The minibox package

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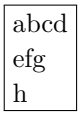
1 Introduction

It's sometimes useful to be able to stack text over lines in a small box; this is similar to paragraph text broken over lines, but for small amounts of text when automatic line breaking is not required. In other words, I'm looking for an `\mbox` that allows manual line breaks.



This sort of thing is a little awkward in plain TEX and LATEX.

```
\vbox{\hbox{abcd}\hbox{efg}\hbox{h}}
```

2 The command `\minibox`

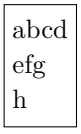
`\minibox` This package defines the `\minibox` command to write this more conveniently separately lines with `\\`. Various options are allowed to control the alignment and whether to frame the box, shown in Table 1.

2.1 Horizontal alignment of the text

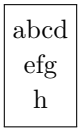
Here's an example adjusting the horizontal alignment.

```
\def\x{abcd\\efg\\h}
```

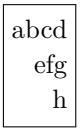
`\minibox{\x}`



`\minibox[c]{\x}`



`\minibox[r]{\x}`



`frame(=true)`	Has a frame
`frame=false`	Has not a frame (default)
`rule=`⟨*dim*⟩	Thickness of the rule (default 0.4pt)
`pad=`⟨*dim*⟩	Space on the inside of the frame (default 3.0pt)
`l`	Left-aligned text (default)
`c`	Centred text
`r`	Right-aligned text
`b`	Align the box with the bottom line
`m`	Vertically centre the box (default)
`t`	Align the box with the top line

Table 1: Optional arguments for the `\minibox` command.

2.2 Vertical alignment of the box

Here's an example adjusting the vertical alignment.

```
\def\x{abcd\\efg\\h}
xyz\minibox{\x}   xyz\minibox[b]{\x}   xyz\minibox[t]{\x}
```

xyz abcd efg h xyz abcd efg h xyz abcd efg h

2.3 Framing your box

The boxes which are showed in these examples are not displayed by default; use the `frame` option to make them appear:

```
\def\x{abcd\\efg\\h}
\minibox{\x}   \minibox[frame]{\x}   \minibox[frame,rule=1pt,pad=0pt]{\x}
```

abcd efg h abcd efg h abcd efg h

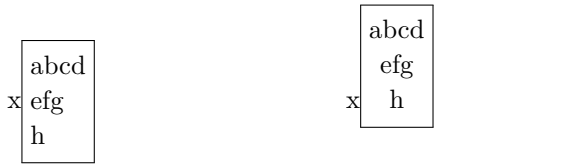
Negative values can be input for `pad`.

> *LaTeX experts: while these padding and rule options are internally controlled by* `\fboxsep` *and* `\fboxrule`*, changing these variables will have no effect on* `\minibox`*'s behaviour. Use* `\miniboxsetup` *as described next to change these options globally.*

2.4 Setting options

Obviously, any combination of these options can be applied:

```
\def\x{abcd\\efg\\h}
x\minibox[frame]{\x}   x\minibox[frame,c,b]{\x}
```



`\miniboxsetup` You can change the defaults of `\minibox` using this command.

```
\def\x{abcd\\efg\\h}
                    \miniboxsetup{frame,r}
\minibox{\x}        \minibox{\x}
```

3 Licence

File I

Implementation

```
\RequirePackage{expl3}
\ProvidesExplPackage
  {minibox}
  {2013/06/21}
  {0.2a}
  {Another type of box.}
\bool_new:N \l_minibox_frame_bool
\keys_define:nn {minibox}
 {
  frame .choice: ,
  frame / true  .code:n = { \bool_set_true:N  \l_minibox_frame_bool } ,
  frame / false .code:n = { \bool_set_false:N \l_minibox_frame_bool } ,
  frame .default:n  = { true } ,

  l .code:n = { \tl_set:Nn \l_minibox_tabular_preamble_tl {l} } ,
  c .code:n = { \tl_set:Nn \l_minibox_tabular_preamble_tl {c} } ,
  r .code:n = { \tl_set:Nn \l_minibox_tabular_preamble_tl {r} } ,

  t .code:n = { \tl_set:Nn \l_minibox_tabular_valign_tl {t} } ,
  m .code:n = { \tl_set:Nn \l_minibox_tabular_valign_tl {c} } ,
  b .code:n = { \tl_set:Nn \l_minibox_tabular_valign_tl {b} } ,

  rule .dim_set:N = \l_minibox_rule_dim ,
  pad  .dim_set:N = \l_minibox_pad_dim  ,
 }
\cs_new:Npn \miniboxsetup #1 { \keys_set:nn {minibox} {#1} }
\miniboxsetup {l,m,rule=\fboxrule,pad=\fboxsep}
\newcommand\minibox[2][]
 {
  \group_begin:
  \keys_set:nn {minibox} {#1}
  \bool_if:NTF \l_minibox_frame_bool
   {
    \setlength\fboxrule{\l_minibox_rule_dim}
    \setlength\fboxsep{\l_minibox_pad_dim}
    \fbox
   }
   { \use:n }
   {
    \use:x
```

```
    {
     \exp_not:N \begin{tabular}
       [\l_minibox_tabular_valign_tl]
       { @{} \l_minibox_tabular_preamble_tl @{} }
      \exp_not:n {#2}
     \exp_not:N \end{tabular}
    }
  }
 \group_end:
}
```