The **FNPCT** package basically does two things to footnotes: if footnote marks are followed by a punctuation mark the order of footnote and punctuation mark is reversed and the kerning gets adjusted. As a side effect a new method of creating multiple footnotes and some other features are provided.

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1 License and Requirements

Permission is granted to copy, distribute and/or modify this software under the terms of the LaTeX Project Public License (LPPL), version 1.3 or later (http://www.latex-project.org/lppl.txt). The software has the status "maintained."

\texttt{FNPCT} depends on the packages \texttt{l3kernel}, \texttt{xparse} and \texttt{l3keys2e} from the \texttt{l3packages} bundle, \texttt{scrlfile} from the KOMA-Script bundle [Koh10], and translations [Nie11b].

2 What’s it all about?

2.1 Introduction

The purpose of this package is to offer kerning for footnote marks, i.e. the superscripts. This is not appropriate for all superscripts. Symbols must be handled differently than numbers. And of course the amount depends on the chosen font. Robert Bringhurst says in \textit{The Elements of Typographic Style}:

\begin{quote}
Superscripts frequently come at the ends of phrases or sentences. If they are high above the line, they can be kerned over a comma or period, but this may endanger readability, especially if the text is set in a modest size. \textit{The Elements of Typographic Style} [Bri91]
\end{quote}

\texttt{FNPCT} can not make these decisions for you. It sets some initial values for the comma and the full stop which looked good to me with the tested fonts. Additionally it kerns the superscripts away from words when it follows directly. The amounts of the kerning can be changed using an option.

As a side effect \texttt{FNPCT} switches the order of the superscript and the following comma or full stop. Additional punctuation marks can be added to the switching behaviour and the amount of kerning can be set for each punctuation mark individually.

2.2 Basics

The \texttt{FNPCT} package basically does two things to footnotes: if footnote marks are followed by a comma or a full stop\footnote{More punctuation marks can be added through a package option.} the order of footnote and punctuation mark is reversed and the kerning gets adjusted. As a side effect a new method of creating multiple footnotes\footnote{like} is provided, see section 4 for details.

In what way is the kerning adjusted? After being placed behind the punctuation mark the footnote mark is moved a little bit back, namely by the amount specified with the option \texttt{after-punct-space} (see section 3). If the footnote mark follows a word \textit{without} being followed by a punctuation,\footnote{this} there (obviously) is no order switching and a little space is inserted before
the footnote mark, namely the amount specified by the option \texttt{before-footnote-space} (see section 3).

\begin{itemize}
\item \texttt{\renewcommand\thempfootnote{\arabic{mpfootnote}}}
\end{itemize}

Now, let’s see some action:

\begin{itemize}
\item \texttt{\begin{minipage}{.4\linewidth} The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}. \end{minipage}}
\end{itemize}

The three little pigs built their houses out of straw,\footnote{not to be confused with hay} sticks\footnote{or lumber according to some sources} and bricks.\footnote{probably fired clay bricks}

To ensure that the kerning is set the right way the footnote must be placed \texttt{before} the full stop or the comma. \textit{The command can look ahead but not look back}. This means if you place the \texttt{\footnote} command after a full stop or a comma it is treated as if following a word, \textit{i.e.} a thin space is inserted: effectively the opposite of the desired behaviour.

The order-switching can be prevented using a package option since not all countries and languages have the same typographic conventions. In this case the full stop and the comma are moved a bit back.

<table>
<thead>
<tr>
<th>\texttt{punct-after = true}</th>
<th>\texttt{false}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default: \texttt{false}</td>
<td></td>
</tr>
</tbody>
</table>

\begin{tabular}{ll}
\hline
\texttt{without FNPCT} & \texttt{with FNPCT} \\
\hline
text.\footnote{1} & text.\footnote{1} \\
text\footnote{1} & text\footnote{1} \\
\hline
\end{tabular}

\textit{Figure 1: The effect of FNPCT.}
2 What’s it all about?

Like all options it can also be set using the setup command.

\setfnpct{⟨options⟩}

Set up options. Can be used anywhere in the document. Some options can only be set in the preamble, though.

