

Package hvfloat

Rotating and scaling of objects and captions ver 2.24

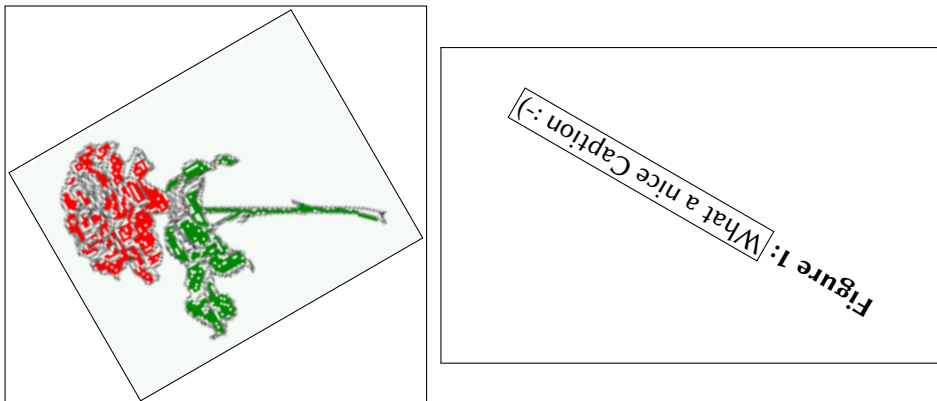
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The package hvfloat defines a macro to place objects and captions of floats in different positions with different rotating angles.

All objects and captions are framed on the first pages, which is only for some demonstration here and has no additional sense!

To compare the place of the definition of the floating objects in the source and the output a marginnote `float` is set into the margin. This is done also only for demonstration!



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1 The package options

- fbox The objects and captions are put into a `\fbox` command, like in this documentation. This doesn't make real sense and is only for some demonstration useful or for locating problems if images seems to have too much whitespace.
- hyperref Load package `hyperref`.

The length `\belowcaptionskip` is set by \LaTeX to 0pt and changed in `hvfloat` to the same value than `\abovecaptionskip`. This length can be changed to another value in the usual way with `\setlength` or `\addtolength`.

The following packages are loaded by `hvfloat` and the optional argument `hypcap` is passed to the packages `caption` and `subcaption`:

`caption`, `subcaption`, `atbegshi`, `expl3`, `multido`, `graphicx`, `xkeyval`, `ifoddpage`, and `afterpage`.

2 The Macros and optional arguments

The syntax for the macros and `\hvFloatSetDefaults`, `\hvFloatSet`, and `\hvFloat` is

```
\hvFloatSet{key=value list}
\hvFloatSetDefaults
\hvFloat* [Options] + {float type}{floating object}[short caption]{long caption}{label}
```

The star version is explained in section 11 on page 24 and 19.2 on page 52 and the optional `+` is explained in section 17.3 on page 39.

`\hvFloatSet` allows the global setting of keywords and `\hvFloatSetDefaults` sets all keywords to its default value as shown in Table 2 on the next page.

If `\hvFloat` has an empty second parameter `<float type>`, then `\hvFloat` switches by default to a nonfloat (see table 2) object, which is not important for the user. All other parameters may also be empty and the short caption as second optional parameter missing. This one is as usual the caption for the `\listoffigures`.

There are some more macros defined, more or less for internally use in `hvfloat`, but they can be used for own purposes.

```
\figcaption[short caption text]{caption text}
\tabcaption[short caption text]{caption text}
```

They are used for the `nonFloat` keyword, where these macros write captions in the same way but outside of a float environment. The default caption cannot be used here. It is no problem to use the `\tabcaption` command to place a caption anywhere, like here in an inlined mode:

Table 1: A Caption without any sense and any object

A label can be put inside the argument or after the command in the usual way, so that a reference to the not existing table 2 is no problem.

2 The Macros and optional arguments

[...] It is no problem to use the `\verb|\tabcaption|` command to place a caption anywhere, like here in an `inlined` mode: `\tabcaption[The Caption without sense ...]{A Caption without any sense and any object}\label{dummy}` A label can be put inside the argument or after the command in the usual way, so that a reference to the not existing table `\ref{dummy}` is no problem.

With the macro `\hvDefFloatStyle` one can define a style which can be used instead of the individual setting:

`\hvDefFloatStyle{name}{setting}`

Internally the style is saved in a macro named `\hv@<name>`.

There are the following keywords:

Table 2: The optional keywords for the macro `\hvFloat`

Keyword	Default	Description
<code>floatPos</code>	<code>tbp</code>	This is the same default placement setting like the one from standard \LaTeX , but maybe not always the best setting.
<code>rotAngle</code>	<code>0</code>	The value for the angle if both, the object and the caption should be rotated in the same way.
<code>capWidth</code>	<code>n</code>	The width of the caption. Can be <code>»n«</code> like a natural width, <code>»w«</code> for the width of the object, <code>»h«</code> for the height of the object, or a scale for <code>\columnwidth</code> .
<code>capAngle</code>	<code>0</code>	The value for the angle if the caption should be rotated. Counted anti clockwise.
<code>capPos</code>	<code>bottom</code>	The position of the caption relative to the object. Possible values are before: <i>always</i> before (left) from the object. top: <i>always</i> on top of the object. left: <i>always</i> before (left) from the object, but on the <i>same page</i> in twocolumn mode. after: <i>always</i> after (right) from the object. bottom: <i>always</i> on the bottom of the object. right: <i>always</i> after (right) from the object, but on the <i>same page</i> in twocolumn mode. inner: in twoside mode <i>always</i> typeset at the inner margin. outer: in twoside mode <i>always</i> typeset at the outer margin. evenPage: in twoside mode with fullpage objects <i>always</i> on an even page. oddPage: in twoside mode with fullpage objects <i>always</i> on an odd page.
<code>capVPos</code>	<code>center</code>	This is only important for <code>capPos=left right</code> . Only in this case the caption can vertically placed at the bottom, center and top.
<code>objectPos</code>	<code>center</code>	The horizontal placement of the object relative to the document. Possible values are (l) eft (c) enter (r) ight.

Keyword	Default	Description
objectAngle	0	The value for the angle if the object should be rotated. Counted anti clockwise.
floatCapSep	5pt	The additional width between the object and a left or right placed caption.
use0Box	false	Instead of passing the object as parameter to the \hvFloat, the contents maybe saved in the box \hv0Box With use0Box=true the contents of this box will be used.
onlyText	false	The caption will be printed as normal text and there is no entry in the list of
nonFloat	false	The object isn't put in a floating environment. It is printed as standard text with an additional caption. The float counters are increased as usual and can be referenced.
wide	false	The float can use \textwidth+\marginparwidth as horizontal width.
objectFrame	false	put a frame with no separation around the float object.
style	-	Use a defined style
capFormat	-	Define formatting options for \caption (see documentation of package caption).
subcapFormat	-	Define formatting options for \subcaption.

3 The default use of floating environments

In this case there is no essential difference to the well known figure or table environment, f.ex.:

```
\begin{figure}
... object ...
\caption{...}% caption below the object
\end{figure}
```



Fig. 2

Figure 2: Without any keywords (only the fbox package option)

Code for figure 2:

4 Caption width

```
\hvFloat{figure}{\includegraphics{images/rose}}{Without any keywords (only the \texttt{fbox}
package option)}{fig:0}
```

Tab. 3

Table 3: With the only Option capPos=top to place the caption on top of the table, which is often the default.

Name	Type	Description
\hvFloat	command	places object and caption in different ways
hvFloatEnv	environment	places object and caption exactly Here
\figcaption	command	writes a figure caption in a non floating environment
\tabcaption	command	writes a table caption in a non floating environment
\hvFloatSetDefaults	command	sets all options to the defaults
\hvDefFloatStyle	command	define a user style

Code for table 3:

```
\hvFloat[capPos=top]{table}{%
\begin{tabularx}{\textwidth}{>{\ttfamily}l|l|X}
\rmfamily Name & Type & Description\\ \hline
\CMD{hvFloat} & command & places object and caption in different ways\\
hvFloatEnv & environment & places object and caption exactly Here\\
\CMD{figcaption} & command & writes a figure caption in a non floating environment\\
\CMD{tabcaption} & command & writes a table caption in a non floating environment\\
\CMD{hvFloatSetDefaults} & command & sets all options to the defaults\\
\CMD{hvDefFloatStyle} & command & define a user style
\end{tabularx}}%
{With the only Option \texttt{capPos=top} to place the caption on top of the table, which is often
the default.}%
{tab:0}
```

See section 14 for some more informations about tabulars as objects.

4 Caption width

4.1 Default – natural width

The default setting is the natural width of a paragraph with respect to the current linewidth or columnwidth for a caption below or above an object. It behaves in the same way as a caption set by one of the default floating environments like figure or table:

```
\hvFloat[floatPos=!htb]{figure}{\includegraphics{images/rose}}%
{Default caption width setting, which is the natural width with respect to the current linewidth
.}{fig:width0}
```

Fig. 9 For the following examples the package option fbox is disabled. All frames are now set with the macro \frame or the optional keyword objectFrame.

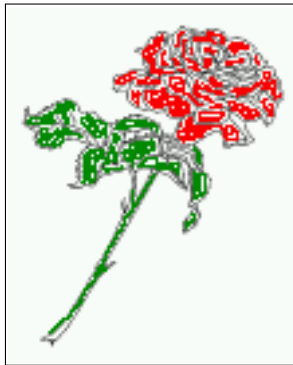


Figure 3: Default caption width setting, which is the natural width with respect to the current linewidth.

For a caption beside an object, the *natural* caption width (without the optional argument `wide`) is given by the current linewidth minus the width of the object and the space between object and caption, which is set by `floatCapSep` (see Table 2 on page 8).

```
\hvFloat[floatPos=!htb,capPos=after,objectFrame]{figure}{\includegraphics[scale=1.5]{images/rose}}
%
{Caption right beside with a \emph{natural} width, which is given by the width of the object,
the separation between object and caption, and the current linewidth.}{fig:width1}
```

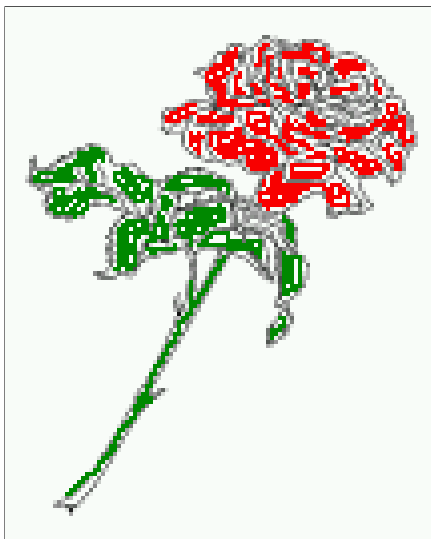


Figure 4: Caption right beside with a *natural* width, which is given by the width of the object, the separation between object and caption, and the current linewidth.

Fig. 4

4.2 Relative linewidth

With `capWidth=<number>` the caption width is set to `<number>\columnwidth`. For captions at the bottom or on top of objects the setting is not checked if `<number>` is greater than 1.

4 Caption width

```
\hvFloat[floatPos=!htb,capWidth=0.9]{figure}{\includegraphics{images/rose}}%  
{Caption below with a width of 0.9 of the current line width (column width), which is  
in this special case \the\linewidth. Divide it by 28.82 to get cm.}{fig:width2}
```

Fig. 5



Figure 5: Caption below with a width of 0.9 of the current line width (column width), which is in this special case 376.4258pt. Divide it by 28.82 to get cm.

If such a value like 0.9\linewidth is used for a caption beside an object, then the macro does a test if the space beside the object is less equal the defined caption width. If not then the width is set to the possible value between object and margin:

```
\hvFloat[floatPos=!htb,  
capPos=after,  
capWidth=0.9]{figure}{\includegraphics[scale=1.5]{images/rose}}%  
{Caption right beside with a width setting of \texttt{0.9\textbackslashlinewidth}  
which is too big for this example and therefore corrected  
by the macro to the maximal width.}{fig:width3}
```

Fig. 6

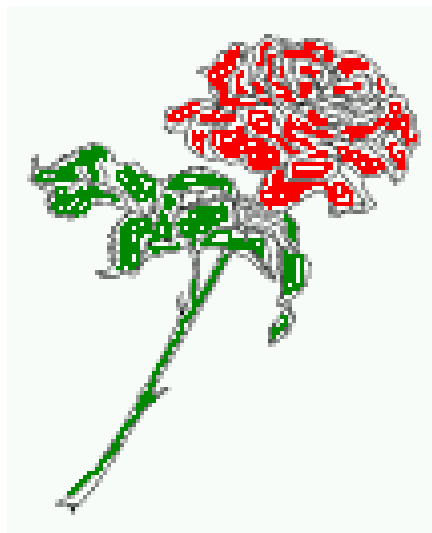


Figure 6: Caption right beside with a width setting of 0.9\linewidth which is too big for this example and therefore corrected by the macro to the maximal width.

4.3 Identical object and caption width

With `capWidth=w` the caption width is like the object width which makes only real sense if you have a lot of identical images with respect to its widths.

```
\hvFloat[floatPos=!htb, capWidth=w]{figure}{\includegraphics[width=0.5\linewidth]{images/CTAN}}%
{Caption below with a width of the given object which may be a problem
if it is a very small object.}{fig:width4}
```

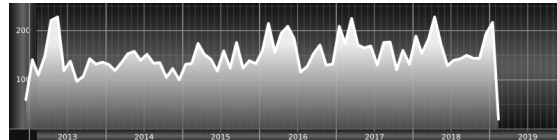


Figure 7: Caption below with a width of the given object which may be a problem if it is a very small object.

4.4 caption width to height of the object

With `capWidth=h` the caption width is like the object height which makes only real sense if you want to put a rotated caption beside the object.

```
\hvFloat[floatPos=!htb, capPos=after, capWidth=h, capAngle=90, objectFrame]{figure}{\includegraphics{
images/rose}}%
{Caption beside with a width of the given object height which may be a problem
if it is a very small object.}{fig:width5}
```



Figure 8: Caption beside with a width of the given object height which may be a problem if it is a very small object.

Fig. 8

5 Caption left or right of the object

By default the caption is set on the left side of the object. If the caption and the object are set side by side, then the keyvalue before is identical to the setting `left`.

5 Caption left or right of the object

5.1 Caption right with specific length

Code for figure 9:

```
\hvFloat%
[ floatPos=htb,
  capPos=right,
  objectFrame,
  objectPos=c]{figure}{\includegraphics[scale=0.9]{images/rose}}%
[Caption beside object and vertically centered]%
{Caption vertically centered right beside the float with a natural caption width
(the default). \blindtext}%
{fig:1}
```

floatFig. 9
capPos=right



Figure 9: Caption vertically centered right beside the float with a natural caption width (the default). Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

5.2 Caption left and rotated

Code for figure 10:

```
\hvFloat%
[ floatPos=htb,
  capPos=left,
  capWidth=h,% of \columnwidth
  capAngle=90,
  objectFrame
]{figure}{\includegraphics{images/rose}}%
[Centered Caption beside Object]%
{Caption vertically centered left beside the float with a caption width
of \texttt{capWidth=h}, which is the height of the object.}{fig:2}
```

Fig. 10 It is no problem to rotate the object, too. But with a different angle value than for the caption. Do not ask for the sense, it is only a demonstration of what is possible ... The object (image) is rotated by -30 degrees with the macro `\rotatebox`. Without any definition the caption will be placed vertically centered to the object. Important for the height of the object is the surrounding orthogonal rectangle.

Figure 10: Caption vertically centered left beside the float with a caption width of capWidth=h, which is the height of the object.



Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Code for figure 11:

```
\hvFloat[%
  capWidth=h,
  capPos=after,
  capAngle=180,
  objectAngle=90,
  capVPos=center,
  objectPos=center]{figure}{\frame{\includegraphics{images/rose}}}%
[Centered Caption beside Object]{%
{Caption vertically centered right beside the float with a caption width of the height
of the image and a rotation of the caption and the object.}}{fig:3}
```

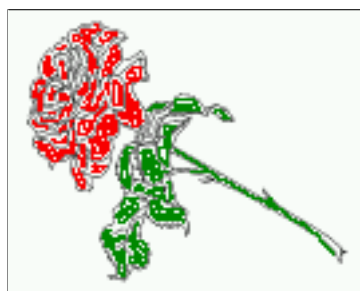


Figure 11: Caption vertically centered right beside the float with a caption width of the height of the image and a rotation of the caption and the object.

Fig. 11

6 Caption inner or outer

Setting the caption position to *inner* or *outer* makes only sense for a document in twoside mode. For a oneside document *inner* is the same as *left* and *outer* is the same as *right*. We show only

6 Caption inner or outer

the code for the first image with the setting `capPos=inner` , whereas the second one chooses only `capPos=outer` .

Code for figure 12:

```
\hvFloat[capPos=inner]{figure}{\includegraphics{images/rose}}%  
[Centered Caption on the inner side]{%  
Caption set with the parameter setting \texttt{capPos=inner}, which will be  
a caption on the right side for an even page and on the left side for  
an odd page.}{fig:20}
```

Fig. 12



Figure 12: Caption set with the parameter setting `capPos=inner`, which will be a caption on the right side for an even page and on the left side for an odd page.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Now the same Image with `capPos=outer` . The current `pagenumber` is 16, an even page. We now set a `pagebreak` at the end of the second image to see if it works with *inner/outer*.

```
\hvFloat[capPos=outer]{figure}{\includegraphics{images/rose}}%  
[Centered Caption on the inner side]{%  
Caption set with the parameter setting \texttt{capPos=outer}, which will be  
a caption on the right side for an even page and on the left side for  
an odd page.}{fig:20b}
```

Fig. 13 We have an even page, the reason why figure 13 has the caption for *inner* on the left side and figure 14 for *outer* on the right side.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Code for figure 15:



Figure 13: Caption set with the parameter setting capPos=outer, which will be a caption on the right side for an even page and on the left side for an odd page.



Figure 14: Caption at the bottom right beside the float with a caption width of 0.5\columnwidth and and capPos=outer.

```
\hvFloat[%
  capWidth=0.5,% of \columnwidth
  capPos=inner,% ==> INNER
  capAngle=0,
  capVPos=bottom,
  objectPos=center]{figure}{\includegraphics{images/rose}}%
  [Centered Caption beside Object]{%
  Caption vertically centered right beside the float with a caption
  width of \texttt{0.5\textbackslash columnwidth} and \texttt{capPos=outer} }{fig:22}
```

Fig. 15

Figure 15: Caption vertically centered right beside the float with a caption width of 0.5\columnwidth and capPos=outer



We have an odd page, the reason why figure 12 has the caption for *inner* on the right side and figure 14 for *outer* on the left side.

7 Vertical Position of the Caption

The caption can be placed beside the object in the positions

(c)enter|(b)ottom|(t)op

The code for figure 16:

```
\hvFloat[%  
    floatPos=htb,%  
    capWidth=0.25,%  
    capPos=right,%  
    capVPos=bottom,%  
{figure}{\frame{\includegraphics{images/rose}}}{Caption at bottom right beside the float}{fig:4}
```

Fig. 16



Figure 16: Caption at bottom right beside the float

The code for figure 17:

```
\hvFloat[%  
    floatPos=htb,%  
    capWidth=0.25,%  
    capPos=right,%  
    capVPos=top,%  
{figure}{\frame{\includegraphics{images/rose}}}{Caption at top left beside the float}{fig:5}
```

Fig. 17

Figure 17: Caption at top left beside the float



The code for figure 18:

```
\hvFloat[%
  capWidth=0.25,
  capPos=right,
  capVPos=center,% the default
]{figure}{\frame{\includegraphics{images/rose}}}{Caption centered right beside the float}{fig:6}
```

Fig. 18



Figure 18: Caption centered right beside the float

8 Caption format

The `\caption` and `\subcaption` macros are fully under the control of the package `caption`. The formatting can be set with the macros `\captionsetup`, `\subcaptionsetup`, or via the optional argument setting of `\hvFloat` with the keywords `capFormat` and `subcapFormat`. The argument itself will then be used internally by `\captionsetup` and/or `\subcaptionsetup` in a minipage, the reason why it will be local to the current image..

```
\hvFloat[%
  capPos=right,
  capFormat={labelsep=newline,justification=RaggedRight,font={small,it},labelfont=bf}
]{figure}{\frame{\includegraphics{images/rose}}}{\blindtext}{fig:66}
```

Fig. 19



Figure 19

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

9 Horizontal Position of the Float

The caption is always near the object, only divided by the length `\floatCapSep` which can be set by the keyword of the same name `floatCapSep`. It accepts only a value with any allowed unit. The keyword `objectPos` refers always to the complete floating object: caption *and* object. The meaning of `objectPos=left` is: Put the object as far as possible to the left margin. If `capPos=left` is also used, then the caption is at the left margin followed by the object (see Figure 21 on the next page).

The code for figure 20:

```
\hvFloat[%
  capWidth=0.25,
  capPos=right,
  capVPos=top,
  objectPos=left,
  objectFrame,
]{figure}{\includegraphics{images/rose}}{%
  Caption at top right beside the float and object position left}{fig:7}
```

Fig. 20



Figure 20: Caption at top right beside the float and object position left

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

The same with `capPos=left` :

Fig. 21

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Figure 21: Caption at top right beside the float and object position left



The code for figure 22:

```
\hvFloat[%
  capWidth=0.25,
  capPos=before,
  capVPos=top,
  objectPos=right,
  objectFrame,
]{figure}{\includegraphics{images/rose}}{%
  Caption at top leftt beside the float and object position right}{fig:8}
```

Figure 22: Caption at top left beside the float and object position right



Fig. 22

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

10 Wide floats

With the optional argument `wide` the width of the defined `\marginparwidth` is added to the allowed horizontal width of the float.

10 Wide floats

The code for figure 23:

```
\hvFloat[wide,
  capPos=right,
  capVPos=top,
  objectPos=left,
]{figure}{\includegraphics[width=0.75\linewidth]{images/CTAN}}{%
  Caption at top right beside the float and object position left and
  the option \texttt{wide}.}{fig:70}
```

Fig. 23

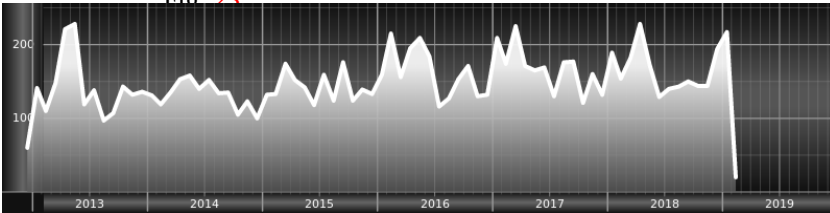


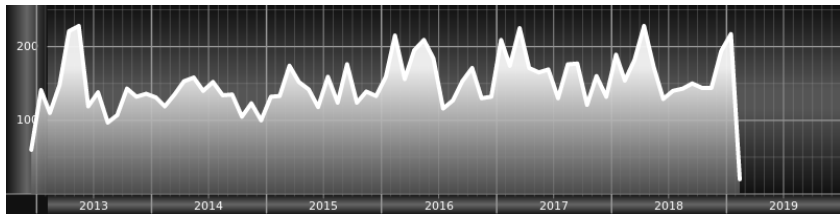
Figure 23: Caption at top right beside the float and object position left and the option wide.

The code for figure 24:

```
\hvFloat[wide,
  capPos=left,
  capVPos=top,
  objectPos=right,
]{figure}{\includegraphics[width=0.75\linewidth]{images/CTAN}}{%
  Caption at top left beside the object and object position left and
  the option \texttt{wide}.}{fig:80}
```

Fig. 24

Figure 24: Caption at top left beside the object and object position left and the option wide.



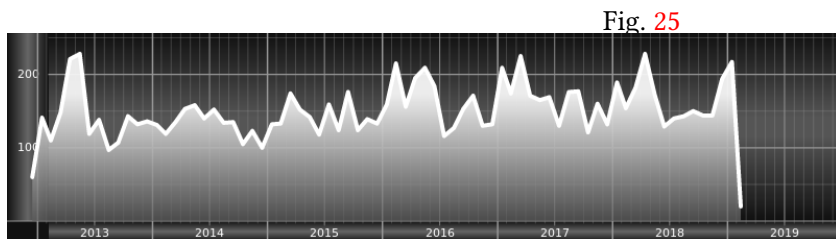
For a twosided document it will place the object always in the margin.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

```
\hvFloat[wide,
  capPos=inner,
  capVPos=top,
]{figure}{\includegraphics[width=0.75\linewidth]{images/CTAN}}{%
  Caption at top and inner beside the float and object position right and
```

the option `\texttt{wide}.`{fig:81}

Figure 25: Caption at top and inner beside the float and object position right and the option wide.

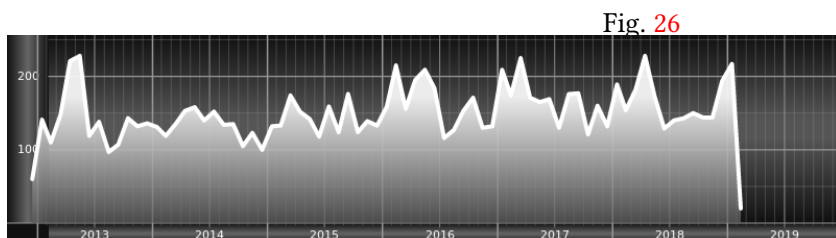


Now we set the same image with the same setting on the next page. The caption will change its side due to the setting `capPos=outer`.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

```
\hvFloat[wide,
  capPos=inner,
  capVPos=top,
]{figure}{\includegraphics[width=0.75\linewidth]{images/CTAN}}{%
Caption at top inner beside the float and object position right and
the option \texttt{wide}.
```

Figure 26: Caption at top inner beside the float and object position right and the option wide.



