

# The framed package\*

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Create framed, shaded, or differently highlighted regions that can break across pages. The environments defined are

<code>framed</code>	– ordinary frame box ( <code>\fbox</code> ) with edge at margin
<code>oframed</code>	– framed with open top/bottom at page breaks
<code>shaded</code>	– shaded background ( <code>\colorbox</code> ) bleeding into margin
<code>shaded*</code>	– shaded background ( <code>\colorbox</code> ) with edge at margin
<code>snugshade</code>	– shaded with tight fit around text (esp. in lists)
<code>snugshade*</code>	– like snugshade with shading edge at margin
<code>leftbar</code>	– thick vertical line in left margin
<code>titled-frame</code>	– frame with title-bar; template for others

to be used like

```
\begin{framed}
  copious text
\end{framed}
```

But the more general purpose of this package is to facilitate the definition of new environments that take multi-line material, wrap it with some non-breakable formatting (some kind of box or decoration) and allow page breaks in the material. Such environments are defined to declare (or use) `\FrameCommand` for applying the boxy decoration, and `\MakeFramed{<settings>}` ... `\endMakeFramed` wrapped around the main text (environment body).

The “`framed`” environment uses `\fbox`, by default, as its `\FrameCommand` with the additional settings `\fboxrule=\FrameRule` and `\fboxsep=\FrameSep`. You can change these lengths (using `\setlength`) and you can change the definition of `\FrameCommand` to use much fancier boxes.

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\*This manual corresponds to `framed` v0.96, dated 2011/10/22.

In fact, the “shaded” environment just redefines `\FrameCommand` to be `\colorbox{shadecolor}` (and you have to define the color “shadecolor”: `\definecolor{shadecolor}...`).

Although the intention is for other packages to define the varieties of decoration, a command `\OpenFbox` is defined for frames with open tops or bottoms, and used for the “oframed” environment. This facility is based on a more complex and capable command `\CustomFBox` which can be used for a wider range of frame styles. One such style of a title-bar frame with continuation marks is provided as an example. It is used by the “titled-frame” environment. To make use of `titled-frame` in your document, or the `\TitleBarFrame` command in your own environment definitions, you must define the colors `TFFrameColor` (for the frame) and a contrasting `TFTitleColor` (for the title text).

A page break is allowed, and even encouraged, before the `framed` and other environments. If you want to attach some text (a box title) to the frame, then the text should be inserted by `\FrameCommand` so it cannot be separated from the body.

The contents of the framed regions are restricted: Floats, footnotes, margins and head-line entries will be lost. (Some of these may be handled in a later version.) This package will not work with the page breaking of `multicol.sty`, or other systems that perform column-balancing.

The `MakeFramed` environment does the work. Its “*settings*” argument should contain any adjustments to the text width (via a setting of `\hsize`). Here, the parameter `\width` gives the measured extra width added by the frame, so a common setting is “`\advance\hsize-\width`” which reduces the width of the text just enough that the outer edge of the frame aligns with the margins. The “*settings*” should also include a ‘restore’ command – `\@parboxrestore` or `\FrameRestore` or something similar; for instance, the `snugshade` environment uses `settings` to eliminate list indents and vertical space, but uses `\hspace` in its `\FrameCommand` to reproduce the list margin outside the shading.

There are actually four variants of `\FrameCommand` to allow different formatting for each part of an environment broken over pages. Unbroken text is adorned by `\FrameCommand`, whereas split text first uses `\FirstFrameCommand`, possibly followed by `\MidFrameCommand`, and finishing with `\LastFrameCommand`. The default definitions for these three just invokes `\FrameCommand`, so that all portions are framed the same way. See the `oframe` environment for use of distinct First/Mid/Last frames.

## Expert commands:

- `\MakeFramed`, `\endMakeFramed`: the “`MakeFramed`” environment
- `\FrameCommand`: command to draw the frame around its argument
- `\FirstFrameCommand`: the frame for the first part of a split environment
- `\LastFrameCommand`: frame for the last portion
- `\MidFrameCommand`: for any intermediate segments
- `\FrameRestore`: restore some text settings, but fewer than `\@parbox-restore`
- `\FrameRule`: length register; `\fboxrule` for default “`framed`”.
- `\FrameSep`: length register; `\fboxsep` for default “`framed`”.
- `\FrameHeightAdjust`: macro; height of frame above baseline at top of page
- `\OuterFrameSep`: vertical space before and after the framed env.; defaults to `\topsep`

This is still a ‘pre-production’ version because I can think of many features/improvements that should be made. Also, a detailed manual needs to be written. Nevertheless, starting with version 0.5 it should be bug-free.

## ToDo:

- Test more varieties of list
- Improve and correct documentation
- Propagation of `\marks`
- Handle footnotes (how??) floats (?) and marginpars.
- Stretchability modification.