

**Last successful compile: 2025-10-28 03:01:12Z**

This file is a compilation of various uses of the listing boxes generated with `\NewPCBListing` and `\NewPCBInputListing`. In this way, robustness checks are performed to ensure they function correctly—as bug-free as possible.

Text.

1

Hello

---

# Contents

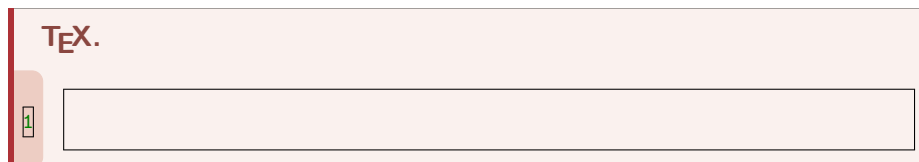
<b>1</b>	<b>Decorations</b>	<b>1</b>
<b>2</b>	<b>Type in thmgroup: inner</b>	<b>6</b>
2.1	NewPCBListing . . . . .	6
2.2	NewPCBInputListing . . . . .	6
<b>3</b>	<b>Autowidth</b>	<b>7</b>
3.1	NewPCBListing . . . . .	7
3.1.1	One Autowidth Option Selected . . . . .	7
3.1.2	Two Autowidth Options Selected . . . . .	9
3.1.3	(All) Three Autowidth Options Selected . . . . .	12
3.2	NewPCBInputListing . . . . .	13
3.2.1	One Autowidth Option Selected . . . . .	13
3.2.2	Two Autowidth Options Selected . . . . .	15
3.2.3	(All) Three Autowidth Options Selected . . . . .	19
3.2.4	\Inputify . . . . .	20

## Decorations

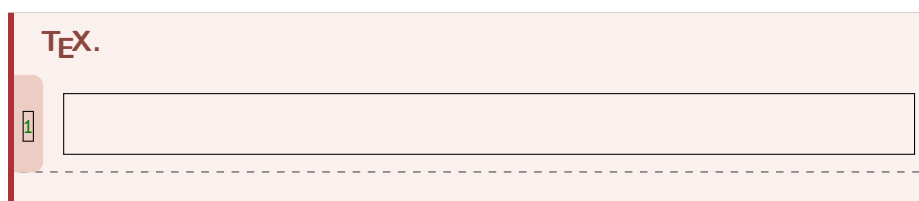
This chapter exists to test whether the positioning of various elements (e.g. the TikZ line number backgrounds) is correct.

(a) Overlay unbroken.

(i) No lower.

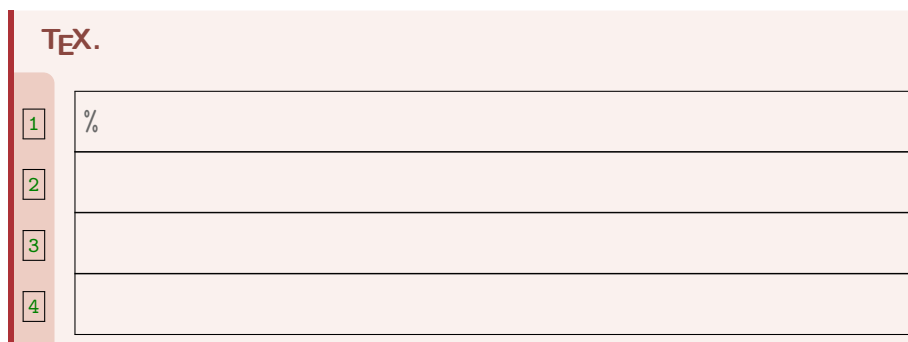


(ii) With lower.



(b) Overlay broken.

(i) No lower.



	5	
	6	
	7	
	8	
	9	
	10	
	11	
	12	
	13	
	14	
	15	
	16	
	17	
	18	
	19	
	20	
	21	
	22	
	23	
	24	
	25	
	26	
	27	
	28	
	29	
	30	
	31	
	32	
	33	
	34	

35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	%

(ii) With lower.

TeX.	
1	%
2	
3	
4	
5	
6	
7	
8	
9	

	10	
	11	
	12	
	13	
	14	
	15	
	16	
	17	
	18	
	19	
	20	
	21	
	22	
	23	
	24	
	25	
	26	
	27	
	28	
	29	
	30	
	31	
	32	
	33	
	34	
	35	
	36	
	37	
	38	
	39	

40

41

42

43

44

45

46

47

48

49

50

51

52

%

TeX.

1

10000

%

%

TeX.

