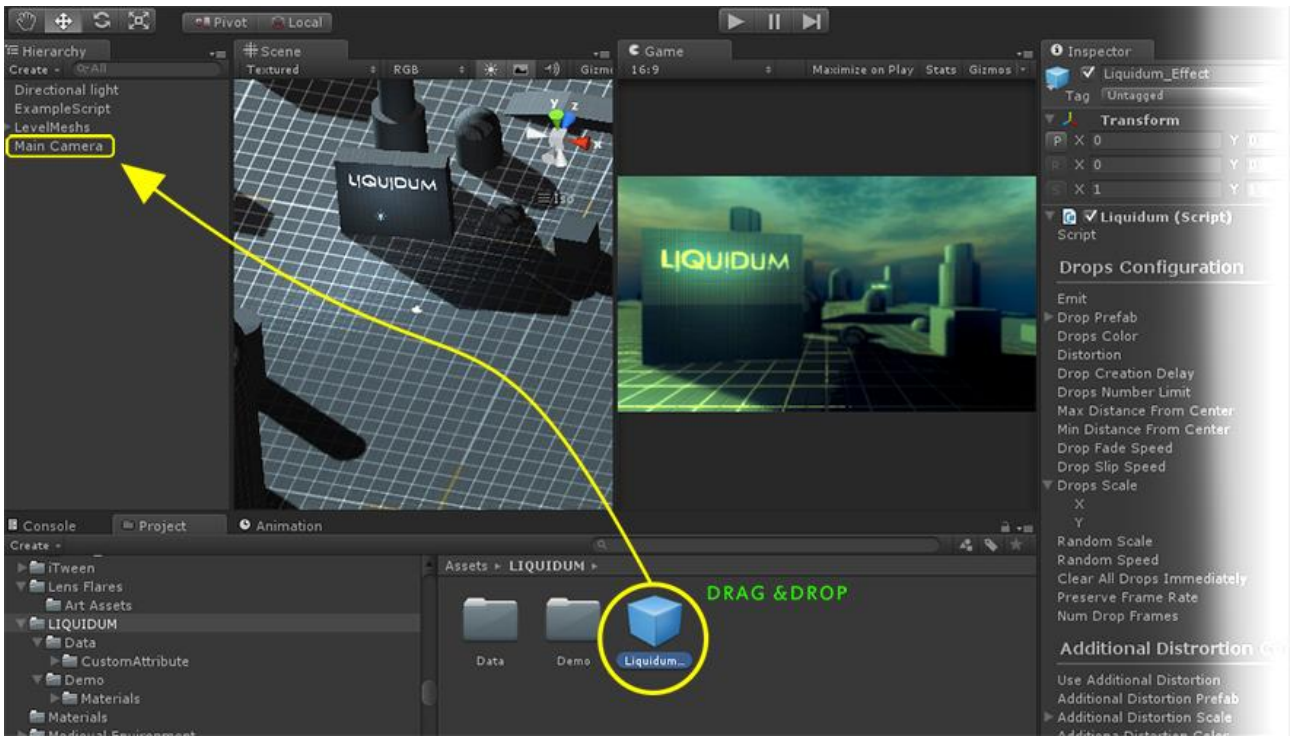
LIQUIDUM PRO V1.5.6

Liquidum is a suite of realtime-dinamic liquid/fluid effect to simulate distort water (and other liquid) over the screen, over the meshs objects, rain/snow/hailstorm and more generally be used where there is need to simulate liquid effects on a scene.

At the moment there are fourteen types of different effects and many features are still under development.

TO ADD LIQUIDUM IN YOUR SCENE:

Step1: Simply drag and drop the Liquidum_Effect.Prefab under your camera/Character.

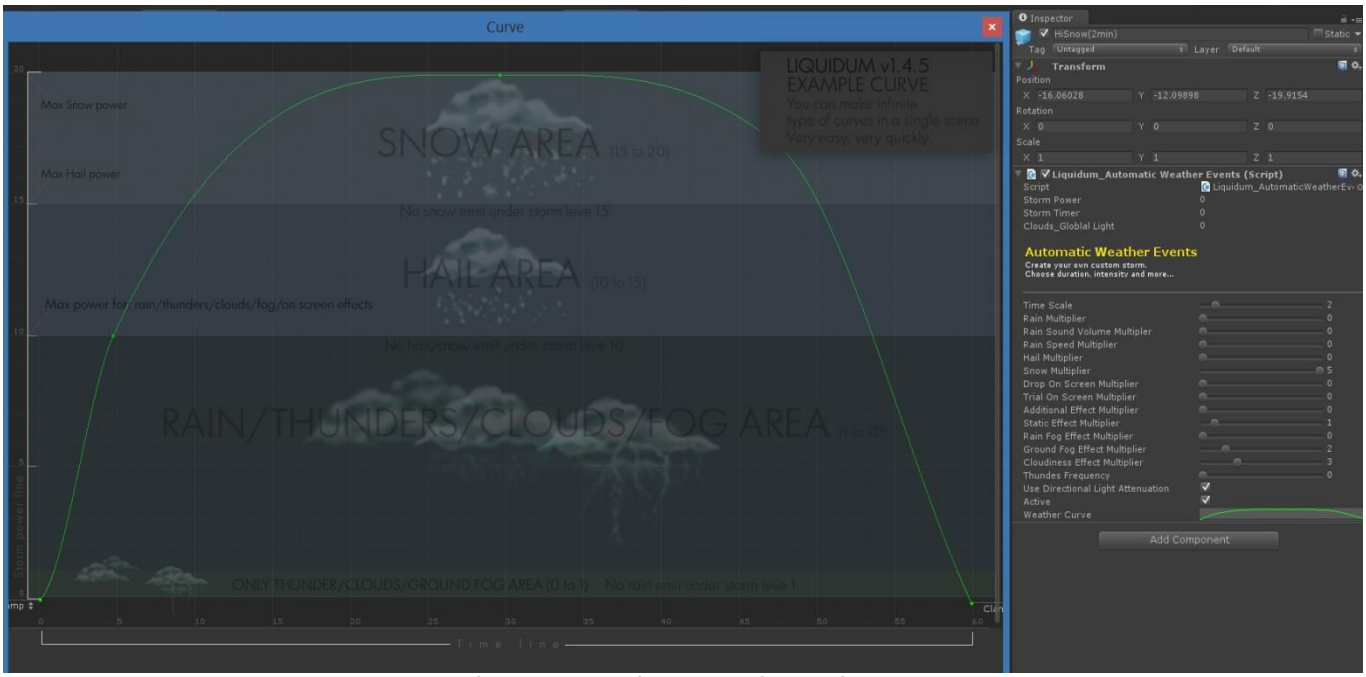


Step2: You can immediately see liquidum in action! Press Play and watch the effect.

