

Running Headers for Endnotes*

John Burt
burt@brandeis.edu

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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`.

Contents

1	Introduction	1
2	Setup	2
3	Using <code>endheads</code> in a Multilingual World	3
4	Implementation	3
4.1	General Purpose Routines	3
4.2	Building Blocks	4
4.3	User Code	6

1 Introduction

It is a convenience, if you are flipping through 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: with the standard document classes, or the `komascript` classes: `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).

With `memoir` class, `endheads` requires fewer packages, since many of the package functions are built into `memoir` and some, `fancyhdr` most especially, conflict with it. Minimally, you will need `endnotes` and `ifthen`. You might wish to call `memoir` with the `oldfontcommands` option.

*This document corresponds to `endheads` 1.4, dated 12 April 2008.

2 Setup

\setupendnoteheaders This is the only macro you need to call to use this package. If you use **\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 with the standard classes **endheads** modifies **\@chapter**, adding a few lines on to the end of the command. If some other package does the same, you may need to reconcile them. With memoir class, **\chapter** is modified only if **\notesbychapter** is issued.

\setstyleforchapternotebegin **\setstyleforchapternotebegin** and **\setstyleforchapternoteend** allows you to customize the appearance of the line that separates chapters in the endnotes. If, for instance, rather having a centered line in the small font size, you want a flushleft line in the large fontsize, issue **\setstyleforchapternotebegin{\begin{flushleft}\large}** and **\setstyleforchapternoteend{\end{flushleft}}** in your preamble. To set these lines in italic or bold, issue **\setstyleforchapternotebegin{\em}** or **\setstyleforchapternotebegin{\bf}** in your preamble. (It's safe, indeed required, to use the old style font commands here, since the chapter title line in the notes is confined to a group, which restricts the scope of the font style command to the line. If you are using memoir class, you should use the **oldfontcommands** option if you plan on issuing **\setstyleforchapternotebegin** and **\setstyleforchapternoteend**.) Remember that if you open an environment with **\setstyleforchapternotebegin** you must close it in **\setstyleforchapternoteend**. So, for instance, if you wish the chapter line to be set flushleft, in boldface, in normal font size, you would issue **\setstyleforchapternotebegin{\begin{flushleft}\begin{bf}\normalsize}** and **\setstyleforchapternoteend{\end{bf}\end{flushleft}}** in your preamble.

\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 L^AT_EX 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

<code>\changecontentsname</code>	By default, <code>endheads</code> uses English language running headers. As of version 1.2 these are easily changed.
<code>\changenotesname</code>	To change the name for the endnote section for notes (the default is Notes), issue <code>\changenotesname{your version}</code> . To change the running header (by default “Notes to”) issue <code>\changenotesheader{your version}</code> . To change the name for the notes in the table of contents (by default “Notes”) issue <code>\changenotescontentsname{your version}</code> .
<code>\changesinglepageabbrev</code> <code>\changemultiplepageabbrev</code>	Running headers refer to single pages with the English abbreviation “p.” and to multiple pages with the English abbreviation “pp.” To change these issue <code>\changesinglepageabbrev{new abbrev}</code> or <code>\changemultiplepageabbrev{new abbrev}</code> respectively. The ultimate outcome is to translate a header of the form “Notes to pp. xx-yy” to the form appropriate for your language.
<code>\changechapternotesline</code>	If you are using <code>\resetendnotes</code> or <code>\setnotesbychapter</code> you may also want to change the text of the line those commands add to the endnotes so as to use some other word than “Chapter.” To change this, issue <code>\changechapternotesline{your version}</code> .

