

Marginalia

Write into the margins!

1 Setup



Put something akin to the following at the start of your .typ file:









```
#import "@preview/marginalia:0.1.1" as marginalia: note, wideblock
#let config = (
  // inner: ( far: 5mm, width: 15mm, sep: 5mm ),
  // outer: ( far: 5mm, width: 15mm, sep: 5mm ),
  // top: 2.5cm,
  // bottom: 2.5cm,
  // book: false,
  // clearance: 8pt,
  // flush-numbers: false,
  // numbering: /* numbering-function */,
)
#marginalia.configure(..config)
#set page(
  // setup margins:
  ..marginalia.page-setup(..config),
  /* other page setup */
)
```

Where you can then customize config to your preferences. Shown here (as comments) are the default values taken if the corresponding keys are unset.

See the appendix for a more detailed explanation of the [configure\(\)](#) and [page-setup\(\)](#) functions.

2 Margin-Notes

By default, the `#note[...]` command places a note to the right/outer margin, like so: . By giving the argument `reverse: true`, we obtain a note on the left/inner margin.  If `config.book = true`, the side will of course be adjusted automatically.

If  we  place  multiple  notes  in  one  line,  they automatically adjust their positions. Additionally, a `dy` argument can be passed to shift their initial position by that amount vertically. They may still get shifted around.

2.1 Markers


The margin notes are decorated with little symbols, which by default hang into the gap. If this is not desired, set the configuration option `flush-numbers: true`. Setting the argument `numbered: false`, we obtain notes without icon/number.


To change the markers, you can override `config.numbering-function` which is used to generate the markers.






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 Reversed.

 This note was given 15pt dy.

 This is a note.
They can contain any content, and will wrap within the note column.

-  Note 1
-  Note 2
-  Note 3
-  Note 4
-  Note 5

 This note was given 15pt dy, but it was shifted more than that to avoid Notes 1–5.

 This note was given 110pt dy.
Like this.

It is recommended to reset the notecounter regularly, either per page:

```
#set page(header: { marginalia.notecounter.update(0) })
```

or per heading:

```
#show heading.where(level: 1): it =>
  { marginalia.notecounter.update(0); it }
```

3 Wide Blocks

The command `#wideblock[...]` can be used to wrap content in a wide block which spans into the margin-note-column. It is a bit cluttered, but is possible to use notes in wide blocks:👁.

• Voila.

◆ Notes above a wideblock will shift upwards if necessary.

`#wideblock(double: true)[...]`: The double option makes it extend both ways. Note that setting both `reverse: true` and `double: true` will panic.

`#wideblock(reverse: true)[...]`: The reverse option makes the block extend to the inside margin instead.◆

👁 Wow!



Figure 1: A notefigure.



◆ Figure 2: A marked notefigure.

4 Figures

For small figures, you can place them in the margin with `marginalia.notefigure`. It accepts all arguments figure takes (except placement and scope), plus all arguments note takes. However, by default it has no marker, and to get a marker like other notes, you must pass `numbered: true`, it will get a marker like other notes:◆

Additionally, the `dy` argument now takes a relative length, where `100%` is the height of the figure content + gap, but without the caption. By default, figures have a `dy` of `0pt - 100%`, which results in the caption being aligned horizontally to the text.

A label can be attached to the figure using the `label` argument.

For larger figures, use the following set and show rules:

```
#set figure(gap: 0pt)
#set figure.caption(position: top)
#show figure.caption.where(position: top):
  note.with(numbered: false, dy: 1em)
```

Figure 3: A figure.



Figure 4: A figure in a wideblock.

Figure 5: A figure in a wideblock.



Figure 6: A figure in a wideblock.

5 Headers and Background

This is not (yet) a polished feature and requires to access `marginalia._config.get().book` to read the respective config option. In your documents, consider removing this check and simplifying the `if` a bit.●

Here's how the headers in this document were made:

```
#set page(header: context {
  marginalia.notecounter.update(0)
  let book = marginalia._config.get().book
  let leftm = marginalia.get-left()
  let rightm = marginalia.get-right()
  if here().page() > 1 {
    wideblock(double: true, {
      box(width: leftm.width, {
        if not (book) or calc.odd(here().page()) [
          Page
          #counter(page).display("1 of 1", both: true)
        ] else [
          #datetime.today().display(/**/)
        ]
      })
      h(leftm.sep)
      box(width: 1fr, smallcaps[Marginalia])
      h(rightm.sep)
      box(width: rightm.width, {
        if not (book) or calc.odd(here().page()) [
          #datetime.today().display(/**/)
        ] else [
          Page
          #counter(page).display("1 of 1", both: true)
        ]
      })
    })
  }
})
```

And here's the code for the lines in the background:○

```
#set page(background: context {
  let leftm = marginalia.get-left()
  let rightm = marginalia.get-right()
  place(
    dx: leftm.far,
    rect(width: leftm.width, height: 100%,
      stroke: (x: luma(90%)))
  )
  place(
    dx: leftm.far + leftm.width + leftm.sep,
    rect(width: 10pt, height: 100%,
      stroke: (left: luma(90%)))
  )
  place(right,
    dx: -rightm.far,
    rect(width: rightm.width, height: 100%,
      stroke: (x: luma(90%)))
  )
  place(right,
    dx: -rightm.far - rightm.width - rightm.sep,
    rect(width: 10pt, height: 100%,
      stroke: (right: luma(90%)))
  )
})
```

● Also, please don't `.update()` the `marginalia._config` directly, this can easily break the notes.

○ Not that you should copy them, they're mostly here to showcase the columns and help me verify that everything gets placed in the right spot.

6 Thanks

Many thanks go to Nathan Jessurun for their drafting package, which has served as a starting point and was very helpful in figuring out how to position margin-notes.

