

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

Text.

1Hello

- (a) `\arabic{code}: 1`
- (b) `\eqboxwidth{<tag>}`

`<tag>`

`codetitlewidth: 0pt`

`codeupperwidth: 393.60461pt`

`codelowerwidth: 0pt`

- (c) `\l__listings_autowidth_<component>_dim`

`<component>`

title: 0.0pt  
upper: 0.0pt  
lower: 0.0pt

- (d) `\g__listings_autowidth@core_measured_text_width_dim: 0.0pt`
- (e) `\g__listings_autowidth@core_measured_width_dim: 0.0pt`
- (f) `\g__listings_autowidth@core_max_tcb_text_width_dim: 0.0pt`
- (g) `\g__listings_autowidth@core_max_tcb_width_dim: 416.83289pt`

## 1.1 One Autowidth Option Selected

(i) `\l_listings_autowidth_title_dim <= \g_listings_autowidth@core_max_tcb_width_dim`

This box should be of width `\l__listings_autowidth_title_dim`

1 Long short text

This title should break and be of width `\g__listings_autowidth@core_max_tcb_width_dim`

1 Long short text

[illegible]

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

This should have breaklines disabled.

1

(ii)

**This should have breaklines enabled.**

1

(c) autowidth = lower

(i) `\l__listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arabic{code}}`

The following box should have width equal to the linewidth.

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

1

Hello\\ hewwo \hspace{10cm} heh

Hello

hewwo

heh

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

1

Hello\\ hewwo \hspace{5cm} heh

Hello

hewwo

heh

(iii) `\l__listings_autowidth_lower_dim < \eqboxwidth{codeupperwidth\arabic{code}}`The following box should have width equal to that of the `\tcblower`.**T<sub>E</sub>X.**

Hello\\ hewwo\\ heh

Hello

hewwo

heh

(iv) The following box should compile

**T<sub>E</sub>X (listing and text).**

1

\centering

## 1.2 Two Autowidth Options Selected

(a) autowidth = title + upper

(i) `\l__listings_autowidth_title_dim <= \g__listings_autowidth@core_max_tcb_width_dim`This box should be of width `\l__listings_autowidth_title_dim`

**smol.**

1 Long short text

(ii) `\l__listings_autowidth_title_dim > \g__listings_autowidth@core_max_tcb_width_dim`

This title should break and be of width `\g__listings_autowidth@core_max_tcb_width_dim`

**Super 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 = 332.17812pt`

ii.

**This should have one line.**

1

**This should also have breaklines disabled (But the title should break).**

1

iii.

**This should have breaklines enabled.**

1

**This should have one broken line (some extra text) (But the title should break).**

1

(b) `autowidth = title + lower`

(i) `\l__listings_autowidth_title_dim <= \g__listings_autowidth@core_max_tcb_width_dim`

This box should be of width `\l__listings_autowidth_title_dim`

**smol.**

1 Long short text

(ii) `\l__listings_autowidth_title_dim > \g__listings_autowidth@core_max_tcb_width_dim`

This title should break and be of width `\g__listings_autowidth@core_max_tcb_width_dim`

Super long title.

1 Long short text

(iii) `\l__listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arabic{code}}`

The following box should have width equal to the linewidth.

**TeX.**

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

Hello

hewwo

heh

(iv) `\l__listings_autowidth_title_dim >= \l__listings_autowidth_lower_dim`  
`>= \eqboxwidth{codeupperwidth\arabic{code}}`

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__listings_autowidth_lower_dim < \eqboxwidth{codeupperwidth\arabic{code}}`

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

**TeX.**

Hello\\ hewwo\\ heh

Hello

hewwo

heh

(c) `autowidth = upper + lower`

**Julia.**

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

2 `\mywidth = 352.6546pt`

(i)

This should have breaklines disabled.

1 `\hspace{\mywidth}`

(ii)

**This should have breaklines enabled.**

```
1 \hspace{\mywidth+0.00001pt}
```

(iii) `\l__listings_autowidth_lower_dim >= \l__listings_autowidth_upper_dim`

The following box should have width equal to the linewidth.

