

# 1-0 FX Maker – Overview1

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- ‘FX Maker’ includes 300 Effects which can be immediately used.
  - ‘FX Maker’ is a tool which produces Effects. (creation, viewer, analyzing, test, speed adjustment, size modification)
  - By using 300 Effects included, a new Effect can be made within few minutes.
  - By using resources included, hundreds of Effects can be reproduced.
  - No need for using 3D tool to create Mesh and Animation.
  - Supports ‘MaskShader’ which can create a new Texture by combining them.
  - Supports ‘BuildSprite’ which transforms hundreds of triangles to only two.
  - Contains Tooltip guide up to 30 pages.
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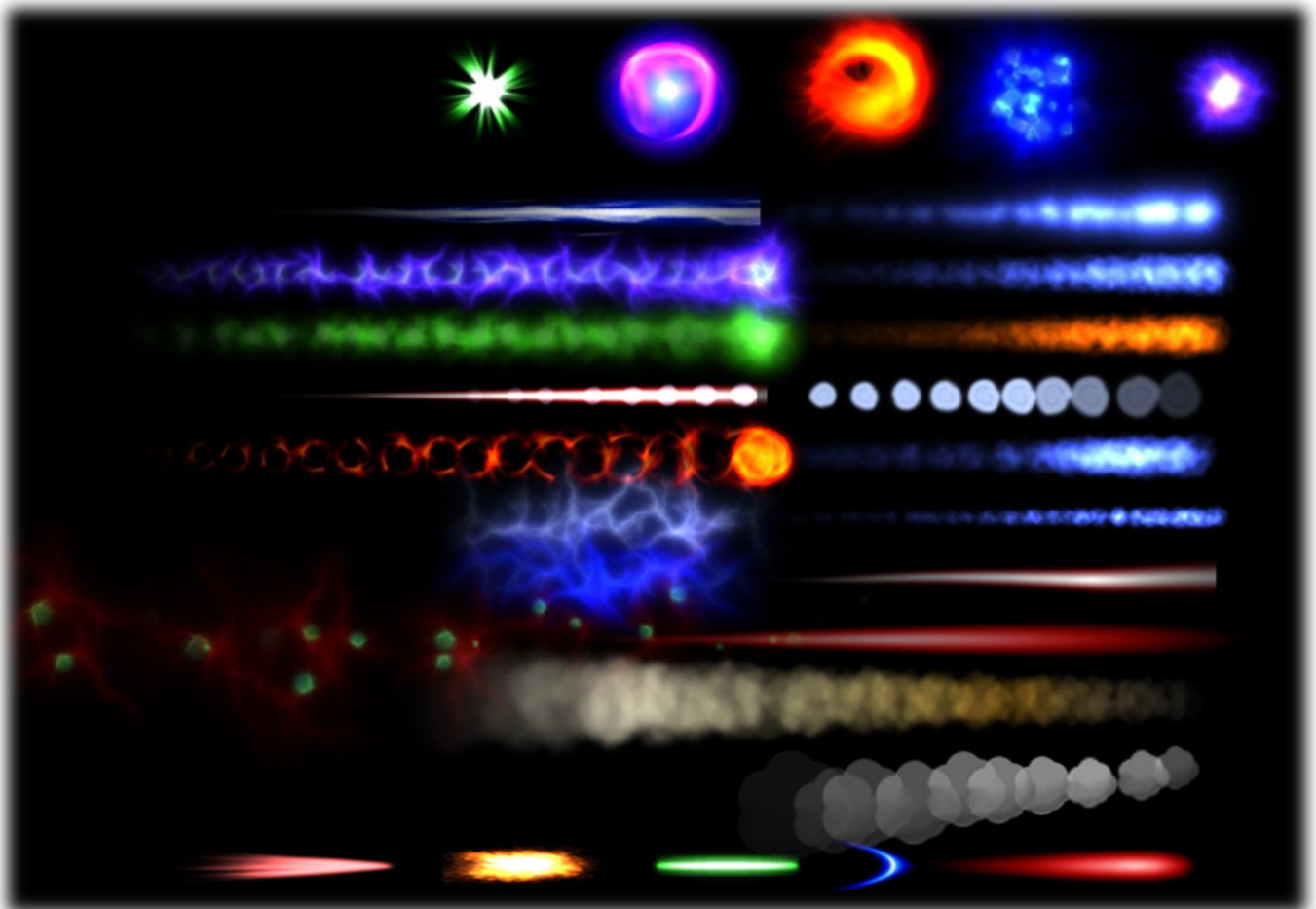
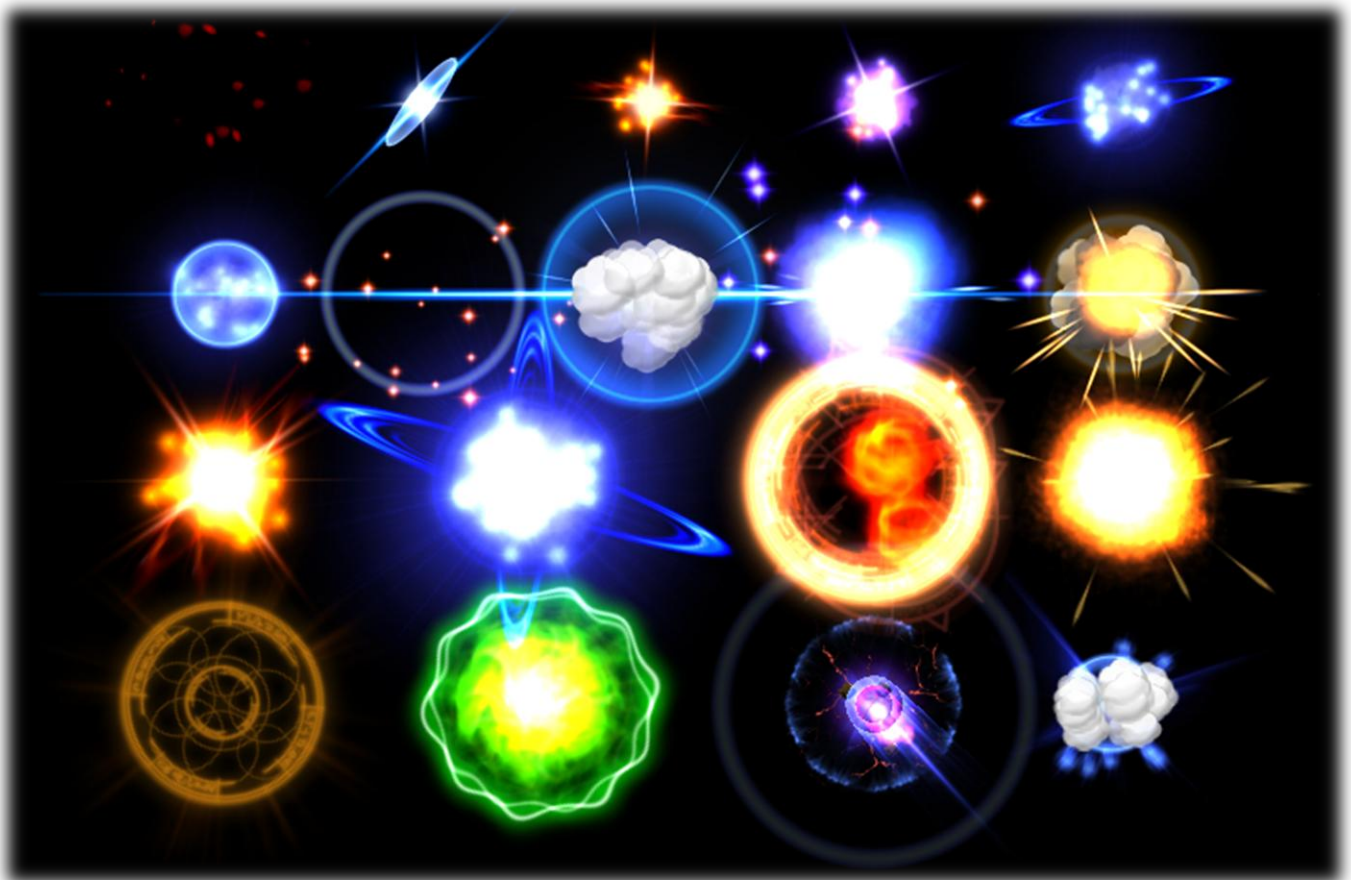
# 1-1 FX Maker – Overview2

- Manages effects by folder in order to classify easily.
- Provides environment to run tests of effects. (Background setup, trace of bombshell, volley, scaling, movement)
- Operated effects are saved as Prefab, so it can be applied directly.
- Background is adjustable so that work can be processed at identical background environment as game.
- By combining 200 effect samples categorized by unit, complete effect can be produced very fast.
- Texture, Shader and Color can be modified by a single click.
- SpriteTool and 2D Maptool is also included and can manage any Prefabs of users easily.



