

The (obsolete) caption2 package*

Axel Sommerfeldt

`axel.sommerfeldt@f-m.fm`

2007/11/28

THIS PACKAGE IS OBSOLETE!

The caption2 package used to be an experimental side-version of the regular caption package. It was made public as beta test version without documentation in 1995 because of the strong demand for new features and adaptations to other packages like the longtable and subfigure one.

But within the next years I found no time to reintegrate some of the well-tried features into the regular caption package. So I decided to release a version 2.1 of the caption2 package in 2002 instead, which included some minor bug fixes and adaptations to the new version 2.1 of the subfigure package. Furthermore I started to write a documentation for this package, but unfortunately did not get very far with this. . .

In 2003 I finally found some (more) time, so a new regular release 3.0 of the caption package could be build in cooperation with Frank Mittelbach and Steven Cochran. It was released in December 2003 and superseded the neglected caption2 package.

(In parallel, Steven Cochran released the subfig package which superseded the subfigure package.)

So please don't use this package for new documents. It's old, it's obsolete and it starts to begin smell bad! Please ignore all hints in books or other documents which try to tell you that the caption2 package should be used instead of the caption package – these hints are outdated since December 2003.

*This package has version number v2.2d, last revised 2011/08/12.

How to migrate to the regular caption package?

Usually replacing caption2 by caption is sufficient because the caption package emulates most of the options and commands offered by the caption2 package. If you get some errors or weird results afterwards, please take a closer look at the caption package documentation which will hopefully help you clearing these problems. You will also find a section called ‘Compatibility to older versions’ there which should help you with the migration process. If all this should fail you can write me an e-mail asking for help.

What will happen to this package?

The caption2 package is still some kind of supported, that means it will be part of future releases of the caption package bundle, and bugs will still be fixed so existing documents using this package will still compile. But it will *not* be enhanced in the future.

This means migrating to the actual caption package should not be necessary for old documents – they should still compile fine as they are. If not, please don’t hesitate to write me an e-mail asking for maintenance.

1 The Implementation

1.1 Identificaton

```
1 \NeedsTeXFormat{LaTeX2e}[1994/12/01]
2 \ProvidesPackage{caption2}[2011/08/12 v2.2d Customising captions (AR)]
3 \PackageWarning{caption2}{%
4 *****\MessageBreak
5 THIS PACKAGE IS OBSOLETE:\MessageBreak
6 This package attempts to provide an 'caption2'\MessageBreak
7 package v2.0/2.1 author environment so that OLD\MessageBreak
8 documents can be successfully processed. It should\MessageBreak
9 NOT be used for NEW documents! New documents should\MessageBreak
10 use the regular 'caption' package v3.x instead.\MessageBreak
11 *****\@gobbletwo}%
```

1.2 Loading the caption3 kernel

```
12 \RequirePackage{caption3}[2007/09/01] % needs v3.1 or newer
```

1.3 Check against the regular caption package

```
13 \@ifpackageloaded{caption}{%
14   \PackageError{caption2}{%
15     You can't use both, the (current) caption *and*\MessageBreak
16     the (obsolete) caption2 package}\caption@eh
17   \endinput
18 }{}
```

1.4 Preliminary declarations

<pre>\captionlabeldelim \captionlabelsep</pre>	<pre>\captionlabeldelim & \captionlabelsep will hold the iterim space between caption label and text. (\captionlabeldelim will be typeset within \captionlabelfont, \captionlabelsep not.) 19 \newcommand*\captionlabeldelim{} 20 \newcommand*\captionlabelsep{} \ifcaptionwidth Either \captionmargin (with specifies an extra margin) or \captionwidth (with specifies an explicit width) can be set, therefore we need the flag \ifcaptionwidth to determine with parameter we should pay attention to. 21 \newcommand*\ifcaptionwidth{\ifdim\captionwidth>\z@} \captionindent \captionindent will be used in caption style indent and specifies the indentation after the first line. 22 \let\captionindent\caption@indent \ifcaptionlabel If \ifcaptionlabel is not set the caption label should be suppressed; we need this flag to support the \caption* command. 23 \def\ifcaptionlabel{% 24 \ifcaption@star 25 \@tempwafalse</pre>
--	---

```

26 \else
27   \@tempwattrue
28 \fi
29 \if@tempwa}
30 \def\captionlabeltrue{\caption@starfalse}
31 \def\captionlabelfalse{\caption@startrue}

```

`\ifonelinecaptions` If `\ifonelinecaptions` is set we support the L^AT_EX base style 'one line captions', that means the caption will be typeset centered if it fits to one line.

```

32 \def\ifonelinecaptions{%
33   \caption@ifslc{\@tempwattrue}{\@tempwafalse}%
34   \if@tempwa}
35 \def\onelinecaptionstrue{\caption@setbool{slc}{1}}
36 \def\onelinecaptionsfalse{\caption@setbool{slc}{0}}