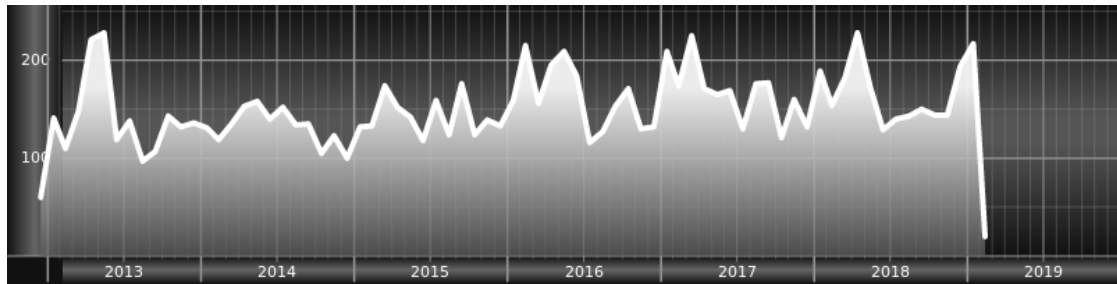
The caption can be typeset completely into the margin with:

```
\captionsetup{justification=RaggedRight}
\hvFloat[wide,
  capPos=outer,
  capVPos=top,
  floatCapSep=\marginparsep,
]{figure}{\includegraphics[width=\linewidth]{images/CTAN}}{%
Caption at top inner beside the float and object position right and
the option \texttt{wide}.
```

Fig. 27

12 Full Page Width in Landscape Mode

Figure 27: Caption at top inner beside the float and object position right and the option wide.



11 The star version \hvFloat*

In the twocolumn mode the floating environment can be set over both columns with the star version `\hvFloat*`. The floating environment will not be on the bottom of the page. The code for the following example (Figure 28) is:

```
\hvFloat*[capPos=right]{figure}%
{\includegraphics{images/frose}}%
[A float with the default caption setting]%
{A default caption of a '' object with the default setting, which
is a ''left'' caption which means that it always appears before the object.
This can be an even or odd page. And some more text which has no
real meaning because it fills only the space for a long caption.}%
{fig:0}
```

The example shows on page 3 the star version and on page 4 the same without using the star.

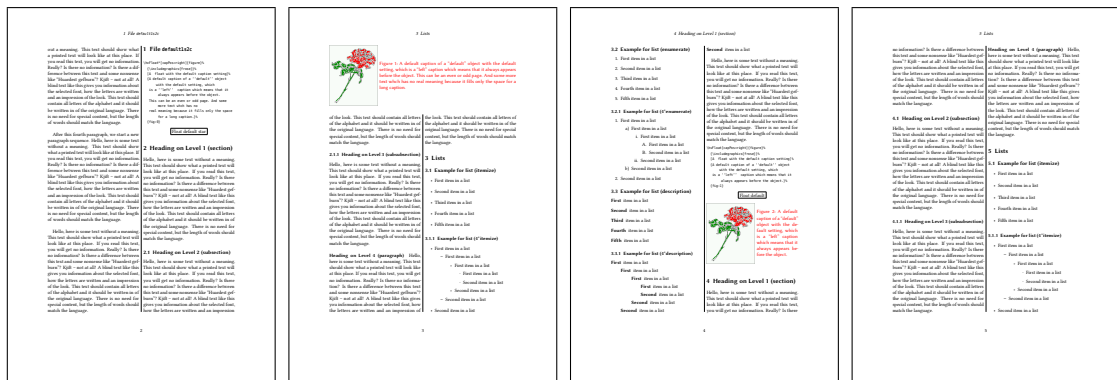


Figure 28: Output of default1s2c (pages 2 –5)

12 Full Page Width in Landscape Mode

If you do not want to load the package `lscape` (or `pdfscape`) you can use the `floatPos=p` option to put the image on an own page and rotated by 90 degrees (figure 29).

Code for figure 29:


```

\hvFloat[%
    floatPos=p,
    capPos=bottom,
    rotAngle=90,
    objectPos=center,
]{figure}{\includegraphics[width=0.9\textheight]{images/CTAN}}%
    [Object and Caption in landscape mode]{%
    Caption and object in landscape mode. \blindtext}{fig:9}

```

The float can also be put to the left or to the right (above/below in landscape) with the `objectPos=l` parameter

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Fig. 29

The code for figure 30:

```

\hvFloat[%
    floatPos=p,
    capWidth=h,
    capPos=right,
    objectAngle=90,
    capAngle=-90,
    objectPos=left,
]{figure}{\includegraphics[width=\textheight]{images/CTAN}}%
    [Rotated Caption in Landscape]{%
    Caption right beside the float and object position left. The caption rotated by $-90$
    degrees.\blindtext}{fig:10}

```

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Fig. 30

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

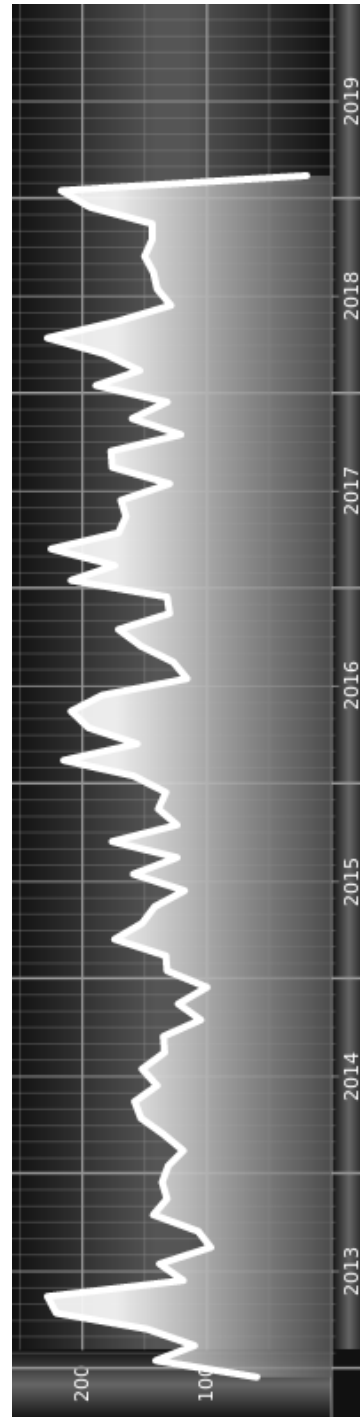
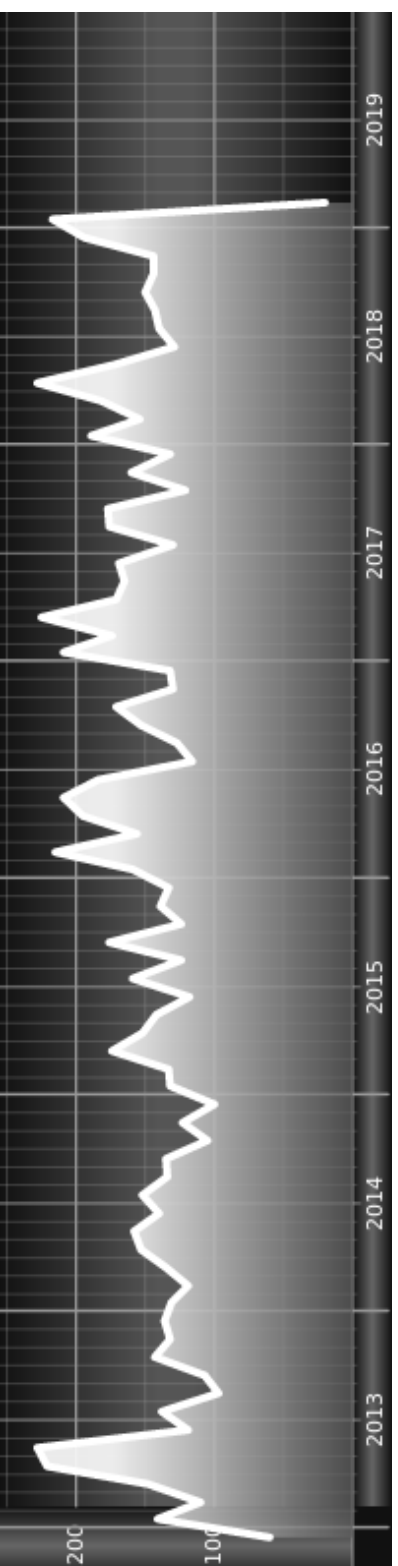


Figure 29: Caption and object in landscape mode. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Figure 30: Caption right beside the float and object position left. The caption rotated by -90 degrees. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.



13 The nonFloat Option

Sometimes it is better to put a “float” in a specific position of the page. This is possible with the nonfloat package and the keyword nonFloat.

Some nonsense text before the following `\emph{non floating}` object.

```
\hvFloat[%
  nonFloat,
  capWidth=0.25,
  capPos=right,
  capVPos=bottom,
  objectPos=center,
  objectFrame,
]{figure}{\includegraphics[scale=1.5]{images/rose}}%
[Nonfloat Captions]{%
  Caption of a “nonfloat” Object, using the \texttt{nonfloat} Package}{fig:11}
```

Some nonsense text after the preceding `\emph{non floating}` object.

Some nonsense text before the following *non floating* object.

Fig. 31

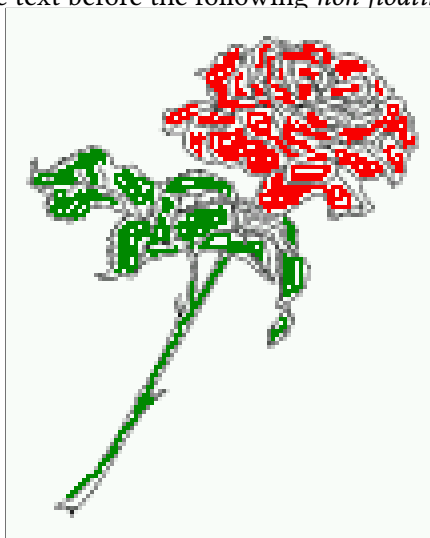


Figure 31: Caption of a “nonfloat” Object, using the nonfloat Package

Some nonsense text after the preceding *non floating* object.

The image 31 is exactly placed where the command `\hvFloat` appears. There are only commands for figure and table environments:

```
\newcommand{\figcaption}{\def\@captive{figure}\caption}
\newcommand{\tabcaption}{\def\@captive{table}\caption}
```

But it is no problem, to define more xxxcaption commands to support other with the float package defined new floats.

14 Tabulars as Objects

The object has to be passed as an parameter to the `\hvFloat` macro. This is no problem with images but maybe with tables, so it is easier to use the box `\hv0Box` to save the table in this box and pass it then to `\hvFloat` with the `use0Box` option. For example see table 4 and 5:

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

```
\savebox{\hv0Box}{%
\begin{tabular}>{\small\ttfamily}l|l|l\hline
\rmfamily Name      & Type      & Description\\\hline
\CMD{hvFloat} & command      & places object and caption in different ways\\
hvFloatEnv & environment & places object and caption exactly Here\\
\CMD{figcaption} & command      & writes a figure caption in a non floating environment\\
\CMD{tabcaption} & command      & writes a table caption in a non floating environment\\
\CMD{hvFloatSetDefaults} & command      & sets all options to the defaults\\\hline
\end{tabular}%
}
```

The code for table 4 and 5 is:

```
\hvFloat[%
floatPos=!hb,
capPos=top,
use0Box=true]{table}{{Demonstration of the \texttt{use0Box} Parameter}{table:1}}

\hvblindtext

\marginnote{Tab.~\ref{table:2}}
\hvFloat[%
floatPos=hb,
use0Box=true,
objectAngle=90,
capPos=right,
capVPos=top,
capWidth=0.3]{table}{{Another demonstration of the \texttt{use0Box} Parameter}{table:2}}
```

In this case leave the third parameter empty.

Tab. 4

15 Text and objects

With the `onlyText` keyword it is no problem to put some text beside an image without getting the caption title Figure/Table. The object still can be a floating one or a nonfloating if the `nonfloat` keyword is used.

The code for figure 15:

`\hvFloat[%`

Table 4: Demonstration of the use0Box Parameter

Name	Type	Description
\hvFloat	command	places object and caption in different ways
hvFloatEnv	environment	places object and caption exactly Here
\figcaption	command	writes a figure caption in a non floating environment
\tabcaption	command	writes a table caption in a non floating environment
\hvFloatSetDefaults	command	sets all options to the defaults

Name	Type	Description
\hvFloat	command	places object and caption in different ways
hvFloatEnv	environment	places object and caption exactly Here
\figcaption	command	writes a figure caption in a non floating environment
\tabcaption	command	writes a table caption in a non floating environment
\hvFloatSetDefaults	command	sets all options to the defaults

Table 5: Demonstration of the use0Box Parameter

```

onlyText=true,
capAngle=90,
capPos=right,
capVPos=top,
objectFrame,
capWidth=h]{\includegraphics{images/rose}}%
[["\texttt{onlyText}" Caption]{%
  Demonstration of the \texttt{onlyText} Parameter, which makes it
  possible to put some text beside a floating object without getting
  a starting \texttt{Figure:} or \texttt{Table:}}{fig:text}

```



Demonstration of the `onlyText` Parameter, which makes it possible to put some text beside a floating object without getting a starting `Figure:` or `Table:`

Fig. 15

16 Environment `hvFloatEnv`

With the environment `hvFloatEnv` one can place an object exactly on that position where the environment is defined. For captions the use of `\captionof` is recommended:

```

\begin{hvFloatEnv}
\captionof{table}{A caption for a nice table}
\begin{tabular}{@{} l c r @{}}\hline
left & center & right \\
L & C & R \\
\end{tabular}
\end{hvFloatEnv}

```

Table 6: A caption for a nice table

left	center	right
L	C	R

The environment has an optional argument for setting the line width which is preset to `\textwidth`. The object is always centered.

```

\begin{hvFloatEnv}[0.5\textwidth]
\captionof{table}{A caption for a nice table}
\begin{tabular}{@{} l c r @{}}\hline

```

17 Full page objects in onecolumn mode

```
left & center & right \\
L & C & R \\ \hline
\end{tabular}
\end{hvFloatEnv}
```

Table 7: A caption for a nice table

left	center	right
L	C	R

17 Full page objects in onecolumn mode

For an image or table which needs the whole space of a page the caption can be printed at the bottom of the preceeding or following page. It is possible in oneside and twoside mode, but makes only real sense in the twoside mode. hvfloat defines three additional optional arguments for placing images in a complete column, page or paper:

```
\define@key{Gin}{fullpage}[true]{%           \define@key{Gin}{FullPage}[true]{%
  \def\Gin@ewidth{\columnwidth}%             \def\Gin@ewidth{\textwidth}%
  \def\Gin@eheight{\textheight}%             \def\Gin@eheight{\textheight}%
  \Gin@boolkey{false}{iso}%                  \Gin@boolkey{false}{iso}%
}                                              }
\define@key{Gin}{FULLPAGE}[true]{%
  \def\Gin@ewidth{\paperwidth}%
  \def\Gin@eheight{\paperheight}%
  \Gin@boolkey{false}{iso}%
}
```

Figure 32 on the next page shows the meaning of the optional arguments fullpage, FullPage, and FULLPAGE for `\incluographics[...]{tiger}`.

17.1 Using the textarea

The setting capPos=evenPage (even) or capPos=oddPage (odd) page for a document in twocolumn mode makes no real sense. For a twosided document a setting like capPos=inner for inner or capPos=outer for outer margin makes more sense. For an image or table which needs the whole space of a page the caption can be printed at the bottom of the preceeding or following page. It is possible in oneside and twoside mode, but makes only real sense in the twoside mode. Without any additional argument the caption is set first and the object on the following page:

17.1.1 Using the default or capPos=before

Without any additional argument the caption is set first (left) at the bottom of the current page and the object on the following page. This is the same setting like capPos=left for a onecolumn document. For the twocolumn option it makes more sense to use the setting capPos=before if the caption and object can appear on different pages.

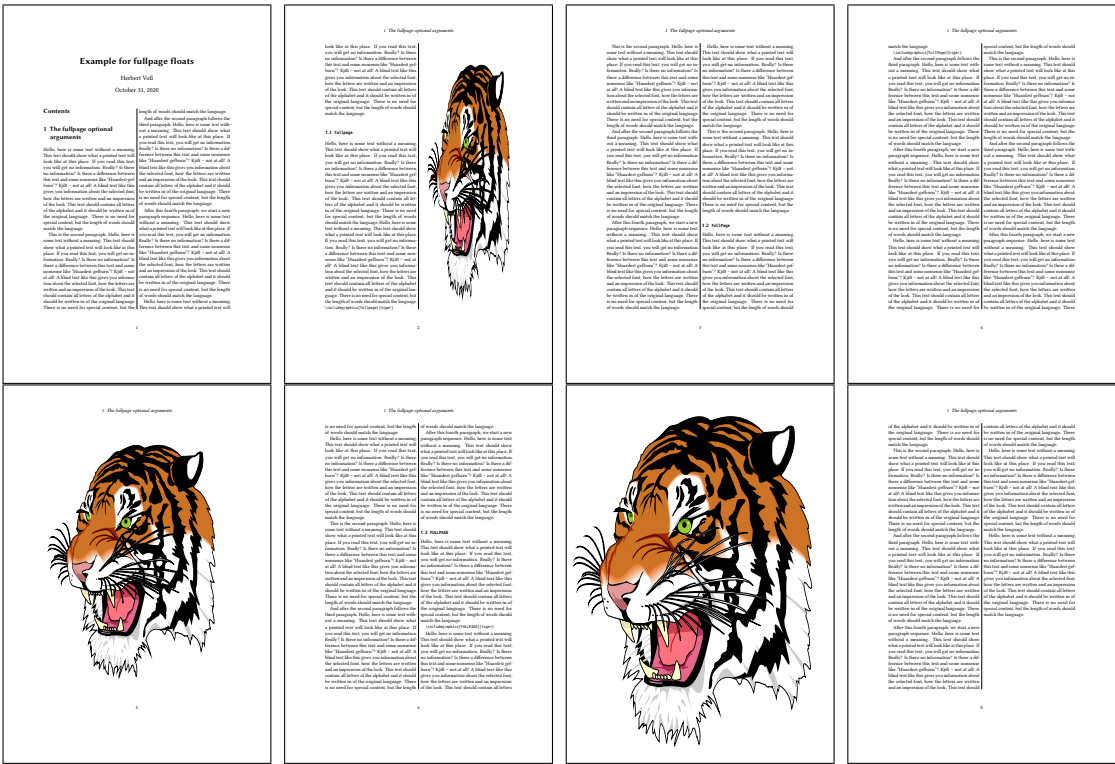


Figure 32: Output of fullpage1s2c (pages 1–8)

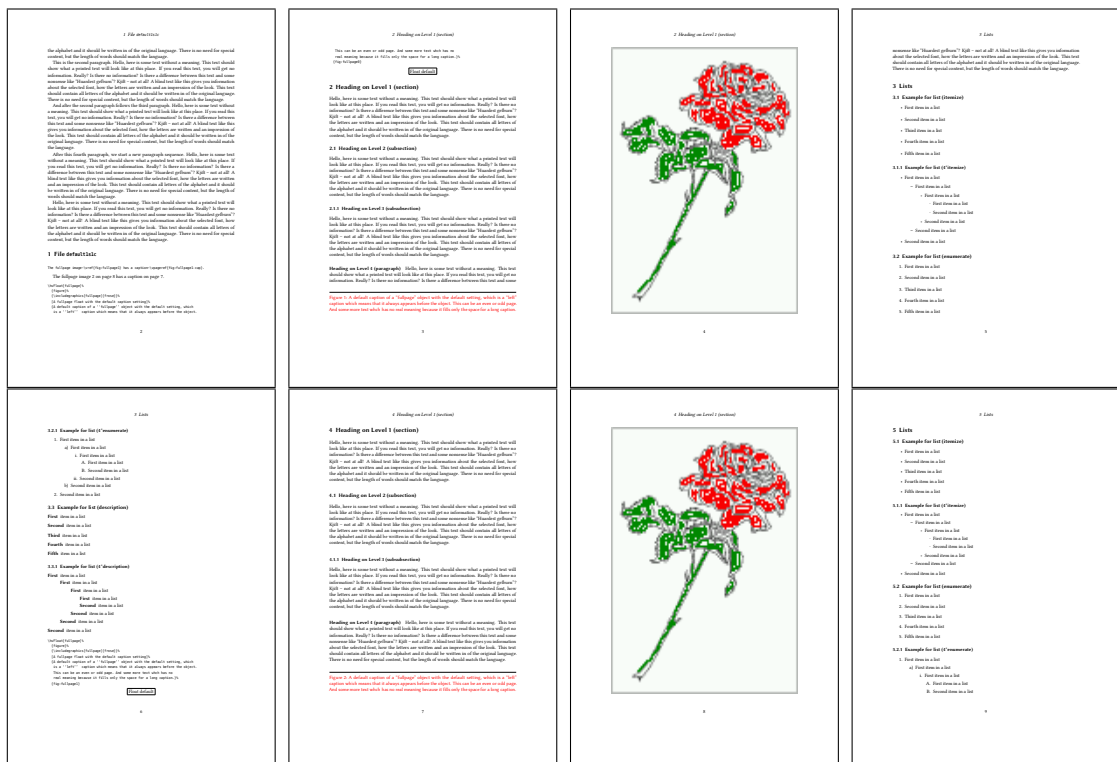
```
\hvFloat[fullpage]%
{figure}%
{\includegraphics[fullpage]{images/froze}}%
[A fullpage float with the default caption setting]%
{A default caption of a "fullpage" object with the default setting, which
is a "left" caption which means that it always appears "before" the object.
This can be an even or odd page. And some more text which has no
real meaning because it fills only the space for a long caption.}%
{fig:fullpage0}
```

With this setting the caption is always placed *before* the following object. This maybe sufficient for a oneside document but not the best solution if this document is printed on a duplex machine. In such a case it may make sense to have the captions always on an even (left) page, even though the document is typeset in a oneside mode. Figure 33 on the following page shows the output for a oneside document with a setting capPos=before .

Depending to the used documentclass it can be a problem, if the caption should be placed on the first page. In such a case use one of the other setting. Table 8 on the next page shows the valid optional arguments for a full page floating object.

Table 8: Valid optional arguments for a full page object.

Name	Type	Description
fullpage	true false	Put the caption on the bottom of the preceding or following page and the object alone a page.
FULLPAGE	true false	The same for full papersize objects over one or two columns. The <code>pagestyle</code> is set to empty
multiFloat	true false	For multiple objects with captions for every object. See section 17.3 on page 39.
subFloat	true false	For multiple objects with one main and more subcaptions. See section 18 on page 41.
separatorLine	true	Put a line with a predefined width of 0.4pt between the text and the caption. Only valid for the keyword <code>fullpage</code> .
capPos	value	caption before, after an object or on an evenPage or oddPage.

