FNPCT

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footnote kerning

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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."

FNPCT depends on the packages l3kernel [The13a], xparse and l3keys2e from the l3packages bundle [The13b], scrlfile from the KOMA-Script bundle [KN12], and translations [Nie13c].

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 *The Elements of Typographic Style*:

> 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.   *The Elements of Typographic Style [Brio4]*

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 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 FNPCT package basically does two things to footnotes: if footnote marks are followed by a comma or a full stop[1] 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[2,3] 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 `after-punct-space` (see section 3). If the footnote mark follows a word *without* being followed by a punctuation,[4] there (obviously) is no order switching and a little space is inserted before

---

1. More punctuation marks can be added through a package option.
2. like
3. this
4. Well, it does not necessarily have to follow a *word*. The important point is *not being followed* by a punctuation mark.

the footnote mark, namely the amount specified by the option `before-footnote-space` (see section 3).

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

Now, let's see some action:

```
1 \begin{minipage}{.4\linewidth}
2   \noindent The three little pigs built their houses
3   out of straw\footnote{not to be confused with hay},
4   sticks\footnote{or lumber according to some sources}
5   and bricks\footnote{probably fired clay bricks}.
6 \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 full stop or the comma. *The command can look ahead but not look back.* This means if you place the `\footnote` command after a full stop or a comma it is treated as if following a word, *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.

without FNPCT	with FNPCT
text.[1]	text.[1]
text[1].	text[1].
text[1]	text[1]

FIGURE 1: The effect of FNPCT.

`punct-after` = <u>true</u>|false   Default: `false`

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

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.

```
1 \setfnpct{punct-after}
2   \begin{minipage}{\linewidth}
3   \noindent The three little pigs built
4   their houses out of straw\footnote{not
5     to be confused with hay},  sticks%
6   \footnote{or lumber according to some
7     sources} and bricks\footnote{probably
8     fired clay bricks}.
9 \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

2.3 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 FNPCT adds a ∗ argument to `\footnote` and `\footnotemark`. The complete new syntax now is as follows:

`\footnote∗[⟨num⟩]{⟨footnote text⟩}⟨tpunct⟩`
new ∗ argument added. ⟨*tpunct*⟩ is the optional trailing punctuation mark.

`\footnotemark∗[⟨num⟩]⟨tpunct⟩`
new ∗ argument added. ⟨*tpunct*⟩ is the optional trailing punctuation mark.

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

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

```
 6  \end{minipage}\hfil
 7  \setfnpct{punct-after}
 8  \begin{minipage}{.4\linewidth}
 9    \noindent The three little pigs built their houses
10    out of straw\footnote*{not to be confused with hay},
11    sticks\footnote{or lumber according to some sources}
12    and bricks\footnote{probably fired clay bricks}.
13  \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,[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

2.4 Language Specific Settings

Package babel's [Bra13] French settings redefine \@footnotemark. FNPCT resets this redefinition but sets the `before-footnote-space` equal to a thin space (`.16667em`).

3 Options

Most 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.

    <u>Underlined</u> values are set if the option is used without value.

`add-punct-marks` = ⟨*mark*⟩[⟨*space after*⟩][⟨*space before*⟩]
  Add another punctuation mark for the position switching and spacify kerning if necessary. An existing entry will be overwritten. This option accepts a list of marks.

`remove-punct-marks` = {⟨*mark*⟩}
  Remove punctuation mark from the kerning/position switching behaviour. This option accepts a list of marks.

`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.

`after-comma-space` = {⟨*dim*⟩}   Default: `-.06em`
  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` = {⟨*dim*⟩}
  Set *all* spaces, *i. e.* also the ones for marks you've added with `add-punct-marks`.

punct-after = <u>true</u>|false   Default: `false`

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

before-dot-space = {⟨*dim*⟩}   Default: `-.16em`

  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 = {⟨*dim*⟩}   Default: `-.16em`

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

before-punct-space = {⟨*dim*⟩}

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

before-footnote-space = {⟨*dim*⟩}   Default: `.06em`

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

dont-mess-around = <u>true</u>|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 = <u>true</u>|false   Default: `false`

  Lets \footnote be equal to \multfootnote.

mult-fn-delim = {⟨*delimiter*⟩}   Default: `;`

  Aets the delimiter for the \multfootnote command.

mult-fn-sep = {⟨*separator*⟩}   Default: `,`

  Sets the separator between multiple footnote marks.

normal-marks = <u>true</u>|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:

```
1 \setfnpct{add-punct-marks=!?}
2 \begin{minipage}{.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}
6   and bricks\footnote{probably fired clay bricks}!
7 \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

Or with some additional spacing:

```
\setfnpct{add-punct-marks=![.03em]?[.03em]}
\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

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}
```

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:

```
1  % some ridiculous settings:
2  \setfnpct{punct-after,before-punct-space=2pt,before-footnote-space=2pt}
3  \begin{minipage}{.4\linewidth}
4    \noindent The three little pigs built their houses
5    out of straw\footnote{not to be confused with hay},
6    sticks\footnote{or lumber according to some sources}
7    and bricks\footnote{probably fired clay bricks}.
8  \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

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,[5,6] FNPCT provides an extra command for that:

\multfootnote*{⟨*list*⟩;⟨*of*⟩;⟨*footnotes*⟩}⟨*tpunct*⟩
Different footnotes are separated with a semicolon. The ∗ turns the footnote/punctuation switching temporarily off.

```
1 \begin{minipage}{.4\linewidth}
2   \noindent The three little pigs built their houses
3   out of straw\footnote{not to be confused with hay},
4   sticks\footnote{or lumber according to some sources}
5   and bricks\multfootnote{probably fired clay bricks;or
6   something else}.
7 \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

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

\multfootnote{∗[⟨*mark*⟩]⟨*footnote text*⟩;...}
The syntax of \multfootnote's footnote text argument.

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

5. see these footnotes
6. for an example

```
7  \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

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:

```
1   \documentclass{article}
2   \usepackage[
3     paperwidth=.5\textwidth,
4     paperheight=12\baselineskip,
5     margin=5pt,
6     bottom=1.5cm]{geometry}
7
8   \usepackage{fnpct}
9
10  \begin{document}
11  \noindent The three little pigs built their houses
12  out of straw\footnote{not to be confused with hay},
13  sticks\footnote{or lumber according to some sources}
14  and bricks\multfootnote{probably fired clay bricks%
15  \footnotemark;*or something else;what do I know}.
16  \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:

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

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[4]
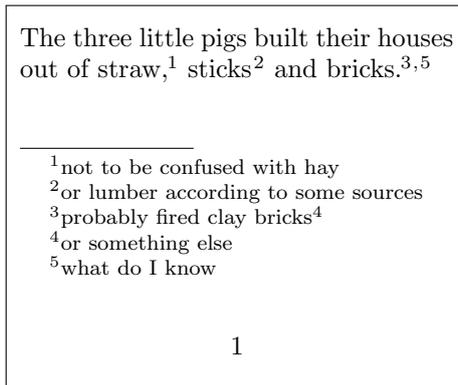[4] or something else
[5] what do I know

1

FIGURE 2: Nested footnotes.

```
5   and bricks\multfootnote{probably fired clay bricks{;}
6   or something else;what do I know}.
7 \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 also are options which lets you choose the (input) delimiter and the (output) separator:

mult-fn-delim = {⟨*delimiter*⟩}   Default: ;
    Choose delimiter for the \multfootnote.

mult-fn-sep = {⟨*separator*⟩}   Default: ,
    Choose the separator that is put between footnote marks.

```
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}
6   and bricks\multfootnote{probably fired clay bricks;
7   or something else//what do I know}.
```

```
 8 \end{minipage}\hfil
 9 \setfnpct{mult-fn-delim=,,mult-fn-sep=}
10 \renewcommand*\thempfootnote{\fnsymbol{mpfootnote}}
11 \begin{minipage}[t]{.4\linewidth}
12   \noindent The three little pigs built their houses
13   out of straw\footnote{not to be confused with hay},
14   sticks\footnote{or lumber according to some sources}
15   and bricks\multfootnote{probably fired clay bricks;
16   or something else}.
17 \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 = <u>true</u>|false   Default: false

Let \footnote behave like \multfootnote. *This option can only be set in the preamble.*

```
1 % in preamble: \setfnpct{multiple}
2 % or \usepackage[multiple]{fnpct}
3 \begin{minipage}{.4\linewidth}
4   \noindent The three little pigs built their houses
5   out of straw\footnote{not to be confused with hay},
6   sticks\footnote{or lumber according to some sources}
7   and bricks\footnote{probably fired clay bricks;or
8     something else}.
9 \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 Nested Footnotes

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

\innernote*[⟨*mark*⟩]{⟨*text*⟩}⟨*tpunct*⟩
A nested footnote.

The inner node uses a \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.