2.3 Temporarily disable or enable switching

One maybe want to put some footnote marks before the punctuation and some after, for example because the first one describes a single word but the second one a whole sentence. For this purpose \texttt{FNPC}T adds a * argument to \texttt{footnote} and \texttt{footnotemark}. The complete new syntax now is as follows:

\footnote*[⟨num⟩]{⟨footnote text⟩}{⟨tpunct⟩}

new * argument added. \texttt{⟨tpunct⟩} is the optional trailing punctuation mark.

\footnotemark*[⟨num⟩]{⟨tpunct⟩}

new * argument added. \texttt{⟨tpunct⟩} is the optional trailing punctuation mark.

The * argument temporarily turns off the punctuation/footnote switching. In case you set \texttt{punct-after = {true}} the * argument temporarily enables the switching.
3 Options

The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}.

2.4 Language Specific Settings

Package babel’s [Bra19] French settings redefine \@footnotemark. \texttt{FNPCT} resets this redefinition but sets the \texttt{before-footnote-space} equal to a thin space (.16667em).

2.5 Changes in version 0.5

- the option \texttt{bigfoot-default-top} has been removed
- the \texttt{manyfoot} package is now supported

3 Options

Most package options are listed below. They all can be set as a package option or with the \texttt{setfnpct} command. Most of them are for adjusting the kerning.

Underlined values are set if the option is used without value.

\begin{itemize}
  \item \texttt{add-punct-marks} = ⟨mark⟩{⟨space after⟩}{⟨space before⟩}
    Add another punctuation mark for the position switching and specify kerning if necessary. An existing entry will be overwritten. This option accepts a list of marks.
  \item \texttt{remove-punct-marks} = {⟨mark⟩}
    Remove punctuation mark from the kerning/position switching behaviour. This option accepts a list of marks.
  \item \texttt{after-dot-space} = ⟨⟨dim⟩⟩
    Default: -.06em
    Space to be inserted after a footnote mark and before the full stop (“footnote after dot”). A negative space will move the full stop further to the footnote mark.
\end{itemize}
after-comma-space = \{\langle \text{dim} \rangle \}

Space to be inserted after a footnote mark and before the comma (“footnote after comma”). A negative space will move the comma further to the footnote mark.

after-punct-space = \{\langle \text{dim} \rangle \}

Set all spaces, i.e. also the ones for marks you’ve added with add-punct-marks.

punct-after = true | false

Default: false

When true the punctuation sign will be placed after the footnote.

before-dot-space = \{\langle \text{dim} \rangle \}

Space to be inserted after a footnote mark and before the full stop (“footnote before dot”), i.e. with punct-after = {true}.

before-comma-space = \{\langle \text{dim} \rangle \}

Space to be inserted after a footnote mark and before the comma (“footnote before comma”), i.e. with punct-after = {true}.

before-punct-space = \{\langle \text{dim} \rangle \}

Set all spaces, i.e. also the ones for marks you’ve added with add-punct-marks.

before-footnote-space = \{\langle \text{dim} \rangle \}

Space to be inserted between a word and the following footnote mark.

dont-mess-around = true | false

Default: false

Sets all mentioned lengths to 0pt and punct-after = {true}. Basically this should look like as if you hadn’t loaded \FNPCT except the multiple footnote commands and \innernote are still available, see sections 4 and 5, respectively.

multiple = true | false

Default: false

Lets \footnote be equal to \multfootnote.

mult-fn-delim = \{\langle \text{delimiter} \rangle \}

Sets the delimiter for the \multfootnote command.

mult-fn-sep = \{\langle \text{separator} \rangle \}

Sets the separator between multiple footnote marks.

normal-marks = true | false

Default: false

Sets the footnote marks in the foot not as superscripts but as normal font. If you’re not using a KOMA-Script class this option will load the package scrextend. See section 6 for more information. This option can only be set in the preamble.

So if you want to extend the punctuation switching and kerning to other punctuation marks you can do something like this:
The three little pigs built their houses out of straw\footnote{not to be confused with hay}? Sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}!

1. not to be confused with hay
2. or lumber according to some sources
3. probably fired clay bricks

Let’s take a look at an example with some ridiculous settings:
3 Options

The three little pigs built their houses out of straw, sticks and bricks.\footnote{not to be confused with hay, or lumber according to some sources, probably fired clay bricks.}

\begin{minipage}{.4\linewidth}
\noindent The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}.
\end{minipage}

And now the same with switched order:

\begin{minipage}{.4\linewidth}
\noindent The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}.
\end{minipage}

In case the automatic kerning doesn’t work for whatever reason the spaces are available as user commands as well:

\kfp
Insert after-dot-space or (if punct-after = {true}) before-dot-space.