**Figure 33:** Output of default1s1c (pages 2–9)

17.1.2 Using capPos=after

The caption will be printed always on the right side which is the same as *after* the full page object. The object appears immediately on the next page and the caption of the next following page at the bottom. There is no check for an even or odd page. This behaviour makes only sense for a oneside document.

```
\hvFloat[fullpage, capPos=after]%  
{figure}%  
\includegraphics[fullpage]{images/frose}}%  
[A float which needs the complete page width and height.]%  
{A Caption of a "fullpage" object, which follows on the next page.  
This can be an even or odd page. And some more text which has no  
real meaning because it fills only the space for a long caption.}  
{fig:fullpage}
```

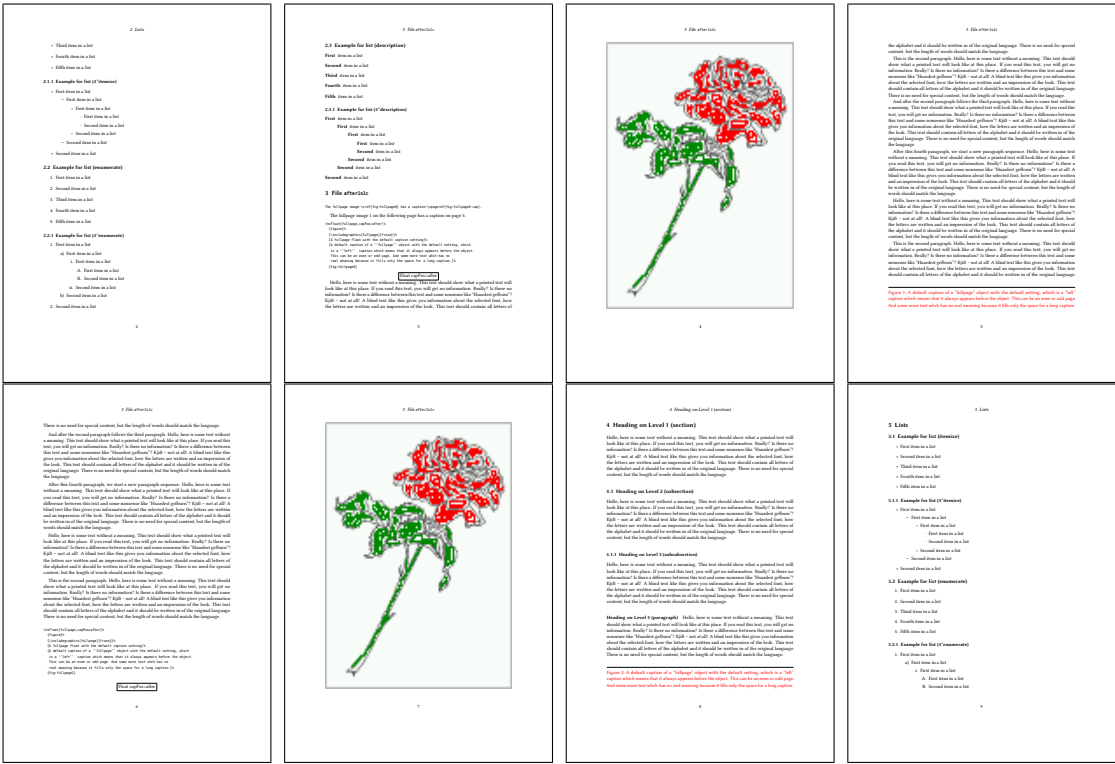


Figure 34: Output of after1s1c (pages 2-9)

17 Full page objects in onecolumn mode

17.1.3 Using capPos=evenPage — caption on an even page

With capPos=evenPage the caption will be printed on an even (left) page, the object will always be on an odd (right) page. This option makes only real sense for The twoside mode!

```
\hvfloa[fullpage, capPos=evenPage]%  
{figure}%  
\includegraphics[fullpage]{images/frose}}%  
[A float with a caption on an even page (left)]%  
{A caption on an even (left) page of a “fullpage” object.. \blindtext}  
{fig:fullpage3}
```

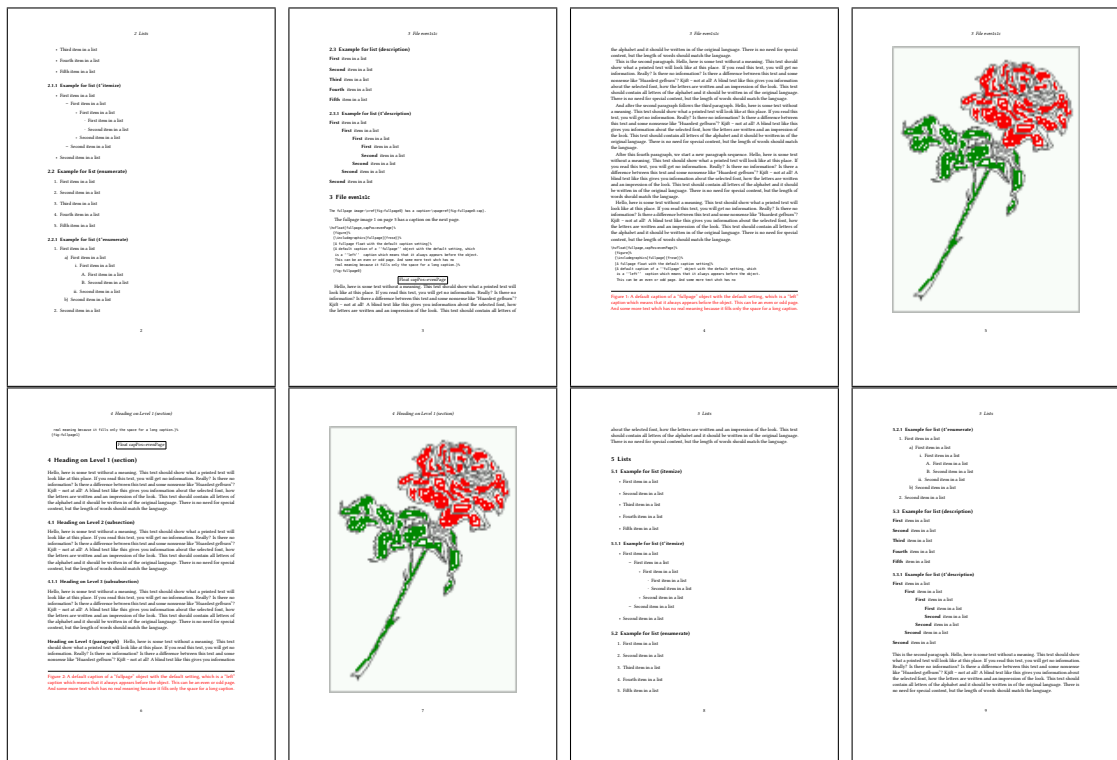


Figure 35: Output of even1s1c (pages 2–9)

17.1.4 Using capPos=oddPage — caption on an odd page

With capPos=oddPage the caption will be printed on an odd (right) page, the object will always be on an even (left) page, which is before the caption.

```
\hvFloat[fullpage, capPos=oddPage]%
{figure}%
{\includegraphics[fullpage]{images/frose}}%
[A float which needs the complete page width and height.]%
{A Caption on an odd page of a ‘‘fullpage’’ object, which follows on the next page.
This can be an even or odd page. And some more text which has no
real meaning because it fills only the space for a long caption.}
{fig:fullpage2}
```

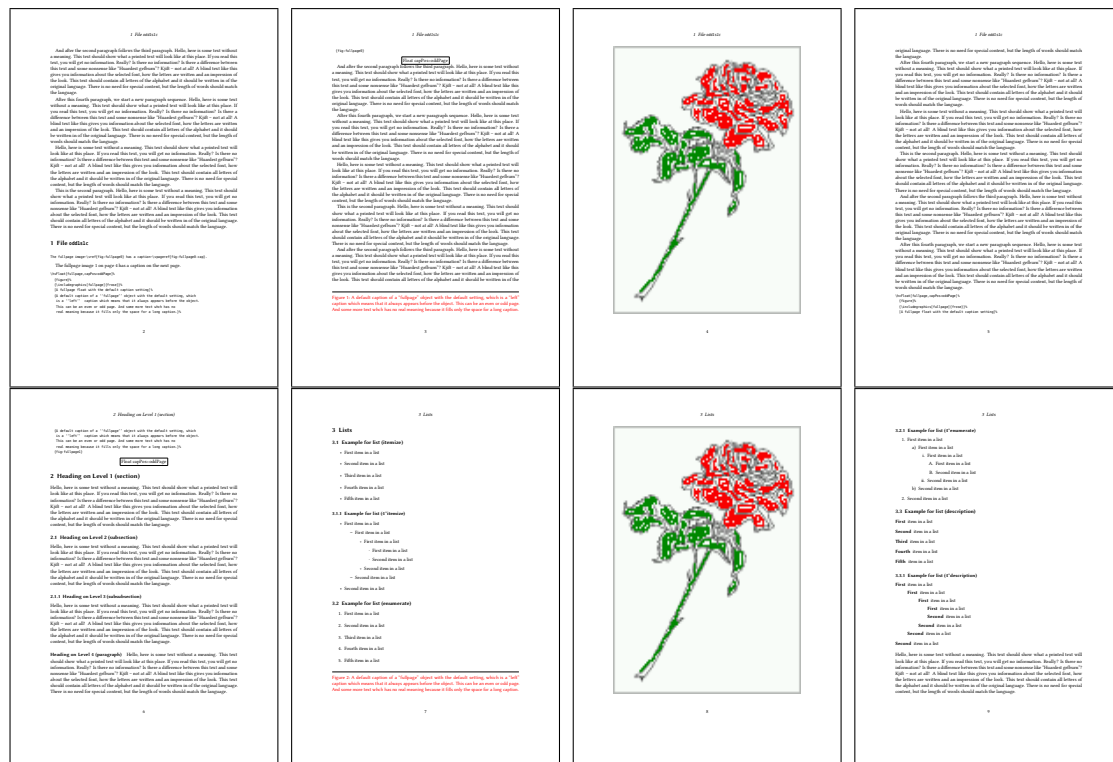


Figure 36: Output of odd1s1c (pages 2–9)

17.1.5 Using capPos=inner or capPos=outer — caption on the inner or outer side

These settings make no sense in onecolumn mode.

17 Full page objects in onecolumn mode

17.2 Using the paper size

It belongs to the user to create an object which fills the complete page. However, with the keyword `FULLPAGE` which is valid for `\hvfloat` and for the macro `\includegraphics` an image will be scaled to the paper dimensions `\paperwidth` and `\paperheight`. It can be used in one- and twocolumn mode!

```
\hvFloat[FULLPAGE]%
{figure}%
{\includegraphics[FULLPAGE]{froese.png}}%
[A fullpage float with the default caption setting]%
{A default caption of a "fullpage" object with the default setting, which
is a "left" caption which means that it always appears before the object.
This can be an even or odd page. And some more text which has no
real meaning because it fills only the space for a long caption.}%
{fig:fullpage0}
```

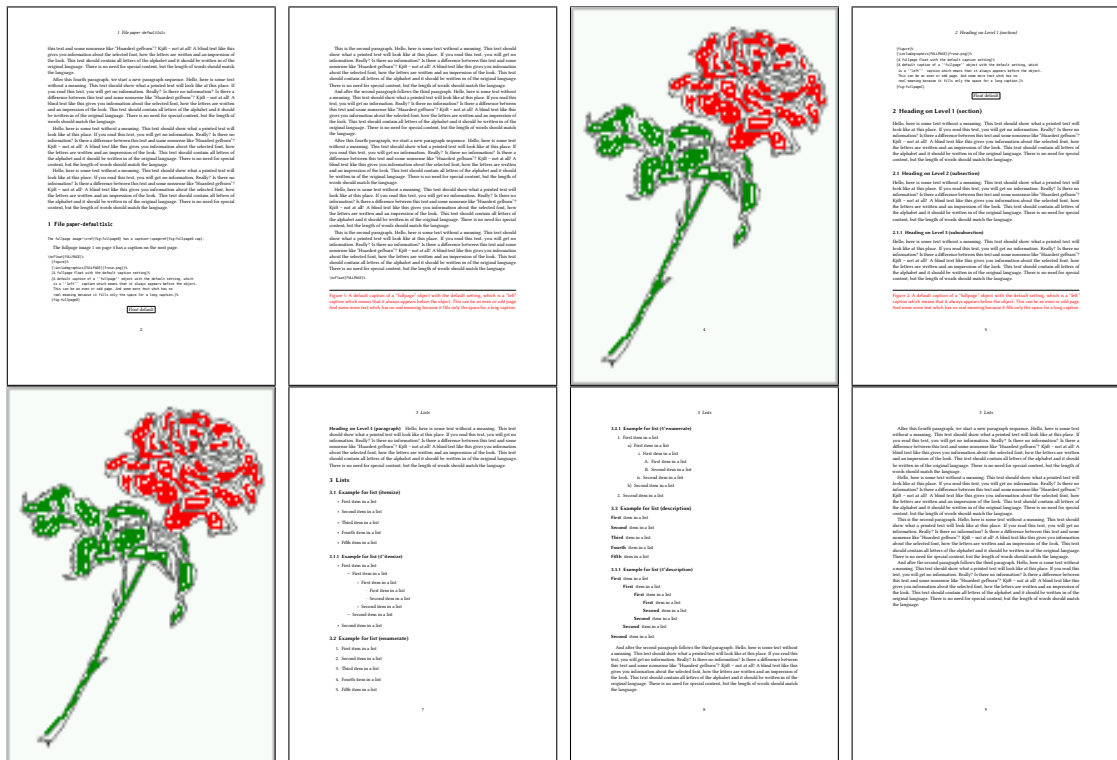


Figure 37: Output of paper-default1s1c (pages 2–9)

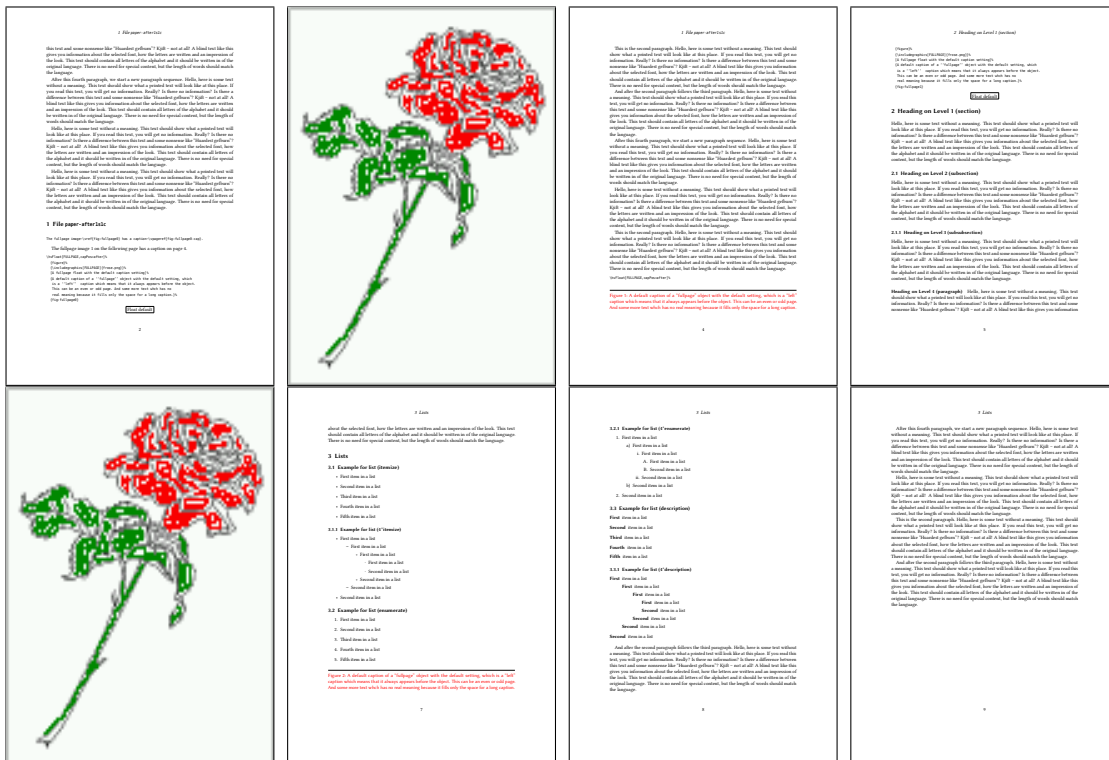


Figure 38: Output of paper-after1s1c (pages 2–9)

17.3 Multifloats

Multifloats is the name for more than one image and/or tabular in *one* floating environment. Every image and/or tabular has its own caption, which is different to a subcaption. The syntax for multiple floats is

```
\hvFloat [Options] +{float type}{floating object} [short caption] {long caption}{label}
+{float type}{floating object} [short caption] {long caption}{label}
+...
+{float type}{floating object} [short caption] {long caption}{label}
```

The + symbol defines an additional Object which will be part of the same floating environment. It's up too the user to be sure that one page or one column can hold all defined objects. Every object gets its own caption which is the reason why figures and tabulars and ... can be mixed:

```
\captionsetup{singlelinecheck=false}
\hvFloat[fullpage,capPos=before,multiFloat]%
+{figure}{\includegraphics[width=\linewidth]{images/CTAN}}% no 1
[Short caption A]%
{A Caption A of a "fullpage" object, which follows on the left or
right column. This can be an even or odd page. And some more text which has no
```


17 Full page objects in onecolumn mode

```

real meaning because it fills only the space for a long caption.}%


```

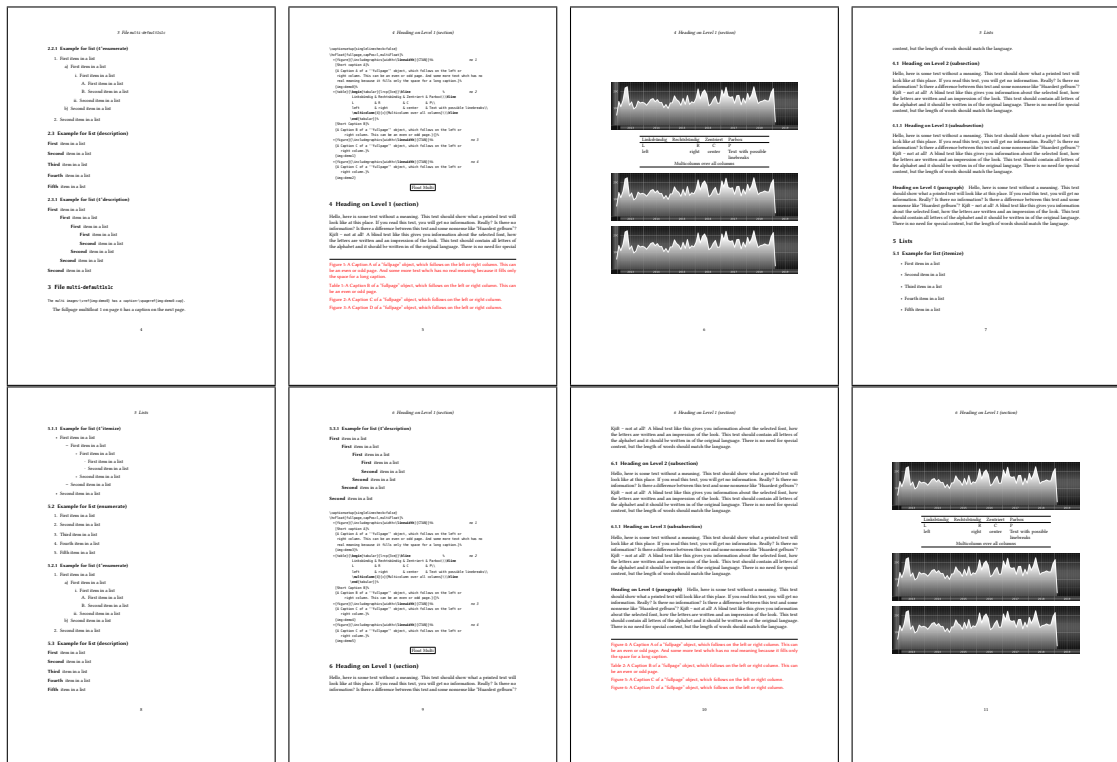


Figure 39: Output of multi-default1s1c (pages 4–11)

The page with the objects has no additional informations it holds only the figures and/or

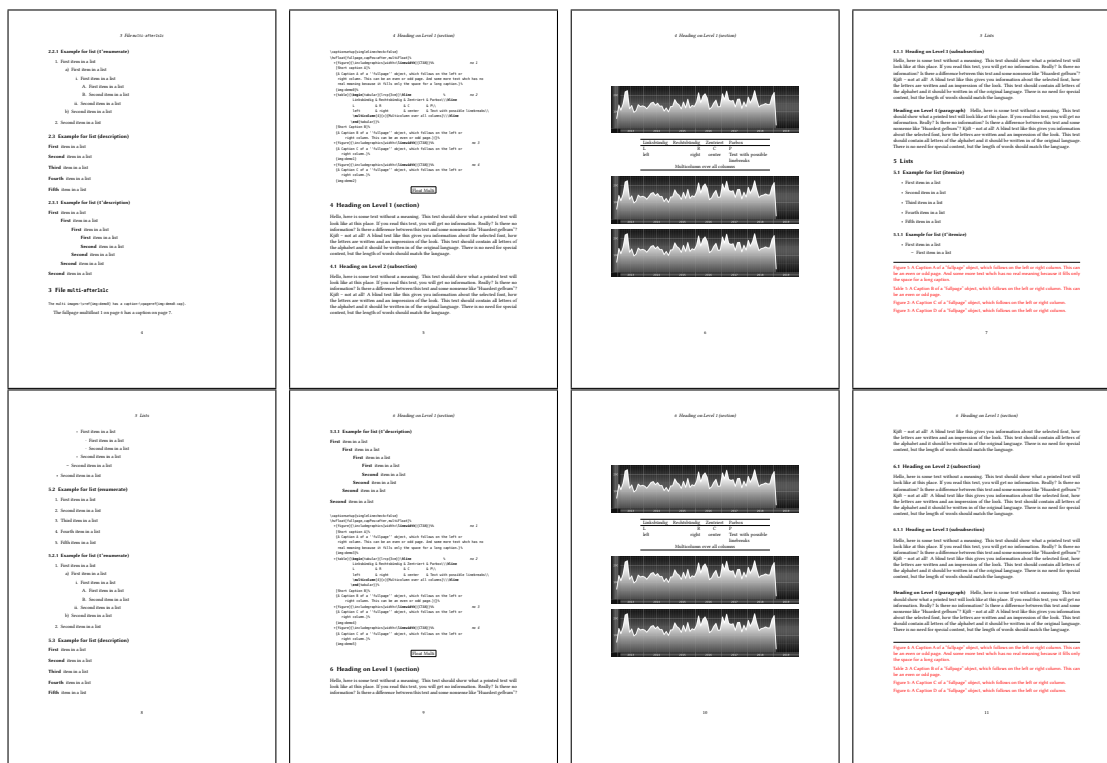


Figure 40: Output of multi-after1s1c (pages 4–11)

tabulars. If you want it like subfigures or subtabulars then go to section 18. The setting `\captionsetup{singlelinecheck=false}` is needed if you want the captions always left aligned.

18 Subfloat page

A subfloat page can have only one type of floats which will have one main caption and individual subcaptions. The syntax is similar to the one for a multifloat page:

```
\hvFloat [Options] +{float type}{<empty>} [short caption] {long caption}{label}
+{<empty>}{floating object} [short caption] {long caption}{label}
+...
+{<empty>}{floating object} [short caption] {long caption}{label}
```

Some arguments are ignored for a subfloat, one can leave them empty. The first line defines only the type and the main caption, the object entry is ignored! All additional lines will have the same float type, the reason why the float type entry is ignored.

```
\hvFloat[fullpage,capPos=before,objectFrame,subFloat]%
+{figure}{}[Short main caption of the objects]% main short lsi entry
{The main caption of a "fullpage" object, which follows on the left or
```

18 Subfloat page

```
right column. This can be an even or odd page. And some more text which has no
real meaning because it fills only the space for a long caption.}% main caption
{sub:demo0}%
+{}{\includegraphics[width=\linewidth]{images/CTAN}}%
[Short caption B]%
{A Caption B of a “fullpage” sub object.}% subcaption
}%
+{}{\includegraphics[width=\linewidth]{images/CTAN}}%
{A Caption C of a “fullpage” object, which follows on the left or right column.}%
{sub:demo1}
+{}{\includegraphics[width=\linewidth]{images/CTAN}}%
{A Caption D of a “fullpage” object}%
{sub:demo2}
+{}{\includegraphics[width=\linewidth]{images/CTAN}}%
{A Caption E of a “fullpage” object}%
{sub:demo3}
```

The keyword `subFloat` defines the images or tabulars as subfloats. The package `subcaption` is loaded by default and should be activated with `\captionsetup[sub][singlelinecheck]`.

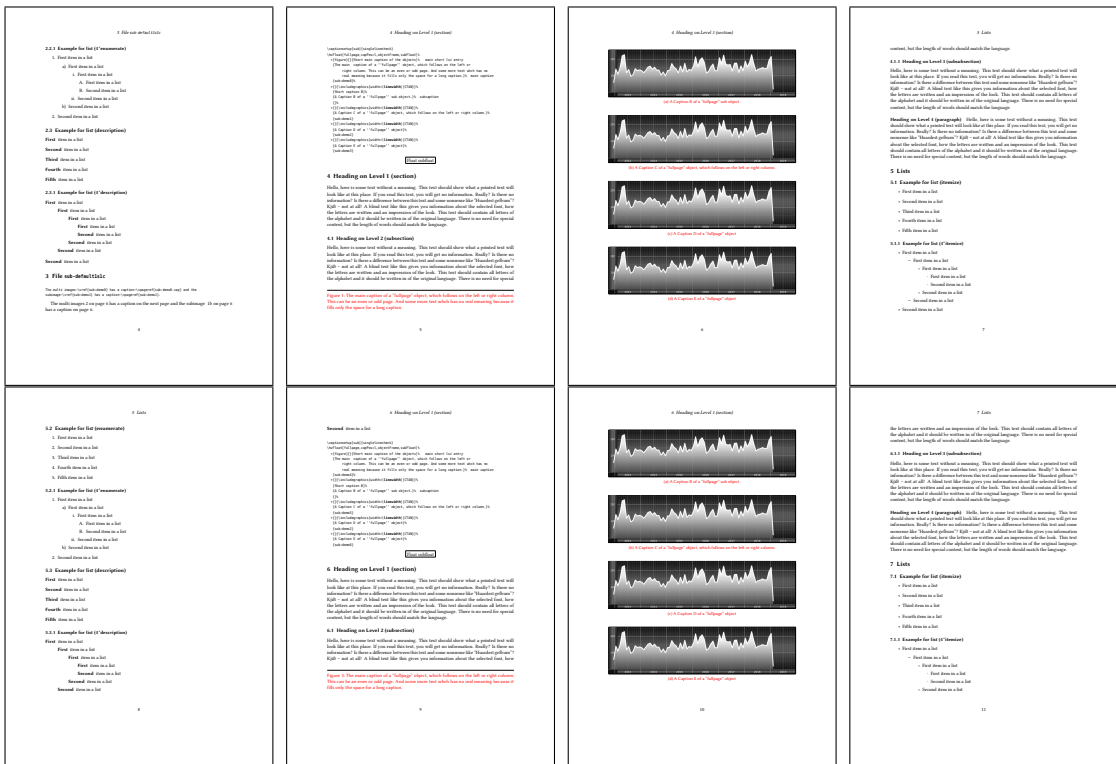


Figure 41: Output of sub-default1s1c (pages 4–11)

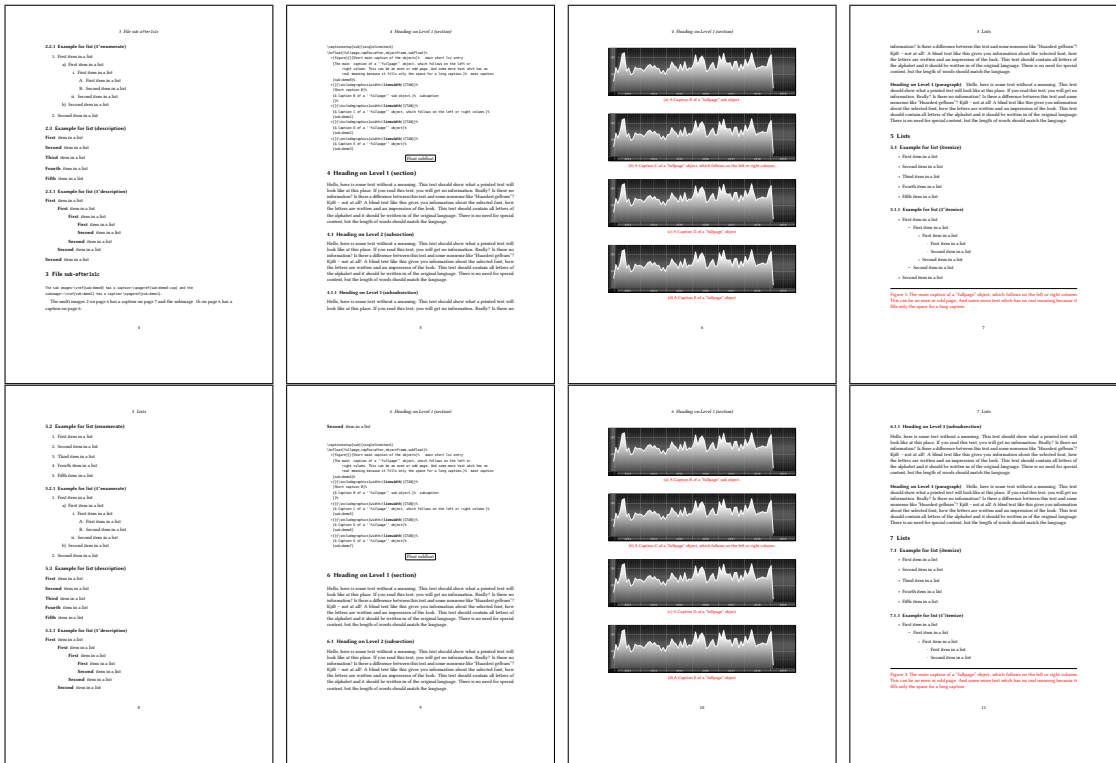


Figure 42: Output of sub-after1s1c (pages 4–11)

19 Full page objects in twocolumn mode

The filenames always have a “2c” for two columns in its names, e.g. left2s2c indicates capPos=before and the documentclass setting twoside and twocolumn. Depending to the used documentclass it can be a problem, if the caption should be placed on the first page of the whole document. In such a case use one of the other setting. Table 8 on page 34 shows the valid optional arguments for a full page floating object.

