Frameshift Decal Framework

User Manual > **Welcome**

for Unity 2.6.1 Game Engine

User Manual



version 1.0

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Overview

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Overview

Usually decals used to create bullet holes, blood splatters or burning of the explosions, but in some cases, the use goes beyond such things. In addition, decals can be created not only in the dynamics, but also during level development. With decals walls of buildings can be uniquely decorate torn posters, cracks or patches of paint. You can use several types of blending to achieve a suitable result. To improve the visualization of decals you can use standard techniques of lighting, such as the bump mapping, parallax mapping and more. Parallax especially looks good as gives much more volume and allows such things as bullet holes go deeper into geometry. Our framework allow you to create a decals in editor under development level design and in runtime. Make a design of your project more interesting and believable.

Features

Platforms :

- Windows
- Mac OS X

Unity:

- Versions : 2.6.1
- Free (Basic)
- Pro

Decal Mesh Generation :

- Based on source surface mesh
- Full Tangent Space Generation (or preserve for non-projective decals)

Decal UV Generation :

- Projective
- Preserve
- Normalized

Additive :

- Mesh offset adjustment
- Mesh generation normal threshold

Installation

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Installation



- 1. Open your project. Select file **Decal Framework 1.xx.unitypackage**. Select menu item. After extracting the files in the проект, hierarchy of imported files will look

likAssets -> Import Package .



5. Done. You can begin use this tool now.

NOTE! Before importing, make sure that none of the imported files do not overwrite the existing file in the project. Otherwise you may lose information .

Activation

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Activation	
Restriction	



Unregistered version has some restrictions

- You can not have more than 3 decals per scene.
- If you try to create more than 3 static decals then one will be deleted.
- Activation window will be apear periodically.

What you can use freely

You can freely use Dynamic and Dynamic Skinned decals.For this you just need store decals as prefabs in project and use those in scripting.

Activation

For activation select menu item**Decal Framework** -> **Activate** .Enter the email provided during registration and the serial number you received after purchasing .After activation you will get message about successful activation your copy of Decal Framework.You can register your copy only on one machine.

NOTE! If, after making a purchase you did not receive an activation key or are having difficulty with activation please contact us immediately.

Reactivation

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Reactivation Reactivation is the same as in Unity. If you need to install your copy on another machine, you must send an email to <u>support@unity3dstore.com</u> asking for an opportunity to activate your license on another machine .

In message must specify your serial number. After obtaining consent, you can activate your copy Decal Framework on another machine following the instructions in paragraph <u>Activation</u>.

<u>Class</u> Overview

DecalCreator



This is the main class for creating Dynamic and Dynamic Skinned decals. By creating scripts using the decals you always will be use his static methods. There are four main methods.

- 1. CreateDecalMesh(...) This function creates a mesh (not the real object) of decals with all texture coordinates and tangent. After creating all the components of the mesh are in world space, thus easier for us to bring the mesh in any other space.
- 2. CreateDynamicDecal(...) This function creates a real object decal . Any decal and Expeditors are always the child objects of the object from which they were born.
- 3. CreateDynamicSkinnedDecal(...) This function the same as previous but creates decals on skinned objects.Because creating skinned decals not the same as creating usual decals.
- 4. CreateCombinedStaticDecalInGame() This is helper function allow combine all uncombined Static decals before scene start.

DecalType

Main decal class. Here contains all setups for static and dynamic decals. In editor used for creating Static and Static Skinned decals.

DecalHolder

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Helper class for dynamic decals. The component is added to each object from which decal created. Contains dictionary DecalType->DecalExpeditor. And access methods to Expeditors.

- 1. GetExpeditor(...) Get decal Expeditor certain DecalType.
- 2. GetAllExpeditors() Get all Expeditors for all DecalTypes.

Inspector

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Inspector

Mate	erial	
Decal Material	OirtWalls	3
Mesh Compone	nts Generation	
🗹 UV2 🗹 Tangents2C	Colors 🗌 BoneWeigh	ts
UV Generation	Projective	
UV Offset	1	-
X O	YO	
UV Scale		
X 0,25	Y 0,25	
UV2 Generation	Preserve	*
UV2 Offset		
X 0	YO	
UV2 Scale		
X 1	Y 1	
Bone Weight Quality	Bone_1	* *
Mesh E	diting	
Mesh Offset	0,002	
Normal Test Threshol		
Rando		
	1	
Tile U Tile V	1	
nie v Random Mode	None	
Random Size	0	
Random Vector		
x 0 Y 0	Z 0	T
Combining &	Destruction	
Combine Every	10	
Destroy Generation De	ela 5	
Max Skinned Decals	4	
Fade Decal		
Fading Time	1	
Expeditor LifeTime	20	
Dinamic Decal Layer	Default	+
Flow Se	ttnigs	
Flow Flow		
Gravity Vector	1= 12	
X 0 Y -1	Z 0	
Render Target Size Min Level	256	
Min Level Increase Speed	0,7	
Decrease Speed	0,13 0,175	
Glue	5	
Bump Contribution	0,3	
Level Grow Frames Co	1002	
Grow Speed	0,5	
Life Time	5	
Flow Type	Drop	*
Gravity Shader	None (Shader)	

DecalMaterial



Pick Ignore

Enter in ignore object selection mode. Those objects that will not be taken into acount during decal calculation.

Pick Combine

Enter in combine object selection mode.

Set Position

Enter in one click position mode. One click position system works via raycasting, thus you can set position for decals only onto objects that has collider attached.

Yuc can use Along Camera / Along Normal for more detail setup decal



3. Select material for decal.

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4. In top of Inspector will be shown textures that belong to decal material. This works only with _MainTex μ _BumpMap textures.

Scale			
X 1 Y 1	Z 1		
Decal Type (So	:ript) 🛄 😪		
Main Decal Texture	Bumpmap Decal Texture		
Mat	erial		
Decal Material	③BulletHoleFloor ▼		
Mesh Compone	ents Generation		
Mesh I	Editing		
Rande	omize		
Combining &	Destruction		

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4. Create another decals. Select Combine object. Combine object must be SkinnedMeshRenderer.



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Gizmos		
Unselected Gizmo		
		1

Unselected Gizmo it just "D" helps separate decals from another objects. You can use you own image, just rewrite file **DecalIcon** in folder **Assets/Gizmos** .

Selected Gizmo

Selected Gizmo it white wire cube bounds decal volume and white wire arrow. You can override this function :

public static void DrawDecalToolGizmo(DecalType _decalType, GizmoType gizmoType)

in script **DecalTypeEditor** , for make your own appropriate gizmo.