Take note:

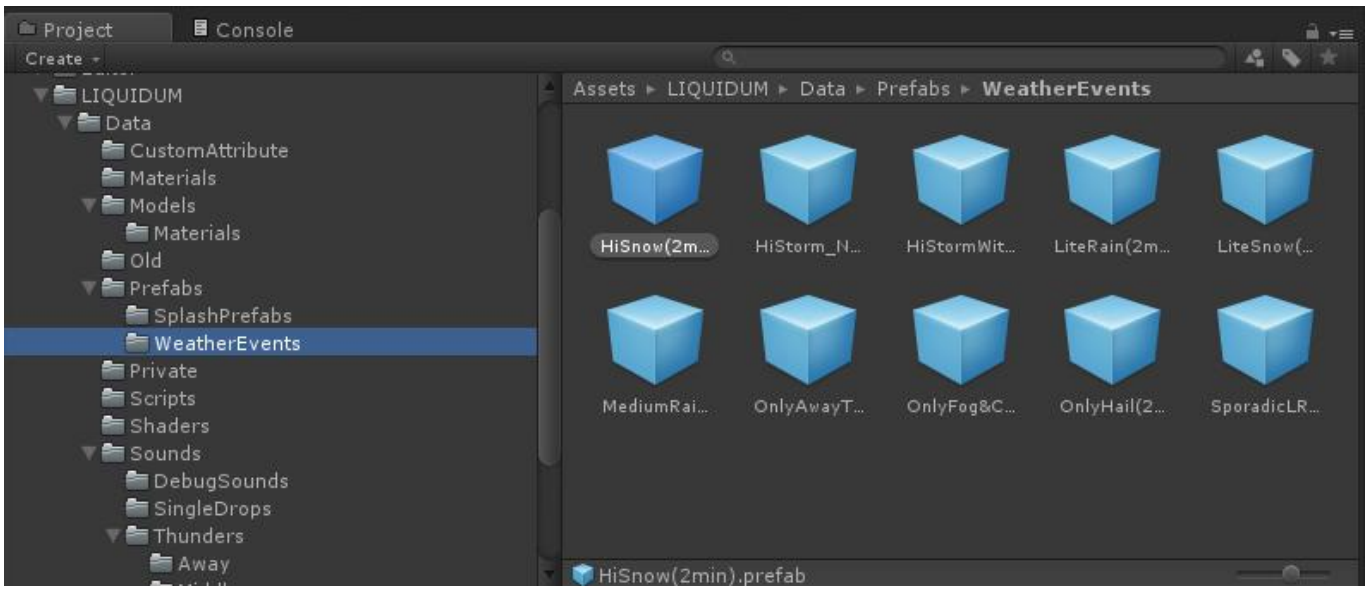
If you have a similar problem, adjust the Additional Distortion Scale and Static Scale variables.
*feature avaiable from 1.4a version
Additional Distrortion Configuration
Use Additional Distortion
Additional_Rain Dependence
Additional Distortion Scale
X 1.5
Y 1
Additiona Distortion Color
Additional Distortion Strength
30
Additional Distortion Slip Speed
5
Fade In Additional Distortion Now
Fade Out Additional Distortion Now
Additional Distortion Fade Out Speed
1
Additional Distortion Fade In Speed
1
Static Liquid Configuration
Use Static
Static_Rain Dependence
Static Scale
X 1.5
Y 1
Static Color
Static Distortion
20
Fade In Static Now
Fade Out Static Now
Static Fade Out Speed
0.5
Static Fade In Speed
1

WEATHER EVENTS USE



Explanatory weather curve image in v1.4.5

You can find many weather events prefab in the *Asset/LIQUIDUM/Data/Prefabs/WeatherEvents directory.*



To use a weather event you can simply drag&drop it in your scene. You can create a empty gameobject where drag all your events prefab.
If no weather event prefab is present in your scene, Liquidum get settings from **Liquidum (Main Script)**.
On the contrary, if you have a weather event prefab in your scene (and is active), Liquidum get the event setting and manage it following the weather curve.
Even if you use a weather event, Liquidum get many variables (colors, etc.) from **Liquidum (Main Script)**. A weather event manage especially emission rate of the effects. A complete list of influenced variables by weather event is under construction.
If you have two or more weather prefabs in scene, you can switch through them by **SetWeatherEvent(Liquidum_AutomaticWeatherEvents myevent)** function.

```
LiquidumUsageExample ▸ No selection
1  using UnityEngine;
2  using System.Collections;
3
4  public class LiquidumUsageExample : MonoBehaviour {
5
6
7      Liquidum LiquidumScript;
8      public Liquidum_AutomaticWeatherEvents myWeatherEvent;
9
10     void Start () {
11         //Get the liquidum main script
12         LiquidumScript=Liquidum.LiquidumScript;
13         }
```

.....

```
142    ////////////////////Weather event Example/////////////////////
143                if(Input.GetKeyDown(KeyCode.E)){//On press Key E
144        LiquidumScript.SetWeatherEvent(myWeatherEvent);//Set the weather
145                 }
146    ////////////////////////////////////////////////////////////
```

SetWeatherEvent(Liquidum_AutomaticWeatherEvents myevent) function is automatically called when the camera/character enter on a WeaterEventArea.

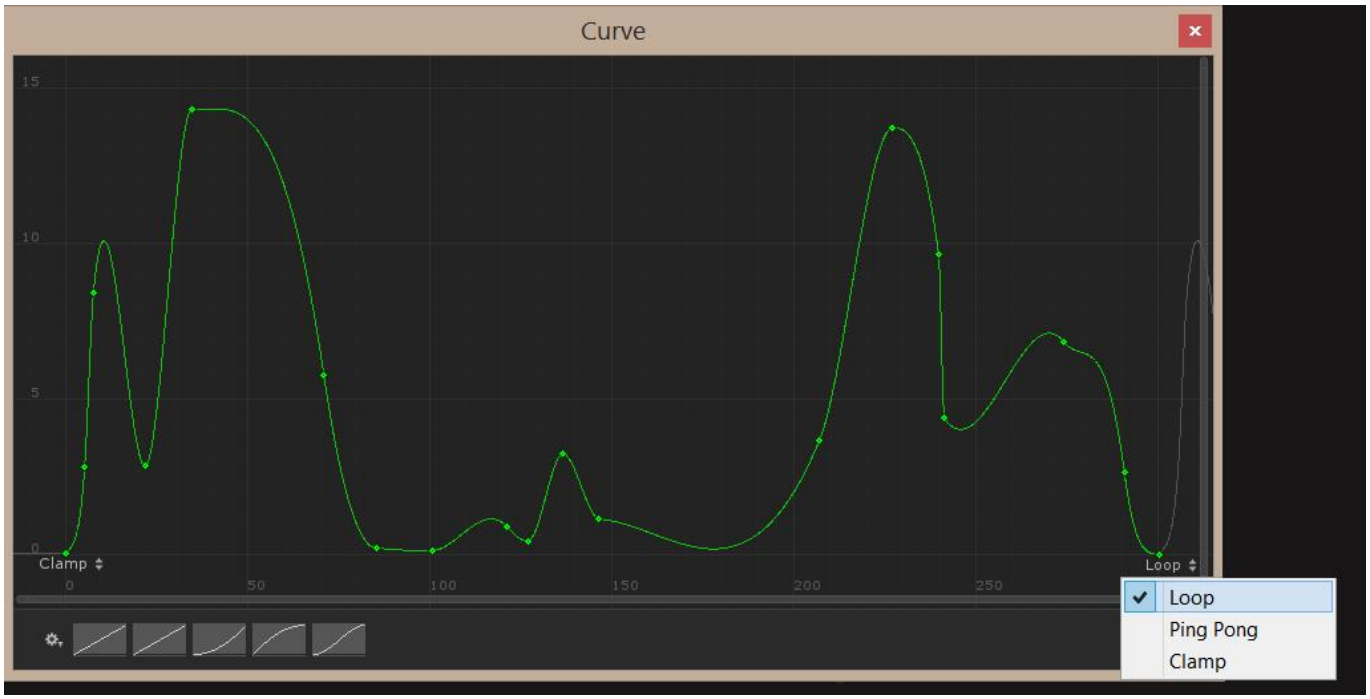
Automatic Weather Events variables

Automatic weather events inspector

- **Time Scale:** Event time multiply .

