Running Headers for Endnotes*

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Abstract

endheads provides running headers of the form "Notes to pp. xx–yy" for endnotes. endheads is designed to work with endnotes and fancyhdr.

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1 Introduction

It is a convenience, if you are flipping though the endnotes of a book, to be able to find the endnote you are looking for by looking at the running header. endheads uses the `\mark` mechanism to update the running header continuously, so that it always indicates to what pages in the main text the notes on a particular page refer. endheads also enables one to reset endnote numbering at the beginning of each chapter.

endheads requires the following packages to work correctly: endnotes (obviously), fancyhdr (also obviously), ifthen (for comparing page numbers), needspace (to prevent widowed chapter titles in notes sections when resetting notes by chapter using either `\notesbychapter` or `\resetendnotes`), and titleref (to send the chapter titles to the notes section).

2 Setup

`\setupendnoteheaders` This is the only macro you need to call to use this package. If you use

*This document corresponds to endheads 1.2, dated 18 January 2007.

\setupendnoteheaders you should remember to start your endnotes on a new page. \setupendnoteheaders sets the first page of the notes section to the empty pagestyle, since you normally don't have running headers on the first page of a section. And it changes the pagestyle for subsequent pages to have a running header of the form "Notes to pages xx–yy." This header will appear in the center of each header. Then it modifies the \endnote command, having it increment a counter that keeps track of all the endnotes (even if you are resetting the number by chapter), and defines a label for that note. Finally, it writes on the external file for the endnotes a command to set the \mark for that page of the endnotes using a \pageref to the label it has just defined. endheads creates a label and a pageref for every note.

\notesbychapter

\notesbychapter resets the note counter every time you issue a \chapter command, and it puts a centered line reading "Chapter <*chapter number*> <*chapter title*>" in the notes at that point. If you want only the chapter number, not its title, issue \titleinnotesfalse in your preamble. Please note that endheads modifies \@chapter, adding a few lines on to the end of the command. If some other package does the same, you will need to reconcile them.

\resetendnotes

Conceivably you might wish to do what \notesbychapter does for each chapter individually. For instance, there may be a chapter without endnotes, in which case \notesbychapter would issue the centered line for that chapter, but no notes would follow, which is ugly. Also, since the Bibliography is, as far as LaTeX is concerned, a chapter, you must use \resetendnotes before each chapter rather issuing \notesbychapter in the preamble if you have a bibliography, or odd results will follow.

3 Using endheads in a Multilingual World

\changecontentsname

By default, endheads uses English language running headers. As of version 1.2 these are easily changed.

\changenotesname

To change the name for the endnote section for notes (the default is Notes), issue \changenotesname{your version}. To change the running header (by default "Notes to") issue \changenotesheader{your version}. To change the name for the notes in the table of contents (by default "Notes") issue \changenotescontentsname{your version}.

\changesinglepageabbrev
\changemultiplepageabbrev

Running headers refer to single pages with the English abbreviation "p." and to multiple pages with the English abbreviation "pp." To change these issue \changesinglepageabbrev{new abbrev} or \changemultiplepageabbrev{new abbrev} respectively. The ultimate outcome is to translate a header of the form "Notes to pp. xx-yy" to the form appropriate for your language.

4 Implementation

4.1 General Purpose Routines

Essentially these routines are code posted by Heiko Oberdiek to comp.text.tex. If you set a counter from a \pageref, that \pageref is undefined on the first run, and TeX will not only complain about the undefined reference, but give a "missing number" error if you try to do anything with that reference, such as

