

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

Introduction	Methodology	Results
Context	Data	
Goals	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

Introduction	Methodology	Results
Context	Data	
Goals	Tools	

## 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	Results
Goals	Tools	

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

#### Rounded Corners

Introduction	Methodology	Results
Context	Data	
Goals	Tools	