

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 <code>get-structure()</code> .
current-slide-num	int	Mandatory. The index of the active slide typically obtained via <code>get-current-logical-slide-number()</code> .
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)
```

Default Grid Style

	Introduction	Methodology	Results
Context	• •	Data	• • •
Goals	•	Tools	•

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'  
)
```

Compact Mode

	Introduction	Methodology	Results
	• • •	• • •	• •

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  
)
```

Grid Mode with Titles

	Introduction	Methodology	Results
Context	• •	Data	• • •
Goals	•	Tools	•

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  
)
```

Hiding Subsection Titles (Grid)

	Introduction	Methodology	Results
	• •	• •	• •

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

Hiding Section Titles (Dots Only)

Context	• •	Data	• • •	• •
Goals	•	Tools	•	

4 Customization

4.1 Markers

Change the shape and size of the progress indicators.

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

Square Markers

Introduction **Methodology** **Results**
Context Data ■ ■
Goals Tools ■

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')  
)
```

Colors & Fonts

```
graph LR; A[Introduction] --> B[Methodology]; B --> C[Results]; B --> D[Data]; B --> E[Tools]; D --> C; E --> C;
```

Introduction → Methodology → Results

Methodology

Context ● ●

Goals ●

Data ● ●

Tools ●

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  
)
```

Centered & Airy

```
graph LR; A[Introduction] --- B[Context]; A --- C[Goals]; D[Methodology] --- E[Data]; D --- F[Tools]; G[Results] --- H["••"]
```

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  
)
```

Compact Centered Bar

Context ● ● Data ● ● ● ● ●

Goals ● Tools ●

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

Rounded Corners

Introduction	Methodology	Results
Context	• •	• •
Goals	•	•