# 1-1 EsayToolTool – Preview1

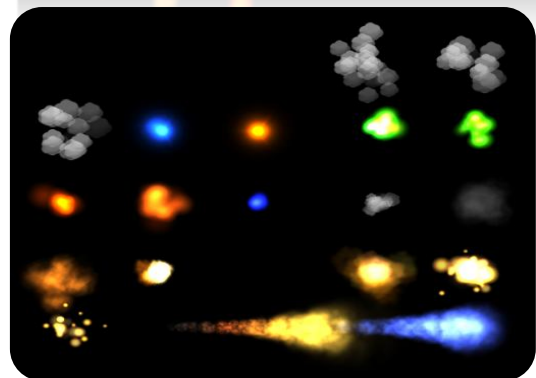
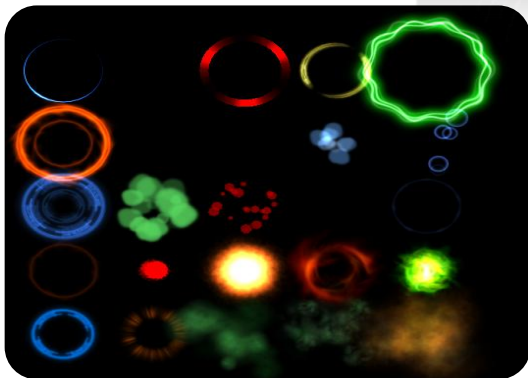
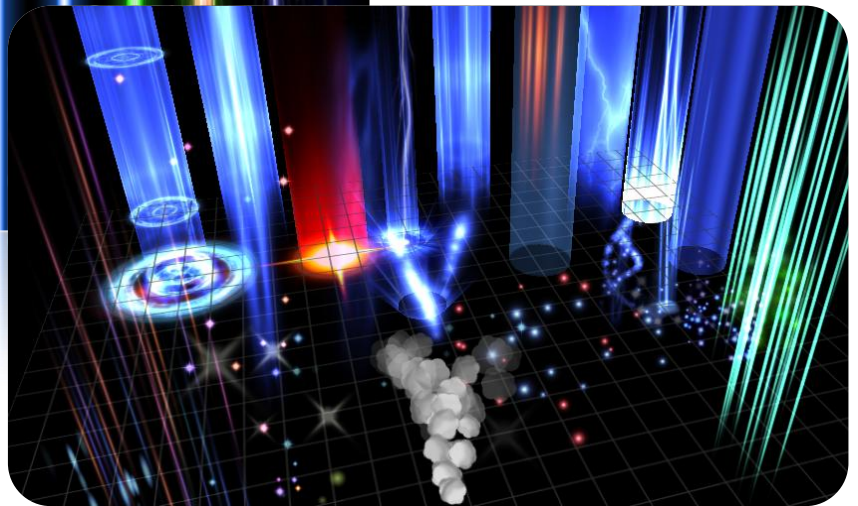
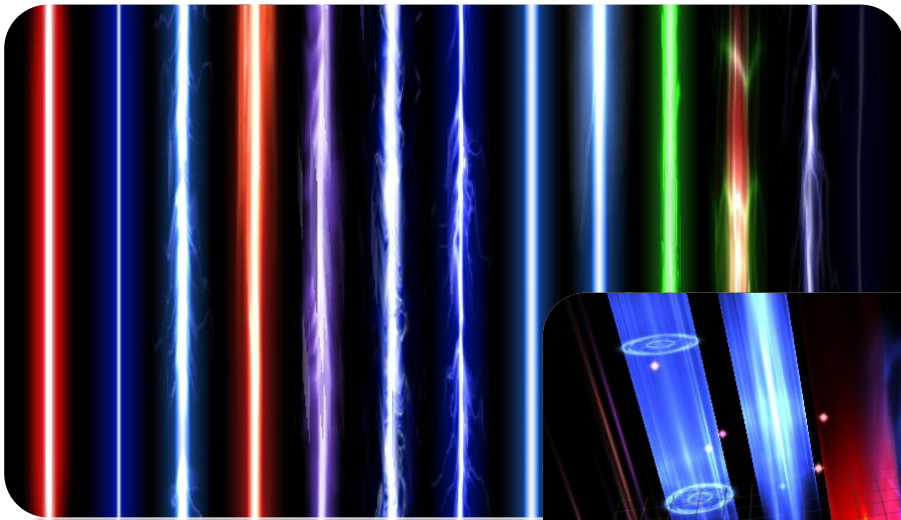
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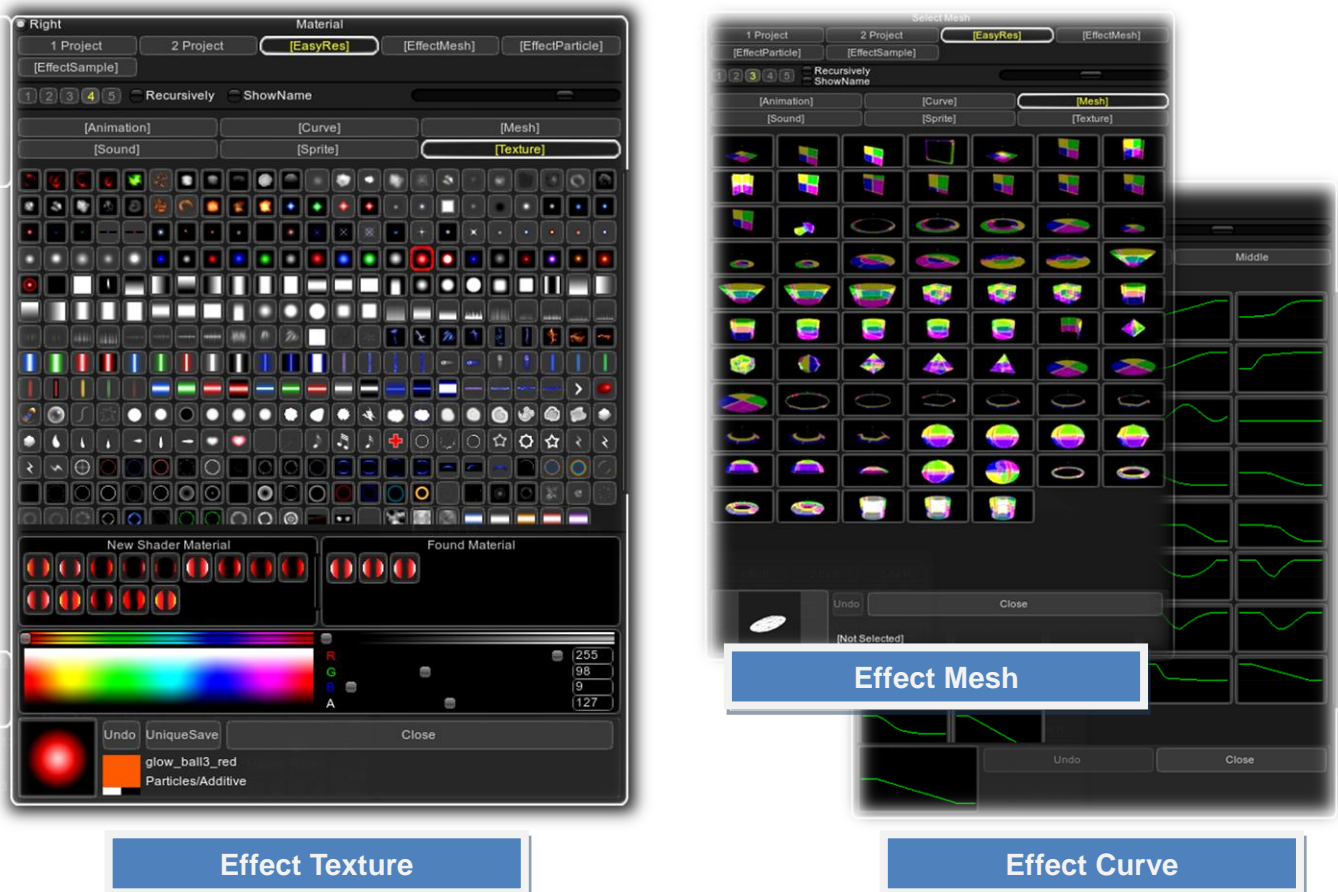
# 1-1 EsayToolTool – Preview2

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# 1-3 Included Resources

- - #mesh : 100, #Texture : 300, #Curve : 100, #Effect: 300



## 1-4 Precautions

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- Distributing original of Assets included in the package is prohibited. (Script, Texture, Prefab)
- Original is allowed to be applied to individually produced game(Free, commercial). (In case of distributing game source, it is not allowed.)
- We suggest that ToolPackage to be included in GameProject when modifying EffectPrefab from Unity. (This is for using InspectorEditor included in the Tool.)
- Transfer or modification of name of conventional folder should be avoided. (Problem may occur when attempting upgrade.)
- Transfer or modification of name of folder after creating a new one will not arise any problem.
- Editing of EffectPrefab which is already made is also available. (Refer to following clause below)  
(Warning 1, modification at Awake() (Material references which are not CreateObject, ShareMaterial) should not be modified.)  
(Warning 2, When creating GameObject at Start() or Update(), it must take place at 'NcEffectBehaviour.GetRootInstanceEffect()', not at Root.)
- If any bugs or necessity of additional function are founded, please request for modification, not modify by individually.
- Stability is guaranteed. (The tool has been used for 300 of EffectSamples and games after completion.)

## 1-5 Contact

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## 1-6 Video Link

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FX Maker 1-1 Preview (english).avi	<a href="http://youtu.be/OnETMZNZegE">http://youtu.be/OnETMZNZegE</a>
FX Maker 1-2 CreateEffect (english).avi	<a href="http://youtu.be/4j9mQMiEeCM">http://youtu.be/4j9mQMiEeCM</a>
FX Maker 1-3 Background (english).avi	<a href="http://youtu.be/2Ftsh_QgyjA">http://youtu.be/2Ftsh_QgyjA</a>

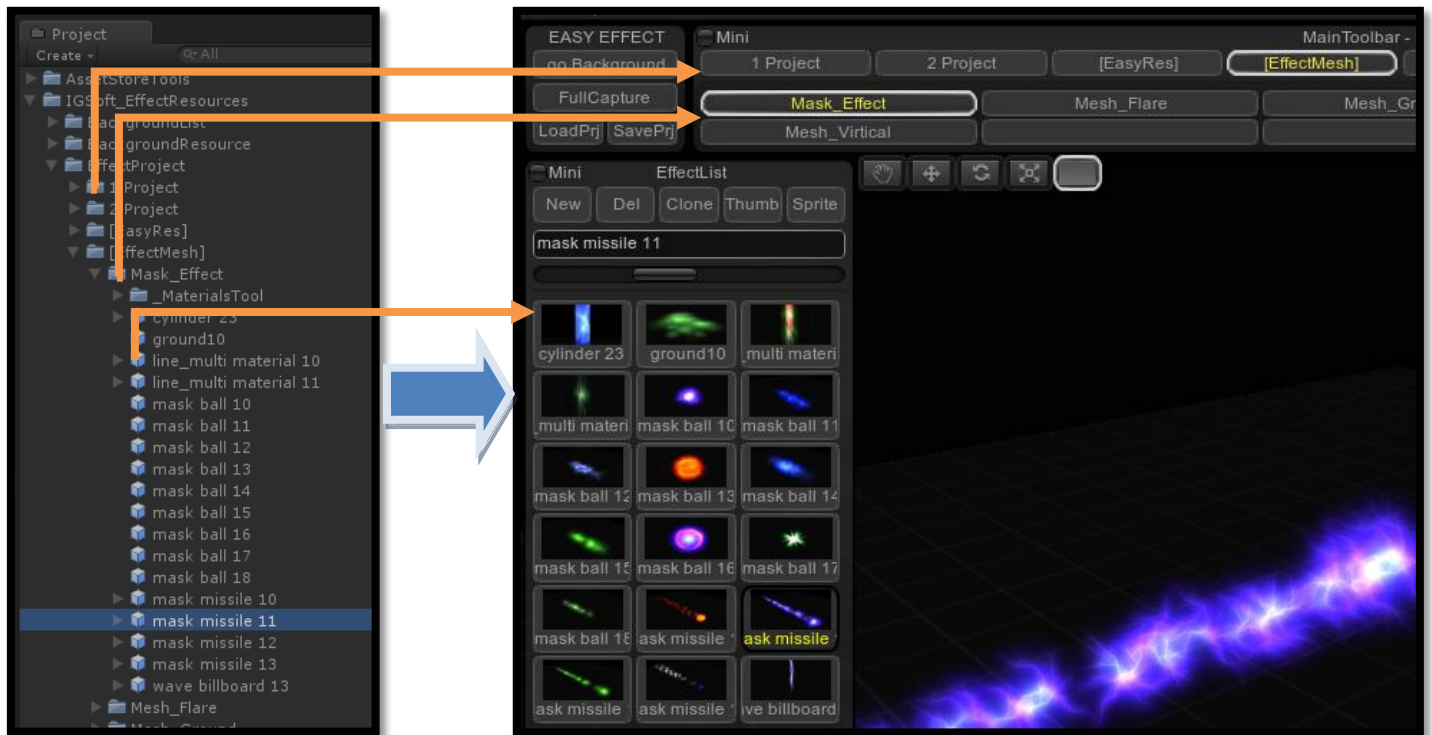
## 2-1 Major Functions

기능	설명
Managing Folders	– Using project folders and group folders, manage Prefab/Texture/Mesh etc.
Managing Prefab	– New, Delete, Clone, Copy, Preview, ExportPackage
Preview	– Support ThumbNail in order to find Effect easily.
Build Sprite	– Takes effect made 3D and returns 2D Sprite which only uses 2 polygons
Tooltip	– Provide all Tooltip Helps about Script/Button/Window.
PrefabHierarchy	– Provide Hierarchy that helps to figure out GameObject/Component/Material/Animation at a glance.
Ways of Production	– Support three ways (Mesh Effect, LegacyParticle, ShurikenParticle).
Particle Resizing	– Support Particle (LegacyParticle, ShurikenParticle) resizing according to the kinds of GameObject.
Particle Scale	– You can change the scale of particle while playing the game.
Speed Adjustment	–Speed control using a scroll bar (LegacyParticle , ShurikenParticle , FX Maker Script)
Drag & Drop	– GameObject, Transform, Component, Material, Ani
Gizmo Axis	– Provide Load/World GizmoAxis that can Move, Rotate, and Scale
Clipboard	– Prefab, GameObject, Transform, Component, Material, Color, Ani
Particle	– Easily change Unity Particle (Speed, size, number, resizing, etc.).
Curve Factory	– Support Load/Save so that curve for animation can be reused.
Mask Shader	– Hundreds of combinations are available as Shader that can combine texture is supported.
testing environment	– trajectory cannonball, continuous shooting, scaling, movement, and speed control
Background Settings	– You can create and save background suitable for the game design (Mesh, light, camera).
Script	– A script for Effect is provided in a Dialog style in order to be added easily.
Scene	– Tool, MobileTester, SingleTester



## 3-0 Easy Folder Access

- Manage Prefab/Texture/Mesh by using project folder and group folder
- No need to find hard 'Unity Project' to look for Asset.



## 3-1 Prefab Management

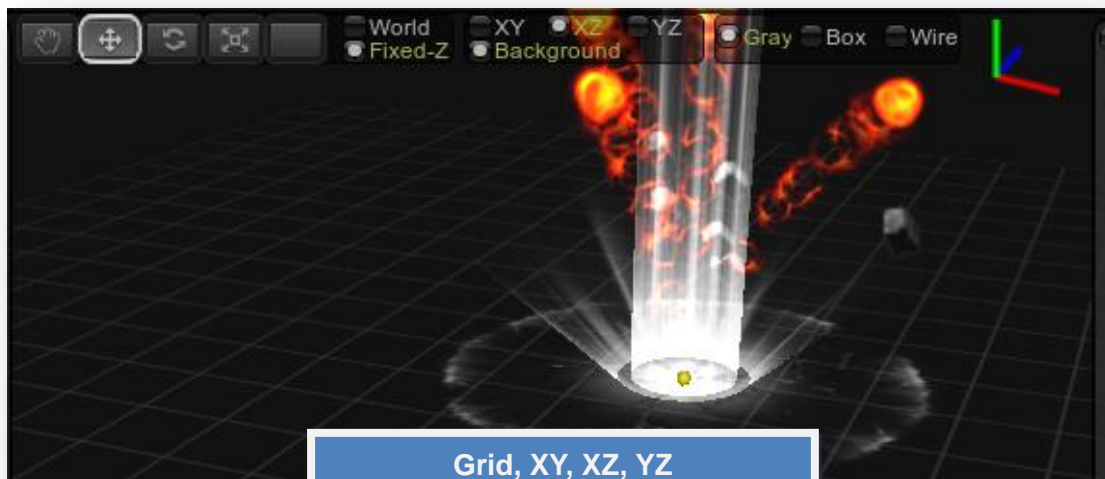


- Support ThumbNail in order to find Effect easily.

