POPCORN!

Pop it. Push it. Bounce it. Stack it.

Easy Physics for After Effects
User Guide



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Installation

Requirements

Compatible with After Effects 2024 and newer.

Installing Popcorn! (Mac & Windows)

The easiest way to install and licensePopcorn! is by using the **aescripts + aeplugins manager**.
To install a trial you can select 'Add Trial' from the 'Account' menu.
Alternatively, you can use the **ZXP/UXP Installer**.

Overview

What Popcorn! does

Popcorn! gives your text, shapes and layers real weight and solid edges, so they pop, collide, push each other and stack up. Build shapes from text, run the simulation in the panel, bake everything to native keyframes.

Workflow

1. Go to **Window** > **Extensions** > **Popcorn!**
2. Select Layers in **After Effects**.
   Only selected Layers are loaded.
3. Click **Load** to pull Layers into the panel.
   You can select and deselect Layers in the panel any time.
4. Set Parameters.
   Start from a Preset and adjust the Sliders.
5. Click **Update Preview**.
   The simulation runs immediately and plays in the canvas.
6. Click **Bake to AE**.
   Keyframes are written in one undo step. Cmd+Z / Ctrl+Z undoes all of them.
7. You can undo, adjust, then run **Update Preview** and **Bake to AE** again.
   Rebaking overwrites previously baked result.

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Presets

One-click starting points

Each loads a full set of physics values.
All Sliders remain adjustable afterward. Changing the Preset resets those values.

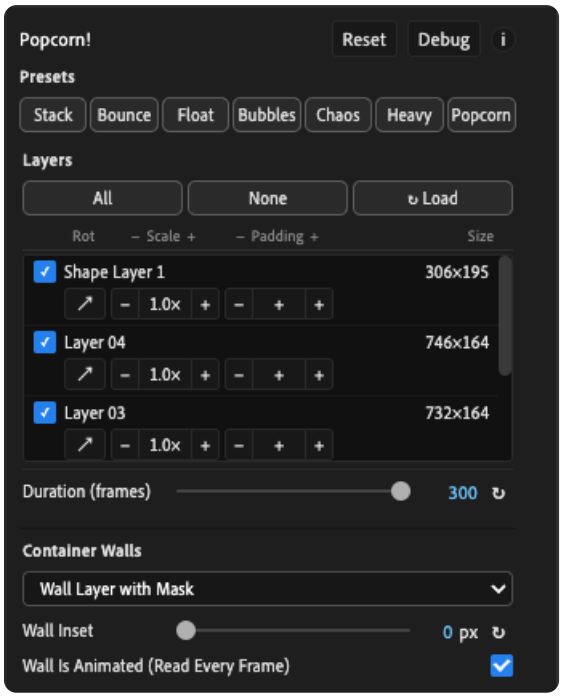
Stack | Bounce | Float | Bubbles | Chaos | Heavy | Popcorn

Stack	Objects fall and pile under normal Gravity.
Bounce	High restitution. Objects bounce repeatedly.
Float	Low/no Gravity, gentle drifting motion.
Bubbles	Light, buoyant, low-friction motion.
Chaos	High Turbulence and Wind, unpredictable paths.
Heavy	Strong Gravity, high Friction.
Popcorn	The signature Preset. Objects pop in fast and settle light.

Layer Setup

What enters the simulation

Load pulls the layers you selected in After Effects into the panel. Each layer can be included or excluded, scaled, padded, or locked against rotation. Container Walls set the boundary everything collides against.



Load	Reads currently selected AE layers into panel. Re-select in AE and click again after any change.
All/None	**All** or **None** selects or deselects all layers at once.
Blue Checkbox	Includes/excludes a single layer from the simulation.
Rot	Locks rotation for that layer. Click Rot in the header row to lock rotation on all layers.
Scale -/+	Per-layer size multiplier in 0.1 steps. Click the value to reset it to 1.0x. Use the –Scale+ control in the header row to apply the change to all layers.
Padding -/+	Per-layer collision padding in 5 px steps. Overrides the global Collision Padding.
Duration	Default Duration is Comp Length. Adjustable here. Duration does not change physics speed. Set it long enough for objects to settle, and raise Gravity or Wind if you need them to settle faster.
Container Walls	
Auto (Full Comp)	Uses the full composition size as collision walls.
Wall Layer/Mask	Chose a masked layer as collision wall. Inverted masks collide on the outside.
Wall Inset	Insets the wall boundary inward for Auto (Full Comp).
Wall is Animated	Enable when the mask is animated, so the walls are re-read on every frame.

