

# **Continue:** Continuation marks on (by default odd) pages\*

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## **Abstract**

The **continue** package provides for a variety of continuation indicators on pages in a twosided document when the text continues on the following page. The default is to only mark odd pages but all pages can be marked or marking can be stopped or started at any point.

## **Contents**

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>The <b>continue</b> package</b>	<b>2</b>
2.1	Options . . . . .	2
2.2	Macros . . . . .	3
<b>3</b>	<b>An example document</b>	<b>4</b>
<b>4</b>	<b>The <b>continue</b> code</b>	<b>5</b>

## **1 Introduction**

In some types of documents it is customary or convenient to indicate at the bottom of a page that the text continues on the following page. For example, when a two page exam sheet is printed twosided it could be advantageous for the student to have an indication on the first page that there are further questions on the back of the page. Another instance is when documents are printed in the expectation that they will be read by someone in front of an audience, so in order to minimise any hesitation as a page is turned over, the first word on the following page is printed at the bottom of the preceding page.

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\*This file (**continue.dtx**) has version number v0.2, last revised 2018/12/09.

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This manual is typeset according to the conventions of the L<sup>A</sup>T<sub>E</sub>X DOCUMENTSTRIP utility which enables the automatic extraction of the L<sup>A</sup>T<sub>E</sub>X macro source files [GMS94].

Section 2 describes the usage of the package. Commented package code may be in later sections.

## 2 The **continue** package

The **continue** package is an amalgam of modified versions of two packages — **fwlw** (First Word, Last Word) by Donald Arseneau [Ars95] which among other things gets the first word on the next page and **turnpageetex** by Merciadri Luca [Luc15] for placing something at the bottom of the text block.

The **fwlw** package includes the following statement:

Copyright (C) 1993,1995 by Donald Arseneau Vancouver, Canada, email [asnd@triumf.ca](mailto:asnd@triumf.ca) This software package may be freely used, transmitted, reproduced, or modified provided that this notice is left intact.

In this instance I have modified the original package as allowed above.

With respect to the **turnpageetex** package this was released under the L<sup>A</sup>T<sub>E</sub>X Project Public License and I have taken the liberty of extending its functionality slightly, as allowed.

### 2.1 Options

There are three options that can be used when calling the package denoting the kind and position of the continuation marker.

**margin**

With this option the continuation marker is placed in the margin aligned with the bottom of the text block. If the option is not used then the continuation marker is placed below the text block ending at the outer margin.

**word**

With this option the package attempts to use the first ‘word’ on the following verso page as the continuation marker. If the option is not used then a user specified marker is employed.

**allpages**

With this option the package tries to provide a marker on each page, whether odd or even. The default is to only provide markers on odd pages.

The relevant portions of the introduction to the **fwlw** package are:

The **fwlw** package provides a mechanism to determine ... the first word on the *next* page. The ‘words’ you see may not be real words, but any unbreakable object.

...

... labelling does not make much sense when **\chapter** generates a page break, so the last page before a **\chapter** (or any **\clearpage**) gets a blank ”next word” ...

Note that ‘words’ may unfortunately be things like:

- two words

- [ ]Word ( [ ] represents a parindent box)
- a whole displayed equation
- the first column of an aligned equation
- anomalously blank, if there are \writes or split footnotes etc.
- partial words like par- or -tial due to hyphenation.

In essence, the ‘word’ might not be what you might expect, but for most documents the results are good. However, page 3 of the example file `trycontinue.tex` prints a blank word as the continuation marker because the first line on the following page is the start of a paragraph which starts with a space.

## 2.2 Macros

When the `word` option is not used the following macros are available:

`\flagcont` This command defines the continuation mark. Its default specification is:

`\newcommand*{\flagcont}{Continued}`

It can be changed in the document’s preamble to, perhaps:

`\renewcommand*{\flagcont}{---$>$}`

to print a right pointing arrow.

`\flagend` This command defines the continuation mark when the last odd page is the final page (i.e. when there is no following recto page). Its default specification is:

`\newcommand*{\flagend}{End}`

but it can be changed in the document’s preamble.