\kfc
Insert after-comma-space or (if punct-after = {true}) before-comma-space.

Some of the options are explained in a bit more detail in the next sections.
4 Multiple footnotes

4.1 Basics

Since multiple footnotes have to be treated differently,\textsuperscript{5,6} \textsc{FNPCT} provides an extra command for that:

\texttt{\textbackslash multfootnote}*(list);(of);(footnotes)}{tpunct}

Different footnotes are separated with a semicolon. The * turns the footnote/punctuation switching temporarily off.

\begin{minipage}{.4\linewidth}
\noindent The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\multfootnote{probably fired clay bricks;[5]or something else}.
\end{minipage}

\begin{enumerate}
\item not to be confused with hay
\item or lumber according to some sources
\item probably fired clay bricks
\item or something else
\end{enumerate}

Every of the items of the list has an optional argument equivalent to the optional argument of \texttt{\footnotetext}:

\texttt{\textbackslash multfootnote}*[\{mark\}]{footnote text};...

The syntax of \texttt{\textbackslash multfootnote}'s footnote text argument.

\begin{minipage}{.4\linewidth}
\noindent The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\multfootnote{probably fired clay bricks;[5]or something else}.
\end{minipage}

5. see these footnotes
6. for an example
The three little pigs built their houses out of straw, sticks and bricks.

1. not to be confused with hay
2. or lumber according to some sources
3. probably fired clay bricks
4. or something else

Additionally every item has an optional * which only invokes \footnotetext. This enables for example to set nested footnotes without disrupting the multiple setting. The following example is shown in figure 2:

\begin{document}
\noindent The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\multfootnote{probably fired clay bricks;*or something else;what do I know}.
\end{document}

### 4.2 The delimiter and separator

Since the semicolon might be part of the footnote text you might have some trouble. But there are ways around. Maybe try enclosing it in braces:

\begin{minipage}{.4\linewidth}
\noindent The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources}
\end{minipage}
4 Multiple footnotes

The three little pigs built their houses out of straw,\textsuperscript{1} sticks\textsuperscript{2} and bricks.\textsuperscript{3,5}

\textsuperscript{1}not to be confused with hay
\textsuperscript{2}or lumber according to some sources
\textsuperscript{3}probably fired clay bricks\textsuperscript{4}
\textsuperscript{4}or something else
\textsuperscript{5}what do I know

\textbf{Figure 2:} Nested footnotes.

There also are options which lets you choose the (input) delimiter and the (output) separator:

\begin{verbatim}
\setfnpct{mult-fn-delim=//,mult-fn-sep=;}
\begin{minipage}[t]{.4\linewidth}

\noindent The three little pigs built their houses out of straw,\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\multfootnote{probably fired clay bricks;\ or something else\;what do I know}.

\end{minipage}
\end{verbatim}

\texttt{mult-fn-delim} = \{⟨delimiter⟩\} \hspace{1cm} Default: ;
Choose delimiter for the \multfootnote.

\texttt{mult-fn-sep} = \{⟨separator⟩\} \hspace{1cm} Default: ,
Choose the separator that is put between footnote marks.

\begin{verbatim}
1 \setfnpct{mult-fn-delim=//,mult-fn-sep=;}
2 \begin{minipage}[t]{.4\linewidth}
3 \noindent The three little pigs built their houses
4 out of straw\footnote{not to be confused with hay},
5 sticks\footnote{or lumber according to some sources} and bricks\multfootnote{probably fired clay bricks;\ or something else\;what do I know}.
\end{minipage}
\end{verbatim}
The three little pigs built their houses out of straw, sticks and bricks.\footnote{not to be confused with hay}, \footnote{or lumber according to some sources} \footnote{probably fired clay bricks; or something else}.

\renewcommand*{\thempfootnote}{\fnsymbol{mpfootnote}}
\setfnpct{mult-fn-delim=;, mult-fn-sep=}
\begin{minipage}[t]{.4\linewidth}
\noindent

\begin{itemize}
  \item[1.] not to be confused with hay
  \item[2.] or lumber according to some sources
  \item[3.] probably fired clay bricks; or something else
  \item[4.] what do I know
\end{itemize}

\end{minipage}

\section*{4.3 Automagic}

If you want you can turn all footnotes into \multfootnote.