```

`\ifignoreLTcapwidth` If `\ifignoreLTcapwidth` is set we ignore the `\LTcapwidth` of longtable.

```

37 \newif\ifignoreLTcapwidth

```

`\normalcaptionparams` `\normalcaptionparams` resets all caption related parameters to it's normal default values. `\captionfont` will be set to `\captionsize` so setting the obsolete `\captionsize` will still work. Same story with `\captiondelim` and the obsolete `\captionlabeldelim`.

```

38 \newcommand*\normalcaptionparams{%
39   \let\captionsize\empty
40   \renewcommand*\captionfont{\captionsize}%
41   \let\captionlabelfont\empty
42   \renewcommand*\captionlabeldelim{:}%
43   \renewcommand*\captionlabelsep{\space}%
44   \setcaptionmargin\z@
45   \setlength\captionindent\z@
46   \onelinecaptionstrue}

```

`\defcaptionstyle` `\newcaptionstyle` `\renewcaptionstyle` These macros will define a new caption style. `\newcaptionstyle` and `\renewcaptionstyle` will additionally check if the caption style already exists or not.

```

47 \newcommand*\defcaptionstyle[1]{%
48   \@namedef{caption@@#1}}

49 \newcommand*\newcaptionstyle[1]{%
50   \expandafter\ifx\csname caption@@#1\endcsname\relax
51     \expandafter\defcaptionstyle
52   \else
53     \PackageError{caption2}{Caption style '#1' already defined}{\caption@eh}%
54     \expandafter\@gobbletwo
55   \fi
56   {#1}}

57 \newcommand*\renewcaptionstyle[1]{%
58   \expandafter\ifx\csname caption@@#1\endcsname\relax
59     \PackageError{caption2}{Caption style '#1' undefined}{\caption@eh}%
60     \expandafter\@gobbletwo
61   \else
62     \expandafter\defcaptionstyle

```

```

63 \fi
64 {\#1}}

```

`\dummycaptionstyle` This macro will also define a new caption style, but a one which is based on the actual set caption style. Therefore you can't set a caption style made with this command with `\captionstyle` – we check this to avoid an endless recursion.

```

65 \newcommand*\dummycaptionstyle[2]{%
66   \defcaptionstyle{#1}{%
67     \expandafter\ifx\csname caption@#\caption@style\expandafter\endcsname%
68       \csname caption@#1\endcsname
69     \PackageError{caption2}{You can't use the caption style '#1' directly}{%
70       The caption style '#1' is only a dummy and does not really exists.%
71       \MessageBreak You have to redefine it (with \protect\renewcaptionstyle)
72       before you can select\MessageBreak it with \protect\captionstyle.
73       \space\caption@eh}%
74   \else
75     #2\usecaptionstyle\caption@style
76   \fi}}

```

`\captionstyle` `\captionstyle` sets the actual caption style. It includes a check if the given caption style is defined or not.

```

77 \newcommand*\captionstyle[1]{%
78   \expandafter\ifx\csname caption@#1\endcsname\relax
79     \PackageError{caption2}{Undefined caption style '#1'}{\caption@eh}%
80   \else
81     \def\caption@style{#1}%
82   \fi}

```

`style 'normal'` The predefined caption styles 'normal', 'center', 'flushleft', 'flushright', 'centerlast', 'hang', 'hang+X', and 'indent'. Because they are quite similar they all are based on the macro `\caption@make`.

```

style 'center'
style 'centerlast'
style 'flushleft'
style 'flushright'
style 'hang'
style 'indent'
83 \newcaptionstyle{normal}{\caption@make{normal}}
84 \newcaptionstyle{center}{\caption@make{center}}
85 \newcaptionstyle{centerlast}{\caption@make{centerlast}}
86 \newcaptionstyle{flushleft}{\caption@make{flushleft}}
87 \newcaptionstyle{flushright}{\caption@make{flushright}}
88 \newcaptionstyle{hang}{\caption@make{hang}}
89 \newcaptionstyle{hang+center}{\caption@make{hang@center}}
90 \newcaptionstyle{hang+centerlast}{\caption@make{hang@centerlast}}
91 \newcaptionstyle{hang+flushleft}{\caption@make{hang@flushleft}}
92 \newcaptionstyle{indent}{\caption@make{indent}}

```

`\caption@makecaption` Our predefined caption styles. `\caption@makecaption` takes the style name as parameter, it does the common stuff and calls a macro (build out of the style name) to do the uncommon stuff if necessary.

```

93 \newcommand*\caption@makecaption[1]{%
94   \usecaptionmargin
95   \ifcaptionlabel
96     \def\caption@label{%
97       {\captionlabelfont\captionlabel\captionlabeldelim}\captionlabelsep}%
98   \else

```

```

99     \let\caption@label\@empty
100    \fi
101    \captionfont
102    \onelinecaption
103    {\caption@label\captiontext}%
104    {\parbox[b]{\captionlinewidth{\strut\@nameuse{caption@@#1}\par}\par}}

\caption@@@normal The ‘normal’ caption style. Just typeset caption (label & text) as paragraph.
105 \newcommand*\caption@@@normal{%
106   \caption@label\captiontext}

\caption@@@center The ‘center’ caption style. Typeset the caption centered within a parbox.
107 \newcommand*\caption@@@center{%
108   \centering\caption@label\captiontext}%

\caption@@@centerlast The ‘centerlast’ caption style. The idea how to do this was taken from Brüggemann-
Klein[6], it is also mentioned in Kopka[7, p227].
109 \newcommand*\caption@@@centerlast{%
110   \centerlast\caption@label\captiontext}

\caption@@@flushleft The ‘flushleft’ caption style. Typeset the caption raggedright within a parbox.
111 \newcommand*\caption@@@flushleft{%
112   \raggedright\caption@label\captiontext}%

\caption@@@flushright The ‘flushright’ caption style. Typeset the caption raggedleft within a parbox.
113 \newcommand*\caption@@@flushright{%
114   \raggedleft\caption@label\captiontext}%

\caption@@@hang The ‘hang’ caption style. This code was taken from The LATEX Companion[5, p155] and
\caption@hangplus modified.
115 \newcommand*\caption@@@hang{%
116   \sbox\@tempboxa{\caption@label}%
117   \hangindent\wd\@tempboxa\noindent
118   \usebox\@tempboxa\caption@hangplus\captiontext}
119 \newcommand*\caption@hangplus{}

\caption@@@hang@center The ‘hang+flushleft’ caption style.
120 \newcommand*\caption@@@hang@center{%
121   \let\caption@hangplus\centering\caption@@@hang}

\caption@@@hang@centerlast The ‘hang+flushleft’ caption style.
122 \newcommand*\caption@@@hang@centerlast{%
123   \let\caption@hangplus\centerlast\caption@@@hang}

\caption@@@hang@flushleft The ‘hang+flushleft’ caption style.
124 \newcommand*\caption@@@hang@flushleft{%
125   \let\caption@hangplus\raggedright\caption@@@hang}

```

`\caption@@@indent` The ‘indent’ caption style. Is is quite like the ‘hang’ style but the indentation is given as `\captionindent`.

```
126 \newcommand*\caption@@@indent{%
127   \hangindent\captionindent\noindent
128   \caption@label\captiontext}
```

1.5 Declaration of options

`normal` These options will set the caption style. (‘normal’ is the default one.)

`center` The options ‘anne’ and ‘isu’ are for backward compatibility only.

```
centerlast, anne
flushleft
flushright
hang, isu
indent
129 \DeclareOption{normal}{\captionstyle{normal}}
130 \DeclareOption{center}{\captionstyle{center}}
131 \DeclareOption{centerlast}{\captionstyle{centerlast}}
132 \DeclareOption{flushleft}{\captionstyle{flushleft}}
133 \DeclareOption{flushright}{\captionstyle{flushright}}
134 \DeclareOption{anne}{\ExecuteOptions{centerlast}}
135 \DeclareOption{hang}{\captionstyle{hang}}
136 \DeclareOption{hang+center}{\captionstyle{hang+center}}
137 \DeclareOption{hang+centerlast}{\captionstyle{hang+centerlast}}
138 \DeclareOption{hang+flushleft}{\captionstyle{hang+flushleft}}
139 \DeclareOption{isu}{\ExecuteOptions{hang}}
140 \DeclareOption{indent}{\captionstyle{indent}}
```

`scriptsize` These options will set the caption size. We use `\g@addto@macro` so more that one option can be set.

```
footnotesize
small
normalsize
large, Large
141 \DeclareOption{scriptsize}{\g@addto@macro\captionsize\scriptsize}
142 \DeclareOption{footnotesize}{\g@addto@macro\captionsize\footnotesize}
143 \DeclareOption{small}{\g@addto@macro\captionsize\small}
144 \DeclareOption{normalsize}{\g@addto@macro\captionsize\normalsize}
145 \DeclareOption{large}{\g@addto@macro\captionsize\large}
146 \DeclareOption{Large}{\g@addto@macro\captionsize\Large}
```

`up, it, sl, sc` These options will set the caption label.

```
md, bf
rm, sf, tt
147 \DeclareOption{up}{\g@addto@macro\captionlabelfont\upshape}
148 \DeclareOption{it}{\g@addto@macro\captionlabelfont\itshape}
149 \DeclareOption{sl}{\g@addto@macro\captionlabelfont\slshape}
150 \DeclareOption{sc}{\g@addto@macro\captionlabelfont\scshape}
151 \DeclareOption{md}{\g@addto@macro\captionlabelfont\mdseries}
152 \DeclareOption{bf}{\g@addto@macro\captionlabelfont\bfseries}
153 \DeclareOption{rm}{\g@addto@macro\captionlabelfont\rmfamily}
154 \DeclareOption{sf}{\g@addto@macro\captionlabelfont\sffamily}
155 \DeclareOption{tt}{\g@addto@macro\captionlabelfont\ttfamily}
```

`oneline` These options will set the ‘oneline’ flag. (‘oneline’ is the default.)

```
nooneline
156 \DeclareOption{oneline}{\onelinecaptionstrue}
157 \DeclareOption{nooneline}{\onelinecaptionfalse}
```

`\caption@setpackage` A helper macro, a value of 1 within parameter #2 will activate the support of the package given in parameter #1, a value of 0 will deactivate it.

```
158 \newcommand*\caption@setpackage[1]{\@namedef{caption@pkt@#1}}
```

float longtable subfigure	These options will enable or suppress the support of the packages float, longtable, and subfigure.
	<pre> 159 \DeclareOption{float}{% 160 \caption@twozerofalse\caption@setpackage{float}{1}} 161 \DeclareOption{longtable}{% 162 \caption@twozerofalse\caption@setpackage{longtable}{1}} 163 \DeclareOption{subfigure}{% 164 \caption@twozerofalse\caption@setpackage{subfigure}{1}}</pre>
none	These options will enable or suppress the support of all the above packages.
all	<pre> 165 \DeclareOption{none}{\caption@twozerofalse 166 \caption@setpackage{float}{0}\caption@setpackage{longtable}{0}% 167 \caption@setpackage{subfigure}{0}} 168 \DeclareOption{all}{\ExecuteOptions{float,longtable,subfigure}}</pre>
ruled	The option ‘ruled’ introduced in caption v1.2 is obsolete now, but we will still support it.
boxed	The option ‘boxed’ was introduced in version 2.0 and is obsolete now, too.
	<pre> 169 \newif\ifcaption@ruled 170 \DeclareOption{ruled}{\caption@ruledtrue} 171 \DeclareOption{boxed}{}</pre>
ignoreLTcapwidth	This option will make the caption code ignore the setting of \LTcapwidth and use the setting of \setcaptionmargin or \setcaptionwidth instead.
	<pre> 172 \DeclareOption{ignoreLTcapwidth}{\ignoreLTcapwidthtrue}</pre>
debug	This option will put additional debug information in the log file.
	<pre> 173 \DeclareOption{debug}{\captionsetup{debug}}</pre>

1.6 Execution of options

Now we set the default values and start processing the options. (If \caption@twozero is set to true (default) we will emulate the package load algorithm of caption v2.0: If the package is already loaded patch it, otherwise do nothing.)

```

174 \newif\ifcaption@twozero
175 \normalcaptionparams
176 \ExecuteOptions{none,normal}
177 \caption@twozerotru
178 \ProcessOptions*
179 \ifcaption@twozero
180   \PackageInfo{caption2}{Running in caption2 v2.0 compatibility mode}
181 \fi
```

1.7 More declarations

\captionof \captionof*	\captionof resp. \captionof* will just set \@captype and do the normal \caption resp. \caption*, so we can also typeset captions outside floating environments.
	<pre> 182 \def\captionof{\@ifstar{\caption@of{\caption*}}{\caption@of\caption}} 183 \newcommand*\caption@of[2]{\def\@captype{#2}\caption{#1}}</pre>

<code>\abovecaptionskip</code> <code>\belowcaptionskip</code>	<p>Not all document classes define <code>\abovecaptionskip</code> and <code>\belowcaptionskip</code> (like <code>ucthesis</code>), so we do it here if not already done.</p> <pre> 184 \caption@ifundefined\abovecaptionskip{% 185 \newlength\abovecaptionskip\setlength\abovecaptionskip{10\p@}}{} 186 \caption@ifundefined\belowcaptionskip{% 187 \newlength\belowcaptionskip\setlength\belowcaptionskip{0\p@}}{} </pre>
<code>\captionlinewidth</code> <code>\captionlabel</code> <code>\captiontext</code>	<p>These values are only set and used within the caption code itself. <code>\captionlinewidth</code> will be set to the given vertical space for the caption, normally this is <code>\linewidth</code>. (This value was called <code>\realcaptionwidth</code> within <code>caption2</code> 2.0, so we will offer this, too.)</p> <p><code>\captionlabel</code> and <code>\captiontext</code> will be set to the caption label resp. the caption text. (Because <code>\captionlabel</code> and <code>\captiontext</code> will be locally defined with <code>\def</code> we do not need to define them here.)</p> <pre> 188 \newdimen\captionlinewidth 189 \newdimen\realcaptionwidth </pre>
<code>\usecaptionmargin</code>	<p>A helper macro for caption style authors: It calculates <code>\leftskip</code> and <code>\rightskip</code> out of <code>\captionlinewidth</code> and <code>\captionmargin</code> resp. <code>\captionwidth</code>. Also <code>\captionlinewidth</code> will be corrected to the appropriate value.</p> <pre> 190 \newcommand*\usecaptionmargin{% 191 \ifcaptionwidth 192 \leftskip\captionlinewidth 193 \advance\leftskip by -\captionwidth 194 \divide\leftskip by 2 195 \rightskip\leftskip 196 \captionlinewidth\captionwidth 197 \else 198 \leftskip\captionmargin 199 \rightskip\captionmargin 200 \advance\captionlinewidth by -2\captionmargin 201 \fi 202 \realcaptionwidth\captionlinewidth} </pre>
<code>\onelinecaption</code>	<p>This macro definition helps setting captions the \LaTeX base classes way: If <code>\ifonelinecaptions</code> is set and the 1st argument fits within <code>\captionlinewidth</code>, we typeset it centered – otherway we typeset the 2nd argument. (We use the savebox <code>\@tempboxa</code> as helper for this.)</p> <pre> 203 \newcommand\onelinecaption[1]{% 204 \let\next\@firstofone 205 \ifonelinecaptions 206 \sbox\@tempboxa{#1}% 207 \ifdim\wd\@tempboxa >\captionlinewidth 208 \else 209 \def\next{{\centering\usebox\@tempboxa\par}\@gobble}% 210 \fi 211 \fi\next} </pre>
<code>\usecaptionstyle</code>	<p>First we check if we are inside a caption – if <code>\captiontext</code> is undefined we are not. If we are we call the appropriate caption definition.</p>

```

212 \newcommand*\usecaptionstyle[1]{%
213   \caption@ifundefined\captiontext{%
214     \PackageError{caption2}{You can't use \protect#1
215       in normal text}{The usage of \protect#1 is only
216       allowed inside code declared with\MessageBreak \protect\defcaptionstyle,
217       \protect\newcaptionstyle \space or \protect\renewcaptionstyle.
218       \space\caption@eh}
219   }{%
220     \@ifundefined{caption@@#1}%
221     {\PackageError{caption2}{Caption style `#1' undefined}{\caption@eh}}%
222     {\let\caption@make\caption@makecaption
223      \@nameuse{caption@@#1}}%
224   }}

```

`\@makecaption` This is the heart of the `caption2` package – the redefinition of the core caption code. It was taken from the $\text{\LaTeX 2}_{\epsilon}$ standard classes and modified. It's very easy – apart from using `\abovecaptionskip` and `\belowcaptionskip` we just set `\captionlinewidth`, `\captionlabel` and `\captiontext` to its appropriate values and using the code of the actual caption style via `\usecaptionstyle`.

```

225 \renewcommand\@makecaption[2]{%
226   \vskip\abovecaptionskip
227   \captionlinewidth\hsize
228   \realcaptionwidth\hsize
229   \def\captionlabel{#1}%
230   \def\captiontext{#2}%
231   \usecaptionstyle\caption@style
232   \vskip\belowcaptionskip}

```

1.8 Support of other packages

`\caption@ifpackage` This macro will execute the code needed to support the package named within argument #1. The parameter #2 is the command which shows if the package is loaded – it is defined, it is already loaded, otherwise not. The parameter #3 contains code which will be executed if no support is required – this is for cleanup purposes. The final parameter #4 contains the code itself.

```

233 \newcommand*\caption@ifpackage[3]{%
234   \if1\@nameuse{caption@pkt@#1}%
235     \@ifundefined{#2}%
236     {\let\next\AtBeginDocument}%
237     {\let\next\@firstofone}%
238   \else\ifcaption@twozero
239     \@ifundefined{#2}%
240     {\#3\let\next\@gobble}%
241     {\let\next\@firstofone}%
242   \else
243     \#3\let\next\@gobble
244   \fi\fi
245   \expandafter\let\csname caption@pkt@#1\endcsname\undefined
246   \caption@ifdebug{%
247     \ifx\next\@gobble\PackageInfo{caption2}{#1 => gobble}%
248     \else\ifx\next\@firstofone\PackageInfo{caption2}{#1 => firstofone}%
249     \else\ifx\next\AtBeginDocument\PackageInfo{caption2}{#1 => AtBeginDocument}%

```

```

250     \fi\fi\fi}}}%
251   \next}

```

1.8.1 Support of the float package

```

252 \caption@ifpackage{float}{floatc@plain}}}%
253   \ifx\floatc@plain\relax
254     \PackageWarning{caption2}{%
255       Option 'float' was set but there is no float package loaded}
256   \else
257     \PackageInfo{caption2}{float package v1.2 (or newer) detected}

```

`\caption@floatc` First we define a helper macro to typeset the caption via `\usecaptionstyle`, the 1st parameter is the caption style name, the 2nd and 3rd are the caption label and text.

