

The `termlist` package

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Abstract

The `termlist` package provides environments to typeset lists of numbered terms, where the “terms” may contain anything printable. The list of terms is formatted to look consistent to a list of mathematical equations inside an `eqnarray` environment. Also for consistency, the same `equation` counter is used for numbering. You may think of `termlist` as a generalisation of the `eqnarray` environment, if you want to typeset more than just mathematics.

1 Introduction

The L^AT_EX typesetting system is widely used by mathematicians. A number of constructs, like the `equation` or `eqnarray` environments, fit the specific needs of mathematical texts. The math modes are intrinsic parts of T_EX and have left their marks on the whole system.

The `termlist` package may be seen as a generalization of the `equation` and `eqnarray` environments for non-mathematical texts. It provides environments to typeset any kinds of mathematical or non-mathematical terms, like propositions, hypotheses, examples, or linguistic terms, in the same way mathematical terms are typesetted inside an `equation` or `eqnarray` environment. I. e., the terms are indented and labelled with a continuous number—for consistency with the `equation` and `eqnarray` environments, the same `equation` counter is used for that—so that the look consistent to mathematical terms inside those environments.

The `termlist` package is based on an idea of the `covington` package.

2 Usage

The `termlist` package provides the four new environments `termlist`, `term`, `termlist*`, and `term*`.

`termlist` The `termlist` environment is the fundamental one of these environments. It is a list of terms, each indented and labelled with the `equation` counter on the left side by default. The default label can be changed by the optional argument of the `\item` command.

For consistency with the `equation` and `eqnarray` environments, the global `leqno` option or something similar should be used to print the labels of mathematical terms inside these environments also on the left side.

	termlist
(1) Here is an example of the <code>termlist</code> environment.	<code>\begin{termlist}</code>
(2) Each term is indented and labelled with the <code>equation</code> counter.	<code>\item Here is an example of the \verb termlist environment.</code>
(2a) The label of the term can be changed by the optional argument of the <code>\item</code> command.	<code>\item\label{second item} Each term is indented and labelled with the \verb equation counter.</code>
(3) Using the optional argument of the <code>\item</code> command does not increment the <code>equation</code> counter.	<code>\item[(\ref{second item}a)] The label of the term can be changed by the optional argument of the \verb \item command.</code> <code>\item Using the optional argument of the \verb \item command does not increment the \verb equation counter.</code>
	<code>\end{termlist}</code>

`term` The `term` environment is a `termlist` environment with only one list item.

	term
(4) The <code>term</code> environment labels the term with the <code>equation</code> counter.	<code>\begin{term}</code> The <code>\verb term </code> environment labels the term with the <code>\verb equation </code> counter. <code>\end{term}</code>

`termlist*` The `termlist*` environment is the same as the `termlist` environment, but with empty labels.

	termlist*
The <code>termlist*</code> environment is a list of terms. The terms do not have labels.	<code>\begin{termlist*}</code> <code>\item The \verb termlist* environment is a list of terms.</code> <code>\item The terms do not have labels.</code> <code>\end{termlist*}</code>

`term*` The `term*` environment is the same as the `term` environment, but with an empty label.

<code>term*</code>	
<p>The <code>term*</code> environment does not label the term.</p> <p>(5) Using the <code>termlist*</code> or <code>term*</code> environment does not increment the <code>equation</code> counter.</p>	<pre> \begin{term*} The \verb term* environment does not label the term. \end{term*} \begin{term} Using the \verb termlist* or \verb term* environment does not increment the \verb equation counter. \end{term} </pre>

The four environments provided by this package can be customized by the three macros `\termlabel`, `\termlabelfont`, and `\termindent`.

`\termlabel` The label of each term is defined by the macro `\termlabel`. For consistency with the `equation` and `eqnarray` environments, its default value is `(\theequation)`. Use one of the commands

```

\def\termlabel{<labeldescription>}, or
\renewcommand{\termlabel}{<labeldescription>}

```

to change its value. Note that even if the value of `\termlabel` does not contain something like `\theequation`, the `equation` counter is incremented with each list item.

