

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
    )
  )
)
```

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 &

Inheritance

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, l, 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.