```
1  \documentclass{article}
2  \usepackage[
3    paperwidth=.5\textwidth,
4    paperheight=12\baselineskip,
5    margin=5pt,
6    bottom=1.5cm]{geometry}
7
8  \usepackage{fnpct}
9
10 \begin{document}
11 \noindent The three little pigs built their houses
12 out of straw\footnote{not to be confused with hay},
13 sticks\footnote{or lumber according to some sources}
14 and bricks\footnote{probably fired clay bricks%
15   \innernote{or not}}.
16 \end{document}
```

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 (*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,[1] sticks[2] and bricks.[3]

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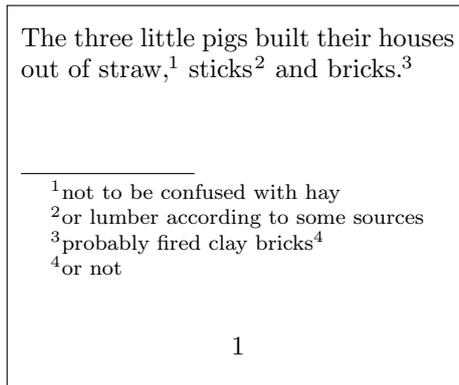[3]probably fired clay bricks[4]
[4]or not

1

FIGURE 3: \innernote example (a)

```
1  \documentclass{article}
2  \usepackage[
3    paperwidth=.5\textwidth,
4    paperheight=12\baselineskip,
5    margin=5pt,
6    bottom=1.5cm]{geometry}
7
8  \usepackage{fnpct}
9
10 \begin{document}
11 \noindent The three little pigs built their houses
12 out of straw\footnote{not to be confused with hay},
13 sticks\footnote{or lumber according to some sources}
14 and bricks\footnote{probably\innernote{just guessing}
15    fired clay bricks\innernote{or not}}.
16 \end{document}
```

\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:
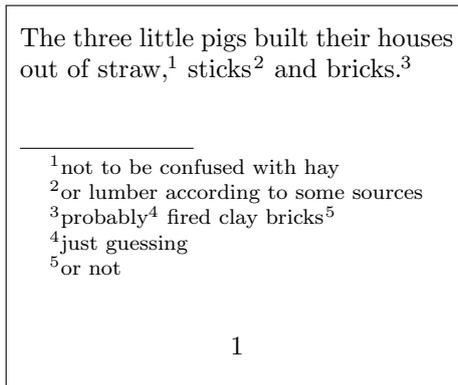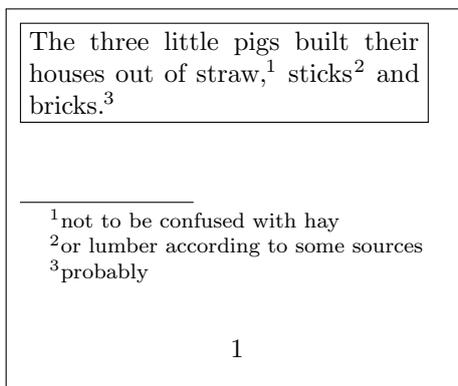
```
1  \documentclass{article}
2  \usepackage[
```

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[4] fired clay bricks[5]
[4]just guessing
[5]or not

1

FIGURE 4: \innernote example (b)

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

1

FIGURE 5: \innernote example (c)

