

# FNPCT

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footnote kerning

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English documentation

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.

<b>Contents</b>		<b>7 Other packages</b>	<b>14</b>
<b>1 License and Requirements</b>	<b>2</b>	7.1 bigfoot . . . . .	15
<b>2 What's it all about?</b>	<b>2</b>	7.2 endnotes . . . . .	16
2.1 Introduction . . . . .	2	7.3 fixfoot . . . . .	17
2.2 Basics . . . . .	2	7.4 footmisc . . . . .	18
2.3 Temporarily disable or enable switching . . . . .	4	7.5 footnote . . . . .	18
<b>3 Options</b>	<b>4</b>	7.6 manyfoot . . . . .	19
<b>4 Multiple footnotes</b>	<b>7</b>	7.7 pagenote . . . . .	19
4.1 Basics . . . . .	7	7.8 parnotes . . . . .	19
4.2 The delimiter and separator . . . . .	9	7.9 sepfootnotes . . . . .	20
4.3 Automagic . . . . .	10	7.10 sidenotes . . . . .	20
<b>5 Nested Footnotes</b>	<b>11</b>	7.11 tablefootnote . . . . .	21
<b>6 Normal notes</b>	<b>13</b>	7.12 yafoot . . . . .	21
		<b>8 Adapting note commands</b>	<b>21</b>
		8.1 tufte-latex's side notes . . . . .	21
		8.2 Adapting <code>\footcite</code> and siblings . . . . .	22
		<b>References</b>	<b>23</b>
		<b>Index</b>	<b>25</b>

# 1 License and Requirements

Permission is granted to copy, distribute and/or modify this software under the terms of the L<sup>A</sup>T<sub>E</sub>X Project Public License, version 1.3 or later (<http://www.latex-project.org/lppl.txt>). The package has the status “maintained.”

**FNPCT** depends on the packages l3kernel, xparse, l3keys2e and scrfile.

## 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* [Bri04]

**FNPCT** can not make this 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<sup>1</sup> 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<sup>2,3</sup> 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,<sup>4</sup> there (obviously) is no order switching and a little space is inserted before the footnote mark, namely the amount specified by the option `before-footnote-space` (see section 3).

All examples in this documentation use

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

---

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

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,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3</sup>

---

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> 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 `FNPECT`:

text.<sup>1</sup>

text<sup>1</sup>.

with `FNPECT`:

text.<sup>1</sup>

text<sup>1</sup>.

- `punct-after = true|false` → when true the punctuation sign will be placed *after* the footnote. Default = false

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}{.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<sup>1</sup>, sticks<sup>2</sup> and bricks<sup>3</sup>.

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> 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 `FN PCT` 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<sup>1</sup>, sticks<sup>2</sup> and bricks<sup>3</sup>.

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> probably fired clay bricks

The three little pigs built their houses  
out of straw,<sup>1</sup> sticks<sup>2</sup> and bricks<sup>3</sup>.

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> probably fired clay bricks

## 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.

Underlined 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 specify 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>` → 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. Default = `-.06em`
- ▶ `after-comma-space` = `<dim>` → 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. Default = `-.06em`
- ▶ `after-punct-space` = `<dim>` → set *all* spaces, i.e. also the ones for marks you’ve added with `add-punct-marks`.
- ▶ `punct-after` = `true|false` → when `true` the punctuation sign will be placed *after* the footnote. Default = `false`.
- ▶ `before-dot-space` = `<dim>` → space to be inserted after a footnote mark and before the full stop (“footnote *before* dot”), i.e. with `punct-after` = `true`. Default = `-.16em`
- ▶ `before-comma-space` = `<dim>` → space to be inserted after a footnote mark and before the comma (“footnote *before* comma”), i.e. with `punct-after` = `true`. Default = `-.16em`
- ▶ `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>` → space to be inserted between a word and the following footnote mark. Default = `.06em`
- ▶ `dont-mess-around` = `true|false` → sets all mentioned lengths to 0pt and `punct-after` = `true`. Basically this seems as if you hadn’t loaded `FNPCT` except the multiple footnote commands and `\innernote` are still available, see sections 4 and 5, respectively. Default = `false`
- ▶ `multiple` = `true|false` → lets `\footnote` be equal to `\multfootnote`. Default = `false`
- ▶ `mult-fn-delim` = `<delimiter>` → sets the delimiter for the `\multfootnote` command. Default = `;`
- ▶ `mult-fn-sep` = `<separator>` → sets the separator between multiple footnote marks. Default = `,`
- ▶ `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<sup>5</sup> class this option will load the package

