FNPCT

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footnote kerning

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English documentation

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1 License and Requirements

FNPCT is placed under the terms of the LaTeX Project Public License, version 1.3 or later (http://www.latex-project.org/lppl.txt). It has the status "maintained".

FNPCT depends on the l3kernel[1] and xparse which is part of the l3packages[2] bundle.

[1] CTAN: l3kernel [2] CTAN: l3packages

2 What's it all about?

2.1 Basics

The FNPCT package basically does two things to footnotes: if footnote marks are followed by a comma or a dot the order of footnote and punctuation mark is reversed and the kerning gets adjusted.

All examples in this documentation use

```
\renewcommand\thempfootnote{\arabic{mpfootnote}}
```

Now, let's see some action:

```
\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}
```

The three little pigs built their houses
out of straw,[1] sticks[2] and bricks.[3]

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

To ensure that the kerning is set the right way the footnote *must* be placed *before* the dot or the comma. The command can look ahead but not look back. This means if you place the `\footnote` command after a dot or a comma it is treated as if following a word, i.e. a thin space is inserted: effectivly 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.

▸ `punct-after = true/false` ⟶ when `true` the punctuation sign will be placed *after* the footnote.

which like all options 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.

```
\setfnpct{punct-after}
\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}
```

The three little pigs built their houses
out of straw[1], sticks[2] and bricks[3].

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

2.2 Temporarily disable 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 FNPCT adds a * argument to \footnote and \footnotemark:

- \footnote*[<num>]{<footnote text>} ⟶ new * argument added.
- \footnotemark*[<num>] ⟶ new * argument added.

This argument temporarily turns off the punctuation/footnote switching.

```
\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}
```

The three little pigs built their houses
out of straw[1], sticks[2] and bricks.[3]

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

Please be aware that this package is in an experimental state and there hasn't been extensive testing with other footnote behaviour changing packages!

3 Options

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

- `after-dot-space = <dim>` ⟶ space to be inserted after a dot and before the footnote mark. Default = `-.06em`
- `after-comma-space = <dim>` ⟶ space to be inserted after a comma and before the footnote mark. Default = `-.06em`
- `after-punct-space = <dim>` ⟶ set both spaces.
- `punct-after = true/false` ⟶ when `true` the punctuation sign will be placed *after* the footnote.
- `before-dot-space = <dim>` ⟶ space to be inserted before a dot and after the footnote mark, i.e. with `punct-after = true`. Default = `-.15em`
- `before-comma-space = <dim>` ⟶ space to be inserted before a comma and after the footnote mark, i.e. with `punct-after = true`. Default = `-.15em`
- `before-punct-space = <dim>` ⟶ set both spaces.
- `before-footnote-space = <dim>` ⟶ space to be inserted between a word and the following footnote mark. Default = `.06em`
- `multiple = true/false` ⟶ lets `\footnote` be equal to `\multfootnote`
- `mult-fn-delim = <delimiter>` ⟶ sets the delimiter for the `\multfootnote` command.
- `mult-fn-sep = <separator>` ⟶ sets the separator between multiple footnote marks.
- `normal-marks = true/false` ⟶ sets the footnote marks in the foot not as superscripts but as normal font. If you're not using a KOMA-Script[3] class this option will load the package scrextend. *This option can only be set in the preamble.* Default = `false`

Let's take a look at an example with some ridiculous settings:

```
% some ridiculous settings:
\setfnpct{after-punct-space=2pt,before-footnote-space=2pt}
\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}
```

[3] CTAN: KOMA-Script

The three little pigs built their houses
out of straw, [1] sticks [2] and bricks. [3]

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

And now the same with switched order:

```
% some ridiculous settings:
\setfnpct{punct-after,before-punct-space=2pt,before-footnote-space=2
  pt}
\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}
```

The three little pigs built their houses
out of straw [1] , sticks [2] and bricks [3] .

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

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,[4,5] FNPCT provides an extra command for that:

- `\multfootnote*{<list>;<of>;<footnotes>}` ⟶ 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;or
 something else}.
\end{minipage}
```

[4] see these footnotes [5] for an example

The three little pigs built their houses
out of straw,[1] sticks[2] and bricks.[3,4]

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

Every of the items of the list has an optional argument equivalent to the optional argument of `\footnote`:

```
\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}
```

The three little pigs built their houses
out of straw,[1] sticks[2] and bricks.[3,5]

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

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 with 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}
 and bricks\multfootnote{probably fired clay bricks{;}
 or something else;what do I know}.
\end{minipage}
```

The three little pigs built their houses
out of straw,[1] sticks[2] and bricks.[3,4]

[1] not to be confused with hay
[2] or lumber according to some sources
[3] probably fired clay bricks; or something
else
[4] what do I know

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

▸ `mult-fn-delim = <delimiter>` ⟶ choose delimiter for the \multfootnote. Default = ;