19.1 Default setting

For the twocolumn mode the caption can be in the left (first) or right (second) column. With the default setting (without using the keyword capPos) it is equivalent to the setting capPos=before, the caption is always placed *before* (left of) the object. This can be the first or the second column and both can be on different pages. With capPos=before (uppercase L) it is possible to get the caption and the object in the twocolumn mode always on one page. This is then the left (first) column for the caption (see figure 43).

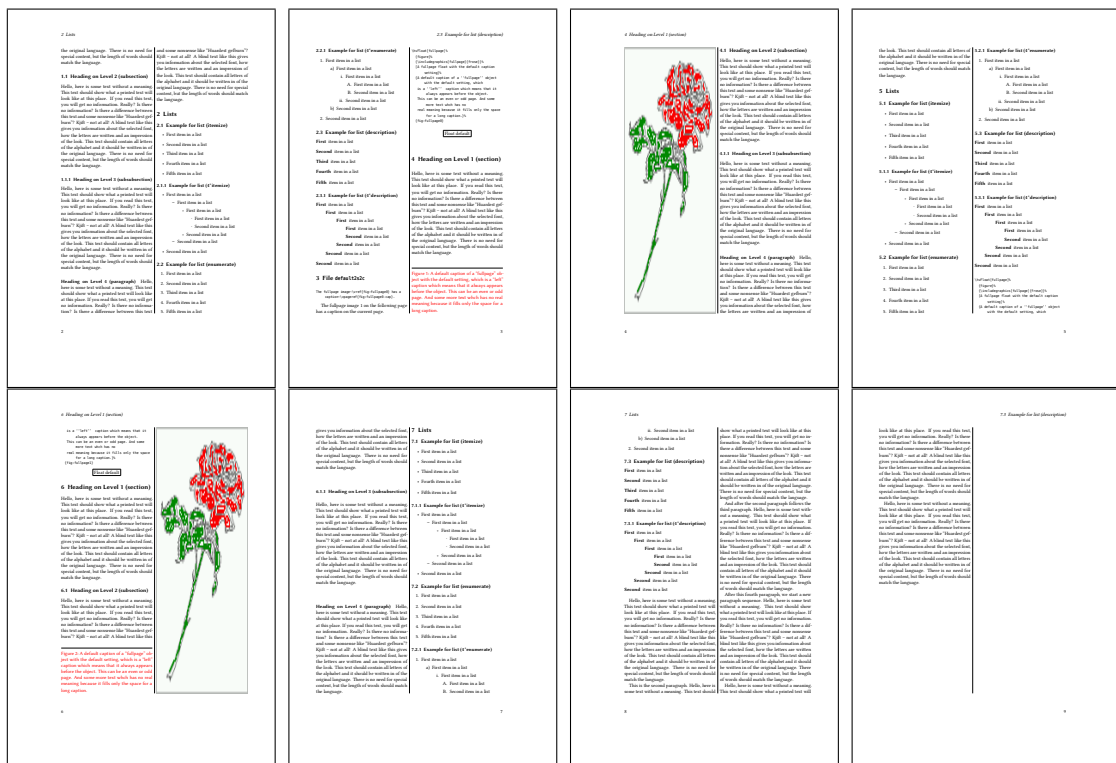


Figure 43: Output of default2s2c (pages 2–9)

```
\hvFloat[fullpage]{figure}%
{\includegraphics[width=\columnwidth,height=0.9\textheight]{images/frose}}%
[A float which needs the complete column width and height.]%
```

{A Caption of a “fullpage” object, which follows on the next column.
This is always the right column on an even or odd page. And some more
text which has no real meaning because it fills only the space for a long
caption.}%
{fig:fullpage0-2}

The example 43 on the preceding page shows that the caption and the object can be on different pages. If you do not like this behaviour, then use the setting `capPos=left`, which puts the caption before the object, but always on the *same page* (see Figure 44).

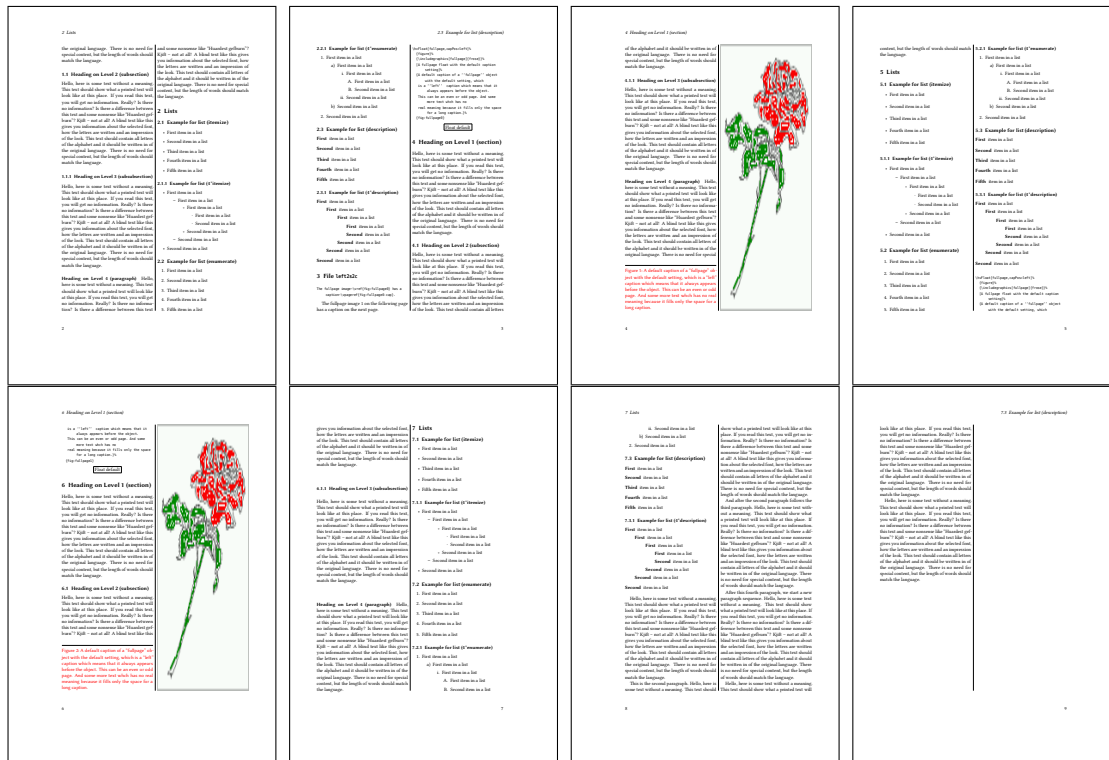


Figure 44: Output of left2s2c (pages 2–9)

19.1.1 Using `capPos=after`

The caption will be printed always right of the object which is the same as *after* the full page object. With `capPos=after` it is possible to get the caption in the twocolumn mode always in the right (second) column (see figure 46 on page 47)

```
\hvFloat[fullpage, capPos=after]{figure}%
{\includegraphics[fullpage]{images/rose}}%
[A float which needs the complete column width and height.]%
{A Caption of a “fullpage” object, which is on the left column.  
This is always the right column on an even or odd page. And some more
```

19 Full page objects in twocolumn mode

text which has no real meaning because it fills only the space for a long caption.%
{fig:fullpage1-2}

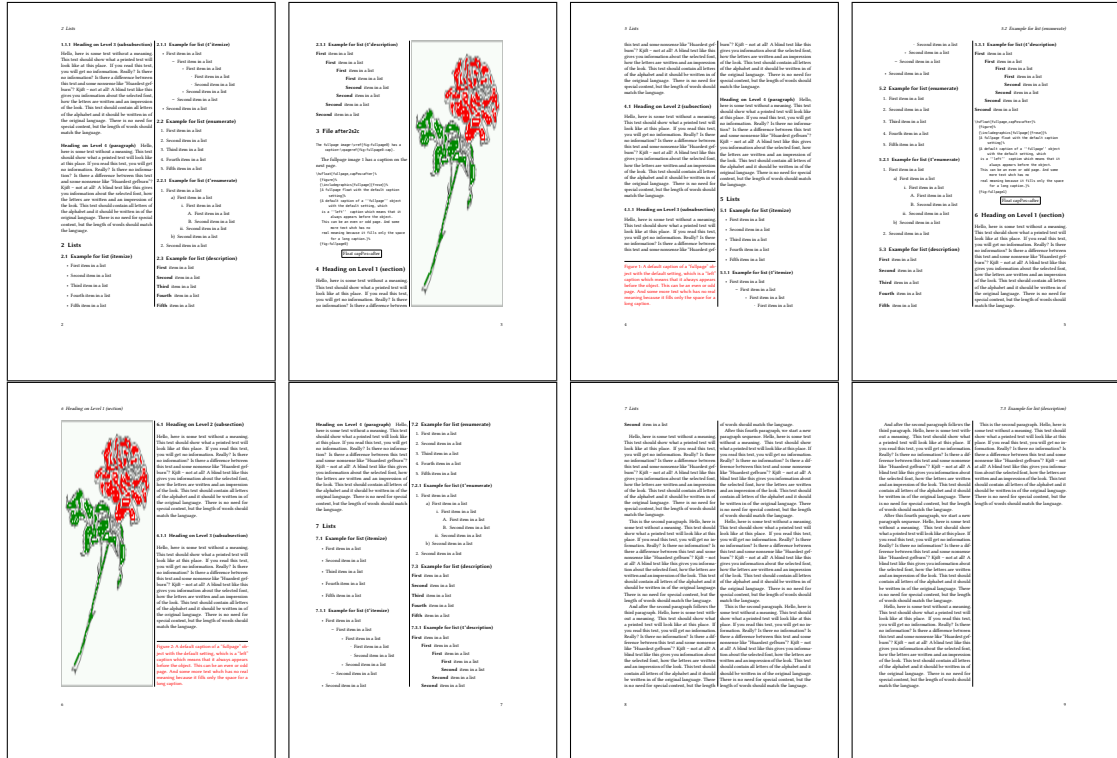


Figure 45: Output of after2s2c (pages 2–9)

The caption and the object can be on different pages (Figure 45). If you do not like this behaviour, then use the setting `capPos=right` instead of `capPos=after`. Figure right2s2c shows that caption and object in this case are always on the same page.

[illegible]

Figure 46: Output of right2s2c (pages 2–9)

There can be a problem if there is not enough space on the bottom of the even page. Then the caption will be on the next page which is an odd one. In such a case use a manually `\clearpage` or wait for an update of `hvf`.

Figure 47: Output of even2s2c (pages 2–9)

19.1.3 Using capPos=oddPage — caption on an odd page

There can be a problem if there is not enough space on the bottom of the even page. Then the caption will be on the next page which is an odd one. In such a case use a manually `\clearpage` or wait for an update of `hvfloating`.

[illegible]

Figure 48: Output of odd2s2c (pages 2–9)

19.1.5 Using capPos=outer — caption on the outer column

The caption will be printed on the left column an odd page, the object can appear before or after this caption.

```
\hvFloat[fullpage, capPos=outer]{figure}%
{\includegraphics[fullpage]{images/rose}}%
[A float which needs the complete page width and height with \texttt{capPos=outer}.]%
{A Caption of a "fullpage" object, which has the caption position in the
outer page. This can be an even or odd page. And some more text which has no
real meaning because it fills only the space for a long caption.}{fig:fullpage2-2a}
```

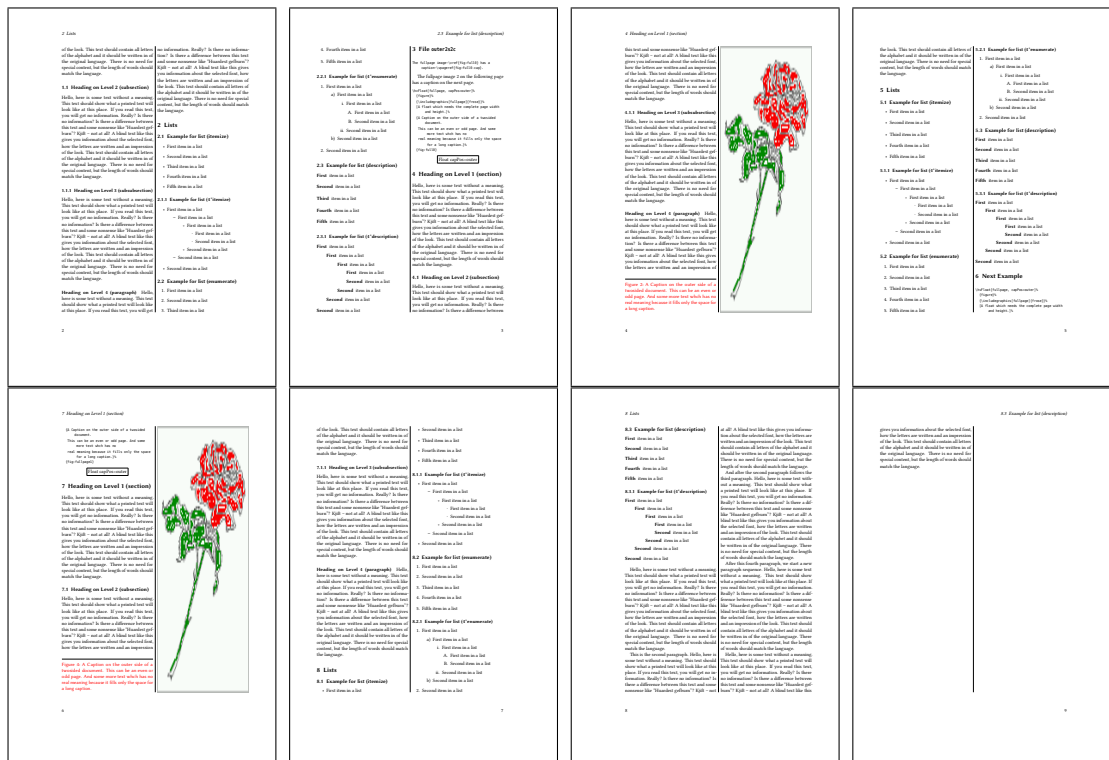


Figure 50: Output of outer2s2c (pages 2–9)

19 Full page objects in twocolumn mode

19.2 Using full page in twocolumn mode

With the star version of `\hvfloat` The object is placed over both columns, the whole page. In such a case the only useful caption position is `capPos=inner` for *inner*.

```
\hvfloat*[fullpage, capPos=inner]{figure}%
{\includegraphics[FullPage]{images/rose}}%
[A float which needs the complete page width and height with \texttt{capPos=outer}.]%
{A caption of a "fullpage" object in twocolumn mode: It uses the star version
of \textbackslash hvfloat. The object goes over both columns.}{fig:two}
```

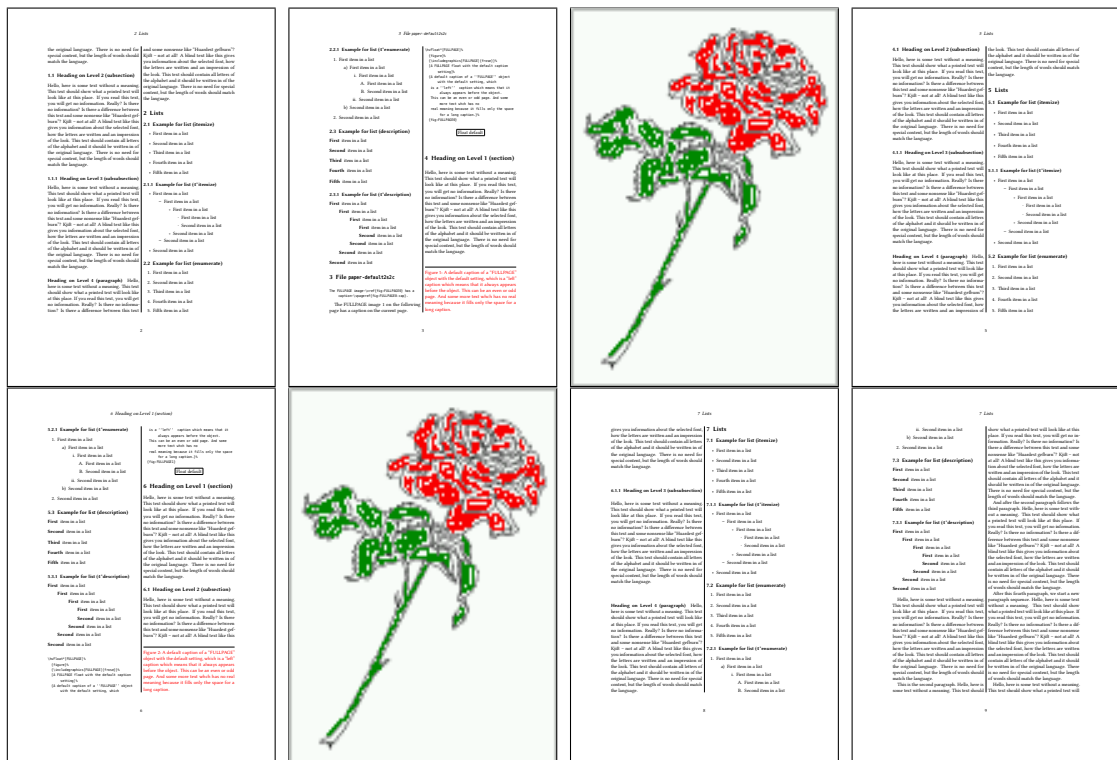


Figure 51: Output of paper-default2s2c (pages 2–9)

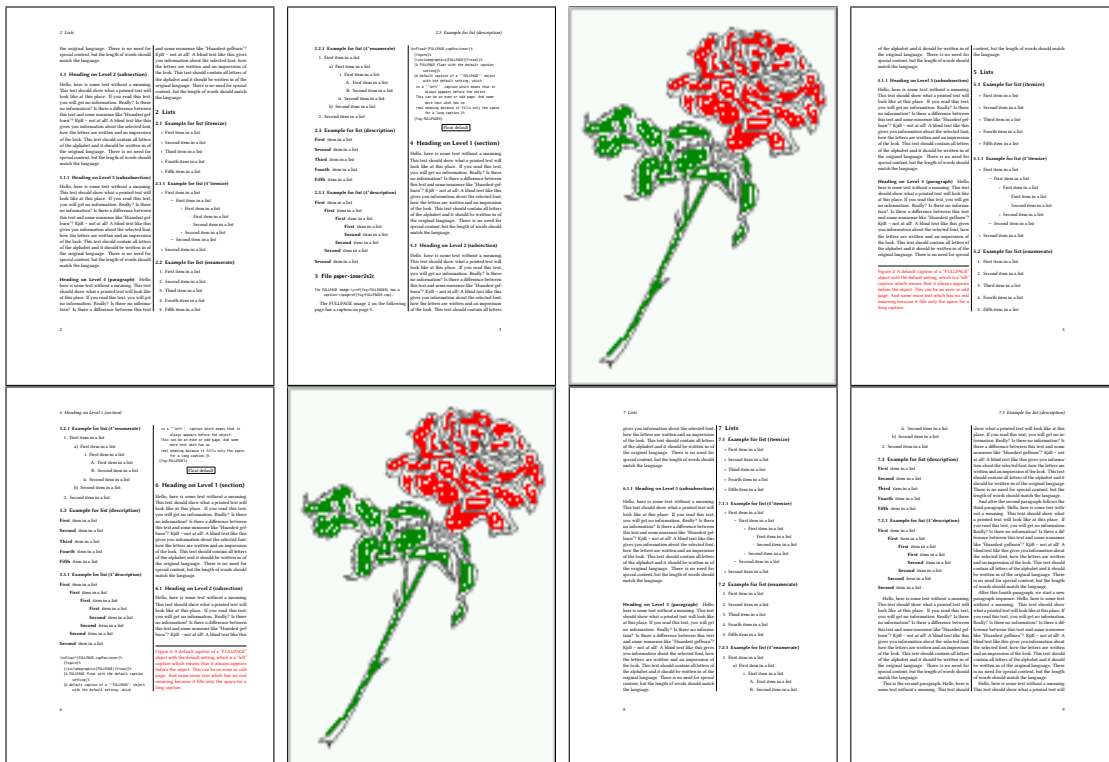


Figure 52: Output of paper-inner2s2c (pages 2–9)

19.3 Multifloats

Multifloats is the name for more than one image and/or tabular in *one* floating environment. Every image and/or tabular has its own caption, which is different to a subcaption. The + symbol defines an additional Object which will be part of the same floating environment. It's up too the user to be sure that one page or one column can hold all defined objects. Every object gets its own caption which is the reason why figures and tabulars and ... can be mixed:

```
\captionsetup{singlelinecheck=false}
\hvFloat[fullpage,multiFloat,capPos=inner]%
+{figure}{\includegraphics[height=0.4\textheight]{images/rose}}%% no 1
[Short caption A]%
{A Caption A of a "fullpage" object, which follows on the left or
right column. This can be an even or odd page. And some more text which has no
real meaning because it fills only the space for a long caption.}%
{multi:demo0}%
+{table}{\begin{tabular}{lr}\hline
Linksbündig & Rechtsbündig\\
L & R & \\
left & right & \\
\multicolumn{2}{c}{Multicolumn}\hline
\end{tabular}}% no 2
```

20 Subfloat page

```
\end{tabular}}%
[Short Caption B]%
{A Caption B of a "fullpage" object, which follows on the left or
right column. This can be an even or odd page.}%
}%
+{figure}{\includegraphics[height=0.4\textheight]{images/rose}}%% no 3
{A Caption C of a "fullpage" object, which follows on the left or
right column.}%
{\multi{demol}}
```

The page with the objects has no additional informations it holds only the figures and/or tabulars. If you want it like subfigures or subtabulars then go to section 18 on page 41. The setting `\captionsetup{singlelinecheck=false}` is needed if you want the captions always left aligned.

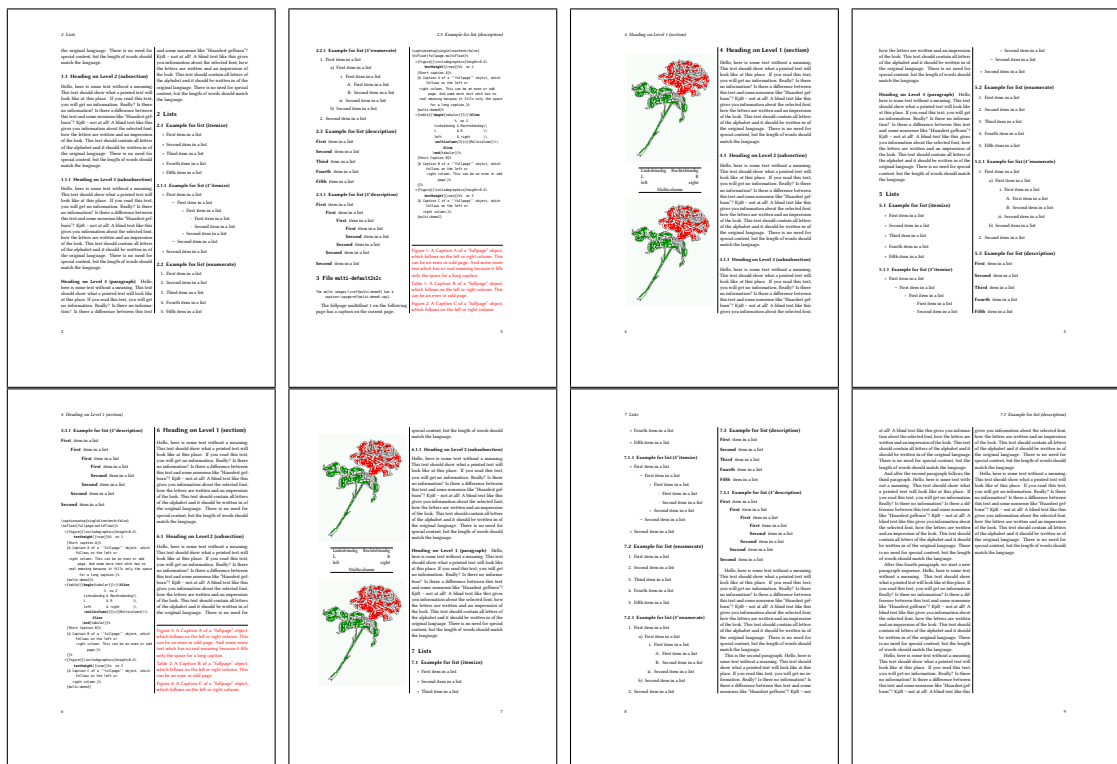


Figure 53: Output of multi-default2s2c (pages 2-9)

20 Subfloat page

A subfloat page can have only one type of floats which will have one main caption and individual subcaptions. Some arguments are ignored for a subfloat, one can leave them empty. The first line defines only the type and the main caption, the object entry is ignored! All additional lines will have the same float type, the reason why the float type entry is ignored.