For example, if you have a 60 second long curve and time scale is 2, the event has been going on for two minutes and evrey second in time line will be two real seconds.

Update note: From 1.5.6 version you can set the curve in loop mode to make an infinite weather event.

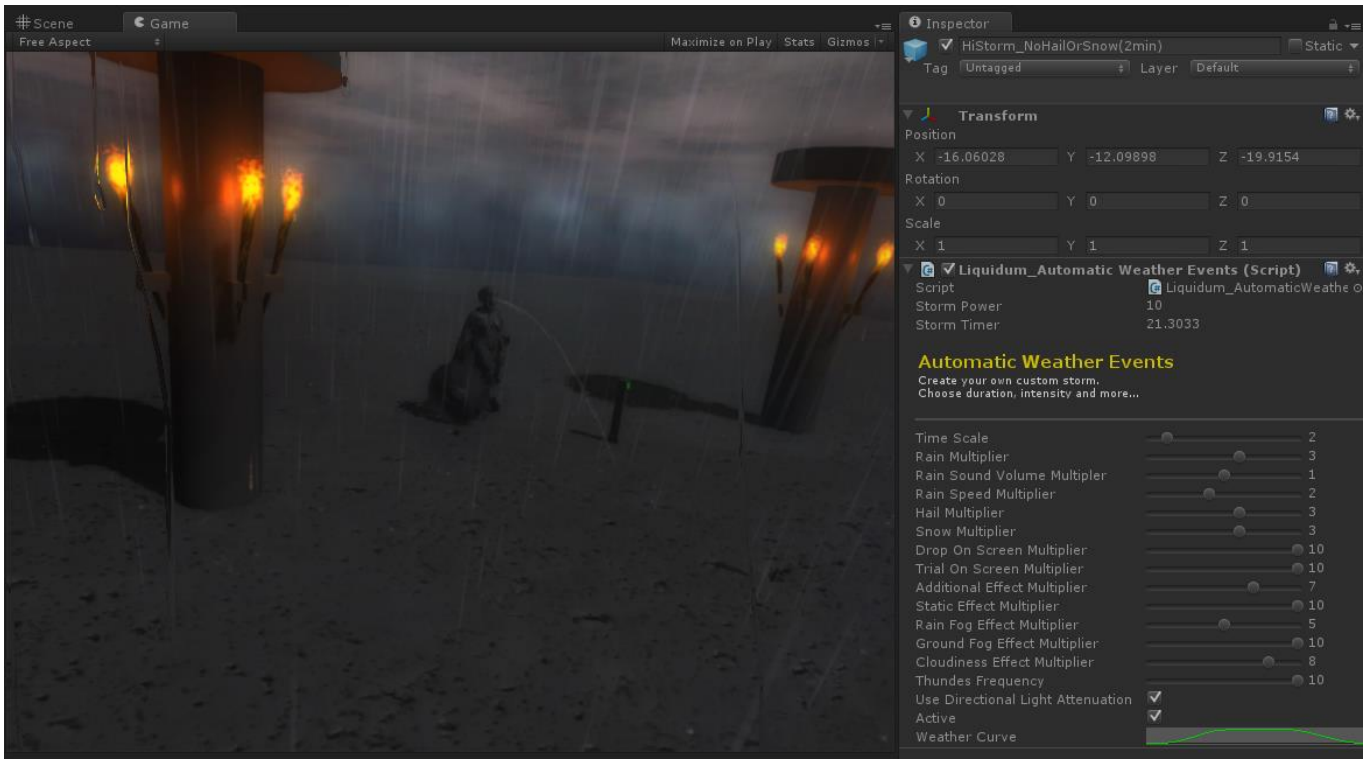


- **Multipler (for all effects):** When you use a weather event curve, all effects emission rate are influenced by power storm. But every effect have a specific multipler to manage.

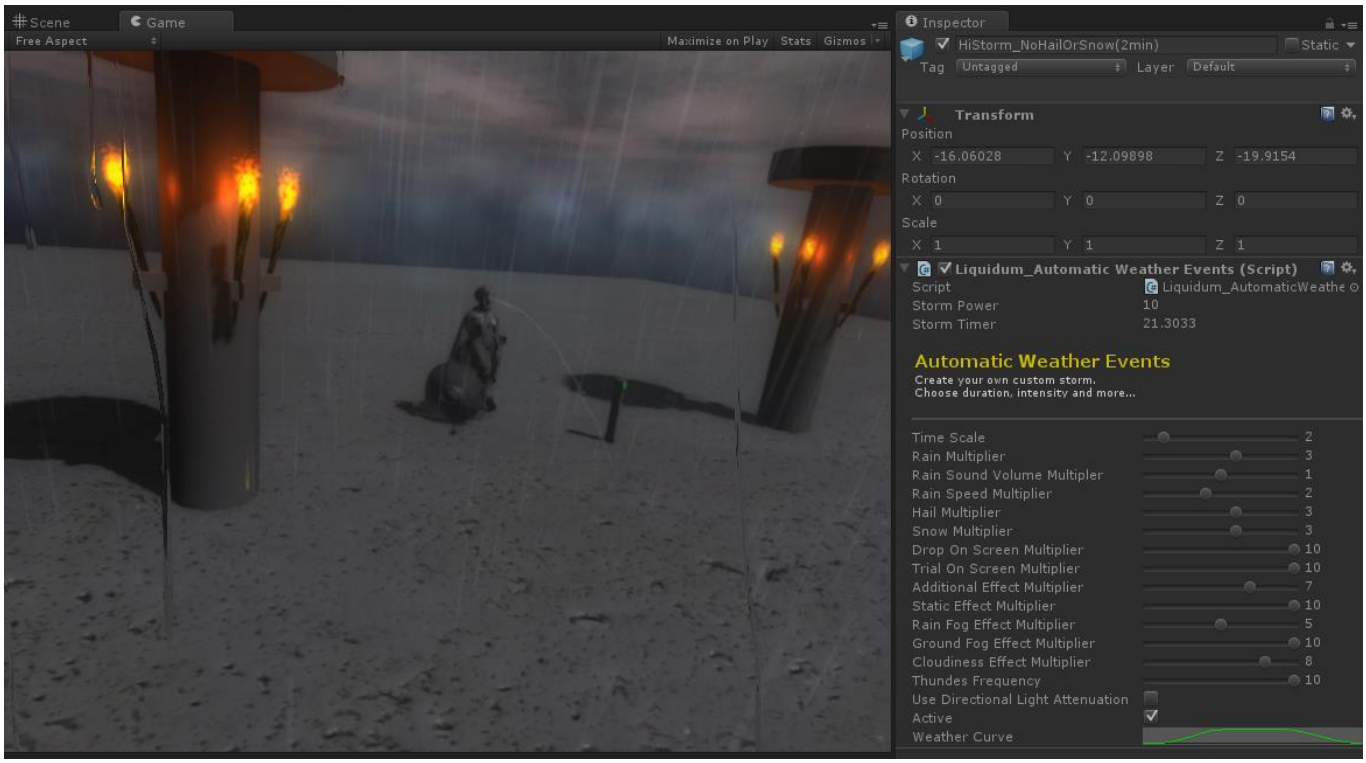
All multipler (Rain Multipler,Hail Multipler, etc.) increase the specific effect to leave aside storm power.
All multipler variables stop the effect if you set it <1.
For example, if you want a rain effect without *Drop on Screen* effect, you can set to 0 the *Drop on Screen Multipler*.
If you want a Hail effect without rain, you can set to 0 the *Rain Multipler*.
The Rain Sound Multipler manage the sound of rain selected in **Liquidum (Main Script)** setting.

