

Continue: Continuation marks on recto (odd) pages*

Peter Wilson[†]with Donald Arseneau and Merciadri Luca
Herries Press

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Abstract

The `continue` package provides for a variety of continuation indicators on recto (odd numbered) pages in a twosided document when the text continues on the following (verso) page.

Contents

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 preceeding page.

This manual is typeset according to the conventions of the \LaTeX `DOCSTRIP` utility which enables the automatic extraction of the \LaTeX macro source files [?].

Section ?? 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 [?] which among other things gets the first word on the next page and `turnpageetex` by Merciadri Luca [?] for placing something at the bottom of the text block.

*This file (`continue.dtx`) has version number v0.1, last revised 2015/12/09.

[†]`herries dot press at earthlink dot net`

The `fwlw` package includes the following statement:

Copyright (C) 1993,1995 by Donald Arseneau Vancouver, Canada, email `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 LaTeX Project Public License and I have taken the liberty of extending its functionality slightly, as allowed.

2.1 Options

There are two 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 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.

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.

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 formatted. Its definition is:

```
\newcommand*{\flagword}{\preflagword\usebox\NextWordBoxC\postflagword}
```

where `\NextWordBoxC` 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

`\contdrop` 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 \langle*try\rangle
2 %% trycontinue.tex An example usage of the continue package
3 %%
4 %% The document is set in two columns 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 %% Please contact me, Peter Wilson at herries.press@earthlink.net, if there
10 %% are problems other than the aesthetics.
11 %%
12 \documentclass[%
13 twoside,
```

```

14 twocolumn,
15 a6paper
16 ]%
17 {memoir}
18
19 \usepackage%
20 %% [margin]%
21 %% [word]%
22 [margin,word]%
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 \newcommand{\Footnote}[1]{
33 \let\Footnote\footnote
34
35 First\Footnote{Foot 1} \lipsum[1]
36
37 Second\Footnote{Foot 2} \lipsum[2]
38
39 Third\Footnote{Foot 3} \lipsum[3]
40
41 Fourth\Footnote{Foot 4} \lipsum[4]
42
43 Fifth\Footnote{Foot 5} \lipsum[5]
44
45 Sixth\Footnote{Foot 6} \lipsum[6]
46
47 \end{document}
48
49 \</try>

```

4 The continue code

Announce the name and version of the package, which requires L^AT_EX 2_ε and the atbegshi, picture, zref-abspage and zref-lastpage packages and has options margin and word.

```

50 \*usc)
51 \NeedsTeXFormat{LaTeX2e}
52 \ProvidesPackage{continue}[2015/12/04 v0.1 Continues on the following page]
53 \PackageInfo{continue}{This is continue using e-TeX.}
54

```

```

\ifcontmargin Now for the options.
\ifcontword 55 \newif{\ifcontmargin} \contmarginfalse
56 \newif{\ifcontword} \contwordfalse
57 \DeclareOption{margin}{\contmargintrue}
58 \DeclareOption{word}{\contwordtrue}
59 \ProcessOptions
60

```

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

```

61 \RequirePackage{atbegshi}
62 \RequirePackage{picture}
63 \RequirePackage{zref-abspage}
64 \RequirePackage{zref-lastpage}
65

```

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.

```

66 % -----
67 \ifcontword
68 %

```

`\LWC@pen` Declare a *unique* penalty flag as a value.

```

69 \mathchardef\LWC@pen 13452

```

`\FirstWordBoxC` Allocate box registers

```

\NextWordBoxC 70 \newbox\FirstWordBoxC \global\setbox\FirstWordBoxC\hbox{}
\LastWordBoxC 71 \newbox\NextWordBoxC \global\setbox\NextWordBoxC\hbox{}
\LWC@box 72 \newbox\LastWordBoxC \global\setbox\LastWordBoxC\hbox{}
\LWC@saved 73 \newbox\LWC@box \global\setbox\LWC@box\hbox{}
74 \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 routine. `\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.

```

75 \edef\FWLWCnorm@L@output{\the\output}
76
77 \output{\@tempswafalse
78 \ifnum \outputpenalty>-\@MM \ifnum \outputpenalty<-\@M \@tempswatrue\fi\fi
79 \if@tempswa % special (float) output
80 % \message{Float handler: penalty=\the\outputpenalty}%
81 \FWLWCnorm@L@output
82 \else
83 \ifvoid\LWC@saved % end of real page
84 % \message{End of real page}%

```

```

85     \global\setbox\LWC@saved\copy\@cclv % save page
86 %\begin{comment}
87     \setbox\@tempboxa\vbox{\unvbox\@cclv \unskip\unkern\unpenalty%
88     \unskip\unkern\unpenalty \unskip\unkern\unpenalty
89     \setbox\@tempboxa\lastbox
90     \LWC@getlast@word\@tempboxa\LastWordBoxC
91     }
92 %\end{comment}
93     \ifnum\outputpenalty>-\@MM % not \supereject
94     \xdef\LWC@vsize{\global\vsizethe\vsizethe\holdinginserts}%
95     \global\holdinginserts\the\holdinginserts}%
96     \global\vsizethe\@one
97     \else % \supereject, just output, don't look for word on next page
98 %     \message{caused by super-eject.}
99     \global\setbox\@cclv\box\LWC@saved
100    \global\setbox\NextWordBoxC\hbox{}%
101    \FWLWCnorm@L@output
102    \global\setbox\FirstWordBoxC\box\NextWordBoxC
103    \fi
104    \else % saved page => just did tiny page to get next word
105 %    \message{Just got next line:}\tracingall\showboxdepth2 \showbox\@cclv}%
106    \setbox\@tempboxa\vbox{\penalty\LWC@pen\unvcopy\@cclv \LWC@getall@boxes
107    \ifvbox\LWC@box \penalty\LWC@pen\unvbox\LWC@box \LWC@getall@boxes\fi
108    \ifvbox\LWC@box \global\setbox\NextWordBoxC\hbox{}\else
109    \LWC@getfirst@word\LWC@box\NextWordBoxC
110    \fi}% Return tiny page to page list:
111    \unvbox\@cclv \ifnum\outputpenalty<-\@M \penalty\outputpenalty\fi
112    \LWC@vsize\relax
113    \global\setbox\@cclv\box\LWC@saved
114    \FWLWCnorm@L@output
115    \global\setbox\FirstWordBoxC\box\NextWordBoxC
116 \fi\fi}
117

