

The Dropper Plugin Official Documentation

To give feedback, ask questions, request features, or show off cool stuff you've made with The Dropper Plugin, please contact me at contact@markwebb-portfolio.com or join in the discussion on the Unreal Engine Forums [here](#).

Description

The Dropper Plugin is a new editor mode for scattering assets using Unreal's built-in rigid body physics simulation. This allows for an unprecedented level of realism because objects will come to rest in natural locations. After opening the new mode, the simulation will begin automatically. Simply drag and drop the assets you want to scatter into the palette on the left. You can then paint down assets dynamically and watch as they fall. The Dropper Plugin offers a complete suite of controls that enable you to create exactly the look you desire quickly and intuitively. When you're finished dropping assets, just exit the Dropper Editor Mode and your assets' positions will be preserved.

Getting Started

If you haven't already done so, it is recommended that you watch the Getting Started video available [here](#).

UE5 Early Access Installation Instructions

- Install The Dropper Plugin to either Unreal 4.26 or 4.27 through the Unreal Engine Launcher.
- Navigate to The Dropper Plugin's local content folder. By default your file path will look something like this: C:\Program Files\Epic Games\UE_4.26\Engine\Plugins\Marketplace\Dropper\Content
- Open the file UE5EA.txt and copy its contents. This is your download password.
- Go [here](#), enter your password, and download the 1.1c compressed folder.
- Navigate to an existing UE5 project folder (contains your .uproject file) and create a new folder named "Plugins" and inside that, a folder named "Dropper"
- Extract The contents of the downloaded .zip into the new "Dropper" folder.

- If you've done everything correctly, you should have a valid file path that looks like this: YourProjectName\Plugins\Dropper\Dropper.uplugin.
- Open your project. You will get a message asking if you would like to rebuild The Dropper Plugin. Click Yes.

Technical Details

- Physics-Based “Drop” brush compatible with both Static Meshes and Blueprints.
- Per-instance scaling and rotating of scattered assets.
- “Sweep” brush for manipulating dropped assets.
- “Remove” brush for cleaning up unwanted dropped assets.
- Finely adjustable brush controls.
- Automatic management of In-Editor Simulation.
- Custom Undo functionality for easy remedying of mistakes.
- Automatic preservation of dropped asset locations.
- Optional conversion of dropped asset to Hierarchical Instanced Static Meshes for increased performance.

Instructions

- Click the “Modes” button on the toolbar and select “Dropper” from the drop down menu to enter the editor mode.
- Click and drag a Static Mesh or Blueprint asset from the content browser to the palette on the left. Static Meshes should have working simple collision geometry, and Blueprints should have a root component that has “Simulate Physics” enabled.
- Adjust the brush settings in the toolbar as necessary.
- Adjust the scale and rotation controls as necessary by clicking the arrow to the left of your asset in the palette.
- Either click in the viewport, (semi-automatic mode) or click and drag in the viewport (automatic mode) to drop assets into your scene.
- Exit the Dropper mode by clicking the “Modes” button on the toolbar and selecting a different editor mode.

Tips

- Work in small areas and bake frequently for the best performance.
- Know the limits of your machine and the computational weight of the assets you are trying to drop. Start by dropping only a few assets and working your way up if your performance remains steady.
- After you bake your assets, you can convert them to a Static Mesh by returning to the selection editor mode, selecting your dropped assets, right clicking them, and clicking “Convert Actors to Static Mesh.” After this you can right click the new Static Mesh in the content browser, and click “Export” if you would like to edit them in an external application.
- You can drag and drop multiple versions of the same asset to the palette in order to change the probability of it being dropped compared to the other assets in the list. For example if you add 10 spheres and 1 cube to the palette, there will be a 10% chance of dropping a cube every time you drop an asset.

Frequently Asked Questions

- Can The Dropper Plugin be used to create physics-based gameplay mechanics?

The Dropper Plugin is a tool for game makers to use in the process of placing objects in 3d environments. It's not designed to be used by players. The objects that you place can be blueprints which means they can have their own gameplay logic, but you should consult Epic's documentation for more information about that.

- When I drop very small assets, they jiggle in place and spin around on the ground. Is there a solution for this?

This is caused by the precision of Unreal's coordinate system and unfortunately cannot be resolved easily. The only current work around is to scale both the assets you are dropping and the objects that they are being dropped onto by a large amount, baking them, and then scaling them back down to their original size.

- When I drop my assets, they fall right through the floor. What am I doing wrong?

Both the assets you are dropping and the assets that you are dropping them onto need to have collision geometry that is set up correctly. You can check this, by opening them in the static mesh editor and clicking “Collision”→ “Show Collision” in the toolbar. If you have working collision geometry it will then be rendered as a green wireframe.

- Some Static Meshes don't fall when I try to drop them. What causes this?

In UE5, this can happen if the static mesh's collision complexity is set to use complex as simple. You can find this in the static mesh's details panel.

- How do I set up a Physical Material for the assets that I want to drop?

In most instances the default physical material will work just fine for your assets, and you won't need to make your own. I recommend only changing this if you know what you're doing, and you're absolutely sure that the default physics material won't work for application.

- I sometimes see an error similar to this: “Mobility of /Game/ThirdPersonCPP/Maps/UEDPIE_0_ThirdPersonExampleMap.ThirdPersonExampleMap:PersistentLevel.Shape_Cube2 : StaticMeshComponent0 has to be 'Movable' if you'd like to move.”

This happens when dragging a static mesh from the content browser across the viewport while simulating. This is an issue that exists in the base Unreal Engine and not one that is introduced by the dropper plugin. You can see this by beginning a regular in-editor simulation, dragging Static Mesh over the viewport, returning it to the content browser, then stopping the simulation.

Release Notes

Version 1.1

Added custom Undo functionality.

Added Remove Tool.

Added Sweep Tool.

Added MacOS Support.

Added option to bake automatically when exiting the Dropper editor mode.

Added option to disable automatic conversion of SM's to HISM's.

Improved organization of dropped assets in the World Outliner.

Improved keyboard shortcuts.

Added support for Legacy UI mode.

Version Compatibility Chart

Dropper Version Number	Unreal Version Number	Currently Available
1.0	4.26	No
1.1a	4.26	Yes
1.1b	4.27	Yes
1.1c	5.0.0EA	Yes