

The **linegoal*** package

A new “dimen” corresponding to the remainder of the line

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Abstract

linegoal provides a macro `\linegoal` which expands to the dimension of the remainder of the line. It requires pdf \TeX for its `\pdfsavepos` primitive. 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` or `tabular*` for example (see [User interface](#)).

More precisely:

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 its value has changed.

linegoal requires pdf \TeX and uses the `zref-savepos` module of `zref`¹ 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/

1 User interface

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

```
\begin{tabularx}{\linegoal{1|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

- This package is intended to use with L^AT_EX so we don’t check if it is loaded twice.
- 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   [2010/09/25 v2.0 - 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
7   \PackageWarning{linegoal}
8     {This package requires pdfTeX for its \string\pdfsavepos\space primitive\MessageBreak
9     pdfTeX has not been detected and linegoal.sty will not be loaded}%
10  \expandafter\endinput
11 \fi
12 \RequirePackage{etex,zref,zref-savepos,scrfile}
```

2.3 zref property : page as arabic number

2.4 The linegoal macro

`\linegoal`

```
13 \newcommand*\linegoal{%
14   \zref@extract{linegoal.\the\LNGL@unique}{linegoal}\LNGL@setlinegoal
15 }% \linegoal
16 \zref@newprop*{linegoal}[\the\linewidth]{\the\dimexpr
17   \linewidth-\the\pdflastxpos sp
18   +\ifodd\zref@extractdefault{linegoal/page.\the\LNGL@unique}{page}\c@page
19   \oddsidemargin
20   \else\evensidemargin
21   \fi
22   +1in+\hoffset
23   \relax
```

```

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

```

3 History

[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/](#).

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