# Fracture   -   Box Destruction      .

*Thanks for purchasing this great asset!  You won't be disappointed.*
*If you have any questions or there are any problems at all,*
*please email me at: **alex_dunn@hotmail.com***
*- Alex*

## Information

The fracture destruction suite is the grand plan, which this box destruction tool is part of. This tool enables you to dynamically fracture and destroy box primitives at run time.

**Forum Thread : Accurate-Run-time-Dynamic-Destruction**
**Web player :   http://www.dunnalex.com/Demos/Destruction/Destruction.html**

## How To Use

To use this tool, please follow these steps:

a.  In the scene you want to use the destruction tool, select from the Unity menu strip the 'Destruction' drop down, then click the button that says, 'Create shard pool in scene…'.

b.  This will of generated a new game object in the scene (called '_Shard Pool') and underneath that object is a bunch of pre-generated, blank shards.  (FYI, the layer of the shard pool will determine the layer of the shards when used with the system, so if you have a non standard layer setup in your Physics settings, you might want to consider altering the layer of the shard pool to achieve the best results.

c.  Place the 'BoxFracture' script on any unity cube (or other 1x1 unit box) in the scene.   This will automatically add a rigidbody, box collider and destruction trigger to the object, if one doesn't already exist.

d.  The destruction trigger is a script that will trigger the destruction based on collision impact, the fracture will dynamically form around the impact point, and be based on impact force.

e.  The 'BoxFracture' script has a few options on it.
    i.   First is the immediate toggle box, with this ticked, the fracture will happen immediately when triggered (i.e. it will compute the shards within the frame).
    ii.  If this tick box is not ticked, a new option will appear, 'Shards Per Frame'. The fracture component will now compute the fracture over the course of

several  frames.

       iii.   The last option on the fracture component is the 'Shards' option.  This foldout allows you to specify a range that defines how many shards this object will break into on trigger, the actual value is random between the Min and Max option.

  f.  Should you wish to implement your own triggers, you will have to get a reference to the Trigger component and call :

      public void TriggerDestruction(Vector3 triggerPosition, float magnitude)

The 'triggerPosition' parameter is the world space position at which the destruction will pivot around.  The magnitude parameter, is the impact force, supplying a smaller number here will result in smaller shards around the impact point, but much larger shards elsewhere, and vise versa.  (Magnitude should be in the range 0~1 for the best results).

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### *Known Issues*

·    **UV's aren't currently supported.**  These are top of my priority list!