figure}[tpb]
1171 \centering
1172 \includegraphics[height=\columnwidth]{./images/hine04-x}
```

\textheight
49.83 pc

\footskip 2.5 pc

\marginparsep 0.92 pc

oddsidemargin 2.33 pc

\textwidth 31.66 pc

\marginparwidth 8.42 pc

driver margin 1 in

1 in + \topmargin (1.42 pc) = 4.61 pc

Page 37

\headheight 1 pc

\headsep 2.08 pc

```
1173 \caption{Example image to demonstrate top fraction.}
1174 \end{figure}
1175
1176 \begin{figure}[tpb]
1177 \centering
1178 \includegraphics[width=\columnwidth]{./images/hine04-xx}
1179 \caption{Example image to demonstrate top fraction.}
1180 \end{figure}
1181 \lipsum
1182 \clearpage
1183 \onecolumn
1184 % draws the spread
1185
1186 \drawcanons
1187
1188 \printreadability
1189 \pagestyle{plain}
1190 \newpage
1191 % draws a trial layout
1192 \drawtriallayout
1193 \newpage
1194 \drawtriallayout
1195 \newpage
1196 \drawlistdiagram
1197 \printlistvalues
1198 \end{document}
<*test-02>
1199 %%
1200 %% File: test-02.tex
1201 %% Tests xlayout for scrbook class.
1202 %% 26/05/2012
1203 %%
1204 %%
1205 \documentclass[twoside,10pt]{scrbook}
1206 \usepackage{tikz,changepage,fancyhdr,amsmath}
1207 \usepgflibrary{arrows}
1208 \usepackage{lipsum}
1209 \uspackage[german]{babel}
1210 \usepackage[german]{xlayouts}
1211 \renewcommand{\topfraction}{.6}
1212 \renewcommand{\bottomfraction}{.8}
1213 \renewcommand{\textfraction}{.04}
1214 \renewcommand{\floatpagefraction}{.9} % have a high one don't encourage it
1215 \renewcommand{\dbltopfraction}{.5}
1216 \renewcommand{\dblfloatpagefraction}{.8}
1217 \setcounter{topnumber}{9}
1218 \setcounter{bottomnumber}{9}
1219 \setcounter{totalnumber}{2}
1220 \setcounter{dbltopnumber}{1}
1221 \pagestyle{grid}
1222 \begin{document}
```

\textheight
49.83 pc

\footskip 2.5 pc

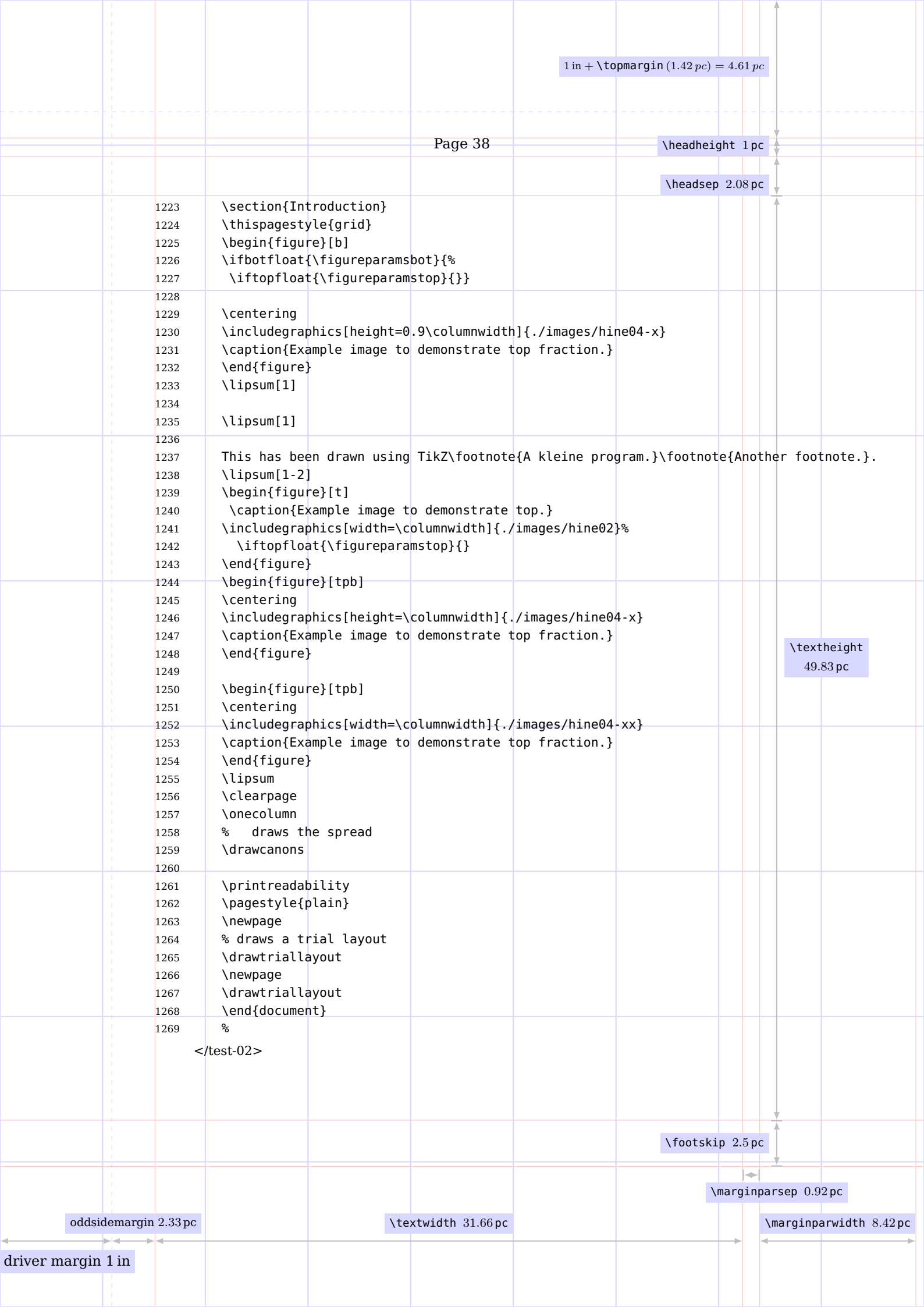
\marginparsep 0.92 pc

oddsidemargin 2.33 pc

\textwidth 31.66 pc

\marginparwidth 8.42 pc

driver margin 1 in



1 in + \topmargin (1.42 pc) = 4.61 pc

Page 38

\headheight 1 pc

\headsep 2.08 pc

