The subcaptionlite package

Subfigures and subtables without the caption package

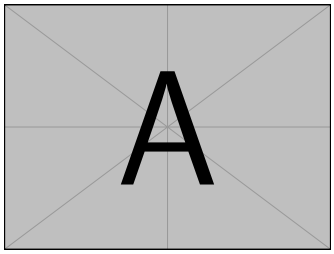
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https://github.com/munepi/subcaptionlite

v1.1 (2026/11/13)

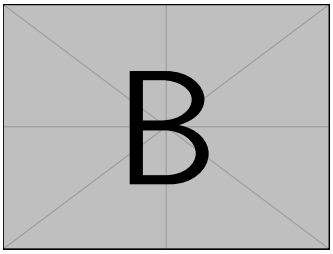
1 Introduction

The subcaption package needs the caption package, which redefines `\@makecaption` of the class. Thus it cannot be used with a class that has its own design of captions: loading it changes the captions of the whole document.

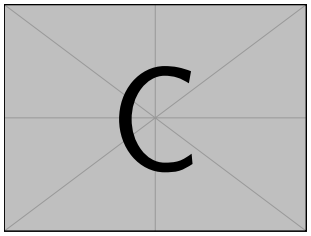
The subcaptionlite package provides the `subfigure` and `subtable` environments, `\subcaption`, `\subcaptionbox` and `\subref` with the same syntax as subcaption, without touching `\@makecaption` of the class. Figure 1 and Table 1 are made with it.



(a) The subfigure environment



(b) `\subcaptionbox` with a width



(c) `\subcaptionbox` without a width

Figure 1: Three subfigures

Table 1: Two subtables

(a) The first

Item	Value
A	1
B	2

(b) The second

Item	Value
C	3
D	4

Supported formats/engines pdfLaTeX, XeLaTeX, LuaLaTeX (with or without LuaTeX-ja), pLaTeX and upLaTeX (with dvipdfmx). The package requires LaTeX2e 2020-10-01 or later and loads etoolbox.

2 Usage

```
\usepackage{subcaptionlite}
```

```
\begin{figure}
  \centering
  \begin{subfigure}{.3\linewidth}
    \centering\includegraphics[width=.9\linewidth]{example-image-a}
    \caption{The subfigure environment}\label{fig:example-a}
  \end{subfigure}\hfill
  \subcaptionbox{\cs{subcaptionbox} with a width\label{fig:example-b}}%
    [.3\linewidth]{\includegraphics[width=.9\linewidth]{example-image-b}}\hfill
  \subcaptionbox{\cs{subcaptionbox} without a width\label{fig:example-c}}{%
    \includegraphics[width=.25\linewidth]{example-image-c}}
  \caption{Three subfigures}\label{fig:example}
\end{figure}

\begin{table}
  \centering
  \caption{Two subtables}\label{tab:example}
  \begin{subtable}[t]{.3\linewidth}
    \centering
    \caption{The first}\label{tab:example-a}
    \begin{tabular}{lr} ... \end{tabular}
  \end{subtable}\hspace{2em}
  \begin{subtable}[t]{.3\linewidth}
    \centering
    \caption{The second}\label{tab:example-b}
    \begin{tabular}{lr} ... \end{tabular}
  \end{subtable}
\end{table}
```

`\begin{subfigure}[`⟨*pos*⟩**`]{`**⟨*width*⟩**`}`**, **`\begin{subtable}[`**⟨*pos*⟩**`]{`**⟨*width*⟩**`}`** A `minipage` of ⟨*width*⟩ (⟨*pos*⟩: `b` by default, as in subcaption), inside which `\caption` and `\caption*` mean `\subcaption` and `\subcaption*`. The subcaption is put where `\caption` is given: above the contents in Table 1, where `[t]` aligns the subtables at the top.

`\subcaption{`⟨*text*⟩**`}`**, **`\subcaption*{`**⟨*text*⟩**`}`** A numbered or unnumbered subcaption, e.g. in a `minipage`. It is centered and set in `\small`. It is numbered with the counter of the float it is in: `subfigure` in a `figure`, `subtable` in a `table`.

`\subcaptionbox{`⟨*caption*⟩**`}[`**⟨*width*⟩**`]{`**⟨*contents*⟩**`}`** Puts ⟨*contents*⟩ centered in a `minipage` of ⟨*width*⟩, followed by `\subcaption{`⟨*caption*⟩`}`. Without ⟨*width*⟩, the natural width of ⟨*contents*⟩ is used; with ⟨*width*⟩, `\linewidth` in ⟨*contents*⟩ is ⟨*width*⟩. If ⟨*contents*⟩ is wider than ⟨*width*⟩, the `minipage` keeps ⟨*width*⟩. Boxes are aligned at the bottom, and the subcaption is always below the contents.