\texttt{multiple = true|false}

Default: false

Let \footnote behave like \multfootnote. This option can only be set in the preamble.
The three little pigs built their houses out of straw, sticks and bricks.

1. not to be confused with hay
2. or lumber according to some sources
3. probably fired clay bricks
4. or something else

5 Nested Footnotes

\texttt{FNPCT} provides preliminary support for nested footnotes. There are some restrictions, though. The command below can be used inside \texttt{footnote} and \texttt{multfootnote}, but not inside another \texttt{innernote}. \texttt{innernote} really is a “inner footnote”, it doesn’t work with endnotes, for example.

\begin{verbatim}
\innernote{[\text{mark}]}{(\text{text})}(\text{tpunct})
\end{verbatim}

A nested footnote.

The inner node uses a \texttt{footnotemark} internally and the mark will be set with the definition it has at begin document.

The output of the following code can be seen in figure 3.

\begin{verbatim}
\documentclass{article}
\usepackage[
  paperwidth=.5\textwidth,
  paperheight=12\baselineskip,
  margin=5pt,
  bottom=1.5cm]{geometry}
\usepackage{fnpct}
\begin{document}
\noindent The three little pigs built their houses out of straw, sticks and bricks.
\footnote{not to be confused with hay}, \footnote{or lumber according to some sources} and \footnote{probably fired clay bricks \innernote{or not}}.
\end{document}
\end{verbatim}

This is especially useful if you have more than one additional footnote inside a footnote, a case that can’t be solved in a satisfying (\textit{i.e.} automatic) way with the method mentioned in section 4. See figure 4 for the output of this code:
The three little pigs built their houses out of straw,\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks\footnote{just guessing}}.

\footnote{or not}

\begin{figure}
\centering
\begin{minipage}{\textwidth}
The three little pigs built their houses out of straw,\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks\footnote{just guessing}}.
\end{minipage}
\caption{\texttt{\texttt{innernote}} example (a)}
\end{figure}

\begin{figure}
\centering
\begin{minipage}{\textwidth}
\footnote{or not}
\end{minipage}
\caption{\texttt{\texttt{innernote}} example (b)}
\end{figure}

\begin{verbatim}
\documentclass{article}
\usepackage{
pct}
\usepackage{fnpct}
\begin{document}
\indent The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably\texttt{\texttt{innernote}}{just guessing}} fired clay bricks\footnote{or not}}.
\end{document}
\end{verbatim}
The three little pigs built their houses out of straw,\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks.\footnote{probably}.

\begin{figure}[h]
\centering
\begin{minipage}{.9\linewidth}
\fbox{
\begin{tabular}{|c|}
\hline
The three little pigs built their houses out of straw,\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks.\footnote{probably}.
\hline
\end{tabular}}
\end{minipage}
\caption{\innernote example (c)}
\end{figure}

\innernote can also be used to escape minipages. In this case use \innernote as a replacement for \footnote and call this command later:

\writeinnernotes

Writes all \footnotetexts to the inner footnotes when invoked. This is usually done automatically by the \footnote command but there are possible needs for it.

See figure 5 for the output of the following code:

\begin{verbatim}
\documentclass{article}
\usepackage[paperwidth=.5\textwidth, paperheight=12\baselineskip, margin=5pt, bottom=1.5cm]{geometry}
\usepackage{fnpct}
\begin{document}
\begin{minipage}{.9\linewidth}
The three little pigs built their houses out of straw\innernote{not to be confused with hay}, sticks\innernote{or lumber according to some sources} and bricks\innernote{probably}.
\end{minipage}\writeinnernotes
\end{document}
\end{verbatim}
6 Normal notes

The three little pigs built their houses out of straw,\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}.

\begin{figure}
\centering
\begin{tabular}{|c|c|c|c|}
\hline
1 & 2 & 3 & \\
\hline
not to be confused with hay & or lumber according to some sources & probably fired clay bricks & \\
\hline
\end{tabular}
\caption{Demonstration of the \texttt{normal-marks} option.}
\end{figure}

6 Normal notes

The package option \texttt{normal-marks} (see p. 6) changes the layout of the footnote marks in the foot by using KOMA-Script’s \texttt{deffootnote} command:

\begin{verbatim}
\deffootnote[⟨mark indent⟩]{⟨indent⟩}{⟨par indent⟩}{⟨format code⟩}
\end{verbatim}

KOMA-Script’s command to define the output of the footnote text in the foot.

The following code is shown in figure 6.

\begin{verbatim}
\documentclass{article}
\usepackage[paperwidth=.5\textwidth, paperheight=12\baselineskip, margin=5pt, bottom=1.5cm]{geometry}
\usepackage[normal-marks]{fnpct}
\begin{document}
\noindent The three little pigs built their houses\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}.
\end{document}
\end{verbatim}

The three indent values used by \texttt{FNPCT} can be changed with the following options:
normal-mark-width = \langle\langle dim\rangle\rangle

The width of the box within which the marks are set.

normal-indent = \langle\langle dim\rangle\rangle

The indent of each footnote line except the first.

normal-par-indent = \langle\langle dim\rangle\rangle

Additional indent of a new paragraph inside the footnote text.

7 Other packages

\texttt{fnpct} tries its best to support other footnote and related packages. Each of the following subsections is dedicated to one of these packages and if and how they work together with \texttt{fnpct}. Fortunately most of them do quite well.

7.1 bigfoot and manyfoot

The bigfoot [Kas15] package extends the possibilities of the manyfoot package [Roz05] (see section 7.7). The main visible feature is to use different classes of footnotes which are typeset in different apparatus on the bottom of the page.

\texttt{fnpct} is compatible with bigfoot.

You need to be a bit cautious, though: \textit{verbatim material won’t work inside footnotes anymore.} You can of course use Bruno L. Floch’s cprotect [Flo11] if you really need verbatim material in footnotes and want to use \texttt{fnpct}. Since \texttt{fnpct} does not redefine any \texttt{footnotetext} like command it will still work inside one of them.

For every footnote class defined with \texttt{DeclareNewFootnote} the commands \texttt{footnote(class)} and \texttt{footnotemark(class)} are redefined with the starred variant and a \texttt{multifootnote(class)} is defined. The \texttt{multiple} option will turn all \texttt{footnote(class)} commands into the corresponding \texttt{multifootnote(class)}.

Since this document cannot easily combine every footnote package at the same time for demonstration purposes the following code is shown in figure 7:

```
\documentclass{article}
\usepackage[
pct, paperwidth=.5\textwidth, paperheight=12\baselineskip, margin=5pt, bottom=1.5cm]{geometry}
\usepackage{bigfoot}
\usepackage{fnpct}
\setfnpct{multiple}
```

7. If you find some package missing please let me know.
The three little pigs built their houses out of straw\footnote{not to be confused with hay\textsuperscript{a}}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks; or something}\footnote{let alone grass}.

\footnote{\textsuperscript{a}not to be confused with hay\textsuperscript{a}}
\footnote{or lumber according to some sources}
\footnote{probably fired clay bricks}
\footnote{or something}
\footnote{let alone grass}

\textbf{Figure 7: bigfoot example}

\begin{verbatim}
\DeclareNewFootnote{default}
\DeclareNewFootnote[para]{B}{alph}
\begin{document}
\begin{noindent}The three little pigs built their houses out of straw\footnote{not to be confused with hay\textsuperscript{a}}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks; or something}.
\end{noindent}
\end{document}
\end{verbatim}

7.2 endnotes

The endnotes \cite{Lav03} package provides the commands \texttt{\endnote} and \texttt{\endnotemark} which can be used to output all notes at the end of a chapter, say.

If the package is loaded both commands are adapted\textsuperscript{8}:

\begin{verbatim}
% `fnpct' does this for you:
\AdaptNote\endnote\multendnote
\AdaptNoteMark\endnotemark
\end{verbatim}

Everything else stays the same:

\begin{itemize}
\item % `fnpct' does this for you:
\item \AdaptNote\endnote\multendnote
\item \AdaptNoteMark\endnotemark
\end{itemize}

\textsuperscript{8} see section 8 on manual adaption
The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}.

\begin{itemize}
\item Again, a common error is to assume that all notes are created with the `\footnote` command. In fact, there are many other ways to add notes, such as the `\footnotesize` command.
\item Another common mistake is to forget to include the `\end{document}` command at the end of the document.
\end{itemize}

\section{Notes}
\begin{itemize}
\item The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}.\footnote{or something else}
\item The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}.\footnote{or something else}
\end{itemize}

\subsection{enotez}

The enotez package provides the command `\endnote` which can be used to output all notes at the end of a chapter, say.