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 T_EX 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.

```

1 \providecommand*\ifrefundefined}[1]{%
2   \expandafter\ifx\csname r@#1\endcsname\relax
3   \expandafter\@firstoftwo
4   \else
5     \expandafter\@secondoftwo
6   \fi
7 }
8 \providecommand*\@extract@ref}[2]{%
9   \expandafter\expandafter\expandafter#1\csname
10 r@#2\endcsname{}\}\@nil
11 }
12
13 \providecommand*\@extractref}{%
14   \@extract@ref\@car
15 }
16
17 \providecommand*\@extractpageref}{%
18   \@extract@ref\@secondcar
19 }
20
21 \long\def\@secondcar#1#2#3\@nil{#2}

```

```

22
23 \providecommand*\setcounterfromref}[2]{%
24   \ifrefundefined{#2}{%
25     \protect\G@refundefinedtrue
26     \@latex@warning{Reference ‘#2’ on page \thepage \space
27       undefined}%
28     \setcounter{#1}{0}%
29   }{%
30     \setcounter{#1}{\@extractref{#2}}%
31   }%
32 }
33 \providecommand*\setcounterfrompageref}[2]{%
34   \ifrefundefined{#2}{%
35     \protect\G@refundefinedtrue
36     \@latex@warning{Reference ‘#2’ on page \thepage \space
37       undefined}%
38     \setcounter{#1}{0}%
39   }{%
40     \setcounter{#1}{\@extractpageref{#2}}%
41   }%
42 }
43 \long\def\appendtomacro#1#2{%
44 \begingroup
45   \toks@\expandafter{#1#2}%
46   \xdef#1{\the\toks@}%
47 \endgroup}

```

4.2 Building Blocks

First, define some counters:

```

48 \newcounter{allendnotes}
49 \setcounter{allendnotes}{1}
50 \newcounter{notepageholder}

```

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

```

51 \newtoks{\singlepageabbrev}
52 \singlepageabbrev={p.}
53 \newcommand{\changesinglepageabbrev}[1]{\singlepageabbrev={#1}}
54 \newtoks{\multiplepageabbrev}
55 \newcommand{\changemultiplepageabbrev}[1]{\multiplepageabbrev={#1}}
56 \multiplepageabbrev{pp.}
57 \ifclassloaded{memoir}{\newcommand{\mymarks}{%
58   \ifthenelse{equal{\rightmark}{\leftmark}}{%
59     {\unskip ~\the\singlepageabbrev~\rightmark}% if equal
60     {\unskip ~\the\multiplepageabbrev~\rightmark--\leftmark}}%if not equal
61 }
62 {\newcommand{\mymarks}{%
63   \ifthenelse{equal{\firstmark}{\botmark}}{%
64     {\unskip ~\the\singlepageabbrev~\firstmark}% if equal
65     {\unskip ~\the\multiplepageabbrev~\firstmark--\botmark}}%if not equal
66 }

```

`\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.

```

67
68 \newtoks{\endnotesname}
69 \endnotesname={Notes}
70 \newcommand{\changenotesname}[1]{\def\notesname{#1}}
71 \newtoks{\notesheadername}
72 \notesheadername={Notes to}
73 \newcommand{\changenotesheader}[1]{\notesheadername={#1}}
74 \newtoks{\notescontentsname}
75 \notescontentsname={Notes}
76 \newcommand{\changenotescontentsname}[1]{\textnotescontentsname={#1}}
77 \newtoks{\chapternoteslinename}
78 \chapternoteslinename={Chapter}
79 \newcommand{\changechapternotesline}[1]{\chapternoteslinename={#1}}
80 \ifclassloaded{memoir}{\makepagestyle{plain}}
81 \makeevenhead{plain}{}{}{\small\textrm{\thepage}}
82 \makeoddhead{plain}{}{\small\textrm{\thepage}}{}
83 \makeevenfoot{plain}{}{}
84 \makeoddfoot{plain}{}{}
85 \makepagestyle{endnotesstyle}
86 \makeevenhead{endnotesstyle}{}{\small\textrm{\thepage}}{}{\small\em \the\notesheadername~\mymarks}
87 \makeoddhead{endnotesstyle}{}{\small\em \the\notesheadername~\mymarks}}{\small\textrm{\thepage}}
88 \makeevenfoot{}{}{}
89 \makeoddfoot{}{}{}
90 }\fancypagestyle{plain}{%
91 \fancyhf{}
92 \fancyhead[RO,LE]{}{\small\textrm{\thepage}}
93 \renewcommand{\headrulewidth}{0pt}
94 \renewcommand{\footrulewidth}{0pt}
95 }
96 \fancypagestyle{endnotesstyle}{%
97 \fancyhf{}
98 \fancyhead[CO]{}{\small\em \the\notesheadername~\mymarks}}
99 \fancyhead[CE]{}{\small\em \the\notesheadername~\mymarks}}
100 \renewcommand{\headrulewidth}{0pt}
101 \renewcommand{\footrulewidth}{0pt}
102 \fancyhead[RO,LE]{}{\small\textrm{\thepage}}
103 }
104 }
105