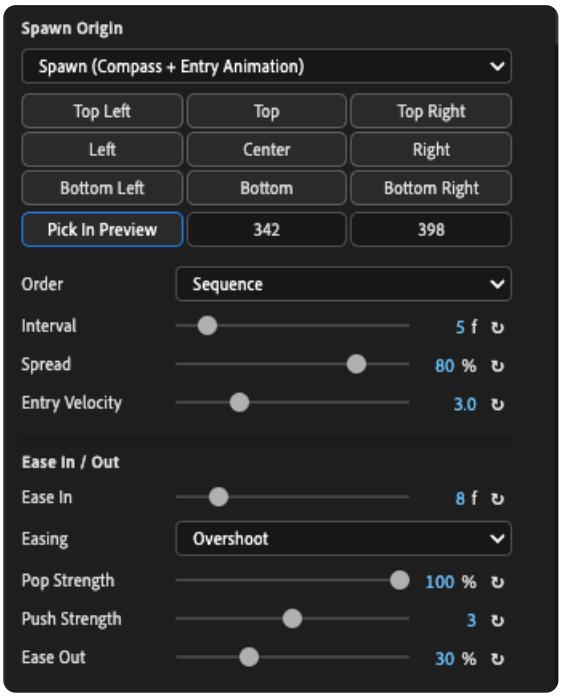
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Spawn

Entry Point, Order, and Arrival

Spawn defines where objects come in, in which order and at what interval, and how they settle on arrival.
These values govern the first frames of motion, before gravity and collision take over.



Spawn Origin

Spawn (Compass + Entry Animation):
Objects enter from compass position and animate in.

Transfer Comp Position, Then Animate In:
Objects animate in from their composition position.

Static Start. No Animation:
Comp position transferred, no entry animation.

Compass Grid
Sets where objects enter from.
Ignored in Transfer and Static modes.

Pick in Preview
Sets the spawn point by clicking in the preview window.
X and Y can also be typed into the two fields.

Order

Sequence:
Appearance one by one in layer order.

Random:
Objects appear in random order.

All At Once:
All objects appear together at frame 0.

Interval
Frames between each object's spawn.

Spread
Scatter around the spawn point. 0% is an exact point, 100% covers the full comp area.

Entry Velocity
Initial speed at spawn.

Ease In
Length of the entry animation in frames.
Higher values soften the spawn.

Easing

Overshoot: swings past 100% and settles back.

Elastic: Oscillates a springy feel.

Linear: No overshoot.

Pop Strength
How far **Overshoot** and **Elastic** swing past 100%.
100% is a full bounce, 0% is a near-linear settle.

Push Strength
How hard a newly spawned object pushes objects that have already settled.

Ease Out
Softens landing for objects already settled.

TIP!

AUTOMATIC FIT — **Automatic Fit** helps you to find the maximum size for pieces to fit in your comp or wall mask. You can still adjust the sizes downward through the **Object Size** sliders.

EXTRA ROOM — When checking **Automatic Fit**, you can add **Extra Room** to your canvas, without changing the scaling settings, it automatically adds a global shrink factor to all objects.

SHAPE OVERLAP — Very small, tight or large shapes with little free space, can nudge neighbors, overlap, and stick. Adjusting **Seed, Size, Gravity, Wind, Interval, Pop, Push, or Spread** usually resolves it.

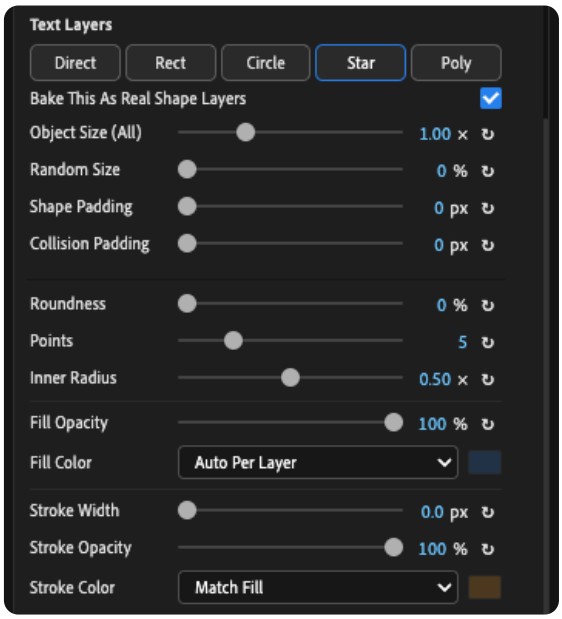
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Layers

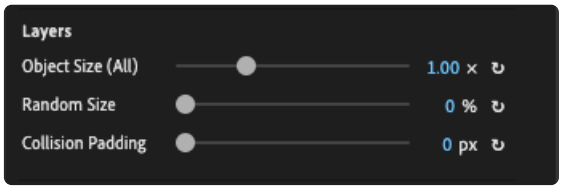
Collision body and visible shape

Text collides as its own bounding box or is wrapped in a generated shape which can be baked into After Effects as real shape layers.



