

Last updated: Oct 20, 2019

# Easy Grass Cutter

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[Youtube](#)

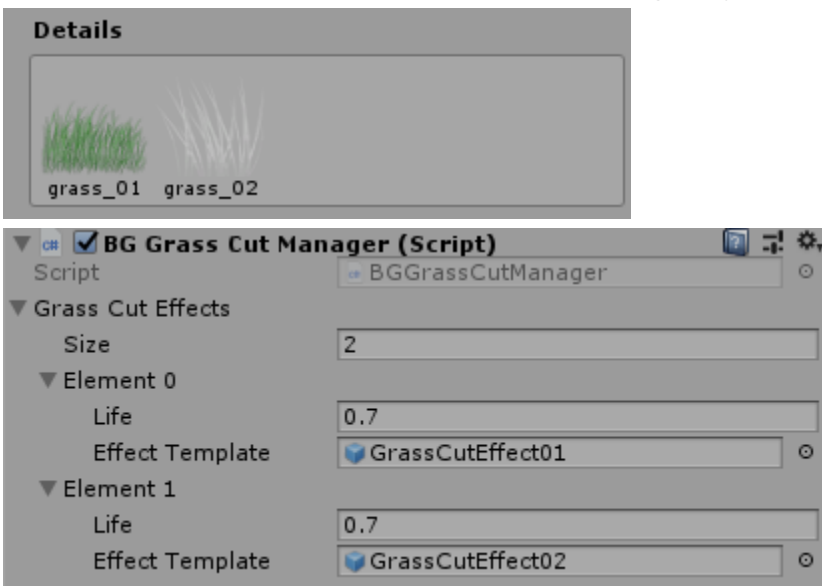
**Easy Grass Cutter** is a powerful tool for cutting grass. All **terrain's details** can be cutted by this tool.

## Features

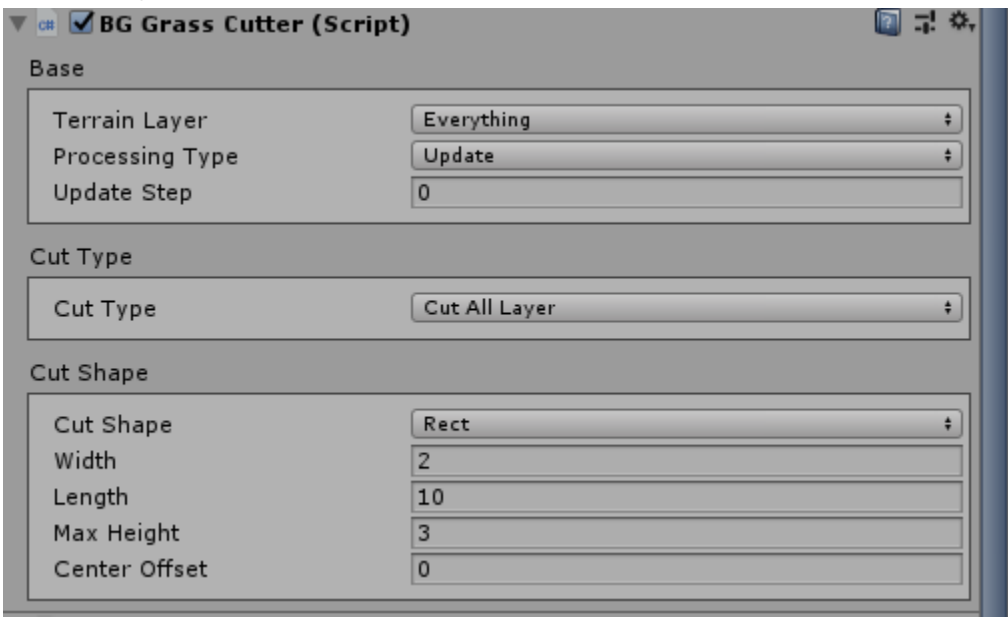
- Support cutting all terrain's details.
- Support cutting multi terrains.
- No limit on terrain's size and position.
- Customized cutting shape.
- Customized cutting behavior.
- Optimized code, good performance.
- Preview in editor, easy to use, drag and drop to play.