```

\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.

```

106 \ifclassloaded{memoir}{\newcommand{\checknoteheaders}{%
107 \string\setcounterfrompageref\string{notepageholder\string}%
108 \string{notl\theallendnotes\string}%
109 \string\markboth\string{\string\thenotepageholder\string}\string{\string\thenotepageholder\string}

```

```

110 }
111 }{\newcommand{\checknoteheaders}{%
112 \string\setcounterfrompageref\string{notepageholder\string}%
113 \string{not1\theallendnotes\string}%
114 \string\mark\string{\string\thenotepageholder\string}%
115 }
116 }
117

```

4.3 User Code

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

```

118 \newif\ifendnoteheaderson \endnoteheadersonfalse
119 \newcommand{\setupendnoteheaders}{%
120 \endnoteheadersontrue
121 \if@enotesopen \else \@openenotes \fi
122 \immediate\write\@enotes{%
123 \string\thispagestyle\string{empty\string}
124 \string\pagestyle\string{endnotesstyle\string}}
125 \def\endnote{\@ifnextchar[\@xendnote{\stepcounter{endnote}%
126 % my addition begins
127 \stepcounter{allendnotes}\label{not1\theallendnotes}%
128 \immediate\write\@enotes{\checknoteheaders}%
129 % my addition ends
130 \protected@xdef\@theenmark{\theendnote}%
131 \@endnotemark\@endnotetext}}
132 \let\oldtheendnotes=\theendnotes
133 \renewcommand{\theendnotes}{%
134 \immediate\write\@enotes{\string\thispagestyle\string{endnotesstyle\string}}
135 \oldtheendnotes}
136 }

```

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

```

137 \def\strip#1>{}
138 \newcommand{\literalendnote}[1]{\if@enotesopen \else
139 \@openenotes\setupendnoteheaders \fi
140 \begingroup
141 \def\next{#1}%
142 \newlinechar='40
143 \immediate\write\@enotes{\expandafter\strip\meaning\next}%
144 \endgroup%
145 }
146 \newif\iftitleinnotes \titleinnotesttrue
147 \newcommand{\styleforchapternotebegin}{%
148 }
149 \newcommand{\styleforchapternoteend}{%
150 }
151 \newcommand{\setstyleforchapternotebegin}[1]{%
152 \renewcommand{\styleforchapternotebegin}{#1}}
153 \newcommand{\setstyleforchapternoteend}[1]{%
154 \renewcommand{\styleforchapternoteend}{#1}}%

```

```

155 \setstyleforchapternotebegin{\begin{center}}
156 \setstyleforchapternoteend{\end{center}}
157 \newcommand{\resetendnotes}{%
158 \label{chapter\thechapter}%
159 \setcounter{endnote}{0}%
160 \if@enotesopen \else \@openenotes \fi
161 \immediate\write\@enotes{\string\begin{group}}
162 \immediate\write\@enotes{\string\goodbreak}
163 \immediate\write\@enotes{\string\Needspace\string{5\string\baselineskip\string}}
164 \immediate\write\@enotes{\string\styleforchapternotebegin}
165 % \immediate\write\@enotes{\string\begin\string{center\string}}
166 %\immediate\write\@enotes{\string{}}
167 \immediate\write\@enotes{the\chapternoteslinename\string\ \thechapter\string~}
168 \iftitleinnotes
169 \immediate\write\@enotes{\string\titleref\string{chapter\thechapter\string}}
170 \fi
171 %\immediate\write\@enotes{\string{}}
172 \immediate\write\@enotes{\string\styleforchapternoteend}
173 % \immediate\write\@enotes{\string\end\string{center\string}}
174 \immediate\write\@enotes{\string\nopagebreak}
175 \immediate\write\@enotes{\string\endgroup}
176 }