---

<sup>5</sup> CTAN: KOMA-Script

scrextend. See section 6 for more information. *This option can only be set in the preamble.*  
Default = false

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?<sup>1</sup> Sticks<sup>2</sup> and bricks!<sup>3</sup>

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> probably fired clay bricks

Or with some additional spacing:

```
1 \setfnpct{add-punct-marks=! [.03em]? [.03em]}
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?<sup>1</sup> Sticks<sup>2</sup> and bricks!<sup>3</sup>

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> probably fired clay bricks

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

```
1 % some ridiculous settings:
2 \setfnpct{after-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,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3</sup>

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> 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=2
   pt}
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<sup>1</sup>, sticks<sup>2</sup> and bricks<sup>3</sup>.

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> 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 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`.

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,<sup>6,7</sup> `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.

---

<sup>6</sup> see these footnotes    <sup>7</sup> for an example

```

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,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3,4</sup>

---

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> probably fired clay bricks

<sup>4</sup> 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>;...}`

```

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}.
7 \end{minipage}

```

The three little pigs built their houses  
out of straw,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3,5</sup>

---

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> probably fired clay bricks

<sup>5</sup> 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 1:

```

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}

```

The three little pigs built their houses  
out of straw,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3,5</sup>

---

<sup>1</sup>not to be confused with hay  
<sup>2</sup>or lumber according to some sources  
<sup>3</sup>probably fired clay bricks<sup>4</sup>  
<sup>4</sup>or something else  
<sup>5</sup>what do I know

1

FIGURE 1: nested footnotes

## 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}
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,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3,4</sup>

---

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

There also 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 = ,

```

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}

```

<p>The three little pigs built their houses out of straw,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3;4</sup></p> <hr style="width: 20%; margin-left: 0;"/> <p><sup>1</sup> not to be confused with hay  <sup>2</sup> or lumber according to some sources  <sup>3</sup> probably fired clay bricks; or something  else  <sup>4</sup> what do I know</p>	<p>The three little pigs built their houses out of straw,* sticks<sup>†</sup> and bricks.<sup>‡§</sup></p> <hr style="width: 20%; margin-left: 0;"/> <p>* not to be confused with hay  <sup>†</sup> or lumber according to some sources  <sup>‡</sup> probably fired clay bricks  <sup>§</sup> or something else</p>
--	--

### 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

```

1 % in preamble: \setfnpct{multiple}
2 % or \usepackage[multiple]{fnpct}
3 \begin{minipage}[t]{.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,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3,4</sup>

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> probably fired clay bricks

<sup>4</sup> 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 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\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 3 for the output of this code:

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

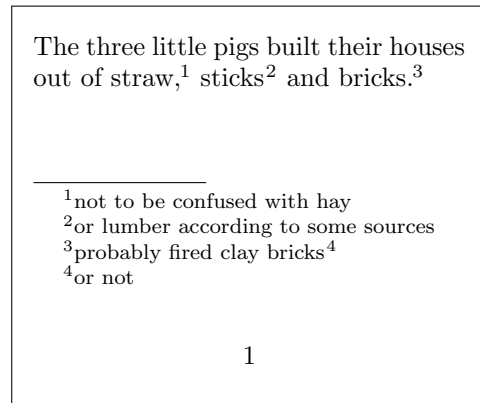


FIGURE 2: `\innernote` example (a)

```

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}

```

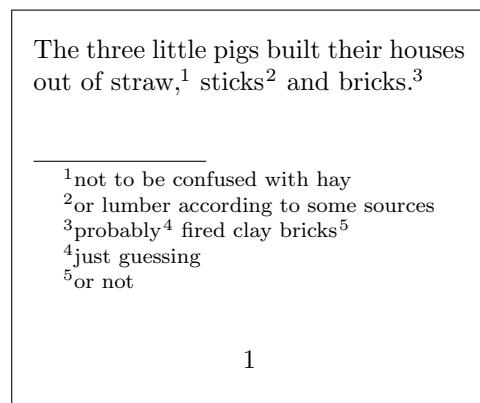


FIGURE 3: `\innernote` example (b)