When the `word` option is used the following macros are available:

`\flagword` This command specifies how the continuation word is formated. Its definition is:

`\newcommand*{\flagword}{\preflagword\usebox{\NextWordBox}\postflagword}`  
where `\NextWordBox` holds the first word on the next recto page (empty if there is no next recto page).

`\preflagword` This command is printed before the word continuation marker. Its default definition is:

`\newcommand*{\preflagword}{}{}`

but can be redefined in the document preamble to put, perhaps, an opening brace before the word like:

`\renewcommand*{\preflagword}{[]}`

`\postflagword` Similar to `\preflagword` except that it is printed after the marker. Its default definition is:

`\newcommand*{\postflagword}{}{}`

`\contsep` When the `margin` option is used the continuation marker is set a distance `\contsep` to the right of the textblock. When `margin` is not used then the marker is set a distance `\contdrop` below the textblock. Their default values are set by:  
`\setlength{\contsep}{\marginparsep}` and `\setlength{\contdrop}{0.5\footskip}`

### 3 An example document

You can use the document `trycontinue.tex` to experiment with the options. It may take two (pdf)LaTeX runs for the continuation marks to settle down to their final values and positions.

```

1 <*try>
2 %% trycontinue.tex An example usage of the continue package (2018/12/09)
3 %%
4 %% The document is set with footnotes on A6 paper (I wanted
5 %% to get many pages from little text). It is not pretty but does shows
6 %% some of the continue package's capabilities. Try modifying it by changing
7 %% options, etc., and see what happens.
8 %%
9 %% You can try and contact me, Peter Wilson at herries.press@earthlink.net, if there
10 %% are problems other than the aesthetics.
11 %%
12 \documentclass[%]
13   twoside,
14   a6paper
15 ]%
16 {memoir}
17
18 \usepackage%
19 %% [margin]%
20 %% [word]%
21 %% [margin,word]%
22 [margin,word,allpages]%
23 {continue}
24 \usepackage{lipsum}
25 %% try this without the word option
26 %%\renewcommand{\flagcont}{---$>$}
27
28 \renewcommand*{\preflagword}{[]}
29
30 \begin{document}
31
32 First\footnote{Foot 1} \lipsum[1]
33
34 Second\footnote{Foot 2} \lipsum[2]
35
36 Third\footnote{Foot 3} \lipsum[3]
37
38 \contstop % stop marking
39
40 Fourth\footnote{Foot 4} \lipsum[4]
41
42 Fifth\footnote{Foot 5} \lipsum[5]
43
44 \contgo % start marking

```

```

45
46 Sixth\footnote{Foot 6} \lipsum[6]
47
48 \end{document}
49
50 </try>

```

## 4 The **continue** code

Announce the name and version of the package, which requires L<sup>A</sup>T<sub>E</sub>X 2 <sub>$\varepsilon$</sub>  and the **atbegshi**, **picture**, **zref-abspage** and **zref-lastpage** packages and has options **margin**, **word** and **allpages** (added **allpages** 2018/11/30).

```

51 <*usc>
52 \NeedsTeXFormat{LaTeX2e}
53 \ProvidesPackage{continue}[2018/12/09 v0.2 Continues on the following page]
54 \PackageInfo{continue}{This is continue using e-TeX.}
55

\ifcontmargin Now for the options.
\ifcontword
56 \newif{\ifcontmargin} \contmarginfalse
57 \newif{\ifcontword} \contwordfalse
58 \newif{\ifcontallpages} \contallpagesfalse
59 \DeclareOption{margin}{\contmargintrue}
60 \DeclareOption{word}{\contwordtrue}
61 \DeclareOption{allpages}{\contallpagestrue}
62 \ProcessOptions
63

\ifc@go Continuation marks will stop after \contstop but will continue after \contgo (the
\contgo default)
\contstop
64 \newif{\ifc@go} \c@gotrue
65 \newcommand{\contgo}{\c@gotrue}
66 \newcommand{\contstop}{\c@gofalse}
67

```

And the required packages needed by the original **turnpageetex** package.

```

68 \RequirePackage{atbegshi}
69 \RequirePackage{picture}
70 \RequirePackage{zref-abspage}
71 \RequirePackage{zref-lastpage}
72

```

The next chunk of code is a revised version of the **fwlw** package. I don't really understand it but I have a feeling that certain parts are irrelevant to the purposes at hand.

