

**GENERATES OBJECTS OF:** 



# About

#### **OVERVIEW**

Dynamically generate random objects with Bézier curves using the Easy Objects Spawner. Supports 2D and 3D, sprite/mesh patching, optimized performance, and a user-friendly interface

#### FEATURES

Easy to Use Extremely Performant Fully Customizable Smooth Bézier Curve Pathing

#### **HIGHLY CUSTOMIZABLE**

Choose between Sprites or 3D Prefabs Customize Item Spacing Customize the random rotation, and scaling Items spacing and amount (Prefab Mode)

#### PERFORMANCE

Auto Merge ensures that all the generated game objects are patched into one mesh to reduce draw calls and improve performance

Use One Materials also ensures all the materials are patched into one material to improve performance

#### ORGANIZED INTERFACE

A clean, organized window consolidates all controls, making customization straightforward and efficient.

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# **Setup Guide**

#### **1- Installing Dependencies**

- Import the Easy Objects Spawner package
- Install Splines (if not installed)

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+ • P	Packages: Unity Registry 🔻	Sort: Name (asc) 🔻 Filt	ilters ▼ Clear Filters 🚦 ۹	
All Se	ervices			
Pytł	hon Scripting	6.0.1 🔺	Splinge	
Rec	order	4.0.3		
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Ren	note Config	4.1.1	From Unity Registry by Unity Technologies Inc.	
Scri	iptable Build Pipeline	1.21.25	com.unity.splines	
Seq	luences	2.0.2		
Seri	ialization	3.1.2	Description Version History Dependencies	
Serv	vices Tooling	1.1.0	Work with curves and naths. Use the Splines nackade to deperate objects and behavior	
Sha	der Graph	14.0.11	along paths, create trajectories, and draw shapes.	
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## **Creating a new Objects Spawner**

• Right click on the hierarchy, then navigate to IntenseNation → Easy Objects Spawner and select it

Create Empty		
IntenseNation	>	Easy Objects Spawner
2D Object	>	
3D Object	>	

• On the left side of the Scene view you will see the Splines Tools pop up, Press the first button at the top to enter the spline edit mode.

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• Once in the edit mode, press the last button at the bottom, this is the Draw Splines Tool, as the name says it allows you to draw a spline.

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• Now you can use the mouse to drop a "knot", the line is automatically connected.



## 2.1- Closing the Spline

You can easily close the spline to make it a circuit, to achieve this select the Easy Objects Spawner gameobject, then head to the *Inspector* window where you will find the *Spline Container*, then toggle the *Closed* checkbox.

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Use the Spline Edit Mode in the Scene Tools Overlay to edit this Spline.								
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# **Editing the Values**

### 3.0- Overview

The Easy Objects Spawner window was designed to be as clean and straightforward as possible, it contains all the controls, values, and options, making customization straightforward and efficient.

🔻 # 🔽 Easy Objects Spawner (S	cript) 🛛 🛛 🖓 🗟	± :
OBJ	EASY ECTS SPAWNER	
Main		
Generation Style	Two Dimensions	•
Sprites	0	
Sprite Patching Settings		
Orthographic Size	40	
Texture Size	1024	
Settings		
Spacing	1	
Size Variation	X 0.7 Y 1	
Rotation Variation	X 0 Y 180	
Dynamic Patching		
Auto Merge	✓	
References		
Max Attempts	10	
Spline Container	្មាEasy Objects Spawner (Spline Container)	$\odot$
Item Prefab	<pre> \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$</pre>	$\odot$
Mesh Material	●VertexLit	$\odot$
	Generate	
M	lerge into one mesh	

# **Generation Style - Two Dimensions**

### 4.0- Sprites

Add all the sprites you want to generate object from to this list.

### **5.0- Sprite Patching Settings**

This section includes the settings specific for the 2D generation style.

### 5.1- Orthographic Size

When using Auto Merge, a fake camera is created to capture a snapshot of the spawned objects, increase/decrease it depending on your spline size. Note: If the merged sprite looks cut, then increase it.

#### 5.2- Texture Size

This determines the resolution of the merged texture when using Auto Merge. Note: If the merged sprite looks pixelated, then increase it.

# **Generation Style - Three Dimensions**

### 4.0- Objects

Add all the prefabs you want to generate object from to this list.

### **5.0- Mesh Patching Settings**

This section includes the settings specific for the 3D generation style.

### 5.1- Generation Type

This controls the method used when generating objects, there are two methods (*Mesh*, and *Prefab*), you can easily swap between the two modes and choose the one which suits your project needs.

## 5.2\*- Mesh Type

This generates one mesh instead of leaving the children as prefabs.

• Use One Material: Since every spawned item has its own material, so when enabled, it merges all of them into one material. This improves rendering performance a lot.

## 5.3\*- Prefab Type

This generates objects from an existing prefab, this method is usually used if you want control over every spawned element but will impact the performance if not merged after finishing.

## 5.4- Dynamic Patching

When using the 3D Prefab Mode / 2D Sprites, it creates a lot of children gameobjects, which requires Unity to calculate each one of them therefore affecting the performance a lot, this fixes this issue be combining all of these into one mesh.

• Auto Merge: This automatically merges the gameobjects together into one mesh, so every time you change the line's value, it's automatically merged.

# Settings

## Spacing

Controls the spacing between each spawned item.

### **Size Variation**

The size of each item is randomized between these two values, if you want to set it to a constant size instead then set them both to the same value.

### **Rotation Variation**

The rotation on z-axis of each item is randomized between these two values, if you want to set it to a constant size instead then set them both to the same value.

# **Extra Buttons**

These buttons are there if for some reason something doesn't work as intended, maybe the line didn't generate? It shouldn't happen, but if it does then you can easily force generate it or merge it.

• Generate: Generates the objects forcefully.

• Merge into one mesh: Only affects the Prefab Mode when using the Three Dimensions generation style, or when using the Two Dimensions generation style, this merges all the gameobjects together.

# **Need More Support?**

#### Join the community

Tersala: <u>https://www.tersala.com/c/IntenseNation</u> Reddit: <u>https://www.reddit.com/r/IntenseNation</u> Discord: <u>https://discord.gg/Hw2QfGM</u> Telegram: <u>https://t.me/IntenseNation</u>

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