Text Layers

Direct	The collision body matches the text bounding box. No extra shape is created.
Rect, Circle, Star, Poly	Wraps each text layer in the chosen shape. Bakes and creates real AE shape layers when checked.
Object Size (All)	Global Size for all text layers.
Random Size	Random per-layer size variation.
Shape Padding	Grows the visible space between text and shape.
Collision Padding	Invisible extra margin on collision body.
Roundness	Rounds the edges of Rect, Star, and Poly.
Points	Number of Star points or Poly sides.
Inner Radius	Inner radius of the Star
Fill Opacity	Fill opacity of the chosen shape.
Fill Color	Auto per layer, or a custom color.
Stroke Width	Stroke width of the chosen shape.
Stroke Opacity	Stroke opacity of the chosen shape.
Stroke Color	Match Fill, White, Black, or a custom color.



Layers

Object Size (All)	Global size for all layers except text.
Random Size	Random per-layer size variation.
Collision Padding	Invisible extra margin on collision body.

TIP!

DASHED STROKES	**Popcorn!** cannot read or create dashed strokes in this version. Existing shape-layer strokes stay unchanged. You can still add dashes to generated text shape strokes afterwards.
TEXT	Text layers collide as box around its full width and height. To to collide the exact text shape, convert shapes from text before.
SHAPES PER LAYER	To collide several shape objects against each other, keep one shape per shape layer.
2D ONLY	3D layers are unsupported and will not bake correctly. Turn off the 3D switch first.
SELECTED ONLY	**Popcorn!** reads and writes only the layers that were selected before you clicked **Load**.
FONT PREVIEW	The **Preview Panel** may fall back to a system font if the exact font is unavailable.

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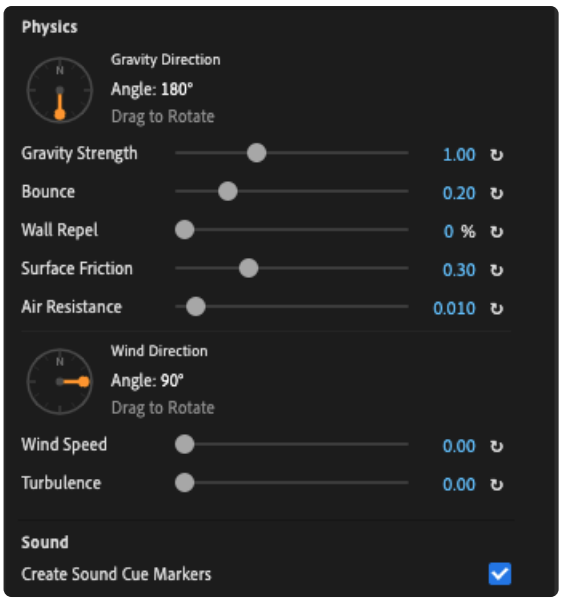
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Physics

Forces acting on every object

Gravity, Bounce, Friction, Air Resistance, Wind, and Turbulence apply globally to all loaded layers.
Any change requires **Update Preview** before it becomes visible.



Gravity Direction	Drag the compass. Default is 180 degrees, downward.
Gravity Strength	Overall pull strength.
Bounce	0 is no bounce, 1 is fully elastic.
Wall Repel	Makes objects bounce off the walls.
Surface Friction	0 is slippery, 1 is full grip.
Air Resistance	Drag per frame. Objects settle sooner with higher values.
Wind Speed / dir.	Constant force applied on top of gravity.
Turbulence	Random per-frame jitter.
Sound	Adds a guide layer on bake, with a marker at every **pop** (green) and every **collision** (cyan). Rebaking rebuilds the guide layer from scratch.

Preview and Bake to AE

Run the simulation, then write it to the timeline

Update Preview runs the physics and plays the result in the panel canvas. Bake to AE writes Position, Rotation, Scale, and Opacity keyframes into the active composition in a single undo step.



Update Preview	Runs the simulation. Required after every change and before baking.
Seed	Generates a new random arrangement without changing any parameter.
Bake to AE	Writes Position, Rotation, Scale, Opacity keyframes into the timeline of the active composition.

TIP!

UNDO LIMITS Very large bakes can exceed AE undo memory budget. Save before baking large setups.

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