City Model Pack Documentation

[003]

Table of Contents

Asset List

Models Included

(Compatible with all render pipelines)

- **Buildings** x10
- **Barrier** x6, **Barrier Gate**, **Traffic Cone**
- **Road Fence** x4**, Wall Fence** x2
- **Road Marking** x8**, Zebra Line**
- **Street Light** x3**, Traffic Light** x5
- **Mailbox** x3**, Sunshade** x2
- **Manhole Cover** x4
- **Large Tree, Medium Tree, Small Tree, Bush**
- **Bus Shelter, Escalator, Fire Hydrant, Fruit Crate, Iron Ladder, Portable Ladder, Public Chair, Public Table, Refrigerator, Roadside Billboard** x2, **Speed Bumps, Telephone Booth, Tree Pit, Wooden Bench** x2
- **Road Sign** x8
- **Road Block** x8
- **Dumpster** x2, **Trash Bin** x4, **Black Plastic Trash Bag** x3
- **Truck** x2, **Bus**, **Taxi**, **Car** x2

Effects Included

- **Lights On / Lights Off** *(Supports only Built-in Pipeline and URP)*

- **Object Placer**
- **Rail Placer**

Model Usage

Original Models Without Effects

All original models are stored in the `Fries and Seagull/City 03/Models/` folder. If you wish to use models without any special effects, you can directly drag and drop the models from this folder into your scene.

Prefabs with Effects

All prefabs are stored in the `Fries and Seagull/City 03/Prefabs/` folder. These models may include custom effects, such as turning lights on and off.

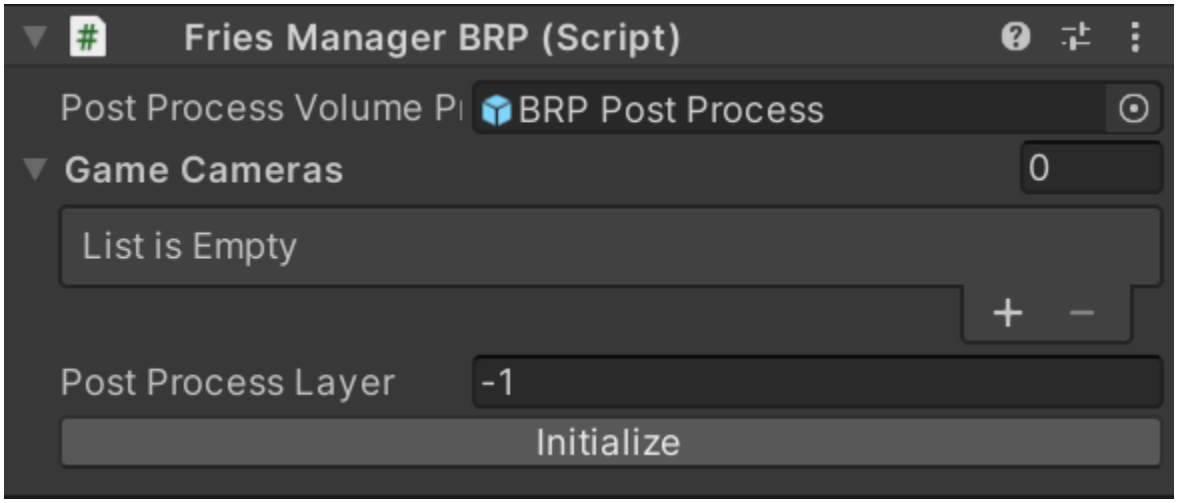
Initialization Method

This initialization is responsible for implementing the glow effects of all light fixtures. If you do not require glow effects or prefer to implement them yourself within your project, you can skip this step.