`\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 4 for the output of the following code:

```

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\fbbox{%
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
19 \end{document}

```

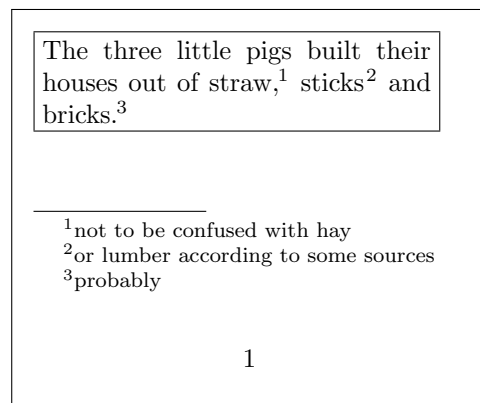


FIGURE 4: `\innernote` example (c)

## 6 Normal notes

The package option `normal-marks` (see p. 5) changes the layout of the footnote marks in the foot by using KOMA-Script's

```
\deffootnote[<mark indent>]{<indent>}{<par indent>}{<format code>}.
```

The following code is shown in figure 5.

```

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 little pigs built their houses out of straw,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3</sup>

---

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

1

FIGURE 5: Demonstration of the `normal-marks` option.

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

- `normal-mark-width` = <dim> → The width of the box within which the marks are set. Default = 1em
- `normal-indent` = <dim> → The indent of each footnote line *except* the first. Default = 1.5em
- `normal-par-indent` = <dim> → Additional indent of a new paragraph inside the footnote text. Default = 1em

## 7 Other packages

`FNPCT` tries its best to support other footnote and related packages.<sup>8</sup> 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.

---

<sup>8</sup> If you find some package missing please let me know.

## 7.1 bigfoot

The bigfoot<sup>9</sup> [Kas06] package extends the possibilities of the manyfoot<sup>10</sup> package [Roz05] (see section 7.4). 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 Le Floch's cprotect<sup>11</sup> 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 = true|false` → sets the default footnote class as top layer. Default = false

Since this document cannot easily combine *every* footnote package at the same time for demonstration purposes 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{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}.
```

<sup>9</sup> CTAN: bigfoot    <sup>10</sup> CTAN: manyfoot    <sup>11</sup> CTAN: cprotect

```

20
21 \end{document}

```

The three little pigs built their houses  
out of straw<sup>1</sup>, sticks<sup>2</sup> and bricks.<sup>3,4</sup>

---

<sup>1</sup>not to be confused with hay<sup>a</sup>

<sup>2</sup>or lumber according to some sources

<sup>3</sup>probably fired clay bricks

<sup>4</sup>or something

<sup>a</sup>let alone grass

1

FIGURE 6: bigfoot example

## 7.2 endnotes

The endnotes<sup>12</sup> [Fai12] package provides 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<sup>13</sup>:

```

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

```

Everything else stays the same:

---

<sup>12</sup> CTAN: endnotes    <sup>13</sup> see section 8 on manual adaption

```

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,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3</sup>

## Notes

- <sup>1</sup>not to be confused with hay  
<sup>2</sup>or lumber according to some sources  
<sup>3</sup>probably fired clay bricks

The three little pigs built their houses  
out of straw<sup>4</sup>, sticks<sup>5</sup> and bricks.<sup>6,7</sup>

## Notes

- <sup>4</sup>not to be confused with hay  
<sup>5</sup>or lumber according to some sources  
<sup>6</sup>probably fired clay bricks  
<sup>7</sup>or something else

## 7.3 fixfoot

The fixfoot<sup>14</sup> [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 7:

---

<sup>14</sup> CTAN: fixfoot

