

L'extension boxedminipage2e^{*}

Scott Pakin
scott+bmp2e@pakin.org

09/03/2015

1 Introduction

✖ This is a very simple package. It defines a single environment, `boxedminipage` that is essentially equivalent to `\fbox{\begin{minipage}... \end{minipage}}`. The difference is that the width of a `boxedminipage` includes the width of the frame, while the width of the `\fbox + minipage` combination is wider than the width specified to the `minipage`.

The following example exaggerates the effect by setting `\fboxrule=8pt` and `\fboxsep=4pt` and defining `minipages` of width `\linewidth` :

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Fusce condimentum id elit in fringilla. Vivamus tempus magna non tor-tor aliquet, ac porta justo venenatis. Suspendisse quis efficitur nibh.

This box was created by putting a `minipage` within an `\fbox`. Notice how the frame is aligned with the left margin of the surrounding text but juts out into the right margin.

Suspendisse pulvinar vel elit at dapibus. Interdum et malesuada fames ac ante ipsum primis in faucibus. Cras nibh orci, posuere quis viverra a, gravida nec velit. Praesent porta semper tellus, eu pulvinar ante mollis faucibus.

This box was created with the `boxedminipage` environment. Notice how the frame is aligned properly with both margins of the surrounding text.

Duis est neque, aliquet at augue a, auctor condimentum orci. Donec arcu magna, eleifend a consequat in, vehicula non elit. Sed id est sed ipsum interdum posuere.

^{*}Ce fichier a pour numéro de version v1.0 et a été mis à jour le 09/03/2015. Son titre original est « *The boxedminipage2e package* ».

There exists a package called `boxedminipage` that also defines a `boxedminipage` environment. However, the `boxedminipage` package, last updated in 1992, lacks support for the L^AT_EX 2_ε `minipage`'s $\langle height \rangle$ and $\langle inner-pos \rangle$ arguments. `boxedminipage2e` is an attempt to augment `boxedminipage` with support for `minipage`'s complete functionality. That said, `boxedminipage2e` is a complete rewrite; the two packages have no code in common.

2 Usage

`boxedminipage` The `boxedminipage2e` package defines a single environment, `boxedminipage`. It takes the same parameters as L^AT_EX 2_ε's `minipage` environment :

```
\begin{boxedminipage} [ $\langle pos \rangle$ ] [ $\langle height \rangle$ ] [ $\langle inner-pos \rangle$ ] { $\langle width \rangle$ }
 $\langle text \rangle$ 
\end{boxedminipage}
```

The semantic difference is that the values specified by the $\langle height \rangle$ and $\langle width \rangle$ arguments are reduced to accommodate the space needed by the surrounding frame.

3 Implementation

<code>\bmp@box</code>	The contents of the <code>minipage</code> are collected into <code>\bmp@box</code> . <pre>1 \newsavebox{\bmp@box}</pre>
<code>\bmp@width</code> <code>\bmp@height</code>	The adjusted width and height of the <code>minipage</code> are stored in <code>\bmp@width</code> and <code>\bmp@height</code> , respectively. <pre>2 \newlength{\bmp@width} 3 \newlength{\bmp@height}</pre>
<code>\bmp@relax</code>	We determine if the <code>minipage</code> 's $\langle height \rangle$ argument contains only <code>\relax</code> by comparing it to <code>\bmp@relax</code> . <pre>4 \def\bmp@relax{\relax}</pre>
<code>boxedminipage</code>	The <code>boxedminipage</code> environment is the only environment exposed by the <code>boxedminipage2e</code> package. It takes the same parameters as L ^A T _E X 2 _ε 's ordinary <code>minipage</code> environment : <div style="margin-left: 40px;"> <i>Arguments :</i> [$\langle pos \rangle$] [$\langle height \rangle$] [$\langle inner-pos \rangle$] {$\langle width \rangle$} <i>Default values :</i> c \relax s — </div> <pre>5 \newcommand{\boxedminipage}[1][c]{% 6 \@ifnextchar{\bminipage@i[#1]}{\bminipage@i[#1]}{\relax}}% 7 }</pre>

`\bminipage@i` The top-level `boxedminipage` environment invokes `\bminipage@i` with the $\langle pos \rangle$ and $\langle height \rangle$ arguments. `\bminipage@i` checks for an $\langle inner-pos \rangle$ argument and provides “s” if absent.

```

8 \def\bminipage@i[#1][#2]{%
9   \@ifnextchar[{\bminipage@ii[#1][#2]}{\bminipage@ii[#1][#2][s]}%
10 }

```

`\bminipage@ii` The `\bminipage@ii` macro is passed all four of `boxedminipage`’s arguments. It subtracts two `\fboxrule` and two `\fboxsep` lengths from each of the $\langle height \rangle$ (#2) and $\langle width \rangle$ (#4) arguments to make room for the lines and padding that `\fbox` introduces. `\bminipage@ii` then begins a `minipage` with the appropriate parameters and prepares to store it in box `\bmp@box`.

```

11 \def\bminipage@ii[#1][#2][#3]#4{%
12   \setlength{\bmp@width}{#4}%
13   \addtolength{\bmp@width}{-2\fboxrule}%
14   \addtolength{\bmp@width}{-2\fboxsep}%
15   \def\bmp@heighttext{#2}%
16   \begin{lrbox}{\bmp@box}%
17     \ifx\bmp@heighttext\bmp@relax
18       \begin{minipage}[#1][#2][#3]{\the\bmp@width}%
19     \else
20       \setlength{\bmp@height}{\bmp@heighttext}%
21       \addtolength{\bmp@height}{-2\fboxrule}%
22       \addtolength{\bmp@height}{-2\fboxsep}%
23       \begin{minipage}[#1][\bmp@height][#3]{\the\bmp@width}%
24     \fi
25 }

```

`\endboxedminipage` When the document invokes `\end{boxedminipage}` we typeset the `minipage` we just created within an `\fbox`.

```

26 \def\endboxedminipage{%
27   \end{minipage}%
28   \end{lrbox}%
29   \fbox{\usebox{\bmp@box}}%
30 }

```

Change History

v1.0
 General : Initial version 1

Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

Symboles	<code>\bmp@relax</code> <u>4</u> , 17	<code>\fboxrule</code> 13, 21
<code>\@ifnextchar</code> 6, 9	<code>\bmp@width</code> 2, 12–14, 18, 23	<code>\fboxsep</code> 14, 22
A	<code>\boxedminipage</code> 5	N
<code>\addtolength</code> 13, 14, 21, 22	<code>\boxedminipage</code> (envi- ronment) . . . 2, <u>5</u>	<code>\newlength</code> 2, 3
B		<code>\newsavebox</code> 1
<code>\bminipage@i</code> 6, <u>8</u>	E	
<code>\bminipage@ii</code> 9, <u>11</u>	<code>\endboxedminipage</code> . . <u>26</u>	S
<code>\bmp@box</code> <u>1</u> , 16, 29	environments : <code>\boxedminipage</code> . . 2, <u>5</u>	<code>\setlength</code> 12, 20
<code>\bmp@height</code> . . . <u>2</u> , 20–23	F	U
<code>\bmp@heighttext</code> 15, 17, 20	<code>\fbox</code> 29	<code>\usebox</code> 29