1. In Unity's top menu bar, navigate to `Tools/Fries/City 03`.

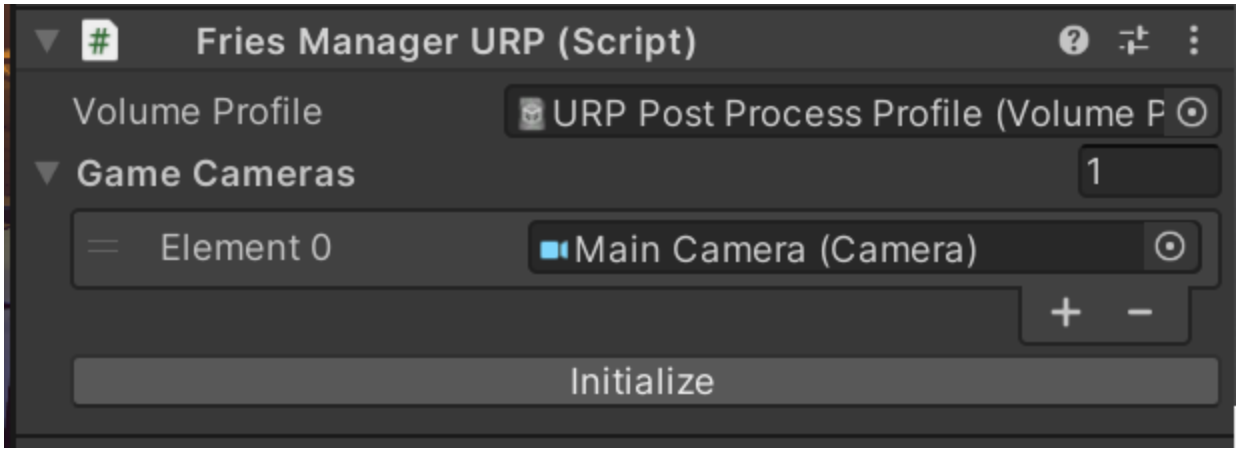
2. Under this menu, there are two setup options:
    - **Setup for Built-in Render Pipeline**
    - **Setup for Universal Render Pipeline**
3. Select the appropriate setup option based on your project's render pipeline. Clicking this will automatically create the **Fries Props Manager**.
4. In the **Hierarchy**, locate the **Fries Props Manager** GameObject.

BRP (Built-in Render Pipeline):



1. Drag the camera used for glow effects (lights) into the **Game Cameras** field.
2. Create a new **Layer** and set the **Post Process Layer** to the index of this new layer.
3. Click **Initialize** to complete the initialization process.

URP (Universal Render Pipeline):



1. Drag the camera used for glow effects (lights) into the **Game Cameras** field.
2. Click **Initialize** to complete the initialization process.

   Note: If this is your first time clicking the **Setup for Universal Pipeline** menu item, switch your scene to the **URP Sample Scene** and then click to run the **Setup for Universal Pipeline** again.

Lighting Effects

You can load/unload the lighting settings used in the video demonstration by navigating to `Tools/Fries/City 03/[Setup/Revert] URP Lighting Example`.

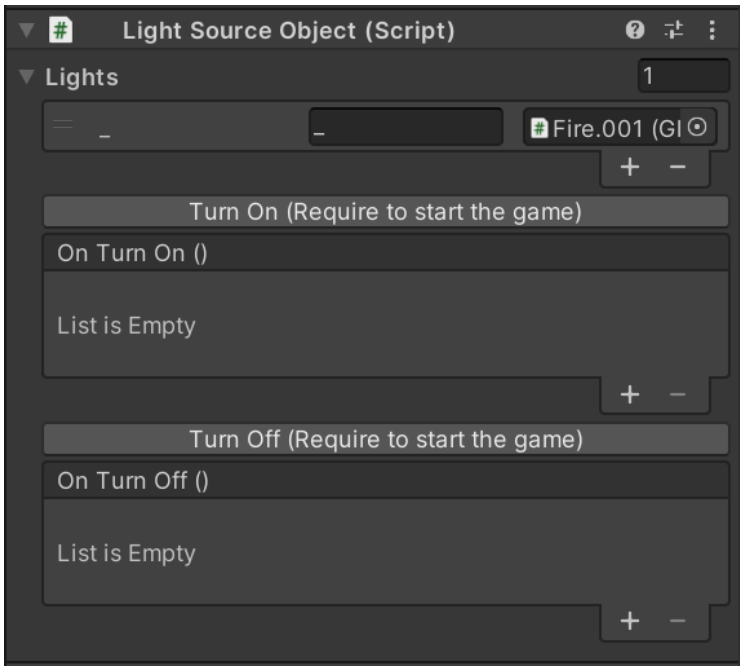
There is no extra step for setting up BRP Lighting Effects

Effects and Script Usage

Lights

Each light fixture GameObject has its own **MonoBehaviour Script**. These scripts feature **Turn On** and **Turn Off** buttons. During runtime in the editor, you can debug and toggle the lights by clicking these buttons.

- Each button corresponds to a **UnityEvent** instance, where you can see which methods are called to brighten the light.
- Under **Lights**, all glow objects (**GlowLight**) related to the light source are listed. The left side shows the glow object ID, and the right side shows the glow object instance.



In Scripts:

- To turn all lights on or off:

```
gameObject.GetComponent<LightSourceObject>().turnOnAll();
gameObject.GetComponent<LightSourceObject>().turnOffAll();
```

- To use the **UnityEvent** instance to turn lights on or off:

```
gameObject.GetComponent<LightSourceObject>().onTurnOn.Invoke();

gameObject.GetComponent<LightSourceObject>().onTurnOff.Invoke();
```

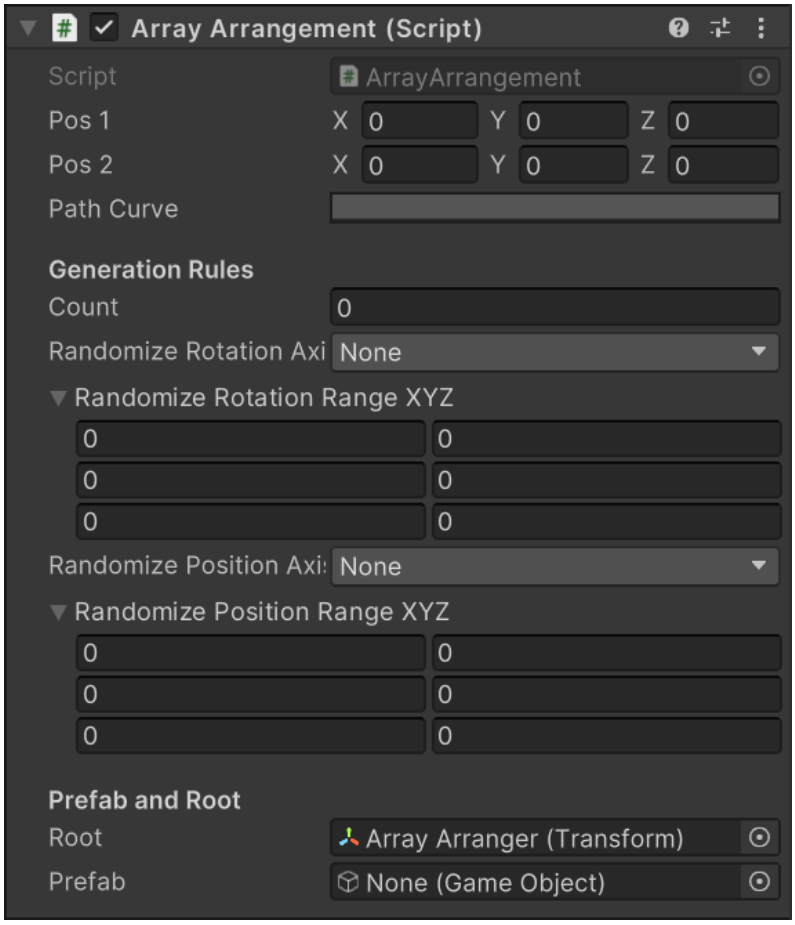
- To turn on a specific glow object:

```
gameObject.GetComponent<LightSourceObject>().turnOn("specificGlow
ObjectID");
```

Array Tool

The **Array Tool** is an automated prefab arrangement tool, located in `Fries and Seagull/City 03/Array Arranger`.

The Array Tool becomes inactive during runtime (generated prefabs remain, but changes to the Array Tool won't apply).