1

10000000

%

%

Type in thmgroup: inner

## 2.1 NewPCBListing

**Answer.** The first part of our answer.



The code for our answer.

The second part of our answer lies here.



## 2.2 NewPCBInputListing

**Answer.** The first part of our answer.



The code for our answer.

The second part of our answer lies here.





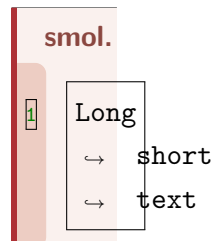
### 3.1 NewPCBListing

- (a) autowidth = title
  - (i) \l\_\_Prassble\_listings\_autowidth\_title\_dim <= \linewidthoutside

This box should be of width \l\_\_Prassble\_listings\_autowidth\_title\_dim

(i) `\l__Prassble_listings_autowidth_title_dim <= \linewidthoutside`

This box should be of width `\l__Prassble_listings_autowidth_title_dim`



This title should break and be of width `\linewidthoutside`

**Super long long long long long long long long long long long long  
long long long long long long long long title.**

1	Long short text
---	-----------------

**Julia.**

```
1 \xdef\mywidth{\the\linewidth}\mywidth
```

```
2 \mywidth = 313.75139pt
```

(i)

**This should have no broken line.**

1

(ii)

**This should have a broken line.**

1

↔

(c) `autowidth = lower`(i) `\l__Prassble_listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arab`

The following box should have width equal to the linewidth.

**TeX.**

1

Hello\\ hewwo \hspace{10cm} heh

Hello

hewwo

heh

(ii) `\l__Prassble_listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arab`The following box should have width equal to the width of the `\tcblower`.**Long long long long long long long  
long long long long title.**

1

Hello\\ hewwo \hspace{5cm} heh

Hello

hewwo

heh

(iii) `\l__Prassble_listings_autowidth_lower_dim < \eqboxwidth{codeupperwidth\arab`The following box should have width equal to that of the `\tcblower`.**TeX.**

Hello\\

↔ hewwo\\

↔ heh

Hello

hewwo

heh

### 3.1.2 Two Autowidth Options Selected

(a) autowidth = title + upper

(i) \l\_Prassble\_listings\_autowidth\_title\_dim <= \linewidthoutside

This box should be of width `\l__Prassble_listings_autowidth_title_dim`

smol.

1

Long short text

(ii) `\l_Prassble_listings_autowidth_title_dim > \linewidthoutside`

This title should break and be of width `\linewidthoutside`

**Super long long long long long long long long long long long long  
long long long long long long long long title.**

1

Long short text
-----------------

(iii) i.

**Julia,**

1

```
\xdef\mywidth{\the\linewidth}\mywidth
```

2

```
\mywidth = 290.23326pt
```

ii.

**This should have no broken line.**

1

This should also have no broken line (But the title should break).

1

iii.

**This should have a broken line.**

1

→

This should also have a broken line (But the title should break).

1

↩

(b) `autowidth = title + lower`

(i) `\l__Prassble_listings_autowidth_title_dim <= \linewidthoutside`

This box should be of width `\l__Prassble_listings_autowidth_title_dim`

smol.

1

Long short text

(ii) `\l__Prassble_listings_autowidth_title_dim > \linewidthoutside`

This title should break and be of width `\linewidthoutside`

Super long long long long long long long long long long long long long long long long long title.

1

Long short text

(iii) `\l__Prassble_listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arab`

The following box should have width equal to the linewidth.

TeX.

1

Hello\\ hewwo \hspace{10cm} heh

Hello

hewwo

heh

(iv) `\l__Prassble_listings_autowidth_title_dim >= \l__Prassble_listings_autow`  
`>= \eqboxwidth{codeupperwidth\arab`

The following box should have width equal to the width of the title

Long long long long long long long long long title.

1

Hello\\ hewwo \hspace{5cm} heh

Hello

hewwo

heh

(v) `\l__Prassble_listings_autowidth_lower_dim < \eqboxwidth{codeupperwidth\arab`

The following box should have width equal to that of the `\tcblower`.

**T<sub>E</sub>X.**

Hello\\  
↔ hewwo\\  
↔ heh

Hello  
hewwo  
heh

(c) autowidth = upper + lower

**Julia.**

```
1 \xdef\mywidth{\the\linewidth}\mywidth
2 \mywidth = 310.70975pt
```

(i)

**This should have no broken line.**

1

(ii)

**This should have a broken line.**

1

↔

(iii) `\l__Prassble_listings_autowidth_lower_dim >= \l__Prassble_listings_autowidth`

The following box should have width equal to the linewidth.