▸ `mult-fn-sep = <separator>` ⟶ choose the separator that is put between footnote marks. Default = ,

```
\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}\hfil
\setfnpct{mult-fn-delim=;,mult-fn-sep=}
\renewcommand*\thempfootnote{\fnsymbol{mpfootnote}}
\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}.
\end{minipage}
```

The three little pigs built their houses out of straw,[1] sticks[2] and bricks.[3;4]

[1] not to be confused with hay
[2] or lumber according to some sources
[3] probably fired clay bricks; or something else
[4] what do I know

The three little pigs built their houses out of straw,[*] sticks[†] and bricks.[‡§]

[*] not to be confused with hay
[†] or lumber according to some sources
[‡] probably fired clay bricks
[§] or something else

4.3 Automagic

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

▸ `multiple = true/false` ⟶ let \footnote behave like \multfootnote. *This option can only be set in the preamble.* Default = `false`

```
% in preamble: \setfnpct{multiple}
% or \usepackage[multiple]{fnpct}
\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;or
 something else}.
\end{minipage}
```

The three little pigs built their houses out of straw,[1] sticks[2] and bricks.[3,4]

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

5 Footcites

Preliminary testing suggests that FNPCT seems to be compatible with the \footcite and \footfullcite commands provided by the biblatex[6] package. However, the punctuation switching does not apply to them.

The kerning works …

```
\setfnpct{before-footnote-space=2pt}
\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\footfullcite{companion} has nothing on this
 topic.
\end{minipage}
```

The three little pigs built their houses out of straw,[1] sticks [2] and bricks.[3] The companion [4] has nothing on this topic.

[1] not to be confused with hay
[2] or lumber according to some sources
[3] probably fired clay bricks
[4] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The LaTeX Companion*. 1st ed. Reading, Mass.: Addison-Wesley, 1994. 528 pp.

… but the punctuation switching doesn't:

```
\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\footfullcite{companion}.
\end{minipage}
```

[6] CTAN: biblatex

The three little pigs built their houses out of straw,[1] sticks[2] and bricks.[3] The companion has nothing on this topic[4].

[1] not to be confused with hay
[2] or lumber according to some sources
[3] probably fired clay bricks
[4] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The LaTeX Companion*. 1st ed. Reading, Mass.: Addison-Wesley, 1994. 528 pp.

One can simulate that behaviour by actively setting one of these commands:

- `\kfp` ⟶ insert the `after-dot-space` or (if `punct-after = true`) the `before-dot-space`.
- `\kfc` ⟶ insert the `after-comma-space` or (if `punct-after = true`) the `before-comma-space`.

```
\setfnpct{after-punct-space=-.15em}
\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.\kfp\footfullcite{companion}
\end{minipage}
```

The three little pigs built their houses out of straw,[1] sticks[2] and bricks.[3] The companion has nothing on this topic.[4]

[1] not to be confused with hay
[2] or lumber according to some sources
[3] probably fired clay bricks
[4] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The LaTeX Companion*. 1st ed. Reading, Mass.: Addison-Wesley, 1994. 528 pp.

In case of `punct-after = true`:

```
\setfnpct{punct-after}
\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\footfullcite{companion}\kfp.
\end{minipage}
```

The three little pigs built their houses out of straw[1], sticks[2] and bricks[3]. The companion has nothing on this topic[4].

[1] not to be confused with hay
[2] or lumber according to some sources
[3] probably fired clay bricks
[4] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The LaTeX Companion*. 1st ed. Reading, Mass.: Addison-Wesley, 1994. 528 pp.

6 Other packages

FNPCT tries it best to support other footnote and related packages. Each of the following subsections is dedicated to one of these packages and how they work together with FNPCT.

6.1 bigfoot

The bigfoot[7] [6] package extends the possibilities of the manyfoot[8] package [7], see section 6.4. The main feature is to use different classes of footnotes which are typeset in different "apparatus" (or layers as I like to call them) on the bottom of the page.

FNPCT is compatible with bigfoot. You need to be a bit cautious, though. You need to

- load bigfoot first;
- declare footnotes with \DeclareNewFootnote *after* loading FNPCT but *in* the document preamble.

Also verbatim material won't work inside footnotes anymore. Since FNPCT does not redefine any \footnotetext like command it will still work inside one of them.

For every footnote class defined with \DeclareNewFootnote the commands \footnote<class> and \footnotemark<class> are redefined with the starred variant and a \multfootnote<class> is defined. The multiple option will turn all \footnote<class> commands into the corresponding \multfootnote<class>.