`caption2` has the goal not to modify the output just by loading it (without options), therefore we have to be tricky here to support `\@fs@cfont` which is in fact the same as our `\captionlabelfont`. So we test if a `\captionlabelfont` has been set by the user – if not `\@fs@cfont` will be used, otherwise `\captionlabelfont`.

```

258   \newcommand\caption@floatc[3]{%
259     \ifx\captionlabelfont\@empty
260       \let\captionlabelfont\@fs@cfont
261     \fi
262     \captionlinewidth\hsize
263     \realcaptionwidth\hsize
264     \def\captionlabel{#2}%
265     \def\captiontext{#3}%
266     \usecaptionstyle{#1}}

```

`\floatc@plain` Now we can redefine the caption code of the float package. Here we redefine `\floatc@plain` to use our caption code, so plain and boxed float types will use the actual caption style set by the user.

```

267   \renewcommand*\floatc@plain{\caption@floatc{\caption@style}}

```

`\floatc@ruled` The support of the ruled float type is a little more complex. First we define a caption style ‘ruled’ so the end-user can change this caption style afterwards. If the (obsolete) option ‘ruled’ is set, we define it in a caption v1.x compatible way, otherwise we define it in a float compatible way.

Then we redefine `\floatc@ruled` so the caption style ‘ruled’ will be used.

```

268   \ifcaption@ruled
269     \dummyscaptionstyle{ruled}{\onelinecaptionsfalse\setcaptionmargin{\z@}}}%
270   \else
271     \newcaptionstyle{ruled}{%
272       \ifcaptionlabel
273         {\@fs@cfont\captionlabel}\space%
274       \fi\captiontext\par}%
275   \fi
276   \renewcommand*\floatc@ruled{\caption@floatc{ruled}}

```

`\caption@of` Typesetting captions outside floats is not so easy with redefined floats, because

- The caption code of the float package needs not only `\@capttype` defined, but `\@fs@capt` (the command which will typeset the caption itself) either.
- The caption is only saved within a `\vbox`, so the float package can typeset the caption later at it's float style specific place (that means at top or at the bottom of the float).

Here is the new code: First we check if it's a restyled float by checking if `\fst@<floatttype>` is defined. If yes, we use this command (it will define `\@fs@capt`). Then we execute `\@float@setevery`, if it exists (that means we are dealing with the float package 1.3 or newer here). Now comes the basic trick: We redefine the caption typesetting command `\@fs@capt`, so it will close the `\vbox`, typeset the caption outside the `vbox` and finally start the group again so the original `\@fs@capt` is happy with closing the group.

```

277 \renewcommand*\caption@of[2]{\def\@capttype{#2}%
278 \ifundefined{fst@#2}{\%
279 \nameuse{fst@#2}%
280 \caption@ifundefined{\@float@setevery}{\@float@setevery{#2}}%
281 \let\caption@fs@capt\@fs@capt
282 \let\@fs@capt\caption@of@float}%
283 #1}

284 \newcommand\caption@of@float[2]{\egroup
285 \vskip\abovecaptionskip
286 \normalsize\caption@fs@capt{#1}{#2}%
287 \vskip\belowcaptionskip
288 \bgroup}%

289 \fi}

```

1.8.2 Support of the longtable package

```

290 \caption@ifpackage{longtable}{\LT@makecaption}{\%
291 \ifx\LT@makecaption\relax
292 \PackageWarning{caption2}{%
293 Option 'longtable' was set but there is no longtable package loaded}
294 \else
295 \PackageInfo{caption2}{longtable package v3.15 (or newer) detected}

```

`\LT@makecaption` David Carlisle was so kind to introduce a macro called `\LT@makecaption` in version 3.15 of the longtable package which typeset the caption and can be easily redefined.

This is the original definition:

```

\def\LT@makecaption#1#2#3{%
\LT@mcol\LT@cols c{\hbox to\z@{\hss\parbox[t]\LTcapwidth{%
\typeset #1{#2: }#3 as caption}
\endgraf\vskip\baselineskip}%
\hss}}

```

So we do here: First we define a new (dummy) caption style 'longtable', than we redefine `\LT@makecaption` so this style will be used. (Remember: #1 is `\@gobble` in star form of `\caption`, and `\@firstofone` otherwise.)

```

296 \dummycaptionstyle{longtable}{}

```

```

297 \renewcommand\LT@makecaption[3]{%
298 \LT@mcol\LT@cols c{\hbox to\z@{\hss\parbox[t]\hsize{%
299 \ifignoreLTcapwidth
300 \else
301 \setcaptionwidth\LTcapwidth
302 \fi
303 \captionlinewidth\hsize
304 \realcaptionwidth\hsize
305 \captionlabelfalse#1\captionlabeltrue
306 \def\captionlabel{#2}%
307 \def\captiontext{#3}%
308 \usecaptionstyle{longtable}%
309 \endgraf\vskip\baselineskip}%
310 \hss}}}
311 \fi}

```

1.8.3 Support of the subfigure package

Some of the following code will not work within `\if`, because of the (yet) undefined `\ifxxx`s. So we simply define the critical code within the helper commands `\setsubcapstyle` and `\caption@makesubcaption` already here.