**T<sub>E</sub>X.**

```
1 Hello\\ hewwo \hspace{10cm} heh
```

Hello  
hewwo

heh

(iv) `\l__Prassble_listings_autowidth_lower_dim >= \l__Prassble_listings_autowidth`

The following box should have width equal to the width of the `\tcblower`

**Long long long long long long long  
long long long long title.**

1

```
Hello\\ hewwo \hspace{5cm} heh
```



Hello  
hewwo heh

(v) `\l__Prassble_listings_autowidth_lower_dim < \l__Prassble_listings_autowidth_lower_dim`

The following box should have width equal to that of the the width of the upper.



**T<sub>E</sub>X.**

Hello\\ hewwo\\ heh

Hello  
hewwo  
heh

### 3.1.3 (All) Three Autowidth Options Selected

(a) `\l__Prassble_listings_autowidth_upper_dim >= \l__Prassble_listings_autowidth_upper_dim`

This box should be of width `\l__Prassble_listings_autowidth_upper_dim`



**smol.**

1 Long short text

Long short text

(b) `\l__Prassble_listings_autowidth_lower_dim >= \l__Prassble_listings_autowidth_lower_dim`

This box should be of width `\l__Prassble_listings_autowidth_lower_dim`

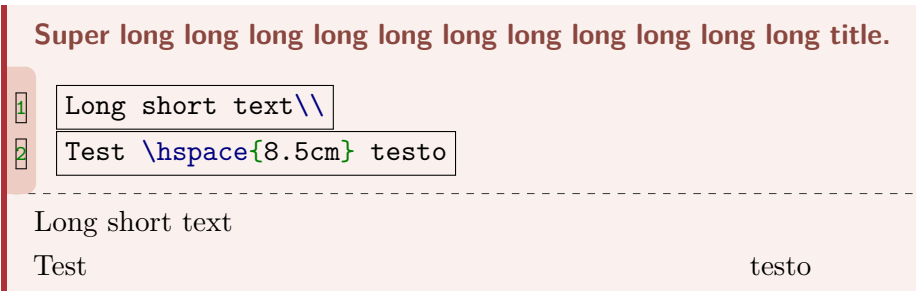


**smol.**

1 \hspace{10cm}

(c) `\l__Prassble_listings_autowidth_title_dim >= \l__Prassble_listings_autowidth_title_dim`

This title should break and be of width `\linewidthoutside`



**Super long long long long long long long long long long title.**

1 Long short text\\

2 Test \hspace{8.5cm} testo

Long short text

Test

testo

(d) `\l__Prassble_listings_autowidth_title_dim > \linewidthoutside`

This title should break and be of width `\linewidthoutside`

Super long title.

1 Long short text\\

2 Test \hspace{10cm} testo

Long short text

Test

testo

(e)

Julia.

1 \xdef\mywidth{\the\linewidth}\mywidth

2 \mywidth = 348.8266pt

This should have no broken line.

1 (Without listing and text)

2

(f)

This should have a broken line.

1 (Without listing and text)

2

↪

Text.

1 test

## 3.2 NewPCBInputListing

### 3.2.1 One Autowidth Option Selected

(a) autowidth = title

(i) \l\_\_Prassble\_listings\_autowidth\_title\_dim <= \linewidthoutside

This box should be of width \l\_\_Prassble\_listings\_autowidth\_title\_dim

smol.

1

Long  
↔ short  
↔ text

(ii) `\l__Prassble_listings_autowidth_title_dim > \linewidthoutside`

This title should break and be of width `\linewidthoutside`

Super long title.

1

Long short text

(b) `autowidth = upper`

Text.

1

`\xdef\mywidth{\the\linewidth}\mywidth`

2

`\mywidth = 313.75139pt`

(i)

This should have no broken line.

1

(ii)

This should have a broken line.

1

↔

(c) `autowidth = lower`

(i) `\l__Prassble_listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arab`

The following box should have width equal to the linewidth.

Text.