If the package is loaded the command is adapted:

\begin{minipage}[t]{.4\linewidth}
\noindent The three little pigs built their houses out of straw, sticks and bricks.
\end{minipage}

\section*{Notes}
\begin{itemize}
\item not to be confused with hay
\item or lumber according to some sources
\item probably fired clay bricks
\item or something else
\end{itemize}

\begin{minipage}[t]{.4\linewidth}
\noindent The three little pigs built their houses out of straw, sticks and bricks.
\end{minipage}

\section*{Notes}
\begin{itemize}
\item not to be confused with hay
\item or lumber according to some sources
\item probably fired clay bricks
\item or something else
\end{itemize}

\section*{Notes}
\begin{itemize}
\item not to be confused with hay
\item or lumber according to some sources
\item probably fired clay bricks
\item or something else
\end{itemize}

9. see section 8 on manual adaption
7 Other packages

7.4 fixfoot

The fixfoot [Fai10] package provides a possibility to create repeating footnotes. \texttt{FNPCT} supports this package provided you take care of the following:

\texttt{\textbackslash DeclareFixedFootnote only in the preamble but after loading FNPCT.}

\texttt{\textbackslash DeclareFixedFootnote\{\texttt{cs}\}\{footnote text\}} is used to store the \texttt{footnote text} in \texttt{cs} which in turn creates a footnote mark for it but doesn’t repeat the footnote text on the same page in the bottom. The document needs several runs to get all the numbers and footnotes right.

Every fixed footnote declared with \texttt{\textbackslash DeclareFixedFootnote} gets an optional * to prevent the punctuation switching. \textit{There is no mult-variant of the fixed notes!}

Since this document cannot easily combine every footnote package at the same time for demonstration purposes the following code is shown in figure 8:

```
\documentclass{article}
\usepackage[
  paperwidth=.55\textwidth,\n  paperheight=12\baselineskip,\n  margin=5pt,\n  bottom=1.5cm\]{geometry}
\usepackage{fixfoot}
\usepackage{fnpct}
\DeclareFixedFootnote{\myfn}{I'm confused: what do I want to say?}
\begin{document}
  \indent The three little pigs\myfn\ built their houses\myfn*,
  sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}.
\end{document}
```

7.5 footmisc

The footmisc package [Fai11] provides a range of options to customize footnotes, for example output them as margin notes or count footnotes per page.

Testing showed no incompatibilities with footmisc. The only thing is that you won’t have to (and shouldn’t) use its \texttt{multiple} option.
7 Other packages

The three little pigs\footnote{1} built their houses out of straw\footnote{1}, sticks\footnote{2} and bricks.\footnote{3}

\footnotetext[1]{Im confused: what do I want to say?}
\footnotetext[2]{or lumber according to some sources}
\footnotetext[3]{probably fired clay bricks}

\begin{minipage}[t]{.4\linewidth}
\noindent The three little pigs built their houses out of straw\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources}
\end{minipage}

\hfill

\textbf{Figure 8:} fixfoot example

7.6 footnote

Unfortunately $\textsc{fnpc}$ is not compatible with the footnote package [Woo97]. Or more precisely it is not compatible if the command pair $\texttt{savenotes}/\texttt{spewnotes}$ is invoked. This disables footnote’s environments as well as its environment escaping mechanism through $\texttt{makesavenoteenv}$.

7.7 manyfoot

The package manyfoot [Roz05] is supported. See section 7.1 for more details.

7.8 pagenote

The package pagenote [Wil09] is supported and its $\texttt{pagenote}$ command is treated the same way as all other note commands: it got an optional * argument and an additional $\texttt{multipagenote}$ is defined.

7.9 parnotes

The function of the package parnotes [Hug19] is similar to the endnotes package. basically it allows to output the footnote text after a paragraph, either by using a special environment or by invoking $\texttt{parnotes}$.