`\termlabelfont` The label font and label color is defined by the macro `\termlabelfont`. For consistency with the `equation` and `eqnarray` environments, its default value is `\normalfont\normalcolor`. Use one of the commands

```

\def\termlabelfont{<fontdescription>}, or
\renewcommand{\termlabelfont}{<fontdescription>}

```

to change its value.

Note that for the `equation` and `eqnarray` environments, the whole label, including its font and color, is defined by the macro `\@eqnnum`. For consistency, `\termlabel` and `\termlabelfont` should always have values that match the value of `\@eqnnum`.

`\termindent` The amount of the left indentation of each term is defined by the macro `\termindent`. Its default value is `\leftmargini`. This is also the default value of the macro `\mathindent`, which defines the amount of the left indentation of mathematical terms inside an `equation` or `eqnarray` environment, if the fleqn

package is used. In this case, `\termindent` and `\mathindent` should always have the same values. Use one of the commands

```
\termindent<dimension>, or
\setlength{\termindent}{<dimension>}
```

to change the value of `\termindent`.

3 Implementation

`\termlabel` The `termlabel` macro defines the label of each term inside the `termlist` and `term` environments.

```
1 \def\termlabel{(\theequation)}
```

`\termlabelfont` The `termlabelfont` macro defines the font and color of the label of each term inside the `termlist` and `term` environments. The macro `\@termlistmklab` is used internally in the definition of the `termlist` environment.

```
2 \def\termlabelfont{\normalfont\normalcolor}
3 \def\@termlistmklab#1{\termlabelfont #1\hfil}
```

`\termindent` The `termindent` macro defines the amount of the left indentation of each term inside one of the four environments provided by this package.

```
4 \newdimen\termindent
5 \termindent\leftmargini
```

`termlist` The `termlist` environment is implemented as a list. Each list item has a default label defined by `\termlabel` and `\@termlistmklab` and left and right margins defined by `\termindent` and `\leftmargini`, resp. The indentation `\listparindent` and the amount of space between two paragraphs `\parsep` inside the list are set to their corresponding values outside the list, `\parindent` and `\parskip`, resp. The total amount of space between two list items is the sum of `\parsep` and `\itemsep`. The extra amount of space `\itemsep` is set to such a value, that the total amount of space between two list items is the maximum of `\parsep` and the extra amount of space `\jot` between two lines inside an `eqnarray` environment. To be further consistent to the `equation` and `eqnarray` environments, the amount of space above and below the list `\topsep` is set to `\abovedisplayskip`.

```
6 \newenvironment{termlist}{%
7 \list{\termlabel}{%
8 \nmblisttrue
9 \def\@listctr{equation}%
10 \partopsep\z@\@plus\p@\@minus\p@
11 \topsep\abovedisplayskip
12 \leftmargin\termindent
13 \labelwidth\leftmargin
14 \advance\labelwidth-\labelsep
15 \listparindent\parindent
16 \parsep\parskip}
```

```

17   \ifdim\parsep<\jot
18     \itemsep\jot
19     \advance\itemsep-\parsep
20   \else
21     \itemsep\z@skip
22   \fi
23   \let\makelabel\@termlistmklab}}{%
24 \endlist}

```

term The `term` environment is implemented as a `termlist` environment with only one list item.

```

25 \newenvironment{term}{%
26   \begin{termlist}\item\relax}{%
27   \end{termlist}}

```

termlist* The `termlist*` environment is implemented as a `termlist` environment with empty labels.

```

28 \newenvironment{termlist*}{%
29   \termlist\@nmbulistfalse\let\termlabel\relax}{%
30   \endlist}

```

term* The `term*` environment is implemented as a `termlist*` environment with only one list item.

```

31 \newenvironment{term*}{%
32   \begin{termlist*}\item\relax}{%
33   \end{termlist*}}

```