- **Use Directional Light Attenuation**

When use this feature, the global light resent of gradual cloudiness. To become cloudy, the Directional light in the scene decrese in intensisty.
Liquidum get Directional light to manage from Thunders Settings in the **Liquidum (Main Script)** setting.
Attenuation quantity is affect also by *Cloudiness Effect Multiplier.*



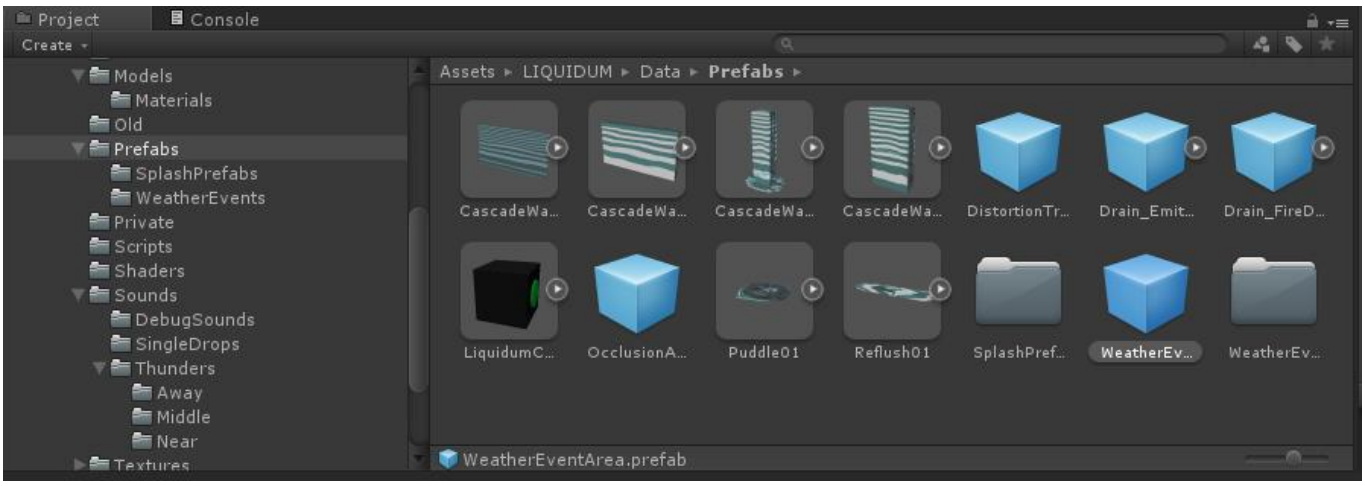
Storm power 10, cloudiness 8 and Light Attenuation **on**



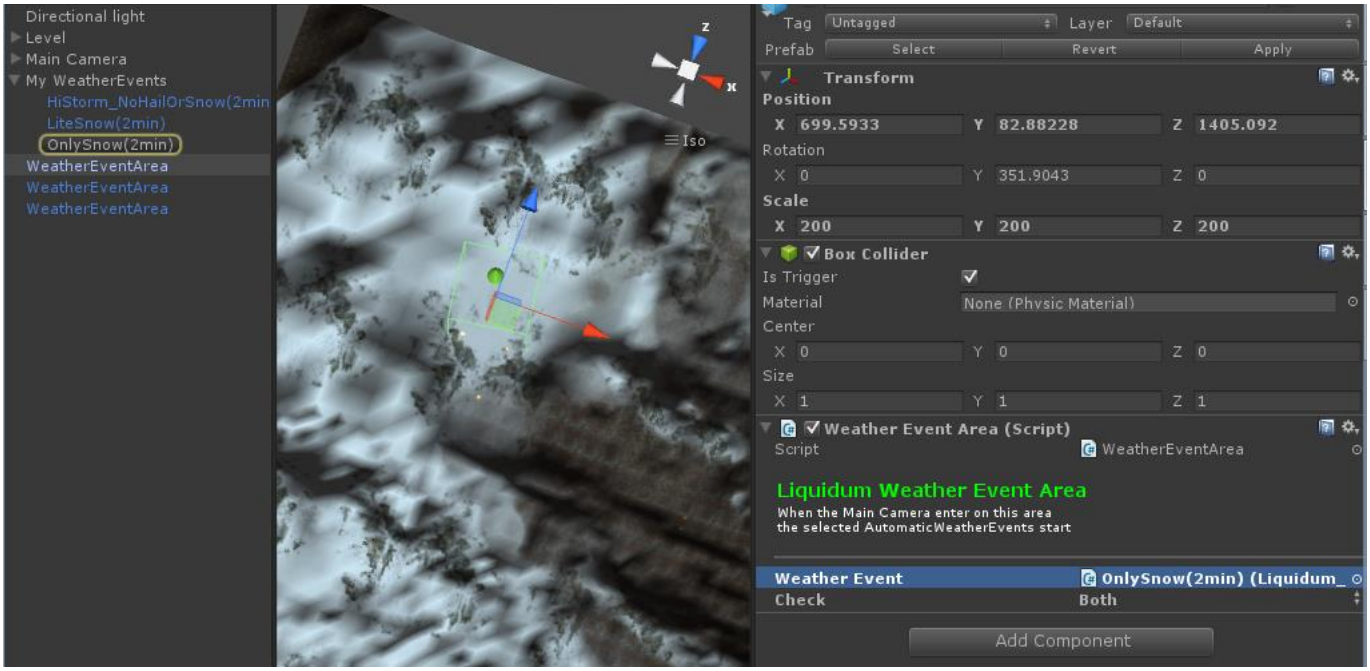
Same storm power and same cloudiness but Light Attenuation **off**

WEATHER EVENT AREAS

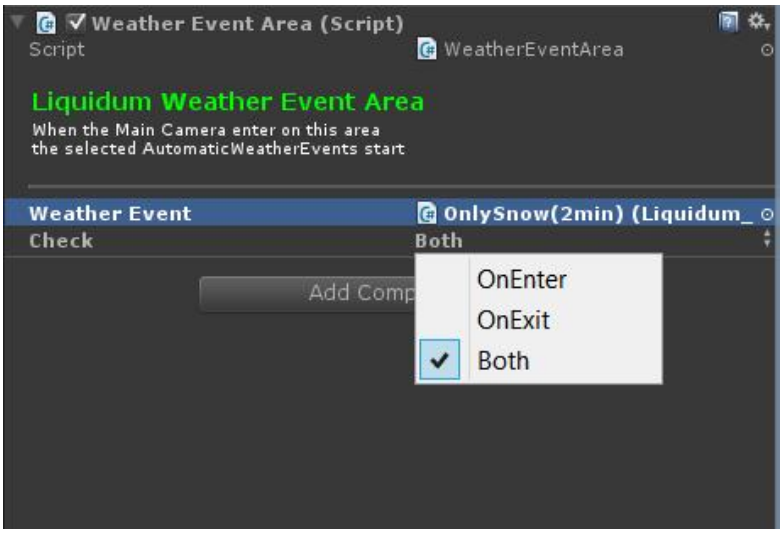
From Liquidum 1.4.5 version you can use multiple areas to activate your weather events.
You can find the weatherEventArea prefab under Prefabs direcory.



Drag the area prefab in your scene and assign a weather event (remember, the weather event prefab should be in the scene, you can not use a weather event prefab if it is not in the scene.)