```

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}

```

The three little pigs<sup>1</sup> built their houses  
out of straw<sup>1</sup>, sticks<sup>2</sup> and bricks.<sup>3</sup>

---

<sup>1</sup>I'm confused: what do I want to say?

<sup>2</sup>or lumber according to some sources

<sup>3</sup>probably fired clay bricks

FIGURE 7: fixfoot example

## 7.4 footmisc

The `footmisc`<sup>15</sup> 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.

## 7.5 footnote

Unfortunately `FNPCT` is not compatible with the `footnote`<sup>16</sup> package [Woo97]. Or more precisely it is not compatible if the command pair `\savenotes/\spewnotes` is invoked. This

---

<sup>15</sup> CTAN: `footmisc`    <sup>16</sup> CTAN: `footnote`

disables footnote’s environments as well as its environment escaping mechanism through `\makesavenoteenv`.

## 7.6 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 ...

## 7.7 pagenote

The package pagenote<sup>17</sup> [Rob09] is supported and its `\pagenote` command is treated the same way as all other note commands: it got an optional `*` argument and an additional `\multipagenote` is defined.

## 7.8 parnotes

The function of the package parnotes<sup>18</sup> [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 `FNPECT` extends its functionality analogous to the one of endnotes.

Again the `multiple` option turns all `\parnotes` into `\multiparnotes`.

```
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\multiparnote{probably fired clay bricks;or
14 something else}.
15
16 \parnotes
17 \end{minipage}
```

---

<sup>17</sup> CTAN: pagenote    <sup>18</sup> CTAN: parnotes

The three little pigs built their houses  
out of straw,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3</sup>

<sup>1</sup> not to be confused with hay <sup>2</sup> or  
lumber according to some sources  
<sup>3</sup> probably fired clay bricks

The three little pigs built their houses  
out of straw<sup>4</sup>, sticks<sup>5</sup> and bricks.<sup>6,7</sup>

<sup>4</sup> not to be confused with hay <sup>5</sup> or  
lumber according to some sources  
<sup>6</sup> probably fired clay bricks <sup>7</sup> or some-  
thing else

## 7.9 sepfootnotes

**FN PCT** supports the sepfootnotes<sup>19</sup> package [Lim12]. 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 **FN PCT**.

```
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,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3</sup>

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> probably fired clay bricks

## 7.10 sidenotes

The package sidenotes<sup>20</sup> [Tho11] is supported and its commands `\sidenote`, `\sidenotemark` and `\sidecite` are treated the same way as footnotes: they got an optional `*` argument and the additional `\multsidenote` and `\multsidecite` are created. The option `multiple` turns all note commands into their mult-variant.

<sup>19</sup> CTAN: sepfootnotes    <sup>20</sup> CTAN: sidenotes

### 7.11 tablefootnote

The package `tablefootnote`<sup>21</sup> [Mün12] is supported and its `\tablefootnote` command is treated the same way as all other note commands: it got an optional `*` argument and an additional `\multitablefootnote` is defined. The option `multiple` turns all note commands into their mult-variant.

### 7.12 yafoot

Currently no issues are known when using `FNPCT` with one or all of the packages of the `yafoot`<sup>22</sup> [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>}`
- ▶ `\AdaptNoteMark{\cs}` → this lets `\cs` adapt to the kerning behaviour and adds an optional `*`. Required syntax: `\cs[<oarg>]`
- ▶ `strict = true|false` → when `true` `\AdaptNote` (and the others) will issue errors if the note command in question has already been adapted. Default = `false`

### 8.1 tufte-latex's side notes

For example using the `\sidenote` command from the `tufte-handout`<sup>23</sup> class is easily possible, see also figure 8:

---

<sup>21</sup> CTAN: tablefootnote    <sup>22</sup> CTAN: yafoot    <sup>23</sup> CTAN: tufte-handout

```

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}

```



FIGURE 8: Adapt tufte-latex.

## 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<sup>24</sup> 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,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3</sup> The companion has nothing on this topic.<sup>4,5</sup>

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> probably fired clay bricks

<sup>4</sup> see GMS94, but there's nothing there.

<sup>5</sup> or see Knu84, but there's also nothing.