1

Hello\\ hewwo \hspace{10cm} heh

Hello

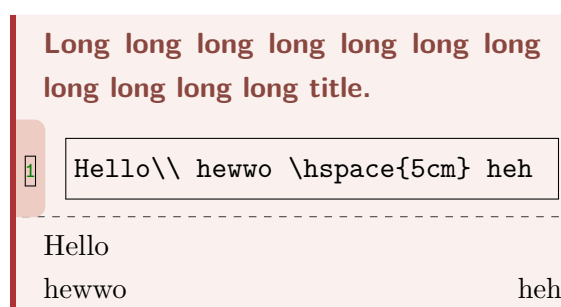
hewwo

heh



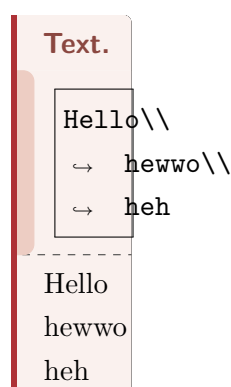
- (ii) `\l__Prassble_listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arab`

The following box should have width equal to the width of the `\tcblower`



- (iii) `\l__Prassble_listings_autowidth_lower_dim < \eqboxwidth{codeupperwidth\arab`

The following box should have width equal to that of the `\tcblower`.

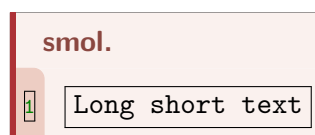


### 3.2.2 Two Autowidth Options Selected

- (a) `autowidth = title + upper`

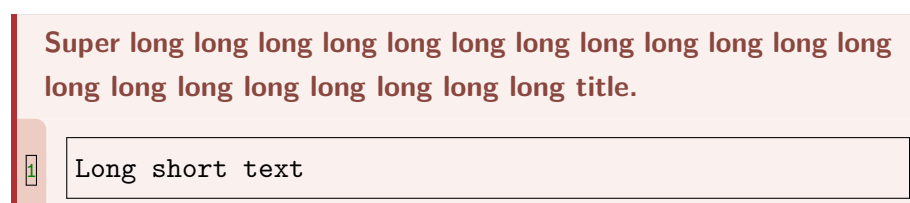
- (i) `\l__Prassble_listings_autowidth_title_dim <= \linewidthoutside`

This box should be of width `\l__Prassble_listings_autowidth_title_dim`



- (ii) `\l__Prassble_listings_autowidth_title_dim > \linewidthoutside`

This title should break and be of width `\linewidthoutside`



- (iii) i.

**Text.**

1

`\xdef\mywidth{\the\linewidth}\mywidth`

2

`\mywidth = 290.23326pt`

ii.

**This should have no broken line.**

1

**This should also have no broken line (But the title should break).**

1

iii.

**This should have a broken line.**

1

↩

**This should also have a broken line (But the title should break).**

1

↩

(b) `autowidth = title + lower`(i) `\l__Prassble_listings_autowidth_title_dim <= \linewidthoutside`This box should be of width `\l__Prassble_listings_autowidth_title_dim`**smol.**

1

Long short text

(ii) `\l__Prassble_listings_autowidth_title_dim > \linewidthoutside`This title should break and be of width `\linewidthoutside`

Super long title.

1 Long short text

(iii) `\l__Prassble_listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arab`

The following box should have width equal to the linewidth.

Text.

1 Hello\\ hewwo \hspace{10cm} heh

Hello

hewwo

heh

(iv) `\l__Prassble_listings_autowidth_title_dim >= \l__Prassble_listings_autow`  
`>= \eqboxwidth{codeupperwidth\`

The following box should have width equal to the width of the title

Long long long long long long long long long title.

1 Hello\\ hewwo \hspace{5cm} heh

Hello

hewwo

heh

(v) `\l__Prassble_listings_autowidth_lower_dim < \eqboxwidth{codeupperwidth\arab`

The following box should have width equal to that of the `\tcblower`.

Text.

Hello\\

↪ hewwo\\

↪ heh

Hello

hewwo

heh

(c) `autowidth = upper + lower`

Text.

1 \xdef\mywidth{\the\linewidth}\mywidth

2 \mywidth = 310.70975pt

(i)

**This should have no broken line.**

1

(ii)

**This should have a broken line.**

1

↔

(iii) `\l__Prassble_listings_autowidth_lower_dim >= \l__Prassble_listings_autowidth`

The following box should have width equal to the linewidth.

