

A L^AT_EX reference manual

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T_EX Users Group, 2016-July

Abstract The L^AT_EX Reference Manual provides a Free document summarizing the features of core L^AT_EX 2_ε.

Introduction

Summary

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It is a reference manual, not an introduction. The information that it contains is available from other L^AT_EX sources and documentation, but is scattered.

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This project has existed in various forms for a long time. It deserves to be better known. This talk aims to raise awareness of the work, both among potential users and among potential contributors.

More documentation?

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This is a reference manual. If you can't remember something about the `tabular` environment then you want a reference.

It is delineated by command, and targeted at online. It is in English, although there are translations. The level of sophistication is whatever it takes to cover the topic.

Technicalities

- ▶ Home: <http://home.gna.org/latexrefman>
- ▶ Written in Texinfo, the documentation format of the GNU project. From a single source it produces output in dvi, html, info, pdf, xml, etc.
- ▶ Active contributors: Vincent Belaïche, Karl Berry, and Jim Hefferon. Vincent maintains a French translation. Vincent has also made some updates to the Spanish translation but the Spanish needs a new maintainer. Translators for other languages are very welcome.

Sources

Besides the source code, and books such as Lamport's and Mittelbach's, there are many reputable online sources including the *Comprehensive Symbols List* and the *Users Guide for amsmath*.

One resource that might not be available to authors of reference manuals for other subjects are online forums.

- ▶ the Usenet group `comp.text.tex`
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Advantages: (1) they provide answers that may be hard to find elsewhere, and (2) they provide questions showing what gives users trouble.

For users

8.23 tabular

Synopsis:

```
\begin{tabular}[pos]{cols}
column 1 entry & column 2 entry ... & column n entry \\
...
\end{tabular}
```

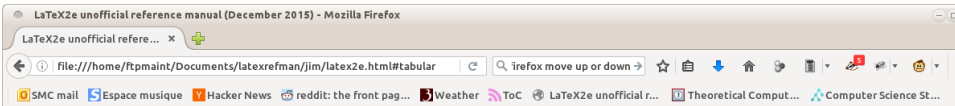
or

```
\begin{tabular*}{width}[pos]{cols}
column 1 entry & column 2 entry ... & column n entry \\
...
\end{tabular*}
```

These environments produce a table, a box consisting of a sequence of horizontal rows. Each row consists of items that are aligned vertically in columns. This illustrates many of the features.

```
\begin{tabular}{l|l}
\textit{Player name} & \textit{Career home runs} \\
\hline
Hank Aaron & 755 \\
Babe Ruth & 714
\end{tabular}
```

The vertical format of two left-aligned columns, with a vertical bar between them, is specified in `tabular`'s argument `{l|l}`. Columns are separated with an ampersand `&`. A horizontal rule between two rows is



cols

Required. Specifies the formatting of columns. It consists of a sequence of the following specifiers, corresponding to the types of column and intercolumn material.

l

A column of left-aligned items.

r

A column of right-aligned items.

c

A column of centered items.

|

A vertical line the full height and depth of the environment.

@{*text or space*}

This inserts *text or space* at this location in every row. The *text or space* material is typeset in LR mode. This text is fragile (see [\protect](#)).

`@{text or space}`

This inserts *text or space* at this location in every row. The *text or space* material is typeset in LR mode. This text is fragile (see [\protect](#)).

This specifier is optional: unless you put in your own @-expression then LaTeX's book, article, and report classes will put on either side of each column a space of length `\tabcolsep`, which by default is '6pt'. That is, by default adjacent columns are separated by 12pt (so `\tabcolsep` is misleadingly-named since it is not the separation between tabular columns). Also by default a space of 6pt comes before the first column as well as after the final column, unless you put a `@{...}` or `|` there.

If you override the default and use an @-expression then you must insert any desired space yourself, as in `@{\hspace{1em}}`.

An empty expression `@{}` will eliminate the space, including the space at the start or end, as in the example below where the tabular lines need to lie on the left margin.

```
\begin{flushleft}
  \begin{tabular}{@{}l}
    ..
  \end{tabular}
\end{flushleft}
```

This example shows text, a decimal point, between the columns, arranged so the numbers in the table are aligned on that decimal point.

```
\begin{tabular}{r@{.}l}
```

Some points.

- ▶ There is a syntax synopsis. It covers `tabular` but also `tabular*`, despite that the second is relatively obscure.
- ▶ Each required and optional argument is there.
- ▶ It lists the default for the standard \LaTeX classes, for instance for the intercolumn space.
- ▶ The examples are ones that users might look for. For example, these cover the often-asked cases of omitting the space before the first column of a table, and centering on a decimal point. They model a good style.

Give it a try

The quantity and quality of the references have grown sharply lately. It is already at this moment very valuable. It is a fast way to find answers for a working \LaTeX -er.

For potential contributors


```
@node tabular
@section @code{tabular}

@findex tabular @r{environment}
@cindex lines in tables
@cindex lining text up in tables
```

Synopsis:

```
@example
\begin@{tabular@}[@var{pos}]@{@var{cols}@}
column 1 entry &column 2 entry ... &column n entry \\
...
\end@{tabular@}
@end example
```

```
@noindent
or
```

```
@example
\begin@{tabular*@}@{@var{width}@}[@var{pos}]@{@var{cols}@}
column 1 entry &column 2 entry ... &column n entry \\
...
\end@{tabular*@}
@end example
```

These environments produce a table, a box consisting of a sequence of

Notes.

- ▶ At sign @ takes the place of backslash as the escape character.
- ▶ There is very little in the way of macros; so writing is relatively straight-ahead.
- ▶ There is some cross-reference information. (Cross-referencing is a little strange.)
- ▶ The source is in a Subversion archive.

Give it a try

You can dip your toe by finding some small topic and submitting a patch. It is a low-key way to make a contribution.

For the future

We hope to cover all commands from $\text{\LaTeX} 2_{\epsilon}$. It would be great to also cover the major packages, and in particular `amsmath`.

Questions?

Mailing list:

<https://mail.gna.org/listinfo/latexrefman-discuss>

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