Margin Notes

Setup

Unfortunately `typst` doesn't expose margins to calling functions, so you'll need to set them explicitly. This is done using `set-page-properties` **before you place any content**:

```
// At the top of your source file
// Of course, you can substitute any margin numbers you prefer
// provided the page margins match what you pass to `set-page-properties`
#import "../drafting.typ": *
#let (l-margin, r-margin) = (1in, 2in)
#set page(
  margin: (left: l-margin, right: r-margin, rest: 0.1in),
  paper: "us-letter",
)
#set-page-properties(margin-left: l-margin, margin-right: r-margin)
```

The basics

```
#lorem(20)
#margin-note(side: left)[Hello, world!]
#lorem(10)
#margin-note[Hello from the other side]

#lorem(25)
#margin-note[When notes are about to overlap, they're automatically shifted]
#margin-note(stroke: aqua + 3pt)[To avoid collision]
#lorem(25)

#let caution-rect = rect.with(inset: 1em, radius: 0.5em, fill: orange.lighten(80%))
#inline-note(rect: caution-rect)[
  Be aware that notes will stop automatically avoiding collisions if 4 or more notes
  overlap. This is because `typst` warns when the layout doesn't resolve after 5 attempts
  (initial layout + adjustment for each note)
]
```

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Hello, world!

Hello from the other side

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When notes are about to overlap, they're automatically shifted

To avoid collision

Be aware that notes will stop automatically avoiding collisions if 4 or more notes overlap. This is because `typst` warns when the layout doesn't resolve after 5 attempts (initial layout + adjustment for each note)

Adjusting the default style

All function defaults are customizable through updating the module state:

```
#lorem(4) #margin-note(dy: -2em)[Default style]
#set-margin-note-defaults(stroke: orange, side: left)
#lorem(4) #margin-note[Updated style]
```

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Default style

Updated style

Even deeper customization is possible by overriding the default `rect`:

```
#import "@preview/colorful-boxes:1.1.0": stickybox

#let default-rect(stroke: none, fill: none, width: 0pt, content) = {
  stickybox(rotation: 30deg, width: width/1.5, content)
}
#set-margin-note-defaults(rect: default-rect, stroke: none, side: right)

#lorem(20)
#margin-note(dy: -25pt)[Why not use sticky notes in the margin?]

// Undo changes from this example
#set-margin-note-defaults(rect: rect, stroke: red)
```

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Why not use sticky notes in the margin?

Multiple document reviewers

```
#let reviewer-a = margin-note.with(stroke: blue)
#let reviewer-b = margin-note.with(stroke: purple)
#lorem(20)
#reviewer-a[Comment from reviewer A]
#lorem(15)
#reviewer-b(side: left)[Comment from reviewer B]
```

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Comment from reviewer A

Comment from reviewer B

Inline Notes

```
#lorem(10)
#inline-note[The default inline note will split the paragraph at its location]
#lorem(10)
#inline-note(par-break: false, stroke: (paint: orange, dash: "dashed"))[
  But you can specify `par-break: false` to prevent this
]
#lorem(10)
```

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The default inline note will split the paragraph at its location

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Hiding notes for print preview

```
#set-margin-note-defaults(hidden: true)

#lorem(20)
#margin-note[This will respect the global "hidden" state]
#margin-note(hidden: false, dy: -2.5em)[This note will never be hidden]
// Undo these changes
#set-margin-note-defaults(hidden: false)
```

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This note will never be hidden

Positioning

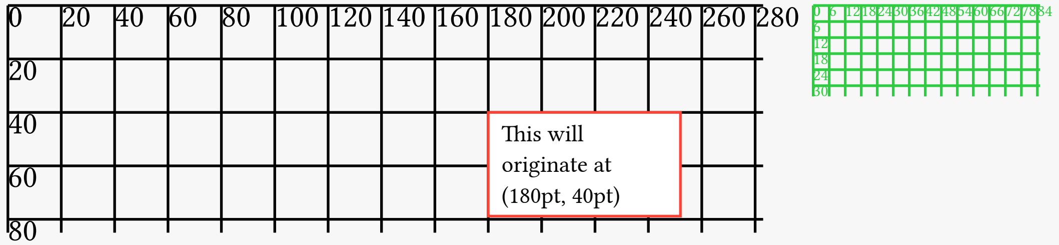
Precise placement: rule grid

Need to measure space for fine-tuned positioning? You can use `rule-grid` to cross-hatch the page with rule lines:

```
#rule-grid(width: 10cm, height: 3cm, spacing: 20pt)
#place(
  dx: 180pt,
  dy: 40pt,
  rect(fill: white, stroke: red, width: 1in, "This will originate at (180pt, 40pt)")
)

// Optionally specify divisions of the smallest dimension to automatically calculate
// spacing
#rule-grid(dx: 10cm + 3em, width: 3cm, height: 1.2cm, divisions: 5, square: true,  stroke: green)

// The rule grid doesn't take up space, so add it explicitly
#v(3cm + 1em)
```



Absolute positioning

What about absolutely positioning something regardless of margin and relative location? `absolute-place` is your friend. You can put content anywhere:

```
#locate(loc => {
  let (dx, dy) = (25%, loc.position().y)
  let content-str = (
    "This absolutely-placed box will originate at (" + repr(dx) + ", " + repr(dy) + ")"
    + " in page coordinates"
  )
  absolute-place(
    dx: dx, dy: dy,
    rect(
      fill: green.lighten(60%),
      radius: 0.5em,
      width: 2.5in,
      height: 0.5in,
      [#align(center + horizon, content-str)]
    )
  )
})
#v(0.5in)
```

This absolutely-placed box will originate at (25%, 643.16pt) in page coordinates

The “rule-grid” also supports absolute placement at the top-left of the page by passing `relative: false`. This is helpful for “rule”-ing the whole page.