

Beamer Feature Showcase

Comprehensive Reference for Automated slides

System Reference

January 11, 2026

This reference covers structure, content, visuals, and animation.

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Structure & Layout

Incremental Reveals

To keep the video engaging, reveal content step-by-step using <+>.

- **Step 1:** Introduce the concept.

Incremental Reveals

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- **Step 1:** Introduce the concept.
- **Step 2:** Expand on details.

Incremental Reveals

To keep the video engaging, reveal content step-by-step using <+>.

- **Step 1:** Introduce the concept.
- **Step 2:** Expand on details.
- **Step 3:** Conclude the point.

Comparing Approaches (Columns)

Use columns to compare side-by-side.

Approach A

```
1 def fib(n):  
2     if n <= 1: return n  
3     return fib(n-1) + fib(n-2)  
4
```

Approach B

```
1 def fib(n):  
2     a, b = 0, 1  
3     for _ in range(n):  
4         a, b = b, a + b  
5     return a  
6
```


Organize information using standard Beamer environment blocks.

Standard Block

This is a normal block for general information.

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Alert Block

Use this for warnings or critical points.

Beamer Blocks

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Examples

This is an example block, useful for case studies.

Rich Content

Beamer handles complex math gracefully.

- Inline Math: $e^{i\pi} + 1 = 0$
- Block Equations with overlays:

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- Inline Math: $e^{i\pi} + 1 = 0$
- Block Equations with overlays:

$$f(x) = x^2 + 2x + 1$$

Beamer handles complex math gracefully.

- Inline Math: $e^{i\pi} + 1 = 0$
- Block Equations with overlays:

$$\begin{aligned} f(x) &= x^2 + 2x + 1 \\ &= (x + 1)^2 \end{aligned}$$

We can simulate "Magic Move" by showing code changes across overlays.

```
1 def calculate_area(radius):  
2     pi = 3.14  
3     return pi * radius * radius  
4
```

Initial State

We can simulate "Magic Move" by showing code changes across overlays.

```
1 import math
2
3 def calculate_area(radius):
4     return math.pi * radius * radius
5
```

Refactored (Import Math)

Styled Components

Use `tcolorbox` to simulate modern UI components.

Info Card

This box mimics a standardized component style.

Styled Components

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Info Card

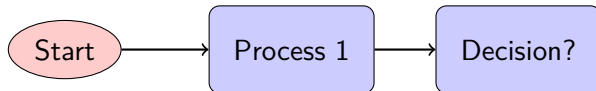
This box mimics a standardized component style.

Alert Component

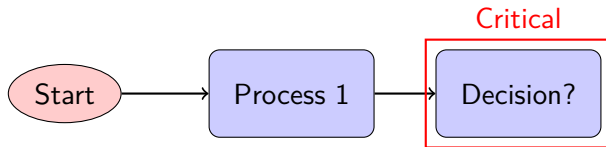
Warning: This is an important alert.

Visuals & Navigation

Digrams (TikZ)



Digrams (TikZ)



Navigation Buttons

Beamer supports interactive buttons.

Jump to Transitions

▶ Go to Transitions

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Animation

This slide used a dissolve transition to appear.

Other standard transitions:

- `transblindshorizontal`
- `transboxin`
- `transglitter`