```

`\LWC@getlast@word` Globally get last "word" from a box #1 into another box #2

```

118 \def\LWC@getlast@word#1#2{\setbox\@tempboxa\vbox{\hsize\maxdimen \@parboxrestore
119 \hyphenpenalty\@M \exhyphenpenalty\@M
120 \rightskip\fill \looseness\@M \linepenalty\z@
121 \noindent\unhbox#1\endgraf
122 \unskip\unkern\unpenalty \global\setbox\LWC@box\lastbox
123 }\LWC@repack{#2}}
124

```

`\LWC@getfirst@word` Globally get first "word" from a box #1 into another box #2

```

125 \def\LWC@getfirst@word#1#2{\setbox\@tempboxa\vbox{\@parboxrestore
126 \parshape\thr@@ \z@\z@ \z@\z@ \z@\maxdimen \parfillskip\fill
127 \hyphenpenalty\@M \exhyphenpenalty\@M
128 \hbadness\@MM \overfullrule\z@ \hfuzz\maxdimen
129 \ifhbox#1\noindent

```

```

130   \vadjust{\penalty\LWC@pen}\penalty-\@M\unhbox#1% eliminate previous \leftskip
131   \else\ifvbox#1\penalty\LWC@pen\unvbox#1\fi\fi
132   \endgraf
133   \@tempcnta\z@ \LWC@getall@boxes}\LWC@repack{#2}}
134

```

`\LWC@getall@boxes` Go through a vertical list that starts with special penalty

```

135 \def\LWC@getall@boxes{\global\setbox\LWC@box\lastbox \unskip\unkern \unskip\unkern
136   \let\@tempa\relax
137   \ifvoid \LWC@box \advance\@tempcnta\@ne \else \@tempcnta\z@ \fi
138   \ifnum\lastpenalty=\LWC@pen \else \unpenalty\fi
139   \ifnum\lastpenalty=\LWC@pen \else \unpenalty\fi
140   \ifnum\lastpenalty=\LWC@pen \else \ifnum\@tempcnta<5
141     \let\@tempa\LWC@getall@boxes \fi \fi \unpenalty \@tempa}
142

```

`\LWC@repack` Put contents of `\LWC@box` into hbox #1

```

143 \def\LWC@repack#1{\global\setbox#1\hbox{\ifhbox\LWC@box
144   \unhbox\LWC@box\unskip\unskip\unpenalty\unskip
145   \else\ifvbox\LWC@box\box\LWC@box\fi\fi}}

```

Now finish with the `fwlw` code when it is not needed.

```
146 \fi
```

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

```

147 % -----
148 %

```

`\preflagword` The user's macros

`\postflagword`

```

149
150 \flagcont \newcommand*\preflagword{}
151 \flagend \newcommand*\postflagword{}
152 \flagword \newcommand*\flagcont}{Continued}
153 \contsep \newcommand*\flagend}{End}
154 \contdrop \newcommand*\flagword}{\preflagword\usebox\NextWordBoxC\postflagword}
155 \newlength{\contsep}\setlength{\contsep}{\marginparsep}
156 \newlength{\contdrop}\setlength{\contdrop}{0.5\footskip}

```

Adjust `\flagcont` when the `word` option is used.

```

157 \ifcontword
158   \let\flagcont\flagword
159 \fi

```

```

160 \AtBeginShipout{%
161 \AtBeginShipoutUpperLeft{%

```

Specify the location of the continuation marks.

```

162   \ifodd\c@page
163     \dimen1=1in
164     \advance\dimen1 by \textwidth

```

```

165     \advance\dimen1 by \oddsidemargin
166     \dimen3=1in
167     \advance\dimen3 by \topmargin
168     \advance\dimen3 by \headheight
169     \advance\dimen3 by \headsep
170     \advance\dimen3 by \textheight
171     \ifcontmargin
172     \advance\dimen1 by \contsep
173     \else
174     \advance\dimen3 by \contdrop
175     \fi

Output the page and marks.
176     \ifnum\zref@extract{LastPage}{abspage}>\c@abspage
177     \ifcontmargin
178     \put(\dimen1,-\dimen3){\flagcont}%
179     \else
180     \put(\dimen1,-\dimen3){\llap{\flagcont}}%
181     \fi
182     \else
183     \ifcontmargin
184     \put(\dimen1,-\dimen3){\flagend}%
185     \else
186     \put(\dimen1,-\dimen3){\llap{\flagend}}%
187     \fi
188     \fi%
189     \fi%
190 }}
191 %
192 </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`).