

The lastpage package*

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Abstract

This package puts the label `LastPage` into the `.aux` file, allowing the user to use references to the last page of a document. This might be particularly useful in places like headers or footers.

1 Introduction

For various draft forms it is desirable to have a page reference to the last page so that page footers, for example, could contain something like “page N of K ”, where N is the current page and K is the last page.

This package defines a label, `LastPage`, which the user can refer to using the `\pageref` command.

2 The user interface

Just load it with by placing

```
\usepackage{lastpage}
```

in the preamble of your LaTeX 2_{ϵ} source file.

`LastPage` Once that is loaded, you will be able to make reference anywhere in your text to the label `LastPage`. In particular you can either use the `fancyheadings` package, or your own redefinitions of the page headings and footings to get a reference to the last page, as in the example below.

```
\makeatletter
\renewcommand{\@evenfoot}{%
  {\normalsize\slshape DRAFT \today\hfil
   \upshape page {\thepage} of \pageref{LastPage}}
\renewcommand{\@oddfoot}{\@evenfoot}
\makeatother
```

to get footers like “*DRAFT January 29, 2003* page 5 of 23” into your document. Or for text like,

```
Hey, you don't write a \pageref{LastPage}~page letter every day,
you know.
```

to get

```
Hey, you don't write a 12 page letter every day, you know.
```

*This file has version number v0.1b, last revised 1994/06/25, documentation dated 1994/07/20.

3 A few warnings

This package uses the LaTeX 2_ε directive of `\AtEndDocument`. If you use other packages that do the same and actually put material at the end, then it is important to load `lastpage` after such other packages if you want the true last page. That is if a package `xyzzzy` uses `\AtEndDocument` to put out two pages of material at the end of the document, then to get the last page to be the page number of the second of those pages you need to load `lastpage` after `xyzzzy` makes its call to `\AtEndDocument`

3.1 Interaction with `endfloat`

Version 2.0 (and earlier) of `endfloat` actually redefine the `\enddocument`, and so interfere drastically with the LaTeX 2_ε commands which make use of `\AtEndDocument`. A newer version of `endfloat` exists in modern documentation form, which should be available from the same source where you received this file.

If you want your `LastPage` to label the last page of these end floats, you need to load `lastpage` after loading `endfloat`. If, on the other hand, you want `LastPage` to refer to the last page, exclusive of the the floats at the end, then load in the reverse order. For each of these, you will still need the modified version of `endfloat`.

Other LaTeX 209 packages also seem to like to redefine `\enddocument`. In addition to the old `endfloat`, `harvard` comes to mind. All of these will need to be modified swiftly. (How did these ever work together before? I can't believe that nobody wanted `harvard` bibliography style and floats at the end before!)

3.2 General ordering and wish list

I believe that the output of a LaTeX 2_ε run should be independent of the order in which package are loaded. It would be possible to set this up, but it would take coordination of all package writers who use `\AtEndDocument`. The actual call to `\AtEndDocument` would not occur during package loading, but some new command, like `\ExecuteAtEndDocument` would be called by the user after all such packages are loaded, with tags for each thing in the packages, so something like

```
\usepackage{lastpage}
\usepackage{endfloat,xyzzzy}
\ExecuteAtEndDocument{endfloat, xyzzzy, lastpage}
```

and the order of End Document material would be the `endfloat` material, followed by `xyzzzy`, and finally by `lastpage`.

It is often the case that the same formats for which one must put tables and figure at the end, are the ones in which endnotes are also required. If one wants to use `lastpage` here as well, then it is easy to get to three separate uses of `\AtEndDocument` (assuming one uses that for the endnotes as well). Clearly it is not safe for any package writer or user to assume that no material will follow what they put into and `\AtEndDocument`. This, in addition to the ordering, is a good reason to develop safe practices for use of this very powerful tool.

I will have to wait until someone else develops such a system, but I will gladly modify `lastpage` to comply with it. Until then I will include a message which

begins with AED in every usage of `\AtEndDocument`, and try to minimize any side effects my usage may have.

3.3 Ignorance is bliss

The author of this package is not only new to LaTeX 2_ε, but also to LaTeX 209. If I have duplicated something that already exists, forgive me. I have always wanted this in PLAIN TeX, but never had the robust cross referencing that LaTeX provides. Now that I have made the big switch, I jumped at the chance to get this done.