If parnotes is loaded $\textsc{fnpc}$ extends its functionality analogous to the one of endnotes. Again the $\texttt{multiple}$ option turns all $\texttt{parnotes}$ into $\texttt{multiparnotes}$.
The three little pigs built their houses out of straw, sticks and bricks.

\parnote{probably fired clay bricks; or something else}.

\begin{minipage}{.4\linewidth}

\noindent The three little pigs built their houses out of straw, sticks and bricks.
\parnote{not to be confused with hay}, sticks\parnote{or lumber according to some sources} and bricks\parnote{probably fired clay bricks; or something else}.

\end{minipage}

\section{sepfootnotes}
\texttt{fnpct} supports the sepfootnotes package [dlim16]. Each note type you have created with one of the commands

\begin{verbatim}
\newfootnotes{⟨prefix⟩}, 
\newendnotes{⟨prefix⟩} or 
\newsymbolfootnotes{⟨prefix⟩}
\end{verbatim}

gets the additional optional * to prevent punctuation switching. Also the corresponding mult-variant \langle prefix\rangle\multnote is defined. The option \texttt{multiple} again turns all note commands into their mult-variant.

You have to use the \texttt{newfootnotes} commands in the document preamble after loading \texttt{fnpct}.

\begin{verbatim}
% preamble \newfootnotes(a)
\anotecontent(first){not to be confused with hay}
\anotecontent(second){or lumber according to some sources}
\anotecontent(third){probably fired clay bricks}
\begin{minipage}{.4\linewidth}
\noindent The three little pigs built their houses out of straw\anote(first), sticks\anote(second) and 
\end{minipage}
\end{verbatim}
The three little pigs built their houses out of straw,\textsuperscript{1} sticks\textsuperscript{2} and bricks.\textsuperscript{3}

\begin{itemize}
  \item not to be confused with hay
  \item or lumber according to some sources
  \item probably fired clay bricks
\end{itemize}

\subsection{sidenotes}

The package sidenotes [TS16] is \textit{not} supported. For the time being users can use the following code:\textsuperscript{10,11}

\begin{verbatim}
\ExplSyntaxOn
\makeatletter
\NewDocumentCommand \origsidenotemark {o}
{\@sidenotes@multichecker
  \IfNoValueOrEmptyTF {#1}
  { \@sidenotes@thesidenotemark { \thesidenote } }
  { \@sidenotes@thesidenotemark {#1} }
  \@sidenotes@multimarker}
\NewDocumentCommand \origsidenote {oo+m}
{ \origsidenotemark [#1]
  \sidenotetext [#1] [#2] {#3}
  \@sidenotes@multimarker
}
\fnpct_create_mult_variant:NN \multsidenote \origsidenote
\RenewDocumentCommand \sidenote {soo+m}
{ \fnpct_handle_note:Nnnnn \origsidenote {#2} {#3} {#4} {#1} }
\RenewDocumentCommand \sidenotemark {so}
{ \fnpct_handle_note:Nnnnn \origsidenotemark {#2} { \q_no_value } { } {#1} }
\makeatother
\ExplSyntaxOff
\end{verbatim}

\textsuperscript{10} Since the code depends on the implementation of sidenotes this may break with each update of sidenotes.
\textsuperscript{11} Thanks to Marijn van Vliet for providing it!
8 Adapting note commands

7.12 snotez

The package snotez [Nie13] is supported and its commands `\sidenote` and `\sidenotemark` are treated the same way as footnotes: they got an optional `*` argument and the additional `\multsidenote` is created. The option `multiple` turns all note commands into their mult-variant.

7.13 tablefootnote

The package tablefootnote [Mün14] is supported and its `\tablefootnote` command is treated the same way as all other note commands: it got an optional `*` argument and an additional `\multtablefootnote` is defined. The option `multiple` turns all note commands into their mult-variant.

7.14 yafoot

Currently no issues are known when using `FNPCT` with one or all of the packages of the yafoot [Nak18] bundle. Just for reference: these packages are `pfnote`, `fpnop` and `dflfnote`.

8 Adapting note commands

If a package is not natively supported you can try and adapt commands yourself. You’ll need to use one of the following commands. Please be aware that if the adapted command does not match the required syntax it will get the required syntax afterwards. This can result in dummy arguments or an overwritten `*` argument.