```
3    paperwidth=.5\textwidth,
4    paperheight=12\baselineskip,
5    margin=5pt,
6    bottom=1.5cm]{geometry}
7
8  \usepackage{fnpct}
9
10 \begin{document}
11 \noindent\fbox{%
12 \begin{minipage}{.9\linewidth}
13    The three little pigs built their houses
14    out of straw\innernote{not to be confused with hay},
15    sticks\innernote{or lumber according to some sources}
16    and bricks\innernote{probably}.
17 \end{minipage}}\writeinnernotes
18 \end{document}
```

> 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
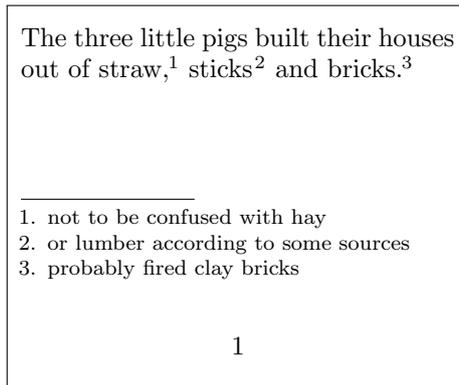> 3. probably fired clay bricks
>
> 1

FIGURE 6: Demonstration of the `normal-marks` option.

6 Normal notes

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

\deffootnote[⟨*mark indent*⟩]{⟨*indent*⟩}{⟨*par indent*⟩}{⟨*format code*⟩}
  KOMA-Script's command to define the output of the footnote text in the foot.

The following code is shown in figure 6.

```
1  \documentclass{article}
2  \usepackage[
3    paperwidth=.5\textwidth,
4    paperheight=12\baselineskip,
5    margin=5pt,
6    bottom=1.5cm]{geometry}
7
8  \usepackage[normal-marks]{fnpct}
9
10 \begin{document}
11
12 \noindent The three little pigs built their houses
13 out of straw\footnote{not to be confused with hay},
14 sticks\footnote{or lumber according to some sources}
15 and bricks\footnote{probably fired clay bricks}.
16
17 \end{document}
```

The three indent values used by FNPCT can be changed with the following options:

16

normal-mark-width = {⟨*dim*⟩}   Default: `1em`
   The width of the box within which the marks are set.

normal-indent = {⟨*dim*⟩}   Default: `1.5em`
   The indent of each footnote line *except* the first.

normal-par-indent = {⟨*dim*⟩}   Default: `1em`
   Additional indent of a new paragraph inside the footnote text.

7 Other packages

FNPCT tries its best to support other footnote and related packages.[7] Each of the following subsections is dedicated to one of these packages and if and how they work together with FNPCT. Fortunately most of them do quite well.

7.1 bigfoot

The bigfoot [Kas06] package extends the possibilities of the manyfoot package [Roz05] (see section 7.5). The main visible feature is to use different classes of footnotes which are typeset in different apparatus on the bottom of the page.

   FNPCT is compatible with bigfoot. You need to be a bit cautious, though. You need to *declare footnotes with* `\DeclareNewFootnote` after *loading* FNPCT *but in the document* preamble.

   Also verbatim material won't work inside footnotes anymore. But you can of course use Bruno L. FLOCH's cprotect [Flo11] if you really need verbatim material in footnotes *and* want to use FNPCT. 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 = <u>true</u>|false   Default: `false`
   Sets the `default` footnote class as top layer.

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

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

---

7. If you find some package missing please let me know.

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
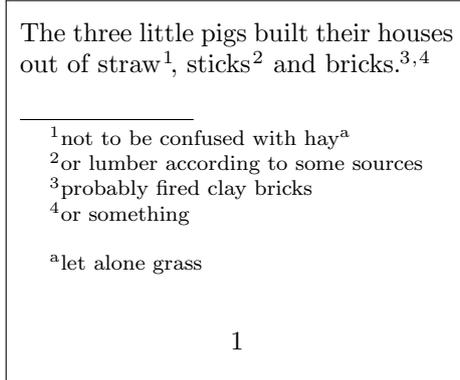[4] or something

[a] let alone grass

1

FIGURE 7: bigfoot example

```
5    margin=5pt,
6    bottom=1.5cm]{geometry}
7
8 \usepackage{bigfoot}
9 \usepackage[bigfoot-default-top]{fnpct}
10 \setfnpct{multiple}
11 \DeclareNewFootnote[para]{B}[alph]
12
13 \begin{document}
14
15 \noindent The three little pigs built their houses
16 out of straw\footnote*{not to be confused with hay%
17 \footnoteB{let alone grass}}, sticks\footnote{or
18   lumber according to some sources} and bricks%
19 \footnote{probably fired clay bricks;or something}.
20
21 \end{document}
```

7.2 endnotes

The endnotes [Lav03] 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 both commands are adapted[8]:

```
1 % `fnpct' does this for you:
2 \AdaptNote\endnote\multendnote
3 \AdaptNoteMark\endnotemark
```

---

8. see section 8 on manual adaption

Everything else stays the same:

```
1  \begin{minipage}[t]{.4\linewidth}
2    \noindent The three little pigs built their houses
3    out of straw\endnote{not to be confused with hay},
4    sticks\endnote{or lumber according to some sources}
5    and bricks\endnote{probably fired clay bricks}.
6
7    \theendnotes
8  \end{minipage}\hfil
9  \begin{minipage}[t]{.4\linewidth}
10   \noindent The three little pigs built their houses
11   out of straw\endnote*{not to be confused with hay},
12   sticks\endnote{or lumber according to some sources}
13   and bricks\multendnote{probably fired clay bricks;or
14   something else}.
15
16   \theendnotes
17 \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

7.3 enotez

The enotez [Nie13a] package povides 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[9]:

```
1  % `fnpct' does this for you:
2  \AdaptNote\endnote\multendnote
```

---

9. see section 8 on manual adaption

7.4 **fixfoot**

The fixfoot [Fai07] package provides a possibility to create repeating footnotes. FNPCT supports this package provided you take care of the following:

Use \DeclareFixedFootnote only in the preamble but after *loading* FNPCT.

\DeclareFixedFootnote{\cs}{⟨*footnote text*⟩} is used to store the ⟨*footnote text*⟩ in \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 \DeclareFixedFootnote gets an optional ∗ to prevent the punctuation switching. *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:

```
1  \documentclass{article}
2  \usepackage[
3    paperwidth=.55\textwidth,
4    paperheight=12\baselineskip,
5    margin=5pt,
6    bottom=1.5cm]{geometry}
7
8  \usepackage{fixfoot}
9  \usepackage{fnpct}
10
11  \DeclareFixedFootnote{\myfn}{I'm confused: what do I want to say?}
12
13  \begin{document}
14
15  \noindent The three little pigs\myfn\ built their houses
16  out of straw\myfn*, sticks\footnote{or lumber according
17  to some sources} and bricks\footnote{probably fired clay
18    bricks}.
19
20  \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 `multiple` option.
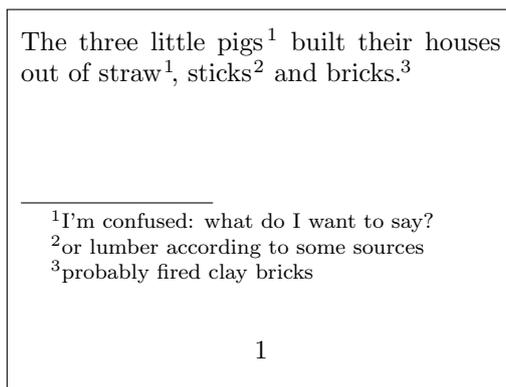
The three little pigs[1] built their houses
out of straw[1], sticks[2] and bricks.[3]

_____

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

1

FIGURE 8: fixfoot example

7.6 footnote

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

7.7 manyfoot

The manyfoot package [Roz05] is not and will not directly be supported. It is loaded by bigfoot (see section 7.1), anyway. And since the latter states 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* [Kas06]

you should probably prefer it anyway.

If it is *really* wanted by users I might change my opinion, though …

7.8 pagenote

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

7.9 parnotes

The function of the package parnotes [Hug12] 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 \parnotes.

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

Again the multiple option turns all \parnotes into \multparnotes.