## How to use

1. Add **BGGrassCutManager** componet to your terrain, if you have more than one terrain, each terrain needs a **BGGrassCutManager**.
2. Specify each terrain's **cutting effects**. As shown below, my terrain have two details, so my **BGGrassCutManager** also have two **grass cut effects**. When **grass\_01** is cutted, **GrassCutEffect01** will be played automatically. When the effect's **Life** ends, it will be deactivated and managed by BGGrassCutManager's cache system.



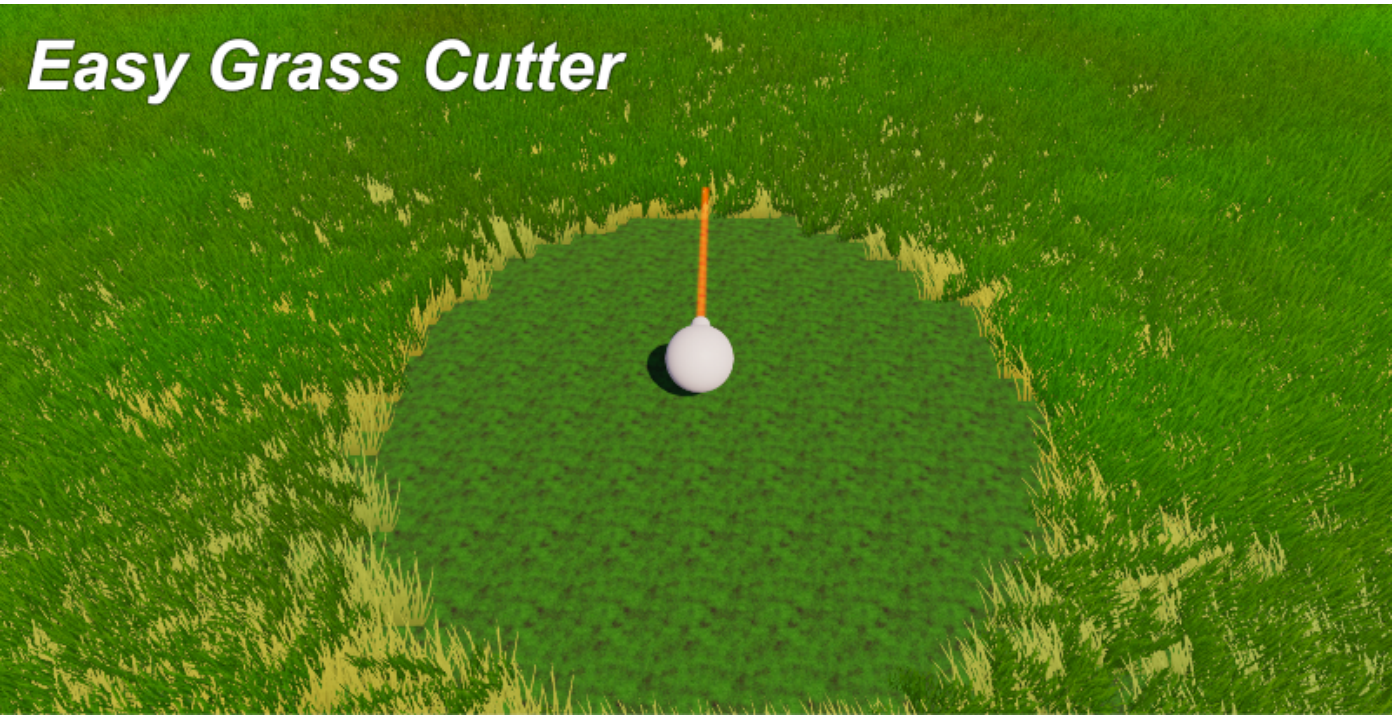
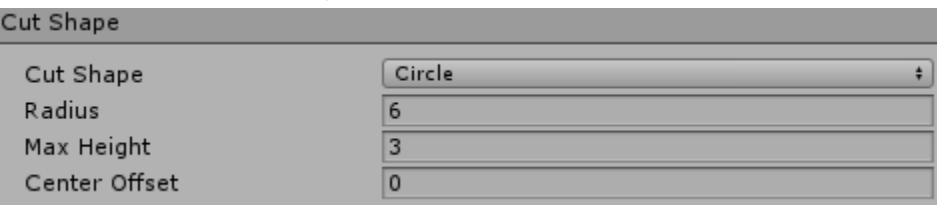
3. When all cutting effects assigned, you can add **BGGrassCutter** to any gameobject that you want to cut grass, for example, your leading role. With **BGGrassCutter**, you can set the cutting behavior(see the next section for details), adjust each properties and see the result.



