

# Typesetting captions with the caption package\*

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2007/09/03

## Abstract

The caption package offers customization of captions in floating environments such `figure` and `table` and cooperates with many other packages.<sup>1</sup>

## Introduction

Within the standard L<sup>A</sup>T<sub>E</sub>X classes captions haven't received the attention they deserve. Simply typeset as an ordinary paragraph there is no remarkable visual difference from the rest of the text, like here:

Figure 1: White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

There should be possibilities to change this; for example, it would be nice if you could make the text of the caption a little bit smaller as the normal text, add an extra margin, typeset the caption label with the same font family and shape as your headings etc. Just like this one:

**Figure 2** – White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

You can do this easily with this package as there are many ready-to-use caption formatting options, but you are free to define your very own stuff, too.

## Preliminary documentation

Please note that this document is not describing all features of the caption package yet. It'll try to update it every month; the actual version can be found [here](#).

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\*This package has version number v3.1, last revised 2007/09/01.

<sup>1</sup>A complete re-work of the user interface done with Steven D. Cochran and Frank Mittelbach has lead to the enhanced version 3.0.

# Contents

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>Using this package</b>   | <b>4</b>  |
| <b>2</b> | <b>Options</b>  | <b>5</b>  |
| 2.1      | Formatting . . . . .  | 5         |
| 2.2      | Justification . . . . .   | 7         |
| 2.3      | Fonts . . . . .   | 8         |
| 2.4      | Margins and further paragraph options . . . . .                               | 10        |
| 2.5      | Styles . . . . .  | 11        |
| 2.6      | Skips . . . . .   | 12        |
| <b>3</b> | <b>Commands</b>   | <b>14</b> |
| 3.1      | Continued floats . . . . .  | 16        |
| <b>4</b> | <b>Own enhancements</b>   | <b>17</b> |
| 4.1      | Further Examples . . . . .  | 19        |
| <b>5</b> | <b>Document classes &amp; Babel support</b>                                   | <b>21</b> |
| 5.1      | Standard L <sup>A</sup> T <sub>E</sub> X: article, report, and book . . . . . | 21        |
| 5.2      | A <sub>M</sub> S: amsart, amsproc, and amsbook . . . . .                      | 21        |
| 5.3      | beamer . . . . .  | 22        |
| 5.4      | KOMA-Script: scrartcl, scrreprt, and scrbook . . . . .                        | 22        |
| 5.5      | NTG: artikel, rapport, and boek . . . . .                                     | 23        |
| 5.6      | SMF classes: smfart and smfbook . . . . .                                     | 23        |
| 5.7      | The frenchb Babel option . . . . .  | 23        |
| 5.8      | The frenchle and frenchpro packages . . . . .                                 | 23        |
| <b>6</b> | <b>Supported packages</b>   | <b>24</b> |
| 6.1      | float . . . . .   | 24        |
| 6.2      | floatflt . . . . .  | 24        |
| 6.3      | ftpage . . . . .  | 24        |
| 6.4      | hyperref . . . . .  | 24        |
| 6.5      | hypcap . . . . .  | 25        |
| 6.6      | listings . . . . .  | 25        |
| 6.7      | longtable . . . . .   | 25        |
| 6.8      | picinpar . . . . .  | 25        |
| 6.9      | picins . . . . .  | 26        |
| 6.10     | rotating . . . . .  | 26        |
| 6.11     | sidecap . . . . .   | 26        |
| 6.12     | subfigure . . . . .   | 26        |
| 6.13     | supertabular . . . . .  | 26        |
| 6.14     | threeparttable . . . . .  | 26        |
| 6.15     | wrapfig . . . . .   | 26        |

|           |  |           |
|-----------|--|-----------|
| <b>7</b>  | <b>Compatibility to older versions</b> | <b>27</b> |
| 7.1       | caption v1.x . . . . .                 | 27        |
| 7.2       | caption2 v2.x . . . . .                | 28        |
| 7.3       | caption v3.0 . . . . .                 | 29        |
| <b>8</b>  | <b>Alphabetical Reference</b>          | <b>30</b> |
| 8.1       | Commands . . . . .                     | 30        |
| 8.2       | Options . . . . .                      | 31        |
| 8.3       | Warnings . . . . .                     | 32        |
| 8.4       | Errors . . . . .                       | 35        |
| <b>9</b>  | <b>Further reading</b>                 | <b>39</b> |
| <b>10</b> | <b>Thanks</b>                          | <b>39</b> |

## 1 Using this package

`\usepackage` Insert

```
\usepackage[\langle options \rangle]{caption}[2007/09/01]
```

into the preamble of your document, i.e. the part of your document between `\documentclass` and `\begin{document}`. The options control how your captions will look like; e.g.,

```
\usepackage[margin=10pt, font=small, labelfont=bf,
             labelsep=endash]{caption}
```

would result in captions looking like the second one in the introduction.

`\captionsetup` For a later change of options the caption package provides the command

```
\captionsetup[\langle float type \rangle]{\langle options \rangle}
```

So

```
\usepackage[margin=10pt, font=small, labelfont=bf]{caption}
```

and

```
\usepackage{caption}
\captionsetup{margin=10pt, font=small, labelfont=bf}
```

are equal in their results.

It's good to know that `\captionsetup` has an effect on the current environment only. So if you want to change settings for the current `figure` or `table` only, just place the `\captionsetup` command inside the `figure` or `table` right before the `\caption` command. For example

```
\begin{figure}
...
\captionsetup{singlelinecheck=off}
\caption{...}
\end{figure}
```

switches the single-line-check off, but only for this `figure` so all the other captions remain untouched.

(For a description of the optional parameter *\langle float type \rangle* see [section 3: Commands](#).)

## 2 Options

### 2.1 Formatting

`format=` A figure or table caption mainly consists of three parts: the caption label, which says if this object is a ‘Figure’ or ‘Table’ and what number is associated with it, the caption text itself, which is normally a short description of contents, and the caption separator which separates the text from the label.

The *caption format* determines how this information will be presented; it is specified with the option

`format=⟨format name⟩` ,

having the name of the caption format as its argument.

There are two standard caption formats:

|                    |   |
|--------------------|---|
| <code>plain</code> | Typesets the captions as a normal paragraph.  |
| <code>hang</code>  | Indents the caption text, so it will ‘hang’ under the first line of the text.   |
| <code>...</code>   | Own formats can be defined using <code>\DeclareCaptionFormat</code> .<br>(See <a href="#">section 4: Own enhancements</a> ) |

An example: Specifying the option

`format=hang`

yields captions like this:

Figure 3: White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe’s finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

`indentation=` For both formats (`plain` and `hang`) you can setup an extra indentation starting at the second line of the caption. You do this with the option

`indentation=⟨amount⟩`.