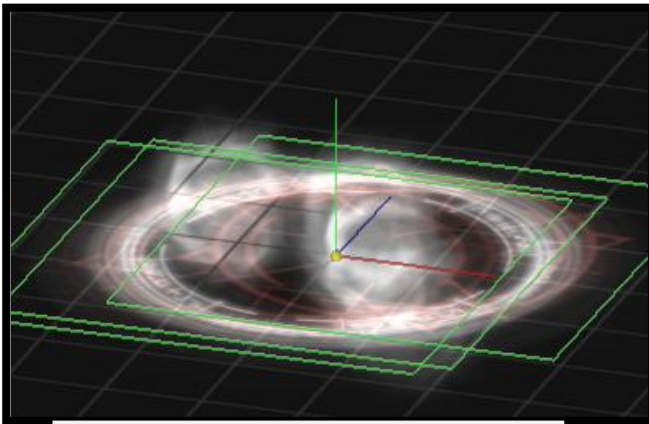
- PingPrefab : Find prefab
- Copy/Cut/Paste
- New, Delete, Clone, Thumb
- Build Sprite
- ExportPackage



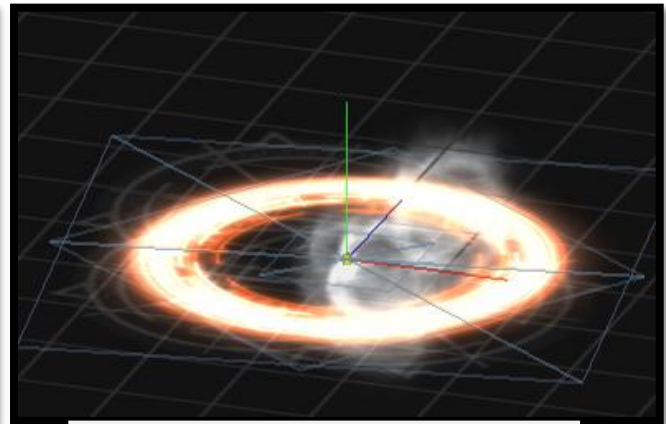
## 3-2 Effect Viewer



Grid, XY, XZ, YZ



BoundsBox



Wireframe



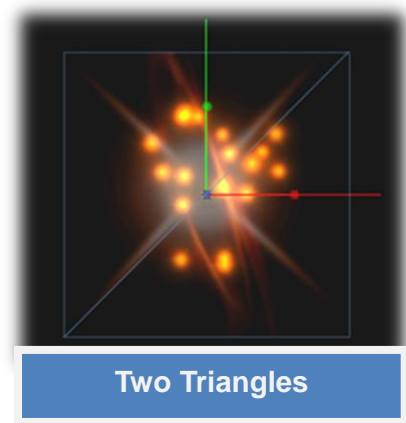
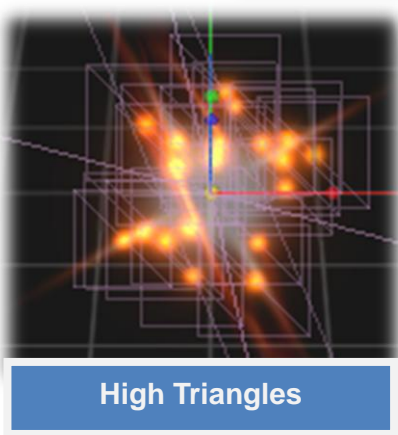
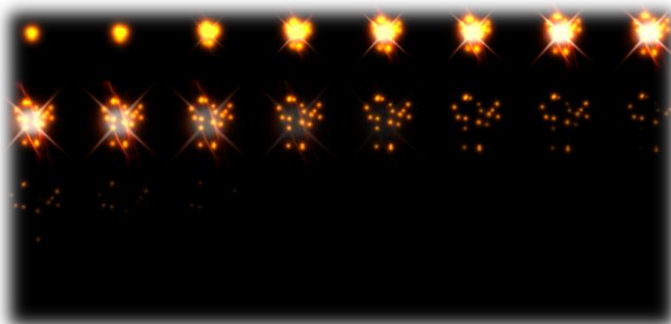
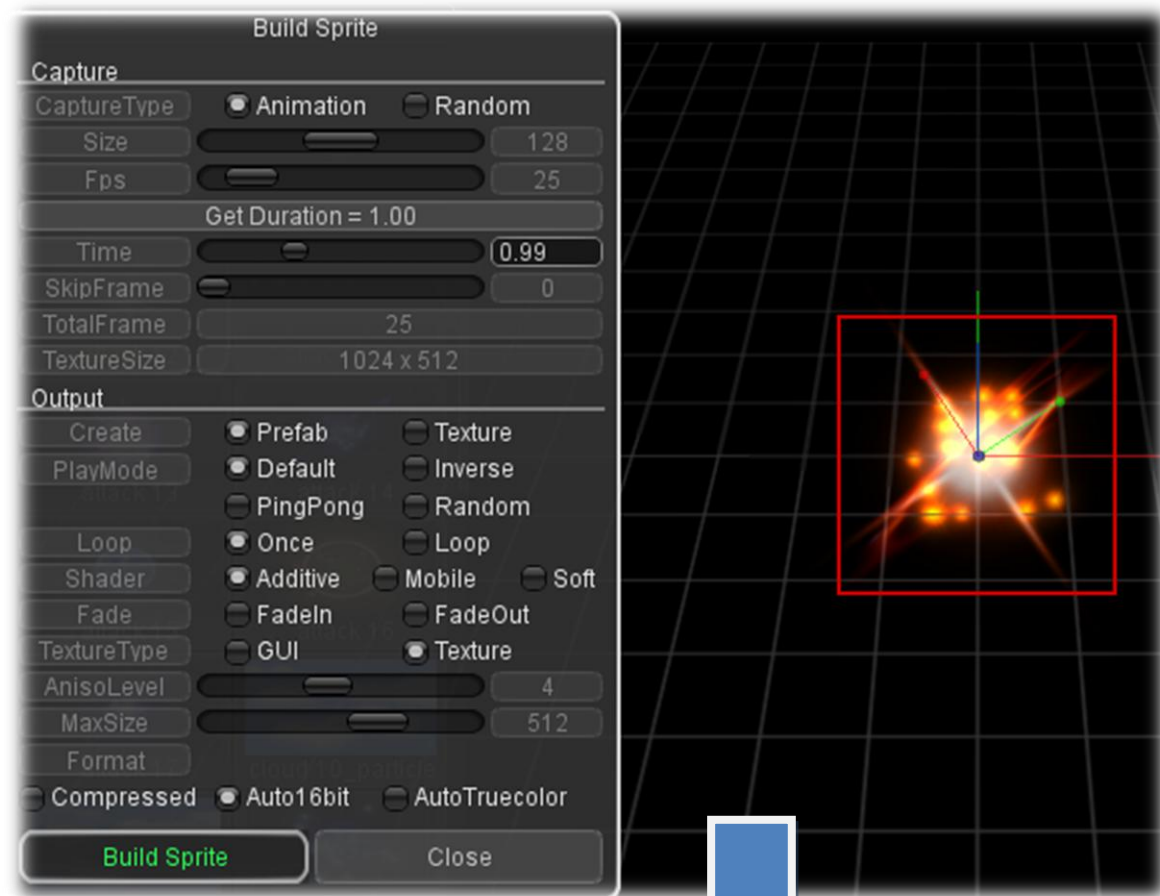
Grayscale



Background

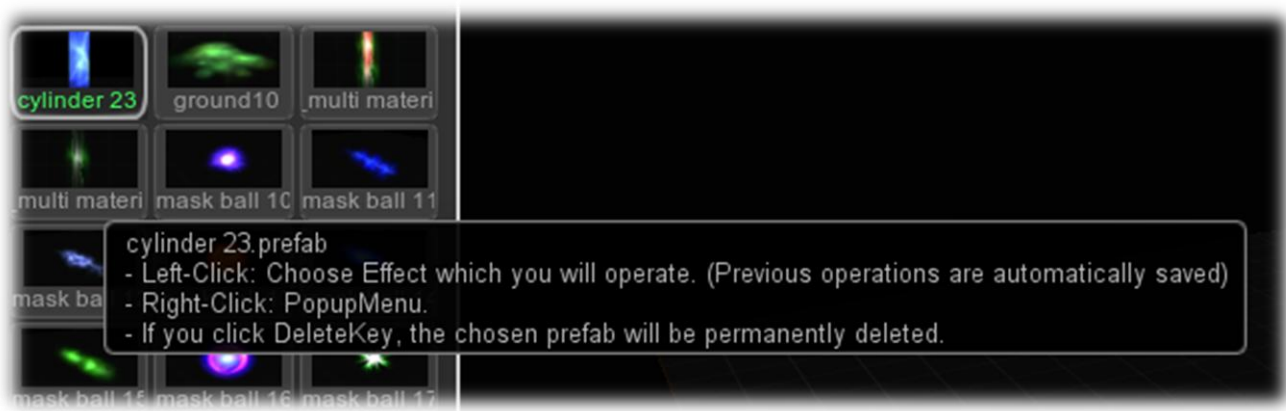
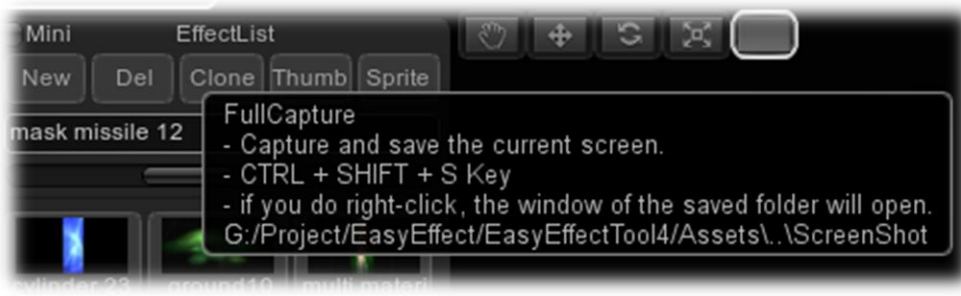
### 3-3 Build SpritePrefab

- SpriteTexture which uses only two Triangles can be made out of produced Effect.(Additive Only)
- The effect will be saved as SpritePrefab or SpriteTexture which can be used directly in the game.