\AdaptNote{\cs}{\multcs}
This lets `\cs` adapt to the kerning behaviour and adds an optional `*`. It also creates a corresponding mult-variant. The package option `multiple` will now turn `\cs` into its mult-variant. Required syntax: `\cs{⟨oarg⟩}{⟨marg⟩}`

\AdaptNoteNoMult{\cs}
Like `\AdaptNote` but doesn’t create a mult-variant and thus there is no change in behaviour when the option `multiple` is used. Required syntax: `\cs{⟨oarg⟩}{⟨marg⟩}`

\AdaptNoteOpt{\cs}{\multcs}
This lets `\cs` adapt to the kerning behaviour and adds an optional `*`. It also creates a corresponding mult-variant. The package option `multiple` will now turn `\cs` into its mult-variant. Required syntax: `\cs{⟨oarg⟩}{⟨oarg⟩}{⟨marg⟩}`

\AdaptNoteOptNoMult{\cs}
Like `\AdaptNoteOpt` but doesn’t create a mult-variant and thus there is no change in behaviour when the option `multiple` is used. Required syntax: `\cs{⟨oarg⟩}{⟨oarg⟩}{⟨marg⟩}`
Adapting note commands

\AdaptNoteNoOpt{\cs}{\multcs}

Like \AdaptNote but requires \cs not to have an optional argument. If it had one it wouldn’t
have it any more after the adaption. The package option \texttt{multiple} will now turn \cs into its
multi-variant. Required syntax: \texttt{\cs{⟨marg⟩}}

\AdaptNoteNoOptNoMult{\cs}

Like \AdaptNoteNoOpt but doesn’t create a multi-variant. Required syntax: \texttt{\cs{marg}}

\AdaptNoteMark{\cs}

This lets \cs adapt to the kerning behaviour and adds an optional *. Required syntax: \texttt{\cs[⟨oarg⟩]}

\texttt{strict = true|false}

Default: false

When true \AdaptNote (and the others) will issue errors if the note command in question has
already been adapted.

8.1 \texttt{tufte-latex}’s side notes

For example using the \texttt{sidenote} command from the \texttt{tufte-handout} class is easily possible, see
also figure 9:

\documentclass{tufte-handout}
\usepackage[multiple]{fnpct}
\AdaptNote\sidenote\multsidenote
\begin{document}
Some text in the document body\sidenote{Some
text in a sidenote.; A second sidenote.}.
\end{document}

8.2 Adapting \texttt{footcite} and siblings

If you’re willing to sacrifice \texttt{footcite}’s * argument (which it has in some styles) you can adapt
the commands provided by biblatex [Leh19] as well:

\% used in preamble: \AdaptNoteOpt\footcite\multfootcite
\begin{minipage}{.5\linewidth}
\end{minipage}
The three little pigs built their houses out of straw,\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}. The companion has nothing on this topic\footcite{[see]}\footcite{[but there's nothing there]} companion;\footcite{[or see]}\footcite{[but there's also nothing]} knuth:ct:a}.

\end{minipage}

The three little pigs built their houses out of straw,\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks.\footnote{probably fired clay bricks}. The companion has nothing on this topic.\footcite{[see]}\footcite{[but there's nothing there]} companion;\footcite{[or see]}\footcite{[but there's also nothing]} knuth:ct:a}.

The option \texttt{multiple} turns all \texttt{footnote}s into \texttt{multfootnote}s now. Remember that the optional arguments then are inside the braces!

\begin{minipage}{.5\linewidth}
\noindent The three little pigs built their houses out of straw,\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks\footnote{probably fired clay bricks}. The companion has nothing on this topic\footcite{[see]}\footcite{[but there's nothing there]} companion;\footcite{[or see]}\footcite{[but there's also nothing]} knuth:ct:a}.
\end{minipage}

The three little pigs built their houses out of straw,\footnote{not to be confused with hay}, sticks\footnote{or lumber according to some sources} and bricks.\footnote{probably fired clay bricks}. The companion has nothing on this topic.\footcite{[see]}\footcite{[but there's nothing there]} companion;\footcite{[or see]}\footcite{[but there's also nothing]} knuth:ct:a}.

1. not to be confused with hay
2. or lumber according to some sources
3. probably fired clay bricks
4. see GMS94, but there's nothing there.
5. or see Knu84, but there's also nothing.
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