

# 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.

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## 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
```

# Beamer Blocks

Organize information using standard Beamer environment blocks.

## Standard Block

This is a normal block for general information.

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## Examples

This is an example block, useful for case studies.

# Rich Content

# Math & Equations

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:

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

# Code Evolution

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

# Code Evolution

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.

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## Alert Component

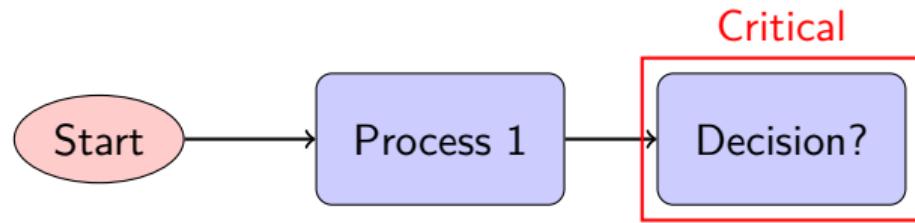
**Warning:** This is an important alert.

# Visuals & Navigation

# Digrams (TikZ)



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# Navigation Buttons

Beamer supports interactive buttons.

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# Animation

## Transitions

This slide used a dissolve transition to appear.

Other standard transitions:

- transblindshorizontal
  - transboxin
  - transglitter