

# The hhline package<sup>\*</sup>

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## Abstract

`\hhline` produces a line like `\hline`, or a double line like `\hline\hline`, except for its interaction with vertical lines.

## 1 Introduction

The argument to `\hhline` is similar to the preamble of an `array` or `tabular`. It consists of a list of tokens with the following meanings:

- = A double hline the width of a column.
- A single hline the width of a column.
- ~ A column with no hline.
- | A vline which ‘cuts’ through a double (or single) hline.
- : A vline which is broken by a double hline.
- # A double hline segment between two vlins.
- t The top half of a double hline segment.
- b The bottom half of a double hline segment.
- \* `{3}{==#}` expands to `==#==#==#`, as in the `*`-form for the preamble.

If a double vline is specified (`| |` or `: :`) then the hlines produced by `\hhline` are broken. To obtain the effect of an hline ‘cutting through’ the double vline, use a `#` or omit the vline specifiers, depending on whether or not you wish the double vline to break.

The tokens `t` and `b` must be used between two vertical rules. `|tb|` produces the same lines as `#`, but is much less efficient. The main use for these are to make constructions like `|t:` (top left corner) and `:b|` (bottom right corner).

If `\hhline` is used to make a single hline, then the argument should only contain the tokens `-`, `~` and `|` (and `*`-expressions).

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An example using most of these features is:

```

\begin{tabular}{||cc||c|c||}
\hhline{|t:::t:::t|}
a&b&c&d\\
\hhline{|:==:~|~||}
1&2&3&4\\
\hhline{#==#~|=#}
i&j&k&l\\
\hhline{||--||--||}
w&x&y&z\\
\hhline{|b:::b:::b|}
\end{tabular}

```

a	b	c	d
1	2	3	4
i	j	k	l
w	x	y	z

The lines produced by  $\text{\LaTeX}$ 's `\hline` consist of a single ( $\text{\TeX}$  primitive) `\hrule`. The lines produced by `\hhline` are made up of lots of small line segments.  $\text{\TeX}$  will place these very accurately in the `.dvi` file, but the program that you use to print the `.dvi` file may not line up these segments exactly. (A similar problem can occur with diagonal lines in the `picture` environment.)

If this effect causes a problem, you could try a different driver program, or if this is not possible, increasing `\arrayrulewidth` may help to reduce the effect.