---

```

73 % -----
74 %

```

```

\LWC@pen Declare a unique penalty flag as a value.
75 \mathchardef\LWC@pen 13452

\FirstWordBox Allocate box registers
\NextWordBox 76 \newbox\FirstWordBox \global\setbox\FirstWordBox\hbox{ }
\LastWordBox 77 \newbox\NextWordBox \global\setbox\NextWordBox\hbox{ }
\LWC@box 78 \newbox\LastWordBox \global\setbox\LastWordBox\hbox{ }
\LWC@saved 79 \newbox\LWC@box \global\setbox\LWC@box\hbox{ }
80 \newbox\LWC@saved

\FWLWCnormal@L@output Shell around old output routine. Gets first word from next page by letting TeX
continue with \vsize=0 to get a look at the next line. Values of \outputpenalty
for \specialoutput (-10001 to -19999) are simply run through the output rou-
tine. \supereject and \clearpage give a blank "next word". When called after
making a stub-page the stub is returned to the vertical list, the previous page is
restored and shipped out normally, but knowing what the next word will be.
81 \edef\FWLWCnorm@L@output{\the\output}
82
83 \output{\@tempswafalse
84 \ifnum \outputpenalty>-\@MM \ifnum\outputpenalty<-\@M \@tempswatrue\fi\fi
85 \if@tempswa % special (float) output
86 % \message{Float handler: penalty=\the\outputpenalty}%
87 \FWLWCnorm@L@output
88 \else
89 \ifvoid\LWC@saved % end of real page
90 % \message{End of real page}%
91 \global\setbox\LWC@saved\copy\@ccilv % save page
92 %\begin{comment}
93 \setbox\@tempboxa\vbox{\unvbox\@ccilv \unskip\unkern\unpenalty}%
94 \unskip\unkern\unpenalty \unskip\unkern\unpenalty
95 \setbox\@tempboxa\lastbox
96 \LWC@getlast@word\@tempboxa\LastWordBox
97 }
98 %\end{comment}
99 \ifnum\outputpenalty>-\@MM % not \supereject
100 \xdef\LWC@vsize{\global\vsize\the\vsize
101 \global\holdinginserts\the\holdinginserts}%
102 \global\vsize\z@\global\holdinginserts\@ne
103 \else % \supereject, just output, don't look for word on next page
104 % \message{caused by super-eject.}
105 \global\setbox\@ccilv\box\LWC@saved
106 \global\setbox\NextWordBox\hbox{}%
107 \FWLWCnorm@L@output
108 \global\setbox\FirstWordBox\box\NextWordBox
109 \fi
110 \else % saved page => just did tiny page to get next word
111 % \message{Just got next line:}{\tracingall\showboxdepth2 \showbox\@ccilv}%
112 \setbox\@tempboxa\vbox{\penalty\LWC@pen\unvcopy\@ccilv \LWC@getall@boxes
113 \ifvbox\LWC@box \penalty\LWC@pen\unvbox\LWC@box \LWC@getall@boxes\fi