FNPCT has an additional package option which *cannot* be set with \setfnpct and only has any effects if bigfoot has been loaded:

▸ bigfoot-default-top = true/false → sets the default footnote class as top layer. Default = false

Since this package cannot easily combine every footnote package for demonstration purposes the following code is shown in figure 1:

```
\documentclass{article}
\usepackage[
  paperwidth=.5\textwidth,
  paperheight=12\baselineskip,
```

[7] CTAN: bigfoot [8] CTAN: manyfoot

```
  margin=5pt,
  bottom=1.5cm]{geometry}

\usepackage{bigfoot}
\usepackage[bigfoot-default-top]{fnpct}
\setfnpct{multiple}
\DeclareNewFootnote[para]{B}[alph]

\begin{document}

\noindent The three little pigs built their houses
out of straw\footnote*{not to be confused with hay%
\footnoteB{let alone grass}}, sticks\footnote{or
lumber according to some sources} and bricks%
\footnote{probably fired clay bricks;or something}.

\end{document}
```

The three little pigs built their houses out of straw[1], sticks[2] and bricks.[3,4]

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

[a] let alone grass

1

Figure 1: bigfoot example

6.2 endnotes

The endnotes[9] [1] package povides the commands `\endnote` and `\endnotemark` which can be used to output all notes at the end of a chapter, say.

If the package is loaded FNPCT extends its functionality to these commands in the same way it does with footnotes. For example an according `\multendnote` is defined. With the package option `multiple` all `\endnote`s are turned into `\multendnote`s.

[9] CTAN: endnotes

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

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

 \theendnotes
\end{minipage}
```

The three little pigs built their houses out of straw,[1] sticks[2] and bricks.[3]

Notes

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

The three little pigs built their houses out of straw[4], sticks[5] and bricks.[6,7]

Notes

[4] not to be confused with hay
[5] or lumber according to some sources
[6] probably fired clay bricks
[7] or something else

6.3 fixfoot

The fixfoot[10] [2] package provides possibility to create repeating footnotes. FNPCT supports this package provided you take care of the following:

- load the fixfoot package first;
- use \DeclareFixedFootnote only in the preamble but *after* loading FNPCT;

\DeclareFixedFootnote{\cs}{<footnote text>} is used to store the {<footnote text>} in \cs and create a footnote mark for it but don'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 \DeclareFixedFootnote gets an optional * to prevent the punctuation switching.

Since this package cannot easily combine every footnote package for demonstration purposes the following code is shown in figure 2:

[10] CTAN: fixfoot

```
\documentclass{article}
\usepackage[
  paperwidth=.55\textwidth,
  paperheight=12\baselineskip,
  margin=5pt,
  bottom=1.5cm]{geometry}

\usepackage{fixfoot}
\usepackage{fnpct}

\DeclareFixedFootnote{\myfn}{I'm confused: what do I want to say?}

\begin{document}

\noindent The three little pigs\myfn\ built their houses
out of straw\myfn*, sticks\footnote{or lumber according
to some sources} and bricks\footnote{probably fired clay
bricks}.

\end{document}
```

The three little pigs[1] built their houses
out of straw[1], sticks[2] and bricks.[3]

[1] I'm confused: what do I want to say?
[2] or lumber according to some sources
[3] probably fired clay bricks

1

Figure 2: fixfoot example

6.4 footmisc

The footmisc[11] package [3] 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 use its `multiple` option.

[11] CTAN: footmisc

6.5 manyfoot

The manyfoot package [7] is not and will not directly be supported. It is loaded by bigfoot (see section 6.1), anyway. And since the latter states this in its documentation

> Purpose of this package is to provide a one-stop solution to almost all problems related to footnotes. You can use it as a drop-in replacement of the 'manyfoot' package, but without many of its shortcomings, and quite a few features of its own.
>
> *David Kastrup [6]*

you should probably prefer it anyway.

6.6 parnotes

The parnotes[12] package [5] does something 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 `\parnotes`.

If parnotes is loaded FNPCT extends its functionality analogous to the one of endnotes.

Again the `multiple` option turns all `\parnote`s into `\multparnote`s.

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

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

 \parnotes
\end{minipage}
```

The three little pigs built their houses out of straw,[1] sticks[2] and bricks.[3]

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

The three little pigs built their houses out of straw[4], sticks[5] and bricks.[6,7]

[4] not to be confused with hay [5] or lumber according to some sources [6] probably fired clay bricks [7] or something else

[12] CTAN: parnotes

References

[1] Robin Fairbairns. *endnotes*. URL: http://www.ctan.org/pkg/endnotes.

[2] Robin Fairbairns. *fixfoot*. Version 0.3a. URL: http://www.ctan.org/pkg/fixfoot.

[3] Robin Fairbairns. *footmisc*. Version 5.5b. URL: http://www.ctan.org/pkg/footmisc.

[4] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The LaTeX Companion*. 1st ed. Reading, Mass.: Addison-Wesley, 1994. 528 pp.

[5] Micheal Hughes. *parnotes*. Version 1. URL: http://www.ctan.org/pkg/parnotes.

[6] David Kastrup. *bigfoot*. Version 1.25. URL: http://www.ctan.org/pkg/bigfoot.

[7] Alexander I. Rozhenko. *manyfoot*. Version 1.10. URL: http://www.ctan.org/pkg/manyfoot.

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