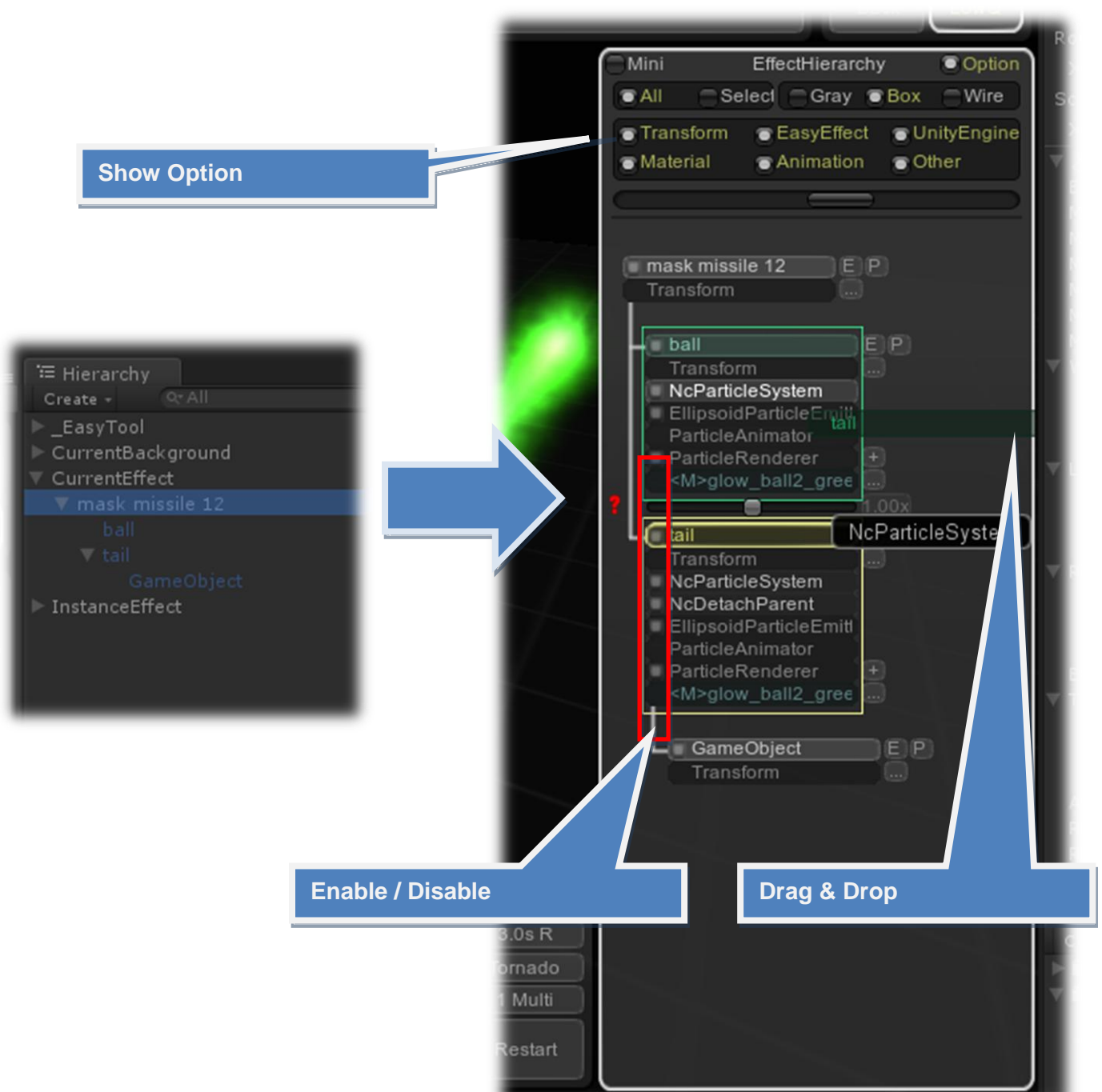
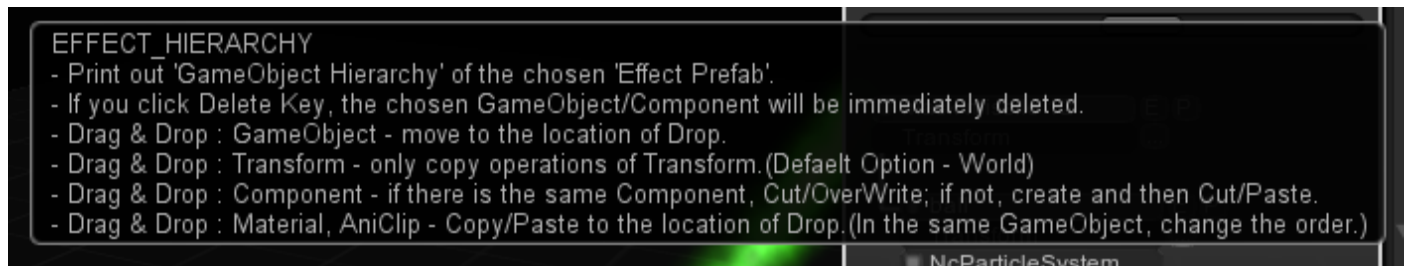
## 3-4 Tooltip

– Provides help for all Script/Button/Window tooltip. (English/Korean)



## 3-5 PrefabHierarchy

- Provides Hierarchy which can show GameObject/Component/Material/Animation at first sight
- Transfer or Copy is available by Drag & Drop, and also can Disable/Enable.



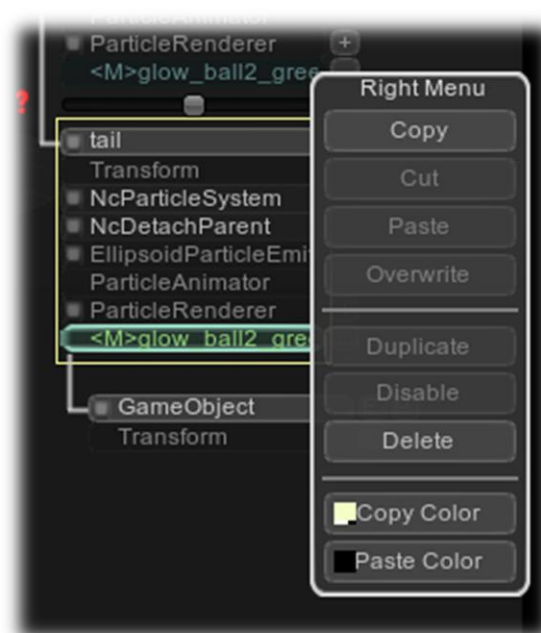


## 3-6 PrefabHierarchy – Popup Menu

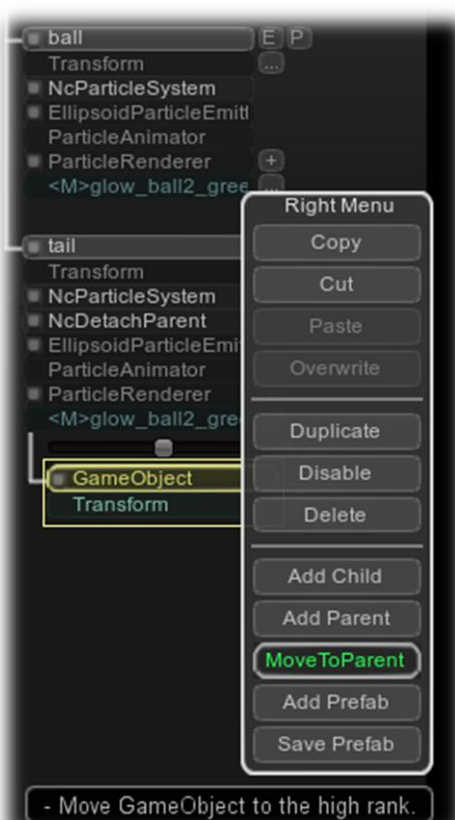
- Provides Popup Menu that leads to direct usage of functions of GameObject,Component,Mat,Ani
- By operating "'E'Button-Click / Add Script", 'Effect Script' can be added fast.



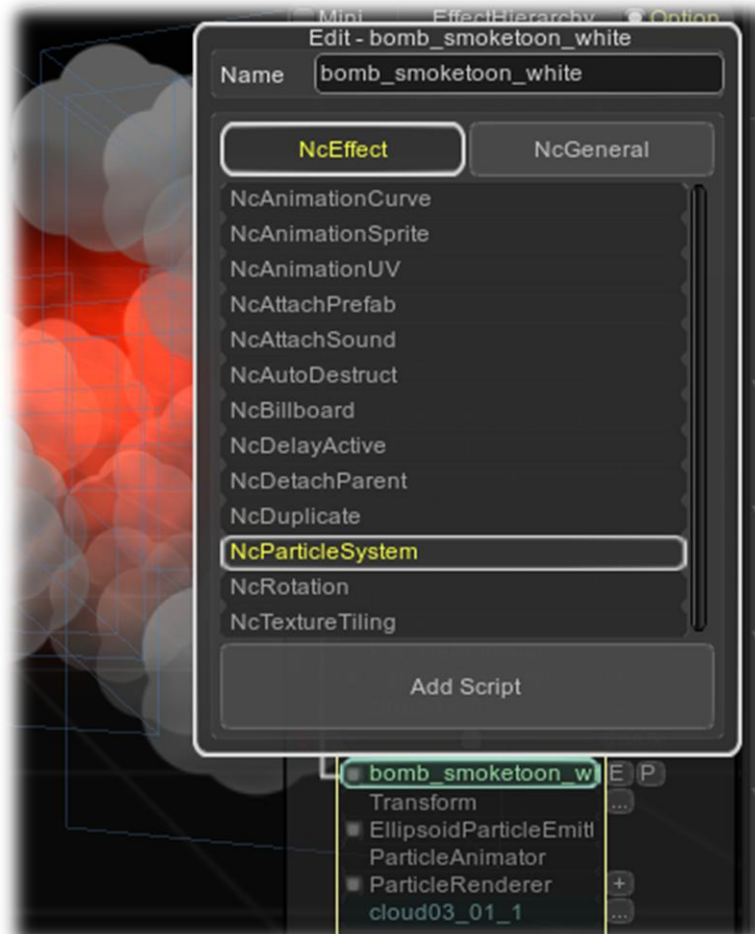
Editing Transform



Component/Material Menu



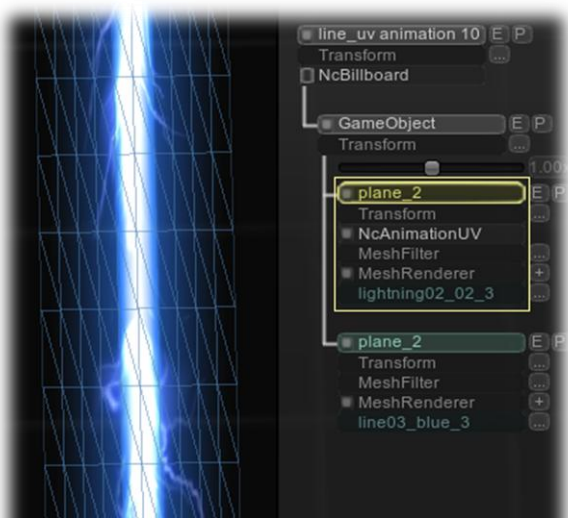
GameObject Menu



Add Component

## 3-7 Ways of Production

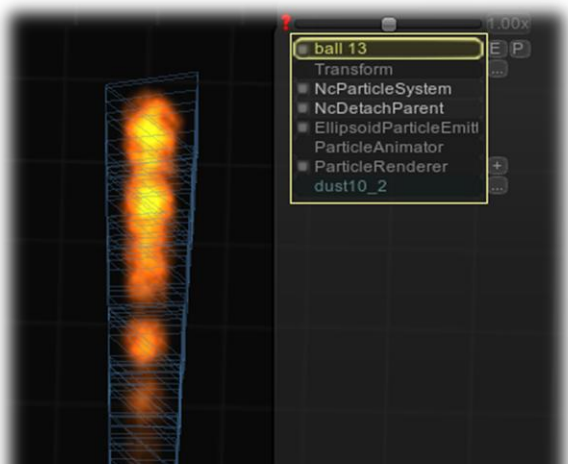
– Supports three mode( Mesh Effect, LegacyParticle, ShurikenParticle )



