Beamer Feature Showcase

Comprehensive Reference for Automated slides

System Reference

January 11, 2026

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

Table of Contents

Structure & Layout

Incremental Reveals

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

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

Incremental Reveals

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

- **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

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

```

Approach B

```
def fib(n):
    a, b = 0, 1
    for _ in range(n):
        a, b = b, a + b
    return a

```

Beamer Blocks

Organize information using standard Beamer environment blocks.

Standard Block

This is a normal block for general information.

Alert Block

Use this for warnings or critical points.

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:

Math & Equations

Beamer handles complex math gracefully.

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

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

Math & Equations

Beamer handles complex math gracefully.

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

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

Code Evolution

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

```
def calculate_area(radius):
    pi = 3.14
    return pi * radius * radius

```

Initial State

Code Evolution

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

```
import math

def calculate_area(radius):
    return math.pi * radius * radius

```

Refactored (Import Math)

Styled Components

Use `tcolorbox` to simulate modern UI components.

Info Card

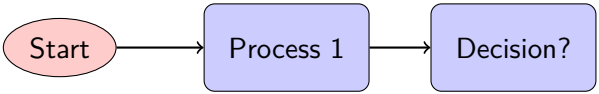
This box mimics a standardized component style.

Alert Component

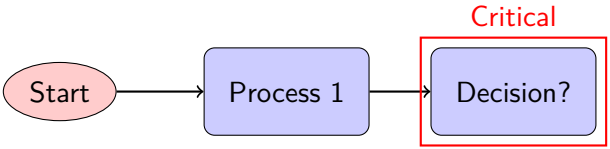
Warning: This is an important alert.

Visuals & Navigation

Digrams (TikZ)



Digrams (TikZ)



Navigation Buttons

Beamer supports interactive buttons.

Jump to Transitions ▸ Go to Transitions

Animation

Transitions

This slide used a `dissolve` transition to appear.

Other standard transitions:

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