

# 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.
max-length	int   dict	Maximum length of titles before truncation. Ex: 10 or (level-1: 8, level-2: 15). Defaults to none.
use-short-title	bool   dict	If true, uses short titles defined via #metadata("...") <short> (must be collected via get-structure(all-shorts: ...)). Default: false.

## 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.

## 2 Short Titles & Truncation

Like progressive-outline, Miniframes supports short titles and truncation. This is crucial for navigation bars which have limited horizontal space.

### 2.1 Collecting Short Titles

You must pass the short titles to the structure extractor.

```
#let struct = get-structure(
  all-shorts: query(<short>)
)
```

### 2.2 Truncation & Short Titles

Then, configure the rendering. By default, use-short-title is false.

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

#### 1. Original Titles (Default)

1. General	2. Scientific	3. Preliminary
Introduction to the Project	Methodology and Data Collection	Results
1.1 Background	2.1 Raw Data	
Context	2.2 Analysis	
1.2 Objectives and Goals	Tools	

```
render-miniframes(
  structure, 4,
  max-length: 12
)
```

#### 2. Automatic Truncation

General Intr...	Scientific M...	Preliminary ...
1.1 Backgrou...	2.1 Raw Data	
1.2 Objectiv...	2.2 Analysis...	

```
render-miniframes(
  structure, 4,
  use-short-title: true
)
```

#### 3. Manual Short Titles

1. Intro	2. Methods	3. Results
1.1 Context	2.1 Raw Data	
1.2 Goals	2.2 Tools	

```
render-miniframes(
  structure, 4,
  use-short-title: true,
  max-length: 8
)
```

#### 4. Combined: Short Titles + Truncation

Intro	Methods	Results
1.1 Cont...	2.1 Raw ...	
1.2 Goal...	2.2 Tool...	

## 2.3 Function Signature

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

### 2.3.1 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)

#### 2.3.1.1 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.

### 2.3.2 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`

### 3 Basic usage

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

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

#### Default Grid Style

1. General Introduction to the Project 1.1 Background Context 1.2 Objectives and Goals	2. Scientific Methodology and Data Collection 2.1 Raw Data 2.2 Analysis Tools	3. Preliminary Results
• •	• • •	• •
•	•	

## 4 Layout Styles

### 4.1 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

1. General Introduction to the Project	2. Scientific Methodology and Data Collection	3. Preliminary Results
• • •	• • • •	• •

### 4.2 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

1. General Introduction to the Project 1.1 Background Context 1.2 Objectives and Goals	2. Scientific Methodology and Data Collection 2.1 Raw Data 2.2 Analysis Tools	3. Preliminary Results
• •	• • •	• •
•	•	

### 4.3 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)

1. General Introduction to the Project	2. Scientific Methodology and Data Collection	3. Preliminary Results
• •	• • •	• •
•	•	

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

#### Hiding Section Titles (Dots Only)

1.1 Background Context
1.2 Objectives and Goals

• •
•

2.1 Raw Data
2.2 Analysis Tools

• • • •
•

## 5 Customization

### 5.1 Markers

Change the shape and size of the progress indicators.

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

#### Square Markers

1. General  
Introduction to  
the Project  
1.1  
Background Context  
1.2 Objectives  
and Goals

2. Scientific  
Methodology  
and Data  
Collection  
2.1 Raw  
Data  
2.2 Analysis  
Tools

3. Preliminary  
Results

### 5.2 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

1. General Introduction  
to the Project  
1.1 Background  
Context  
1.2 Objectives and  
Goals

2. Scientific  
Methodology and  
Data Collection  
2.1 Raw Data  
2.2 Analysis Tools

3. Preliminary Results

### 5.3 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

1. General  
Introduction  
to the  
Project  
1.1  
Background Context  
1.2  
Objectives  
and Goals

2. Scientific  
Methodology  
and Data  
Collection  
2.1 Raw  
Data  
2.2 Analysis  
Tools

3. Preliminary  
Results

### 5.4 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



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

Rounded Corners