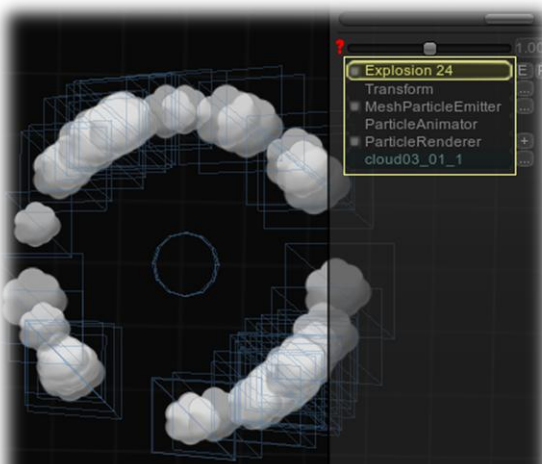
Mesh Effect



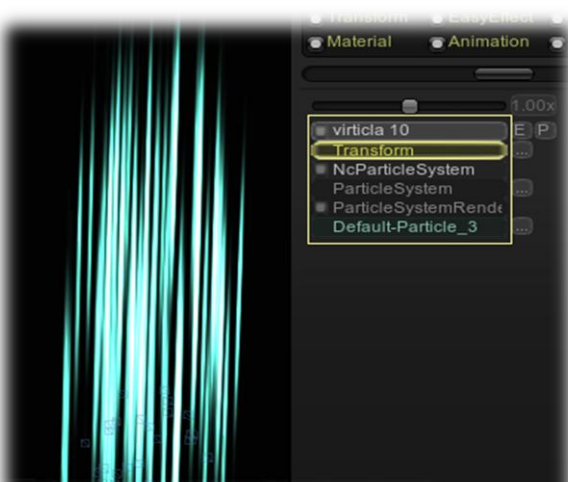
Mesh Effect



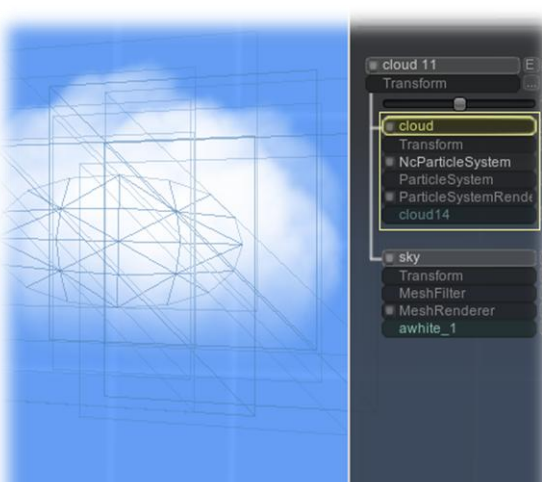
Legacy EllipsoidParticle



Legacy MeshParticle



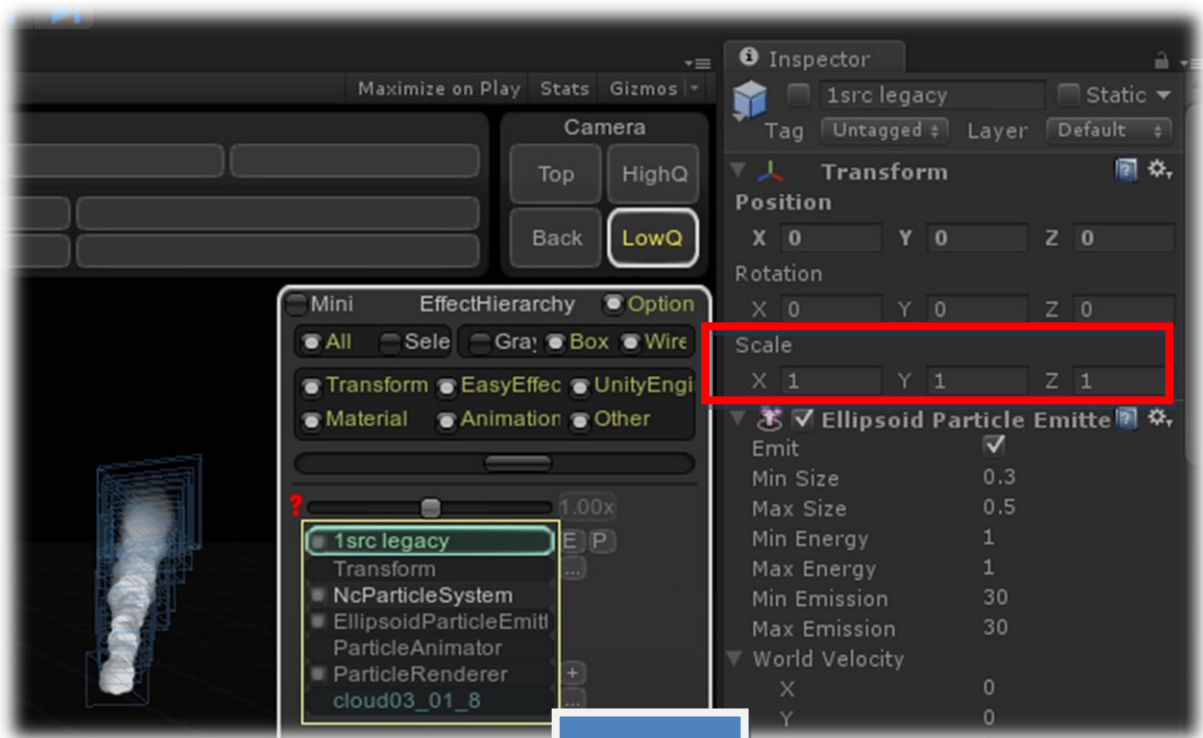
Shuriken Particle



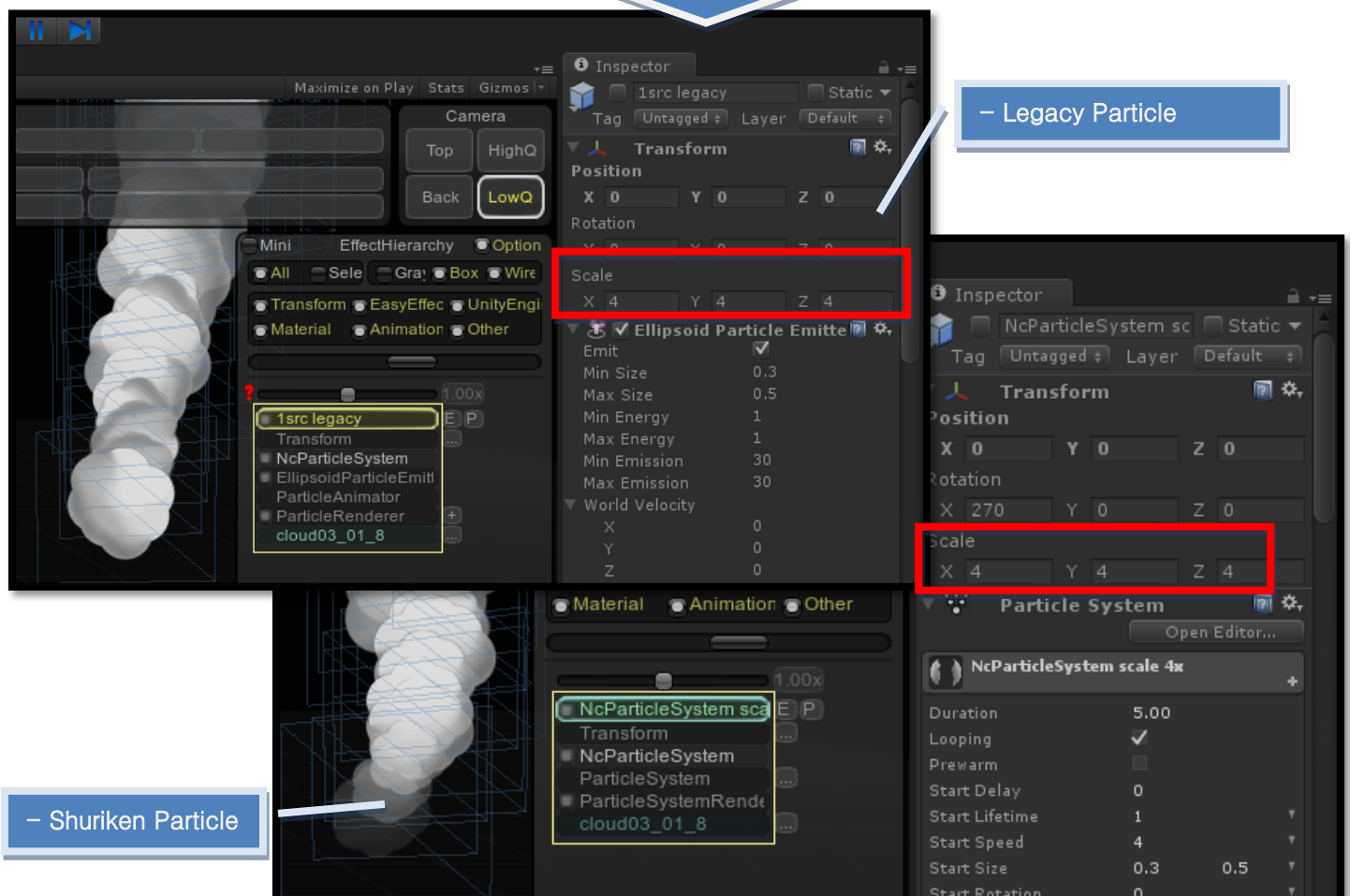
Shuriken Mesh Particle

## 3-8 Resize Particle

- Particle(LegacyParticle, ShurikenParticle) resizing with respect to GameObject is possible.
- Scale value can be modified also at PlayMode. (Scale Animation)

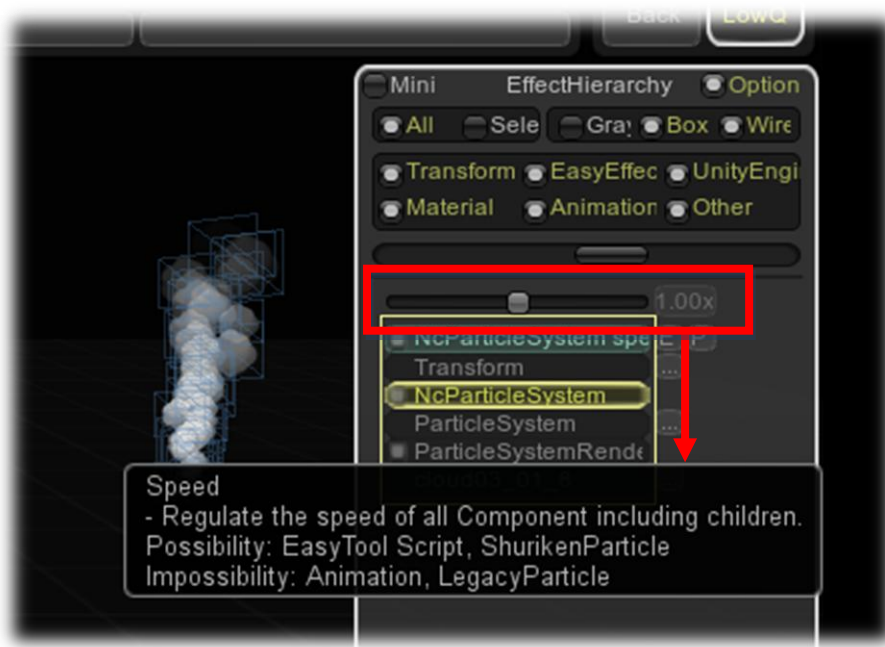


Scale 4x



## 3-9 Speed Adjustment

- Velocity of GameObject can be controlled by using scroll bar.
- Support (ShurikenParticle, LegacyParticle(Partial) , FX Maker Script), support scheduled (Bone Animation)



## 3-10 Clipboard

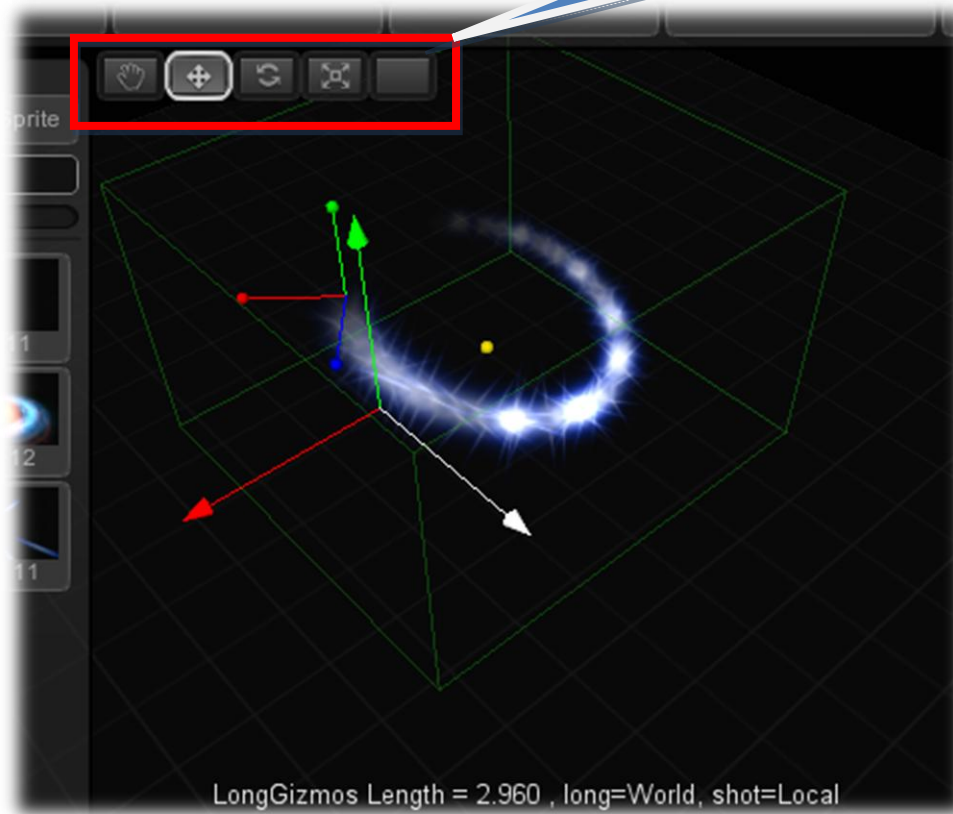
- Support contents (Prefab, GameObject, Transform, Component, Material, Color, Animation)
- Easy transfer/copy/duplicate is available inside EffectPrefab.
- Also can bring contents from other EffectPrefab.