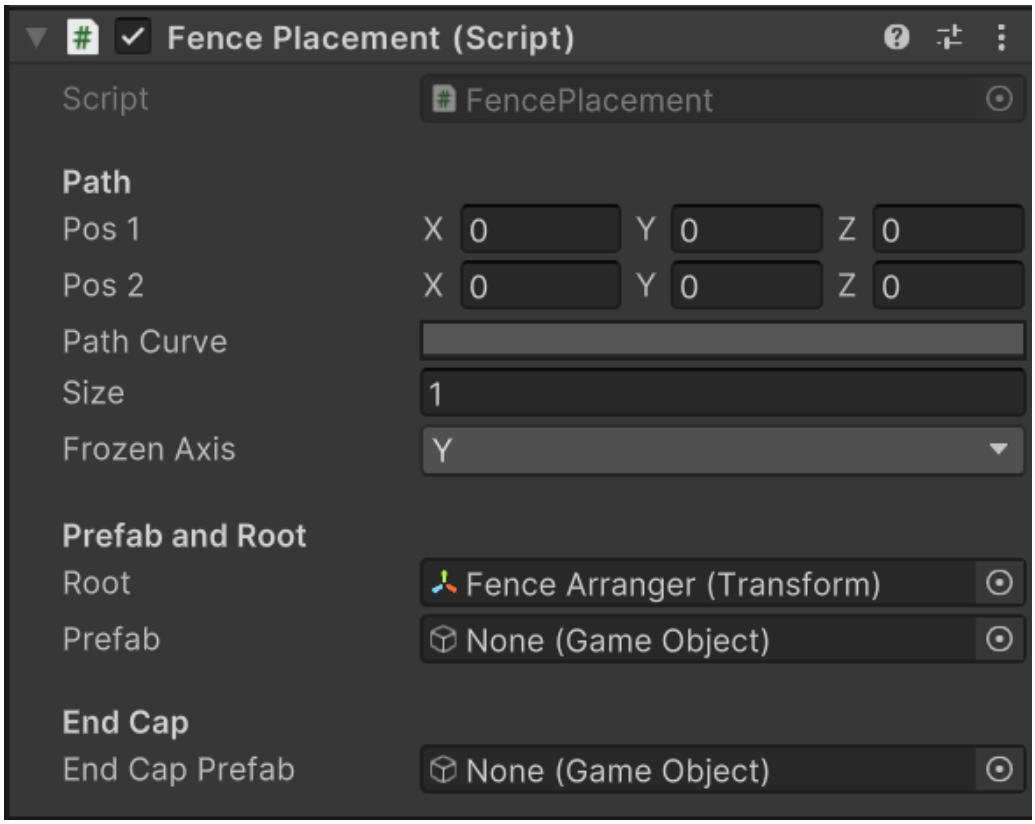
Parameters:

- **Pos1 and Pos2:** Control the start and end points of the array tool.
- **Path Curve:**
    - **X Range:** 0-1 (0 represents the start point, 1 represents the end point).
    - **Y Range:** Unlimited. Y represents the offset at the current X value.
- **Count:** Number of specified prefabs to generate evenly along the existing path.
- **Randomize Rotation Axis:** Choose which axes to apply random rotation.
- **Randomize Rotation Range XYZ:**
    - **First Row (X):** Enter **Min Angle** and **Max Angle**.
    - **Second Row (Y):** Enter **Min Angle** and **Max Angle**.

    - **Third Row (Z):** Enter **Min Angle** and **Max Angle**.
- **Randomize Position Axis:**
    - **First Row (X):** Enter **Min Offset** and **Max Offset**.
    - **Second Row (Y):** Enter **Min Offset** and **Max Offset**.
    - **Third Row (Z):** Enter **Min Offset** and **Max Offset**.
- **Root:** Specify the GameObject under which the generated Prefabs will be placed.
- **Prefab:** Specify which prefab to generate (supports Prefab Groups, randomly selecting from them).

Fence Tool

The **Fence Tool** is an automated fence prefab arrangement tool, located in `Fries and Seagull/City 03/Fence Arranger`. The Fence Tool becomes inactive during runtime (generated fences remain, but changes to the Fence Tool won't apply).



Parameters:

- **Pos1 and Pos2:** Control the start and end points of the fence tool.
- **Path Curve:**
    - **X Range:** 0-1 (0 represents the start point, 1 represents the end point).
    - **Y Range:** Unlimited. Y represents the offset at the current X value.
- **Size:** Controls the scale of all generated prefabs.
- **Frozen Axis:** Choose which axis rotation to disable when connecting fences along the curved path.
- **Root:** Specify the GameObject under which the generated Fence Prefabs will be placed.
- **Prefab:** Specify which fence to generate (supports Prefab Groups, randomly selecting from them).
- **End Cap Prefab:** Prefab for individual fence posts.

Method to Switch Render Pipelines

Different render pipelines primarily affect the glow effects and some material properties of models.

1. Refer to the **Initialization Method** on Pg. 3.
2. In `Tools/Fries/City 03/`, find and click the setup option for the render pipeline you wish to switch to, and wait for it to load.

If You Do Not Use Glow Effects: Upgrade all materials in `Models/Materials/` from Built-in Render Pipeline (BRP) materials to Universal Render Pipeline (URP) materials using Unity's native method for upgrading materials.