

# Guide: Progressive Outline

## 1 Function documentation

This section details all the parameters available for the progressive-outline function.

Option	Type	Effect & Expected Values
level-X-mode	string	Defines the visibility of level X (1, 2, or 3). Values: "all", "current", "current-parent", "none".
layout	string	Switch between "vertical" (default) and "horizontal" rendering.
separator	content   str	Separator displayed between items in horizontal layout. Ignored in vertical mode.
text-styles	dict	Styles passed to #text (fill, weight, etc.). You can also use a float (e.g., 0.5) as a shortcut to inherit the active style with that opacity.
spacing	dict	Controls vertical space (v-between-X-Y), horizontal indentation (indent-X) and horizontal gap (h-spacing).
show-numbering	bool	Enables or disables the display of heading numbering.
numbering-format	str   func   auto	Typst numbering format (e.g., "1.1") or custom function. If auto, respects global heading settings. Default: auto.
match-page-only	bool	If true, considers a heading active if it is on the same page, regardless of its Y position. Useful for sidebars.
filter	func	A callback function (heading) => bool to programmatically include or exclude headings.
marker	content   dict   func	Content displayed before the item. Can be static, a dict by state, or a function (state, level) => content.
clickable	bool	Enables clickable links on headings. Defaults to true.

## 2 Layout Modes

progressive-outline supports two main layout modes: "vertical" (the default, based on a grid) and "horizontal" (based on a stack).

### 2.1 Vertical Layout

This is the default mode, optimized for sidebars and roadmap slides. It supports complex indentation and vertical spacing between different levels.

### 2.2 Horizontal Layout

The horizontal mode is ideal for headers, footers, and breadcrumbs. Elements are placed side-by-side and can be separated by custom content.

```
progressive-outline(  
  layout: 'horizontal',  
  level-1-mode: 'current',  
  level-2-mode: 'current',  
  separator: ' > ',  
  show-numbering: true  
)
```

## Horizontal Breadcrumb

2 Layout Modes > 2.2 Horizontal Layout

```
progressive-outline(  
  layout: 'horizontal',  
  level-1-mode: 'all',  
  level-2-mode: 'none',  
  separator: [ | ],  
  spacing: (h-spacing: 1em)  
)
```

## Horizontal Navigation Bar

Function documentation | Layout Modes | Navigation & Interactivity

## 3 Navigation & Interactivity

By default, the outline is interactive: clicking on a section title navigates directly to the corresponding slide in the PDF.

```
progressive-outline()
```

### Non-clickable Outline

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

Style Customization

Customizable Markers

The anti-jitter mechanism

Fine-grained spacing management

Numbering system

Filtering Content

Advanced Behavior

Additional information

In some print-focused or strict layout scenarios, you might want to disable this interactivity.

```
progressive-outline(  
  clickable: false  
)
```

## Non-clickable Outline

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

Style Customization

Customizable Markers

The anti-jitter mechanism

Fine-grained spacing management

Numbering system

Filtering Content

Advanced Behavior

Additional information

## 4 Visibility

This section covers the level-X-mode parameters.

### 4.1 The 'current-parent' mode

The current-parent mode is the most powerful: it only displays the “siblings” of the current element. This allows you to see the plan of the current section without being distracted by other chapters.

```
progressive-outline(  
  level-1-mode: 'all',  
  level-2-mode: 'current-parent'  
)
```

## Visibility Demonstration H2

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

- The 'current-parent' mode

- Isolation via 'current' mode

- Deep nesting (Level 3)

Style Customization

Customizable Markers

The anti-jitter mechanism

Fine-grained spacing management

Numbering system

Filtering Content

Advanced Behavior

Additional information

### 4.2 Isolation via 'current' mode

If you want an ultra-minimalist rendering, the current mode hides everything except the exact entry where you are located.

```
progressive-outline(  
  level-1-mode: 'current',  
  level-2-mode: 'none'  
)
```

## Isolated Visibility Demonstration

### Visibility

## 4.3 Deep nesting (Level 3)

For complex structures, you can enable Level 3. Using current-parent will show siblings at the current depth.