```

\notesbychapter

```

177 % \newcommand{\notesbychapter}{%
178 % \appendtomacro{\chapter}{%
179 % \relax
180 % \resetendnotes}%
181 % }
182 \newif\ifnotesbychapteron \notesbychapteronfalse
183 \@ifclassloaded{memoir}{\newcommand{\notesbychapter}{\notesbychapterontrue}
184 \addtoargdef{\chapter}{}{\ \iftitleinnotes%
185 % \label{chapter\thechapter}%
186 % \fi%
187 % \ifnotesbychapteron%
188 % \relax%
189 % \resetendnotes%
190 % \fi}}
191 }{\newcommand{\notesbychapter}{\notesbychapterontrue}
192 \def\@chapter[#1]#2{\ifnum \c@secnumdepth >\m@ne
193 \if@mainmatter
194 \refstepcounter{chapter}%
195 \typeout{\@chapapp\space\thechapter.}%
196 \addcontentsline{toc}{chapter}%
197 {\protect\numberline{\thechapter}#1}%
198 \else
199 \addcontentsline{toc}{chapter}{#1}%
200 \fi
201 \else
202 \addcontentsline{toc}{chapter}{#1}%
203 \fi
204 \chaptermark{#1}%
205 \addtocontents{lof}{\protect\addvspace{10\p@}}%
206 \addtocontents{lot}{\protect\addvspace{10\p@}}%

```

```

207             \if@twocolumn
208                 \@topnewpage[\@makechapterhead{#2}]%
209             \else
210                 \@makechapterhead{#2}%
211                 \@afterheading
212             \fi
213     \iftitleinnotes%
214 %       \label{chapter\thechapter}%
215     \fi%
216     \ifnotesbychapteron%
217     \relax%
218     \resetendnotes%
219     \fi}
220 }
221

```

Change History

v1.0	General: Initial version 1	v1.152	General: Fixed strange white space error 1
v1.1	General: uses needspace prevent orphan chapter beginnings in notes 1	v1.2	General: Added commands for multilingual use 1
v1.15	General: uses titleref to capture chapter titles for notes 1	v1.3	General: Added commands for multilingual use 1
v1.151	General: Corrections to user's guide 1	v1.4	General: Added compatibility with memoir class. Added commands for multilingual use . . . 1

Index

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.

Symbols			
\@afterheading	211	\@ifclassloaded	57, 80, 106, 183
\@car	14	\@ifnextchar	125
\@chapapp	195	\@latex@warning	26, 36
\@chapter	192	\@makechapterhead	208, 210
\@endnotemark	131	\@nil	10, 21
\@endnotetext	131	\@openenotes	121, 139, 160
\@enotes	122, 128, 134, 143, 161–167, 169, 171–175	\@secondcar	18, 21
\@extract@ref	8, 14, 18	\@secondoftwo	5
\@extractpageref	17, 40	\@theenmark	130
\@extractref	13, 30	\@topnewpage	208
\@firstoftwo	3	\@xendnote	125

