

Guide: Transition Engine

1 Introduction

The render-transition function is designed to automatically generate “roadmap” or “summary” slides when the document structure changes (e.g., entering a new section).

Previously, it required many manual parameters. Now, it is designed to be **configured globally** via navigator-config, allowing a clean one-line integration in your document.

2 Global Configuration

Instead of passing parameters to every render-transition call, you can set them once at the beginning of your document:

```
#import "@preview/navigator:0.2.0": navigator-config, render-transition
```

```
#navigator-config.update(c => {  
  c.mapping = (section: 1, subsection: 2)  
  c.slide-func = my-presentation-engine.slide  
  c.theme-colors = (primary: navy, accent: orange)  
  c  
})
```

```
// Now you can use a simple one-liner:
```

```
#show heading: render-transition
```

3 Function documentation

render-transition(h, transitions: (:), mapping: (:), ...)

3.1 Parameters Reference

Most parameters default to auto, which means they will be resolved from the global navigator-config state.

Option	Type	Description
h	heading	Mandatory. The heading object intercepted by the show rule.
slide-func	function auto	A callback (fill: color, body: content) => content used to create the slide. If auto, uses global config.
transitions	dict	Detailed configuration for the transition engine. Merged with global config transitions.
mapping	dict	Maps heading levels to roles. Example: (section: 1, subsection: 2). Defaults to global config.
theme-colors	dict auto	Dictionary containing primary and accent colors. Defaults to global config.
show-heading-numbering	bool auto	Whether to display heading numbers in the roadmap. Defaults to global config.
numbering-format	string auto	Typst numbering format string. Defaults to global config.
base-text-size	length auto	Base font size for the roadmap text. Default: auto.
base-text-font	string auto	Font family for the roadmap text. Default: auto.

Option	Type	Description
top-padding	relative length	Vertical spacing added above the roadmap on the transition slide. Default: 40%.
content-padding	length dict	Padding around the roadmap content. Default: (x: 10%).
content-align	alignment	Alignment of the roadmap content. Default: top + left.
content-wrapper	function	A callback (roadmap, heading, active-state) => content to completely override the layout logic.
max-length	int dict auto	Maximum length of titles before truncation. If auto, uses global configuration. Default: auto.
use-short-title	bool dict auto	Whether to use short titles. If auto, uses global configuration. Default: auto.

3.2 The transitions dictionary

This parameter allows fine-tuning the behavior and appearance of transition slides.

Key	Type	Description
enabled	bool	Global switch for transitions. Default: true.
max-level	int	The maximum heading level that triggers a transition. Default: 3.
background	color string	Background type: "theme" (uses primary color), "none", or an explicit color.
filter	function	A callback (heading) => bool to programmatically enable/disable transitions for specific headings.
style	dict	Controls typography: inactive-opacity (default 0.3), completed-opacity (default 0.6), active-weight (default "bold").
sections	dict	Override for section-level transitions. Contains enabled, visibility (dict), and background.
subsections	dict	Override for subsection-level transitions. Contains enabled, visibility (dict), and background.

3.2.1 Visibility Logic

For each transition role (parts, sections, subsections), you can define which hierarchy levels are visible using the **visibility** key:

- "all": Show all headings at this level.
- "current": Only show the active heading at this level.
- "current-parent": Show siblings of the active heading.
- "none": Hide this level.

4 Basic usage

4.1 Explicit mode (Legacy/Direct)

You can still pass all parameters manually if you prefer total isolation for specific headings.

```
render-transition(
  h,
  mapping: (section: 1, subsection: 2),
  theme-colors: (primary: navy),
  slide-func: my-slide-func,
)
```

Direct Parameter Passing

2 Global Configuration

4.2 Minimalist mode (Recommended)

By using `navigator-config.update(...)`, your show rule becomes extremely clean:

`#show heading: render-transition`

This is the recommended way to use Navigator in modern presentations.

5 Layout & Positioning Control

5.1 Padding and Alignment

Use `content-padding` and `content-align` to place the roadmap exactly where you want it.

```
render-transition(
  h,
  top-padding: 0pt,
  content-align: center + horizon,
  content-padding: 0pt,
  slide-func: my-slide-func,
)
```

Centered Roadmap

1 Introduction

5.2 The Wrapper Mode (Total Control)

The `content-wrapper` parameter offers complete freedom over the slide layout. It allows you to place the roadmap alongside other elements (images, titles, decorations) or to wrap it in complex layouts.

The callback function receives three arguments:

1. `roadmap`: The progressive outline component generated by Navigator.
2. `heading`: The specific heading object that triggered this transition.
3. `active-state`: A dictionary `{ h1, h2, h3 }` containing the active hierarchy (useful to retrieve the parent Part title when entering a Section).

5.2.1 Example 1: Split Layout (Title + Roadmap)

In this example, we place the current section title on the left and the roadmap on the right. We also disable the section display in the roadmap to avoid repetition.

```
content-wrapper: (roadmap, h, active) => {
  grid(
    columns: (1fr, 1.5fr),
    align(center + horizon,
      text(size: 1.5em, weight: 'bold',
        format-heading(h))
    ),
    align(left + horizon, roadmap)
  )
},
transitions: (
  sections: (visibility: (section: 'none',
    subsection: 'all'))
)
```

Split Layout

2 Global Configuration

3.1 Parameters Reference
3.2 The transitions dictionary

5.2.2 Example 2: Contextual Header

Use active-state to display the parent heading (e.g., the Part) above the roadmap.

```
content-wrapper: (roadmap, h, active) => {
  set align(left + top)
  if active.h1 != none {
    text(size: 0.8em, fill:
      white.transparentize(40%),
    smallcaps(active.h1.body))
    v(0.5em)
  }
  roadmap
}
```

Contextual Info

Function documentation

3 Function documentation

3.1 Parameters Reference

3.2 The transitions dictionary

5.2.3 Example 3: Branding (Logo + Roadmap)

You can easily integrate graphical elements.

```
content-wrapper: (roadmap, h, active) => {
  stack(dir: ltr, spacing: 2em,
    align(horizon, image('logo.png')),
    align(horizon, roadmap)
  )
}
```

Branding

1 Introduction

6 Advanced Customization

6.1 Selective visibility

You can configure different roadmap layouts for sections and subsections.

```
transitions: (  
  subsections: (  
    visibility: (  
      section: 'current',  
      subsection: 'current-parent'  
    )  
  )  
)
```

Subsection roadmap

3 Function documentation
3.1 Parameters Reference
3.2 The `transitions` dictionary

7 Short Titles & Truncation

`render-transition` inherits the short title and truncation capabilities of `progressive-outline`. This is especially useful for roadmap slides where titles can be very long.

```
render-transition(  
  h,  
  use-short-title: true,  
  max-length: 15,  
  slide-func: my-slide-func,  
)
```

Short Titles & Truncation

2 Global Configur...