

A background image of a Stone Pine Biome, showing a rocky, brownish landscape with sparse green pine trees and a large tree trunk on the right.

## ***STONE PINE BIOME DOCUMENTATION***

Hello,

This documentation has been created to provide you with information about the details of the StonePine Biome package and its proper usage.

If you have any questions, requests, or needs, please don't hesitate to reach out to us. We are here to guide and assist you throughout your game development journey.

Welcome to the CropCraft Studios family, and we hope you have a successful game development experience using "StonePine Biome"!

Best regards, CropCraft Studios Team 😊

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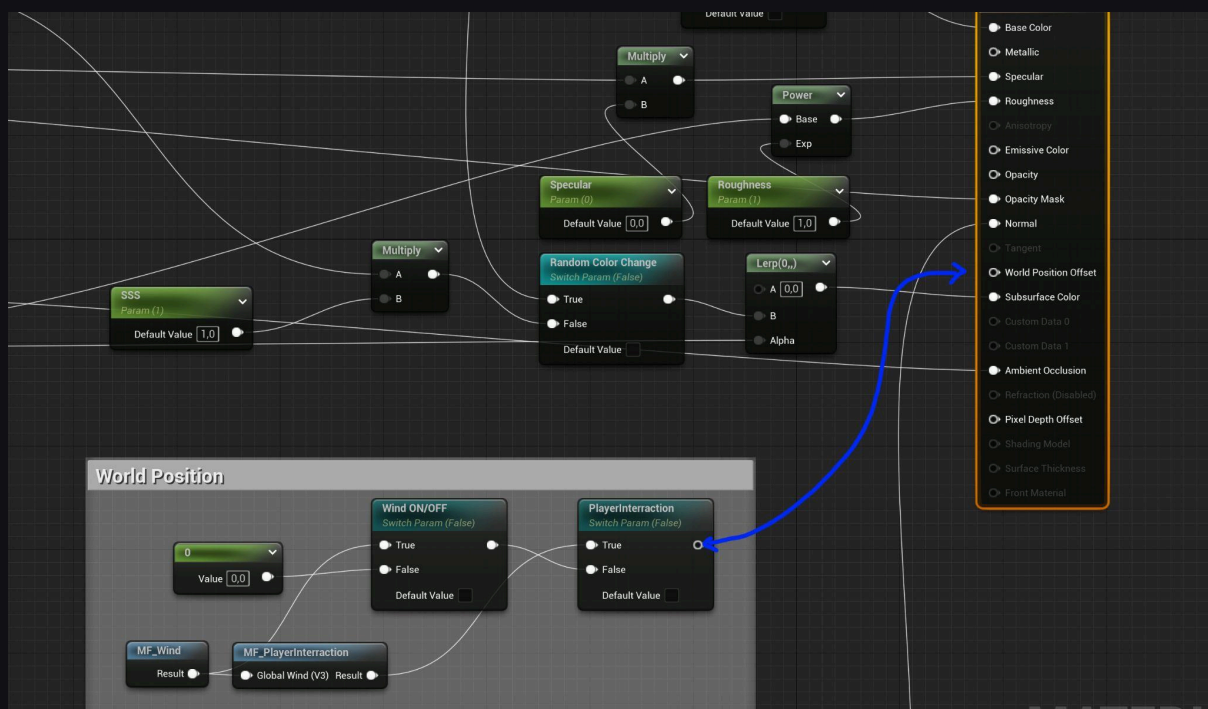
## Package Included

The package includes 5 Mediterranean Stone Pine trees, designed in various sizes and ages, including both young and old specimens. These trees come with fallen, broken branches, and leaves. There are also 5 cliff meshes suitable for creating various types of cliffs. Additionally, you will find 7 Mediterranean shrubs and 19 dried summer plants designed to visually complement the scene. Furthermore, there are dozens of debris, such as small rocks and plant fragments. Our package, housing a total of 55 meshes, has been meticulously crafted to achieve the best performance when using all these meshes together.

Additionally, with the landscape material we have prepared, all settings for the 4 different layers are pre-configured and can be customized as needed. You can create maps that reflect the warm climate of the Mediterranean region.