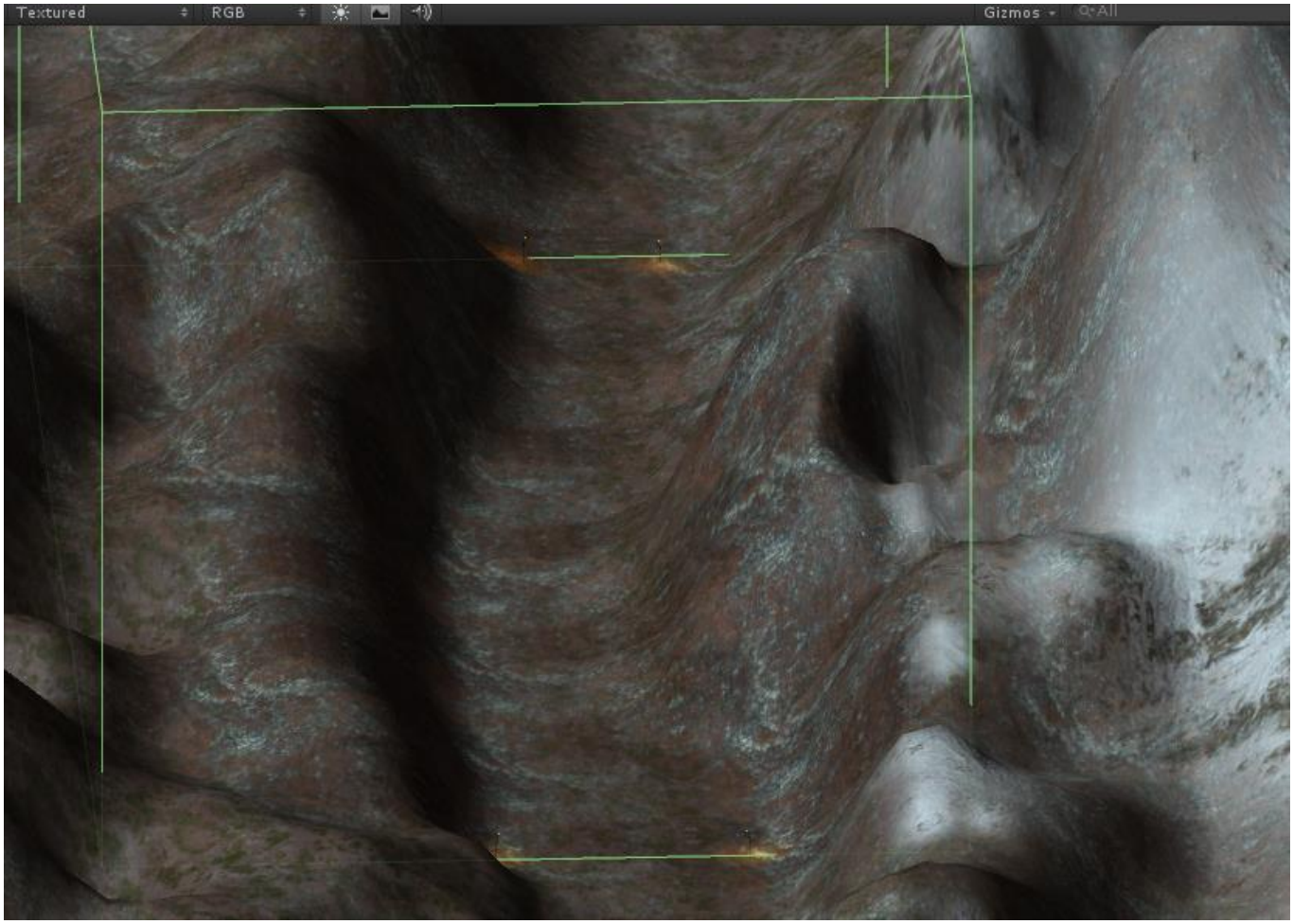


Now, when the camera/character enters in this area, the effect connected with it shall start.
You can choose which situation will be considered, OnEnter,OnExit or Both.



If you choose "OnEnter" the exit from area is not considered and the event will continue in its natural course even exit from the area.
If you choose "Both" or "OnExit", when you exit from the area the event will be slowly damped.

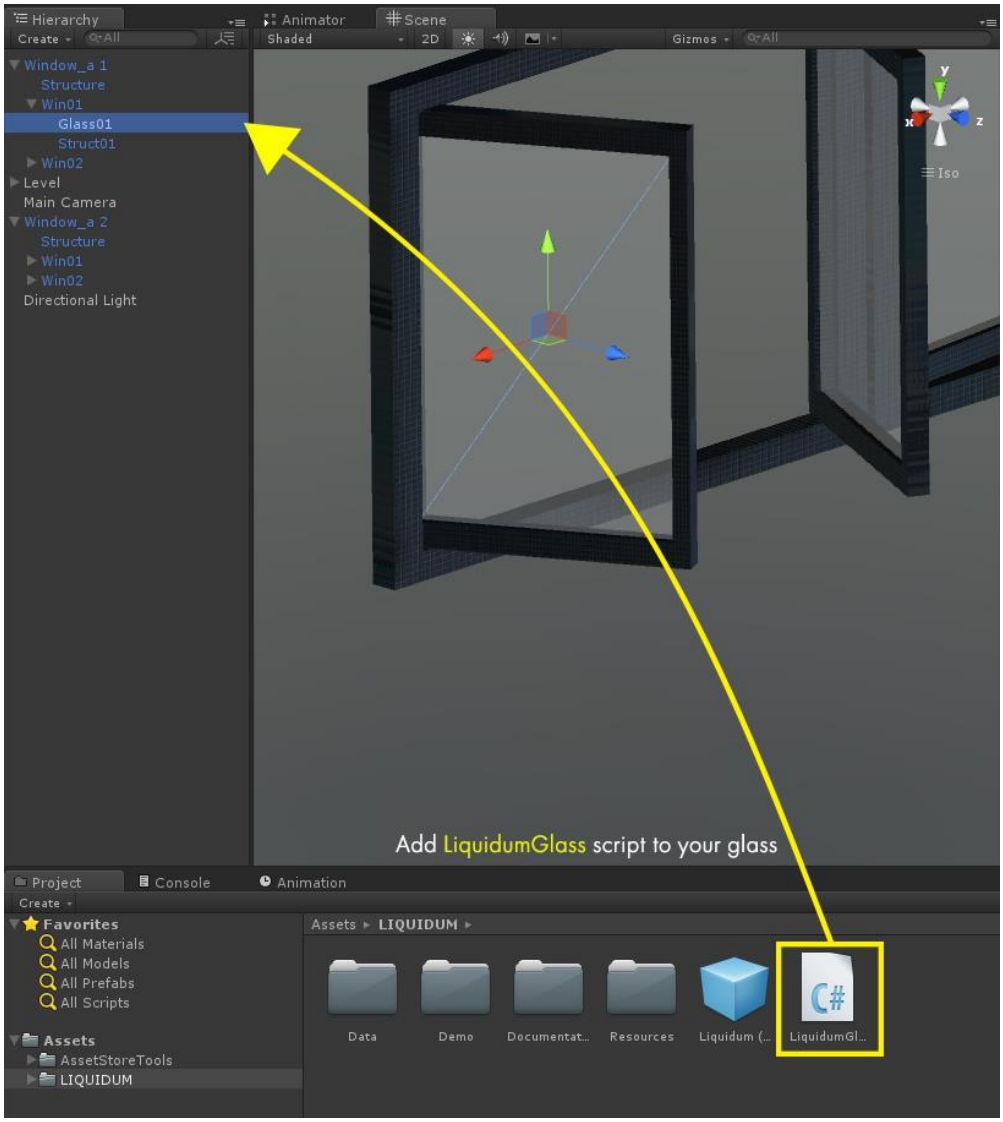
The *"demo03(WeatherEventAreas Example)"* scene is an example with 3 areas and 3 weather events. Every areas is delimited by a torch.



