Guide: Miniframes Navigation

1 Function documentation

The `render-miniframes` function generates a navigation bar showing the progress through sections and subsections using “miniframes” (dots or squares).

1.1 Parameters Reference

Option	Type	Effect & Expected Values
`structure`	array	**Mandatory**. The presentation structure typically obtained via `get-structure()`.
`current-slide-num`	int	**Mandatory**. The index of the active slide typically obtained via `get-current-logical-slide-number()`.
`style`	string	Layout mode: `"compact"` (all dots on one line) or `"grid"` (one line per subsection/subsubsection). Default: `"grid"`.
`marker-shape`	string	`"circle"` (default) or `"square"`.
`marker-size`	length	Diameter/width of the markers. Default: `4pt`.
`active-color`	color	Color of the current slide’s marker. Default: `white`.
`inactive-color`	color	Color of future slides’ markers. Default: `gray`.
`fill`	color	Background color of the navigation bar block. Default: `black`.
`text-color`	color	Color of the section/subsection titles. Default: `white`.
`text-size`	length	Size of the titles. Default: `10pt`.
`font`	string | none	Font family for titles. Uses document default if `none`.
`align-mode`	string	Global horizontal alignment of the block: `"left"`, `"center"`, `"right"`.
`dots-align`	string	Alignment of the dots **within** their section column: `"left"`, `"center"`, `"right"`.
`navigation-pos`	string	Vertical position of dots relative to titles: `"top"` (dots above) or `"bottom"` (dots below). Default: `"bottom"`.
`show-level1-titles`	bool	Whether to display the names of sections.
`show-level2-titles`	bool	In grid mode, whether to display subsection names.
`show-numbering`	bool	Whether to display heading numbers. Default: `false`.
`numbering-format`	string	Typst numbering format string (e.g., `"1.1"`). Default: `"1.1"`.
`gap`	length	Horizontal space between sections. Default: `1.5em`.
`line-spacing`	length	Vertical space between titles and dots. Default: `4pt`.
`inset`	dict | length	Internal padding of the bar block. Default: `(x: 1em, y: 0.5em)`.

Option	Type	Effect & Expected Values
`radius`	length | dict	Corner rounding of the background block. Can be a single length for all corners, or a dictionary (e.g., `(top: 5pt)`) for specific corners. Default: `0pt`.
`width`	length	Total width of the block. Default: `100%`.
`outset-x`	length	Horizontal bleed. Useful to make the bar touch page edges.

1.2 Structure Extraction

To work, the navigation bar needs to know the presentation structure. Two functions are provided to extract this data from metadata markers.

1.2.1 `get-structure`

`get-structure(slide-selector: auto, filter-selector: none)`

Scans the document for headings and slide markers. Returns a structure dictionary.

1.2.2 `get-current-logical-slide-number`

`get-current-logical-slide-number(slide-selector: auto, filter-selector: none)`

Determines the index of the current slide relative to the extracted structure.

1.2.3 Selection Parameters

Option	Type	Description
`slide-selector`	selector | auto	The metadata type used to identify slides. Default is `(t: "LogicalSlide")`. Useful for custom engines (e.g., Polylux).
`filter-selector`	selector | none	If provided, only pages containing this selector will be counted. Useful to exclude transition slides that might share the same slide metadata.

1.3 Function Signature

`render-miniframes(structure, current-slide-num, ...)`

1.3.1 The `structure` object

The `structure` argument is an array of section dictionaries. Each section has the following schema:

- **Section**: `(title: content, loc: location, subsections: array)`
- **Subsection**: `(title: content, loc: location, slides: array)` OR `(title: content, loc: location, subsections: array)` (if 3 levels are used).
- **Slide**: `(number: integer, loc: location)`

1.3.1.1 What is `loc`?

The `loc` field expects a Typst **location** object.

- **Purpose**: It defines the destination for navigation links. If a valid location is provided, clicking on the section title or the dot will take the user to that specific position in the PDF.
- **Disabling links**: If set to `none`, the element will be displayed normally but will not be clickable. This is used in the mock data of this guide.

1.3.2 The `current-slide-num` argument

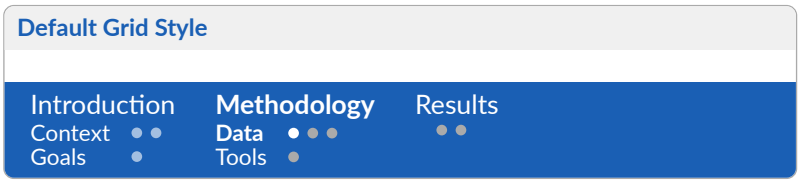
An integer representing the current slide number. The function compares this value with the `number` field of each slide in the structure to determine its state:

- **Active**: `slide.number == current-slide-num`
- **Completed**: `slide.number < current-slide-num`
- **Future**: `slide.number > current-slide-num`

2 Basic usage

By default, the navigation bar uses the `"grid"` style and shows section titles.

```
render-miniframes(structure, 4)
```

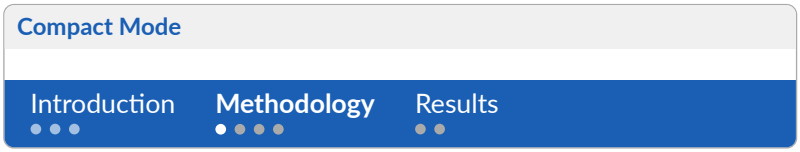


3 Layout Styles

3.1 Compact Mode

In `"compact"` mode, all slide markers of a section are grouped on a single line, regardless of subsections. This is useful for saving space in the header or footer.

