

# The **linegoal**\* package

A new “dimen” corresponding to the remainder of the line (**FC**)

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## Abstract

**linegoal** provides a macro `\linegoal` which expands to the dimension of the remainder of the line. It requires pdf<sub>T</sub>E<sub>X</sub> for its `\pdfsavepos` primitive. With pdf<sub>T</sub>E<sub>X</sub>, `\pdfsavepos` works in pdf mode (`\pdfoutput>0`) **and also in dvi mode** (`\pdfoutput=0`). Two compilations (at least) are necessary to get the correct line goal.

Saying: `\somedimen = \linegoal`

or: `\setlength \somedimen {\linegoal}`

sets `\somedimen` to be the (horizontal) length of the remainder of the current line. This can be useful for use with `tabularx`, `tabular*` or `tabu` for example.

At first run: `\linegoal` expands to `\linewidth` and writes the correct line goal into the `.aux` file.

Other runs: `\linegoal` expands to the value read in the `.aux` file and (eventually) updates the correct line-goal into the `.aux` file, if the value has changed.

**linegoal** requires pdf<sub>T</sub>E<sub>X</sub> (in pdf or dvi mode) and the module `zref-savepos` of `zref`<sup>1</sup> package.

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This documentation is produced with the +DocStrip+ utility.

→ To get the documentation, run (thrice): `pdflatex linegoal.dtx`  
To get the index, run: `makeindex -s gind.ist linegoal.idx`  
→ To get the package, run: `etex linegoal.dtx`

The `.dtx` file is embedded into this pdf file thank to `embedfile` by H. Oberdiek.

1. zref: [CTAN:macros/latex/contrib/oberdiek/](http://CTAN:macros/latex/contrib/oberdiek/)

# 1 User interface

This is a tabular that fills the remainder of the line:

```
\begin{tabularx}{\linegoal}{|l|X|}\hline
  Something & Something else \\
  Something & Something else \\ \hline
\end{tabularx}
```

This is a tabular that fills the remainder of the line:

Something	Something else
Something	Something else

## 2 Implementation

### 2.1 Identification

- The package namespace is `\LNGL@`

```
1 <*package>
2 \NeedsTeXFormat{LaTeX2e}% LaTeX 2.09 can't be used (nor non-LaTeX)
3 [2005/12/01]% LaTeX must be 2005/12/01 or younger
4 \ProvidesPackage{linegoal}
5 [2010/10/31 v2.1 - A new dimen corresponding to the remainder of the line]
```

### 2.2 Requirements

The package requires `zref` and its module `zref-savepos`.

It requires `scrfile` for a patch when using the `calc` package.

```
6 \ifdefined\pdfsavepos\else % works also in dvi mode
7   \PackageWarning{linegoal}
8     {This package requires pdfTeX for its \string\pdfsavepos\space primitive\MessageBreak
9     pdfTeX has not been detected and \string\linegoal\space will expand\MessageBreak
10    to \string\linewidth\space in any case}
11   \gdef\linegoal{\linewidth}%
12   \expandafter\endinput
13 \fi
14 \RequirePackage{etex,zref,zref-savepos,scrfile}
```

### 2.3 zref property : page as arabic number

### 2.4 The linegoal macro

`\linegoal`

```
15 \newcommand*\linegoal{%
16   \zref@extract{linegoal.\the\LNGL@unique}{linegoal}\LNGL@setlinegoal
17}% \linegoal
18 \zref@newprop*{linegoal}[\the\linewidth]{\the\dimexpr
19   \linewidth-\the\pdfastxpos sp
20   +\ifodd\zref@extractdefault{linegoal/page.\the\LNGL@unique}{page}\c@page
21     \oddsidemargin
22   \else\evensidemargin
23   \fi
24   +\lin+\hoffset
25   \relax
26}% linegoal zref-property
```

```

27 \globcount\LNGL@unique
28 \globdimen\LNGL@tempdim
29 \let\LNGL@calc@stop=\relax
30 \let\LNGL@calc@cleanup\relax
31 \AfterPackage*{calc}{%
32   \let\LNGL@calc@stop=!%
33   \def\LNGL@calc@cleanup!{%}%
34 }
35 \def\LNGL@setlinegoal{\relax\csname LNGL@set\ifdefined\calc@next!\fi\endcsname}
36 \expandafter\def\csname LNGL@set!\endcsname!{\!\LNGL@set}
37 \protected\def\LNGL@set{%
38   \@bsphack
39   \if@filesw
40     \pdfsavepos
41     \zref@refused{linegoal.\the\LNGL@unique}%
42     \LNGL@tempdim\zref@extractdefault{linegoal.\the\LNGL@unique}{linegoal}\maxdimen
43     \zref@labelbyprops{linegoal/page.\the\LNGL@unique}{page,posx}%
44     \zref@labelbyprops{linegoal.\the\LNGL@unique}{linegoal}%
45     \ifdim\zref@extract{linegoal.\the\LNGL@unique}{linegoal}=\LNGL@tempdim
46     \else \expandafter\LNGL@warn%
47       \number\zref@extractdefault{linegoal/page.\the\LNGL@unique}{page}\c@page\relax
48     \fi
49     \global\advance\LNGL@unique\@ne
50   \else\LNGL@noauxerr
51   \fi
52   \@esphack
53 }% \LNGL@set
54 \def\LNGL@warn#1\relax{\PackageWarning{linegoal}
55   {\string\linegoal\space value on page #1
56   \MessageBreak has changed since last run
57   \MessageBreak Please rerun to get correct values}%
58 }% \LNGL@warn
59 \def\LNGL@noauxerr{\PackageError{linegoal}
60   {\string\linegoal\space does not work if output file are disabled
61   \MessageBreak please check the value of \string\if@filesw!}\@ehd
62 }% \LNGL@noauxerr
63 \</package>

```

## 3 History

### [2010/10/31 v2.1]

- **linegoal** works also without pdfTeX, but `\linegoal` is replaced by `\linewidth` in any case. A warning is displayed.

### [2010/09/25 v2.0]

- New approach: `\setlength` is not used anymore. `\linegoal` behaves more like a real dimen. code like: `\hspace*\linegoal` is now possible.

### [2010/06/20 v1.2]

- Modification in warning message...

## [2010/06/06 v1.1]

- The first release required some small corrections !

## [2010/05/07 v1.0]

- First version.

## 4 References

[1] Heiko Oberdiek: *The zref package*; 2010/05/01 v2.17; [CTAN:macros/latex/contrib/oberdiek/](http://CTAN:macros/latex/contrib/oberdiek/).

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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.

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