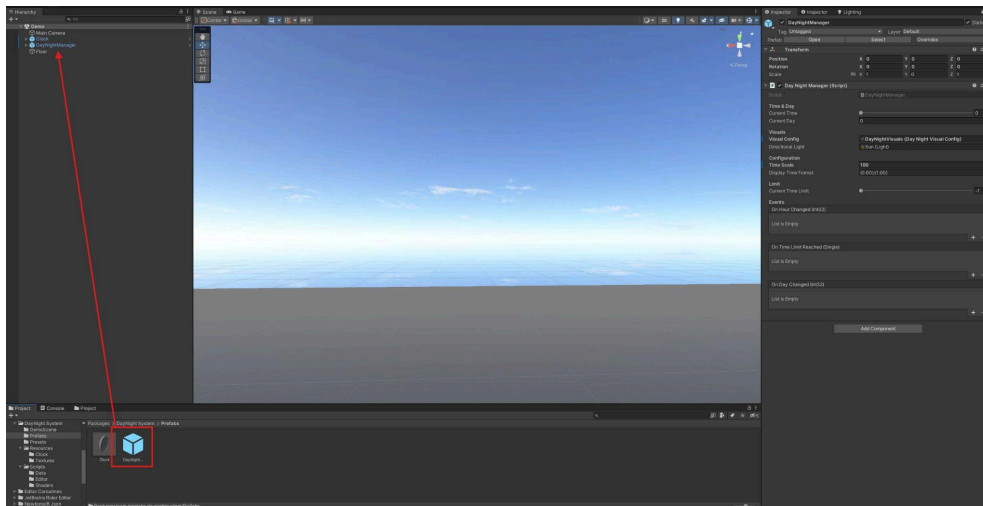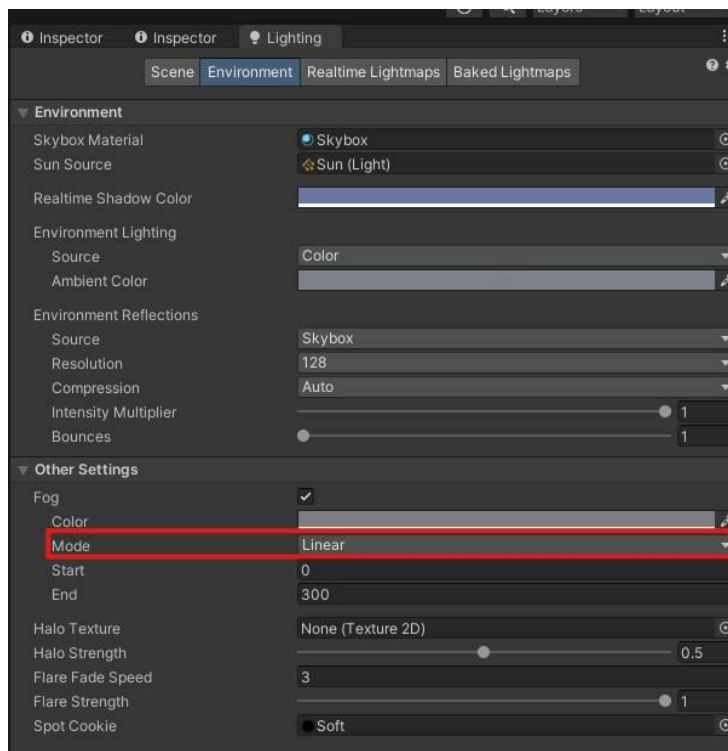# DayNight System

Thanks for downloading this package. Below you'll find the install instructions.

Installation
1) Drag the DayNightManager prefab into your scene:

2) (Optional) Change fog mode to "Linear" if you want dynamic fog distances (in the Scene Lighting tab):

3) (Optional) Create your own visual preset:
   You can add your own visual presets by creating the scriptable objects. You can find them in "Create/DayNightSystem/Visual Config". You'll find detailed instructions below.
   Make sure to assign your preset in the DayNightManager's Visual Config field. **If you don't want the visuals, leave the config field empty.**
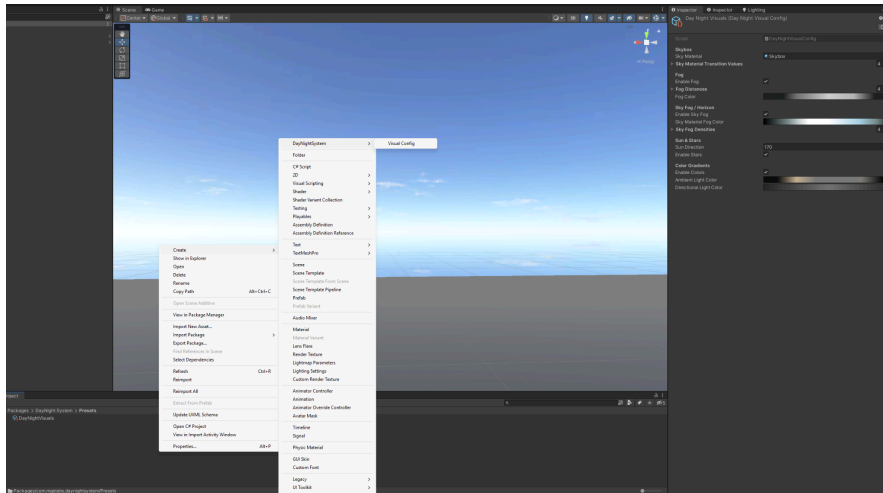