`\subref{`⟨*label*⟩**`}`**, **`\subref*{`**⟨*label*⟩**`}`** Only the label of the subfigure or subtable, e.g. "(a)" (`\subref*`: without a link with hyperref). After a numbered subcaption, `\label{`⟨*label*⟩`}` also writes the label `sub@`⟨*label*⟩, as the subcaption package does.

`\ContinuedFloat` At the beginning of a float: the float continues the previous float of the same type, as with the caption package. It gets the same number, and its subfigures or subtables continue the numbering, e.g. (c) and (d) after (a) and (b). To start from another letter, give `\setcounter{subfigure}{`⟨*n*⟩`}` right after `\ContinuedFloat` (the next subcaption is numbered ⟨*n*⟩+1); as in the subcaption package, `\setcounter` without `\ContinuedFloat` has no effect when the subcaptions come before the `\caption`, because the first subcaption steps the counter of the float, which resets the counter of the subfigures.

`\captionsetup[`⟨*type*⟩**`]{`**⟨*options*⟩**`}`** Accepted and ignored, so that the settings for the caption package can be left in the document.

Numbering and references The counter `subfigure` is reset by `figure`, and `subtable` by `table`. `\thesubfigure` is `(\alph{subfigure})` and `\p@subfigure` is `\thefigure` (likewise for `subtable`), so that `\ref` gives "1(a)" and "1(b)", and `\Cref` of cleveref gives "Figure 1(b)" and "Table 1(a)". With hyperref, each subfigure and subtable has its own anchor (`\theHsubfigure`, `\theHsubtable`).

The `\caption` of the float may come after the subcaptions (as in Fig. 1) or before them (as in Table 1). When a subcaption comes first, it steps the counter of the float in advance and the `\caption` that follows does not step it again, as the subcaption package does; without this, the subfigures would get the number of the previous figure. A float with subcaptions and no `\caption` is numbered as well. In a float with `\ContinuedFloat`, the counter of the float is not stepped at all; with hyperref, the anchors of the float and its subfloats get the suffix `a`, `b`, ... (e.g. `figure.2a`), as with the caption package.

3 Customization

The following macros can be redefined in the class or in a local style (`\makeatletter` is needed in the preamble of a document).

Macro	Default
`\subcaption@font`	`\small`
`\subcaption@sep`	the space between the label and the text: `\hspace{.5zw}` with pTEX, `.5\zw` with LuaTEX-ja (or a class that defines `\zw`), `.5em` otherwise
`\subcaption@skip`	the space between the subfigure and its subcaption: `\vskip.25\baselineskip`

The engine is checked when the subcaption is typeset, so LuaTEX-ja may be loaded after subcaptionlite. The labels themselves are `\thesubfigure` and `\thesubtable`. For example,

```
\makeatletter
\renewcommand*\subcaption@font{\footnotesize\sffamily}
\renewcommand*\subcaption@sep{\enspace}
\makeatother
\renewcommand\thesubfigure{\alph{subfigure})}
```

4 Errors and limitations

`\subcaption outside float` `\subcaption` (or `\subcaptionbox`) is used outside a float.

`Float type '`⟨*type*⟩`' has no subcaptions`** `\subcaption` (or `\subcaptionbox`) is used in a float other than `figure` and `table`, e.g. one defined by newfloat.

`\ContinuedFloat outside float` `\ContinuedFloat` is used outside a float; it is ignored.

After the first two errors, the subcaption is typeset without a number.

- Subcaptions are for figures and tables only.
- subcaptionlite cannot be used together with the caption or subcaption package.

5 Tests

`make test` compiles the test files (but `test-errors.tex`) twice with pdfLATEX, XeLATEX, LuaLATEX, pLATEX and upLATEX (+ dvipdfmx) and checks the log. The helpers in `test-common.tex` check the label that `\label` would write, the references, the counters, the widths of the boxes, the anchors of hyperref, and that `\@makecaption` of the class is unchanged; the log must have `SCL-RESULT OK` and no error or warning. For `test-errors.tex`, the log must have the expected error message.

Test	What it covers
`test-basic.tex`	`subfigure`, `subtable`, `\subcaption`, `\subcaptionbox`, the caption of the float below/above the subcaptions or none, `figure*`, `\ref`, `\subref`, the label separator
`test-hyperref.tex`	`test-basic.tex` with hyperref (loaded after and before the package) and cleveref
`test-japanese.tex`	Japanese classes (ltjsarticle, jsarticle, ujarticle), LuaTEX-ja loaded after the package
`test-continued.tex`	`\ContinuedFloat` for figures and tables, with and without hyperref
`test-errors.tex`	the error messages

6 History

v1.1 (2026/11/13) Add `\ContinuedFloat` (issue #1).

v1.0 (2026/10/26) First public release. Support every engine; add the `subtable` environment, subcaptions in tables and `\subref`; the default position of `subfigure` is `b`, as in subcaption; fix the figure number when the caption of the figure comes before the subcaptions, and after a figure whose subfigures follow its caption.

7 License

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