

1 The List Environment

The

- `itemize-environment`
- `enumerate-environment`
- `description-environment`

are all part of the **list-environment** of latex.

1.1 Vertical Linespacing

Linespacing in standard list environments may sometimes be too big. There are several variables which control this spacing:

- `\topsep` additional space before first and behind last item
- `\partopsep` same as `\topsep` when an empty line is before the first and behind last item
- `\parskip` vertical space between paragraphs
- `\parsecp` additional space between paragraphs for the same item
- `\itemsep` additional space between different items

1.2 Horizontal Linespacing

- `\labelwidth` as the name says ...
- `\labelsep` additional space between label and text
- `\itemindent` indenting of the first line for one item
- `\listparindent` same, but only for new paragraphs for the same item
- `\leftmargin` same as in standard text environment

1.3 Examples

At first we set all variables to the value 0:

```
\setlength{\topsep}{0pt}
\setlength{\partopsep}{0pt}
\setlength{\parskip}{0pt}
\setlength{\parsep}{0pt}
\setlength{\itemsep}{0pt}
\setlength{\labelwidth}{0pt}
\setlength{\labelsep}{0pt}
\setlength{\itemindent}{0pt}
\setlength{\listparindent}{0pt}
\setlength{\leftmargin}{0pt}
```

1. You can't put the \TeX -commands before the environment, they will be overwritten when the $\begin{\langle list-environment \rangle}$ -command. On the other hand you can't control horizontal spacing of the first label in the first item, when you put the \TeX -commands behind the first item, which is shown in this example for item 1. and 2.
2. Therefore you have to write your own environment with

```
\begin{\langle list-environment \rangle}
-- all \TeX{}-commands --
\item my first bla bla textline
\item my first bla bla textline
\end{\langle list-environment \rangle}
```

This is possible in an existing list-environment in fact of the possibility of nesting lists.

- The first line with a

```
\setlength{\labelwidth}{2cm}
\setlength{\labelsep}{0.1\textwidth}
```

direct behind the $\begin{itemize}$ -command, means before the first \item -command

- A second line with a

```
\setlength{\labelsep}{0}
\setlength{\itemsep}{-0.5ex}
```

- A last line with a `\setlength{\labelsep}{1em}` at the end of the following `\item`-command.
- You have to remember that latex stores the values of the higher list-environment, therefore all commands in this nested `itemize`-list are not valid outside this list.

3. The last lines of the inner list are
`\end{itemize}`

```
\setlength{\parskip}{1cm}  
\setlength{\labelsep}{1em}
```

You have to remember that latex stores the values of the higher list-environment, therefore all commands in this nested `itemize`-list are not valid outside this list and vice-versa.

4. The last line ...