Two examples:

`format=plain,indentation=.5cm`

Figure 4: White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe’s finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

`format=hang,indentation=-0.5cm`

Figure 5: White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe’s finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

`labelformat=` With the option

`labelformat=⟨label format name⟩`

you specify how the caption label will be typeset. There are four standard caption label formats:

|         |  |
|---------|--|
| default | The caption label will be typeset as specified by the document class, usually this means the name and the number (like <code>simple</code> ). (This is the default behaviour.) |
| empty   | The caption label will be empty. (This option makes sense when used together with other options like <code>labelsep=none</code> .)   |
| simple  | The caption label will be typeset as a name and a number.  |
| parens  | The number of the caption label will be typeset in parentheses.  |
| ...     | Own label formats can be defined using <code>\DeclareCaptionLabelFormat</code> . (See <a href="#">section 4: Own enhancements</a> )  |

An example: Using the options

`labelformat=parens, labelsep=quad`

gives captions like this one:

Figure (6) White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

`labelsep=` With the option

`labelsep=⟨label separator name⟩`

you specify what caption separator will be used. You can choose one of the following:

|         |  |
|---------|--|
| none    | There is no caption separator. (This option makes sense when used together with other options like <code>labelformat=empty</code> .) |
| colon   | The caption label and text will be separated by a colon and a space.   |
| period  | The caption label and text will be separated by a period and a space.  |
| space   | The caption label and text will be separated by a single space.  |
| quad    | The caption label and text will be separated by a <code>\quad</code> .   |
| newline | The caption label and text will be separated by a line break ( <code>\</code> ).   |
| endash  | The caption label and text will be separated by an en-dash, surrounded by spaces ( <code>--</code> ).                                |
| ...     | Own separators can be defined using <code>\DeclareCaptionLabelSeparator</code> . (See <a href="#">section 4: Own enhancements</a> )  |

Three examples:

```
labelsep=period
```

Figure 7. White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

```
labelsep=newline,singlelinecheck=false
```

Figure 8

White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

```
labelsep=endash
```

Figure 9 – White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

## 2.2 Justification

`justification=` As addition to the caption format you could also specify a *caption justification*; it is specified with the option

```
justification=<justification name> .
```

You can choose one of the following:

|                          |   |
|--------------------------|---|
| <code>justified</code>   | Typesets the caption as a normal paragraph.   |
| <code>centering</code>   | Each line of the caption will be centered.  |
| <code>centerlast</code>  | The last line of each paragraph of the caption text will be centered.   |
| <code>centerfirst</code> | Only the first line of the caption will be centered.  |
| <code>raggedright</code> | Each line of the caption will be moved to the left margin.  |
| <code>RaggedRight</code> | Each line of the caption will be moved to the left margin, too. But this time the command <code>\RaggedRight</code> of the <code>ragged2e</code> package will be used to achieve this. <sup>2</sup> The main difference is that the word breaking algorithm of $\text{\TeX}$ will work inside captions. |
| <code>raggedleft</code>  | Each line of the caption will be moved to the right margin.   |
| <code>...</code>         | Own justifications can be defined using <code>\DeclareCaptionJustification</code> .<br>(See <a href="#">section 4: Own enhancements</a> )   |

---

<sup>2</sup>The need for the `ragged2e` package will be detected at run-time, therefore you may need a second  $\text{\LaTeX}$  run if this option is used.

Three examples:

```
justification=centerlast
```

Figure 10: White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

```
format=hang, justification=raggedright
```

Figure 11: White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

```
labelsep=newline, justification=centering
```

Figure 12

White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

`singlelinecheck=` The standard L<sup>A</sup>T<sub>E</sub>X document classes (`article`, `report`, and `book`) automatically center a caption if it fits in one single line:

Figure 13: A short caption.



The caption package adapts this behaviour and therefore usually ignores the `format` & `justification` you have set with `format=` & `justification=` in such case. But you can switch this special treatment of such short captions off with the option

```
singlelinecheck=<bool> .
```

Using `false`, `no`, `off` or `0` for *<bool>* switches the extra centering off:

```
singlelinecheck=false
```

Doing so the above short caption would look like

Figure 13: A short caption.

You switch the extra centering on again by using `true`, `yes`, `on` or `1` for *<bool>*. (The default is on.)

## 2.3 Fonts

`font=` There are three font options which affects different parts of the caption: One affecting the whole caption (`font`), one which only affects the caption label and separator (`labelfont`) and at least one which only affects the caption text (`textfont`). You set them up using the options



```
font={\font options} ,
labelfont={\font options} , and
textfont={\font options} .
```

And these are the available font options:

```
scriptsize    Very small size
footnotesize  The size usually used for footnotes
small         Small size
normalsize    Normal size
large         Large size
Large         Even larger size
up            Upright shape
it            Italic shape
sl            Slanted shape
sc            SMALL CAPS SHAPE
md            Medium series
bf            Bold series
rm            Roman family
sf            Sans Serif family
tt            Typewriter family
singlespacing \singlespacing (see setspace package)
onehalfspacing \onehalfspacing
doublespacing \doublespacing
...           Own font options can be defined using \DeclareCaptionFont.
              (See section 4: Own enhancements)
```

If you use only one of these options you can omit the braces; e.g., the options `font={small}` and `font=small` will give the same result.

Two examples:

```
font={small,it},labelfont=bf
```

**Figure 14:** *White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.*

font=small, labelfont=bf, textfont=it

**Figure 15:** *White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.*

## 2.4 Margins and further paragraph options

margin= For all captions you can specify *either* an extra margin *or* a fixed width. You do this by  
width= using the options

margin=<amount> or  
width=<amount>

Nevertheless what option you use, the left and right margin will be the same.

Two examples will illustrating this:

margin=10pt

Figure 16: White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

width=.75\textwidth

Figure 17: White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

parskip= This option is useful for captions containing more than one paragraph. It specifies the extra vertical space inserted between them:

parskip=<amount>

One example:

margin=10pt, parskip=5pt

Figure 18: First paragraph of the caption. This one contains some test, just to show how these options affect the layout of the caption.

Second paragraph of the caption. This one contains some text, too, to show how these options affect the layout of the caption.

hangindent= The option

hangindent=<amount>

is for setting up a hanging indentation starting from the second line of each paragraph. If the caption contains just a single paragraph, using this option leads to the same result as the option `indentation=` you already know about. But if the caption contains multiple paragraphs you will notice the difference:

```
format=hang,indentation=-.5cm
```

Figure 19: First paragraph of the caption. This one contains some test, just to show how these options affect the layout of the caption.

Second paragraph of the caption. This one contains some text, too, to show how these options affect the layout of the caption.

```
format=hang,hangindent=-.5cm
```

Figure 20: First paragraph of the caption. This one contains some test, just to show how these options affect the layout of the caption.

Second paragraph of the caption. This one contains some text, too, to show how these options affect the layout of the caption.

## 2.5 Styles

`style=` A suitable combination of caption options is called *caption style*. You can compare them more or less to page styles which you set up with `\pagestyle`: The caption style provides all settings for a whole caption layout.

You switch to an already defined caption style with the option

```
style=\langle style name \rangle .
```

The caption package pre-defines two styles: `base` and `default`.

New feature  
v3.1

The `base` style puts all options you already know about to values reflecting the look of the captions when using one of the base L<sup>A</sup>T<sub>E</sub>X document classes `article`, `report`, and `book`. This means that specifying the option

```
style=base
```

has the same effect as specifying all these options:

```
format=plain,labelformat=default,labelsep=colon,
justification=justified,font=,labelfont=,
textfont=,margin=0pt,indentation=0pt,parindent=0pt
hangindent=0pt,singlelinecheck=true
```

(But `justification=centering` will be set if the caption fits into a single line.)

In contrast the `default` style follows the default values, reflecting the look of the captions given by the document class you actually use. This style is selected by default and represents these options:

```
format=default,labelformat=default,labelsep=default,
justification=default,font=default,labelfont=default,
textfont=default,margin=0pt,indentation=0pt,parindent=0pt
hangindent=0pt,singlelinecheck=true
```

(But `justification=centering` and `format=plain` will be set if the caption fits into a single line.)

So if you use one of the base L<sup>A</sup>T<sub>E</sub>X document classes, both `base` and `default` point to the nearly same settings.

*Note:* Own caption styles can be defined using `\DeclareCaptionStyle`. (See [section 4: Own enhancements](#))

## 2.6 Skips

`aboveskip=` The vertical spaces above and below the caption are controlled by the skips `\abovecaptionskip` and `\belowcaptionskip`. The standard L<sup>A</sup>T<sub>E</sub>X document classes `article`, `report` and `book` set `\abovecaptionskip` to 10pt and `\belowcaptionskip` to 0pt, other document classes may use other values.