compare one page number to another. These commands enable one to use the \pageref without generating the missing number error on the first run.

```
\providecommand*{\ifrefundefined}[1]{%
  \expandafter\ifx\csname r@#1\endcsname\relax
    \expandafter\@firstoftwo
  \else
    \expandafter\@secondoftwo
  \fi
}
\providecommand*{\@extract@ref}[2]{%
  \expandafter\expandafter\expandafter#1\csname
r@#2\endcsname{}{}\@nil
}

\providecommand*{\@extractref}{%
  \@extract@ref\@car
}

\providecommand*{\@extractpageref}{%
  \@extract@ref\@secondcar
}

\long\def\@secondcar#1#2#3\@nil{#2}

\providecommand*{\setcounterfromref}[2]{%
  \ifrefundefined{#2}{%
    \protect\G@refundefinedtrue
    \@latex@warning{Reference `#2' on page \thepage \space
        undefined}%
    \setcounter{#1}{0}%
  }{%
    \setcounter{#1}{\@extractref{#2}}%
  }%
}
\providecommand*{\setcounterfrompageref}[2]{%
  \ifrefundefined{#2}{%
    \protect\G@refundefinedtrue
    \@latex@warning{Reference `#2' on page \thepage \space
        undefined}%
    \setcounter{#1}{0}%
  }{%
    \setcounter{#1}{\@extractpageref{#2}}%
  }%
}
\long\def\appendtomacro#1#2{%
\begingroup
    \toks@\expandafter{#1#2}%
    \xdef#1{\the\toks@}%
  \endgroup}
```

4.2 Building Blocks

First, define some counters:

```
\newcounter{allendnotes}
\setcounter{allendnotes}{1}
\newcounter{notepageholder}
```

`\mymarks` A command to set the marks. This will be called by the page style.

```
\newtoks{\singlepageabbrev}
\singlepageabbrev={p.}
\newcommand{\changesinglepageabbrev}[1]{\singlepageabbrev={#1}}
\newtoks{\multiplepageabbrev}
\newcommand{\changemultiplepageabbrev}[1]{\multiplepageabbrev={#1}}
\multiplepageabbrev{pp.}
\newcommand{\mymarks}{%
   \ifthenelse{\equal{\firstmark}{\botmark}}%
        {\unskip ~\the\singlepageabbrev~\firstmark}% if equal
        {\unskip ~\the\multiplepageabbrev~\firstmark--\botmark}}%if not equal
```

`\endnotespagestyle` A command to set the page style in fancyhdr. You might want to change some aspects of this, such as where to put the page number, to make it consistent with the rest of your document.

```

\newtoks{\endnotesname}
\endnotesname={Notes}
\newcommand{\changenotesname}[1]{\def\notesname{#1}}
\newtoks{\notesheadername}
\notesheadername={Notes to}
\newcommand{\changenotesheader}[1]{\notesheadername={#1}}
\newtoks{\notescontentsname}
\notescontentsname={Notes}
\newcommand{\changenotescontentsname}[1]{\textnotescontentsname={#1}}
\fancypagestyle{plain}{%
\fancyhf{}
\fancyhead[RO,LE]{{\small\textrm{\thepage}}}
\renewcommand{\headrulewidth}{0pt}
\renewcommand{\footrulewidth}{0pt}
}
\fancypagestyle{endnotesstyle}{%
\fancyhf{}
\fancyhead[CO]{{\small{\em \the\notesheadername~\mymarks}}}
\fancyhead[CE]{{\small{\em \the\notesheadername~\mymarks}}}
\renewcommand{\headrulewidth}{0pt}
\renewcommand{\footrulewidth}{0pt}
\fancyhead[RO,LE]{{\small\textrm{\thepage}}}
}
```

`\checknoteheaders` This macro sets the counter notepageholder to the value given by the pageref of the note that is being output. All that strange business with `\string` is there because I want to use the `\immediate\write` mechanism to control what gets expanded and what doesn't get expanded on the external file for the endnotes, `\jobname.ent`. Everything except the actual number of the endnote is written to the external file as unexpanded tokens. When, after you call `\theendnotes`, you read in the external file for the endnotes, `\jobname.ent`, all these tokens become a command to set the `\mark`.

```
\newcommand{\checknoteheaders}{%
```

```
\string\setcounterfrompageref\string{notepageholder\string}%
\string{notl\theallendnotes\string}%
\string\mark\string{\string\thenotepageholder\string}%
}
```