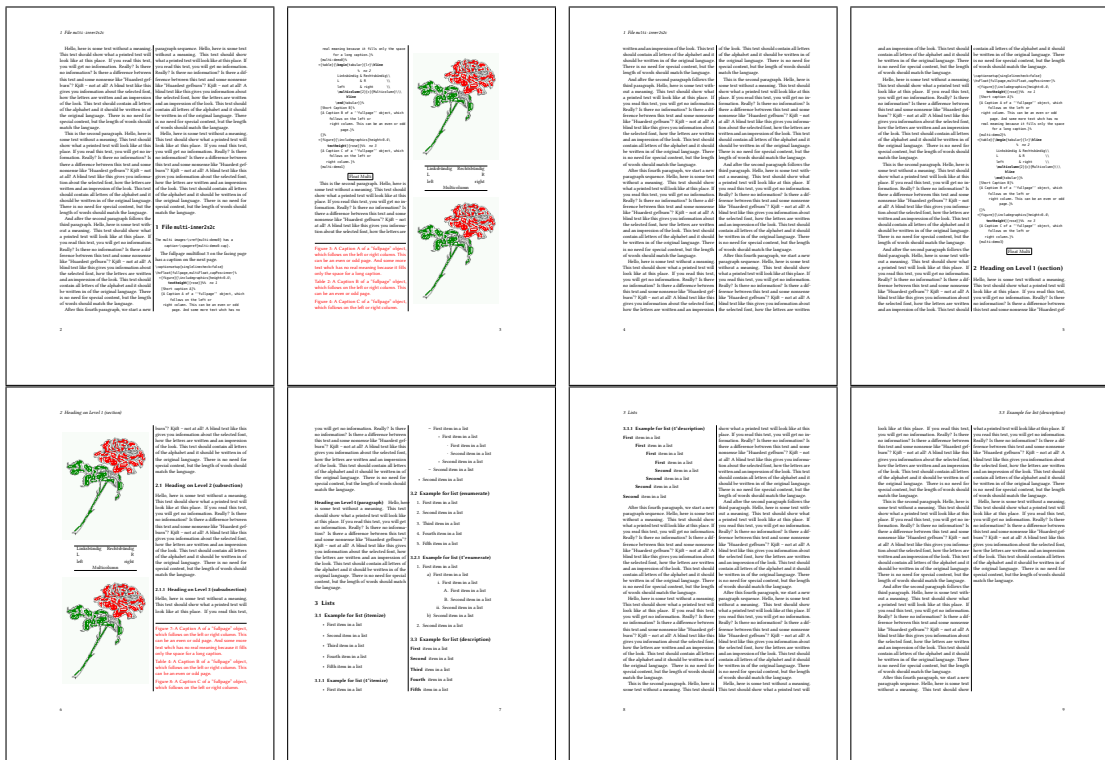


Figure 54: Output of multi-inner2s2c (pages 2-9)

\captionsetup[sub]{singlelinecheck}
\hvFloat[fullpage,capPos=before,objectFrame,subFloat]%
+{{figure}}[Short main caption of the objects]% main short lsi entry
{The main caption of a "fullpage" object, which follows on the left or
right column. This can be an even or odd page. And some more text which has no
real meaning because it fills only the space for a long caption.}% main caption
{sub:demo00}%
+{{\includegraphics[height=0.28\textheight]{images/rose}}}%
[Short caption B]%
{A Caption B of a "fullpage" sub object.}% subcaption
}%
+{{\includegraphics[height=0.28\textheight]{images/rose}}}%
{A Caption C of a "fullpage" object, which follows on the left or right column.}%
{sub:demo10}
+{{\includegraphics[height=0.28\textheight]{images/rose}}}%
{A Caption D of a "fullpage" object}%
{sub:demo20}

The keyword subFloat defines the images or tabulars as subfloats. The package subcaption is loaded by default. For the subcaptions the singlelinecheck should be true (see listing).

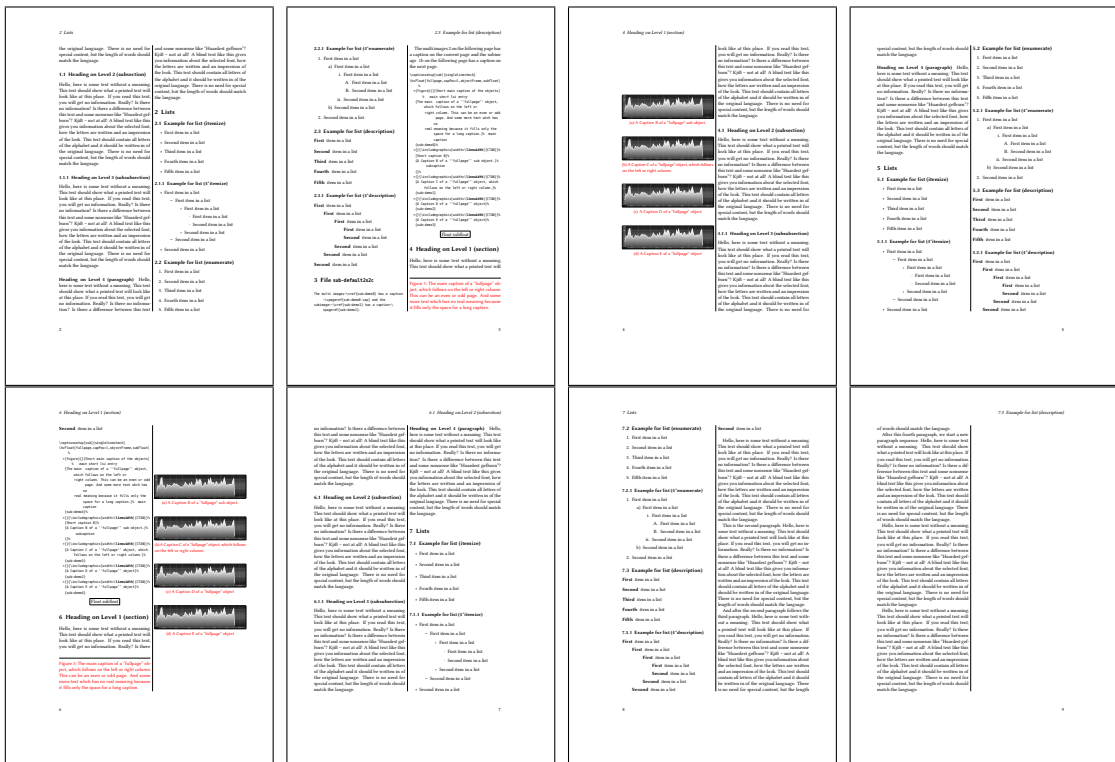


Figure 55: Output of sub-default2s2c (pages 2-9)

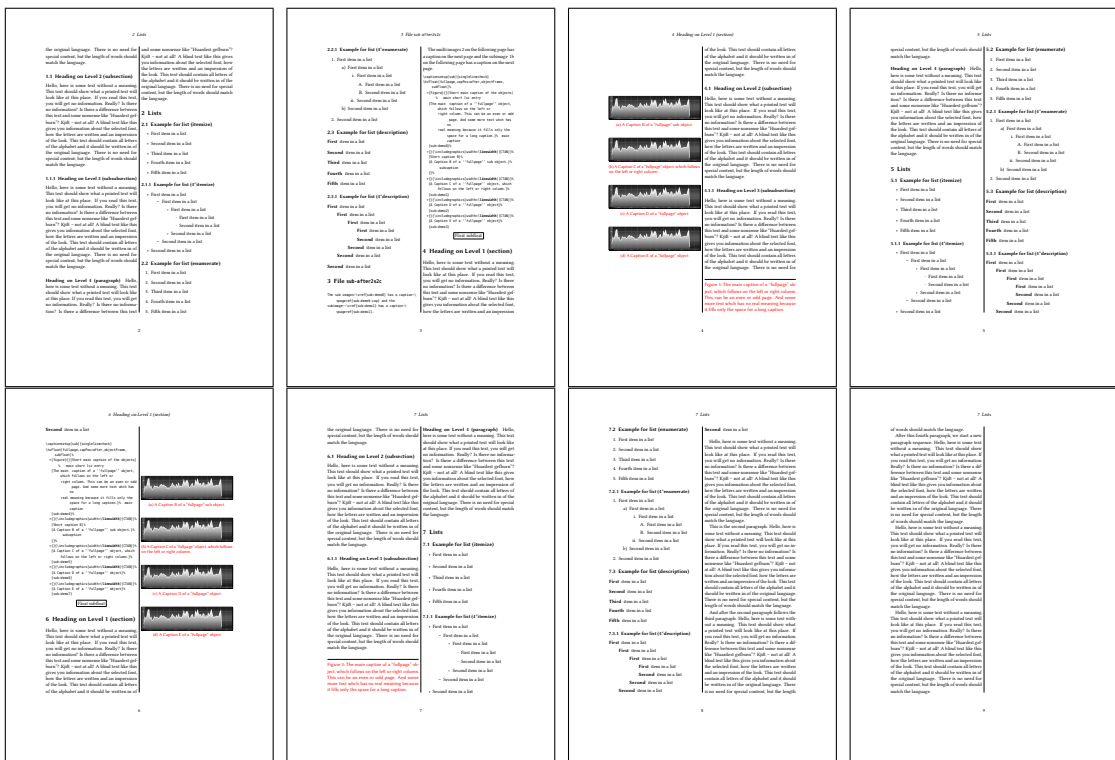


Figure 56: Output of sub-after2s2c (pages 2-9)

21 Doublepage objects – images and/or tabulars

If an image or a tabular or any other object is too big for one page, it can be split over two pages (left – right). It is obvious that this makes only sense for twoside documents. There are three optional arguments:

doublePage A splitted object with or without a caption on top of a double page, beginning in the left top text area. The user has to scale the image to be sure that the object will not be greater than $2\backslash\text{paperwidth}-4\backslash\text{margin}$. The caption can be rotated on the right side of the right object part or under the right part.

doublePAGE A splitted object with or without a caption on top of a double page, beginning at the left side of the paper area and top of the text area. The user has to scale the image to be sure that the object will not be greater than $2\backslash\text{paperwidth}$. The caption can only be under the right part of the object. The will be *no additional text* on the double page.

doubleFULLPAGE A splitted object with or without a caption on the right or below of a double page. The object can fill the complete double page. The user has to scale the image to be sure that the object will not be greater than $2\backslash\text{paperwidth}$. A caption will be rotated and written *over* the object, or if possible, at the right. The user has to take care for a correct text color.

21.1 doubleFULLPAGE

The scaling of the image is left to the user. If the proportion of the object doesn't fit $2*\text{paperwidth}/\text{paperheight}$, then there can be a white part on the top or bottom of the object. A pagenumber will not be printed. In this documentation you'll find a marginnote where the following full doublepage image is defined. It appears on the the next following even page and following text will be placed *before* the object.

```
\hvFloat[doubleFULLPAGE,capPos=right,capAngle=90]%
{figure}%
{\includegraphics[angle=90,width=2\paperwidth]{images/r+j}}%
[A doublepage image with a caption on the image.]%
{A caption for a double-sided image that will be placed below the right-hand
part of the illustration. The illustration begins on the left edge of the paper.
No further text is placed on the pages. A short form is used for the LOF.
The parameter is \texttt{doubleFULLPAGE}}%
{fig:doubleFULLPAGE0}
```

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Fig. 57





21 Doublepage objects – images and/or tabulars

This is the second paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

And after the second paragraph follows the third paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

After this fourth paragraph, we start a new paragraph sequence. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

This is the second paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

And after the second paragraph follows the third paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the

original language. There is no need for special content, but the length of words should match the language.

After this fourth paragraph, we start a new paragraph sequence. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

This is the second paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

And after the second paragraph follows the third paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

After this fourth paragraph, we start a new paragraph sequence. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”?

Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

This is the second paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

And after the second paragraph follows the third paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

It is also possible to take a bind correction into account with e.g. `binCorr=5mm`, which reserves whitespace of 5mm in the inner margin on both pages.

```
\hvFloat[doubleFULLPAGE,capPos=right,bindCorr=5mm]%
{figure}%
{\includegraphics[angle=90,width=2\paperwidth]{images/r+j}}%
[A doublepage image with a caption on the image.]%
{A caption for a double-sided image that will be placed below the right-hand
part of the illustration. The illustration begins on the left edge of the paper.
No further text is placed on the pages. A short form is used for the LOF.
The parameter is \texttt{doubleFULLPAGE}}%
{fig:doubleFULLPAGE0a}
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Fig. 58 After this fourth paragraph, we start a new paragraph sequence. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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\hvFloat[doubleFULLPAGE,capPos=right]%
{figure}%
{\includegraphics[height=\paperheight]{images/rheinsberg}}%
{A caption for a double-sided image that will be placed on the right-hand
part of the illustration. The illustration begins on the left edge of the paper.
No further text is placed on the pages. A short form is used for the LOF.
The parameter is \texttt{doubleFULLPAGE}}%
{fig:doubleFULLPAGE1}
```

Fig. 59 This is the second paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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Figure 59: A caption for a double-sided image that will be placed on the right-hand part of the illustration. The illustration begins on the left edge of the paper. No further text is placed on the pages. A short form is used for the LOF. The parameter is doubleFULLPAGE

This is the second paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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Placing the caption on the image itself is not the best solution. With the optional arguments before and after for capPos, the caption can be placed on the bottom of the preceding or following page of the doublepage object. A givel label, e.g. foo will always point to the page with the left part of the object. Internally are two additional labels defined: foo-cap points to the caption and foo-2 points to the right part of the doublepage object.

In the follwoing example 60 the caption is on page 71, the left image part on page 72 and the right part on page 73. In the follwoing example 61 the caption is on page 78, the left image part on page 76 and the right part on page 77. All three labels points to the same figure or table number:

```
\ref{foo} | \ref{foo-cap} | \ref{foo-2} → 60 | 60 | 60

\hvFloat[doubleFULLPAGE,capPos=before]%
{figure}%
{\includegraphics[height=\paperheight,width=2\paperwidth,
  keepaspectratio=false]{images/rheinsberg}}%
{A caption for a double-sided image that will be placed before
the image. The image begins on the left edge of the paper.
No further text is placed on the pages. A short form is used for the LOF.
The parameter is \texttt{doubleFULLPAGE}}%
{foo}
```

Fig. 60 After this fourth paragraph, we start a new paragraph sequence. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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Figure 60: A caption for a double-sided image that will be placed before the image. The image begins on the left edge of the paper. No further text is placed on the pages. A short form is used for the LOF. The parameter is doubleFULLPAGE





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```
\hvFloat[doubleFULLPAGE,capPos=after]%
{figure}%
{\includegraphics[height=\paperheight,width=2\paperwidth,
  keepaspectratio=false]{images/rheinsberg}}%
{A caption for a double-sided image that will be placed after
the image. The image begins on the left edge of the paper.
No further text is placed on the pages. A short form is used for the LOF.
The parameter is \texttt{doubleFULLPAGE}}%
{foo}
```

Fig. 61 This is the second paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text

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21 Doublepage objects – images and/or tabulars

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Figure 61: A caption for a double-sided image that will be placed after the image. The image begins on the left edge of the paper. No further text is placed on the pages. A short form is used for the LOF. The parameter is doubleFULLPAGE

21.2 doublePAGE

With this option the object also starts at the left paper margin but on the top of the text area. There will be pagenumbers and a caption can be rotated on the right of the object or under it.

```
\hvFloat[doublePAGE]%
{figure}%
{\includegraphics[width=\dimexpr2\textwidth+2in]{images/seiser}}%
[A doublepage image with a caption below the right part.]%
[A caption for a double-sided image that will be placed below the right-hand
part of the illustration. The illustration begins on the left edge of the paper.
No further text is placed on the pages. A short form is used for the LOF.
The parameter is \texttt{doublePAGE}}%
{fig:doublePAGE0}
```

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And after the second paragraph follows the third paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this

Fig. 62





Figure 62: A caption for a double-sided image that will be placed below the right-hand part of the illustration. The illustration begins on the left edge of the paper. No further text is placed on the pages. A short form is used for the LOF. The parameter is doublePAGE

21 Doublepage objects – images and/or tabulars

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21.3 doublePage

With this option the object also starts at the left top of the text area. There will be pagenumbers and a caption can be rotated on the right of the object or under it and the rest of the text area is filled with text.

```
\hvFloat[doublePage,capWidth=n,capPos=right]%  
  {figure}%  
  {\includegraphics[width=2\textwidth]{images/sonne-meer}}%  
  [A doublepage image with a caption on the right side of the right part.]%  
  {A caption for a double-sided image that will be placed on the right side of the  
    right-hand part of the illustration. The illustration begins on the left edge of  
    the paper. A short form is used for the LOf.  
    The parameter is \texttt{doublePage}}%  
  {fig:doublePage0}
```

Fig. 63 Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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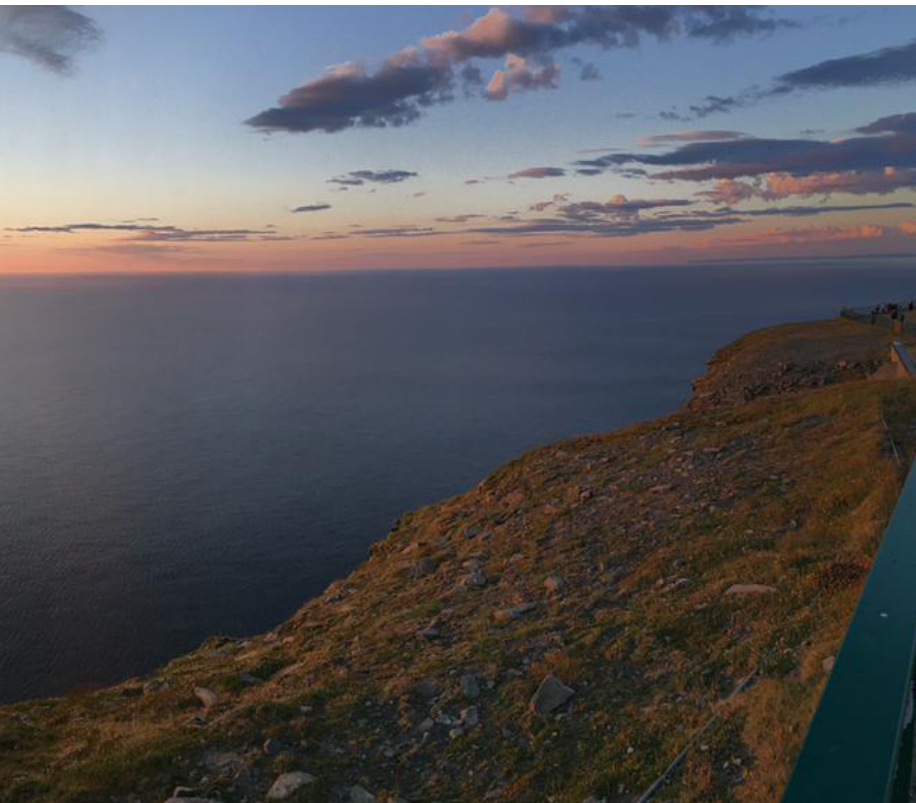


Figure 63: A caption for a double-sided image that will be placed on the right side of the right-hand part of the illustration. The illustration begins on the left edge of the paper. A short form is used for the LOF. The parameter is doublePage

Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

21.4 Tabulars

In General there is no difference in an image or tabular or simple text. The object will be saved in a box and then clipped. If the object is a tabular one might modify the tabular if it will be split in the middle of a column. In such a case one can insert some additional horizontal space for this column.

The tabular itself can be saved into the internal box \hv0Box or put directly as parameter into the macro.

```
\global\savebox\hv0Box{%
\begin{tabular}{l*{18}r} \toprule
& \textbf{1972} & \textbf{1973} & \textbf{1974} & \textbf{1975} & \textbf{1976}
& \textbf{1977} & \textbf{1978} & \textbf{1979} & \textbf{1980} & \textbf{1981} & \textbf{1982} & \textbf{1983} & \textbf{1984} & \textbf{1985}
& \textbf{1986} & \textbf{1987} & \textbf{1988} & \textbf{1989}
\\ \midrule
\addlinespace[3pt]
```


21 Doublepage objects – images and/or tabulars

```

Zeile 1 & 1 & 1 & 3 & 1 & 1 & 1 & 0 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 20 & 0 & 2 & 2 & 2 & 2 & 1\\addlinespace[3pt]
Zeile 2 & 1 & 1 & 1 & 3 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 2 & 1 & 3 & 4 & 4 & 6 & 4 & 2\\addlinespace[3pt]
Zeile 3 & 2 & 1 & 2 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 5 & 3 & 1 & 7 & 7 & 3\\addlinespace[3pt]
Zeile 4 & 1 & 0 & 5 & 1 & 2 & 0 & 0 & 0 & 0 & 0 & 2 & 1 & 0 & 1 & 0 & 3 & 7 & 2 & 1\\addlinespace[3pt]
Zeile 6 & 2 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 2 & 0 & 5 & 2 & 2 & 5 & 4 & 2\\addlinespace[3pt]
Zeile 5 & 0 & 0 & 4 & 2 & 1 & 2 & 2 & 1 & 0 & 0 & 0 & 1 & 1 & 0 & 2 & 5 & 4 & 3\\addlinespace[3pt]
Zeile 8 & 0 & 1 & 1 & 0 & 0 & 0 & 1 & 1 & 0 & 3 & 2 & 1 & 2 & 1 & 3 & 5 & 3 & 4\\addlinespace[3pt]
Zeile 9 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 2 & 1 & 0 & 0 & 0 & 0 & 4 & 2 & 1 & 4 & 5 & 2\\addlinespace[3pt]
Zeile10 & 0 & 1 & 3 & 0 & 1 & 0 & 1 & 0 & 0 & 1 & 1 & 0 & 1 & 1 & 1 & 4 & 4 & 1\\addlinespace[3pt]
Zeile11 & 0 & 2 & 2 & 1 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 2 & 6 & 1 & 0 & 2 & 1 & 1 \\addlinespace[3pt]
Zeile12 & 2 & 0 & 2 & 4 & 1 & 0 & 4 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 3\\addlinespace[3pt]
Lärm & 2 & 3 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 2 & 0 & 0 & 2 & 2 & 2\\addlinespace[3pt]
Zeile13 & 0 & 1 & 0 & 0 & 1 & 0 & 3 & 0 & 0 & 0 & 0 & 2 & 0 & 1 & 3 & 0 & 2\\addlinespace[3pt]
Zeile14 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 3 & 3 & 2 & 1 & 1 & 0\\addlinespace[3pt]
Zeile15 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 4 & 0 & 0 & 3 & 1 & 1\\addlinespace[3pt]
Zeile16 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 3 & 5 & 0 & 1\\addlinespace[3pt]\midrule
Artikel gesamt & 2 & 6 & 13 & 8 & 4 & 3 & 5 & 4 & 0 & 6 & 3 & 5 & 23 & 10 & 8 & 15 & 13 & 1 \\
\bottomrule
\end{tabular}}

\Blindtext

\hvFloat[doublePage,capWidth=n,capPos=right]%
{table}%
{\usebox\hv0Box}%%%%%%%%%%
[A doublepage tabular with a caption on the right side of the right part.]%
[A caption for a double-sided tabular that will be placed on the right side of the
right-hand part of the illustration. The illustration begins on the left edge of
the paper. A short form is used for the LÖF.
The parameter is \texttt{doublePage}}%
{tab:doublePage3}

```

And after the second paragraph follows the third paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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And after the second paragraph follows the third paragraph. Hello, here is some text without

21 Doublepage objects – images and/or tabulars

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Zeile 1	1	3	1	1	1	0	1	1	0	0	0	0
Zeile 2	1	1	3	1	0	0	0	0	0	0	2	1
Zeile 3	2	1	2	1	0	0	0	0	0	0	0	1
Zeile 4	1	0	5	1	2	0	0	0	0	2	1	0
Zeile 6	2	1	1	0	0	0	0	0	0	1	2	0
Zeile 5	0	0	4	2	1	2	2	1	0	0	0	1
Zeile 8	0	1	1	0	0	0	1	1	0	3	2	1
Zeile 9	0	0	0	0	0	1	2	1	0	0	0	0
Zeile10	0	1	3	0	1	0	1	0	0	1	1	0
Zeile11	0	2	2	1	1	0	1	0	0	0	0	2
Zeile12	2	0	2	4	1	0	4	0	0	0	0	0
Lärm	2	3	0	0	0	0	0	0	0	0	1	0
Zeile13	0	1	0	0	1	0	3	0	0	0	0	0
Zeile14	0	1	0	0	0	0	0	0	0	0	0	0
Zeile15	0	0	0	0	0	0	0	0	0	1	0	0
Zeile16	0	0	0	0	0	1	0	0	0	0	0	0
Artikel gesamt	2	6	13	8	4	3	5	4	0	6	3	5

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1984	1985	1986	1987	1988	1989
20	0	2	2	2	1
3	4	4	6	4	2
5	3	1	7	7	3
1	0	3	7	2	1
5	2	2	5	4	2
1	0	2	5	4	3
2	1	3	5	3	4
4	2	1	4	5	2
1	1	1	4	4	1
6	1	0	2	1	1
0	0	0	1	0	3
2	0	0	2	2	2
2	0	1	3	0	2
3	3	2	1	1	0
4	0	0	3	1	1
0	0	3	5	0	1
23	10	8	15	13	1

Table 9: A caption for a double-sided tabular that will be placed on the right side of the right-hand part of the illustration. The illustration begins on the left edge of the paper. A short form is used for the LOF. The parameter is doublePage

22 References to the page

With the command `\pageref` one can have a reference to the page number of a caption. For the `fullpage` option this can be the wrong page if someone wants a reference to the page where the object is set. Let's assume that we use something like