Both skips can be changed with the command `\setlength`, but you can use these options, too:

```
aboveskip=<amount> and
belowskip=<amount> .
```

`position=` Using `\abovecaptionskip` and `\belowcaptionskip` has a major design flaw: If the caption is typeset *above* (and not *below*) the figure or table they are not set up very useful at default, because there will be some extra space above the caption but no space between the caption and the figure or table itself. (Remember: `\belowcaptionskip` is usually set to 0pt.)

Please compare the spacing in these small tables:

Table 1: A table

|   |   |
|---|---|
| A | B |
| C | D |

|   |   |
|---|---|
| A | B |
| C | D |

Table 2: A table

But you can fix this by using the option `position=`: It specifies how the spacing above and below the caption will be used:

```
position=top (or position=above)
```

tells the caption package to use the spacing useful for caption *above* the figure or table and

```
position=bottom (or position=below)
```

tells the caption package to use the spacing useful for captions *below* the figure or table. (The last one is the default setting except for `longtables`.)

So adding an extra `\captionsetup{position=top}` to the left example table gives you proper spacing around both captions:

Table 3: A table

|   |   |
|---|---|
| A | B |
| C | D |

|   |   |
|---|---|
| A | B |
| C | D |

Table 4: A table

(Technically speaking `\abovecaptionskip` and `\belowcaptionskip` will be swapped if you specify the option `position=top`, so in both cases `\abovecaptionskip` will be used between the caption and the figure or table itself.)

This option is especially useful when used together with the optional argument of the `\captionsetup` command. (See [section 3: Commands](#) for details)

For example

```
\captionsetup[table]{position=top}
```

`tableposition=` causes all captions within tables to be treated as captions *above* the table (regarding spacing around it). Because this is a very common setting the `caption` package offers an abbreviating option for the use with `\usepackage`:

```
\usepackage[... ,tableposition=top]{caption}
```

is equivalent to

```
\usepackage[...]{caption}  
\captionsetup[table]{position=top}
```

### 3 Commands

`\caption` The command

```
\caption[⟨lst_entry⟩]{⟨heading⟩}
```

typesets the caption inside a floating environment like `figure` or `table`. Well, you already know this, but the `caption` package offers an extension: If you leave the argument `⟨lst_entry⟩` empty, no entry in the list of figures or tables will be made. For example:

```
\caption[] {A figure without entry in the list of figures.}
```

`\caption*` The `longtable` package defines the command `\caption*` which typesets the caption without label and without entry in the list of tables. An example:

```
\begin{longtable}{cc}
  \caption*{A table}\\
  A & B \\
  C & D \\
\end{longtable}
```

looks like

A table

|   |   |
|---|---|
| A | B |
| C | D |

This package offers this feature, too, so you can use this command now within every floating environment like `figure` or `table`, like:

```
\begin{table}
  \caption*{A table}
  \begin{tabular}{cc}
    A & B \\
    C & D \\
  \end{tabular}
\end{table}
```

`\captionof` Sometimes you want to typeset a caption *outside* a floating environment, putting a figure within a `minipage` for instance. For this purpose the `caption` package offers the command

```
\captionof{⟨float type⟩}[⟨lst_entry⟩]{⟨heading⟩} .
```

Note that the first argument, the `⟨float type⟩`, is mandatory here, because the `\captionof` command needs to know which name to put into the caption label (e.g. “Figure” or “Table”) and in which list to put the contents entry. An example:

```
\captionof{figure}{A figure}
\captionof{table}{A table}
```

typesets captions like this:

Figure 21: A figure

Table 6: A table

The star variant `\captionof*` has the same behaviour as the `\caption*` command: it typesets the caption without label and without entry to the list of figures or tables.



Please note that you should use both `\captionof` and `\captionof*` only *inside* boxes or environments (like `\parbox` or `minipage`), otherwise an error message will be issued.<sup>3</sup>

`\captionsetup`

We already know the `\captionsetup` command (see [section 1: Using this package](#)), but this time we get enlighten about its optional argument `<float type>`.

Remember, the syntax of this command is

```
\captionsetup[<float type>]{<options>}
```

If a `<float type>` gets specified, all the `<options>` don't change anything at this time. Instead they only get marked for a later use, when a caption inside of a floating environment of the particular type `<float type>` gets typeset. For example

```
\captionsetup[figure]{<options>}
```

forces captions within a `figure` environment to use the given `<options>`.

Here comes an example to illustrate this:

```
\captionsetup{font=small}  
\captionsetup[figure]{labelfont=bf}
```

gives captions like this:

**Figure 22: A figure**

Table 7: A table

As you see the command `\captionsetup[figure]{labelfont=bf}` only changed the font of the figure caption labels, not touching all other ones.

`\clearcaptionsetup`

If you want to get rid of these parameters marked for an automatic use within a particular environment you can use the command

```
\clearcaptionsetup{<float type>}
```

For example `\clearcaptionsetup{figure}` would clear the extra handling in the example above:

---

<sup>3</sup>This only happens if you use  $\epsilon$ -TeX as underlying T<sub>E</sub>X engine. Otherwise no error message will be issued, but a page break can appear between content and caption. Furthermore some strange effects could occur, e.g., mixed-up figure and table settings regarding captions.

Figure 23: A figure

Table 8: A table

As *float type* you can usually give one of these two only: `figure` or `table`. But as we will see later some  $\text{\LaTeX}$  packages (like the `float`, `longtable`, and `sidecap` package for example) offer additional floating environments and these two commands can also be used with them.

### 3.1 Continued floats

`\ContinuedFloat` Sometimes you want to split figures or tables without giving them their own reference number. This is what the command

`\ContinuedFloat`

is for; it should be used as first command inside the floating environment. It prevents the increment of the relevant counter (usually done by `\caption`) so a figure or table with a `\ContinuedFloat` in it gets the same reference number as the figure or table before.

An example:

```
\begin{table}
\caption{A table}
...
\end{table}
...
\begin{table}\ContinuedFloat
\caption{A table (cont.)}
...
\end{table}
```

gives the following result:

Table 9: A table

...

Table 9: A table (cont.)



## 4 Own enhancements

A family of commands is provided to allow users to define their own formats. This enables information on separators, justification, fonts, and styles to be associated with a name and kept in one place (these commands need to appear in the document preamble, this is the part between `\documentclass` and `\begin{document}`).

`\DeclareCaptionFormat` You can define your own caption formats using the command

```
\DeclareCaptionFormat{<name>}{<code using #1, #2 and #3>}
```

At usage the system replaces #1 with the caption label, #2 with the separator and #3 with the text. So the standard format `plain` is pre-defined by the caption package as

```
\DeclareCaptionFormat{plain}{#1#2#3\par}
```

`\DeclareCaptionLabelFormat` Likewise you can define your own caption label formats:

```
\DeclareCaptionLabelFormat{<name>}{<code using #1 and #2>}
```

At usage #1 gets replaced with the name (e.g. “figure”) and #2 gets replaced with the reference number (e.g. “12”).

`\bothIfFirst` `\bothIfSecond` If you define your own caption label formats and use the subfig package<sup>[18]</sup>, you should take care of empty caption label names. For this purpose the commands

```
\bothIfFirst{<first arg>}{<second arg>} and
\bothIfSecond{<first arg>}{<second arg>}
```

are offered. `\bothIfFirst` tests if the first argument exists (means: is not empty), `\bothIfSecond` tests if the second argument exists. If yes, both arguments get typeset, otherwise none of them.

For example the standard label format `simple` is *not* defined as

```
\DeclareCaptionLabelFormat{simple}{#1~#2}
```

because this could cause an extra space if #1 is empty. Instead `simple` is defined as

```
\DeclareCaptionLabelFormat{simple}{\bothIfFirst{#1}{~}#2}
```

causing the space to appear only if the label name is present.

`\DeclareCaptionLabelSeparator` You can define your own caption label separators with

```
\DeclareCaptionLabelSeparator{<name>}{<code>}
```

Again an easy example taken from the caption package itself:

```
\DeclareCaptionLabelSeparator{colon}{:}
```

`\DeclareCaptionJustification` You can define your own caption justifications with

```
\DeclareCaptionJustification{<name>}{<code>}
```

The `<code>` simply gets typeset just before the caption. E.g. using the justification `raggedright`, which is defined as

```
\DeclareCaptionJustification{raggedright}{\raggedright}
```

lets captions with all lines moved to the left margin.

`\DeclareCaptionFont` You can define your own caption fonts with

```
\DeclareCaptionFont{<name>}{<code>}
```

For example this package defines the options `small` and `bf` as

```
\DeclareCaptionFont{small}{\small} and  
\DeclareCaptionFont{bf}{\bfseries}
```

An example which brings color into life:

```
\usepackage{color}  
\DeclareCaptionFont{red}{\color{red}}  
\DeclareCaptionFont{green}{\color{green}}  
\DeclareCaptionFont{blue}{\color{blue}}  
\captionsetup{labelfont={blue,bf},textfont=green}
```

**Figure 24:** White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

But since the caption package already includes the tricky definition

```
\DeclareCaptionFont{color}{\color{#1}}
```

you can get the same result simply with

```
\usepackage{color}  
\captionsetup{labelfont={color=blue,bf},  
textfont={color=green}}
```

`\DeclareCaptionStyle` You can define your own caption styles with

```
\DeclareCaptionStyle{<name>}[<additional options>]{<options>}
```

Remember, caption styles are just a collection of suitable options, saved under a given name. You can wake up these options at any time with the option `style=<style name>`.

All caption styles are based on the base set of options. (See [section 2.5: Styles](#) for a complete list.) So you only need to specify options which are different to them.

If you specify `<additional options>` they get used in addition when the caption fits into a single line and this check was not disabled with the option `singlelinecheck=off`.

Again a very easy example taken from the core of this package: The caption style base is pre-defined as

```
\DeclareCaptionStyle{base}%
  [format=plain,justification=centering]{} .
```

## 4.1 Further Examples

If you would like to have a line break between caption label and text you could define it this way:

```
\DeclareCaptionFormat{myformat}{#1#2\\#3}
```

If you select this format with `\captionsetup{format=myformat}` you get captions like this:

**Figure 25:**

White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

You could even use an indentation with this caption format:

```
\captionsetup{format=myformat,indentation=1cm}
```

This would look like this:

**Figure 26:**

White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

Instead, you would like to have an indentation only of the first line of the caption text? No problem, e.g.

```
\newlength\myindentation
\DeclareCaptionFormat{myformat}%
  {#1#2\\ \hspace*{\myindentation}#3}
...
\setlength\myindentation{1cm}
\captionsetup{format=myformat}
```

would give you captions like

**Figure 27:**

White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

But you want to have an caption option for this indentation, so you can use it for example with `\captionsetup[figure]{myindentation=...}`? This could be done, too:

```
\newlength\myindentation
\DeclareCaptionOption{myindentation}%
  {\setlength\myindentation{#1}}
\DeclareCaptionFormat{myformat}%
```

```

        {#1#2\\\hspace\myindentation #3}
...
\captionsetup{format=myformat,myindentation=1cm}

```

would give the same result as the example above.

A different example: You want captions to look like this:

White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

*(Figure 28)*

You could do it this way:

```

\DeclareCaptionFormat{reverse}{#3#2#1}
\DeclareCaptionLabelFormat{fullparens}%
    {(\bothIfFirst{#1}{~}{#2})}
\DeclareCaptionLabelSeparator{fill}{\hfill}
\captionsetup{format=reverse,labelformat=fullparens,
    labelsep=fill,font=small,labelfont=it}

```

For short captions—which fit into one single line—this format will not be used, since `format=plain` is part of the *single-line-code* of the caption style default which will be used as long as no different style is selected. If you don't like this, you could either switch the `singlelinecheck` off, or you could define an appropriate style for yourself, e.g.:

```

\DeclareCaptionStyle{mystyle}%
    [justification=centering]{format=myformat}
\captionsetup{style=mystyle}

```

or

```

\DeclareCaptionFormat{myshortformat}{...use your illusion
here}
\DeclareCaptionStyle{mystyle}%
    [format=myshortformat]{format=myformat}
\captionsetup{style=mystyle}

```

Another example: The caption text should go into the left margin; a possible solution would be:

```

\DeclareCaptionFormat{llap}{\llap{#1#2}#3\par}
\captionsetup{format=llap,labelsep=quad,singlelinecheck=no}

```

As a result you would get captions like this:

Figure 29 White sand beaches. The pink smoothness of the conch shell. A sea abundant with possibilities. Duty-free shops filled with Europe's finest gifts and perfumes. Play your favorite game of golf amidst the tropical greens on one of the many championship courses.

## 5 Document classes & Babel support

*Please note:* Many document classes already have build-in options and commands for customizing captions. If these possibilities are sufficient for you, there is usually no need for you to use the caption package at all. And if you are just interested in using the command `\captionof`, loading of the very small `capt-of` is usually sufficient.

This section will give you an overview of the document classes the caption supports, what do they already offer regarding captions, what side effects will occur when using the caption package with them, and what are the ‘default’ settings for them.

New feature  
v3.1



The ‘default’ settings depend on the document class you use; they represent how the class author wanted the captions to look like. So for example setting `format=default` can give you different visual designs when used with different document classes.

If you don’t find the document class you use in this section, you usually don’t have to worry: Many document classes are derived from one of the standard document classes `article`, `report`, or `book`, and behave the same regarding captions. The caption package automatically does a compatibility check against the document class used and will give you a clear warning if a incompatibility was detected. If you don’t get such warning everything is fine, but if you get it the usage of the caption package is not recommended and especially not supported.

(If you get such a compatibility warning but decide to use the caption package anyway, you should watch carefully what side-effects occur, usually the look and feel of your captions will change by just including the caption package without options, meaning they do not look like as intended by the author of the document class. If this is fine for you, you should first specify the option `style=base` via `\usepackage[style=base]{caption}` or `\captionsetup{style=base}` to set the caption package into a well-defined state. Afterwards you can start setting your own options additionally and keep your fingers crossed.)

### 5.1 Standard L<sup>A</sup>T<sub>E</sub>X: article, report, and book

| Option                      | default value          |
|-----------------------------|------------------------|
| <code>format=</code>        | <code>plain</code>     |
| <code>labelformat=</code>   | <code>simple</code>    |
| <code>labelsep=</code>      | <code>colon</code>     |
| <code>justification=</code> | <code>justified</code> |
| <code>font=</code>          | <i>none</i>            |
| <code>labelfont=</code>     | <i>none</i>            |
| <code>textfont=</code>      | <i>none</i>            |

**Build-in features:** None

(*Note:* This also applies to document classes derived from them.)

### 5.2 $\mathcal{A}\mathcal{M}\mathcal{S}$ : amsart, amsproc, and amsbook

– *Some information is missing here* –

### 5.3 beamer

| Option         | default value                           |
|----------------|---|
| format=        | plain                                   |
| labelformat=   | <i>not numbered</i>                     |
| labelsep=      | colon                                   |
| justification= | raggedright                             |
| font=          | <i>use beamer caption settings</i>      |
| labelfont=     | <i>use beamer caption name settings</i> |
| textfont=      | <i>none</i>                             |

#### Build-in features and side-effects:

You can setup font and color settings with `\setbeamerfont{caption}{\langle options \rangle}` and `\setbeamerfont{caption name}{\langle options \rangle}`. This will still work, unless you set a different font with `\captionsetup{font=\langle options \rangle}` or `\captionsetup{labelfont=\langle options \rangle}`.

Furthermore the beamer classes offer different caption templates which can be choosen with `\setbeamertemplate{caption}[\langle template \rangle]`. Since the caption package replaces this caption template mechanism, `\defbeamertemplate*{caption}{\langle template code \rangle}` and `\setbeamertemplate{caption}[\langle template \rangle]` will have no function when the caption package is used.

### 5.4 KOMA-Script: scrartcl, scrreprt, and scrbook

| Option         | default value  |
|----------------|--|
| format=        | <i>use \setcapindent &amp; \setcaphanging settings</i> |
| labelformat=   | simple   |
| labelsep=      | <i>use \captionformat</i>                              |
| justification= | justified  |
| font=          | <i>use \setkomafont{caption} settings</i>              |
| labelfont=     | <i>use \setkomafont{captionlabel} settings</i>         |
| textfont=      | <i>none</i>  |

#### Build-in features:

The KOMA-Script document classes offer many ways to customize the look and feel of the captions. For an overview and a full description please take a look at the KOMA-Script documentation, section ‘Tables and Figures’.

#### Side effects:

The optional argument of `\setcapwidth` is not supported (yet) and will be ignored if used in conjunction with the caption package. Furthermore the KOMA-Script options `tablecaptionabove` & `tablecaptionbelow` and the commands `\captionabove` & `\captionbelow` are stronger than the `position=` setting offered by the caption package.

## 5.5 NTG: artikel, rapport, and boek

| Option                      | default value                |
|-----------------------------|------------------------------|
| <code>format=</code>        | <code>plain</code>           |
| <code>labelformat=</code>   | <code>simple</code>          |
| <code>labelsep=</code>      | <code>colon</code>           |
| <code>justification=</code> | <code>justified</code>       |
| <code>font=</code>          | <i>none</i>                  |
| <code>labelfont=</code>     | <i>use \CaptionLabelFont</i> |
| <code>textfont=</code>      | <i>use \CaptionTextFont</i>  |

### Build-in features and side-effects:

`\CaptionLabelFont` and `\CaptionTextFont` can be set either directly or by using `\CaptionFonts`. Both is still supported unless you use one of the two options `labelfont=` or `textfont=` offered by the caption package.

## 5.6 SMF classes: smfart and smfbook

– Some information is missing here –

## 5.7 The frenchb Babel option

If you use the `frenchb` option of the `babel` package with one of the three standard  $\text{\LaTeX}$  classes (or a one derived from them) the default `labelsep=` will be set to `\CaptionSeparator` (offered by `frenchb`), overriding the default value set by the document class. So redefining `\CaptionSeparator` will still work, unless you don't select a different `labelsep=` than the default one.



Please load the caption package *after* the babel package.

## 5.8 The frenchle and frenchpro packages

If you use the `frenchle` or `frenchpro` package, the default `labelsep=` will be set to `\captionseparator` (offered by `frenchle/pro`) plus `\space`, overriding the default value set by the document class. So redefining `\captionseparator` will still work, unless you don't select a different `labelsep=` than the default one.

Furthermore the default `textfont=` will be set to `textfont=it`, since this emulates the default setting of `\captionfont` defined by the `frenchle` or `frenchpro` package. Please note that the command `\captionfont` is used by the caption package internally for a different purpose, so you should not change it (anymore).

The command `\unnumberedcaptions{<figure or table>}` will still work, but only unless you don't select a different `labelformat=` than the default one.



Please load the caption package *after* the `frenchle` or `frenchpro` package.

## 6 Supported packages

The caption package was adapted to the following packages which deals with captions, too:

float, floatflt, fltpage, hyperref, hypcap, listings, longtable, picinpar, picins, rotating, sidecap, subfigure, supertabular, threeparttable, and wrapfig

Furthermore the floatrow and the subfig package supports the caption package and use its `\captionsetup` interface.

### 6.1 float

– *Some information is missing here* –

### 6.2 floatflt

– *Some information is missing here* –

### 6.3 fltpage

– *Some information is missing here* –

### 6.4 hyperref

New feature  
v3.1

There are two options available to control hyperlinks:

`hypcap=`

If set to `true` all hyperlink anchors – where entries in the List of Figures, `\ref`, and `\autoref` will link to – are placed at the beginning of the (floating) environment.

If set to `false` the hyperlink anchor is placed at the caption.

(The default setting is `hypcap=true`.)

`hypcapSPACE=`

This controls the vertical distance between the hyperlink anchor and the (floating) environment, e.g. `hypcapSPACE=0pt` removes the space.

(The default setting is `hypcapSPACE=0.5\baselineskip`.)

Please note:

`\captionof{<type>}{...}` vs. `\captionsetup{type=<type>}+\caption{...}`

Without `hyperref` loaded, both will give you identical results. But with `hyperref` loaded, and with `hypcap=true` requested, the hyperlink anchor will be placed different. For example:



```

\begin{minipage}{\linewidth}
...
\captionof{figure}{A figure}
\end{minipage}

```

will place the hyperlink anchor at the caption. (And if `hypcap=true` is set, you will get a warning about this.) But

```

\begin{minipage}{\linewidth}
\captionsetup{type=figure}
...
\caption{A figure}
\end{minipage}

```

will place the hyperlink anchor at the beginning of the minipage.

`\caption[]{...}` vs. `\captionsetup{listof=false}+\caption{...}`

Again, without `hyperref` loaded, both will give you identical results. But with `hyperref` loaded, the difference is in the nuances. So for example the optional argument of `\caption` will also be written to the aux file, and will be used by the `\nameref` command. So if you choose to use `\caption` with empty optional argument, `\nameref` will also give you an empty result. So it's better to use `\captionsetup{listof=false}` if you don't want an entry in the List of Figures or List of Tables.

## 6.5 hypcap

If the `hypcap` package is loaded additionally to the `hyperref` package, it takes over the control of the hyperlink anchor placement.

This has the side-effect that you lost the good placement of the hyperlink anchors in `floatingfigures` (provided by the `floatflt` package), in `figwindows` (provided by the `picinpar` package), in `parpics` (provided by the `picins` package), and in `wrapfigures` (provided by the `wrapfig` package).

Furthermore `\captionsetup{type=<type>}` will not place hyperlink anchors anymore, instead you need to use `\capstart` (provided by the `hypcap` package).

## 6.6 listings

– *Some information is missing here* –

## 6.7 longtable

– *Some information is missing here* –

## 6.8 picinpar

– *Some information is missing here* –

## **6.9 picins**

– *Some information is missing here* –

## **6.10 rotating**

– *Some information is missing here* –

## **6.11 sidecap**

– *Some information is missing here* –

## **6.12 subfigure**

– *Some information is missing here* –

## **6.13 supertabular**

– *Some information is missing here* –

## **6.14 threeparttable**

– *Some information is missing here* –

## **6.15 wrapfig**

– *Some information is missing here* –

## 7 Compatibility to older versions

### 7.1 caption v1.x

This version of the caption package still supports the old options and commands provided by the version 1.x of this package. So there shouldn't occur any problems compiling old documents, but please don't mix old options and commands with the new ones. This isn't supported and can cause ugly side effects.

Here comes a short oversight of the obsolete options and how they have been replaced within this version of the caption package:

| caption v1.x | caption v3.x             |
|--------------|--------------------------|
| normal       | format=plain             |
| hang         | format=hang              |
| isu          | format=hang              |
| center       | justification=centering  |
| centerlast   | justification=centerlast |
| nooneline    | singlelinecheck=off      |
| scriptsize   | font=scriptsize          |
| footnotesize | font=footnotesize        |
| small        | font=small               |
| normalsize   | font=normalsize          |
| large        | font=large               |
| Large        | font=Large               |
| up           | labelfont=up             |
| it           | labelfont=it             |
| sl           | labelfont=sl             |
| sc           | labelfont=sc             |
| md           | labelfont=md             |
| bf           | labelfont=bf             |
| rm           | labelfont=rm             |
| sf           | labelfont=sf             |
| tt           | labelfont=tt             |

Beside the options for setting up the desired font there were also the commands `\captionsize` resp. `\captionfont` and `\captionlabelfont` who could be redefined with `\renewcommand` and allowed an alternate and more flexible way to change the font used for captions. This mechanism was replaced by the commands

```
\DeclareCaptionFont{...}{...} and  
\captionsetup{font=..., labelfont=...} .
```

(See [section 4: Own enhancements](#))

Setting the margin for captions was done in v1.x with

```
\setlength{\captionmargin}{...} .
```

This was replaced by

```
\captionsetup{margin=...} .
```

(See [section 2.4: Margins and further paragraph options](#))

For example the old-style code

```
\usepackage[hang,bf]{caption}
\renewcommand\captionfont{\small\sffamily}
\setlength\captionmargin{10pt}
```

will still work fine, but should be written today as

```
\usepackage[format=hang,labelfont=bf,font={small,sf},
margin=10pt]{caption}
```

or

```
\usepackage{caption}
\captionsetup{format=hang,labelfont=bf,font={small,sf},
margin=10pt} .
```

The quite exotic option `ruled` which allowed a partial usage of the caption settings for ruled floats defined with the `float` package will be emulated by this version of the caption package, too. But using this option is not recommended anymore since this version of the caption package offers a more flexible way for changing the captions of these floating environments:

```
\DeclareCaptionStyle{ruled}{...}
```

resp.

```
\captionsetup[ruled]{...} .
```

(See [section 4: Own enhancements](#), [section 3: Commands](#), and [section 6.1: float](#))

## 7.2 caption2 v2.x

Although they do very similar stuff, the packages `caption` and its experimental and now obsolete variant `caption2` have a very different implementation design. Therefore a full compatibility could not be offered. For that reason you will still find a file called `caption2.sty` in this package distribution, so old documents using the `caption2` package will still compile fine.

Newly created documents should use the actual version of the `caption` package instead. In most cases it's sufficient to replace the command

```
\usepackage[...]{caption2}
```

by

```
\usepackage[...]{caption} .
```

But some options and commands will not be emulated, so you can get error messages afterwards. This section will hopefully help you removing these errors. If you have problems migrating from `caption2` to `caption` please don't hesitate to send me an e-mail asking for help.

In addition to the obsolete options shown in the last section these ones will be emulated, too:

| caption2 v2.x | caption v3.x              |
|---------------|---------------------------|
| flushleft     | justification=raggedright |
| flushright    | justification=raggedleft  |
| oneline       | singlelinecheck=on        |

Setting the margin for captions was done in v2.x with

```
\setcaptionmargin{...} resp. \setcaptionwidth{...} .
```

This was replaced by

```
\captionsetup{margin=...} resp. \captionsetup{width=...} .
```

(See [section 2.4: Margins and further paragraph options](#))

Setting an indentation was done in v2.x with

```
\captionstyle{indent}  
\setlength\captionindent{...} .
```

This is now done with

```
\captionsetup{format=plain,indentation=...} .
```

The so-called single-line-check was controlled by the commands `\onelinecaptionsfalse` (for switching the check off) and `\onelinecaptionstrue` (for switching the check on). This was replaced by `\captionsetup{singlelinecheck=off}` resp. `\captionsetup{singlelinecheck=on}`. (See [section 2.2: Justification](#))

The commands

```
\captionlabeldelim, \captionlabelsep, \captionstyle,  
\defcaptionstyle, \newcaptionstyle, and \renewcaptionstyle
```

do not have a simple replacement and therefore will not be emulated by this version of the caption package. (So using them will cause error messages.) Rewriting such code is not always easy and straight-ahead, but by conscientious reading of this manual you should find appropriate options and commands instead.

The v2.x option `ignoreLTcapwidth` do not have a replacement, too. But in most cases you can simply drop using that option because in this version of the caption package the value of `\LTcapwidth` will be ignored anyway (unless you set it to a different value than the default one which is 4in). (See [section 6.7: longtable](#))

### 7.3 caption v3.0

The caption package v3.0 did not support any document classes other than the standard L<sup>A</sup>T<sub>E</sub>X ones: `article`, `report`, and `book`. Therefore the default settings used to be fixed, but now the caption package supports more classes, therefore they are now set in dependence on the document class used.

For example: While in v3.0 the default caption justification used to be always justified, it's now still justified when using one of the standard document classes, but `raggedright` will be used as default format when used with the `beamer` document class.

An easy way to select the 'old' defaults is using the option `style=base` when loading the caption package (or later on using `\captionsetup`).

## 8 Alphabetical Reference

### 8.1 Commands

| Command                                     | Section |
|---|---------|
| <code>\abovecaptionskip</code>              | 2.6     |
| <code>\belowcaptionskip</code>              | 2.6     |
| <code>\caption</code>                       | 3       |
| <code>\caption*</code>                      | 3       |
| <code>\captionbox</code>                    | ??      |
| <code>\captionof</code>                     | 3       |
| <code>\captionof*</code>                    | 3       |
| <code>\captionsetup</code>                  | 3       |
| <code>\captionsetup*</code>                 | 3       |
| <code>\centerfirst</code>                   | 2.2     |
| <code>\centerlast</code>                    | 2.2     |
| <code>\clearcaptionsetup</code>             | 3       |
| <code>\clearcaptionsetup*</code>            | 3       |
| <code>\ContinuedFloat</code>                | 3.1     |
| <code>\DeclareCaptionFont</code>            | 4       |
| <code>\DeclareCaptionFormat</code>          | 4       |
| <code>\DeclareCaptionFormat*</code>         | 4       |
| <code>\DeclareCaptionJustification</code>   | 4       |
| <code>\DeclareCaptionLabelFormat</code>     | 4       |
| <code>\DeclareCaptionLabelSeparator</code>  | 4       |
| <code>\DeclareCaptionLabelSeparator*</code> | 4       |
| <code>\DeclareCaptionListOfFormat</code>    | 4       |
| <code>\DeclareCaptionOption</code>          | 4       |
| <code>\DeclareCaptionStyle</code>           | 4       |
| <code>\DeclareCaptionTextFormat</code>      | 4       |
| <code>\showcaptionsetup</code>              | 3       |

