Easy Collider Editor DOTS

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General Outline

Since this documentation was created, the functionality and workflow of ECS, DOTS and the unity.physics package has changed when it comes to collider creation. My asset should by default work with a normal subscene workflow. With the newer versions you are creating normal colliders on meshes which are automatically converted into entities by unity itself! This documentation is still provided for people using earlier preview packages which did not have this functionality.

If the way ECS functions changes in the future and you encounter any issues from my asset when using the new versions of ECS please contact me at pmurph.software@gmail.com

DOTS support is simply done by adding a button to the normal Easy Collider Editor UI that converts normal unity colliders to physic shapes. This was the simplest way for me to support DOTS. It also means that any update that affects the non-DOTS version of this asset should immediately be able to be used in DOTS as well!

This portion of Easy Collider Editor will remain as a "preview" feature until Unity's Physics package is out of preview. That does not mean I'm going to suddenly stop supporting it, but that generally since what it depends on is still in preview, there will likely be issues as Unity's Physics package changes.

Keep in mind that since I don't personally use DOTS or the Unity.Physics packages, I will probably at some point miss changes that affect this asset. I'll do my best to make sure it's still compatible, but if you encounter any issues with my asset and DOTS please contact me at pmurph.software@gmail.com and let me know. I'll do my best to solve them as soon as I can.

Prerequisites

Main prerequisites:

- Unity.Physics package
- Unity.Physics.Hybrid (should be automatically installed alongside Unity.Physics package)
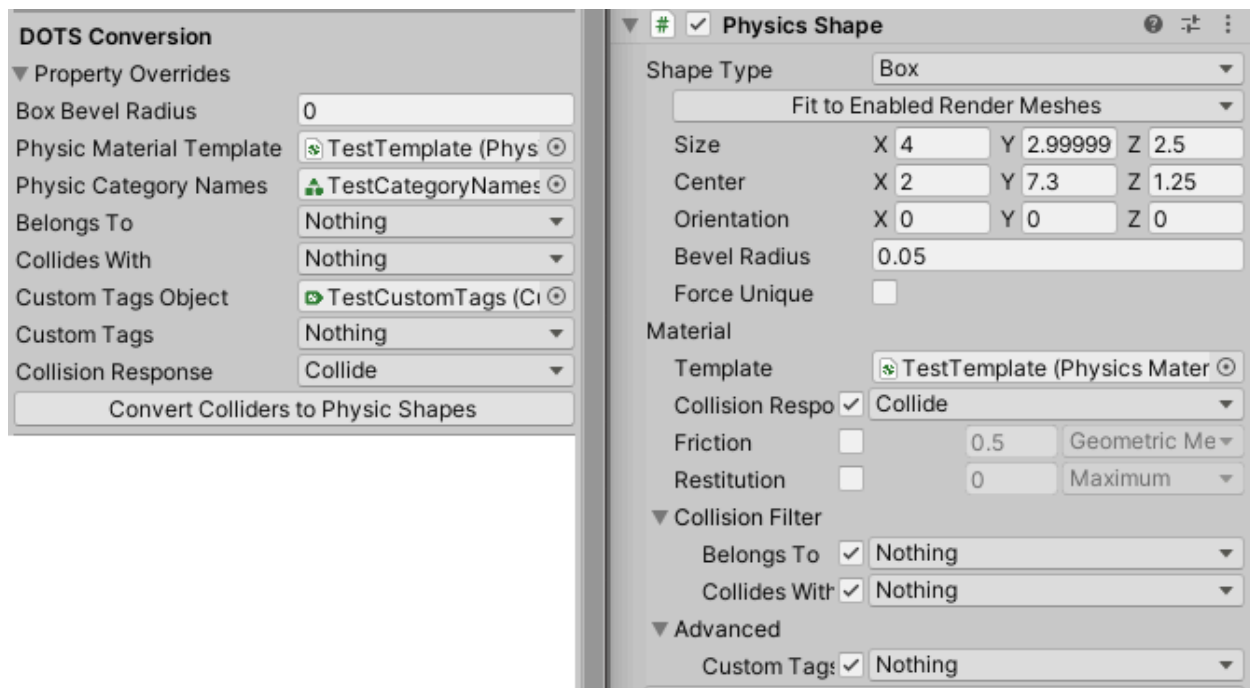
Installation

To install, in the EasyColliderEditor/Scripts/DOTS folder of this asset, there is a ECEDots.unitypackage. Simply double click it, or import using Assets > Import Package > Custom Package. It should replace the existing EasyColliderDOTS.cs file, and add the UI and support for dots.

Note: When importing the EasyColliderDOTS.cs script over the existing one, an error and a warning may appear in the console. These can simply be cleared after importing.

Usage

1. Use Easy Collider Editor with normal colliders until you are ready to convert to physic shapes. (See the other documentation in the main folder for help with normal collider creation)
2. Set various physics shape properties in the Property Overrides foldout group in the DOTS conversion section of the UI
3. Click the "Convert Colliders to Physic Shapes"
4. Done!

UI

The UI on the left of the above image is what will be shown in the Easy Collider Editor window once the ECEDots.unitypackage is installed. All the properties pretty much match 1:1 with the properties on physic shapes. Properties set in the UI will be set on the converted colliders.

If you have your own custom tags or are using categories, you need to select those objects as the Physic Category Names and Custom Tags Object properties in the UI before the other dropdowns (Belongs To, Collides With, Custom Tags) appear. If these are left blank, the defaults are used for Belongs To and Colliders With, and will be set to Everything.

The one issue that currently exists is that Box Bevel does not seem to apply correctly to Box Physics Shapes regardless of how I try to adjust it through code during creation. I have left the parameter there, and it is still used in the BoxGeometry instance to create the physic shape in hopes that it is a bug that Unity fixes at some point in the future.

Experiencing issues?

Keep in mind that since I don't personally use DOTS or the Unity.Physics packages, I will probably at some point miss changes that affect this asset. I'll do my best to make sure it's still

compatible, but if you encounter any issues with my asset and DOTS please contact me at pmurph.software@gmail.com and let me know. I'll do my best to solve them as soon as I can.

If you'd like to see other improvements or features added specifically for DOTS, please contact me and let me know!