## 3-11 Gizmo Axis

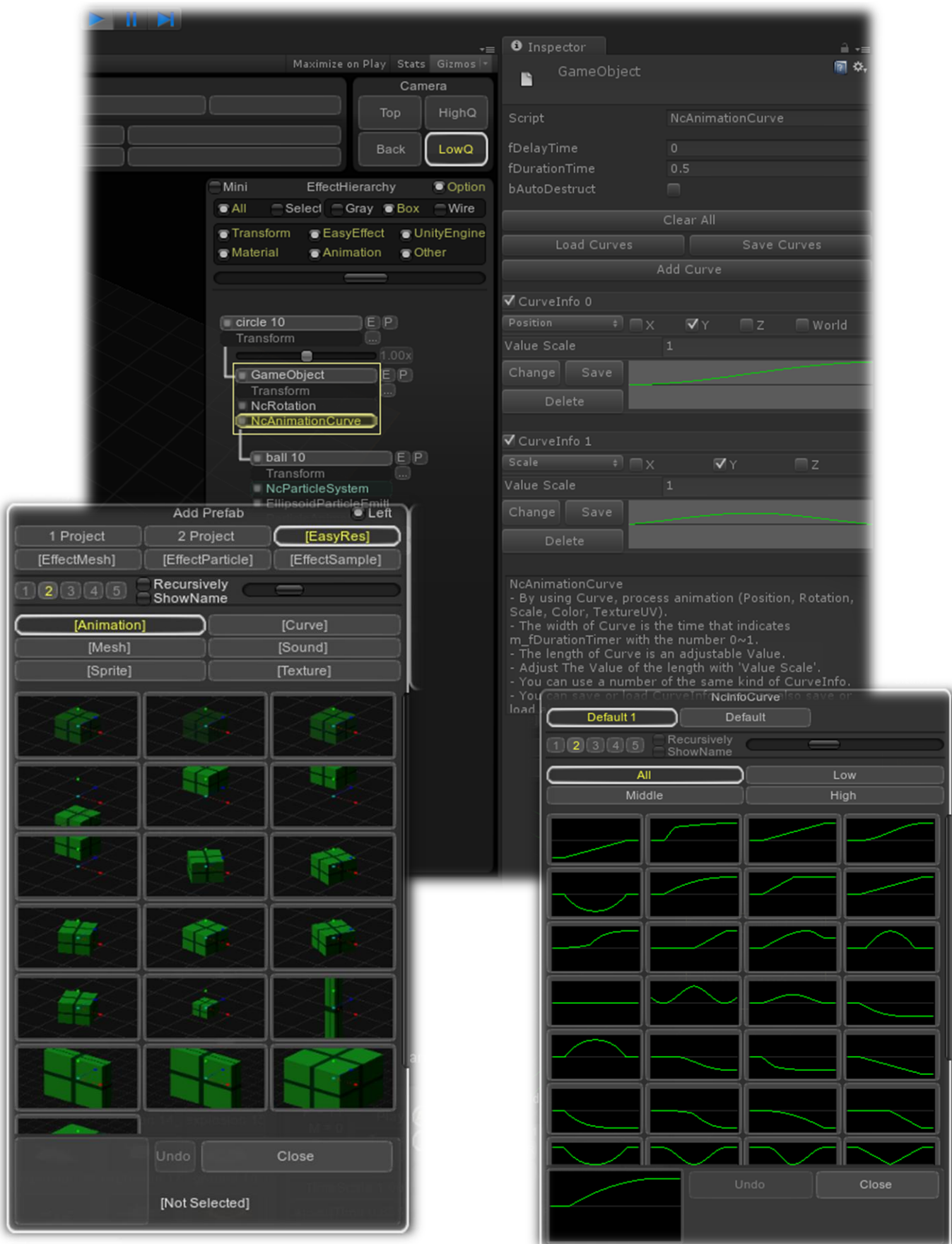
– Displays World-Axis and Local-Axis and can be control by using World-Axis.

Hand, Move, Rotate, Scale, None



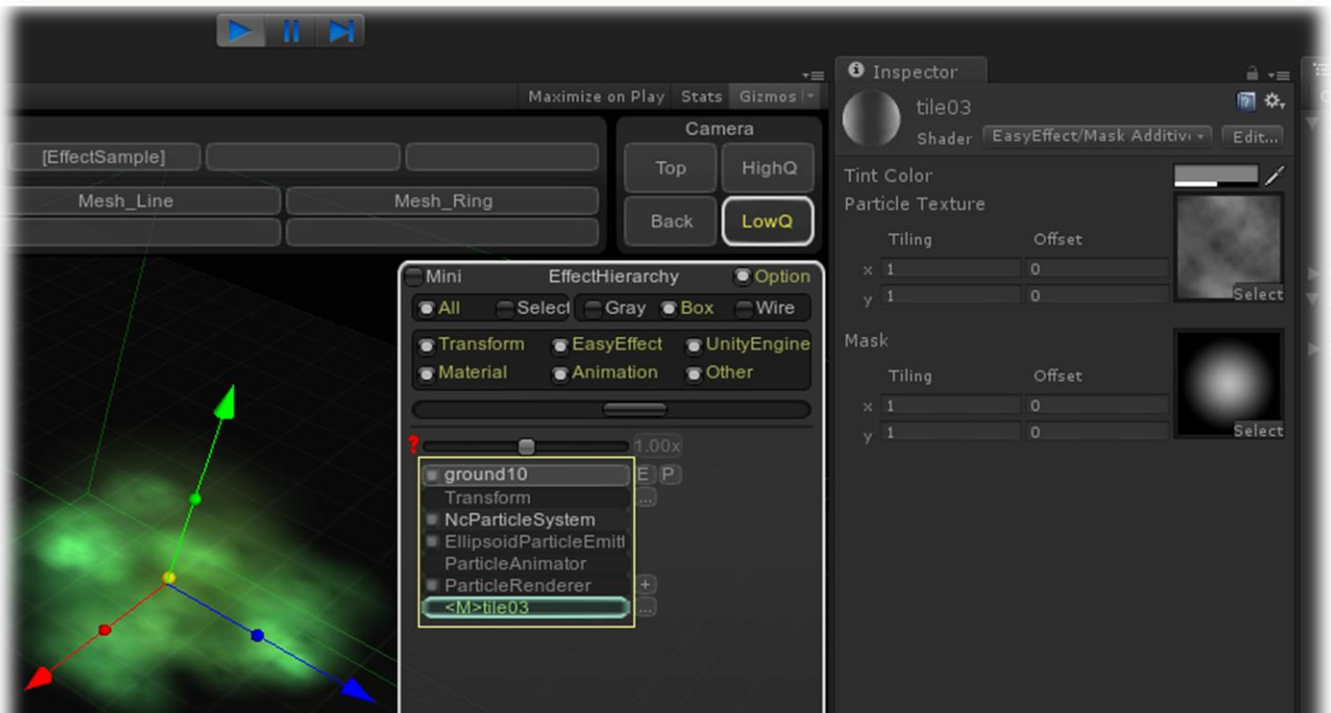
## 3-12 Curve Animation

- Supports Curve, and handles Animation.
- Made curve or animation can be saved separately and be recycled.

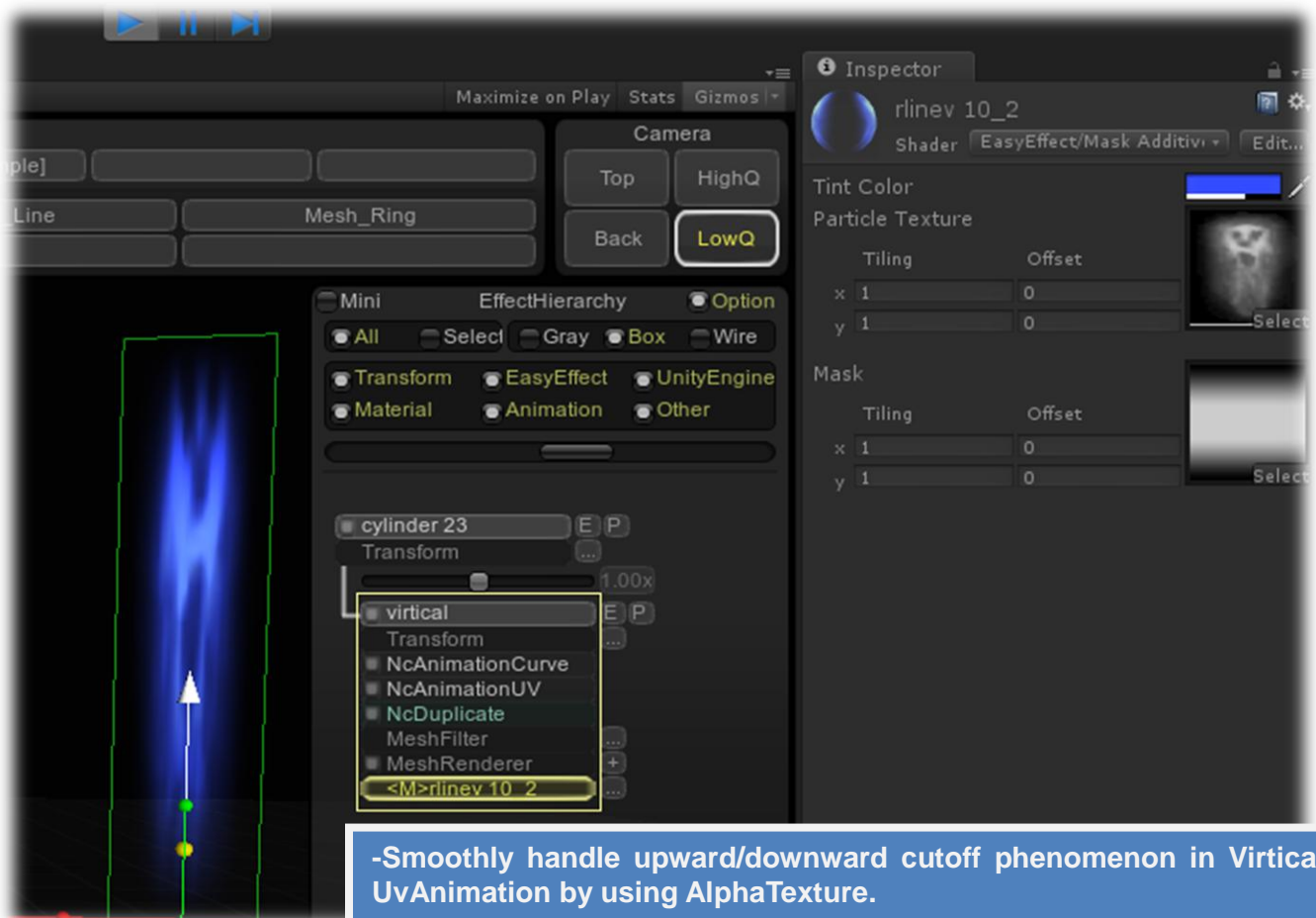


## 3-13 Mask Shader

- Supports 4 MarkShaders which can combine texture and hundreds of combination is available.



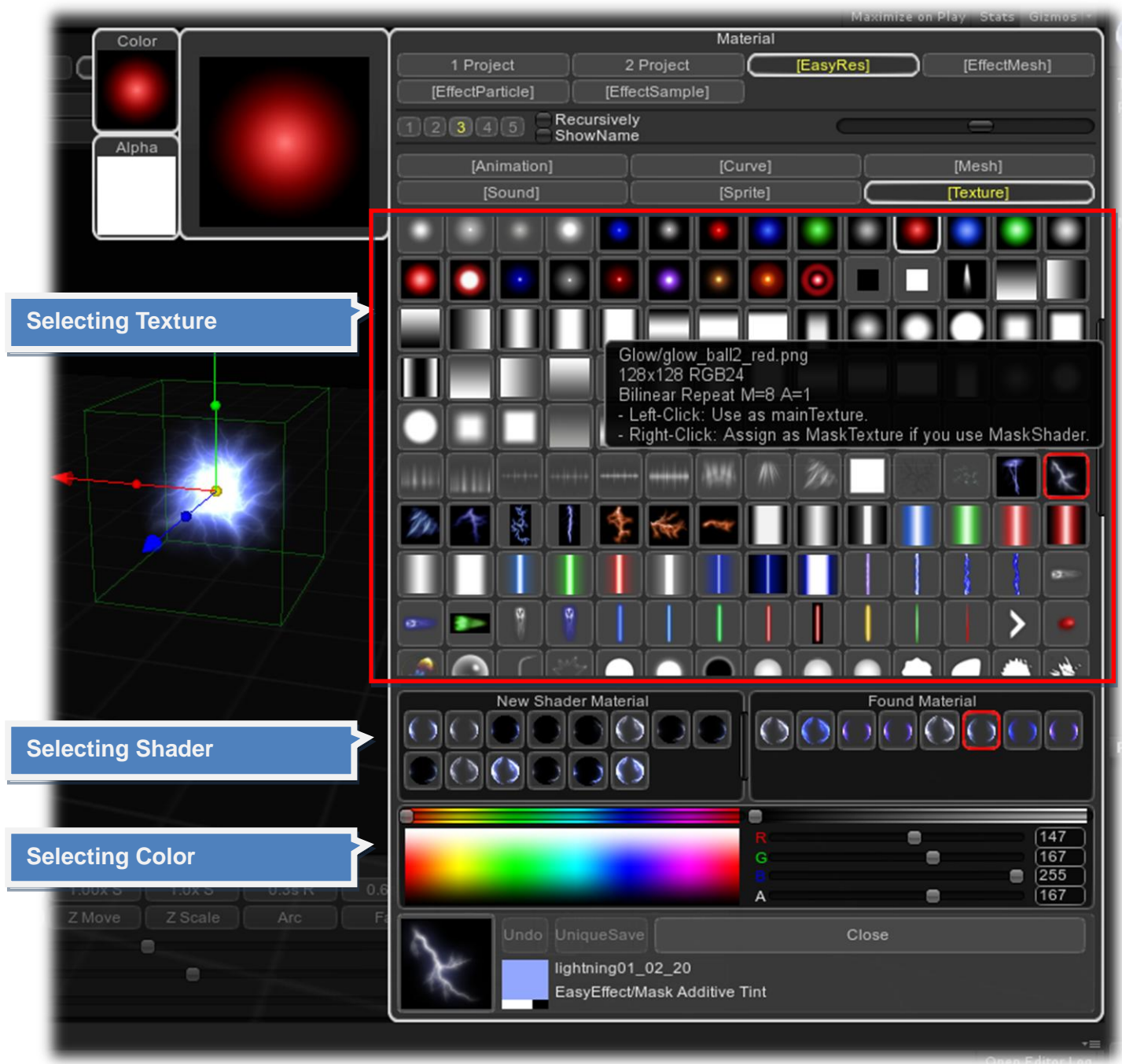
Create a new Texture by combining two of them.



