

The HEP-FLOAT package*

Convenience package for float placement

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Abstract

The HEP-FLOAT package redefines some L^AT_EX float placement defaults and defines convenience wrappers for floats.

The HEP-FLOAT package can be loaded with `\usepackage{hep-float}`.

<code>figure (env.)</code>	Automatic float placement is adjusted to place a single float at the top of pages and to reduce the number of float pages, using the L ^A T _E X macros.														
<code>table (env.)</code>															
	<table border="0" style="width: 100%;"> <tr> <td style="padding-right: 20px;"><code>\setcounter{bottomnumber}{0}</code></td> <td>no floats at the bottom of a page (default 1)</td> </tr> <tr> <td><code>\setcounter{topnumber}{1}</code></td> <td>a single float at the top of a page (default 2)</td> </tr> <tr> <td><code>\setcounter{dbltopnumber}{1}</code></td> <td>same for full widths floats in two-column mode</td> </tr> <tr> <td><code>\renewcommand{\textfraction}{.1}</code></td> <td>large floats are allowed (default 0.2)</td> </tr> <tr> <td><code>\renewcommand{\topfraction}{.9}</code></td> <td>(default 0.7)</td> </tr> <tr> <td><code>\renewcommand{\dbltopfraction}{.9}</code></td> <td>(default 0.7)</td> </tr> <tr> <td><code>\renewcommand{\floatpagefraction}{.8}</code></td> <td>float pages must be full (default 0.5)</td> </tr> </table>	<code>\setcounter{bottomnumber}{0}</code>	no floats at the bottom of a page (default 1)	<code>\setcounter{topnumber}{1}</code>	a single float at the top of a page (default 2)	<code>\setcounter{dbltopnumber}{1}</code>	same for full widths floats in two-column mode	<code>\renewcommand{\textfraction}{.1}</code>	large floats are allowed (default 0.2)	<code>\renewcommand{\topfraction}{.9}</code>	(default 0.7)	<code>\renewcommand{\dbltopfraction}{.9}</code>	(default 0.7)	<code>\renewcommand{\floatpagefraction}{.8}</code>	float pages must be full (default 0.5)
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<code>\renewcommand{\floatpagefraction}{.8}</code>	float pages must be full (default 0.5)														
<code>manualplacement</code>	The most useful float placement is usually archived by placing the float <i>in front</i> of the paragraph it is referenced in first. Additionally, manual float placement can be deactivated using the <code>manualplacement</code> package option.														
<code>\raggedright</code>	The float environments have been adjusted to center their content. The usual behaviour can be reactivated using <code>\raggedright</code> .														
<code>panels (env.)</code>	The <code>panels</code> environment makes use of the SUBCAPTION package [1]. It provides sub-floats and takes as mandatory argument either the number of sub-floats (default 2) or the width of the first sub-float as fraction of the <code>\linewidth</code> . Within the <code>\begin{panels}[\langle vertical alignment \rangle]{\langle width \rangle}</code> environment the <code>\panel</code> macro initiates a new sub-float. In the case that the width of the first sub-float has been given as an optional argument to the <code>panels</code> environment the <code>\panel{\langle width \rangle}</code> macro takes the width of the next sub-float as mandatory argument. The example code is presented														
<code>\panelhspace</code>	in table 1a. The spacing between the panels can be adjusted by adjusting the <code>\panelvspace</code> in														
<code>\panelvspace</code>	terms of a <code>\linewidth</code> fraction <code>\renewcommand{\panelhspace}{fraction}</code> and the <code>\panelvspace</code> in terms of a length <code>\renewcommand{\panelvspace}{\langle length \rangle}</code> .														
<code>tabular (env.)</code>	The BOOKTABS [2] and MULTIROW [3] packages are loaded enabling publication quality tabulars such as in table 1b.														
<code>\graphic</code>	The GRAPHICX package [4] is loaded and the <code>\graphic[\langle width \rangle]{\langle figure \rangle}</code> macro is defined, which														
<code>\graphics</code>	is a wrapper for the <code>\includegraphics{\langle figure \rangle}</code> macro and takes the figure width as fraction of the <code>\linewidth</code> as optional argument (default 1). If the graphics are located in a sub-folder its path can be indicated by <code>\graphics{\langle subfolder \rangle}</code> .														

*This document corresponds to HEP-FLOAT v1.3.

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```

\begin{panels}{2}
  code
\panel
\begin{tabular}...\end{tabular}
\end{panels}

```

	one	two		
	b	c	d	
a	b	c	d	

(a) Code for this panel environment.

(b) The `booktabs` and `multirow` features.

Table 1: Example use of the `panels` environment in Panel (a) and the features from the `BOOKTABS` and `MULTIROW` packages in Panel (b).

References

- [1] A. Sommerfeldt. ‘The `subcaption` package: Support for sub-captions’ (2007). CTAN: `subcaption`. GitLab: `axelsommerfeldt/caption`.
- [2] D. Els and S. Fear. ‘The `booktabs` package: Publication quality tables in \LaTeX ’ (1995). CTAN: `booktabs`.
- [3] P. van Oostrum and J. Leichter. ‘The `multirow`, `bigstrut` and `bigdelim` packages: Create tabular cells spanning multiple rows’ (1994). CTAN: `multirow`.
- [4] D. Carlisle and S. Rahtz. ‘Packages in the “graphics” bundle: Enhanced support for graphics’ (1994). CTAN: `graphicx`.