Marginalia

Write into the margins!

1 Setup

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

```
#import "@preview/marginalia:0.1.0" 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,
    // 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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• 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.

o Reversed.

This note was given 15pt dy.

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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 neccessary.

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

• Wow!

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

4 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:

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

- #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()) [#counter(page).display("1 of 1", both: true) #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(/**/) #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()
```

- 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.
- Also, this is a good place to show that the notes will shift upwards to fit within the page.

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```
let rightm = marginalia.get-right()
  place(
   dx: leftm.far,
   rect(width: leftm.width, height: 100%,
     stroke: (x: luma(90%))))
    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%))))
})
```

5 Thanks

Many thanks go to Nathan Jessurun for their <u>drafting</u> 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 <u>tufte-memo</u> template.

Also shout-out to <u>tidy</u>, which was used to produce the appendix.

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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
                                          ● ○ ♦ ♦ ■ □ ▲ △ ♥ ♡ 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,
  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.

These are not used for any of the Marginalia-functionality, they are only used when passed to page-setup().

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

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.)

Requires context.

Parameters

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

Mostly internal.

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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.)

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

```
boolean
reverse
```

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

Default: false

length dy

Vertical offset of the note.

Default: Opt

A.6 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 <u>configure()</u>.

Mostly internal.

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Parameters

```
..config dictionary
..config dictionary
Missing entries are filled with package defaults Note: missing entries are not
```

Missing entries are filled with package defaults. Note: missing entries are *not* taken from the current marginalia config, as this would require context.

A.7 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.8 notecounter counter

The counter used for the note icons.

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)

Mostly internal.