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.

```
1   Hello
```

(a) **\arabic{code}**: 1

(b) **\eqboxwidth{⟨tag⟩}**

⟨tag⟩

codetitlewidth: 0pt

codeupperwidth: 383.60588pt

codelowerwidth: 0pt

(c) **\l__listings_autowidth_⟨component⟩_dim**

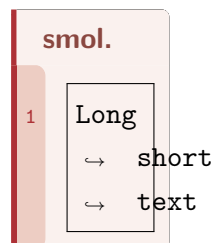⟨component⟩

    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

CHAPTER

1

ModifiedNewTCBListing

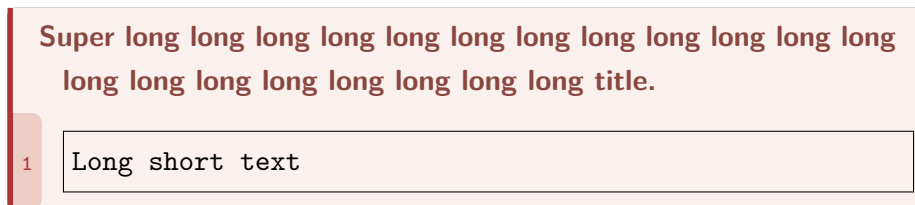## 1.1 One Autowidth Option Selected

(a) `autowidth = title`

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

       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`

       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 title.

1   Long short text
```

(b) `autowidth = upper`

```
Julia.

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

2   \mywidth = 313.45552pt
```

    (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.

$T_{\!E}X$.

```
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 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**.

$T_{\!E}X$.

```
Hello\\
↪   hewwo\\
↪   heh
```
- - - - - - - - -
```
Hello
hewwo
heh
```

1.2   Two Autowidth Options Selected

(a) `autowidth = title + upper`

    (i) **`\l__listings_autowidth_title_dim`** `<=` **`\g__listings_autowidth@core_max_tcb_widt`**

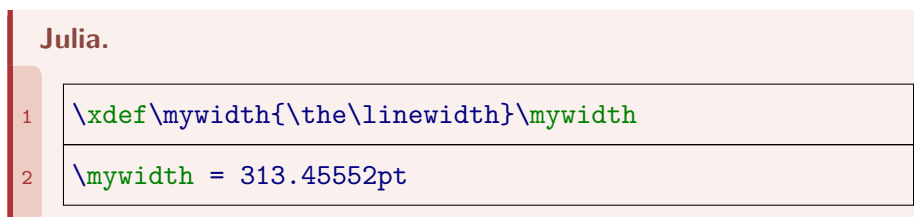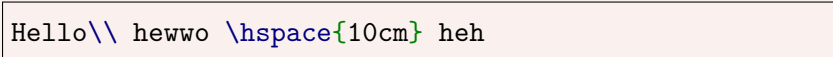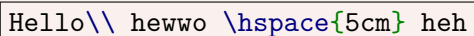   This box should be of width **`\l__listings_autowidth_title_dim`**

> **smol.**
>
> 1 | `Long short text`

    (ii) **`\l__listings_autowidth_title_dim`** `>` **`\g__listings_autowidth@core_max_tcb_width`**

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

> **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`

  (iii)   i.

> **Julia.**
>
> 1 | `\xdef\mywidth{\the\linewidth}\mywidth`
>
> 2 | `\mywidth = 289.9374pt`

    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**

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**

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 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.

T$_E$X.

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

- -

Hello
hewwo   heh

(iv) **\l__listings_autowidth_title_dim** >= **\l__listings_autowidth_lower_dim**
                                          >= **\eqboxwidth**{codeupperwidth**\arabic**{co

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 = 310.41388pt
```

(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 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 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 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 = 348.53072pt
```

This should have breaklines disabled.

```
1  \hspace{\mywidth}
```

(f)

This should have breaklines enabled.

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

Text.

```
1  test
```

(a) `\arabic{code}`: 35

(b) `\eqboxwidth{⟨tag⟩}`

⟨tag⟩

codetitlewidth: 0pt

codeupperwidth: 22.99493pt ⎯⎯

codelowerwidth: 0pt

(c) `\l__listings_autowidth_⟨component⟩_dim`

⟨component⟩

    title: 0.0pt

```
upper:      22.99493pt ____

lower:      0.0pt
```

(d) `\g__listings_autowidth@core_measured_text_width_dim`: 22.99493pt

(e) `\g__listings_autowidth@core_measured_width_dim`: 56.22194pt

(f) `\g__listings_autowidth@core_max_tcb_text_width_dim`: 383.60588pt

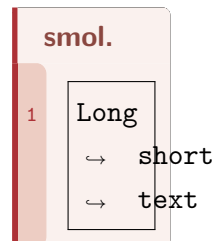(g) `\g__listings_autowidth@core_max_tcb_width_dim`: 416.83289pt

ModifiedNewTCBInputListing

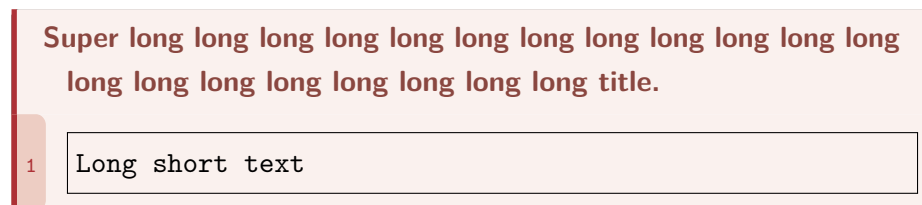## **2.1** One Autowidth Option Selected

(a) `autowidth = title`

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

       This box should be of width `\l__listings_autowidth_title_dim`

```
smol.

1  Long
   ↪   short
   ↪   text
```
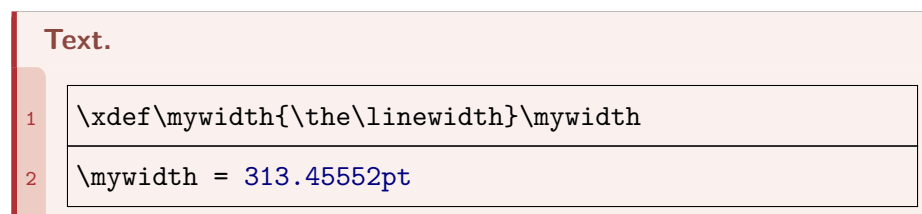
    (ii) `\l__listings_autowidth_title_dim > \g__listings_autowidth@core_max_tcb_width`

       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 title.

1  Long short text
```

(b) `autowidth = upper`

```
Text.

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

2  \mywidth = 313.45552pt
```

    (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 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

2.2   Two Autowidth Options Selected

(a) `autowidth = title + upper`

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

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`

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 title.

1 | Long short text |

(iii)   i.

Text.

```
1   \xdef\mywidth{\the\linewidth}\mywidth
2   \mywidth = 289.9374pt
```

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`

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`

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 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.

> **Text.**
>
> 1 | `Hello\\ hewwo \hspace{10cm} heh`
> -
> Hello
> hewwo   heh

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

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.**
>
> 1 | `Hello\\`
> | ↪   `hewwo\\`
> | ↪   `heh`
> - - - - - - - - -
> Hello
> hewwo
> heh

(c) `autowidth = upper + lower`

> **Text.**
>
> 1 | `\xdef\mywidth{\the\linewidth}\mywidth`
>
> 2 | `\mywidth = 310.41388pt`

(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 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 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 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 = 348.53072pt
```

This should have breaklines disabled.

```
1  \hspace{\mywidth}
```

(f)

This should have breaklines enabled.

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