-Smoothly handle upward/downward cutoff phenomenon in Virtual UvAnimation by using AlphaTexture.

## 3-14 Material Dialog

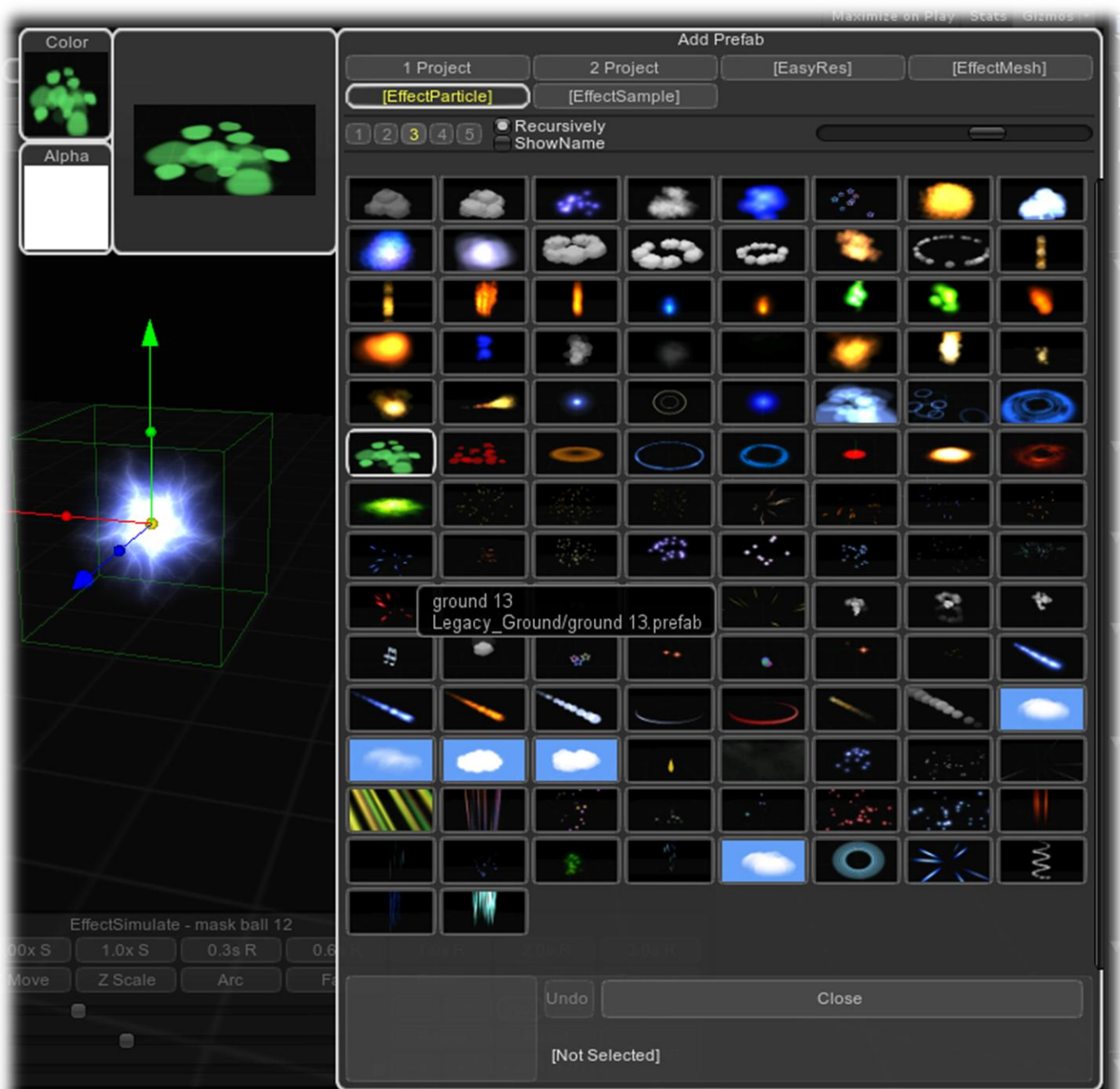
- Edit screen which appears when Material is selected.
- Texture modification, Shader modification, Color modification, selection of previous material can be set by single click.
- Does not affect other Prefab sharing Material even after changing Material.
- When identically configured Material exists, use previous Material.
- When identically configured Material does not exist, automatically creates Material before using.





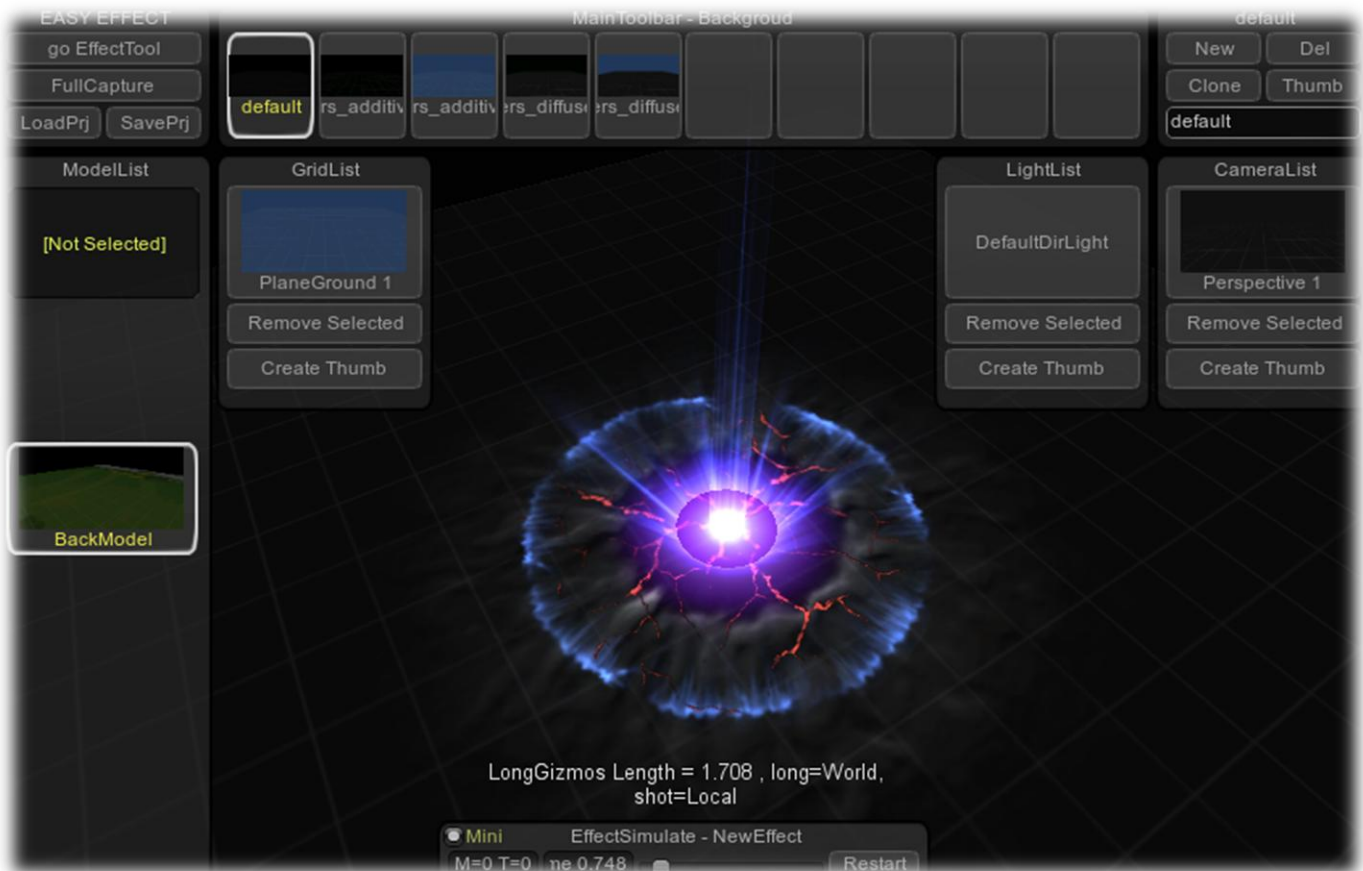
## 3-15 Prefab Dialog

- 300 practices exists which is made with respect to function.
- New Effect can be created, but by combining and modifying practices, faster production is possible.
- Figure below shows the screen of selecting from previously created Effect and adding to SubGameObject.

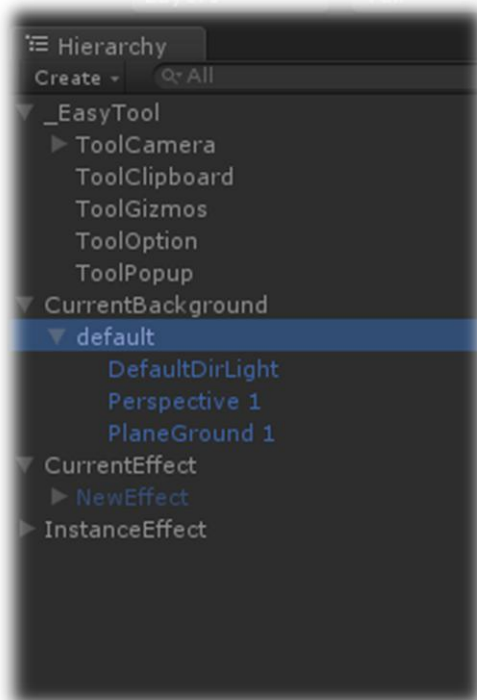


## 3-16 Background Setting

- Can create Model, Grid, Light and Camera in advance and selectively use them.
- Purpose of background setting is to make same background screen as game and to produce Effect.

