The \texttt{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 \texttt{mbox}
that allows manual line breaks.

\[
\begin{array}{c}
\hbox{abcd} \\
\hbox{efg} \\
\hbox{h}
\end{array}
\]

This sort of thing is a little awkward in plain \TeX{} and \LaTeX{}.

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

2 The command \texttt{\textbackslash minibox}

\texttt{\textbackslash minibox} This package defines the \texttt{\textbackslash minibox} command to write this more conveniently
separately lines with \texttt{\textbackslash}. 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.

\[
\begin{array}{cccc}
\texttt{\textbackslash def\{x\{abcd\textbackslash efg\textbackslash h\}}} \\
\texttt{\textbackslash minibox\{\textbackslash x\}} & \texttt{\textbackslash minibox\{c\}\{\textbackslash x\}} & \texttt{\textbackslash minibox\{r\}\{\textbackslash x\}} \\
\texttt{\textbackslash def\{x\{abcd\textbackslash efg\textbackslash h\}}} \\
\end{array}
\]

\[
\begin{array}{cccc}
\begin{array}{c}
\hbox{abcd} \\
\hbox{efg} \\
\hbox{h}
\end{array} & \begin{array}{c}
\hbox{abcd} \\
\hbox{efg} \\
\hbox{h}
\end{array} & \begin{array}{c}
\hbox{abcd} \\
\hbox{efg} \\
\hbox{h}
\end{array}
\end{array}
\]
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}  \minibox[b]{\x}  \minibox[t]{\x}

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}

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}
\minibox[frame]{\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

This package is freely modifiable and distributable under the terms and conditions
of the \LaTeX Project Public Licence, version 1.3c or greater (your choice). The latest
version of this license is available at: http://www.latex-project.org/lppl.txt.
This work is maintained by WILL ROBERTSON.
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
\begin{tabular}
{ @{} \l_minibox_tabular_preamble_tl @{} }
\exp_not:n {#2}
\exp_not:N \end{tabular}