```
1223 \section{Introduction}
1224 \thispagestyle{grid}
1225 \begin{figure}[b]
1226 \ifbotfloat{\figureparamsbot}{%
1227 \iftopfloat{\figureparamstop}{}}
1228
1229 \centering
1230 \includegraphics[height=0.9\columnwidth]{./images/hine04-x}
1231 \caption{Example image to demonstrate top fraction.}
1232 \end{figure}
1233 \lipsum[1]
1234
1235 \lipsum[1]
1236
1237 This has been drawn using TikZ\footnote{A kleine program.}\footnote{Another footnote.}.
1238 \lipsum[1-2]
1239 \begin{figure}[t]
1240 \caption{Example image to demonstrate top.}
1241 \includegraphics[width=\columnwidth]{./images/hine02}%
1242 \iftopfloat{\figureparamstop}{}}
1243 \end{figure}
1244 \begin{figure}[tpb]
1245 \centering
1246 \includegraphics[height=\columnwidth]{./images/hine04-x}
1247 \caption{Example image to demonstrate top fraction.}
1248 \end{figure}
1249
1250 \begin{figure}[tpb]
1251 \centering
1252 \includegraphics[width=\columnwidth]{./images/hine04-xx}
1253 \caption{Example image to demonstrate top fraction.}
1254 \end{figure}
1255 \lipsum
1256 \clearpage
1257 \onecolumn
1258 % draws the spread
1259 \drawcanons
1260
1261 \printreadability
1262 \pagestyle{plain}
1263 \newpage
1264 % draws a trial layout
1265 \drawtriallayout
1266 \newpage
1267 \drawtriallayout
1268 \end{document}
1269 %
```

</test-02>

\textheight
49.83 pc

\footskip 2.5 pc

\marginparsep 0.92 pc

oddsidemargin 2.33 pc

\textwidth 31.66 pc

\marginparwidth 8.42 pc

driver margin 1 in

1 in + \topmargin (1.42 pc) = 4.61 pc

\headheight 1 pc

\headsep 2.08 pc

14.1 List standalone diagram MWE