### 4.3.1 Deep Component A

### 4.3.2 Deep navigation test

```
progressive-outline(  
  level-2-mode: 'all',  
  level-3-mode: 'current-parent'  
)
```

## Level 3 Siblings

### Function documentation

#### Layout Modes

- Vertical Layout
- Horizontal Layout

#### Navigation & Interactivity

#### Visibility

- The 'current-parent' mode
- Isolation via 'current' mode

#### Deep nesting (Level 3)

- Deep Component A

#### Deep navigation test

#### Style Customization

- The 3-state system
- Advanced Opacity & Inheritance

#### Customizable Markers

- Static Marker
- State-based Markers (Dictionary)
- Dynamic Markers (Function)
- Marker Alignment

#### The anti-jitter mechanism

- Colors and decorations

#### Fine-grained spacing management

- Inter-level spacing
- Horizontal indentation

#### Numbering system

- Complex hierarchical formats
- Advanced textual prefixes

#### Filtering Content

- Label-based filtering
- Logic-based filtering
- Recursive filtering

#### Advanced Behavior

- Page-based matching

#### Additional information

## 5 Style Customization

The function allows you to modify the appearance of headings based on their state (**completed**, **active**, or **inactive**).

## 5.1 The 3-state system

By default, headings can be in one of three states:

- **completed:** The heading has already been passed.
- **active:** This is the current heading.
- **inactive:** The heading is yet to come.

```
text-styles: (  
  level-1: (  
    active: (fill: eastern, weight:  
'bold'),  
    completed: (fill: gray.lighten(50%)),  
    inactive: (fill: black)  
  )  
)
```

### Past, Present, Future

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

### Style Customization

Customizable Markers

The anti-jitter mechanism

Fine-grained spacing management

Numbering system

Filtering Content

Advanced Behavior

Additional information

## 5.2 Advanced Opacity & Inheritance

Instead of redefining the full style for inactive or completed states, you can use smart inheritance to adapt the active style.

### 5.2.1 The Float Shortcut (Clone & Fade)

Pass a number (0.0 to 1.0) to automatically clone the active style and apply transparency. 0.2 means 20% opacity (very faint), 1.0 means fully opaque.

```
text-styles: (  
  level-1: (  
    active: (fill: red, weight: 'black'),  
    inactive: 0.2,    // Future: very faint  
                  (20%)  
    completed: 0.5    // Past: semi-  
                  transparent (50%)  
  )  
)
```

### Auto-Fade Shortcut

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

### Style Customization

Customizable Markers

The anti-jitter mechanism

Fine-grained spacing management

Numbering system

Filtering Content

Advanced Behavior

Additional information

### 5.2.2 Partial Inheritance (Mix & Match)

You can also use a dictionary with an opacity key. This allows you to inherit the active color (faded) while overriding other properties (like weight).

```

text-styles: (
  level-1: (
    active: (fill: blue, weight: 'black'),
    inactive: (
      opacity: 0.5,      // 50% of active
      color
      weight: 'regular' // But force
      regular weight
    )
  )
)

```

## Fade + Weight Change

[Function documentation](#)

[Layout Modes](#)

[Navigation & Interactivity](#)

[Visibility](#)

## Style Customization

[Customizable Markers](#)

[The anti-jitter mechanism](#)

[Fine-grained spacing management](#)

[Numbering system](#)

[Filtering Content](#)

[Advanced Behavior](#)

[Additional information](#)

## 6 Customizable Markers

You can add visual indicators (icons, arrows, etc.) before each item using the `marker` parameter.

### 6.1 Static Marker

The simplest usage is to pass a single content element (like a symbol) that will be used for all items.

```

progressive-outline(
  marker: sym.triangle.filled.small
)

```

## Static Symbol

- ▴ [Function documentation](#)
- ▴ [Layout Modes](#)
- ▴ [Navigation & Interactivity](#)
- ▴ [Visibility](#)
- ▴ [Style Customization](#)
- ▴ **Customizable Markers**
- ▴ **The anti-jitter mechanism**
- ▴ **Fine-grained spacing management**
- ▴ **Numbering system**
- ▴ **Filtering Content**
- ▴ **Advanced Behavior**
- ▴ **Additional information**

### 6.2 State-based Markers (Dictionary)

You can define different markers for active, inactive, and completed states using a dictionary.

```
progressive-outline(  
  marker: (  
    active: sym.arrow.r,  
    completed: sym.checkmark,  
    inactive: sym.circle.small  
  )  
)
```

### State Indicators

- ✓ Function documentation
- ✓ Layout Modes
- ✓ Navigation & Interactivity
- ✓ Visibility
- ✓ Style Customization
- Customizable Markers
  - The anti-jitter mechanism
  - Fine-grained spacing management
  - Numbering system
  - Filtering Content
  - Advanced Behavior
  - Additional information

## 6.3 Dynamic Markers (Function)

For total control, pass a function `(state, level) => content`. This allows you to vary markers based on depth level and status.

```

progressive-outline(
  marker: (state, level) => {
    if level == 1 { sym.star.filled }
    else if state ==
'active' { sym.arrow.r }
    else { sym.circle.filled.tiny }
  }
)

```

## Advanced Logic

- ★ **Function documentation**
- ★ **Layout Modes**
  - Vertical Layout
  - Horizontal Layout
- ★ **Navigation & Interactivity**
- ★ **Visibility**
  - The 'current-parent' mode
  - Isolation via 'current' mode
  - Deep nesting (Level 3)
- ★ **Style Customization**
  - The 3-state system
  - Advanced Opacity & Inheritance
- ★ **Customizable Markers**
  - Static Marker
  - State-based Markers (Dictionary)
  - **Dynamic Markers (Function)**
    - Marker Alignment
- ★ **The anti-jitter mechanism**
  - Colors and decorations
- ★ **Fine-grained spacing management**
  - Inter-level spacing
  - Horizontal indentation
- ★ **Numbering system**
  - Complex hierarchical formats
  - Advanced textual prefixes
- ★ **Filtering Content**
  - Label-based filtering
  - Logic-based filtering
  - Recursive filtering
- ★ **Advanced Behavior**
  - Page-based matching
- ★ **Additional information**

## 6.4 Marker Alignment

Use the spacing parameter to fine-tune layout:

- `marker-gap`: Space between marker and text (default 0.5em).
- `marker-width`: Fixed width for the marker container (useful for alignment).



```
progressive-outline(  
  marker: (active: sym.arrow.r),  
  spacing: (  
    marker-gap: 1em,  
    marker-width: 1.5em  
  )  
)
```

## Aligned Markers

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

Style Customization

→ Customizable Markers

The anti-jitter mechanism

Fine-grained spacing management

Numbering system

Filtering Content

Advanced Behavior

Additional information

## 7 The anti-jitter mechanism

Anti-jitter ensures that switching from a thin font to a bold one doesn't move the text. We use a ghost box to reserve the maximum space required.

```
text-styles: (  
  level-1: (  
    active: (weight: 'black', fill:  
eastern, size: 1.2em),  
    inactive: (weight: 'light', fill:  
gray, size: 1.2em)  
  )  
)
```

### Stability Test H1

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

Style Customization

Customizable Markers

**The anti-jitter mechanism**

Fine-grained spacing management

Numbering system

Filtering Content

Advanced Behavior

Additional information

### 7.1 Colors and decorations

Each level can have its own rules for colors, italics, or bold.

```

text-styles: (
  level-2: (
    active: (style: 'italic', fill: blue,
weight: 'bold'),
    inactive: (fill: luma(200))
  )
)

```

## Creative Style H2

### Function documentation

#### Layout Modes

- Vertical Layout
- Horizontal Layout

#### Navigation & Interactivity

#### Visibility

- The 'current-parent' mode
- Isolation via 'current' mode
- Deep nesting (Level 3)

#### Style Customization

- The 3-state system
- Advanced Opacity &

#### Customizable Markers

- Static Marker
- State-based Markers
- Dynamic Markers (Function)
- Marker Alignment

#### The anti-jitter mechanism

*Colors and decorations*

#### Fine-grained spacing management

- Inter-level spacing
- Horizontal indentation

#### Numbering system

- Complex hierarchical formats
- Advanced textual prefixes

#### Filtering Content

- Label-based filtering
- Logic-based filtering
- Recursive filtering

#### Advanced Behavior

- Page-based matching

#### Additional information

## 8 Fine-grained spacing management

The spacing dictionary sculpts the rhythm.

### 8.1 Inter-level spacing

You can define the exact space between an H1 heading and an H2 heading, or between two headings of the same level.

```
spacing: (  
  v-between-1-1: 2em,  
  v-between-1-2: 1.2em,  
  v-between-2-2: 0.8em,  
  v-between-2-1: 1.5em  
)
```

## Airy Vertical Rhythm

### Function documentation

#### Layout Modes

Vertical Layout

Horizontal Layout

#### Navigation & Interactivity

#### Visibility

The 'current-parent' mode

Isolation via 'current' mode

Deep nesting (Level 3)

#### Style Customization

The 3-state system

Advanced Opacity & Inheritance

#### Customizable Markers

Static Marker

State-based Markers (Dictionary)

Dynamic Markers (Function)

Marker Alignment

#### The anti-jitter mechanism

Colors and decorations

#### Fine-grained spacing management

#### Inter-level spacing

Horizontal indentation

#### Numbering system

Complex hierarchical formats

Advanced textual prefixes

#### Filtering Content

Label-based filtering

Logic-based filtering

Recursive filtering

#### Advanced Behavior

Page-based matching

#### Additional information

## 8.2 Horizontal indentation

Indentation defines the offset to the right for each depth level.

```
spacing: (  
  indent-2: 3em,  
  indent-3: 6em  
)
```

## Marked Indentation

### Function documentation

#### Layout Modes

Vertical Layout

Horizontal Layout

#### Navigation & Interactivity

#### Visibility

The 'current-parent' mode

Isolation via 'current' mode

Deep nesting (Level 3)

Deep Component A

Deep navigation test

#### Style Customization

The 3-state system

Advanced Opacity & Inheritance

The Float Shortcut (Clone & Fade)

Partial Inheritance (Mix & Match)

#### Customizable Markers

Static Marker

State-based Markers (Dictionary)

Dynamic Markers (Function)

Marker Alignment

#### The anti-jitter mechanism

Colors and decorations

#### Fine-grained spacing management

Inter-level spacing

#### Horizontal indentation

#### Numbering system

Complex hierarchical formats

Advanced textual prefixes

#### Filtering Content

Label-based filtering

Logic-based filtering

Recursive filtering

#### Advanced Behavior

Page-based matching

#### Additional information

## 9 Numbering system

The function relies on Typst's native engine.

### 9.1 Complex hierarchical formats

The numbering-format parameter accepts all standard Typst models (1, a, i, I, A).

```
show-numbering: true,  
numbering-format: 'I.a.1. '
```

## Legal Format

### I. Function documentation

### II. Layout Modes

- II.a. Vertical Layout
- II.b. Horizontal Layout

### III. Navigation & Interactivity

### IV. Visibility

- IV.a. The 'current-parent' mode
- IV.b. Isolation via 'current' mode
- IV.c. Deep nesting (Level 3)
  - IV.c.1. Deep Component A
  - IV.c.2. Deep navigation test

### V. Style Customization

- V.a. The 3-state system
- V.b. Advanced Opacity & Inheritance
  - V.b.1. The Float Shortcut (Clone & Fade)
  - V.b.2. Partial Inheritance (Mix & Match)

### VI. Customizable Markers

- VI.a. Static Marker
- VI.b. State-based Markers (Dictionary)
- VI.c. Dynamic Markers (Function)
- VI.d. Marker Alignment

### VII. The anti-jitter mechanism

- VII.a. Colors and decorations

### VIII. Fine-grained spacing management

- VIII.a. Inter-level spacing
- VIII.b. Horizontal indentation

### IX. Numbering system

- IX.a. Complex hierarchical formats
- IX.b. Advanced textual prefixes

### X. Filtering Content

- X.a. Label-based filtering
- X.b. Logic-based filtering
- X.c. Recursive filtering

### XI. Advanced Behavior

- XI.a. Page-based matching

### XII. Additional information

## 9.2 Advanced textual prefixes

To use long words like "Chapter" without errors, pass a function. This prevents Typst from interpreting letters like 'a' or 'i' as numbering models.

```
show-numbering: true,  
numbering-format: (..n) => 'Chapter ' +  
numbering('1', ..n) + ' : '
```

### Secure 'Chapter' Prefix

Chapter 1 : Function documentation

Chapter 2 : Layout Modes

Chapter 3 : Navigation & Interactivity

Chapter 4 : Visibility

Chapter 5 : Style Customization

Chapter 6 : Customizable Markers

Chapter 7 : The anti-jitter mechanism

Chapter 8 : Fine-grained spacing management

Chapter 9 : Numbering system

Chapter 10 : Filtering Content

Chapter 11 : Advanced Behavior

Chapter 12 : Additional information

## 10 Filtering Content

The `filter` parameter allows you to programmatically include or exclude headings from the outline. It expects a callback function (`heading`) => `boolean`.

The heading object passed to the filter contains standard properties (`level`, `body`, `label`, `counter`) as well as context properties: `parent-h1` and `parent-h2`.

### 10.1 Label-based filtering

In this document, the current section “Filtering Content” has been tagged with the label `<hidden>`.

```
progressive-outline(level-2-mode: 'none')
```

### Standard Outline (No Filter)

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

Style Customization

Customizable Markers

The anti-jitter mechanism

Fine-grained spacing management

Numbering system

**Filtering Content**

**Advanced Behavior**

**Additional information**

```
progressive-outline(
  level-2-mode: 'none',
  filter: h => h.label != <hidden>
)
```

### Filtered Outline (Label)

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

Style Customization

Customizable Markers

The anti-jitter mechanism

Fine-grained spacing management

Numbering system

**Advanced Behavior**

**Additional information**

## 10.2 Logic-based filtering

You can also filter based on any heading property. Here, we filter the list to **keep only** the section named “Visibility”.

```
progressive-outline(
  level-2-mode: 'none',
  // Keep only the heading named
  'Visibility'
  filter: h => h.body == [Visibility]
)
```

### Filtered Outline (Content)

Visibility

Here, we create a custom rule: show all Level 1 headings, but show Level 2 headings **only** if they belong to the “Visibility” section.

```
progressive-outline(
  level-2-mode: 'all',
  filter: h => h.level == 1 or
    (h.level == 2 and h.parent-h1.body ==
    [Visibility])
)
```

### Conditional Depth

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

The ‘current-parent’ mode

Isolation via ‘current’ mode

Deep nesting (Level 3)

Style Customization

Customizable Markers

The anti-jitter mechanism

Fine-grained spacing management

Numbering system

**Filtering Content**

**Advanced Behavior**

**Additional information**

## 10.3 Recursive filtering

The filtering logic is recursive: if a parent heading (e.g., a Section) is excluded by the filter, all its children (Subsections and Sub-subsections) are automatically hidden as well, even if they would have passed the filter individually.

```
// Hiding a parent automatically hides its children
progressive-outline(
  level-2-mode: 'all',
  filter: h => h.label != <hidden>
)
```

### Recursive Hiding

#### Function documentation

#### Layout Modes

- Vertical Layout
- Horizontal Layout

#### Navigation & Interactivity

#### Visibility

- The 'current-parent' mode
- Isolation via 'current' mode
- Deep nesting (Level 3)

#### Style Customization

- The 3-state system
- Advanced Opacity & Inheritance

#### Customizable Markers

- Static Marker
- State-based Markers (Dictionary)
- Dynamic Markers (Function)
- Marker Alignment

#### The anti-jitter mechanism

- Colors and decorations

#### Fine-grained spacing management

- Inter-level spacing
- Horizontal indentation

#### Numbering system

- Complex hierarchical formats
- Advanced textual prefixes

#### Advanced Behavior

- Page-based matching

#### Additional information

## 11 Advanced Behavior

### 11.1 Page-based matching

In contexts like sidebars, the outline is rendered in the page margin or background before the slide content. This can cause the active heading detection to fail because the content is technically “after” the sidebar in the document flow.

Setting `match-page-only: true` solves this by considering any heading on the current page as “active”, ignoring precise vertical positioning.



match-page-only: true

### Sidebar Logic

Function documentation

Layout Modes

Navigation & Interactivity

Visibility

Style Customization

Customizable Markers

The anti-jitter mechanism

Fine-grained spacing management

Numbering system

Filtering Content

Advanced Behavior

**Additional information**

## 12 Additional information

It is optimized to work within presentation themes (like progressive-outline), but can be used in any standard Typst document.