**TeX.**

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

Hello

hewwo

heh

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

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

Hello

hewwo

heh

(v) `\l__listings_autowidth_lower_dim < \l__listings_autowidth_upper_dim`

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

**TeX.**

```
Hello\\ hewwo\\ heh
```

Hello

hewwo

heh

## 1.3 (All) Three Autowidth Options Selected

(a) `\l__listings_autowidth_upper_dim >= \l__listings_autowidth_<title, lower>_dim`This box should be of width `\l__listings_autowidth_upper_dim`**smol.**

```
1 Long short text
```

Long short text

(b) `\l__listings_autowidth_lower_dim >= \l__listings_autowidth_<title, upper>_dim`

This box should be of width `\l__listings_autowidth_lower_dim`

**smol.**

1 `\hspace{10cm}`

(c) `\l__listings_autowidth_title_dim >= \l__listings_autowidth_⟨upper, lower⟩_dim`

This title should break and be of width `\g__listings_autowidth@core_max_tcb_width_dim`

**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__listings_autowidth_title_dim > \g__listings_autowidth@core_max_tcb_width_dim`

This title should break and be of width `\g__listings_autowidth@core_max_tcb_width_dim`

**Super long long long long long long long long long long long long long long long long long 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 = 373.12961pt`

**This should have breaklines disabled.**

1 `\hspace{\mywidth}`

(f)

**This should have breaklines enabled.**

1 `\hspace{\mywidth+0.00001pt}`

<div>Text.</div> <div>1test</div>	
(a)	<code>\arabic{code}: 36</code>
(b)	<code>\eqboxwidth{&lt;tag&gt;}</code>
	<code>&lt;tag&gt;</code>
<div>codetitlewidth: 0pt</div> <div>codeupperwidth: 22.99493pt</div> <div>codelowerwidth: 0pt</div>	
(c)	<code>\l__listings_autowidth_&lt;component&gt;_dim</code>
	<code>&lt;component&gt;</code>
	<div>title: 0.0pt</div> <div>upper: 0.0pt</div> <div>lower: 0.0pt</div>
(d)	<code>\g__listings_autowidth@core_measured_text_width_dim: 0.0pt</code>
(e)	<code>\g__listings_autowidth@core_measured_width_dim: 23.22827pt</code>
(f)	<code>\g__listings_autowidth@core_max_tcb_text_width_dim: 393.60461pt</code>
(g)	<code>\g__listings_autowidth@core_max_tcb_width_dim: 416.83289pt</code>



## 2.1 One Autowidth Option Selected

(a) autowidth = title

(i) `\l_listings_autowidth_title_dim <= \g_listings_autowidth@core_max_tcb_width_dim`

This box should be of width `\l__listings_autowidth_title_dim`

**smol.**

1 Long short text

(ii) `\l__listings_autowidth_title_dim > \g__listings_autowidth@core_max_tcb_width_dim`

This title should break and be of width `\g__listings_autowidth@core_max_tcb_width_dim`

[illegible]

1 Long short text

```
(b) autowidth = upper
```

Text.

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

```
2 \mywidth = 352.6546pt
```

(i)

**This should have breaklines disabled.**

1

(ii)

**This should have breaklines enabled.**

1

(c) `autowidth = lower`

(i) `\l__listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arabic{code}}`

The following box should have width equal to the linewidth.

**Text.**

1

Hello\\ hewwo \hspace{10cm} heh

Hello

hewwo

heh

(ii) `\l__listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arabic{code}}`

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

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

1

Hello\\ hewwo \hspace{5cm} heh

Hello

hewwo

heh

(iii) `\l__listings_autowidth_lower_dim < \eqboxwidth{codeupperwidth\arabic{code}}`

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

**Text.**

Hello\\ hewwo\\ heh

Hello

hewwo

heh

(iv) The following box should compile

**Text (listing and text).**

1

\centering

## 2.2 Two Autowidth Options Selected

(a) `autowidth = title + upper`

- (i) `\l__listings_autowidth_title_dim` <= `\g__listings_autowidth@core_max_tcb_width_dim`

This box should be of width `\l__listings_autowidth_title_dim`

smol.