```
<*test-03>
1270    %% This file is generated automatically by xlayouts.dtx.
1271    %% It produces a standalone diagram for lists.
1272    %%
1273    \documentclass{standalone}
1274    \usepackage[italian]{babel}
1275    \usepackage[italian]{xlayouts}
1276    \begin{document}
1277    \drawlistdiagram
1278    \end{document}
</test-03>
<*test-04>
1279    %% This file is generated automatically by xlayouts.dtx.
1280    %% It produces a standalone diagram for lists.
1281    %%
1282    \documentclass{standalone}
1283    \usepackage[italian]{babel}
1284    \usepackage[italian]{xlayouts}
1285    \begin{document}
1286    \drawcanons
1287    \end{document}
</test-04> <*test-05>
1288    %% This file is generated automatically by xlayouts.dtx.
1289    %% It produces a two page spread and shows the dimensions.
1290    %%
1291    \documentclass[twoside]{book}
1292    \usepackage[left=80pt,right=80pt,top=0.75in]{geometry}
1293    \usepackage[final]{graphicx}
1294    \usepackage{lipsum}
1295    \usepackage{xlayouts}
1296    \makeatletter
1297    \providecommand{\cleartoevenpage}[1][\@empty]{%
1298    \clearpage%
1299    \ifodd\c@page\null#1\clearpage\fi}
1300    \makeatother
1301    \pagestyle{grid}
1302    \begin{document}
1303    \mainmatter
1304    \null\newpage
1305    \pgfpagesuselayout{2 on 1}[a3paper,landscape,border shrink=0mm]
1306    %% first page
1307    \cleartoevenpage
1308    \checkoddpage%
1309    {\parindent0pt
1310    \vbox to 120pt{\lipsum[1]}%
1311    \includegraphics[height=0.78\textheight]{china-05}}
1312
1313    %%secondpage
1314    {\parindent0pt
```

\textheight
49.83 pc

\footskip 2.5 pc

\marginparsep 0.92 pc

oddsidemargin 2.33 pc

\textwidth 31.66 pc

\marginparwidth 8.42 pc

driver margin 1 in

1 in + \topmargin (1.42 pc) = 4.61 pc

Page 40

\headheight 1 pc

\headsep 2.08 pc

```
1315 \vbox to 120pt{\lipsum[1]}%
1316 \hspace*{\dimexpr(-2in-\textwidth-2\evensidemargin)}
1317 \includegraphics[height=0.78\textheight]{china-05}}
1318 \hspace{2.8em}\parbox[b]{0.571\textwidth}{%
1319 \section*{\hfill CHINA PARADE \hfill\hfill}
1320 \lipsum[1-3]}
1321 \end{document}
```

</test-05>

15 Dictionaries

<*english> This file is generated automatically and it contains translation strings for the English language. it is saved in a file pages-German.dict according to the conventions of the translator package.

```
1322 \ProvidesDictionary{pages-English}{English}
1323 \providetranslation{headername}{header}
1324 \providetranslation{bodyname}{body}
1325 \providetranslation{footername}{footer}
1326 \providetranslation{marginnotename}{margin note}
1327 \providetranslation{oneinchname}{one inch}
1328 \providetranslation{notshownname}{not shown}
1329 \providetranslation{drivermarginname}{driver margin}
1330 \providetranslation{leftpagename}{left page}
1331 \providetranslation{rightpagename}{right page}
1332 \providetranslation{bindingcorrectionname}{binding correction}
1333 \providetranslation{bookheightname}{book height}
1334 \providetranslation{trimedgename}{trim edge}
1335 \providetranslation{trimtopname}{top trim}
1336 \providetranslation{trimbottomname}{bottom trim}
1337 \providetranslation{precedingtextname}{Preceding Text}
1338 \providetranslation{followingtextname}{Following Text}
1339 \providetranslation{labelname}{label}
```

</english>

<*german> This file is generated automatically and it contains translation strings for the German language. it is saved in a file pages-German.dict according to the conventions of the translator package.

```
1340 \ProvidesDictionary{pages-German}{German}
1341 \providetranslation{headername}{Kopfzeile}
1342 \providetranslation{bodyname}{Haupttext}
1343 \providetranslation{footername}{Fu{\ss}zeile}
1344 \providetranslation{marginnotename}{Rand-\\ notizen}
1345 \providetranslation{oneinchname}{ein Zoll}
1346 \providetranslation{notshownname}{ohne Abbildung}
1347 \providetranslation{drivermarginname}{Fahrer-Marge}
1348 \providetranslation{leftpagename}{Linke Seite}
1349 \providetranslation{rightpagename}{Rechte Seite}
1350 \providetranslation{bindingcorrectionname}{Bindekorrektur}
1351 \providetranslation{bookheightname}{Buch H\"ohe}
1352 \providetranslation{trimedgename}{Schnittkante}
```

\textheight
49.83 pc

\footskip 2.5 pc

\marginparsep 0.92 pc

oddsidemargin 2.33 pc

\textwidth 31.66 pc

\marginparwidth 8.42 pc

driver margin 1 in

1 in + \topmargin (1.42 pc) = 4.61 pc

Page 41

\headheight 1 pc

\headsep 2.08 pc

```
1353 \providetranslation{trimtopname}{Trim-Top}
1354 \providetranslation{trimbottomname}{trim Unten}
1355 \providetranslation{precedingtextname}{Che precede il testo}
1356 \providetranslation{followingtextname}{Sequeto il testo}
1357 \providetranslation{labelname}{label}
```

</german>

<*italian> This file is generated automatically and it contains translation strings for the German language. it is saved in a file pages-German.dict according to the conventions of the translator package.