<code>_</code>	167		
A		L	
<code>\addcontentsline</code>	196, 199, 202	<code>\leftmark</code>	58, 60
<code>\addtocontents</code>	205, 206	<code>\literalendnote</code>	138
<code>\addtoargdef</code>	184	<code>\long</code>	21, 43
<code>\addvspace</code>	205, 206	M	
<code>\appendtomacro</code>	43, 178	<code>\m@ne</code>	192
B		<code>\makeevenfoot</code>	83, 88
<code>\baselineskip</code>	163	<code>\makeevenhead</code>	81, 86
<code>\begingroup</code>	44, 140, 161	<code>\makeoddfoot</code>	84, 89
C		<code>\makeoddhead</code>	82, 87
<code>\c@secnumdepth</code>	192	<code>\makepagestyle</code>	80, 85
<code>\changechapternotesline</code>	3, 79	<code>\mark</code>	114
<code>\changecontentsname</code>	3	<code>\markboth</code>	109
<code>\changemultiplepageabbrev</code>	3, 55	<code>\meaning</code>	143
<code>\changenotescontentsname</code>	76	<code>\multiplepageabbrev</code> ...	54–56, 60, 65
<code>\changenotesheader</code>	73	<code>\mymarks</code>	51, 86, 87, 98, 99
<code>\changenotesname</code>	3, 70	N	
<code>\changesinglepageabbrev</code>	3, 53	<code>\Needspace</code>	163
<code>\chapter</code>	178, 184	<code>\newlinechar</code>	142
<code>\chaptermark</code>	204	<code>\newtoks</code>	51, 54, 68, 71, 74, 77
<code>\chapternoteslinename</code> ...	77–79, 167	<code>\next</code>	141, 143
<code>\checknoteheaders</code>	106, 128	<code>\nopagebreak</code>	174
<code>\csname</code>	2, 9	<code>\notesbychapter</code>	2, 177
E		<code>\notesbychapteronfalse</code>	182
<code>\end</code>	156, 173	<code>\notesbychapterontrue</code>	183, 191
<code>\endcsname</code>	2, 10	<code>\notescontentsname</code>	74, 75
<code>\endgroup</code>	47, 144, 175	<code>\notesheadername</code>	71–73, 86, 87, 98, 99
<code>\endnote</code>	125	<code>\notesname</code>	70
<code>\endnoteheadersonfalse</code>	118	<code>\numberline</code>	197
<code>\endnoteheadersontrue</code>	120	O	
<code>\endnotesname</code>	68, 69	<code>\oldtheendnotes</code>	132, 135
<code>\endnotespagestyle</code>	67	P	
G		<code>\protect</code>	25, 35, 197, 205, 206
<code>\G@refundefinedtrue</code>	25, 35	<code>\protected@xdef</code>	130
<code>\goodbreak</code>	162	<code>\providecommand</code> ...	1, 8, 13, 17, 23, 33
I		R	
<code>\if@notesopen</code>	121, 138, 160	<code>\refstepcounter</code>	194
<code>\if@mainmatter</code>	193	<code>\resetendnotes</code> ..	2, 137, 180, 189, 218
<code>\if@twocolumn</code>	207	<code>\rightmark</code>	58–60
<code>\ifendnoteheaderson</code>	118	S	
<code>\ifnotesbychapteron</code> ...	182, 187, 216	<code>\setcounterfrompageref</code> .	33, 107, 112
<code>\ifnum</code>	192	<code>\setcounterfromref</code>	23
<code>\ifrefundefined</code>	1, 24, 34	<code>\setstyleforchapternotebegin</code> ...	2, 151, 155
<code>\iftitleinnotes</code> ...	146, 168, 184, 213	<code>\setstyleforchapternoteend</code>	2, 153, 156
<code>\ifx</code>	2	<code>\setupendnoteheaders</code> ...	2, 118, 139
		<code>\singlepageabbrev</code> ...	51–53, 59, 64
		<code>\space</code>	26, 36, 195
		<code>\stepcounter</code>	125, 127

<code>\strip</code>	137, 143	<code>\theendnote</code>	130
<code>\styleforchapternotebegin</code>		<code>\theendnotes</code>	132, 133
.....	147, 152, 164	<code>\thenotepageholder</code>	109, 114
<code>\styleforchapternoteend</code>	149, 154, 172	<code>\thispagestyle</code>	123, 134
T		<code>\titleinnotestru</code>	146
<code>\textnotescontentsname</code>	76	<code>\titleref</code>	169
<code>\the</code>	46, 59, 60, 64, 65, 86, 87, 98, 99, 167	<code>\toks@</code>	45, 46
<code>\theallendnotes</code>	108, 113, 127	<code>\typeout</code>	195
<code>\thechapter</code>		X	
.....	158, 167, 169, 185, 195, 197, 214	<code>\xdef</code>	46