The wideblock functionality was inspired by the one provided in the tufte-memo template.

Also shout-out to tidy, which was used to produce the appendix.

A Detailed Documentation of all Exported Symbols

A.1 as-note


Format a counter like the note icons. Default numbering for notes.

Mostly internal.

```
notecounter.display(as-note)
```



```
let i = 1
while i < 12 {
  [ #as-note(i) ]
  i = i + 1
}
```



Parameters

`as-note(..counter: int) -> content`

A.2 configure

This will update the marginalia config with the provided config options.

The default values for the margins have been chosen such that they match the default typst margins for a4. It is strongly recommended to change at least one of either inner or outer to be wide enough to actually contain text.

Parameters

```
configure(
  inner: dictionary,
  outer: dictionary,
  top: length,
  bottom: length,
  book: boolean,
  clearance: length,
  flush-numbers: boolean,
  numbering: str function
)
```

inner dictionary

Inside/left margins.

- far: Distance between edge of page and margin (note) column.
- width: Width of the margin column.
- sep: Distance between margin column and main text column.

The page inside/left margin should equal far + width + sep.

If partial dictionary is given, it will be filled up with defaults.

Default: (far: 5mm, width: 15mm, sep: 5mm)

outer	dictionary
Outside/right margins. Analogous to inner.	
Default: (far: 5mm, width: 15mm, sep: 5mm)	
top	length
Top margin.	
Default: 2.5cm	
bottom	length
Bottom margin.	
Default: 2.5cm	
book	boolean
If true, will use inside/outside margins, alternating on each page. If false, will use left/right margins with all pages the same.	
Default: false	
clearance	length
Minimal vertical distance between notes and to wide blocks.	
Default: 8pt	
flush-numbers	boolean
Disallow note icons hanging into the whitespace.	
Default: false	
numbering	str or function
Function or numbering-string to generate the note markers from the notecounter.	
Default: as-note	

A.3 get-left

Returns a dictionary with the keys far, width, sep containing the respective widths of the left margin on the current page. (On both even and odd pages.)

Mostly internal.

Requires context.

Parameters

```
get-left() -> dictionary
```

A.4 get-right

Returns a dictionary with the keys far, width, sep containing the respective widths of the right margin on the current page. (On both even and odd pages.)

Mostly internal.

Requires context.

Parameters

```
get-right() -> dictionary
```

A.5 note

Create a marginnote. Will adjust it's position downwards to avoid previously placed notes, and upwards to avoid extending past the bottom margin.

Parameters

```
note(
  numbered: boolean,
  reverse: boolean,
  dy: length,
  body: content
)
```

numbered `boolean`

Whether to put a mark.

Default: `true`

reverse `boolean`

Whether to put it in the opposite (inner/left) margin.

Default: `false`

dy `length`

Vertical offset of the note.

Default: `0pt`

A.6 notefigure

Creates a figure in the margin.

Parameters

```
notefigure(  
  content: content,  
  reverse: boolean,  
  dy: relative length,  
  numbered: boolean,  
  label: none label,  
  gap: length,  
  caption: none content,  
  kind: auto str function,  
  supplement: none auto content function,  
  numbering: none str function,  
  outlined: boolean  
) -> content
```

reverse boolean

Put the notefigure in the opposite margin.

Default: **false**

dy relative length

How much to shift the note. **100%** corresponds to the height of content + gap.

Default: **0pt - 100%**

numbered boolean

Whether to put a mark.

Default: **false**

label none or label

A label to attach to the figure.

Default: **none**

gap length

Pass-through to `#figure()`, but used to adjust the vertical position.

Default: **0.55em**

caption	<code>none</code> or <code>content</code>
The caption. Pass-through to <code>#figure()</code> .	
Default: <code>none</code>	
kind	<code>auto</code> or <code>str</code> or <code>function</code>
Pass-through to <code>#figure()</code> .	
Default: <code>auto</code>	
supplement	<code>none</code> or <code>auto</code> or <code>content</code> or <code>function</code>
Pass-through to <code>#figure()</code> .	
Default: <code>none</code>	
numbering	<code>none</code> or <code>str</code> or <code>function</code>
Pass-through to <code>#figure()</code> .	
Default: <code>"1"</code>	
outlined	<code>boolean</code>
Pass-through to <code>#figure()</code> .	
Default: <code>true</code>	

A.7 page-setup

This will generate a dictionary (`margin: ..`) compatible with the passed config. This can then be spread into the page setup like so:

```
#set page( ..page-setup(..config) )
```

Takes the same options as `configure()`.

Parameters

<code>page-setup(..config: dictionary) -> dictionary</code>	
..<code>config</code> <code>dictionary</code>	
Missing entries are filled with package defaults. Note: missing entries are <i>not</i> taken from the current marginalia config, as this would require context.	

A.8 wideblock

Creates a block that extends into the outside/right margin.

Note: This does not handle page-breaks sensibly. If `config.book = false`, this is not a problem, as then the margins on all pages are the same. However, when using alternating page margins, a multi-page wideblock will not work properly. To be able to set this appendix in a many-page wideblock, this code was used:

```
#configure(..config, book: false)
#set page(..page-setup(..config, book: false))
#wideblock(reverse: true)[...]
```

Parameters

```
wideblock(
  reverse: boolean,
  double: boolean,
  body: content
) -> content
```

reverse `boolean`

Whether to extend into the inside/left margin instead.

Default: `false`

double `boolean`

Whether to extend into both margins. Cannot be combined with reverse.

Default: `false`

A.9 notecounter `counter`

The counter used for the note icons.

Mostly internal.

It is recommended to reset this counter regularly if the default symbols are used, as after ten notes it will start to number them.

notecounter.update(1)