```
\hvFloatSetDefaults
\hvFloat[fullpage,capPos=evenPage]{figure}%
{\IncludeGraphics{images/frose}}%
[A float which needs the complete paper width and height.]%
{A Caption of a "fullpage" object, which follows on the next page.
This can be an even or odd page. The object uses the complete paper dimensions}%
{demo:fullpage}
```

The label `demo:fullpage` is used for the *image* and not for the caption! Internally another label called `demo:fullpage-cap` is set on the caption page which can be before or behind the object (depending to the optional argument of `capPos`). For example:

The caption of `figure~\ref{demo:fullpage-cap}` is on page~\pageref{demo:fullpage-cap}, but the image itself is on page~\pageref{demo:fullpage}.

23 Defining a style

The caption of figure 65 is on page 92, but the image itself is on page 93. With package `varioref` it is:

With the package `\pack{varioref}` ([\url{https://ctan.org/pkg/varioref}](https://ctan.org/pkg/varioref)) one can get something like: see figure~\vref{demo:fullpage}, which uses a correct page number of the floating object and not the caption page number which is~\vpageref{demo:fullpage-cap}. The figure~\ref{demo:fullpage} is on page~\pageref{demo:fullpage} and the caption on page~\pageref{demo:fullpage-cap}

With the package `varioref` (<https://ctan.org/pkg/varioref>) one can get something like: see figure 65 on page 93, which uses a correct page number of the floating object and not the caption pagenumber which is on page 92. The figure 65 is on page 93 and the caption on page 92

23 Defining a style

With `\hvDefFloatStyle` one can define a special style to get rid of the individual setting:

`\hvDefFloatStyle{name}{setting}`

For example:

```
\hvDefFloatStyle{RightCaption}{floatPos=htb, capWidth=0.5, capPos=after, capVPos=bottom, objectPos=center}
```

```
\hvFloat[style=RightCaption]{figure}{\includegraphics{images/rose}}%  
  {Caption vertically centered right beside the float with a caption width of  
  \texttt{0.5\textbackslash columnwidth}.}{fig:style}
```



Figure 64: Caption at bottom right beside the float with a caption width of `0.5\columnwidth`.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

24 Global float setting

Instead of writing the following sequence into the preamble:

```
\makeatletter  
\renewcommand\fps@figure{tb}  
\renewcommand\fps@table{t}  
\makeatother
```

you can change the global setting of floats by loading the package `hvfloa-fps`. It allows optional package options to set the global placement:

```
\usepackage[figure=tb,table=t]{hvfloa-fps}
```

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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Figure 65: A Caption of a “fullpage” object, which follows on the next page. This can be an even or odd page. The object uses the complete paper dimensions



24 Global float setting

information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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25 The Package Source

```

1  %% $Id: hvfloat.sty 84 2021-05-12 13:09:51Z herbert $
2  %%
3  %%
4  %% IMPORTANT NOTICE:
5  %%
6  %% This is file 'hvfloat.sty',
7  %%
8  %% Herbert Voss <hvoss@tug.org>
9  %%
10 %% This program can be redistributed and/or modified under the terms
11 %% of the LaTeX Project Public License Distributed from CTAN archives
12 %% in directory macros/latex/base/lppl.txt.
13 %%
14 %% DESCRIPTION:
15 %% 'hvfloat' offers rotating of captions and objects for floats
16 %%
17 \NeedsTeXFormat{LaTeX2e}
18 \def\fileversion{2.24}
19 \def\filedate{2021/05/09}
20 \message{'hvfloat' v\fileversion, \filedate\space (Herbert Voss)}
21 \ProvidesPackage{hvfloat}[\filedate\ rotating of floating objects]
22 \let\hvFloatFileVersion\fileversion
23 %
24 \newif\ifhv@fbox \hv@fboxfalse
25 \newif\ifhv@hyperref \hv@hyperreffalse
26 \DeclareOption{fbox}{\hv@fboxtrue\setlength{\fboxsep}{1pt}}
27 \DeclareOption{hyperref}{\hv@hyperreftrue}
28
29 \ProcessOptions
30
31 \PassOptionsToPackage{hypcap}{caption}
32 \RequirePackage{caption}
33 \PassOptionsToPackage{hypcap}{subcaption}
34 \RequirePackage{subcaption}
35 \RequirePackage{atbegshi,picture,trimclip}
36
37 \RequirePackage{expl3,multido}
38 \RequirePackage{graphicx}
39
40 \RequirePackage{xkeyval}
41 \RequirePackage{ifoddpage}
42 \RequirePackage{afterpage}
43 %\RequirePackage{zref-abspos}
44
45 \ifhv@hyperref
46   \RequirePackage{hyperref}
47   % \RequirePackage{hypcap}
48 \fi
49 %
50 %\unitlength=1cm
51 \providecommand*{\LenToUnit[1]{\strip@pt\dimexpr#1*\p@/\unitlength}

```

```

52
53 \newlength\hvObjectWidth
54 \newlength\hvCapWidth
55 \newlength\hvWideWidth
56 \newlength\hvMultiFloatSkip
57 \newlength\hvMaxCapWidth
58 %\newlength\hv@BottomSpace
59 %\AtBeginDocument{%
60 % \setlength\hv@BottomSpace{\dimexpr\paperheight-1in-\topmargin-\headheight-\headsep-\textheight}}
61
62 \newsavebox\hvObjectBox
63 \newsavebox\hvCaptionBox
64 \newsavebox\hvOBox
65 \newsavebox\@tempbox
66 \newsavebox\hv@caption@box
67 \newsavebox\hv@leftBox
68 \newsavebox\hv@rightBox
69
70 \newif\ifhv@capbeside \hv@capbesidefalse
71
72 \def\hv@Top{top}
73 \def\hv@Bottom{bottom}
74 \def\hv@After{after}
75 \def\hv@Before{before}
76 \def\hv@Right{right}
77 \def\hv@Left{left}
78 \def\hv@Center{center}
79 \def\hv@Outer{outer}
80 \def\hv@Inner{inner}
81 \def\hv@Even{evenPage}
82 \def\hv@Odd{oddPage}
83 \def\hv@Natural{n}
84 \def\hv@Width{w}
85 \def\hv@Height{h}
86 \def\hv@Zero{0}
87 %
88 \def\hv@figure{figure}
89 %
90 \define@key{hvSet}{floatPos}{tbp}{% LaTeX's position parameters http
91 \def\hvSet@floatPos{#1}%
92 }
93 \define@key{hvSet}{rotAngle}{0}{% rotates caption AND image together
94 \def\hvSet@rotAngle{#1}%
95 }
96 \define@key{hvSet}{capWidth}{n}{% (n)atural width|object (w)idth|object (h)eight|<scale of \columnwidth
97 >
98 \def\hvSet@capWidth{#1}%
99 }
100 \define@key{hvSet}{capAngle}{0}{% -360...+360
101 \def\hvSet@capAngle{#1}%
102 }
103

```

25 The Package Source

```

104 \define@choicekey*+{hvSet}{capPos}{\val\nr}{bottom,top,left,before,right,after,inner,outer,even,odd}[bottom]{
105     %
106     \def\hvSet@capPos{#1}%          it is relativ to the object, (e),(d) only valid for fullpage float
107     \ifcase\nr\relax
108     \hv@capbesidefalse
109     \or
110     \hv@capbesidefalse
111     \else
112     \hv@capbesidetrue
113     \fi
114 }{\PackageWarning{hvfloa}{erroneous input (#1) for capPos ignored. Using bottom.}}%
115 \def\hvSet@capPos{bottom}%          it is relativ to the object, (e),(d) only valid for fullpage float
116 \hv@capbesidefalse
117 }
118 \define@choicekey*+{hvSet}{capVPos}{\val\nr}{bottom,center,top}[center]{%
119     \def\hvSet@capVPos{#1}%          it is relativ to the object
120 }{\PackageWarning{hvfloa}{erroneous input (#1) for capVPos ignored. Using bottom.}}%
121 \def\hvSet@capVPos{center}%          it is relativ to the object
122 }
123 }
124 \define@choicekey*+{hvSet}{objectPos}{\val\nr}{left,center,right,inner,outer}[center]{%
125     \def\hvSet@objectPos{#1}%          it is relativ to the object
126 }{\PackageWarning{hvfloa}{erroneous input (#1) for objectPos ignored. Using center.}}%
127 \def\hvSet@objectPos{center}%          it is relativ to the object
128 }
129 }
130 \newif\ifhv@floatRefToObject
131 \define@choicekey*+{hvSet}{floatRef}{\val\nr}{caption,object}[object]{% where the LOF entry should point to
132     (inactive)
133     \ifcase\nr\relax
134     \hv@floatRefToObjectfalse
135     \else
136     \hv@floatRefToObjecttrue
137     \fi
138 }{\PackageWarning{hvfloa}{erroneous input (#1) for floatRef ignored. Using option object.}}%
139 \hv@floatRefToObjecttrue
140 }
141 \define@key{hvSet}{objectAngle}[0]{% -360..+360
142     \def\hvSet@objectAngle{#1}%
143 }
144 \define@key{hvSet}{floatCapSep}[5pt]{% a width with the unit pt
145     \def\hvSet@floatCapSep{#1}%
146 }
147 \define@key{hvSet}{multiFloatSkip}{\normalbaselineskip}{% a width with the unit pt
148     \setlength\hvMultiFloatSkip{#1}%
149 }
150 \define@boolkey{hvSet}[hv@]{use0Box}[true]{}% use of the hv0Box contents
151 \define@boolkey{hvSet}[hv@]{nonFloat}[true]{}% Do not use float environment
152 \define@boolkey{hvSet}[hv@]{onlyText}[true]{}% Write the caption only as text
153 \define@boolkey{hvSet}[hv@]{wide}[true]{}% Write the caption only as text
154 \define@boolkey{hvSet}[hv@]{Debug}[true]{}% give more infos in the terminal

```

```

155
156 \newcommand\hv@typeout[1]{\ifhv@Debug\typeout{#1}\fi}
157
158 \newif\ifhv@fullpage
159 \newif\ifhv@FULLPAGE
160 \newif\ifhv@doubleFULLPAGE
161 \newif\ifhv@doublePAGE
162 \newif\ifhv@doublePage
163 \newif\ifhv@setObjectLabel
164
165 \newlength\hvSet@bindCorrection
166 \newlength\hv@leftPageObjectWidth% for doublepage images
167 \newlength\hv@tempWidthA
168 \newlength\hv@tempWidthB
169
170 \define@key{hvSet}{fullpage}[true]{\global\@nameuse{hv@fullpage#1}}%
171 \define@key{hvSet}{FULLPAGE}[true]{\global\@nameuse{hv@FULLPAGE#1}}
172 \define@key{hvSet}{doubleFULLPAGE}[true]{\global\@nameuse{hv@doubleFULLPAGE#1}\hv@doublePagefalse\
    hv@doublePAGEfalse}
173 \define@key{hvSet}{doublePAGE}[true]{\global\@nameuse{hv@doublePAGE#1}\hv@doublePagefalse\
    hv@doubleFULLPAGEfalse}
174 \define@key{hvSet}{doublePage}[true]{\global\@nameuse{hv@doublePage#1}\hv@doublePAGEfalse\
    hv@doubleFULLPAGEfalse}
175 \define@key{hvSet}{bindCorr}[z@]{\setlength\hvSet@bindCorrection{#1}}% for doublepage objects
176
177 \define@boolkey{hvSet}[hv@]{subFloat}[true]{% typeset values as subfloats
178 \ifhv@subFloat\setkeys{hvSet}{multiFloat=false}\fi}
179 }%
180 \define@boolkey{hvSet}[hv@]{multiFloat}[true]{% typeset values as continous floats
181 \ifhv@multiFloat\setkeys{hvSet}{subFloat=false}\fi}
182 }%
183 \define@boolkey{hvSet}[hv@]{separatorLine}[true]{}% separator line for caption of a full page float
184 \define@boolkey{hvSet}[hv@]{objectFrame}[true]{}% a frame around the object with no separation
185 \define@key{hvSet}{style}{%
186 \@ifundefined{hv@#1}%
187 {\errmessage{Custom style '#1' undefined}}%
188 {\beginingroup
189 \edef\x{\endgroup\noexpand\setkeys{hvSet}{\@nameuse{hv@#1}}\x}% use a defined style
190 }
191 \define@key{hvSet}{capFormat}{\def\hv@caption@format{#1}}%
192 \define@key{hvSet}{subcapFormat}{\def\hv@subcaption@format{#1}}%
193
194 \def\hv@set#1{\beginingroup\edef\x{\endgroup\noexpand\setkeys{hvSet}{#1}}\x}
195 \let\hvFloatSet\hv@set
196 %
197 \def\defhvstyle#1#2{\@namedef{hv@#1}{#2}}
198 \let\hvDefFloatStyle\defhvstyle % better name
199 %
200 \newcommand{\setDefaults}{%
201 \hv@set{%
202 floatPos=, rotAngle=0, capWidth=n, capAngle=0,
203 capPos=bottom, capVPos=center, objectPos=center, objectAngle=0,
204 floatCapSep=5pt, useOBox=false, nonFloat=false,

```

25 The Package Source

```

205     onlyText=false, wide=false, fullpage=false, FULLPAGE=false,
206     doubleFULLPAGE=false, doublePage=false, doublePAGE=false,
207     multiFloat=false, subFloat=false,
208     separatorLine, objectFrame=false, multiFloatSkip=\normalbaselineskip,
209     capFormat={}, subcapFormat={},
210     floatRef=object, bindCorr=\z@,
211 }%
212 }
213
214 \let\hvFloatSetDefaults\setDefaults
215
216 \newcommand\reset@special@float{%
217     \hv@set{subFloat=false,%fullpage=false,
218         multiFloat=false,%FULLPAGE=false
219 }}
220
221 \def\hv@vskip{\vspace{\hvMultiFloatSkip}}
222
223 %
224 \newlength\hvAboveCaptionSkip
225 \newlength\hvBelowCaptionSkip
226 \newcount\hv@@capPos
227
228 \newlength\fbboxlinewidth
229 \AtBeginDocument{%
230     \setlength\fbboxlinewidth{\dimexpr\linewidth-2\fbboxrule-2\fbboxsep}%
231 }
232 \setlength\belowcaptionskip{\abovecaptionskip}% it is in latex.ltx = 0pt
233 \newcommand\saveCaptionSkip{%
234     \setlength{\hvAboveCaptionSkip}{\abovecaptionskip}%
235     \setlength{\hvBelowCaptionSkip}{\belowcaptionskip}%
236     \setlength{\abovecaptionskip}{0pt}%
237     \setlength{\belowcaptionskip}{0pt}%
238 }
239 \newcommand{\restoreCaptionSkip}{%
240     \setlength\abovecaptionskip{\hvAboveCaptionSkip}%
241     \setlength\belowcaptionskip{\hvBelowCaptionSkip}%
242 }
243 %
244 \newcommand\figcaption[2][]{%
245     \def\@captype{figure}%
246     \begingroup
247     \ifx\relax\hv@caption@format\relax\else\expandafter\captionsetup\expandafter{\hv@caption@format}\fi
248     \if$#1$ \caption{#2}\else\caption[#1]{#2}\fi
249     \endgroup}
250 \newcommand\tabcaption[2][]{\def\@captype{table}%
251     \begingroup
252     \ifx\relax\hv@caption@format\relax\else\expandafter\captionsetup\expandafter{\hv@caption@format}\fi
253     \ifx\relax#1\relax \caption{#2}\else\caption[#1]{#2}\fi
254     \endgroup}
255 %
256 \newlength\hv@maxImageWidth
257 \AtBeginDocument{\hv@maxImageWidth=\columnwidth}

```



```

258
259 \define@key{Gin}{fullpage}[true]{%
260     \def\Gin@ewidth{\columnwidth}%
261     \def\Gin@eheight{\textheight}%
262     \Gin@boolkey{false}{iso}%
263 }
264 \define@key{Gin}{FullPage}[true]{%
265     \def\Gin@ewidth{\textwidth}%
266     \def\Gin@eheight{\textheight}%
267     \Gin@boolkey{false}{iso}%
268 }
269 \define@key{Gin}{FULLPAGE}[true]{%
270     \def\Gin@ewidth{\paperwidth}%
271     \def\Gin@eheight{\paperheight}%
272     \Gin@boolkey{false}{iso}%
273 }
274 \newcommand\IncludeGraphics[2][0]{%
275     \vspace*{\the\dimexpr-\lin-\voffset+\topskip-\headheight-0.5\baselineskip}%
276     \leavevmode\checkoddpages
277     \ifoddpage
278         \hspace*{\dimexpr-\oddsidemargin-\parindent-\lin}%
279     \else
280         \hspace*{\dimexpr-\evensidemargin-\parindent-\lin}%
281     \fi\noindent
282     \includegraphics[#1,width=\paperwidth,height=\paperheight,keepaspectratio=false]{#2}%
283 }
284
285 \newcommand\put@CaptionBox[1][0]{%
286     \ifcase#1
287         \ifhv@fbox
288             \fbox{\parbox{\wd\hvCaptionBox}{\usebox{\hvCaptionBox}}}%
289         \else
290             \parbox{\wd\hvCaptionBox}{\usebox{\hvCaptionBox}}%
291         \fi
292     \or
293         \ifhv@fbox
294             \fbox{\raisebox{-\height}{\usebox{\hvCaptionBox}}}%
295         \else
296             \raisebox{-\height}{\usebox{\hvCaptionBox}}%
297         \fi
298     \or
299         \ifhv@fbox\fbox{\usebox{\hvCaptionBox}}\else\usebox{\hvCaptionBox}\fi
300     \fi
301 }
302
303 \newcommand\put@ObjectBox[1][0]{%
304     \ifcase#1
305         \ifhv@fbox
306             \fbox{\parbox{\wd\hvObjectBox}{\usebox{\hvObjectBox}}}%
307         \else
308             \parbox{\wd\hvObjectBox}{\ifhv@objectFrame\frame{\usebox{\hvObjectBox}}\else\usebox{\hvObjectBox}\fi}%
309         \fi
310     \or

```

25 The Package Source

```

311     \ifhv@fbox
312     \fbox{\raisebox{-\height}{\usebox{\hvObjectBox}}}%
313     \else
314     \raisebox{-\height}{\ifhv@objectFrame\frame{\usebox{\hvObjectBox}}\else\usebox{\hvObjectBox}\fi}%
315     \fi
316 \or
317     \ifhv@fbox
318     \fbox{\usebox{\hvObjectBox}}%
319     \else
320     \ifhv@objectFrame\frame{\usebox{\hvObjectBox}}\else\usebox{\hvObjectBox}\fi%
321     \fi
322 \fi
323 }
324
325 \newif\ifhv@star
326 \newif\if@hvsustar
327 \setDefault
328
329 \def\hvFloat{\@ifnextchar*%      Main macro
330     {\global\hv@startrue\hv@maxImageWidth=\textwidth\hvFloat@i}%
331     {\global\hv@starfals\hv@maxImageWidth=\columnwidth\hvFloat@i*}%
332 }
333
334 %\newcommand*{\hvFloat}[5][{}]{%
335 % #1: keyvalues
336 % #2: type figure | table | ...
337 % #3: float contents
338 % #4: short caption
339 % #5: caption
340 % #6: label
341 %
342 \def\hvFloat@i*{\@ifnextchar[{\do@hvFloat}{\do@hvFloat[]}}
343 \def\do@hvFloat[#1]{%
344     \begin{group}
345     \setlength\hvWideWidth{\dimexpr\textwidth+\marginparwidth+\marginparsep}%
346     % \setlength\hvWideWidth{\dimexpr\linewidth+\marginparwidth}%
347     \hv@maxImageWidth=\textwidth
348     \reset@special@float
349     \setcounter{hv@pfigure}{\value{figure}}%
350     \setcounter{hv@ptable}{\value{table}}%
351     \gdef\hv@save@setting{#1}%
352     \ifx\relax#1\relax\else\setkeys{hvSet}{#1}\fi
353     \gdef\hv@floatType{figure}%
354     \@ifnextchar+{\do@multiFloat}{\hvFloat@ii[#1]}%
355 }
356
357 \ExplSyntaxOn
358
359 \def\do@multiFloat+#1#2{%
360     \clist_set:Nn\l_clist_Type{#1}%
361     \clist_set:Nn\l_clist_Object{#2}%
362     \@ifnextchar[{\do@multiFloat@i}{\do@multiFloat@i[]}%
363 }

```

```

364 \def\do@multiFloat@i[#1]#2#3{% lof-caption, caption, label
365 \ifx\relax#1\relax
366 \clist_set:Nn\l_clist_LofCaption{{}}%
367 \else
368 \clist_set:Nn\l_clist_LofCaption{{#1}}%
369 \fi
370 \clist_set:Nn\l_clist_Caption{{#2}}%
371 \ifx\relax#3\relax
372 \clist_set:Nn\l_clist_Label{{}}%
373 \else
374 \clist_set:Nn\l_clist_Label{{#3}}%
375 \fi
376 \@ifnextchar+{\do@multiFloat@ii}{}%
377 }
378 \def\do@multiFloat@ii+#1#2{%
379 \clist_put_right:Nn\l_clist_Type{{#1}}%
380 \clist_put_right:Nn\l_clist_Object{{#2}}%
381 \@ifnextchar[\do@multiFloat@iii{\do@multiFloat@iii[]}%
382 }
383
384 \def\do@multiFloat@iii[#1]#2#3{% lof-caption, caption, label
385 \ifx\relax#1\relax
386 \clist_put_right:Nn\l_clist_LofCaption{{}}%
387 \else
388 \clist_put_right:Nn\l_clist_LofCaption{{#1}}%
389 \fi
390 \clist_put_right:Nn\l_clist_Caption{{#2}}%
391 \ifx\relax#3\relax
392 \clist_put_right:Nn\l_clist_Label{{}}%
393 \else
394 \clist_put_right:Nn\l_clist_Label{{#3}}%
395 \fi
396 \@ifnextchar+\do@multiFloat@ii%
397 {\def\hvSet@CapWidth{n}%
398 \do@@@hvFloat}%
399 }
400 \ExplSyntaxOff
401
402
403 \newcounter{hv@pfigure}
404 \newcounter{hv@ptable}
405 \newcounter{subhv@pfigure}
406 \newcounter{subhv@ptable}
407
408 \def\drawSepLine{%
409 \par\noindent
410 \if@twocolumn\rule{\columnwidth}{0.4pt}\else\rule{\linewidth}{0.4pt}\fi
411 \vspace{0pt}%
412 }
413
414 \newcount\hv@canta
415 \newcount\hv@canta
416

```

25 The Package Source

```

417 \def\hvFloat@ii[#1]#2#3%      #1: key/value, #2: floatype, #3: object
418 \hv@maxImageWidth=\textwidth
419 \ifx\relax#1\relax\else\setkeys{hvSet}{#1}\fi
420 \gdef\hv@floatType{#2}%
421 \xdef\hv@floatListOfExt{\@nameuse{ext@\hv@floatType}}%
422 \ifx\relax#2\relax \setkeys{hvSet}{nonFloat=true}\fi
423 \gdef\hv@floatObject{#3}%
424 \@ifnextchar[{\do@hvFloat}{\do@hvFloat[]}%
425 }
426
427 \def\do@hvFloat[#1]#2#3%      #1: listof caption, #2. long caption #3: label
428 \gdef\hv@shortCap{#1}%
429 \gdef\hv@longCap{#2}%
430 \gdef\hv@label{#3}%
431 \ifhv@capbeside\def\@temp{1}\else\def\@temp{0}\fi
432 \ifhv@fullpage
433   \def\hvSet@CapWidth{n}% relative value
434   \do@@@hvFloat% fullpage with caption on other page
435 \else
436   \ifhv@FULLPAGE
437     \def\hvSet@CapWidth{n}% relative value
438     \do@@@hvFloat% fullpage with caption on other page
439   \else
440     \ifhv@doubleFULLPAGE
441       \setlength\hvCapWidth{\textheight}%
442       \expandafter\do@hvFloat@doubleFULLPAGE\@temp% fullpage with caption rotated or under on an odd page
443     \else
444       \ifhv@doublePAGE
445         \expandafter\do@hvFloat@doublePAGE\@temp% fullpage with caption rotated or under on an odd page
446       \else
447         \ifhv@doublePage
448           \expandafter\do@hvFloat@doublePage\@temp% fullpage with caption rotated or under on an odd page
449         \else
450           \do@@@hvFloat
451         \fi
452       \fi
453     \fi
454   \fi
455 \fi
456 % \global\hv@capbesidefalse
457 }
458 %
459 \def\do@@@hvFloat{% no special float page, caption and image on top of each other or side by side
460 \def\@tempa{90}%
461 \ifx\hvSet@rotAngle\@tempa
462   \setlength\hvMaxCapWidth{\textheight}%
463 \else
464   \setlength\hvMaxCapWidth{\hvWideWidth}%
465 \fi
466 %
467 % First we save the object in \hvObjectBox
468 %
469 \ifx\hvSet@objectAngle\hv@Zero% rotate the object?

```