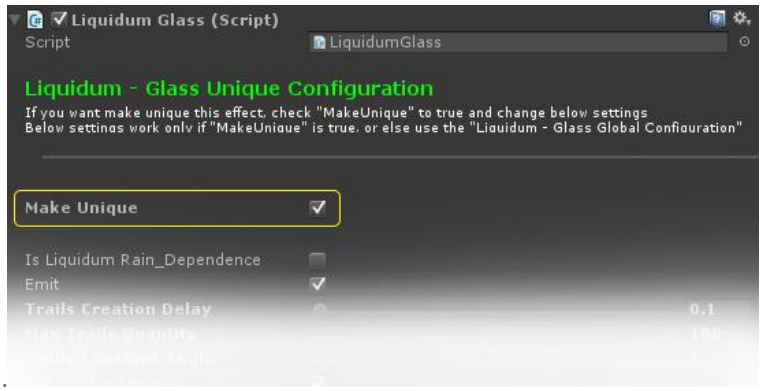
LIQUIDUM ON GLASS

Note:
Unlike the other effects LiquidumGlass is "detached" and independent from *Liquidum main* and can be used even without Liquidum(MainScript) in the scene.
Only if you choose to make this effect “rain dependent” will be required Liquidum(MainScript) in the scene.

To use this effect, simply Drag& Drop (or Add Script) to your glass gameobject.



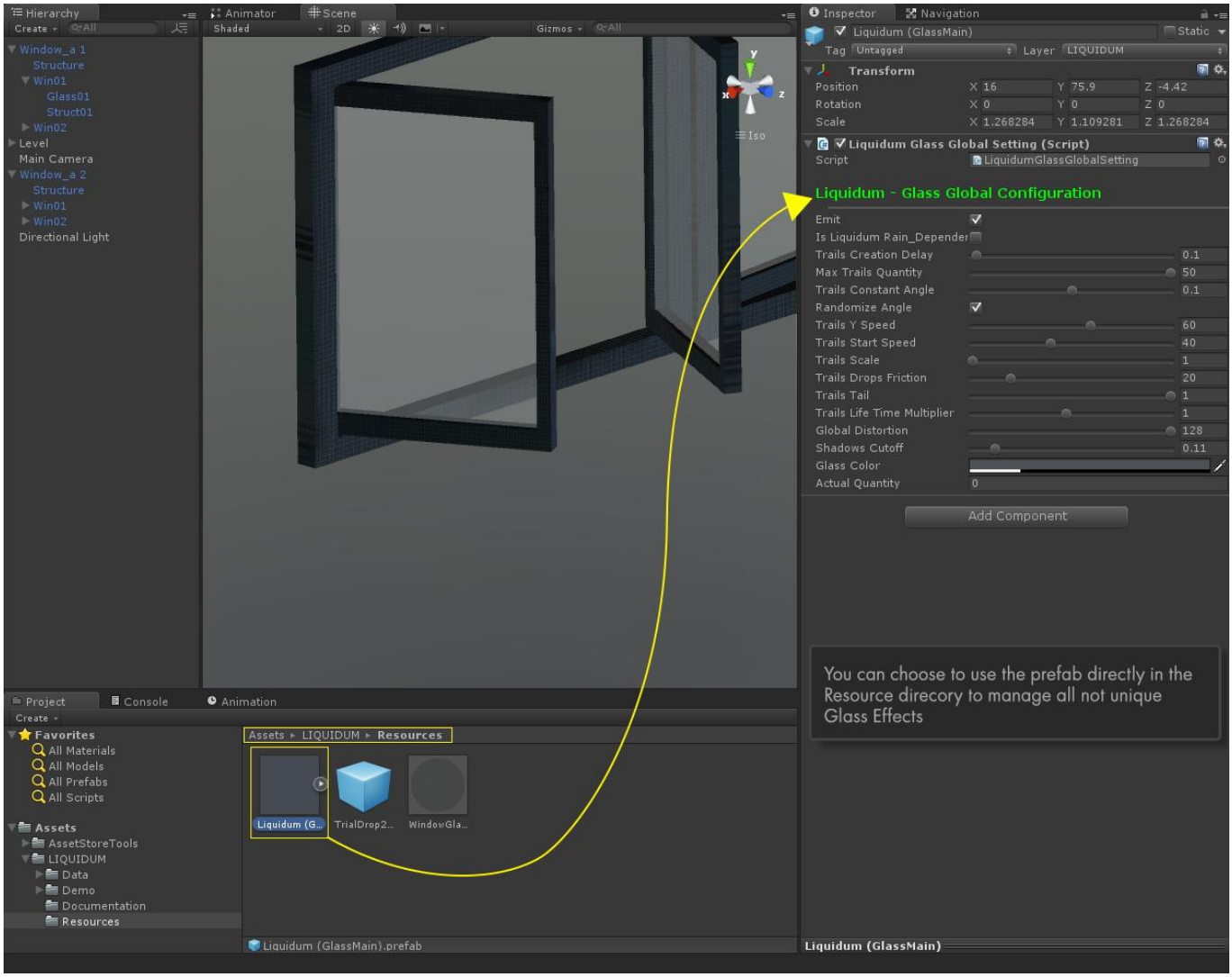
You can make unique each glass effect but is recommended to use a few unique glass effects to improve performance.



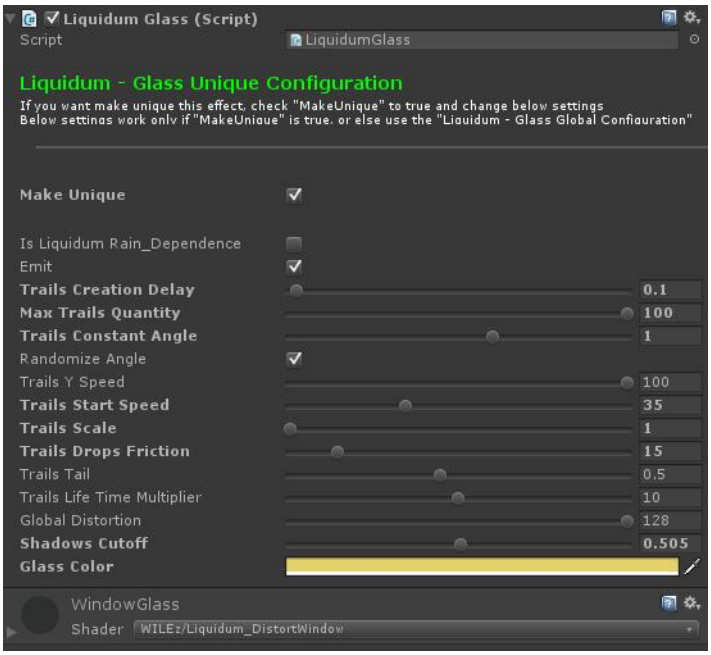
.

Consider that for each unique glass effect will create a new *render to texture*, new drops set and new traildrops set at runtime with its performance drop.
Make unique only if necessary.
For example, *Lighthouse demo* use only Glass Global Configuration for all windows in the scene, without unique glass.