## Material System

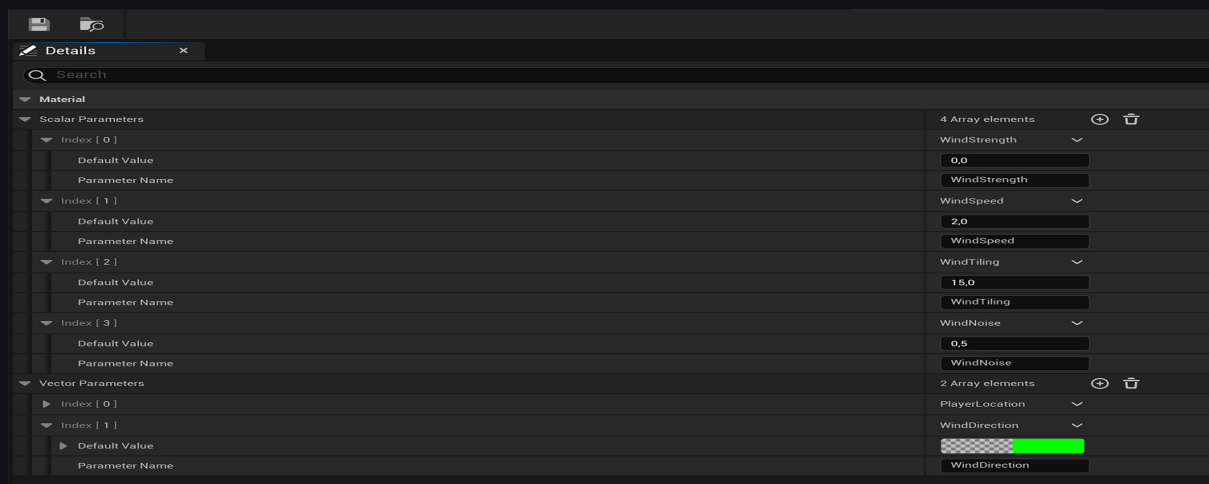
Our customizable material system provides you with the ability to adjust various settings for each instance, such as Roughness, Brightness, Desaturation, Specular, SSS (Subsurface Scattering), Normal Strength, various color adjustments, and wind reaction settings. This allows you to have full control over the appearance and behavior of the materials in your project.



Note : The wind system will be delivered to you in an inactive state. If you wish to use it (please note that this may cause a performance loss of 8-10 FPS), you can simply open the two-sided material in the master materials folder and connect it as shown in the image. This connection will provide you with features like the Global wind system and Player interaction.

## Wind

The wind system we utilize is recommended by Unreal Engine and works in conjunction with Vertex Paint, similar to how it is employed in certain Megascans packages. This system provides you the ability to make global adjustments to the wind's direction, intensity, and various other nuanced settings. Moreover, it operates through a material parameter collection, allowing for swift integration with your software and facilitating real-time modifications.



"The "wind" tab on material instances is specifically where you adjust the plant's reactions to the wind. Resetting the settings on this tab ensures that the plant won't respond to the wind. In other words, the wind's effect on the plant will be nullified, and the plant will remain static.



## Technical Details & Recommended Usage

This package spans a wide range of game engine versions (Unreal Engine 4.27 - 5.03 - 5.11 - 5.21 - 5.30). This diversity necessitates various adjustments to achieve the best results in different versions. Consequently, the wind option is only available in versions 5.21 and 5.30. Furthermore, the Forest map exhibits differences in these two versions. In versions 4.27 - 5.03 - 5.11, all meshes utilize the LOD system, while in other versions, they are optimized using the Nanite system.

- The package is ideal for Unreal Engine users who aim to develop realistic mini Mediterranean-themed games.
- It is suitable for users who want to reflect all the features of the Mediterranean region and achieve a realistic natural look.
- When used correctly and with proper adjustments, it can be used on very large maps without experiencing performance issues.
- **The package's promotional images and videos have been created using Unreal Engine 5.2, and it is strongly recommended for ideal usage on versions 5.2 and higher.**

### Package' triangle counts

- **Lowest triangle count: 12 (Scatters)**
- **Highest triangle count: 309,00 (Cliff\_04)**
- **Average triangle count: 15,000**

Note: All objects in the package utilize Nanite, When using this package with Unreal Engine 5.2 and above, it is strongly recommended to utilize the Nanite and Lumen systems.

<https://docs.unrealengine.com/5.0/en-US/lumen-global-illumination-and-reflections-in-unreal-engine/>

## Performance

System : Amd Ryzen 7 5800x - 16gb Ram - Nvidia GeForce RTX 3080 - Epic Settings

Forest Map 60-80 fps

Showcase Map 90 -120 fps to full screen Editor Mode

System : Amd Ryzen 9 7950x - 32gb Ram - Nvidia GeForce RTX 4090 - Epic Settings

Forest Map 70 - 90 fps

Showcase Map 120 fps to full screen Editor Mode