`\setsubcapstyle` This sets the `subcaptionstyle` to a appropriate value.

If `\ifsubcapraggedright` is undefined (it was introduced into v2.1 of the subfigure package) we define it first.

```

312 \newcommand*\setsubcapstyle{%
313 \caption@ifundefined\subcapraggedrightfalse{%
314 \newif\ifsubcapraggedright}}%
315 \ifsubcaphang
316 \ifsubcapcenter
317 \subcapstyle{hang+center}%
318 \else\ifsubcapcenterlast
319 \subcapstyle{hang+centerlast}%
320 \else\ifsubcapraggedright
321 \subcapstyle{hang+flushleft}%
322 \else
323 \subcapstyle{hang}%
324 \fi\fi\fi
325 \else\ifsubcapcenter
326 \subcapstyle{center}%
327 \else\ifsubcapcenterlast
328 \subcapstyle{centerlast}%
329 \else\ifsubcapraggedright
330 \subcapstyle{flushleft}%
331 \else
332 \subcapstyle{normal}%
333 \fi\fi\fi\fi}

```

`\caption@makesubcaption` This will typeset the subcaption. We just set all our `\captionxxx` values to the values of `\subcapxxx` and typeset the caption like subfigure within a `\hbox`, but with the help of `\usecaptionstyle`.

But this is not as easy as it seems. We typeset the caption like this:

```

\captionfont
  {\captionlabelfont\captionlabel\captionlabeldelim}%
\captionlabelsep\captiontext

```

Within subfigure 2.0 the caption will be set quite similar to:

```

\subcapsize
  {\subcaplabelfont\captionlabel}%
\space\captiontext

```

But within subfigure 2.1 this has changed to:

```

\subcapsize
  {\subcaplabelfont\captionlabel}%
\hskip\subfiglabelskip
  {\subcapfont\captiontext}}

```

So we have to be tricky here: We set `\captionlabelfont` to `\normalfont` plus `\subcapsize` & `\subcaplabelfont`, so the font setting in `\captionfont` will not affect the caption label in subfigure captions.

Note that `\hfil` has changed to `\hss` from subfigure 2.0 to 2.1, so we use `\caption@subfig@hss` instead. (We will define this later on.)

```

334 \newcommand\caption@makesubcaption[2]{%
335   \renewcommand*\captionfont{\subcapsize\subcapfont}%
336   \renewcommand*\captionlabelfont{\normalfont\subcapsize\subcaplabelfont}%
337   \let\captionlabeldelim\subcaplabeldelim
338   \let\captionlabelsep\subcaplabelsep
339   \ifsubfigcapwidth
340     \setcaptionwidth\subfigcapwidth
341   \else
342     \setcaptionmargin\subfigcapmargin
343   \fi
344   \setlength\captionmargin\subfigcapmargin
345   \setlength\captionwidth\subfigcapwidth
346   \captionindent\subcapindent
347   \ifsubcapnooneline
348     \onelinecaptionsfalse
349   \else
350     \onelinecaptionstrue
351   \fi
352   \hbox to\@tempdima{%
353     \caption@subfig@hss\parbox[t]{\@tempdima{%
354       \captionlinewidth\@tempdima
355       \realcaptionwidth\@tempdima
356       \captionlabeltrue
357       \def\captionlabel{#1}%
358       \def\captiontext{\ignorespaces #2}%
359       \usecaptionstyle\caption@substyle}%
360     \caption@subfig@hss}}

```

If the subfigure support is not needed, we throw the helper macros in the garbage can.

```

361 \caption@ifpackage{subfigure}{@makesubfigurecaption}{%
362   \let\setsubcapstyle\undefined
363   \let\caption@makesubcaption\undefined}{%
364   \ifx\@makesubfigurecaption\relax
365     \PackageWarning{caption2}{%
366       Option 'subfigure' was set but there is no subfigure package loaded}
367   \let\setsubcapstyle\undefined
368   \let\caption@makesubcaption\undefined
369   \else

```

Some stuff has changed from version 2.0 to 2.1 of the subfigure package, so we make a branch here. If \subcapfont is undefined we assume v2.0, otherwise we assume v2.1 or newer.

```

370   \ifx\subcapfont\undefined
371     \PackageInfo{caption2}{subfigure package v2.0 detected}

```

\subcapfont We define \subcapfont here so we can use it later in common code for subfigure v2.0 and v2.1 (or newer).

```

372   \let\subcapfont\@empty

```

\subfigcapwidth Analogous to \captionwidth, \setcaptionmargin, and \setcaptionwidth we define \subfigcapwidth, \setsubcapmargin, and \setsubcapwidth.