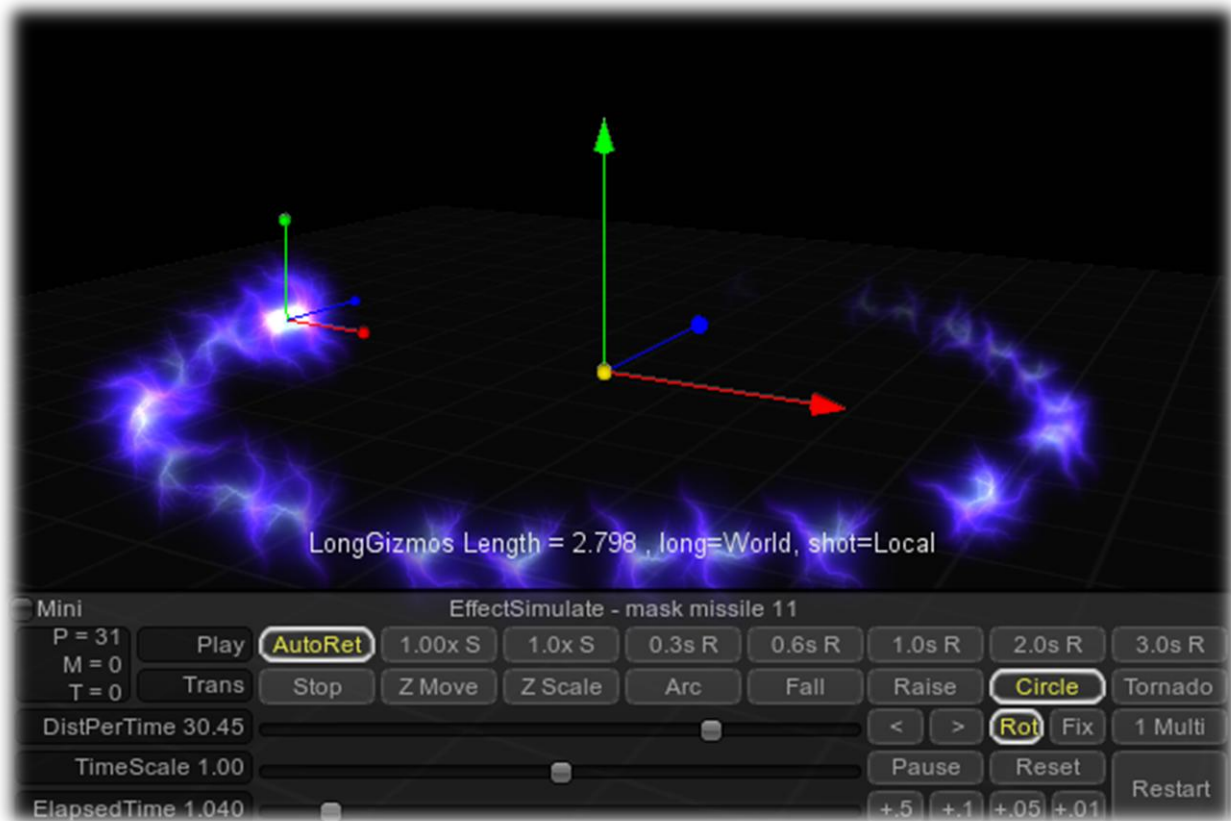
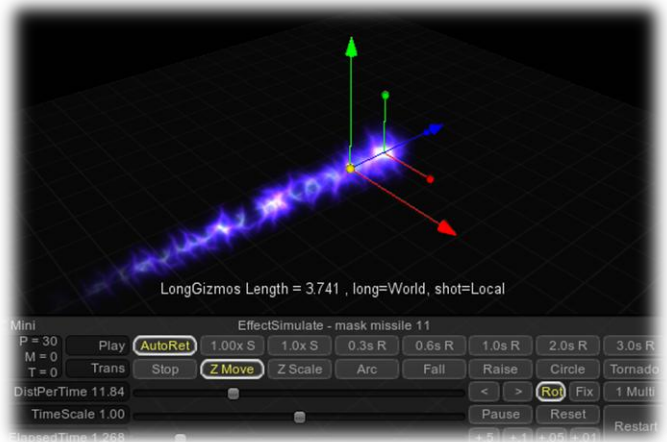
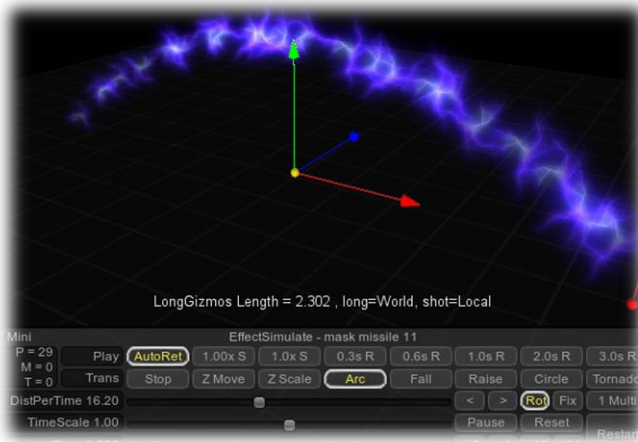


- Put GameObject under CurrentBackground/XXX/ and operate SavePrj to save the project.



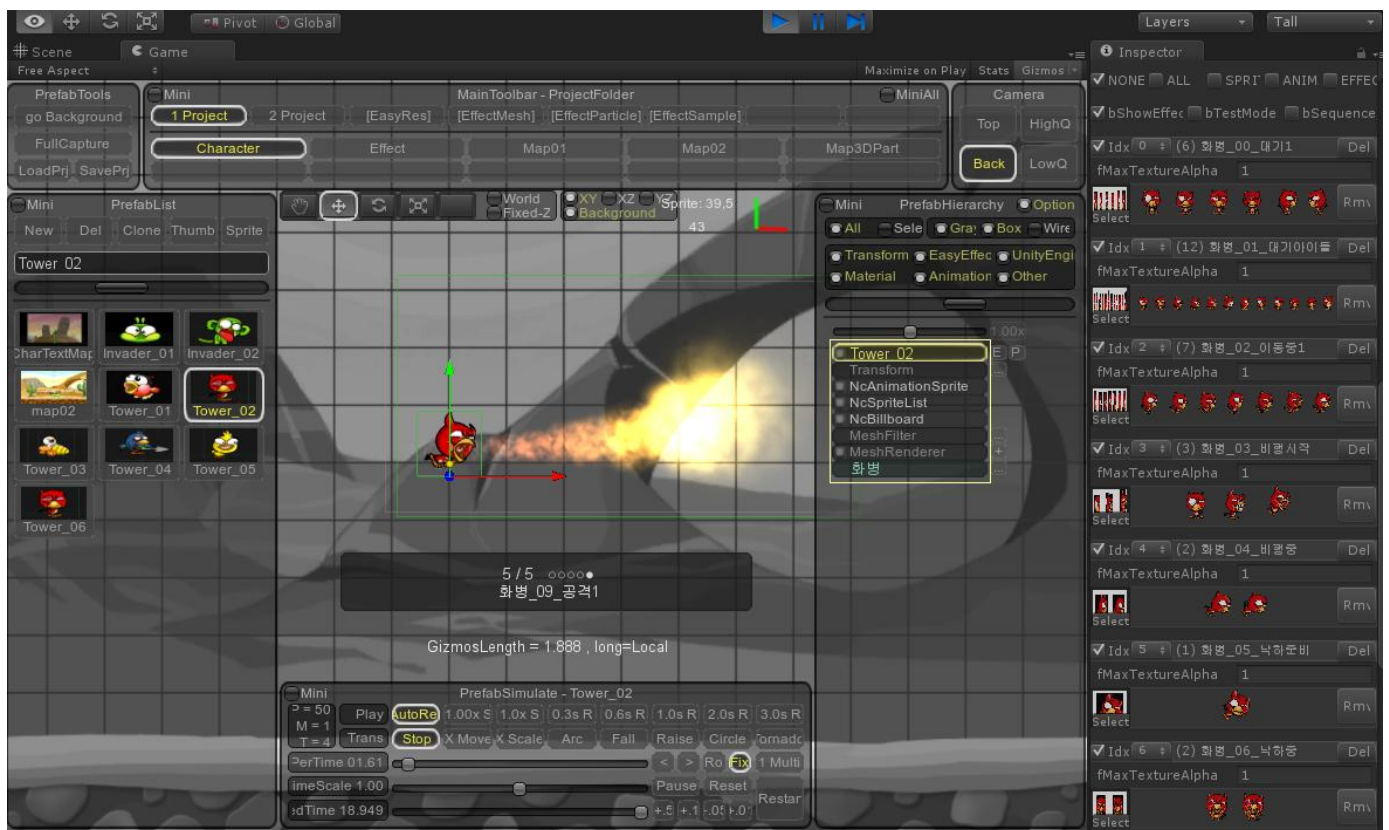
## 3-17 Effect Simulate

- By using Controls below, mobility test can be carried out.
- Move, Scale, Arc, Fall, Raise, Circle, Tornado, MultiShot, Speed
- Does not get saved at EffectPrefab. Only for test at tool.





## 3-18 MapTool and CharacterTool





## 4-1 Effect Script

기능	설명
NcEffectBehaviour	<ul style="list-style-type: none"> <li>- Base class of all EffectClass</li> <li>- public static GameObject GetRootInstanceEffect() is parent of internally created GameObject.</li> <li>- public static GameObject PreloadTexture(GameObject prefab) Load all texture to be used at GameObject in advance.(Resources)</li> </ul>
NcDelayActive	<ul style="list-style-type: none"> <li>-Delays Active time of GameObject.</li> <li>-DelayTime affects all Components/Child GameObjects.</li> <li>-When using this Component, must create by using Prefab.</li> <li>-When using after early creation, becoming state of auto Active has to be prevented by using HideNcDelayActive function.</li> </ul>
NcAddForce	<ul style="list-style-type: none"> <li>- Add physical value at the first rendering.</li> </ul>
NcAttachPrefab	<ul style="list-style-type: none"> <li>- Do Runtime load and Rendering by assigning Prefab which is already created.</li> <li>- When AttachPrefab is modified, current Effect is also applied due to reference method.</li> <li>- Additional functions: Delay, Repeat, RandomPosition</li> </ul>
NcAttachSound	<ul style="list-style-type: none"> <li>- Play a sound file.</li> <li>- Additional functions: Delay, Repeat, Volume Control, AudioSource option</li> </ul>
NcAutoDestruct	<ul style="list-style-type: none"> <li>- If the assigned time elapses, automatically remove gameObject.</li> </ul>
NcBillboard	<ul style="list-style-type: none"> <li>- Have GameObject a Billboard process.</li> <li>- Additional functions: MameraLookAt, FixedObjectUp, StandUp</li> </ul>
NcCurveAnimation	<ul style="list-style-type: none"> <li>- Process animation (Position, Rotation, Scale, Color, TextureUV) by using Curve.</li> </ul>
NcDetachParent	<ul style="list-style-type: none"> <li>- Separate gameObject and ParentGameObject, not to be removed together.</li> <li>- Though the body and the tail of missile disappear together, the tail will be used to GameObject which should be indicated for a period of time.</li> </ul>
NcDuplicator	<ul style="list-style-type: none"> <li>- Create gameObject repeatedly at certain intervals.</li> </ul>
NcParticleSystem	<ul style="list-style-type: none"> <li>- Provide additional functions to ParticleSystem(Legacy, Shuriken).</li> <li>- Major functions: Managing Particle Component, Delay, Repeat, Speed, ScaleWithTransfrm</li> <li>- Support all Particle (ParticleSystem, EllipsoidParticleEmitter, MeshParticleEmitter)</li> </ul>
NcRotation	<ul style="list-style-type: none"> <li>- Rotate gameObject at the assigned speed.</li> </ul>
NcSpriteAnimation	<ul style="list-style-type: none"> <li>- Have Material.Texture a SpriteAnimation process.</li> </ul>
NcSpriteTexture	<ul style="list-style-type: none"> <li>- Selectively print partial texture by using Atlas information.</li> </ul>
NcSpriteFactory	<ul style="list-style-type: none"> <li>- Building AtlasTexture</li> </ul>
NcTilingTexture	<ul style="list-style-type: none"> <li>- Do Tiling Material.Texture.</li> </ul>
NcUvAnimation	<ul style="list-style-type: none"> <li>- Have Material.Texture an UVanimation process.</li> <li>- As Material which became Instance, it will not affect other Material.</li> </ul>

## 4-2 Folder

- 노란색으로 표시된 내용은 'Unity Project'에서 직접 처리하셔야 합니다.

0	1	2	3 depth	설명
IGSoft_Resources				RootFolder of Resource
	Backgrounds			
		BackgroundPrefabs		A folder in which Background information set by User is saved
		BackgroundResources		A folder in which Background Asset that User can choose exists
			CameraList	
			LightList	
	Projects			A folder which is shown in MainToolBar of EffectTool
		1 Project		A Project folder that User will use
			1 Group	- An operating folder in which Effect created by User is saved - (Texture, Material, Mesh, etc., which are created by User, can also be saved.)
		...		(You can create a new Project folder.)
			...	(You can create a new Group folder.)
		[EffectMesh]		Contains Effect Parts only made of Mesh.
		[EffectParticle]		Contains Effect Parts only made of Particle.
		[EffectSample]		A Root folder of Sample that is a composite of Mesh and Particle put together
		[Resource]		A Roote folder in whchi Effect Resource exists
			[Animation]	A folder in which you save reusable Curve animation
			[Curve]	A folder in which you save reusable Curve
			[Mesh]	A Mesh folder for Effect created beforehand
			[Sprite]	This is folder at which Texture created by 'Build Sprite' is saved.
			[Texture]	A Texture folder for Effect created beforehand
		[RecycleBin]		A folder in which previous Effect is saved when you delete or modify Effect
	Scripts			A Script folder for Effect (You should include when you do ExportPackage EffectPrefab.)
		HideCommon		Becomes an invisible folder in Tool if the word 'Hide' is included.
		NcEffect		A folder in which Script for Effect exists
		...		(By creating a new folder, you can put Script made by user.)
	ToolResources			
		DefaultMesh		A folder in which Mesh created beforehand exists
		DefaultShaderMaterials		A folder in which Shader that User can choose exists (You can add a new shader.)
		DefaultShaderMaterials Unlisted		Move unused Shader in DefaultShaderMaterials to here.
		Shader		Shader source
		TempPreviewTexture		A folder in which a preview image saved by Thumb button is saved
IGSoft_Tools				
	FXMaker			
	sceneFXMakerMobile			Scene that you can test a created sample in mobile
	sceneFXMaker			FXMaker Scene