```

```

114      \ifvbox\LWC@box \global\setbox\NextWordBox\hbox{}\else
115          \LWC@getfirst@word\LWC@box\NextWordBox
116      \fi}%
117      Return tiny page to page list:
118      \unvbox\cclv \ifnum\outputpenalty<\@M \penalty\outputpenalty\fi
119      \LWC@vsize\relax
120      \global\setbox\cclv\box\LWC@saved
121      \FWLWCnorm@L@output
122      \global\setbox\FirstWordBox\box\NextWordBox
123  \fi\fi}
124
\def\LWC@getlast@word#1#2{\setbox\tempboxa\vbox{\parboxrestore
125  \hyphenpenalty\@M \exhyphenpenalty\@M
126  \rightskip\fill \looseness\@M \linepenalty\z@%
127  \noindent\unhbox#1\endgraf
128  \unskip\unkern\unpenalty \global\setbox\lastbox
129  }\LWC@repack{#2}}
130

\def\LWC@getfirst@word#1#2{\setbox\tempboxa\vbox{\parboxrestore
131  \parshape\thr@@ \z@\z@ \z@\z@ \maxdimen \parfillskip\fill
132  \hyphenpenalty\@M \exhyphenpenalty\@M
133  \hbadness\@MM \overfullrule\z@ \hfuzz\maxdimen
134  \ifhbox#1\noindent
135  \vadjust{\penalty\LWC@pen}\penalty-\@M\unhbox#1% eliminate previous \leftskip
136  \else\ifvbox#1\penalty\LWC@pen\unvbox#1\fi\fi
137  \endgraf
138  \tempcnta\z@ \LWC@getall@boxes}\LWC@repack{#2}}
140

\def\LWC@getall@boxes{\global\setbox\lastbox \unskip\unkern \unskip\unkern
141  \let\tempa\relax
142  \ifvoid\lastbox \advance\tempcnta\@ne \else \tempcnta\z@ \fi
143  \ifnum\lastpenalty=\LWC@pen \else \unpenalty\fi
144  \ifnum\lastpenalty=\LWC@open \else \unpenalty\fi
145  \ifnum\lastpenalty=\LWC@open \else \ifnum\tempcnta<5
146  \let\tempa\LWC@getall@boxes \fi \fi \unpenalty \tempa}
147
148

\def\LWC@repack#1{\global\setbox#1\hbox{\ifhbox\LWC@box
149  \unhbox\LWC@box\unskip\unskip\unpenalty\unskip
150  \else\ifvbox\LWC@box\box\LWC@box\fi\fi}}
151

```

The next chunk of code is a revised version of the original *turnpageetex* package.

```

152 %
153 %

```

```

\preflagword The user's macros
\postflagword 154
  \flagcont 155 \newcommand*{\preflagword}{}%
  \flagend 156 \newcommand*{\postflagword}{}%
\flagword 157 \newcommand*{\flagcont}{Continued}
\contsep 158 \newcommand*{\flagend}{End}
\contdrop 159 \newcommand*{\flagword}{\preflagword\usebox\NextWordBox\postflagword}%
  160 \newlength{\contsep}\setlength{\contsep}{\marginparsep}%
  161 \newlength{\contdrop}\setlength{\contdrop}{0.5\footskip}

  Adjust \flagcont when the word option is used.
  162 \ifcontword
  163   \let\flagcont\flagword
  164 \fi

\c@ntoddpagepos \c@ntoddpagepos calculates the position of the marker on odd pages.
  165 \newcommand{\c@ntoddpagepos}{%
  166   \dimen1=1in
  167   \advance\dimen1 by \textwidth
  168   \advance\dimen1 by \oddsidemargin
  169   \dimen3=1in
  170   \advance\dimen3 by \topmargin
  171   \advance\dimen3 by \headheight
  172   \advance\dimen3 by \headsep
  173   \advance\dimen3 by \textheight
  174   \ifcontmargin
  175     \advance\dimen1 by \contsep
  176   \else
  177     \advance\dimen3 by \contdrop
  178   \fi
  179 }

\c@ntevenpagepos \c@ntevenpagepos calculates the position of the marker on even pages.
  180 \newcommand{\c@ntevenpagepos}{%
  181   \dimen1=1in
  182   \advance\dimen1 by \textwidth
  183   \advance\dimen1 by \evensidemargin
  184   \dimen3=1in
  185   \advance\dimen3 by \topmargin
  186   \advance\dimen3 by \headheight
  187   \advance\dimen3 by \headsep
  188   \advance\dimen3 by \textheight
  189   \ifcontmargin
  190     \advance\dimen1 by \contsep
  191   \else
  192     \advance\dimen3 by \contdrop
  193   \fi
  194 }