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

<sup>24</sup> CTAN: biblatex

```

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,<sup>1</sup> sticks<sup>2</sup> and bricks.<sup>3</sup> The companion has nothing on this topic.<sup>4,5</sup>

<sup>1</sup> not to be confused with hay

<sup>2</sup> or lumber according to some sources

<sup>3</sup> probably fired clay bricks

<sup>4</sup> see GMS94, but there's nothing there.

<sup>5</sup> or see Knu84, but there's also nothing.

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## Index

Section titles are indicated **bold**, packages sans serif, commands `\brown` and options `yellow`.

### Symbols

`\<prefix>multnote` ..... 20

### A

**adapting notes** ..... 21 ff.  
    `biblatex` ..... 22  
    `tuft-latex` ..... 21  
`\AdaptNote` ..... 21  
`\AdaptNoteMark` ..... 21  
`\AdaptNoteNoMult` ..... 21  
`\AdaptNoteOpt` ..... 21  
`\AdaptNoteOptNoMult` ..... 21  
`add-punct-marks` ..... 5  
`after-comma-space` ..... 5, 7  
`after-dot-space` ..... 5, 7  
`after-punct-space` ..... 2, 5  
`\arabic` ..... 2

### B

**basics** ..... 2 ff.  
`before-comma-space` ..... 5, 7  
`before-dot-space` ..... 5, 7  
`before-footnote-space` ..... 2, 5  
`before-punct-space` ..... 5  
`biblatex` ..... 22  
`bigfoot` ..... 15 f., 19  
`bigfoot-default-top` ..... 15

### C

`cprotect` ..... 15  
`\cs` ..... 17, 21

### D

`dblfnote` ..... 21  
`\DeclareFixedFootnote` ..... 17  
`\DeclareNewFootnote` ..... 15  
`\deffootnote` ..... 13  
**disable switching** ..... 4

`dont-mess-around` ..... 5

### E

`\endnote` ..... 16  
`\endnotemark` ..... 16  
`endnotes` ..... 16, 19

### F

`fixfoot` ..... 17 f.  
`fnpos` ..... 21  
`\footcite` ..... 22  
`footmisc` ..... 18  
`footnote` ..... 18 f.  
`\footnote` ..... 3 ff., 10 ff.  
`\footnote<class>` ..... 15  
`\footnotemark` ..... 4, 11  
`\footnotemark<class>` ..... 15  
`\footnotetext` ..... 8, 12, 15

### I

`\innernote` ..... 5, 11 ff.

### K

`\kfc` ..... 7  
`\kfp` ..... 7  
`KOMA-Script` ..... 5, 13

### L

`l3kernel` ..... 2  
`l3keys2e` ..... 2

### M

`\makesavenoteenv` ..... 19  
`manyfoot` ..... 15, 19  
`mult-fn-delim` ..... 5, 9  
`mult-fn-sep` ..... 5, 10  
`\multcs` ..... 21  
`\multfootcite` ..... 22  
`\multfootnote` ..... 5, 7–11  
`\multfootnote<class>` ..... 15  
`multiple` ..... 5, 10, 15, 19–22  
**multiple footnotes** ..... 7–11  
    `automagic` ..... 10

basics	7
delimiter	9
nested footnotes	8
separator	9
<code>\multpagenote</code>	19
<code>\multparnote</code>	19
<code>\multsidecite</code>	20
<code>\multsidenote</code>	20
<code>\multtablefootnote</code>	21
<b>N</b>	
nested footnotes	11 ff.
<code>\newendnotes</code>	20
<code>\newfootnotes</code>	20
<code>\newsymbolfootnotes</code>	20
<code>normal-indent</code>	14
<code>normal-mark-width</code>	14
<code>normal-marks</code>	5, 13 f.
<code>normal-par-indent</code>	14
normal notes	13 f.
<b>O</b>	
options	4–7
other packages	14–21
bigfoot	15
endnotes	16
fixfoot	17
footmisc	18
footnote	18
manyfoot	19
pagenote	19
parnotes	19
sepfootnotes	20
sidenotes	20
tablefootnote	21
yafoot bundle	21
<b>P</b>	
pagenote	19
<code>\pagenote</code>	19
<code>\parnote</code>	19
parnotes	19
<code>\parnotes</code>	19
pfnote	21
<code>punct-after</code>	3 ff., 7

<b>R</b>	
<code>remove-punct-marks</code>	5
<code>\renewcommand</code>	2
<b>S</b>	
<code>\savenotes</code>	18
scrextend	6
scrfile	2
sepfootnotes	20
<code>\setfnpct</code>	3 f., 15
<code>\sidecite</code>	20
<code>\sidenote</code>	20 f.
<code>\sidenotemark</code>	20
sidenotes	20
<code>\spewnotes</code>	18
<code>strict</code>	21
<b>T</b>	
tablefootnote	21
<code>\tablefootnote</code>	21
<code>\thempfootnote</code>	2
tufte-handout	21
<b>W</b>	
<code>\writeinnernotes</code>	12
<b>X</b>	
xparse	2
<b>Y</b>	
yafoot	21