

Seasons system

documentation

Implementation

The Seasons system can be easily implemented by simply dragging the SeasonsSystem prefab corresponding to your pipeline to your scene.

Do not import other pipelines version then you are using to avoid warnings and missing reference errors

Dependencies

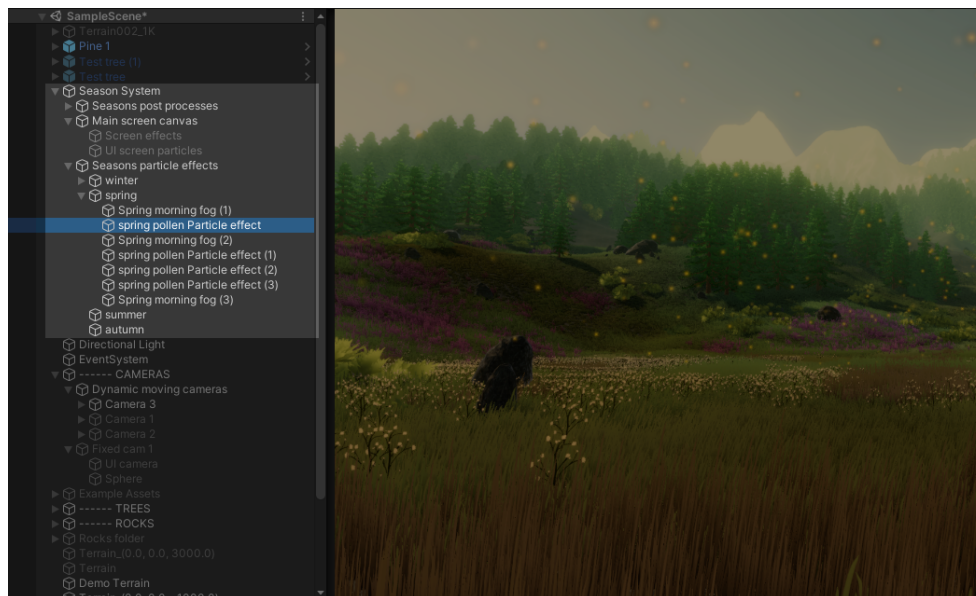
Standard pipeline: PostProcessing - find in Package manager > Unity registry
URP: none
HDRP: none

SeasonsSystem prefab is located in \Seasons system\Versions\ folder

1. Adding seasonal particle effects

In SeasonsSystem Inspector, you can see reference to Seasons particle effects folders. Each ParticleSystem in these folders is played in the corresponding season.

For example, Spring particles have to be located in
Season System\Seasons particle effects\Spring
and are automatically played when Spring season is triggered.



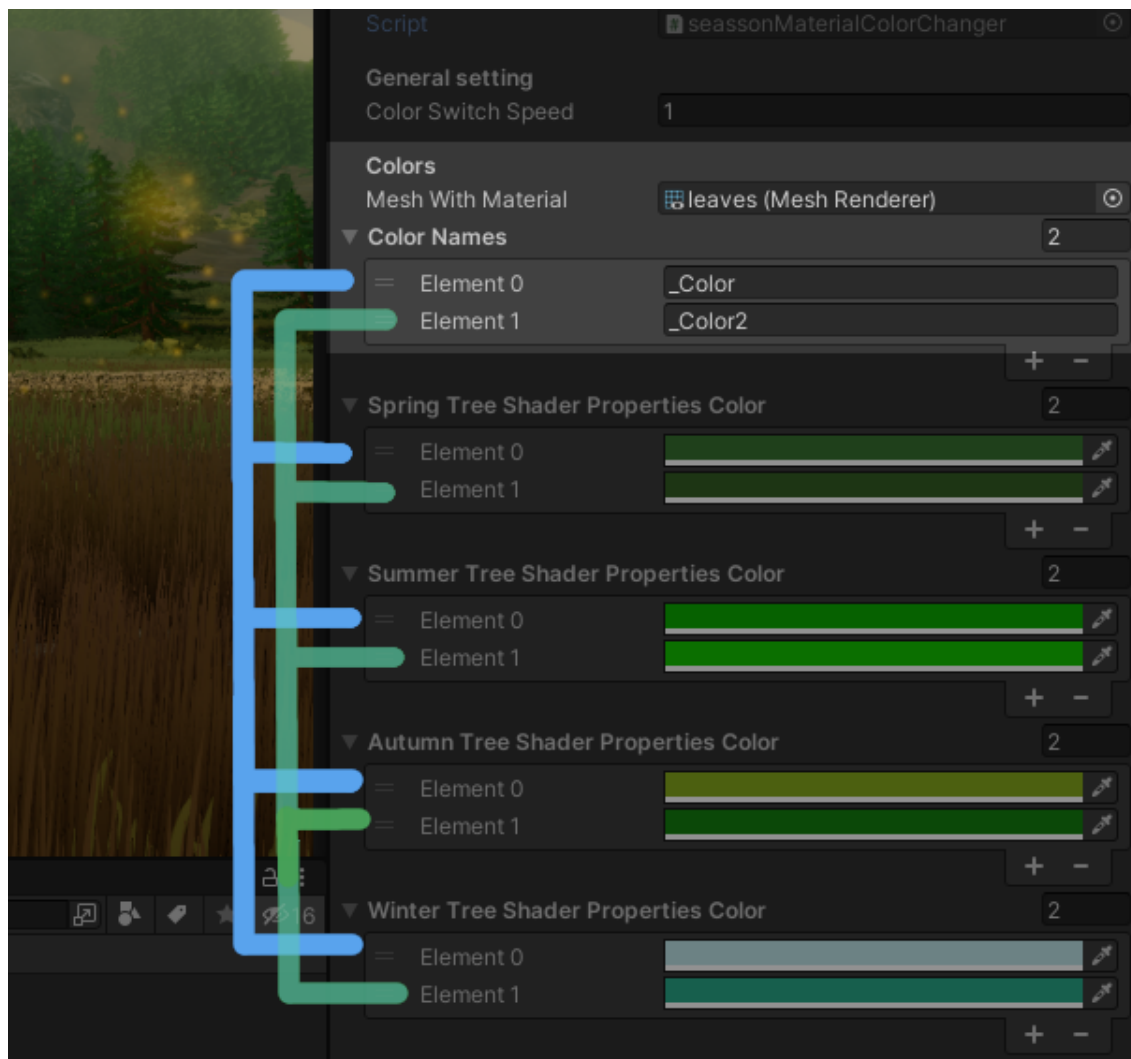
2. Setting material as seasonal

Seasons system was made to be compatible with *EVERY* material & shader, so everything can be affected by season change easily.

How to make material seasonal:

1. Attach 'seasonMaterialColorChanger.cs' to object you want to change with season
2. Set MeshRenderer that contains material which will be changed
3. Set Color name property of material. By default it is `_Color` or `Color`. This property can be set in both `.shader` and ShaderGraph properties.
4. Set the corresponding season color for each of the specified properties.

Example: *leaves* mesh renderer have Shader graph material with gradient setting. It exposes 2 color properties (`_Color` and `_Color2`). Both of these exposed color properties will be changed when the season changes.



3. Duration of the Season

You can change the length (duration) of each season in SeasonsSystem.cs in the Time setting section.

To change season manually or with script, **DISABLE auto cycle seasons** property in SeasonsSystem in **General settings**.

You can then use the '**SetSeason**(seasons season)' function in SeasonsSystem class to change the season manually.

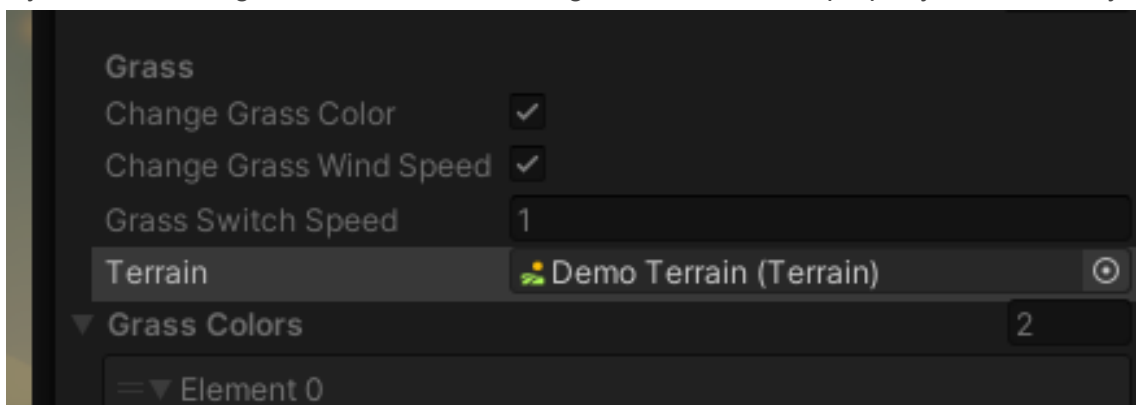
Notice also the 'Initial season' property in SeasonsSystem which determine starting season

4. Seasonal grass

Grass plays a big role in SeasonsSystem. In SeasonsSystem, you can change both Color and Wind speed for each color and each of the grass types.