```

470 \savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
471 \else
472 \savebox{\hvObjectBox}{%
473 \rotatebox{\hvSet@objectAngle}{%
474 \ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi
475 }%
476 }%
477 \fi
478 \setlength\hvObjectWidth{\wd\hvObjectBox}%
479 %
480 % Now we save the caption with its defined \hvCapWidth
481 %
482 \ifx\hvSet@capWidth\hv@Width% captionwidth=objectwidth
483 \setlength\hvCapWidth{\hvObjectWidth}%
484 \else
485 \ifx\hvSet@capWidth\hv@Height% captionwidth=objectheight
486 \setlength\hvCapWidth{\ht\hvObjectBox}%
487 \else
488 \ifx\hvSet@capWidth\hv@Natural% captionwidth=\linewidth-\objectwidth-separation
489 \ifhv@capbeside
490 \ifhv@wide
491 \setlength\hvCapWidth{\the\dimexpr\hvWideWidth-\hvObjectWidth-\hvSet@floatCapSep\relax}%
492 \else
493 \ifhv@star
494 \setlength\hvCapWidth{\the\dimexpr\textwidth-\hvObjectWidth-\hvSet@floatCapSep\relax}%
495 \else
496 \setlength\hvCapWidth{\the\dimexpr\linewidth-\hvObjectWidth-\hvSet@floatCapSep\relax}%
497 \fi
498 \fi
499 \else
500 \setlength\hvCapWidth{\columnwidth}%
501 \fi
502 \else
503 \ifhv@capbeside
504 \ifhv@wide
505 \setlength\hvCapWidth{\hvSet@capWidth\hvWideWidth}%
506 \setlength\@tempdima{\the\dimexpr\hvWideWidth-\hvObjectWidth-\hvSet@floatCapSep\relax}%
507 \else
508 \setlength\hvCapWidth{\hvSet@capWidth\columnwidth}%
509 \setlength\@tempdima{\the\dimexpr\columnwidth-\hvObjectWidth-\hvSet@floatCapSep\relax}%
510 \fi
511 \ifdim\hvCapWidth>\@tempdima
512 \setlength\hvCapWidth{\@tempdima}%
513 \fi
514 \else
515 \ifhv@wide
516 \setlength\hvCapWidth{\hvSet@capWidth\hvWideWidth}%
517 \else
518 \setlength\hvCapWidth{\hvSet@capWidth\columnwidth}%
519 \fi
520 \fi
521 \fi
522 \fi

```

25 The Package Source

```

523 \fi
524 \saveCaptionSkip% we put this space ourselves
525 \ifx\hvSet@capAngle\hv@Zero% need rotation?
526 \savebox\hvCaptionBox{% NO rotation
527 \begin{minipage}[b]{\hvCapWidth}% minipage, to get hyphenation
528 \ifx\relax\hv@caption@format\relax\else\expandafter\captionsetup\expandafter{\hv@caption@format}\fi
529 \ifhv@nonFloat
530 \ifhv@onlyText
531 \hv@longCap
532 \else
533 \ifx\hv@floatType\hv@figure
534 \ifx\relax\hv@shortCap\relax
535 \figcaption{\hv@longCap\expandafter\label\expandafter{\hv@label}}%
536 \else
537 \figcaption[\hv@shortCap]{\hv@longCap\expandafter\label\expandafter{\hv@label}}%
538 \fi
539 \else
540 \ifx\relax\hv@shortCap\relax
541 \tabcaption{\hv@longCap\expandafter\label\expandafter{\hv@label}}%
542 \else
543 \tabcaption[\hv@shortCap]{\hv@longCap\expandafter\label\expandafter{\hv@label}}%
544 \fi
545 \fi
546 \fi
547 \else
548 \ifhv@onlyText
549 \hv@longCap
550 \else
551 \let\@captype\hv@floatType
552 \expandafter\ifx\expandafter\relax\hv@shortCap\relax
553 \caption{\hv@longCap\expandafter\label\expandafter{\hv@label}}%
554 \else
555 \caption[\hv@shortCap]{\hv@longCap\expandafter\label\expandafter{\hv@label}}%
556 \fi
557 % \fi
558 \fi
559 \fi
560 % \expandafter\label\expandafter{\hv@label}% 2.17 put label into the caption argument
561 \end{minipage}%
562 }%
563 \else
564 \savebox\hvCaptionBox{% Rotation
565 \rotatebox{\hvSet@capAngle}{%
566 \begin{minipage}[b]{\hvCapWidth}% minipage, to get hyphenation
567 \ifx\relax\hv@caption@format\relax\else\expandafter\captionsetup\expandafter{\hv@caption@format}\fi
568 \ifhv@nonFloat
569 \ifhv@onlyText
570 \hv@longCap
571 \else
572 \ifx\hv@floatType\hv@figure
573 \ifx\relax\hv@shortCap\relax \figcaption{\hv@longCap}\else\figcaption[\hv@shortCap]{\hv@longCap}\fi
574 \else

```



```

575         \ifx\relax\hv@shortCap\relax \tabcaption{\hv@longCap}\else\tabcaption[\hv@shortCap]{\hv@longCap}\
          fi
576     \fi
577 \fi
578 \else
579     \ifhv@onlyText
580         \hv@longCap
581         \else
582             \let\@capttype\hv@floatType
583             \expandafter\ifx\expandafter\relax\hv@shortCap\relax
584                 \caption{\hv@LongCap}\else\caption[\hv@shortCap]{\hv@longCap}%
585             \fi
586         \fi
587     \fi
588     \label{\hv@label}%
589 \end{minipage}%
590 }% rotatebox
591 }% \sbox
592 \fi
593 %
594 % now we have the object and the caption with the right
595 % rotated angles saved in different boxes
596 %%
597 \restoreCaptionSkip% save old values
598 % \def\fps@figure{\hvSet@floatPos}%
599 \ifx\hvSet@floatPos\@empty % use type default
600 \else
601     \@namedef{fps@\hv@floatType}{\hvSet@floatPos}%
602 \fi
603 \ifhv@nonFloat
604     \begin{group} % Start the nonfloat part
605 \else
606     \ifhv@star
607         \@nameuse{\hv@floatType}% Start the floating environment *****
608     \else
609         \begin{\hv@floatType}% Start the floating environment
610     \fi
611 \fi
612 \checkoddpage
613 \ifx\hvSet@objectPos\hv@Right\raggedleft\fi
614 \ifx\hvSet@objectPos\hv@Center
615     \ifhv@nonFloat\hspace*{\fill}\else\centering\fi
616 \fi
617 \ifx\hvSet@objectPos\hv@Outer
618     \ifoddpage\raggedleft\fi
619 \fi
620 \ifx\hvSet@objectPos\hv@Inner
621     \ifoddpage\else\raggedleft\fi
622 \fi
623 %
624 % to rotate object and caption together, we save all in another box
625 % the caption comes first, if its on the left or the top
626 % 0 caption left, inner and odd page, onside inner

```

25 The Package Source

```

627 % 1 caption top
628 % 2 caption right, inner and even page, oneside outer
629 % 3 caption bottom
630 %
631 \ifx\hvSet@capPos\hv@Left
632   \hv@capPos=0
633 \else
634   \ifx\hvSet@capPos\hv@Top
635     \hv@capPos=1
636   \else
637     \ifx\hvSet@capPos\hv@Right
638       \hv@capPos=2
639     \else
640       \ifx\hvSet@capPos\hv@Bottom
641         \hv@capPos=3
642       \else
643         \ifx\hvSet@capPos\hv@Inner
644           \ifoddpageoroneside\hv@capPos=0\else\hv@capPos=2\fi
645         \else
646           \ifx\hvSet@capPos\hv@Outer
647             \ifoddpageoroneside\hv@capPos=2\else\hv@capPos=0\fi
648           \else
649             \ifx\hvSet@capPos\hv@Before
650               \hv@capPos=0% same as cappos=right
651             \else
652               \ifx\hvSet@capPos\hv@After
653                 \hv@capPos=2% same as cappos=right
654               \fi
655             \fi
656           \fi
657         \fi
658       \fi
659     \fi
660   \fi
661 \fi
662 %%%
663 \savebox{\@tempboxa}{%
664   \expandafter\ifcase\the\hv@capPos% 0 is LEFT    START \ifcase
665   \ifx\hvSet@capVPos\hv@Center
666     \put@CaptionBox
667     \hspace{\hvSet@floatCapSep}% capfloatsep
668     \put@ObjectBox
669   \else
670     \ifx\hvSet@capVPos\hv@Top% caption and object at top aligned
671       \put@CaptionBox[1]%
672       \hspace{\hvSet@floatCapSep}% capfloatsep
673       \put@ObjectBox[1]%
674     \else% caption on bottom
675       \put@CaptionBox[2]%
676       \hspace{\hvSet@floatCapSep}% capfloatsep
677       \put@ObjectBox[2]%
678     \fi
679   \fi% end caption left

```

```

680 \or%1 is top
681 \ifdim\wd\hvCaptionBox>\wd\hvObjectBox
682 \begin{minipage}{\wd\hvCaptionBox}%
683 \else
684 \begin{minipage}{\wd\hvObjectBox}%
685 \fi
686 \centering
687 \ifhv@fbox
688 \fbox{\usebox{\hvCaptionBox}}\[\hvBelowCaptionSkip]%
689 \fbox{\usebox{\hvObjectBox}}%
690 \else
691 \usebox{\hvCaptionBox}\[\hvBelowCaptionSkip]%
692 \usebox{\hvObjectBox}%
693 \fi
694 \end{minipage}%
695 \or%2 is right
696 \ifx\hvSet@capVPos\hv@Center
697 \put@ObjectBox
698 \hspace{\hvSet@floatCapSep}%
699 \put@CaptionBox
700 \else
701 \ifx\hvSet@capVPos\hv@Top
702 \put@ObjectBox[1]%
703 \hspace{\hvSet@floatCapSep}% capfloatsep
704 \put@CaptionBox[1]%
705 \else
706 \put@ObjectBox[2]%
707 \hspace{\hvSet@floatCapSep}% capfloatsep
708 \put@CaptionBox[2]%
709 \fi
710 \fi
711 \or%3 bottom
712 \ifdim\wd\hvCaptionBox>\wd\hvObjectBox
713 \begin{minipage}{\wd\hvCaptionBox}%
714 \else
715 \begin{minipage}{\wd\hvObjectBox}%
716 \fi
717 \centering
718 \ifhv@fbox
719 \fbox{\usebox{\hvObjectBox}}\[\hvAboveCaptionSkip]%
720 \fbox{\usebox{\hvCaptionBox}}%
721 \else
722 \ifhv@objectFrame\frame{\usebox{\hvObjectBox}}\else\usebox{\hvObjectBox}\fi\[\hvAboveCaptionSkip]%
723 \usebox{\hvCaptionBox}%
724 \fi
725 \end{minipage}%
726 \fi% \ifcase\the\hv@@capPos
727 }% End savebox Object and caption %%%%%%%%% @tempboxa
728 %
729 % now we rotate the object and caption, if needed
730 %
731 \ifhv@wide
732 \ifoddpageoroneside\else\ifoddpage\else\hspace*{\dimexpr-\marginparwidth-\marginparsep}\fi\fi% <- for

```

25 The Package Source

```

wide and left page
733 \fi
734 \ifx\hvSet@rotAngle\hv@Zero
735   \usebox{\@tempboxa}%
736 \else
737   \rotatebox{\hvSet@rotAngle}{\usebox{\@tempboxa}}%
738 \fi
739 \ifhv@nonFloat
740   \ifx\hvSet@objectPos\hv@Center
741     \ifhv@nonFloat
742       \hspace{\fill}%
743     \fi
744   \fi
745   \endgroup% End the nonfloat part
746 \else
747   \ifhv@star
748     \@nameuse{end\hv@floatType*}% End the floating environment
749   \else
750     \end{\hv@floatType}% End the floating environment
751   \fi
752 \fi
753 \endgroup% startet at main \hvFloat
754 }
755 %
756 \newenvironment{hvFloatEnv}[1][\textwidth]
757   {\minipage{#1}\center}
758   {\endcenter\endminipage}
759 %
760
761 \ExplSyntaxOn
762 \let\clist@item@Nn\clist_item:Nn
763 \let\l@clist@Type\l_clist_Type
764 \let\l@clist@LofCaption\l_clist_LofCaption
765 \let\l@clist@Label\l_clist_Label
766 \let\clist@count@N\clist_count:N
767 \ExplSyntaxOff
768
769 \def\do@@@hvFloat{% special float page: caption <-> fullpage image
770   \ifx\hvSet@capPos\hv@After \hv@@capPos=1
771   \else
772     \ifx\hvSet@capPos\hv@Even \hv@@capPos=2
773     \else
774       \ifx\hvSet@capPos\hv@Odd \hv@@capPos=3
775       \else
776         \ifx\hvSet@capPos\hv@Inner \hv@@capPos=4
777         \else
778           \ifx\hvSet@capPos\hv@Outer \hv@@capPos=5
779           \else
780             \ifx\hvSet@capPos\hv@Right \hv@@capPos=6% only for twocolumn mode
781             \else
782               \ifx\hvSet@capPos\hv@Left \hv@@capPos=7% only for twocolumn mode
783               \else
784                 \hv@@capPos=0

```

```

785         \fi
786     \fi
787 \fi
788 \fi
789 \fi
790 \fi
791 \fi
792 \checkoddpaper
793 \set@caption@object% set caption and object into a box
794 \ifcase\hv@@capPos% caption before object 0-> _always_ left
795     \setBottomCaption\setPageObject
796 \or% caption after object 1-> _always_ right
797     \setPageObject\setBottomCaption
798 \or% caption on even page 2-> left page
799     \ifoddpaper
800         \afterpage{\setBottomCaption\setPageObject}%
801     \else% we are on an even page
802 %         \zsaveposy{hv@currentPos}%
803 %         \ifdim\the\dimexpr\zposy{hv@currentPos}sp-\hv@BottomSpace-1cm>\ht\TBox % enough space*
804         \setBottomCaption\setPageObject
805 %         \else
806 %             \afterpage{\afterpage{\setBottomCaption\setPageObject}}%
807 %         \fi
808     \fi
809 \or% caption on odd page 3->right page
810     \if@twoside
811         \if@twocolumn
812             \ifoddpaper
813                 \if@firstcolumn% on right side
814                     \setBottomCaption\setPageObject
815                 \else
816                     \afterpage{\setPageObject\setBottomCaption}% start next column
817                 \fi
818             \else% left (even) page
819                 \if@firstcolumn
820                     \afterpage{\setPageObject\setBottomCaption}% start next column
821                 \else
822                     \setPageObject\setBottomCaption
823                 \fi
824             \fi
825         \else% onecolumn
826             \ifoddpaper
827                 \setPageObject\setBottomCaption
828             \else% even page
829                 \afterpage{\setPageObject\setBottomCaption}%
830             \fi
831         \fi
832     \else% oneside
833         \if@twocolumn
834             \ifoddpaper
835                 \if@firstcolumn% on right side
836                     \setBottomCaption\setPageObject
837                 \else

```

25 The Package Source

```

838         \setPageObject\setBottomCaption
839     \fi
840 \else
841     \if@firstcolumn% on left side
842         \afterpage{\setPageObject\setBottomCaption}%
843     \else
844         \setPageObject\setBottomCaption
845     \fi
846 \fi
847 \else % onecolumn
848     \ifoddpage
849         \setBottomCaption\setPageObject
850     \else
851         \afterpage{\setBottomCaption\setPageObject}%
852     \fi
853 \fi
854 \fi
855 \or% caption on the inner column 4->inner
856 \set@caption@object
857 \if@twocolumn
858     \ifoddpage
859         \if@firstcolumn% on right side
860         \setBottomCaption\setPageObject
861     \else % right column on right side
862         \setPageObject\setBottomCaption% start next firstcolumn next page
863     \fi
864 \else
865     \if@firstcolumn% on left side
866         \afterpage{\afterpage{\setBottomCaption\setPageObject}}% start next page/first column
867     \else% left page/column
868         \setBottomCaption\setPageObject% start on same page/column
869     \fi
870 \fi
871 \else% onecolumn
872     \setBottomCaption\setPageObject
873 \fi
874 \or% caption on the outer column 5->outer
875 \set@caption@object
876 \if@twocolumn
877     \ifoddpage
878         \if@firstcolumn
879             \afterpage{\afterpage{\setBottomCaption\setPageObject}}%
880         \else
881             \afterpage{\setBottomCaption\setPageObject}%
882         \fi
883     \else% even page (left)
884         \if@firstcolumn
885             \setBottomCaption\setPageObject
886         \else
887             %% !!!! to-do: !!!!
888         \fi
889     \fi
890 \else% onecolumn

```



```

891     \setBottomCaption\setPageObject
892     \fi
893 \or%           caption after object on same page 6->right for twocolumn
894     \if@twocolumn
895         \if@firstcolumn
896             \afterpage{\setPageObject\setBottomCaption}%
897         \else
898             \setPageObject\setBottomCaption
899         \fi
900 \else% always caption _after_ object for onecolumn
901     \setPageObject\setBottomCaption
902 \fi
903 \or%           caption before object on same page 7->left for twocolumn
904     \if@twocolumn
905         \if@firstcolumn
906             \setBottomCaption\setPageObject
907         \else
908             \afterpage{\setBottomCaption\setPageObject}%
909         \fi
910 \else%         onecolumn -> same as before
911     \setBottomCaption\setPageObject
912 \fi
913 \fi
914 \endgroup% startet at main \hvFloat
915 }
916 %
917 %% ||lin+evenside --- |lin+oddside ---||
918 %
919 \def\do@hvFloat@doublePage#1{% image on left and right page with caption on the right page
-----
920 % #1-> 0/1 caption under/right
921 \checkoddpage
922 \global\setlength\hv@leftPageObjectWidth{\dimexpr\paperwidth-lin-\evensidemargin-\hvSet@bindCorrection}%
923 \global\setlength\hv@tempWidthA{\the\dimexpr-lin-\oddsidemargin+\hvSet@bindCorrection-\parindent}%
924 \hv@typeout{>>>do@hvFloat@doublePage #1}%
925 \ifoddpage
926     \hv@typeout{>>>do@hvFloat@doublePage->oddpage}%
927     \hv@typeout{>>>do@hvFloat@doublePage->oddpage->bindCorr=\the\hvSet@bindCorrection}%
928     \hv@typeout{>>>do@hvFloat@doublePage->oddpage->hv@leftPageObjectWidth=\the\hv@leftPageObjectWidth}%
929     \afterpage{%
930         \noindent
931         \global\savebox\hvObjectBox{\ifhv@useOBox\usebox\hvOBox\else\hv@floatObject\fi}%
932         \clipbox*{0 -\depth{} \hv@leftPageObjectWidth{} \height{}\usebox\hvObjectBox}%
933         \par\bigskip
934         \afterpage{%
935             \newpage
936             \global\savebox\hvObjectBox{\ifhv@useOBox\usebox\hvOBox\else\hv@floatObject\fi}%
937             \hspace*{\hv@tempWidthA}%
938             \noindent
939             \clipbox*{\hv@leftPageObjectWidth{} -\depth{} \width{} \height{}\usebox\hvObjectBox}%
940             \ifnum#1>0
941                 \medskip
942                 \ifdim\dp\hvObjectBox > \z@

```

25 The Package Source

```

943 \rotatebox[origin=c]{90}{\parbox{\the\dimexpr\ht\hvObjectBox+\dp\hvObjectBox}{%
944 \ifx\hv@shortCap@empty
945 \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label@empty\else\expandafter\global\
\expandafter\label\expandafter{\hv@label}\fi}%
946 \else
947 \captionof{\hv@floatType}[\hv@shortCap]{\hv@longCap\ifx\hv@label@empty\else\expandafter\
\global\expandafter\label\expandafter{\hv@label}\fi}%
948 \fi
949 }}%
950 \else
951 \rotatebox{90}{\parbox{\the\dimexpr\ht\hvObjectBox+\dp\hvObjectBox}{%
952 \ifx\hv@shortCap@empty
953 \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label@empty\else\expandafter\global\
\expandafter\label\expandafter{\hv@label}\fi}%
954 \else
955 \captionof{\hv@floatType}[\hv@shortCap]{\hv@longCap\ifx\hv@label@empty\else\expandafter\
\global\expandafter\label\expandafter{\hv@label}\fi}%
956 \fi
957 }}%
958 \fi
959 \else
960 \ifx\hv@shortCap@empty
961 \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label@empty\else\expandafter\global\expandafter\
\label\expandafter{\hv@label}\fi}%
962 \else
963 \captionof{\hv@floatType}[\hv@shortCap]{\hv@longCap\ifx\hv@label@empty\else\expandafter\global\
\expandafter\label\expandafter{\hv@label}\fi}%
964 \fi
965 \fi
966 }%
967 }%
968 \else
969 \hv@typeout{>>>do@hvFloat@doublePage->evenpage}%
970 \hv@typeout{>>>do@hvFloat@doublePage->evenpage->bindCorr=\the\hvSet@bindCorrection}%
971 \hv@typeout{>>>do@hvFloat@doublePage->evenpage->hv@leftPageObjectWidth=\the\hv@leftPageObjectWidth}%
972 \global\setlength\hv@tempWidthA{\the\dimexpr-1in-\oddsidemargin+\hvSet@bindCorrection}%
973 \global\setlength\hv@leftPageObjectWidth{\dimexpr\paperwidth-1in-\evensidemargin-\hvSet@bindCorrection}%
974 \afterpage{%
975 \afterpage{%
976 \let\hv@fptop\c@fptop
977 \global\setlength{\@fptop}{0pt}%
978 \let\hv@c@topnumber\c@topnumber
979 \setcounter{topnumber}{1}%
980 \begin{\hv@floatType}[t]
981 \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
982 \clipbox*{0 -\depth}{\hv@leftPageObjectWidth}{\height}{\usebox\hvObjectBox}%
983 \end{\hv@floatType}%
984 \begin{\hv@floatType}[t]
985 \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
986 \hspace*{\hv@tempWidthA}%
987 \noindent
988 \clipbox*{\hv@leftPageObjectWidth}{-\depth}{\width}{\height}}{\usebox\hvObjectBox}%
989 \ifnum#1>0

```

```

990      \medskip
991      \ifdim\dp\hv0bjectBox > \z@
992      \rotatebox[origin=c]{90}{\parbox{\the\dimexpr\ht\hv0bjectBox+\dp\hv0bjectBox}{%
993      \ifx\hv@shortCap\@empty
994      \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label\@empty\else\expandafter\global\
          expandafter\label\expandafter{\hv@label}\fi}%
995      \else
996      \captionof{\hv@floatType}[\hv@shortCap]{\hv@longCap\ifx\hv@label\@empty\else\expandafter\
          global\expandafter\label\expandafter{\hv@label}\fi}%
997      \fi
998      }}%
999      \else
1000      \rotatebox{90}{\parbox{\the\dimexpr\ht\hv0bjectBox+\dp\hv0bjectBox}{%
1001      \ifx\hv@shortCap\@empty
1002      \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label\@empty\else\expandafter\global\
          expandafter\label\expandafter{\hv@label}\fi}%
1003      \else
1004      \captionof{\hv@floatType}[\hv@shortCap]{\hv@longCap\ifx\hv@label\@empty\else\expandafter\
          global\expandafter\label\expandafter{\hv@label}\fi}%
1005      \fi
1006      }}%
1007      \fi
1008      \else
1009      \ifx\hv@shortCap\@empty
1010      \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label\@empty\else\expandafter\global\expandafter\
          label\expandafter{\hv@label}\fi}%
1011      \else
1012      \captionof{\hv@floatType}[\hv@shortCap]{\hv@longCap\ifx\hv@label\@empty\else\expandafter\global\
          \expandafter\label\expandafter{\hv@label}\fi}%
1013      \fi
1014      \fi
1015      \end{\hv@floatType}%
1016      \let\c@topnumber\hv@c@topnumber
1017      \let\c@fptop\hv@fptop
1018      }}%
1019      \fi
1020      \endgroup% started at main macro \hvFloat
1021  }
1022  \newsavebox\hv@boxLeftPage
1023  \newsavebox\hv@boxRightPage
1024  %
1025  %% ||lin+evenside --- |lin+oddside ---||
1026  %
1027  \def\do@hvFloat@doublePAGE#1{% image on left and right page with caption on the right
      -----
1028      % #1-> 0/1 caption under/right
1029      \hv@typeout{>>>>\do@hvFloat@doublePAGE}%
1030      \global\setlength\hv@tempwidthA{\the\dimexprlin+\oddsidemargin-\hvSet@bindCorrection+\parindent}%
1031      \global\setlength\hv@leftPageObjectWidth{\the\dimexpr\paperwidth-lin-\evensidemargin-\hvSet@bindCorrection}
          %
1032      \expandafter\global\expandafter\savebox\expandafter\hv0bjectBox\expandafter{\ifhv@use0Box\usebox{\hv0Box}\
          else\hv@floatObject\fi}%
1033      \expandafter\global\expandafter\savebox\expandafter\hv@boxLeftPage\expandafter{\clipbox*{0 -\depth} \

```

25 The Package Source

```

    hv@leftPageObjectWidth{ } \height}{\usebox\hvObjectBox}}%
1034 \expandafter\global\expandafter\savebox\expandafter\hv@boxRightPage\expandafter{\clipbox*{\
    hv@leftPageObjectWidth{ } -\depth{ } \width{ } \height}{\usebox\hvObjectBox}}}%
1035 \checkoddpaper
1036 \ifoddpaper
1037   \hv@typeout{>>>>do@hvFloat@doublePAGE->oddpaper}%
1038   \hv@typeout{>>>>do@hvFloat@doublePAGE->oddpaper->bindCorr=\the\hvSet@bindCorrection}%
1039   \hv@typeout{>>>>do@hvFloat@doublePAGE->oddpaper->hv@leftPageObjectWidth=\the\hv@leftPageObjectWidth}%
1040 \afterpage{%
1041   \noindent
1042   \global\savebox{\hvObjectBox}{\ifhv@useOBox\usebox{\hvOBox}\else\hv@floatObject\fi}%
1043   \null
1044   \global\savebox\hv@boxLeftPage{\clipbox*{0 -\depth{ } \hv@leftPageObjectWidth{ } \height}{\usebox\
    hvObjectBox}}}%
1045   \usebox\hv@boxLeftPage
1046   \newpage
1047   \expandafter\global\expandafter\savebox\expandafter\hvObjectBox\expandafter{\ifhv@useOBox\usebox{\
    hvOBox}\else\hv@floatObject\fi}%
1048   \hspace*{-\dimexpr\hv@tempWidthA}%
1049   \noindent
1050   % \usebox\hv@boxRightPage
1051   \clipbox*{\the\hv@leftPageObjectWidth{ } -\depth{ } \width{ } \height}{\usebox\hvObjectBox}%
1052   \ifnum#1>0
1053     \medskip
1054     \ifdim\dp\hvObjectBox > \z@
1055       \rotatebox[origin=c]{90}{\parbox{\the\dimexpr\ht\hvObjectBox+\dp\hvObjectBox}{%
1056         \ifx\hv@shortCap\@empty
1057           \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label\@empty\else\expandafter\global\
             expandafter\label\expandafter{\hv@label}\fi}%
1058         \else
1059           \captionof{\hv@floatType}{\hv@shortCap}{\hv@longCap\ifx\hv@label\@empty\else\expandafter\
             global\expandafter\label\expandafter{\hv@label}\fi}%
1060         \fi
1061       }}%
1062     \else
1063       \rotatebox{90}{\parbox{\the\dimexpr\ht\hvObjectBox+\dp\hvObjectBox}{%
1064         \ifx\hv@shortCap\@empty
1065           \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label\@empty\else\expandafter\global\
             expandafter\label\expandafter{\hv@label}\fi}%
1066         \else
1067           \captionof{\hv@floatType}{\hv@shortCap}{\hv@longCap\ifx\hv@label\@empty\else\expandafter\
             global\expandafter\label\expandafter{\hv@label}\fi}%
1068         \fi
1069       }}%
1070     \fi
1071   \else
1072     \ifx\hv@shortCap\@empty
1073       \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label\@empty\else\expandafter\global\expandafter\
        label\expandafter{\hv@label}\fi}%
1074     \else
1075       \captionof{\hv@floatType}{\hv@shortCap}{\hv@longCap\ifx\hv@label\@empty\else\expandafter\global\
        expandafter\label\expandafter{\hv@label}\fi}%
1076     \fi

```

```

1077         \fi
1078         \newpage
1079     }%
1080 \else
1081     \afterpage{%
1082         \afterpage{%
1083             \noindent
1084             \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1085             \null
1086             \global\savebox\hv@boxLeftPage{\clipbox*{0 -\depth}{\hv@leftPageObjectWidth}{\height}{\usebox\hvObjectBox}}%
1087             \usebox\hv@boxLeftPage
1088             \newpage
1089             \expandafter\global\expandafter\savebox\expandafter\hvObjectBox\expandafter{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1090             \hspace*{-\dimexpr\hv@tempWidthA}%
1091             \noindent
1092 %         \usebox\hv@boxRightPage
1093         \clipbox*{\the\hv@leftPageObjectWidth}{-\depth}{\width}{\height}}{\usebox\hvObjectBox}%
1094         \ifnum#1>0
1095             \medskip
1096             \ifdim\dp\hvObjectBox > \z@
1097                 \rotatebox[origin=c]{90}{\parbox{\the\dimexpr\ht\hvObjectBox+\dp\hvObjectBox}{%
1098                     \ifx\hv@shortCap@empty
1099                         \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label@empty\else\expandafter\global\expandafter\label\expandafter{\hv@label}\fi}%
1100                     \else
1101                         \captionof{\hv@floatType}[\hv@shortCap]{\hv@longCap\ifx\hv@label@empty\else\expandafter\global\expandafter\label\expandafter{\hv@label}\fi}%
1102                     \fi
1103                 }}%
1104             \else
1105                 \rotatebox{90}{\parbox{\the\dimexpr\ht\hvObjectBox+\dp\hvObjectBox}{%
1106                     \ifx\hv@shortCap@empty
1107                         \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label@empty\else\expandafter\global\expandafter\label\expandafter{\hv@label}\fi}%
1108                     \else
1109                         \captionof{\hv@floatType}[\hv@shortCap]{\hv@longCap\ifx\hv@label@empty\else\expandafter\global\expandafter\label\expandafter{\hv@label}\fi}%
1110                     \fi
1111                 }}%
1112             \fi
1113         \else
1114             \ifx\hv@shortCap@empty
1115                 \captionof{\hv@floatType}{\hv@longCap\ifx\hv@label@empty\else\expandafter\global\expandafter\label\expandafter{\hv@label}\fi}%
1116             \else
1117                 \captionof{\hv@floatType}[\hv@shortCap]{\hv@longCap\ifx\hv@label@empty\else\expandafter\global\expandafter\label\expandafter{\hv@label}\fi}%
1118             \fi
1119         \fi
1120         \newpage
1121     }%

```

25 The Package Source

```

1122 \fi
1123 \endgroup
1124 }
1125 %
1126 %% ||lin+evenside --- |lin+oddside ---||
1127 %
1128 \def\do@hvFloat@doubleFULLPAGE#1{% image on left and right page with caption before/below/right/after
1129 % #1-> 0/1 caption under/right
1130 \ifx\hvSet@capPos\hv@After \hv@capPos=1
1131 \else
1132 \ifx\hvSet@capPos\hv@Before \hv@capPos=0
1133 \else
1134 \hv@capPos=2 % other caption type
1135 \fi\fi
1136 \checkoddpage
1137 \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1138 \global\setlength\hv@tempWidthA{\the\dimexpr-\oddsidemargin-lin-\parindent+\hvSet@bindCorrection}%
1139 \global\setlength\hv@leftPageObjectWidth{\the\dimexpr\paperwidth-\hvSet@bindCorrection}%
1140 \expandafter\captionsetup\expandafter{\hv@caption@format}%
1141 \ifoddpage
1142 \ifcase\hv@capPos
1143 \do@hvFloat@doubleFULLPAGE@CaptionBefore
1144 \or
1145 \do@hvFloat@doubleFULLPAGE@CaptionAfter
1146 \else
1147 \do@hvFloat@doubleFULLPAGE@CaptionOther{#1}%
1148 \fi% \ifcase
1149 \else% we have an even page
1150 \hv@typeout{>>>>doubleFULLPAGE->evenpage}%
1151 \ifcase\hv@capPos% Before
1152 \afterpage{\do@hvFloat@doubleFULLPAGE@CaptionBefore}%
1153 \or
1154 \afterpage{\do@hvFloat@doubleFULLPAGE@CaptionAfter}%
1155 \else % Any other caption
1156 \afterpage{\do@hvFloat@doubleFULLPAGE@CaptionOther{#1}}%
1157 \fi% \ifcase
1158 \fi% main ifoddpage
1159 \endgroup% started at main macro \hvFloat
1160 }
1161
1162 \def\do@hvFloat@doubleFULLPAGE@CaptionBefore{%
1163 \begin{\hv@floatType}[b]
1164 \ifhv@separatorLine\drawSepLine\vspace{\smallskipamount}\fi
1165 \expandafter\captionsetup\expandafter{\hv@caption@format}%
1166 \ifx\hv@shortCap\@empty
1167 \captionof{\hv@floatType}{\hv@longCap\expandafter\label\expandafter{\hv@label-cap}}%
1168 \else
1169 \captionof{\hv@floatType}{\hv@shortCap}{\hv@longCap\expandafter\label\expandafter{\hv@label-cap}}%
1170 \fi
1171 \global\addtocounter{\hv@floatType}{-1}% to get the same <object>-ref as "label"-cap
1172 \end{\hv@floatType}%
1173 \afterpage{%
1174 \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%

```



```

1175 \vspace*{\the\dimexpr-\lin-\voffset-\topmargin-\headheight-\headsep-\baselineskip+2\lineskip}% no
      interlineskip
1176 \hspace*{\the\dimexpr-\evensidemargin-\parindent-\lin}%
1177 \thispagestyle{empty}%
1178 \refstepcounter{\hv@floatType}%
1179 \expandafter\label\expandafter{\hv@label}%
1180 \global\addtocounter{\hv@floatType}{-1}% to get the same <object>-ref as "label"-cap
1181 \clipbox*{0 0 \the\hv@leftPageObjectWidth{\height}{\usebox\hvObjectBox}%
1182 \afterpage{%
1183   \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1184   \thispagestyle{empty}%
1185   \vspace*{\the\dimexpr-\lin-\voffset-\topmargin-\headheight-\headsep-\baselineskip+2\lineskip}% -0.5\
      paperheight+0.5\ht\hvObjectBox
1186   \hspace*{\hv@tempwidthA}%
1187   \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1188   \clipbox*{\the\hv@leftPageObjectWidth{\dp\hvObjectBox}{\wd\hvObjectBox}{\ht\hvObjectBox}{\usebox\
      hvObjectBox}%
1189   \refstepcounter{\hv@floatType}%
1190   \expandafter\label\expandafter{\hv@label-2}%
1191   \newpage
1192 }}%
1193 }
1194
1195 \def\do@hvFloat@doubleFULLPAGE@CaptionAfter{%
1196 \afterpage{%
1197   \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1198   \vspace*{\the\dimexpr-\lin-\voffset-\topmargin-\headheight-\headsep-\baselineskip+2\lineskip}% no
      interlineskip
1199   \hspace*{\the\dimexpr-\evensidemargin-\parindent-\lin}%
1200   \thispagestyle{empty}%
1201   \refstepcounter{\hv@floatType}%
1202   \expandafter\label\expandafter{\hv@label}%
1203   \global\addtocounter{\hv@floatType}{-1}% to get the same <object>-ref as "label"-cap
1204   \clipbox*{0 0 \the\hv@leftPageObjectWidth{\height}{\usebox\hvObjectBox}%
1205   \afterpage{%
1206     \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1207     \thispagestyle{empty}%
1208     \vspace*{\the\dimexpr-\lin-\voffset-\topmargin-\headheight-\headsep-\baselineskip+2\lineskip}% -0.5\
      paperheight+0.5\ht\hvObjectBox
1209     \hspace*{\hv@tempwidthA}%
1210     \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1211     \clipbox*{\the\hv@leftPageObjectWidth{\dp\hvObjectBox}{\wd\hvObjectBox}{\ht\hvObjectBox}{\usebox\
      hvObjectBox}%
1212     \refstepcounter{\hv@floatType}%
1213     \expandafter\label\expandafter{\hv@label-2}%
1214     \global\addtocounter{\hv@floatType}{-1}% to get the same <object>-ref as "label"-cap
1215     \newpage
1216     \begin{\hv@floatType}[b]
1217       \ifhv@separatorLine\drawSepLine\vspace{\smallskipamount}\fi
1218       \expandafter\captionsetup\expandafter{\hv@caption@format}%
1219       \ifx\hv@shortCap@empty
1220         \captionof{\hv@floatType}{\hv@longCap\expandafter\label\expandafter{\hv@label-cap}}%
1221       \else

```

25 The Package Source

```

1222     \captionof{\hv@floatType}[\hv@shortCap]{\hv@longCap\expandafter\label\expandafter{\hv@label-cap}}%
1223     \fi
1224     \end{\hv@floatType}%
1225   }}%
1226 }
1227
1228 \def\do@hvFloat@doubleFULLPAGE@CaptionOther#1{%
1229   \afterpage{%
1230     \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1231     \thispagestyle{empty}%
1232     \vspace*{\the\dimexpr-\lin-\voffset-\topmargin-\headheight-\headsep-\baselineskip+2\lineskip}%
1233     \hspace*{\hv@tempWidthA}%
1234     \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1235     \clipbox*{0 0 \the\hv@leftPageObjectWidth{\height}{\usebox{\hvObjectBox}%
1236       \refstepcounter{\hv@floatType}%
1237       \expandafter\label\expandafter{\hv@label}%
1238       \global\addtocounter{\hv@floatType}{-1}%
1239       \afterpage{%
1240         \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1241         \thispagestyle{empty}%
1242         \vspace*{\the\dimexpr-\lin-\voffset-\topmargin-\headheight-\headsep-\baselineskip+2\lineskip}%
1243         \hspace*{\hv@tempWidthA}%
1244         \global\savebox{\hvObjectBox}{\ifhv@use0Box\usebox{\hv0Box}\else\hv@floatObject\fi}%
1245         \clipbox*{\the\hv@leftPageObjectWidth{\dp{\hvObjectBox}{\wd{\hvObjectBox}{\ht{\hvObjectBox}{\usebox{\hvObjectBox}%
1246           \refstepcounter{\hv@floatType}%
1247           \expandafter\label\expandafter{\hv@label-2}%
1248           \global\addtocounter{\hv@floatType}{-1}%
1249           \savebox{\hvCaptionBox}{\parbox{0.9\ht{\hvObjectBox}{\captionof{\hv@floatType}{\hv@longCap}}}%
1250           \ifnum#1 > 0
1251             \setlength{\hv@tempWidthA}{\dimexpr\ht{\hvCaptionBox}+\wd{\hvObjectBox}+2\hvSet@bindCorrection}%
1252             \ifdim\hv@tempWidthA < 2\paperwidth
1253               \rotatebox{90}{\quad\parbox{0.9\ht{\hvObjectBox}{%
1254                 \expandafter\captionsetup\expandafter{\hv@caption@format}%
1255                 \ifx\hv@shortCap@empty
1256                   \captionof{\hv@floatType}{\hv@longCap\expandafter\label\expandafter{\hv@label-cap}}%
1257                 \else
1258                   \captionof{\hv@floatType}{\hv@shortCap}{\hv@longCap\expandafter\label\expandafter{\hv@label-cap}}%
1259                 \fi
1260               }}% rotatebox
1261             \else% ifdim: no space left on page
1262               \put(-\ht{\hvCaptionBox},0.5\ht{\hvObjectBox}){\makebox(0,0){\rotatebox{90}{\minipage{\textwidth}\centering
1263                 \parbox{0.8\textwidth}{%
1264                   \ifx\hv@shortCap@empty
1265                     \captionof{\hv@floatType}{\hv@longCap\expandafter\label\expandafter{\hv@label-cap}}%
1266                   \else
1267                     \captionof{\hv@floatType}{\hv@shortCap}{\hv@longCap\expandafter\label\expandafter{\hv@label-cap}}%
1268                   \fi
1269                 }}%
1270             \fi
1271           }
1272         }
1273       }
1274     }
1275   }

```

```

1269     }%
1270     \endminipage}}}%
1271     \fi
1272     \else% ifnum, caption not rotated, under or over the right page
1273     \setlength\hv@tempWidthA{\dimexpr\paperheight-\ht\hvObjectBox}%
1274     \ifdim\hv@tempWidthA > \ht\hvCaptionBox
1275     \else
1276     \put(\the\dimexpr-\textwidth-lin,\the\dimexpr\ht\hvCaptionBox+\abovecaptionskip+\belowcaptionskip)
1277     {\makebox[0pt][l]{\parbox{\textwidth}{%%
1278     \expandafter\captionsetup\expandafter{\hv@caption@format}%
1279     \ifx\hv@shortCap@empty
1280     \captionof{\hv@floatType}{\hv@longCap\expandafter\label\expandafter{\hv@label-cap}}%
1281     \else
1282     \captionof{\hv@floatType}{\hv@shortCap}{\hv@longCap\expandafter\label\expandafter{\hv@label-cap}}%
1283     }}}%
1284     \fi
1285     \fi% end ifnum#1>0
1286     \newpage
1287 }%
1288 }%
1289 }
1290
1291
1292 \def\setBottomCaption{%
1293     \begin{\hv@floatType}[!b]%
1294     \ifhv@separatorLine\drawSepLine\fi
1295     \par
1296     \usebox\hvCaptionBox
1297     \end{\hv@floatType}%
1298 }
1299
1300 \def\setPageObject{%
1301     \ifhv@star
1302     \begin{\hv@floatType}[p]%
1303     \else
1304     \begin{\hv@floatType}[p]%
1305     \fi
1306     \ifhv@FULLPAGE
1307     \vspace*{\the\dimexpr-lin-\voffset-\topmargin-\headheight-\headsep}%-0.5\baselineskip%
1308     \checkoddpages
1309     \if@twoside
1310     \ifoddpage
1311     \hspace*{\the\dimexpr-\oddsidemargin-\parindent-lin}%
1312     \else
1313     \hspace*{\the\dimexpr-\evensidemargin-\parindent-lin}%
1314     \fi
1315     \else
1316     \hspace*{\the\dimexpr-\oddsidemargin-\parindent-lin}%
1317     \fi
1318     %\put(0,0){%
1319     \AtBeginShipoutNext{\thispagestyle{empty}}%

```

25 The Package Source

```

1320     \usebox\hvObjectBox}%
1321 \else
1322     \usebox\hvObjectBox
1323 \fi
1324 \ifhv@star
1325     \end{\hv@floatType*}%
1326 \else
1327     \end{\hv@floatType}%
1328 \fi
1329 }
1330
1331 \ExplSyntaxOn
1332
1333 \def\getMultiCaptionAndLabel{%
1334     \global\sbox\hvCaptionBox{\minipage[b]{\linewidth}%
1335     \ifx\relax\hv@caption@format\relax\else\expandafter\captionsetup\expandafter{\hv@caption@format}\fi
1336     \setlength\belowcaptionskip{5pt}%
1337     \setlength\abovecaptionskip{0pt}%
1338     \hv@cntb=\clist_count:N\l_clist_Type
1339     \advance\hv@cntb by \@ne
1340     \hv@cнта=1
1341     \loop
1342         \edef\@captive{\clist_item:Nn\l_clist_Type{\hv@cнта}}%
1343         \edef\@tempa{\clist_item:Nn\l_clist_LofCaption{\hv@cнта}}%
1344         \ifx\@tempa\@empty
1345             \caption{\clist_item:Nn\l_clist_Caption{\hv@cнта}}%
1346         \else
1347             \expandafter\caption\expandafter[\@tempa]{\clist_item:Nn\l_clist_Caption{\hv@cнта}}%
1348         \fi
1349         \edef\@tempa{\clist_item:Nn\l_clist_Label{\hv@cнта}}%
1350         \ifx\@tempa\@empty
1351         \else
1352             \expandafter\label\expandafter{\clist_item:Nn\l_clist_Label{\hv@cнта}-cap}\fi
1353         \advance\hv@cнта by \@ne
1354         \ifnum\hv@cнта<\hv@cntb
1355             \repeat
1356     \endminipage}%
1357 }
1358 \def\getMultiObjectAndLabel{%
1359     \global\sbox\hvObjectBox{\minipage{\linewidth}%
1360     \ifx\relax\hv@caption@format\relax\else\expandafter\captionsetup\expandafter{\hv@caption@format}\fi
1361     \ifx\hvSet@objectPos\hv@Right\raggedleft\else
1362         \ifx\hvSet@objectPos\hv@Left\raggedleft\else
1363             \ifx\hvSet@objectPos\hv@Center\centering
1364         \fi\fi\fi
1365     \hv@cntb=\clist_count:N\l_clist_Type
1366     \advance\hv@cntb by \@ne
1367     \hv@cнта=1
1368     \loop
1369         \def\@temp{\clist_item:Nn\l_clist_Object{\hv@cнта}}%
1370         \ifhv@objectFrame\frame{\@temp}\else\@temp\fi
1371         \edef\@tempa{\clist_item:Nn\l_clist_Label{\hv@cнта}}%
1372         \ifx\@tempa\@empty

```

```

1373 \else
1374 \refstepcounter{\@capytype}%
1375 \expandafter\label\expandafter{\clist_item:Nn\l_clist_Label{\hv@cmta}}%
1376 \fi
1377 \ifnum\hv@cmta<\clist_count:N\l_clist_Type\par\hv@vskip\fi
1378 \advance\hv@cmta by \@ne
1379 \ifnum\hv@cmta<\hv@cntb
1380 \repeat
1381 \endminipage}%
1382 }
1383
1384 \def\getMultiSubCaptionAndLabel{%
1385 \global\sbox\hvCaptionBox{\minipage{\linewidth}%
1386 \ifx\hv@caption@format\@empty\else\expandafter\captionsetup\expandafter{\hv@caption@format}\fi
1387 \setlength\belowcaptionskip{5pt}%
1388 \setlength\abovecaptionskip{0pt}%
1389 \xdef\@capytype{\clist_item:Nn\l_clist_Type{1}}% the same for all subfloats
1390 \edef\@tempa{\clist_item:Nn\l_clist_LofCaption{1}}%
1391 \ifx\@tempa\@empty
1392 \caption{\clist_item:Nn\l_clist_Caption{1}}%
1393 \else
1394 \expandafter\caption\expandafter[\@tempa]{\clist_item:Nn\l_clist_Caption{1}}%
1395 \fi
1396 \edef\@tempa{\clist_item:Nn\l_clist_Label{1}}%
1397 \ifx\@tempa\@empty\else\expandafter\label\expandafter{\clist_item:Nn\l_clist_Label{1}-cap}\fi
1398 \endminipage}%
1399 }
1400
1401 \def\getMultiSubObjectAndLabel{%
1402 \global\sbox\hvObjectBox{\minipage{\linewidth}%
1403 \ifx\hv@subcaption@format\@empty\else
1404 \expandafter
1405 \captionsetup\expandafter[\expandafter s\expandafter u\expandafter b\expandafter]\expandafter
1406 {\hv@subcaption@format}%
1407 \fi
1408 \ifx\hvSet@objectPos\hv@Right\raggedleft\else
1409 \ifx\hvSet@objectPos\hv@Left\raggedleft\else
1410 \ifx\hvSet@objectPos\hv@Center\centering
1411 \fi\fi\fi
1412 \hv@cntb=\clist_count:N\l_clist_Caption
1413 \advance\hv@cntb by \@ne
1414 \hv@cmta=2
1415 \xdef\@capytype{\clist_item:Nn\l_clist_Type{1}}% the same for all subfloats
1416 \loop
1417 \def\@temp{\clist_item:Nn\l_clist_Object{\hv@cmta}}%
1418 \ifhv@objectFrame\frame{\@temp}\else\@temp\fi
1419 \begingroup
1420 \edef\@tempa{\clist_item:Nn\l_clist_LofCaption{\hv@cmta}}%
1421 \ifx\@tempa\@empty
1422 \subcaption{\clist_item:Nn\l_clist_Caption{\hv@cmta}}%
1423 \else
1424 \expandafter\subcaption\expandafter[\@tempa]{\clist_item:Nn\l_clist_Caption{\hv@cmta}}%
1425 \fi

```

25 The Package Source

```

1426     \edef\@tempa{\clist_item:Nn\l_clist_Label{\hv@cmta}}%
1427     \ifx\@tempa\@empty
1428     \else
1429         \expandafter\label\expandafter{\clist_item:Nn\l_clist_Label{\hv@cmta}}%
1430     \fi
1431     \endgroup
1432     \ifnum\hv@cmta<\clist_count:N\l_clist_Type\par\hv@vskip\fi
1433     \advance\hv@cmta by \@ne
1434     \ifnum\hv@cmta<\hv@cmtb
1435     \repeat
1436     \edef\@tempa{\clist_item:Nn\l_clist_Label{1}}%    the main label at the end
1437     \ifx\@tempa\@empty
1438     \else
1439         \addtocounter{\@cptype}{-1}%    to get the same <object>-ref as "label"-cap
1440         \refstepcounter{\@cptype}%
1441         \expandafter\label\expandafter{\@tempa}%
1442     \fi
1443     \endminipage}%
1444 }
1445 \ExplSyntaxOff
1446
1447 \def\getSingleCaptionAndLabel{%
1448     \global\sbox\hvCaptionBox{\minipage{\linewidth}%
1449         \ifx\relax\hv@caption@format\relax\else\expandafter\captionsetup\expandafter{\hv@caption@format}\fi
1450         \setlength\belowcaptionskip{5pt}%
1451         \setlength\abovecaptionskip{0pt}%
1452         \edef\@cptype{\hv@floatType}%
1453         \expandafter\ifx\expandafter\relax\hv@shortCap\relax
1454             \caption{\hv@longCap}%
1455         \else
1456             \caption[\hv@shortCap]{\hv@longCap}%
1457         \fi
1458         \expandafter\ifx\expandafter\relax\hv@label\relax\else\label{\hv@label-cap}\fi
1459     \endminipage}%
1460 }
1461
1462 \def\set@caption@object{%    first caption, then object
1463     \ifhv@multiFloat
1464         \getMultiCaptionAndLabel
1465     \else
1466         \ifhv@subFloat
1467             \getMultiSubCaptionAndLabel
1468         \else
1469             \getSingleCaptionAndLabel
1470         \fi
1471     \fi
1472     \edef\@cptype{\hv@p\hv@floatType}%
1473     \ifhv@multiFloat
1474         \getMultiObjectAndLabel
1475     \else
1476         \ifhv@subFloat
1477             \getMultiSubObjectAndLabel
1478         \else

```



```

1479 \global\sbox\hv0objectBox{%
1480 \refstepcounter{\@capttype}%
1481 \ifhv@objectFrame\frame{\hv@float0object}\else\hv@float0object\fi
1482 \expandafter\ifx\expandafter\relax\hv@label\relax
1483 \else
1484 \expandafter\label\expandafter{\hv@label}%
1485 \fi
1486 }%
1487 \fi
1488 \fi
1489 }
1490 %
1491 \endinput

```