1 Long short text

- ```
(ii) \l_listings_autowidth_title_dim > \g_listings_autowidth@core_max_tcb_width_dim
```

This title should break and be of width `\g__listings_autowidth@core_max_tcb_width_dim`

[illegible]

1 Long short text

- (iii) i.

Text.

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

```
2 \mywidth = 332.17812pt
```

- ii.

This should have one line.

1 \_\_\_\_\_

This should also have breaklines disabled (But the title should break).

---

- iii.

This should have breaklines enabled.

---

This should have one broken line (some extra text) (But the title should break).

---

- (b) autowidth = title + lower

- (i) `\l__listings_autowidth_title_dim <= \g__listings_autowidth@core_max_tcb_width_dim`

This box should be of width `\l__listings_autowidth_title_dim`

smol.

1 Long short text

$$(ii) \quad \backslash l\_listings\_autowidth\_title\_dim > \backslash g\_listings\_autowidth@core\_max\_tcb\_width\_dim$$

This title should break and be of width `\g_listings_autowidth@core_max_tcb_width_dim`

[illegible]

1 Long short text

(iii) `\l__listings_autowidth_lower_dim >= \eqboxwidth{codeupperwidth\arabic{code}}`

The following box should have width equal to the linewidth.

Text.

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

Hello

## hewwo

heh

$$\begin{aligned} \text{(iv)} \quad \backslash l\_listings\_autowidth\_title\_dim & \geq \backslash l\_listings\_autowidth\_lower\_dim \\ & \geq \backslash eqboxwidth{\codeupperwidth}{\arabic{\code}} \end{aligned}$$

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__listings_autowidth_lower_dim < \eqboxwidth{codeupperwidth\arabic{code}}`

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 = 352.6546pt
```

(i)

**This should have breaklines disabled.**

1 `\hspace{\mywidth}`

(ii)

**This should have breaklines enabled.**

1 `\hspace{\mywidth+0.00001pt}`

(iii) `\l__listings_autowidth_lower_dim >= \l__listings_autowidth_upper_dim`

The following box should have width equal to the linewidth.

**Text.**

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

Hello

hewwo

heh

(iv) `\l__listings_autowidth_lower_dim >= \l__listings_autowidth_upper_dim`

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

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

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

Hello

hewwo

heh

(v) `\l__listings_autowidth_lower_dim < \l__listings_autowidth_upper_dim`

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

**Text.**

`Hello\\ hewwo\\ heh`

Hello

hewwo

heh

## 2.3 (All) Three Autowidth Options Selected

(a) `\l__listings_autowidth_upper_dim >= \l__listings_autowidth_⟨title, lower⟩_dim`

This box should be of width `\l__listings_autowidth_upper_dim`

**smol.**

1 Long short text

Long short text

(b) `\l__listings_autowidth_lower_dim >= \l__listings_autowidth_⟨title, upper⟩_dim`

This box should be of width `\l__listings_autowidth_lower_dim`

**smol.**

1 `\hspace{10cm}`

(c) `\l__listings_autowidth_title_dim >= \l__listings_autowidth_⟨upper, lower⟩_dim`

This title should break and be of width `\g__listings_autowidth@core_max_tcb_width_dim`

**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__listings_autowidth_title_dim > \g__listings_autowidth@core_max_tcb_width_dim`

This title should break and be of width `\g__listings_autowidth@core_max_tcb_width_dim`

**Super long long 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\\

2 Test `\hspace{10cm}` testo

Long short text

Test

testo

(e)

**Text.**

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

2 `\mywidth = 373.12961pt`

**This should have breaklines disabled.**

1 `\hspace{\mywidth}`

(f)

**This should have breaklines enabled.**

1 `\hspace{\mywidth+0.00001pt}`