\setsubcapmargin Note: \subfigcapmargin is a command in v2.0 of subfigure. So we make \subfigcapwidth a command, too.

```

373   \newcommand*\subfigcapwidth{\z@}
374   \newcommand*\setsubcapmargin{%
375     \subfigcapwidthfalse
376     \renewcommand*\subfigcapmargin}
377   \newcommand*\setsubcapwidth{%
378     \subfigcapwidthtrue
379     \renewcommand*\subfigcapwidth}

```

\subcaplabelsep Analogous to \captionlabelsep we define \subcaplabelsep.

```

380   \newcommand*\subcaplabelsep{\space}

```

\caption@subfig@hss This will be used within the caption code itself.

```

381   \let\caption@subfig@hss\hfil
382   \else
383     \PackageInfo{caption2}{subfigure package v2.1 (or newer) detected}

```

\subfigcapwidth Analogous to \captionwidth, \setcaptionmargin, and \setcaptionwidth we define \subfigcapwidth, \setsubcapmargin, and \setsubcapwidth.

\setsubcapmargin Note: \subfigcapmargin is a length in v2.1 of subfigure. So we make \subfigcapwidth a length, too.

```

384   \newdimen\subfigcapwidth
385   \newcommand*\setsubcapmargin{%
386     \subfigcapwidthfalse
387     \setlength\subfigcapmargin}
388   \newcommand*\setsubcapwidth{%
389     \subfigcapwidthtrue
390     \setlength\subfigcapwidth}

```

<code>\subcaplabelsep</code>	<p>Analogous to <code>\captionlabelsep</code> we define <code>\subcaplabelsep</code>.</p> <pre> 391 \newcommand*\subcaplabelsep{\hskip\subfiglabelskip} </pre>
<code>\caption@subfig@hss</code>	<p>This will be uses within the caption code itself.</p> <pre> 392 \let\caption@subfig@hss\hss 393 \fi </pre> <p>Here starts the common code for subfigure v2.0 and v2.1.</p>
<code>\ifsubfigcapwidth</code> <code>\subcapindent</code> <code>\subcaplabeldelim</code>	<p>Analogous to <code>\ifcaptionwidth</code>, <code>\captionindent</code> & <code>\captionlabeldelim</code> we define <code>\ifsubfigcapwidth</code>, <code>\subcapindent</code> & <code>\subcaplabeldelim</code></p> <pre> 394 \newif\ifsubfigcapwidth 395 \newdimen\subcapindent 396 \newcommand*\subcaplabeldelim{} </pre>
<code>\subcapstyle</code>	<p>Analogous to <code>\captionstyle</code> we define <code>\subcapstyle</code> and set it (via <code>\setsubcapstyle</code>) to a appropriate value.</p> <pre> 397 \newcommand*\subcapstyle[1]{% 398 \expandafter\ifx\csname caption@#1\endcsname\relax 399 \PackageError{caption2}{Undefined caption style `#1'}{\caption@eh}% 400 \else 401 \def\caption@substyle{#1}% 402 \fi} 403 \setsubcapstyle </pre>
<code>\@thesubfigure</code> <code>\@thesubtable</code>	<p>The subfigure package makes use of <code>\subcaplabelfont</code> and <code>\subfiglabelskip</code> within its <code>\@thesubxxx</code> macros. This is totally in contrast to the way the caption2 package handle these settings. So we redefine the <code>\@thesubxxx</code> to be just the plain label and nothing else.</p> <pre> 404 \renewcommand*\@thesubfigure{\thesubfigure} 405 \renewcommand*\@thesubtable{\thesubtable} </pre>
<code>\@makesubfigurecaption</code> <code>\@makesubtablecaption</code>	<p>Now we are ready to redefine <code>\@makesubfigurecaption</code>.</p> <pre> 406 \let\@makesubfigurecaption\caption@makesubcaption 407 \let\@makesubtablecaption\caption@makesubcaption 408 \fi} </pre> <p>That's all folks!</p> <pre> 409 \let\caption@ifpackage\undefined </pre>

References

- [1] Anselm Lingnau: *An Improved Environment for Floats*, 2001/11/08
- [2] David Carlisle: *The longtable package*, 2000/10/22
- [3] Sebastian Rahtz and Leonor Barroca: *A style option for rotated objects in \LaTeX* , 1997/09/26
- [4] Steven D. Cochran: *The subfigure package*, 2002/02/14
- [5] Michel Goossens, Frank Mittelbach and Alexander Samarin: *The \LaTeX Companion*, Addison-Wesley, Reading, Massachusetts, 1994.
- [6] Anne Brüggemann-Klein: *Einführung in die Dokumentverarbeitung*, B.G. Teubner, Stuttgart, 1989
- [7] Helmut Kopka: *\LaTeX – Erweiterungsmöglichkeiten*, 3. überarbeitete Auflage, Addison-Wesley, Bonn, 1991