Note: If you have a custom grass shader, our SeasonsSystem can also interact with that. In such cases attach 'seasonMaterialColorChanger.cs' to the object and follow 2. Setting material as seasonal steps.

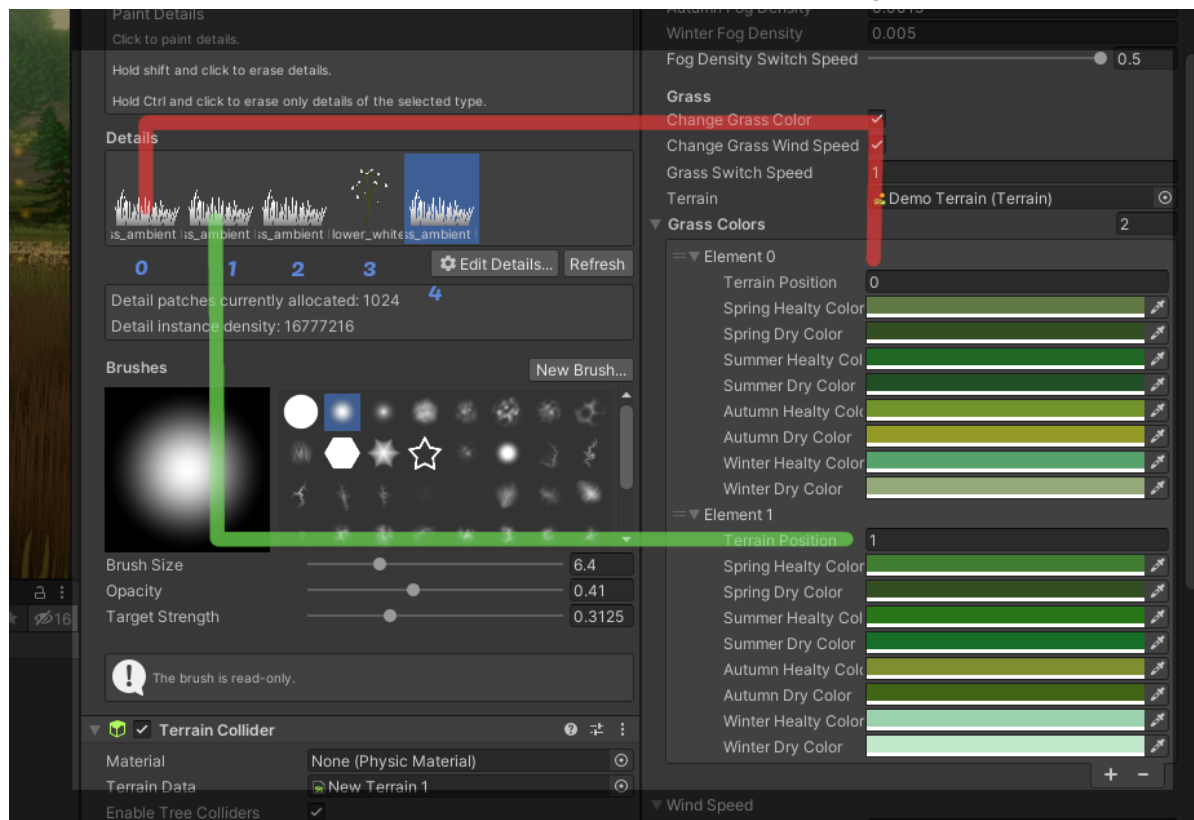
If you use Terrain grass, attach Terrain with grass to the Terrain property in SeasonsSystem.



Grass switch speed property in the Grass section determines how fast will grass color be changed to new color on season change.

To change Grass color by season, increment Grass Colors in SeasonsSystem and set Dry & Healthy colors of the grass that will be set in corresponding season.

Terrain Position in Grass Colors determines Index / Position of the grass in Terrain.



Setup of Sample scene

Sample scene was created in URP. To properly run URP_SampleScene located in \SeasonsSystem\Scenes\URP_SampleScene.unity you need a URP project.

After opening URP_SampleScene, extract SeasonsSystemURP unity package located in \Seasons system\Versions\ and everything should be set up, ready for testing