**Text.**

1

Hello\\ hewwo \hspace{10cm} heh

Hello

hewwo

heh

(iv) `\l__Prassble_listings_autowidth_lower_dim >= \l__Prassble_listings_autowidth`The following box should have width equal to the width of the `\tcblower`**Long long long long long long long  
long long long long title.**

1

Hello\\ hewwo \hspace{5cm} heh

Hello

hewwo

heh

(v) `\l__Prassble_listings_autowidth_lower_dim < \l__Prassble_listings_autowidth`The following box should have width equal to that of the the width of  
the upper.**Text.**

Hello\\ hewwo\\ heh

Hello

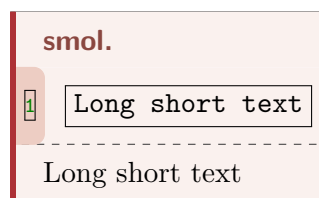
hewwo

heh

### 3.2.3 (All) Three Autowidth Options Selected

- (a) `\l__Prassble_listings_autowidth_upper_dim >= \l__Prassble_listings_autowidth_<titl`

This box should be of width `\l__Prassble_listings_autowidth_upper_dim`



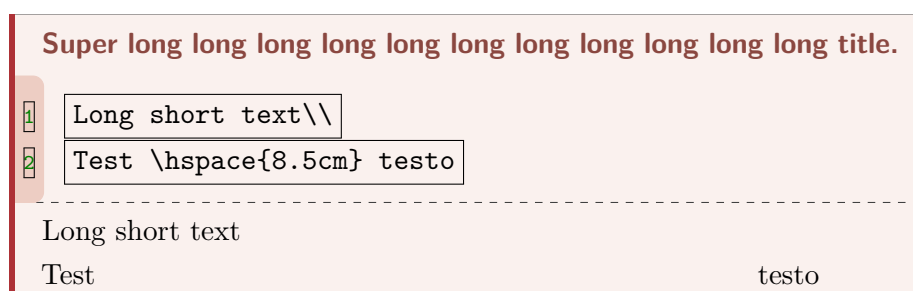
- (b) `\l__Prassble_listings_autowidth_lower_dim >= \l__Prassble_listings_autowidth_<titl`

This box should be of width `\l__Prassble_listings_autowidth_lower_dim`



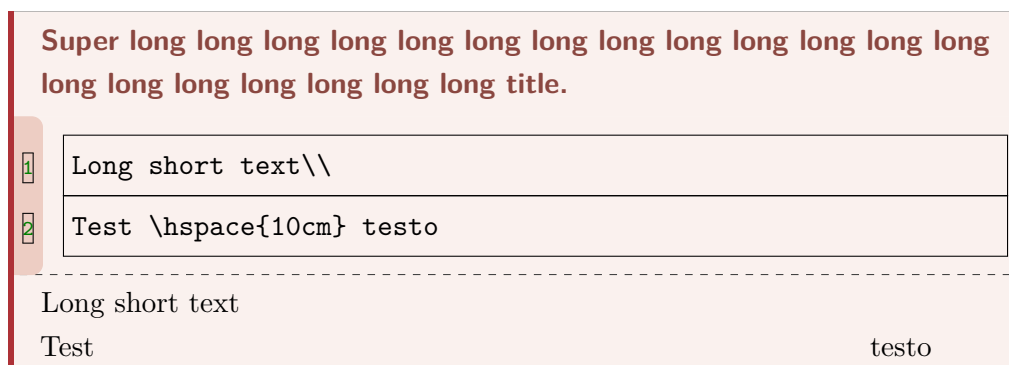
- (c) `\l__Prassble_listings_autowidth_title_dim >= \l__Prassble_listings_autowidth_<uppe`

This title should break and be of width `\linewidthoutside`



- (d) `\l__Prassble_listings_autowidth_title_dim > \linewidthoutside`

This title should break and be of width `\linewidthoutside`



- (e)

**Text.**

```
1 \xdef\mywidth{\the\linewidth}\mywidth
2 \mywidth = 348.8266pt
```

**This should have no broken line.**

```
1 (Without listing and text)
```

```
2
```

(f)

**This should have a broken line.**

```
1 (Without listing and text)
```

```
2
```

↪

### 3.2.4 \Inputify

**Text.**

```
1 (Without listing and text)
```

```
2
```

**Text.**

```
1 (Without listing and text)
```

```
2
```

**TeX.**

```
1 \subsection{Theorems}
```

```
2 Contents of the first subsection of this document
```

```
3 \begin{theorem}[label=thm:1.1]
```

```
4 This is the first theorem.
```

```
5 \end{theorem}
```

```
6 \begin{proof}
```

```
7 This is my proof of the first theorem.
```

```
8 \end{proof}
9 %
10 \subsection{Exercises}
11 \begin{exercise}[label=ex:1.1]
12     This is the first exercise.
13 \end{exercise}
14 \begin{answer}
15     This is the first answer to the first exercise.
16 \end{answer}
17 %
18 \Input[HW-In-Main]{1.tex}
19 %
```