4) (Optional) Limit the Time
   If you don't want a full day rotation, but instead have the time stop progressing at a certain time, you can set a limit. Once reached, the time won't progress further until you either call ResetTime() on the DayNightManager (which resets the time back to the initial start time), or by setting a sooner time than the limit and then calling ResetTimeLimit().
   You can subscribe to the OnTimeLimitReached UnityEvent or OnTimeLimitReachedAction.
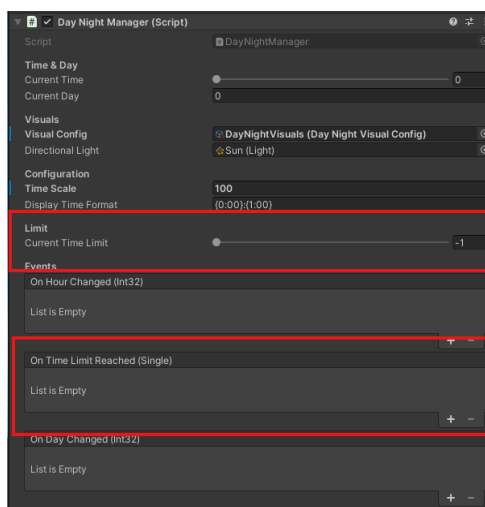
Visual Config & Shader Config
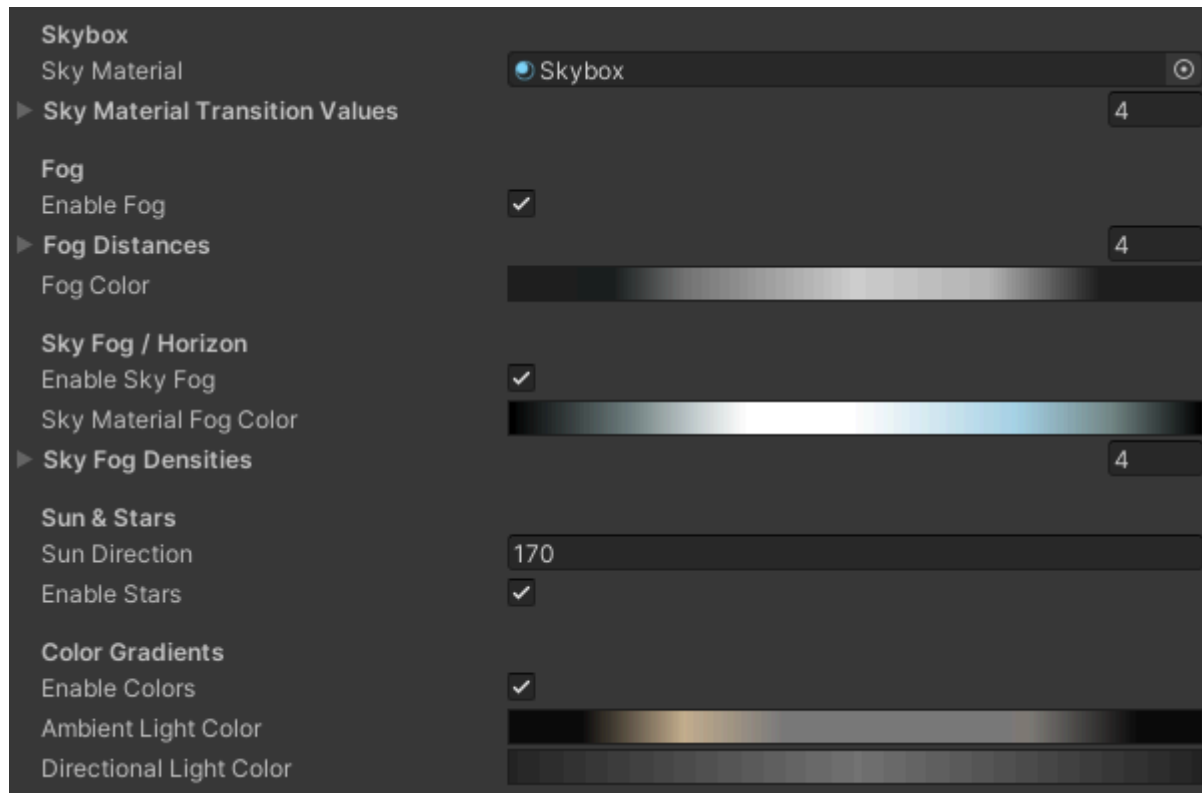
SkyMaterial: The Skybox material, you can use the existing one in the **Resources** folder, or create your own. For the skybox visuals to work, the material requires the DayNightSystem/TransitionSkybox shader.