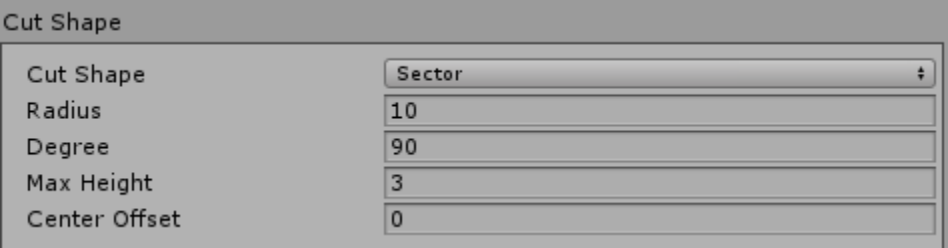
4. That's all.

## About BGGrassCutter

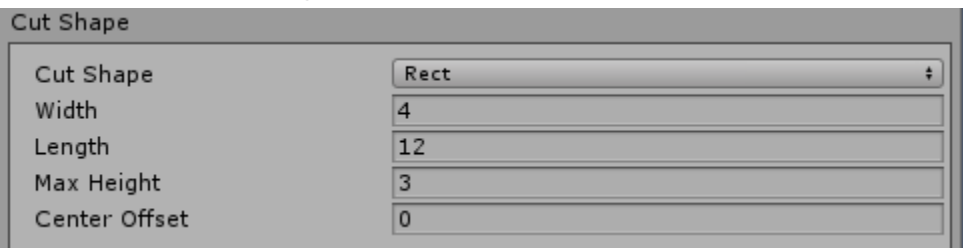
- ProcessingType
  - OnEnable : Cut when OnEnable. Use this to cut once.
  - Update: Cut when Update, you can specify the update step to save performance. Use this to cut continuously.
  - LateUpdate: Cut when LateUpdate, you can specify the update step to save performance. Use this to cut continuously.
  - Manual: Cut by your code. You can invoke cut api when you need.
- CutType
  - All Layers : Cut all layers
  - One Layer: Cut specified layer
- CutShape
  - Circle: Circle shape cutting.



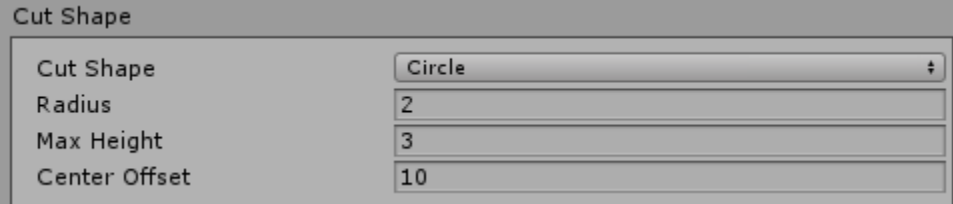
- Sector: Sector shape cutting.



- Rect : Rect shape cutting.



- Max Height: If distance between cutter's height and terrain's height is greater than this value, you can't cut any thing.
- Cetner Offset: Offset added to the cutter's position alone cutter's forward.



## API

If you need manually cut grass in your code, you can find your **BGGrassCutter** component and call **Cut** method.

**BGGrassCutter** finally call **BGGrassCutManager** to cut grass. **BGGrassCutManager** supplies 6 low level apis for each cut behavior.

- BGGrassCutter

```
public void Cut();
```
- BGGrassCutManager

```
public void CutGrassByCircle(int detailLayer, Vector3 position, Vector3 forward, float radius)
public void CutAllGrassByCircle(Vector3 position, Vector3 forward, float radius)
public void CutGrassBySector(int detailLayer, Vector3 position, Vector3 forward, float radius, float degree)
public void CutAllGrassBySector(Vector3 position, Vector3 forward, float radius, float degree)
public void CutGrassByRect(int detailLayer, Vector3 position, Vector3 forward, float width, float length)
public void CutAllGrassByRect(Vector3 position, Vector3 forward, float width, float length)
```

## About performance

**Easy Grass Cutter** has been optimized to avoid frequently memory allocation and gameobject instantiation.

For mobile device, you should choose smaller **Detail Resolution** and larger **Detail Resolution Per Patch**. It will lose precision but much more faster.

**Cut range** is another factor that affects performance. Smaller cut range will be faster.

## Customer Support: