trivfloat — Quick floats in LaTeX*

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Abstract

The trivfloat package provides a quick method for defining new float types in LaTeX. A single command sets up a new float in the same style as the LaTeX kernel `figure` and `table` float types.

Contents

1 Introduction

The LaTeX kernel provides the `figure` and `table` floating environment, but does not provide an easy method for defining new float types. This problem is addressed by the float and floatrow packages, which provides an array of commands to create new float types. However, the one command missing is a quick one to set up a new float type with no customisation. This is addressed by the trivfloat package.

2 Installation

The entire bundle is supplied with the TDS-ready ZIP file, `trivfloat.tds.zip`. Simply unzip this into your local texmf tree and run your hash program (`texhash` for TeXLive or `initextmf -u` for MiKTeX).

To extract the package from `trivfloat.dtx`, run (pdf)TeX on `trivfloat.dtx`. This will produce all of the package files, and also `README.txt`. To extract the files and build the documentation, run (pdf)LaTeX on `trivfloat.dtx`. The files can then be installed as above.

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Something for a graph

Graph 1: My graph

3 Using the package

`\trivfloat` The package itself provides only a single command to the user, `\trivfloat`. This takes a single argument `{`⟨*name*⟩`}`, a comma-separated list of new floating environments. The new environment scan be used as normal; the new floats should behave exactly the same as `figure` and `table` environments. The `\trivfloat` macro does not check for an existing definition of ⟨*float*⟩: any existing definition will be overwritten.

As an example, this file has in the preamble the line:

```
\trivfloat{graph}
```

This allows the ready production of floating graphs:

```
\begin{graph}
  \centering
  Something for a graph
  \caption{My graph}
\end{graph}
```

and also lists of graphs

List of Graphs `\listofgraphs`

The trivfloat package works hard to ensure that the newly-produced floats behave exactly like pre-defined ones. The exact behaviour of the new floats is dependant on the document class used: trivfloat knows about the standard classes, memoir and KOMA-Script. The `\trivfloat` command should only be used in the preamble of the document: LaTeX will complain if you use it later. New floats can also be generated by passing the name of the desired float type to the package as an option.

The new floats will respect the normal position modifiers, `t`, `b`, `h`, `p` and (if memoir is not in use) `H` for *really* here.

`floatrow` trivfloat will use the float package to produce new floats, unless the memoir class is in use. The package will accept the load time option `floatrow`, which will instead use the floatrow package to produce floats. If either float or floatrow is loaded before trivfloat, the loaded package will be used irrespective of this option.

When the memoir class is in use, the built-in function is used to produce floats. If the user has loaded float or floatrow, this will be safely detected.

4 Known issues

If you wish to redefine `\the`⟨*float*⟩, to alter the number format, then you must do this after `\begin{document}`. This is to allow trivfloat to work correctly with hyperref.

The name passed to `\trivfloat` should contain only the letters A–Z and a–z. This ensures that there are no strange errors generated by TEX. Correctly handling non-English words is not possible using an automated system, and so after defining a new float type the macros `\⟨float⟩name` and `\list⟨float⟩name` should be corrected to give the desired names.

The babel system provides support for a wide range of language-specific strings. It also makes changes to the typography of documents. The changes made by babel can be in almost any area, and so floats created with trivfloat may not act like the standard ones once babel is loaded. For example, the `french` option for babel alters the internal function used to make float captions. Users should search through the `⟨language⟩.ldf` file for the languages they use for "figure" and "lof" to see what changes babel makes to the standard floats. The user can then correct the behaviour of the new floats as needed.

5 Change History

6 Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.