```
 1 \begin{minipage}[t]{.4\linewidth}
 2   \noindent The three little pigs built their houses
 3   out of straw\parnote{not to be confused with hay},
 4   sticks\parnote{or lumber according to some sources}
 5   and bricks\parnote{probably fired clay bricks}.
 6
 7   \parnotes
 8 \end{minipage}\hfil
 9 \begin{minipage}[t]{.4\linewidth}
10   \noindent The three little pigs built their houses
11   out of straw\parnote*{not to be confused with hay},
12   sticks\parnote{or lumber according to some sources}
13   and bricks\multparnote{probably fired clay bricks;or
14     something else}.
15
16   \parnotes
17 \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

7.10 sepfootnotes

FNPCT supports the sepfootnotes package [dLim13]. Each note type you have created with with one of the commands

   \newfootnotes{⟨*prefix*⟩},

   \newendnotes{⟨*prefix*⟩} or

   \newsymbolfootnotes{⟨*prefix*⟩}

gets the additional optional * to prevent punctuation switching. Also the corresponding mult-variant \⟨*prefix*⟩multnote is defined. The option `multiple` again turns all note commands into their mult-variant.

   You have to use the \newfootnotes commands in the document preamble after loading FNPCT.

```
1 % preamble \newfootnotes{a}
2 \anotecontent{first}{not to be confused with hay}
3 \anotecontent{second}{or lumber according to some sources}
4 \anotecontent{third}{probably fired clay bricks}
5 \begin{minipage}{.4\linewidth}
6   \noindent The three little pigs built their houses
7   out of straw\anote{first}, sticks\anote{second} and
8   bricks\anote{third}.
9 \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

7.11 sidenotes

The package sidenotes [TS12] 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.

7.12 snotez

The package snotez [Nie13b] 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 [Mun12] 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 [Nak99] bundle. Just for reference: these packages are pfnote, fnpos and dblfnote.

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*⟩`}`

`\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 `multiple` will now turn `\cs` into its mult-variant. Required syntax: `\cs{`⟨*marg*⟩`}`

`\AdaptNoteNoOptNoMult{\cs}`
Like `\AdaptNoteNoOpt` but doesn't create a mult-variant. Required syntax: `\cs{marg}`

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

`strict = `<u>`true`</u>`|false`   Default: `false`
When `true` `\AdaptNote` (and the others) will issue errors if the note command in question has already been adapted.

8.1 tufte-latex's side notes

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

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Some text in the document body.[1,2]   [1] Some text in a sidenote.
                                         [2] A second sidenote.

FIGURE 9: Adapt tufte-latex.

```
1 \documentclass{tufte-handout}
2 \usepackage[multiple]{fnpct}
3 \AdaptNote\sidenote\multsidenote
4 \begin{document}
5 Some text in the document body\sidenote{Some
6 text in a sidenote.;A second sidenote.}.
7 \end{document}
```

8.2 Adapting \footcite and siblings

If you're willing to sacrifice \footcite's ∗ argument (which it has in some styles) you can adapt the commands provided by biblatex [Leh13] as well:

```
1 % used in preamble: \AdaptNoteOpt\footcite\multfootcite
2 \begin{minipage}{.5\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}
6   and bricks\footnote{probably fired clay bricks}. The
7   companion has nothing on this topic\multfootcite{[see]
8     [but there's nothing there]companion;[or see][but there's
9     also nothing]knuth:ct:a}.
10 \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.[4,5]