```

```

\c@outcontpage Output continued marked page.

195 \newcommand{\c@outcontpage}{%
196   \ifnum\zref@extract{LastPage}{abspage}>\c@abspage
197     \ifcontmargin
198       \put(\dimen1,-\dimen3){\flagcont}%
199     \else
200       \put(\dimen1,-\dimen3){\llap{\flagcont}}%
201     \fi
202   \else
203     \ifcontmargin
204       \put(\dimen1,-\dimen3){\flagend}%
205     \else
206       \put(\dimen1,-\dimen3){\llap{\flagend}}%
207     \fi
208   \fi
209 }% end of \c@outcontpage

Output the page and marks.

210 \AtBeginShipout{%
211   \AtBeginShipoutUpperLeft{%
212     \ifc@go
213       \ifodd\c@page
214         \c@ntoddpagelpos
215         \c@outcontpage
216       \else
217         \ifcontallpages
218           \c@ntevenpagelpos
219           \c@outcontpage
220         \fi
221       \fi
222     \fi
223   } % end AtBeginShipoutUpperLeft
224 } % end AtBeginShipout
225 %
226 </usc>

```

## References

- [Ars95] Donald Arseneau. *fwlw.sty (First Word, Last Word)*. 1995. (Available from CTAN in `macros/latex/contrib/fwlw`).
- [GMS94] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The LaTeX Companion*. Addison-Wesley Publishing Company, 1994.
- [Luc15] Merciadri Luca. *turnpageetex.sty*. 2011. (Available from CTAN in `macros/latex/contrib/turnthepage`).