```
1358 \ProvidesDictionary{pages-Italian}{Italian}
1359 \providetranslation{headername}{testatina}
1360 \providetranslation{bodyname}{corpo}
1361 \providetranslation{footername}{piedino}
1362 \providetranslation{marginnotename}{note marginale}
1363 \providetranslation{oneinchname}{un piedino}
1364 \providetranslation{notshownname}{non mostrato}
1365 \providetranslation{drivermarginname}{conducente del margine}
1366 \providetranslation{leftpagename}{pagina di sinistra}
1367 \providetranslation{rightpagename}{pagina a destra}
1368 \providetranslation{bindingcorrectionname}{correzione vincolante}
1369 \providetranslation{bookheightname}{libro di altezza}
1370 \providetranslation{trimedgename}{cimosse}
1371 \providetranslation{trimtopname}{top assetto}
1372 \providetranslation{trimbottomname}{fondo assetto}
1373 \providetranslation{precedingtextname}{Che precede il testo}
1374 \providetranslation{followingtextname}{Sequeto il testo}
1375 \providetranslation{labelname}{etichetta}
```

</italian>

<*dutch> This file is generated automatically and it contains translation strings for the Dutch language. it is saved in a file pages-German.dict according to the conventions of the translator package.

```
1376 \ProvidesDictionary{pages-Dutch}{Dutch}
1377 \providetranslation{headername}{kopregel}
1378 \providetranslation{bodyname}{broodtekst}
1379 \providetranslation{footername}{voetregel}
1380 \providetranslation{marginnotename}{marge notities}
1381 \providetranslation{oneinchname}{een inch}
1382 \providetranslation{notshownname}{niet getoond}
1383 \providetranslation{drivermarginname}{bestuurder marge}
1384 \providetranslation{leftpagename}{linkerpagina}
1385 \providetranslation{rightpagename}{juiste pagina}
1386 \providetranslation{bindingcorrectionname}{binding correctie}
1387 \providetranslation{bookheightname}{book hoekte}
1388 \providetranslation{trimedgename}{snijrand}
1389 \providetranslation{trimtopname}{Trim top}
1390 \providetranslation{trimbottomname}{Trim onderkant}
```

</dutch>

<*french> This file is generated automatically and it contains translation strings for the Dutch language. it is saved in a file pages-German.dict according to the conventions of the translator package.

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1391 \ProvidesDictionary{pages-French}{French}
1392 \providetranslation{headname}{kopregel}
1393 \providetranslation{bodyname}{broodtekst}
1394 \providetranslation{footname}{voetregel}
1395 \providetranslation{marginnotename}{marge notities}
1396 \providetranslation{oneinchname}{een inch}
1397 \providetranslation{notshownname}{niet getoond}
1398 \providetranslation{drivermarginname}{bestuurder marge}
1399 \providetranslation{leftpagename}{linkerpagina}
1400 \providetranslation{rightpagename}{juiste pagina}
1401 \providetranslation{bindingcorrectionname}{binding correctie}
1402 \providetranslation{bookheightname}{book hoekte}
1403 \providetranslation{trimedgename}{snijrand}
1404 \providetranslation{trimtopname}{Trim top}
1405 \providetranslation{trimbottomname}{Trim onderkant}

</french>
<*spanish> This file is generated automatically and it contains translation
strings for the Dutch language. it is saved in a file pages-German.dict according
to the conventions of the translator package.

1406 \ProvidesDictionary{pages-French}{French}
1407 \providetranslation{headname}{kopregel}
1408 \providetranslation{bodyname}{broodtekst}
1409 \providetranslation{footname}{voetregel}
1410 \providetranslation{marginnotename}{marge notities}
1411 \providetranslation{oneinchname}{een inch}
1412 \providetranslation{notshownname}{niet getoond}
1413 \providetranslation{drivermarginname}{bestuurder marge}
1414 \providetranslation{leftpagename}{linkerpagina}
1415 \providetranslation{rightpagename}{juiste pagina}
1416 \providetranslation{bindingcorrectionname}{binding correctie}
1417 \providetranslation{bookheightname}{book hoekte}
1418 \providetranslation{trimedgename}{snijrand}
1419 \providetranslation{trimtopname}{Trim top}
1420 \providetranslation{trimbottomname}{Trim onderkant}

</spanish>
The end of the configuration file code
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