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

The option `multiple` turns all `\footcite`s into `\multfootcite`s now. Remember that the optional arguments then are inside the braces!

```
1 % used in preamble: \AdaptNoteOpt\footcite\multfootcite
2 % with option `multiple':
3 \begin{minipage}{.5\linewidth}
4   \noindent The three little pigs built their houses
5   out of straw\footnote{not to be confused with hay},
6   sticks\footnote{or lumber according to some sources}
7   and bricks\footnote{probably fired clay bricks}. The
8   companion has nothing on this topic\footcite{[see][but
9     there's nothing there]companion;[or see][but there's also
10    nothing]knuth:ct:a}.
11 \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.[4,5]

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

Bibliography

[Bra13]   Johannes BRAAMS, current maintainer: Javier BEZOS. babel. version 3.9f, May 16, 2013. URL: http://mirror.ctan.org/macros/latex/required/babel/.

[Bri04]   Robert BRINGHURST. *The Elements of Typographic Style.* Hartley & Marks, Canada, 2004. ISBN: 978-0-88179-205-5.

[dLim13]   Eduardo C. Lourenço DE LIMA. sepfootnotes. version 0.2, Jan. 17, 2013. URL: http://mirror.ctan.org/macros/latex/contrib/sepfootnotes/.

[Fai07]   Robin FAIRBAIRNS. fixfoot. version 0.3a, Dec. 12, 2007. URL: http://mirror.ctan.org/macros/latex/contrib/fixfoot/.

[Fai11]   Robin FAIRBAIRNS. footmisc. version 5.5b, June 6, 2011. URL: http://mirror.ctan.org/macros/latex/contrib/footmisc/.

[Flo11]   Bruno Le FLOCH. cprotect. version 1.0e, Jan. 27, 2011. URL: http://mirror.ctan.org/macros/latex/contrib/cprotect/.

[GMS94]   Michel Goossens, Frank Mittelbach, and Alexander Samarin.
          The LaTeX Companion. 1st ed. Reading, Mass.: Addison-Wesley, 1994. 528 pp.

[Hug12]   Micheal Hughes. parnotes. version 1, Mar. 1, 2012.
          URL: http://mirror.ctan.org/macros/latex/contrib/parnotes/.

[Kas06]   David Kastrup. bigfoot. version 1.25, July 15, 2006.
          URL: http://mirror.ctan.org/macros/latex/contrib/bigfoot/.

[KN12]   Markus Kohm and Frank Neukahm. KOMA-Script. version 3.11b, July 29, 2012.
          URL: http://mirror.ctan.org/macros/latex/contrib/koma-script/.

[Knu84]   Donald E. Knuth. *Computers & Typesetting.* Vol. A: *The TEXbook.*
          Reading, Mass.: Addison-Wesley, 1984.

[Lav03]   John Lavagnino, current maintainer: Robin Fairbairns.
          endnotes. version NA, Jan. 15, 2003.
          URL: http://mirror.ctan.org/macros/latex/contrib/endnotes/.

[Leh13]   Philipp Lehman, current maintainers: Joseph Wright, Audrey Boruvka, and
          Philip Kime. biblatex. version 2.7a, July 14, 2013.
          URL: http://mirror.ctan.org/macros/latex/contrib/biblatex/.

[Mun12]   H.-Martin Münch. tablefootnote. version 1.0g, Jan. 14, 2012.
          URL: http://mirror.ctan.org/macros/latex/contrib/tablefootnote/.

[Nak99]   Hiroshi Nakashima. yafoot. version 1.0, July 14, 1999.
          URL: http://mirror.ctan.org/macros/latex/contrib/yafoot/.

[Nie13a] Clemens Niederberger. enotez. version 0.7b, Oct. 31, 2013.
          URL: http://mirror.ctan.org/macros/latex/contrib/enotez/.

[Nie13b] Clemens Niederberger. snotez. version 0.2, Apr. 4, 2013.
          URL: http://mirror.ctan.org/macros/latex/contrib/snotez/.

[Nie13c] Clemens Niederberger. translations. version 1.1a, Sept. 30, 2013.
          URL: http://mirror.ctan.org/macros/latex/contrib/translations/.

[Roz05]   Alexander I. Rozhenko. manyfoot. version 1.10, Sept. 11, 2005.
          URL: http://mirror.ctan.org/macros/latex/contrib/manyfoot/.

[The13a] The LaTeX3 Project Team. l3kernel. version SVN 4582, July 28, 2013.
          URL: http://mirror.ctan.org/macros/latex/contrib/l3kernel/.

[The13b] The LaTeX3 Project Team. l3packages. version SVN 4582, July 28, 2013.
          URL: http://mirror.ctan.org/macros/latex/contrib/l3packages/.

[TS12]   Andy Thomas and Oliver Schebaum. sidenotes. version 0.92, Nov. 9, 2012.
          URL: http://mirror.ctan.org/macros/latex/contrib/sidenotes/.

[Wil09]   Robert Wilson, current maintainer: Will Robertson.
          pagenote. version 1.1a, Sept. 3, 2009.
          URL: http://mirror.ctan.org/macros/latex/contrib/pagenote/.

[Woo97]   Mark Wooding. footnote. version 1.13, Jan. 28, 1997.
          URL: http://mirror.ctan.org/macros/latex/contrib/footnote/.

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