## 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.

<b>Symbols</b>	<code>\evensidemargin</code> ... 183	<code>\linepenalty</code> .....	126
<code>\@MM</code> .....	84, 99, 134	<code>\exhyphenpenalty</code> ...	<code>\lipsum</code> .....
<code>\@cclv</code> ...	91, 93, 105,	125, 133	32,
	111, 112, 117, 119		34, 36, 40, 42, 46
<code>\@parboxrestore</code>	124, 131	<b>F</b>	<code>\looseness</code> .....
<code>\@tempa</code> .....	142, 147	<code>\fill</code> ..... 126, 132	126
		<code>\FirstWordBox</code> .....	
<b>A</b>			<code>\LWC@box</code> ..... <u>76</u> ,
<code>allpages</code> (option) .....	<u>2</u>		113–115, 128,
<code>\AtBeginShipout</code> ...	210		141, 143, 149–151
<code>\AtBeginShipoutUpperLeft</code>		<b>F</b>	<code>\LWC@getall@boxes</code> ..
			. 112, 113, 139, <u>141</u>
		<code>\flagcont</code> .....	
		3, 26, <u>154</u> , 198, 200	<code>\LWC@getfirst@word</code> .
		<code>\flagend</code> <u>3</u> , <u>154</u> , 204, 206	..... 115, <u>131</u>
		<code>\flagword</code> .....	
		3, <u>154</u>	<code>\LWC@getlast@word</code> .
		<code>\footnote</code> .....	..... 96, <u>124</u>
<b>C</b>		32,	
<code>\c@abspospage</code> .....	196	34, 36, 40, 42, 46	<code>\LWC@open</code> <u>75</u> , 112, 113,
<code>\c@gofalse</code> .....	66	<code>\footskip</code> .....	136, 137, 144–146
<code>\c@gottrue</code> .....	64, 65	<code>\FWLWCnorm@L@output</code>	<code>\LWC@repack</code> 129, 139, <u>149</u>
<code>\c@ntevenpagepos</code> ..		.. 81, 87, 107, 120	<code>\LWC@saved</code> .....
		<code>\FWLWCnormal@L@output</code>	<u>76</u> , 89, 91, 105, 119
		..... <u>81</u>	<code>\LWC@vsize</code> ... 100, 118
<code>\c@ntoddpagepos</code>	<u>165</u> , 214		
<code>\c@outcontpage</code> .....		<b>H</b>	<b>M</b>
		<code>\badness</code> .....	134
		<code>\headheight</code> ... 171, 186	<code>\margin</code> (option) .....
		<code>\headsep</code> .....	2
<code>\contallpagesfalse</code> .	58	172, 187	<code>\marginparsep</code> .....
<code>\contallpagestrue</code> .	61	<code>\hfuzz</code> .....	160
<code>\contdrop</code> <u>3</u> , <u>154</u> , 177, 192		134	<code>\mathchardef</code> .....
<code>\contgo</code> .....	44, <u>64</u>	<code>\holdinginserts</code> 101, 102	75
<code>\contmarginfalse</code> ..	56	<code>\hyphenpenalty</code> 125, 133	<code>\maxdimen</code> . 124, 132, 134
<code>\contmargintrue</code> ..	59	<b>I</b>	<code>\message</code> 86, 90, 104, 111
<code>\contsep</code> <u>3</u> , <u>154</u> , 175, 190		<code>\ifc@go</code> .....	
<code>\contstop</code> .....	38, <u>64</u>	64, 212	<code>\newbox</code> .....
<code>\contwordfalse</code> ..	57	<code>\ifcontallpages</code> 58, 217	76–80
<code>\contwordtrue</code> .....	60	<code>\ifcontmargin</code> .. <u>56</u> ,	<code>\newif</code> .....
<code>\copy</code> .....	91	174, 189, 197, 203	56–58, 64
<b>D</b>		<code>\ifcontword</code> .. <u>56</u> , 162	<code>\NextWordBox</code> .....
<code>\dimen</code> ....	166–173,	<code>\ifhbox</code> .....	<b>N</b>
	175, 177, 181–	135, 149	<code>\newbox</code> .....
	188, 190, 192,	<code>\ifodd</code> .....	76–80
	198, 200, 204, 206	213	<code>\newif</code> .....
<b>E</b>		<code>\ifvoid</code> .....	56–58, 64
<code>\edef</code> .....	81	89, 143	<code>\NextWordBox</code> .....
<code>\endgraf</code> .....	127, 138	<b>L</b>	<b>O</b>
		<code>\lastbox</code> .. 95, 128, 141	<code>\oddsidemargin</code> .... 168
		<code>\lastpenalty</code> .. 144–146	<code>options:</code>
		<code>\LastWordBox</code> .. <u>76</u> , 96	<code>allpages</code> .....
		<code>\leftskip</code> .....	<code>margin</code> .....
		136	<code>word</code> .....
			<code>\output</code> .....
			81, 83
			<code>\outputpenalty</code> ....
			... 84, 86, 99, 117
			<code>\overfullrule</code> .... 134

<b>P</b>	<b>T</b>	<b>V</b>
\PackageInfo . . . . . 54	\textheight . . . . . 173, 188	\unvcopy . . . . . 112
\parshape . . . . . 132	\textwidth . . . . . 167, 182	\usebox . . . . . 159
\postflagword . . . . 3, 154	\thr@@ . . . . . 132	
\preflagword . . . . 3, 28, 154	\topmargin . . . . . 170, 185	\vadjust . . . . . 136
\ProvidesPackage . . . . 53	\tracingall . . . . . 111	\vbox . . . . . 93, 112, 124, 131
\put . . . . . 198, 200, 204, 206		\vsize . . . . . 100, 102
<b>R</b>	<b>U</b>	<b>W</b>
\RequirePackage . . . . . 68–71	\unhbox . . . . . 127, 136, 150	word (option) . . . . . 2
	\unkern . . . . . 93, 94, 128, 141	
	\unpenalty 93, 94, 128,	
<b>S</b>	144, 145, 147, 150	<b>X</b>
\showbox . . . . . 111	\unskip . . . . .	\xdef . . . . . 100
\showboxdepth . . . . . 111	93, 94, 128, 141, 150	
\supereject . . . . . 99, 103	\unvbox . . . . . 93, 113, 117, 137	
<b>Z</b>	<b>Y</b>	<b>Z</b>
		\zref@extract . . . . . 196