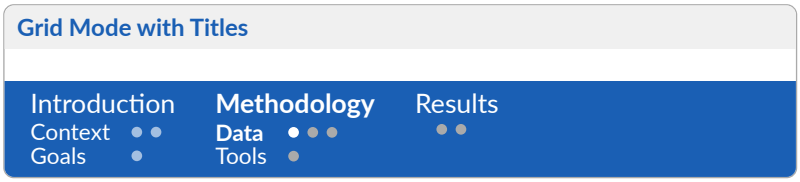
```
render-miniframes(
  structure, 4,
  style: 'compact'
)
```



3.2 Grid Mode

The `"grid"` style is ideal for presentations with many subsections, as it aligns them vertically.

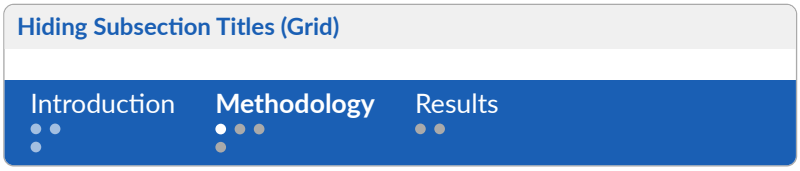
```
render-miniframes(
  structure, 4,
  style: 'grid',
  show-level2-titles: true
)
```



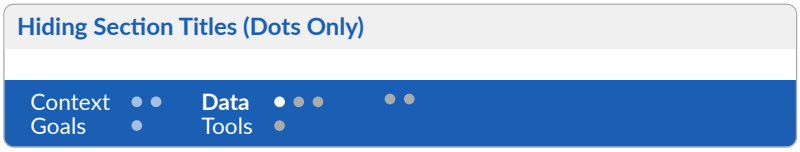
3.3 Hiding Titles

You can hide titles at different levels to obtain a minimalist bar.

```
render-miniframes(
  structure, 4,
  style: 'grid',
  show-level2-titles: false
)
```




```
render-miniframes(
  structure, 4,
  show-level1-titles: false
)
```

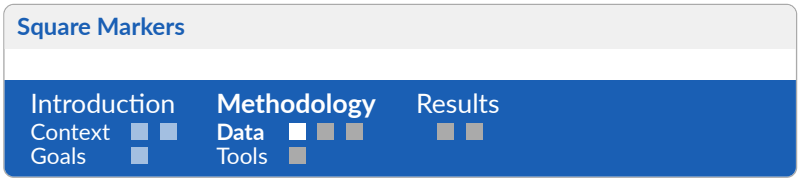


4 Customization

4.1 Markers

Change the shape and size of the progress indicators.

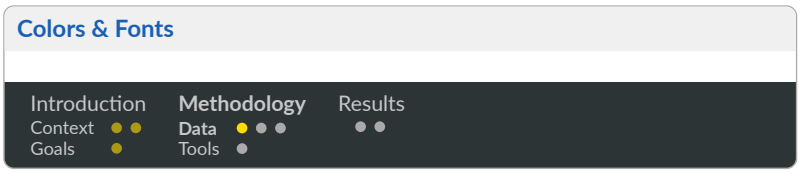
```
render-miniframes(
  structure, 4,
  marker-shape: 'square',
  marker-size: 6pt
)
```



4.2 Colors & Typography

Fine-tune the appearance of markers and labels.

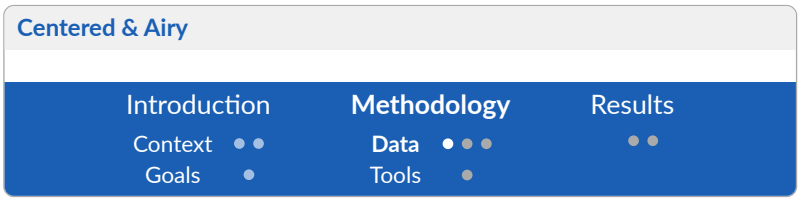
```
render-miniframes(
  structure, 4,
  active-color: yellow,
  inactive-color: gray,
  text-color: luma(200),
  text-size: 8pt,
  fill: rgb('#2d3436')
)
```



4.3 Alignment & Spacing

Control the rhythm and positioning of the navigation elements.

```
render-miniframes(
  structure, 4,
  align-mode: 'center',
  dots-align: 'center',
  gap: 3em,
  line-spacing: 8pt
)
```



4.4 Advanced Layout

Use `inset` and `width` to integrate the bar into specific layout zones.

```
render-miniframes(
  structure, 4,
  width: 60%,
  align-mode: 'center',
  inset: 15pt,
  show-level1-titles: false
)
```


```
render-miniframes(
  structure, 4,
  radius: 10pt,
  fill: rgb('#34495e'),
  inset: (x: 2em, y: 1em)
)
```