When a glass effect is **not unique**, the configuration will be done directly on the "Liquidum (GlassMain) .prefab" under LIQUIDUM/Resource directory.
The prefab in the directory manages all not unique glass effects **in your project**.



You do not need to add this prefab in the scene (will be inserted automatically at runtime).
You can choose to add this prefab manually in the scene or configure directly from the prefab in the folder.
If you add this prefab in the scene you will be use the gameobject in the scene to configure all not unique glass effect in **this specific scene**.



The variables to be set are easy intuition.

The material assigned to glass object with LiquidumGlass.cs script is not important because **it is changed automatically at runtime**.
Same thing for the detail textures.

Many other effects will soon be added to LiquidumGlass script (simply drops etc ...) .

1.5.6 UPDATE
-Added the option to use loop mode in weather curves to make infinite weather events.
-Added Simply Drops on glass.
-Added Micro Drops on glass.
-Added “add head to trail drops” option on glass.
-Added “Render Quality” to Glass effect to manage the render to texture size.
-Fixed “spatialBlend” problems for 3D sounds.
-Added New demo scene (Car demo).

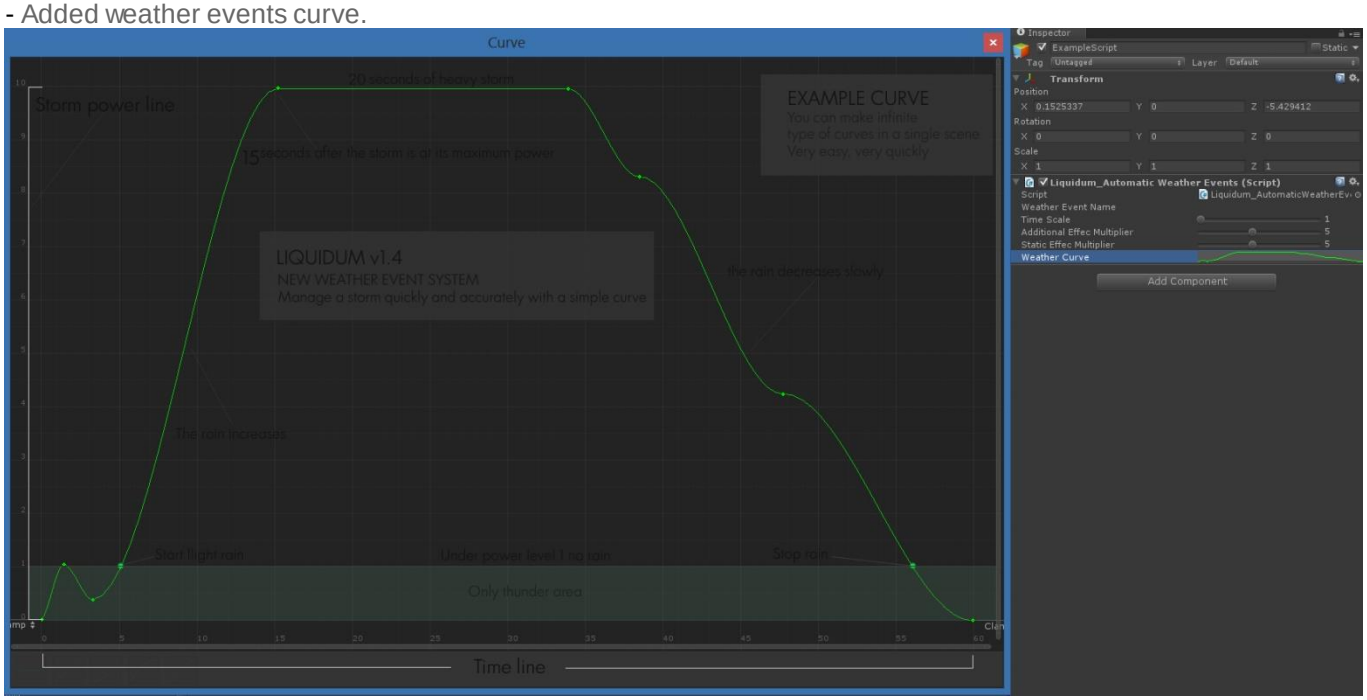
1.5.5 UPDATE
-Added new TrailOnGlass Effect(Unity 5 only).
-Fixed overlapping Occlusion Areas problem.
-Added depth rendering variable for full screen effects.
-Added ability to exclude thunders screen lamps.
-Fixed the active particles at start on Unity 5.
-Documentation update.

1.5 UPDATE
Unity 5.x fix update.

1.4.5 UPDATE
Added multiple weather areas

1.4 UPDATE

- Added weather events curve.



- Added rain fog effect and ground fog effect.
- Added dinamic thunder effects (graphic and sounds effect).
-Added Oculus Rift compatibility.
- Now Liquidum_effect prefab requires no a camera parent. Just a player/character controller or any gameobject that will follow the rain effect.
- Converted wav sounds files to mp3.
- Added the puddles prefab.
- A lot minor bug fixes.

1.3.5 UPDATE

1) Added "Use Camera Angle Adjustment" global bool variable.
If this bool is true, Drops On Screen effect resent of camera angle. For example, if you look up, the drops number will be higher, looking down the effect will disappear.
(Thanks to Guray for this idea)

2) Added "Trigger Distortion Effect" and "Distortion Trigger Area" for manage it.
The Distortion Trigger Area is a cube area how active this effect. You can place under a Cascade or Drain object to start a temporary fullscreen distortion effect.

3) Added "Rain Life Time".
Controls the life time of raindrops on the screen. A low time of life will improve performance because it will destroy the drops after the "life time" even if they have not collided with anything.

4) Added "Rain Gravity".
Adds a multiplier of gravitational force that increases the speed of the rain, stretching the drops based on the emitter height.

5) Added "Drain Life Time".
As for the Rain Life Time but applied to the drain effect.

6) Added "Drain Forward Force".
This number add a orizzontal force to the liquid of drain.

7) Added a lot of souds in new direcory "Sounds".
Sound for rain, cascade and Drain effect. And added the code for dinamic work of sounds. For example, if you stop the rain emission the rain volume fade out. You can manage the time of volume fade.

8) Several minor bug fixes.

1.3.5

Tutrial video: Tutorial video 01 - Cascade on complex mesh

NOTE FOR UNITY 4.x FREE USERS:

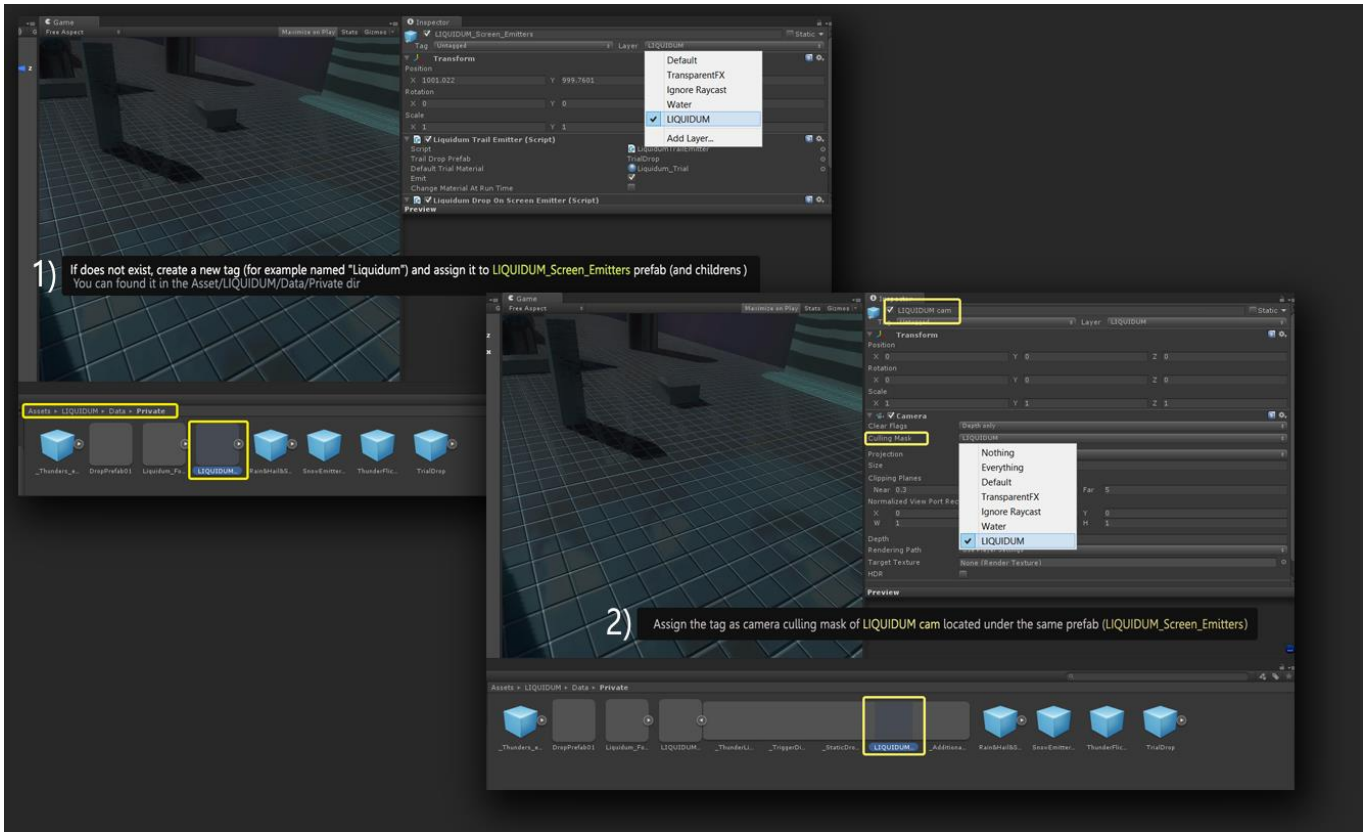
This asset is born for Unity Pro. But with some fixs you can use with Unity free (with some limitation).
Unity Free do no support distortion shaders.

Step 1) Go to directory "assets/liquidum/data/materials"
Slect the material "Liquidum_Drops, under shader select "Particles/Additive".
Do the same for the material "Liquidum_Trial".

Step 2) Go to "Assets/Liquidum/Data/Scripts" and open "Liquidum.cs" script.
Go to line 33, simple add // text before this code.
[W_BoxBGr("",5000,2000)]public string space1;
change in to :
// [W_BoxBGr("",5000,2000)]public string space1;

Step 3) INSIDE A DEMO SCENE
Slect "main camera/Liquidum(Main Script) gameobject"
Under "Liquidum script" search for "Additional Distortion Configuration".
Deselect "Use Additional Distortion".
Under same script search"Static Liquid Configuration" and deselct "Use Static"
Under same script search" Trigger Distortion Global Setting" and deselect "Trigger Distortion".

Step 4) If does not exist, create a new Layer (for example named "Liquidum") and assign it to "Liquidum_ScreenEmitters.prefab". Set this Layer on "culling mask" for LIQUIDUM cam.
See the image below.



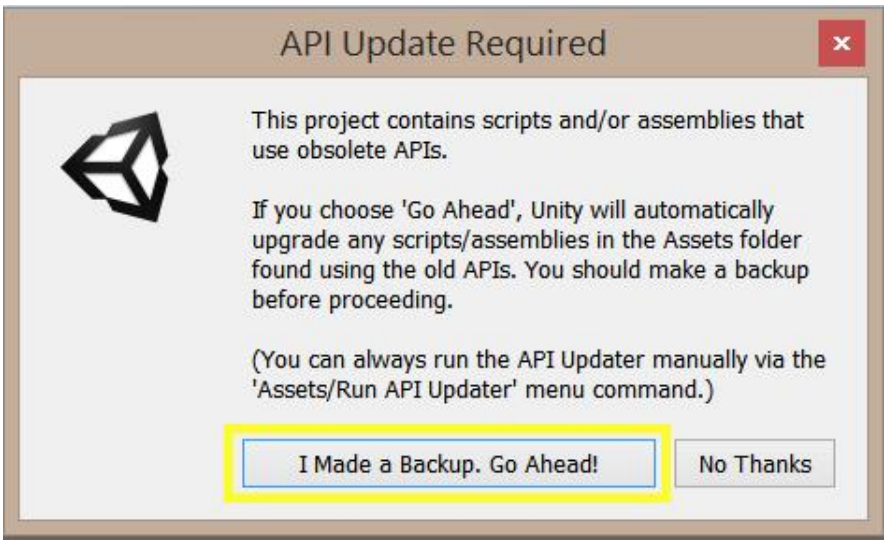
UNITY 5 UPDATE from UNITY 4 VERSION

If you are a **Liquidum(Unity 4 version)** holder and want to switch to Unity 5, now you can download the update for Unity 5.x. (this file also located in the Unity5Update directory in this asset).

After importing Liquidum(Unity 4 version) in Unity 5, will have many errors (Unity 5 did not exist and a port was not expected, sorry for console errors).

Follow this steps:

First of all, when import Unity4 asset in Unity5, choose to automatically update the code.



Now in Unity 5:

- Delete "Image Effects(Pro Only)" directory (if any and if there are errors resulting from these files).
- Delete "Utitity Script" Directory under "Standar Asset/Script" ditectory (if any and if there are errors resulting from these files).
- Delete "Image Effect" under Editor directory (if any and if there are errors resulting from these files. You can reimport the new version from Asset/Import Pakage/Effects menu in Unity 5).
- Delete any missing MonoBehaviour scripts, if presents.
-Now import the Unity 5 Update.

For problems or errors, send email.
Author mail: wilez@wilez.it

SMALL ARVERTISING SPACE

Blurred Tires is an innovative system to improve the effect of the spinning wheels at high speed. Create a blur effect based on real wheel rotation speed.

Video | Forum | Site

You can choose to use a shader with bump mapping or not.

-Work with Unity Free and Unity Pro.
-Work with **Unity 4** and **Unity 5**.
-Mobile friendly.

Now you can import the new package **BlurredTires v.1.2(unity5 update only)** in your project. You found this on *Unity5 Update* directory or you can download for free here.

Enjoy!

http://u3d.as/afJ

Isometrium Pro is a essential kit for those who want to create an isiometric or prospective top-down game.
RPG/Hack&Slash like Diablo, RTS like AoE/Starcraft games etc.

You can create new and **unlimited units formations**.
Full configurable top-down camera with camera **collision system**.
Full configurable **Selection Box** with an optional "add selection key"...
Completely configurable **multiple mouse cursors**.
Completely configurable **multiple projected points images under mouse**...
We are still in a beta version of the asset, and many features have yet to be implemented.
Only **isometricum Pro** allows you to interact your mouse cursor with NavMesh indicating walkable areas where your characters can walk and where not...

Video | Video2 | Documentation

*Currently in beta

http://u3d.as/fqc