## 8.2 Options

| Option                                   | Short description                                    | Section |
|--|--|---------|
| <code>aboveskip</code>                   | sets the skip above caption                          | 2.6     |
| <code>belowskip</code>                   | sets the skip below caption                          | 2.6     |
| <code>compatibility</code> <sup>1</sup>  | force (non-)compatibility                            | 5       |
| <code>figurename</code> <sup>1</sup>     | sets the figure name                                 | ??      |
| <code>figureposition</code> <sup>1</sup> | gives a hint about the figure caption position       | 2.6     |
| <code>font</code>                        | sets the font  | 2.3     |
| <code>format</code>                      | sets the format                                      | 2.1     |
| <code>hangindent</code>                  | sets the hang indentation                            | 2.4     |
| <code>hypcap</code>                      | select ‘hypcap’ feature                              | 6.4     |
| <code>hypcapSPACE</code>                 | sets the distance between hyperlink & contents       | 6.4     |
| <code>indentation</code>                 | sets the indentation                                 | 2.4     |
| <code>justification</code>               | sets the justification                               | 2.2     |
| <code>labelfont</code>                   | sets the font of the caption label                   | 2.3     |
| <code>labelformat</code>                 | sets the format of the caption label                 | 2.1     |
| <code>labelsep</code>                    | sets the label separator                             | 2.1     |
| <code>labelseparator</code>              | sets the label separator                             | 2.1     |
| <code>listof</code>                      | switches the entries in the ‘List of’ on or off      | ??      |
| <code>listofformat</code>                | sets the ‘List of’ entry format                      | ??      |
| <code>margin</code>                      | sets the margin                                      | 2.4     |
| <code>margin*</code>                     | sets the margin, but only if no width is set         | 2.4     |
| <code>maxmargin</code>                   | sets the max. margin                                 | 2.4     |
| <code>minmargin</code>                   | sets the min. margin                                 | 2.4     |
| <code>options</code>                     | executes the given option list                       | ??      |
| <code>parindent</code>                   | sets the paragraph indentation                       | 2.4     |
| <code>parskip</code>                     | sets the skip between paragraphs                     | 2.4     |
| <code>position</code>                    | gives a hint about the caption position              | 2.6     |
| <code>singlelinecheck</code>             | switches the single-line-check on or off             | 2.2     |
| <code>skip</code>                        | sets the skip between content & caption              | 2.6     |
| <code>strut</code>                       | switches the usage of <code>\struts</code> on or off | 2.1     |
| <code>style</code>                       | sets the caption style                               | 2.5     |
| <code>tablename</code> <sup>1</sup>      | sets the table name                                  | ??      |
| <code>tableposition</code> <sup>1</sup>  | gives a hint about the table caption position        | 2.6     |
| <code>textfont</code>                    | sets the font of the caption text                    | 2.3     |
| <code>textformat</code>                  | sets the format of the caption text                  | 2.1     |
| <code>twoside</code>                     | selects the two-side mode                            | ??      |
| <code>type</code>                        | sets the caption type & places a hyperlink anchor    | ??      |
| <code>type*</code>                       | sets the caption type only                           | ??      |
| <code>width</code>                       | sets a fixed caption width                           | 2.4     |

*Note:* Obsolete options are not listed here. See  
[section 7.1: \*caption v1.x\*](#) and  
[section 7.2: \*caption2 v2.x\*](#) for a list of these options.

---

<sup>1</sup>These options are only available in the preamble of the document.

## 8.3 Warnings

```
*****
\caption will not be redefined since it's already
redefined by a document class or package which is
unknown to the caption package.
As a result some new features of the caption
package will not work as expected.
```

```
*****
```

If the caption package detects that some (unknown) documentclass or package has enhanced `\caption`, it will not redefine `\caption`, too, since this would simply kill the enhancement. As a result some features, like `\caption*`, `\ContinuedFloat`, using the optional argument of `\captionsetup`, or the options `listof=` & `hycap=` will be ignored or not work as expected.

If you don't care about the original enhancements but would like to use the full range of features of the caption package instead you can give the `unsupported(!)` option `compatibility=false` a try and keep your fingers crossed. (But you will get the next warning instead.)

(See [section 5: Document classes & Babel support](#))

```
*****
Forced redefinition of \caption since the
unsupported(!) package option 'compatibility=false'
was given. Please fasten your seat belts, as we may
experience turbulence!
```

```
*****
```

Since you were so keen to specify the option `compatibility=false` the caption package will try to do its best to fulfill your wishes. But depending on the document class or other packages you use that can end in non-functional features or even errors. So keep your fingers crossed!

(See [section 5: Document classes & Babel support](#))

Caption type was already set to `'\type'`.

This warning informs you about mixed caption options. For example if you use a `\captionof{table}{...}` inside a figure environment, this would result in using both option sets for that specific caption, the ones for figure (specified with `\captionsetup[figure]{...}`) and the one for table (specified with `\captionsetup[table]{...}`) as well.

(See [section 3: Commands](#))

Hyperref support is turned off because hyperref has stopped early.

If the hyperref package stopps early during loading (because of what-ever reason), the hyperref support of the caption package will not be available. As a result you could get hyperref warnings and non-functional hyperlinks to figures or tables.

(See [section 6.4: hyperref](#))



Ignoring optional argument [*pos*] of `\setcapwidth`.

The caption package tries to emulate the KOMA-Script commands regarding captions as best as it can. But the optional argument of the KOMA-Script command `\setcapwidth` is not (yet) working if you use this package, so if you try to use it anyway, you will get this warning.

(See [section 5.4: KOMA-Script: \*scrartcl\*, \*scrreprt\*, and \*scrbook\*](#))

Option '*option*' was not in list '*option list*'.

If you try to remove a specific option of an option list, for example with `\clearcaptionsetup[position]{table}`, and this option can not be found inside the option list, you will get this warning. If this is not because of a typo and you would like to suppress this warning, use `\clearcaptionsetup*` instead of `\clearcaptionsetup`.

(See [section 3: Commands](#))

Option list '*option list*' undefined.

If you try to remove a specific option of an option list, for example with `\clearcaptionsetup[format]{figure}`, and this option list is not defined (yet), you will get this warning. If this is not because of a typo and you would like to suppress this warning, use `\clearcaptionsetup*` instead of `\clearcaptionsetup`.

(See [section 3: Commands](#))

'ragged2e' package not loaded, therefore substituting `\raggedright` for `\RaggedRight`.

The caption option `justification=RaggedRight` is only full functional if you have the `ragged2e` package installed in your  $\text{\TeX}$  system. If not, you will get this warning, and `justification=RaggedRight` will be treated as `justification=raggedright`.

(See [section 2.2: Justification](#))

Obsolete option '`ignoreLTcapwidth`' ignored.

The caption2 package option `ignoreLTcapwidth` will not be emulated by this version of the caption package, usually you can simply wipe it away.

(See [section 7.2: \*caption2 v2.x\*](#) and [section 6.7: \*longtable\*](#))

'ragged2e' support has been changed. Rerun to get captions right.

The `ragged2e` package will only be loaded by the caption package if it is actually needed. At least two  $\text{\LaTeX}$  runs are needed for that, so on the first run you could get this warning. Just compile your document again and this warning should go away.

(See [section 2.2: Justification](#))

Reference on page *page no.* undefined.

If you use a `twoside` page layout, the caption package needs to track the page numbers to get the margins right. At least two  $\text{\LaTeX}$  runs are needed for that, on the first run you could get this warning. Just compile your document again and this warning should go away.

(See [section 2.4: Margins and further paragraph options](#))

The option `'hypcap=true'` will be ignored for this particular `\caption`.

The caption package hasn't found a proper hyperlink anchor for this particular caption, so it decides to ignore the setting `hypcap=true` (which is set by default). As a result a link to this caption (e.g. in the List of Figures, or set by `\ref` or `\autoref`) will link you to the caption of the figure or table, not to the figure or table itself.

This can happen if you use `\captionof` inside a non-floating environment, but also if you use some package which redefines `figure` or `table`, and which is unknown to the caption package.

If this is ok for you but you want to suppress this warning, simply place a `\captionsetup{hypcap=false}` just before the `\caption` or `\captionof` command which is causing the warning. If this is not ok for you you can try to set a hyperlink anchor with `\captionsetup{type=<float type>}` for yourself.

(See [section 6.4: hyperref](#))

Unsupported document class (or package) detected,  
usage of the caption package is *\*not\** recommended.

Either the document class you use is unknown to the caption package, or you have included a package in your document which redefines `\@makecaption` (which is responsible for typesetting the caption) as well. This means the caption package will either change the design of captions in an unwanted way, or it even refuses to work correctly at all.

(See [section 5: Document classes & Babel support](#))

Unused `\captionsetup[<type>]`.

You have specified options with `\captionsetup[<type>]` which are not used later on in the document. This can be because of a typo in `<type>`, or because you use a package which redefines `figure` or `table` and which is unknown to the caption package, or simply because you don't have any usage of the environment `<type>` after this line.

If you want to suppress this warning you can use `\captionsetup*` instead of `\captionsetup`.

(See [section 3: Commands](#))

Usage of the `<package>` package together with the caption package is strongly *\*not\** recommended.  
Instead of loading the `<package>` package you should use the caption package option `'tableposition=top'`.

The package `<package>` is dealing with caption skips as well. Please decide which one do you actually want to use, the caption package or the other one, using both can lead to wrong skips above or below the caption.

(See [section 2.6: Skips](#))

Wrong TeX mode, no hyperlink anchor was set.

You should never see this warning, either you use a package which redefines `figure` or `table` and which is unknown to the caption package, or this is a bug in the caption package. Please send me an e-mail reporting this issue.

## 8.4 Errors

`! Argument of \@caption has an extra }.`

If you want to typeset something special (like a tabular) as caption, you need to give an optional argument to `\caption` resp. `\captionof` for the List of Figures resp. List of Tables, too, even if you don't use such list.

(See [section 3: Commands](#), [??: ??](#), and [section 6.4: hyperref](#))

`\caption outside float.`

You have placed a `\caption` command outside a floating environment or a `longtable`. If this is what you want to, please use either `\captionsetup{type=<type>}` + `\caption` or `\captionof`.

(See [section 3: Commands](#))

`\caption outside group or environment.`

You have placed a `\caption` command outside an box, group, or environment. This is not supported.

(See [section 3: Commands](#))

`\captionsetup{type=<type>} outside group or environment.`

You have placed a `\captionof` or `\captionsetup{type=<type>}` command outside an box, group, or environment. This is not supported.

(See [section 3: Commands](#))

`\ContinuedFloat outside float.`

You have placed a `\ContinuedFloat` command outside a floating environment. If this is what you want to, please use the combination `\captionsetup{type=<type>}` + `\ContinuedFloat`.

Please note that `\ContinuedFloat` inside a `longtable` is not working (yet), but maybe using the `longtable*` environment, which typesets a `longtable` without incrementing the `table` counter, if sufficient for you.

(See [section 3: Commands](#) and [section 6.7: longtable](#))

`Continued '<type>' after '<type>'.`

At the moment continued figures or tables are not allowed to be interrupted by a floating environment of another type, e.g. a table between a figure and a continued figure.

(See [section 3.1: Continued floats](#))

For a successful cooperation of the `'wrapfig'` package with the `'float'` package you should load the `'wrapfig'` package `*(right)` after the `'float'` package.

Please take care of the load order of packages if you use the `wrapfig` package in cooperation with the `float` package.

(See [section 6.15: wrapfig](#))

For a successful cooperation of the 'wrapfig' package with the 'float' package you should use at least 'wrapfig' version 3.6.

Please take care of the version of the wrapfig package if you use the wrapfig package in cooperation with the float package.

(See [section 6.15: wrapfig](#))

For a successful cooperation we need at least version '*date*' of package '*package*', but only version '*old-date*' is available.

The caption package does not work with such an outdated package, please update it to a more recent version, at least to the one requested.

Internal error: *internal-error-message*.

You should never see this error. Please send me an e-mail reporting this issue.

Not allowed in longtable\* environment.

The usage of \caption is not allowed inside the longtable\* environment. Please use either \caption\* for a caption without label or use the regular longtable environment instead.

Not available in compatibility mode.

The feature required is not supported in compatibility mode. 'compatibility mode' means that the caption package has detected either an incompatible document class or an incompatible package which also extends the \caption command. Leaving the original extension intact, some features of the caption package are not supported.

(See [section 7: Compatibility to older versions](#))

Runaway argument?

! Paragraph ended before \caption@makecurrent was complete.

If you want to typeset multi-paragraph captions, you need to give an optional argument to \caption resp. \captionof for the List of Figures resp. List of Tables, too, even if you don't use such list.

(See [section 3: Commands](#), [??: ??](#), and [section 6.4: hyperref](#))

Something is going wrong here...

For a removal of this problem please consult the caption package documentation, especially the sections about the 'float' and the 'wrapfig' package.

Please take care of the load order of packages if you use the wrapfig package in cooperation with the float package. But maybe a different package tried to extend the float package in a manner which is incompatible to the caption package!?

(See [section 6.1: float](#) and [section 6.15: wrapfig](#))

The package option `'caption=false'` is obsolete.  
Please pass this option to the subfig package instead  
and do *not* load the caption package anymore.

You have specified the option `caption=false`. This used to be a workaround for not using the whole caption package, leaving the caption stuff offered by the document class or other packages intact, but keeping the subfig package working. This mechanism is obsolete and not offered anymore, please pass this option to the subfig instead and do not load the caption package anymore.

(See the subfig<sup>[18]</sup> documentation)

Undefined boolean value `'<value>'`.

You tried to set a boolean option (like `singlelinecheck=` or `hypcap=`) with an improper value. Only `false`, `no`, `off`, `0` or `true`, `yes`, `on`, `1` is allowed here.

Undefined format `'<name>'`.

You tried to set a caption format which does not exists. Maybe a typo!?

(See [section 2.1: Formatting](#))

Undefined label format `'<name>'`.

You tried to set a caption label format which does not exists. Maybe a typo!?

(See [section 2.1: Formatting](#))

Undefined label separator `'<name>'`.

You tried to set a caption label separator which does not exists. Maybe a typo!?

(See [section 2.1: Formatting](#))

Undefined list-of format `'<name>'`.

You tried to set a caption list-of format which does not exists. Maybe a typo!?

(See [??: ??](#))

Undefined position `'<name>'`.

You tried to set a caption position with an improper value. Maybe a typo!?

(See [section 2.6: Skips](#))

Undefined style `'<name>'`.

You tried to set a caption style which does not exists. Maybe a typo!?

(See [section 2.5: Styles](#))

Undefined text format `'<name>'`.

You tried to set a caption text format which does not exists. Maybe a typo!?

(See [section 2.1: Formatting](#))

You can't use both, the (obsolete) `caption2` *and*  
the (current) caption package.

This error message says it all, you simply can't do that. Please use only the caption package.

(See [section 7.2: caption2 v2.x](#))

You can't use the caption package option  
'tableposition=*<position>*'  
and use the *<package>* package, too.

-or-

You can't use the global option  
'tablecaptionabove'  
and use the *<package>* package, too.

The package *<package>* is dealing with caption skips as well. Please decide which one do you actually want to use, the caption package or the other one, using both this way will lead to wrong skips above or below the caption.

(See [section 2.6: Skips](#))

## 9 Further reading

I recommend the following documents for further reading:

- The  $\text{\TeX}$  FAQ – Frequently asked questions about  $\text{\TeX}$  and  $\text{\LaTeX}$ :  
<http://faq.tug.org/>
- A French FAQ can be found at  
<http://www.grappa.univ-lille3.fr/FAQ-LaTeX/>
- “What is a minimal working example?” from Christian Faulhammer and Ulrich Schwarz:  
<http://www.minimalbeispiel.de/mini-en.html>
- `epslatex` from Keith Reckdahl contains many tips around including graphics in  $\text{\LaTeX}$  2 $\epsilon$  documents. You will find this document in the directory  
<ftp://tug.ctan.org/pub/tex/info/epslatex/>

## 10 Thanks

I would like to thank Katja Melzner, Steven D. Cochran, Frank Mittelbach, Olga Lapko, David Carlisle, Carsten Heinz, and Keith Reckdahl. Thanks a lot for all your help, ideas, patience, spirit, and support!

Also I would like to thank Harald Harders, Peter Löffler, Peng Yu, Alexander Zimmermann, Matthias Pospiech, Jürgen Wieferink, Christoph Bartoschek, Uwe Stöhr, Ralf Stubner, Geoff Vallis, Florian Keiler, Jürgen Göbel, Uwe Siart, Sang-Heon Shim, Henrik Lundell, David Byers, William Asquith, and Prof. Dr. Dirk Hoffmann, who all helped to make this package a better one.

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