Sky Material Transition Values: Controls how the skybox transitions visually over the course of the day. Values correspond to points in the day (0 = midnight/dark, 1 = noon/light).

Enable Fog: Enable dynamic fog distance & color

Sky Material Fog Color: The fog/horizon colors of the skybox. The gradient represents the transition colors over the cycle.

**Sky Fog Densities:** The sky fog densities over the cycle (should be 4).

Sun Direction: The direction of the sun.

Enable Stars: Won't do much by itself; if turned off, it will disable stars in the skybox material, if on, it keeps your stars config.

Enable Colors: Enable ambient and light color changes

Ambient Light Color: The Unity Environment Light "Ambient Color" over a cycle.
Directional Light Color: The directional light / sun color over a cycle.
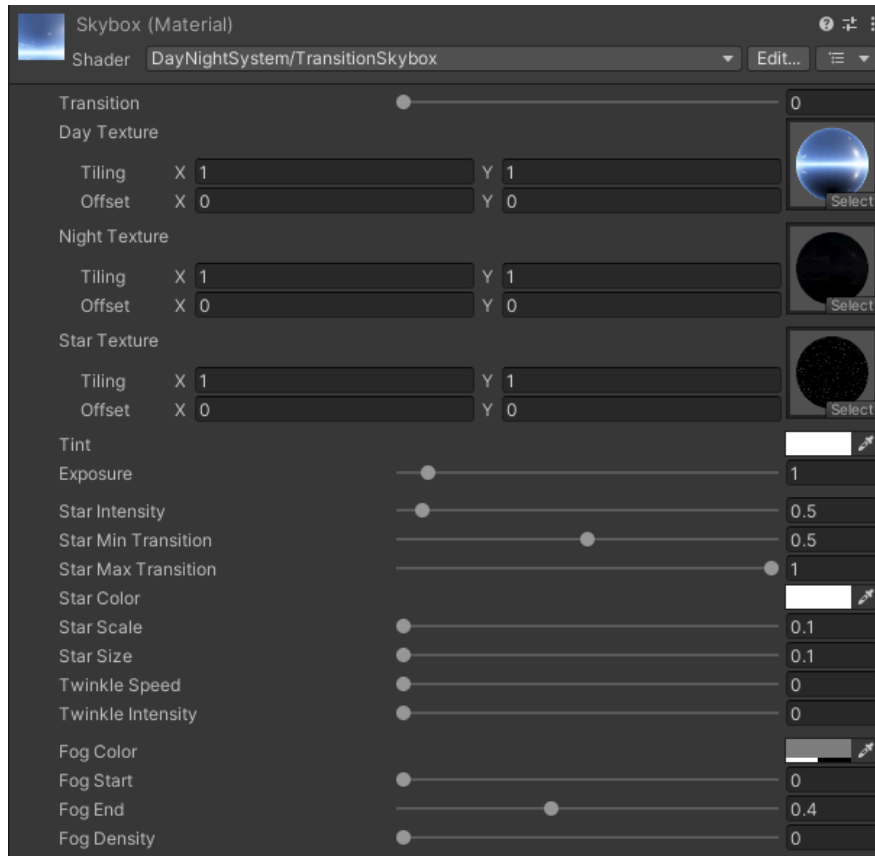
Transition: The transition amount between day and night (0-1)
Day Texture: The cubemap texture of the day sky
Night Texture: The cubemap texture of the night sky
Star Texture: The cubemap texture of the stars
Tint: Change the overall color
Exposure: Adjusts the brightness of the sky

Star Intensity: Controls the brightness of the stars (0-10)
Star Min Transition: The transition value where stars begin to appear
Star Max Transition: The transition value where stars are fully visible
Star Color: Tint color applied to the stars
Star Scale: Scales the star texture coordinates (stretch/zoom effect)
Star Size: Controls the apparent size of stars
Twinkle Speed: Speed of the star twinkle animation
Twinkle Intensity: Strength of the twinkle effect

Fog Color (Sky): The fog color applied to the skybox
Fog Start: The normalized height where fog begins to appear
Fog End: The normalized height where fog is at full strength
Fog Density: Controls how quickly the fog blends with the sky