

Grzegorz Murzynowski

The gmeometric Package*

Written by Grzegorz Murzynowski,
natror at o2 dot pl

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LPPL status: "author-maintained".

```
1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesPackage{gmeometric}
3 [2007/04/26_v0.69_to_allow_the_'geometry'_macro_in_the_document_
   (GM)]
```

Introduction, usage

This package allows you to use the `\geometry` macro, provided by the `geometry` v3.2 by Hideo Umeki, anywhere in a document: originally it's clausd `\@onlypreamble` and the main work of `gmeometric` is to change that.

Note it's rather queer to change the page layout *inside* a document and it should be considered as drugs or alcohol: it's O.K. only if you *really* know what you're doing.

In order to work properly, the macro should launch the `\clearpage` or the `\cleardoublepage` to 'commit' the changes. So, the unstarred version triggers the first while the starred the latter. If that doesn't work quite as expected, try to precede or succede it with `\onecolumn` or `\twocolumn`.

It's important that `\clear(double)page` launched by `\geometry` not to be a no-op, i.e., `\clear(double)page` immediately preceding `\geometry` (nothing is printed in between) discards the 'commitment'.

You may use `gmeometric` just like `geometry` i.e., to specify the layout as the package options: they shall be passed to `geometry`.

Installation

Just put the `gmeometric.sty` somewhere in the `texmf/tex/latex` branch. Creating a `texmf/tex/latex/gm` directory may be advisable if you consider using other packages written by me.

Then you should refresh your T_EX distribution's files' database most probably.

* This file has version number v0.69 dated 2007/04/26.

Contents of the gmeometric.zip archive

The distribution of the gmeometric package consists of the following four files.

```
gmeometric.sty
README
gmeometricDoc.tex
gmeometricDoc.pdf
```

Compiling of the Documentation

The last of the above files (the .pdf, i.e., *this file*) is a documentation compiled from the .sty file by running L^AT_EX (twice) on the gmeometricDoc.tex file. Compiling of the documentation requires the packages: gmdoc (gmdoc.sty and gmdocc.cls), gmverb.sty, gmutils.sty, gmiflink.sty and also some standard packages: hyperref.sty, color.sty, geometry.sty, multicol.sty, lmodern.sty, fontenc.sty that should be installed on your computer by default.

If you have not installed the mwart.cls class (available on CTAN in mwcls package), the result of your compilation may differ a bit from the .pdf provided in this .zip archive in formatings: If you have not installed mwart.cls, the standard article.cls class will be used.

Usage

The only use of this package is to allow the \geometry command also inside the document (originally it's \onlypreamble). To make \geometry work properly it may be advisable to 'commit' the layout changes with (\clearpage, \cleardoublepage or \newpage) and maybe \one/twocolumn.

Some layout commands should be put before \one/twocolumn and other after it. An example:

```
\thispagestyle{empty}
\advance\textheight 3.4cm\relax
\onecolumn
\newpage
\advance\footskip-1.7cm
\geometry{hmargin=1.2cm,vmargin=1cm}
```

And another:

```
\geometry{bottom=3.6cm}
```

The Code

```
4 \RequirePackage{gmutils}[2007/04/23]% this package defines the storing and
   restoring commands.
5 \RequirePackageWithOptions{geometry}
```

Let's remove some macros from the list to erase at begin document:

```
6 \let\do\notonlypreamble
```

```

7 \do\Gm@cnth
8 \do\Gm@cntv
9 \do\c@Gm@tempcnt
10 \do\Gm@bindingoffset
11 \do\Gm@wd@mp
12 \do\Gm@odd@mp
13 \do\Gm@even@mp
14 \do\Gm@orgw
15 \do\Gm@orgh
16 \do\Gm@dimlist

```

Redefine `\geometry` to give it the starred version that clears a double page when used in the document. The unstarred versions will do just `\clearpage`. Note that `\clear(double)page` makes no harm when used in the preamble.

```

\geometry 17 \def\geometry{%
18   \@ifstar{\gm@geometry{double}}{\gm@geometry{}}
\gm@geometry 19 \def\gm@geometry#1#2{%
20   \Gm@clean
21   \setkeys{Gm}{#2}%
22   \Gm@process
23   \csname_lclear#1page\endcsname}%
24 \endinput

```

Change History

v0.69

General:

Checksum 40, [1](#)

The package main action rewritten to use `\not@onlypreamble` and not `\(Re)StoreMacros`, [3](#)