4.3 User Code

\setupendnoteheaders `\setupendnoteheaders` turns on processing of running headers, and adds two lines to the definition of `\endnote`

```
\newif\ifendnoteheaderson \endnoteheadersonfalse
\newcommand{\setupendnoteheaders}{%
\endnoteheadersontrue
\if@enotesopen \else \@openenotes \fi
\immediate\write\@enotes{%
\string\thispagestyle\string{empty\string}
\string\pagestyle\string{endnotesstyle\string}}
\def\endnote{\@ifnextchar[\@xendnote{\stepcounter{endnote}%
% my addition begins
     \stepcounter{allendnotes}\label{notl\theallendnotes}%
     \immediate\write\@enotes{\checknoteheaders}%
% my addition ends
     \protected@xdef\@theenmark{\theendnote}%
     \@endnotemark\@endnotetext}}
\let\oldtheendnotes=\theendnotes
\renewcommand{\theendnotes}{%
\immediate\write\@enotes{\string\thispagestyle\string{endnotesstyle\string}}
\oldtheendnotes}
}
```

\resetendnotes Tells the `\chapter` macro to reset the note counter and to put a line with the chapter number in the endnotes.

```
\newif\iftitleinnotes \titleinnotestrue
\newcommand{\resetendnotes}{%
\setcounter{endnote}{0}%
\if@enotesopen \else \@openenotes \fi
\immediate\write\@enotes{\string\goodbreak}
\immediate\write\@enotes{\string\Needspace\string{5\string\baselineskip\string}}
\immediate\write\@enotes{\string\begin\string{center\string}}
\immediate\write\@enotes{Chapter \thechapter\string~}
\iftitleinnotes
\immediate\write\@enotes{\string\titleref\string{chapter\thechapter\string}}
\fi
\immediate\write\@enotes{\string\end\string{center\string}}
\immediate\write\@enotes{\string\nopagebreak}
}
```

\notesbychapter

```
% \newcommand{\notesbychapter}{%
% \appendtomacro{\chapter}{%
% \relax
% \resetendnotes}%
% }
\newif\ifnotesbychapteron \notesbychapteronfalse
```

```
\newcommand{\notesbychapter}{\notesbychapterontrue}
\def\@chapter[#1]#2{\ifnum \c@secnumdepth >\m@ne
                        \if@mainmatter
                          \refstepcounter{chapter}%
                          \typeout{\@chapapp\space\thechapter.}%
                          \addcontentsline{toc}{chapter}%
                                    {\protect\numberline{\thechapter}#1}%
                        \else
                          \addcontentsline{toc}{chapter}{#1}%
                        \fi
                      \else
                        \addcontentsline{toc}{chapter}{#1}%
                      \fi
                      \chaptermark{#1}%
                      \addtocontents{lof}{\protect\addvspace{10\p@}}%
                      \addtocontents{lot}{\protect\addvspace{10\p@}}%
                      \if@twocolumn
                        \@topnewpage[\@makechapterhead{#2}]%
                      \else
                        \@makechapterhead{#2}%
                        \@afterheading
                      \fi
    \iftitleinnotes%
    \label{chapter\thechapter}%
    \fi%
    \ifnotesbychapteron%
    \relax%
    \resetendnotes%
    \fi}
```

Change History

v1.0
General: Initial version 1
v1.1
General: uses needspace prevent orphan chapter beginnings in notes 1
v1.15
General: uses titleref to capture chapter titles for notes 1
v1.151
General: Corrections to user's guide 1
v1.152
General: Fixed strange white space error 1
v1.2
General: Added commands for multilingual use 1

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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; numbers in roman refer to the code lines where the entry is used.

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