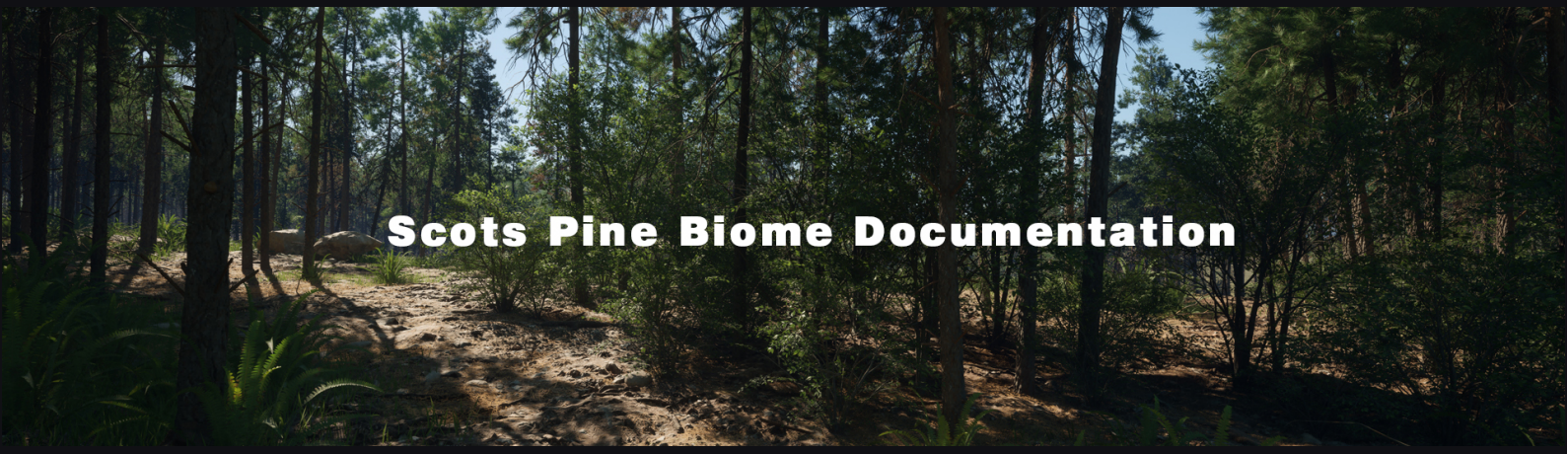

Scots Pine Biome Documentation

The Scots Pine Biome is designed to help you create natural looking forests quickly while still giving you full control over every detail.

Built using the CropCraft PVE Tool, the pack includes a fully editable tree preset that allows you to redesign and generate your own variations. Whether you want to fine tune individual trees or quickly populate large environments, the system is flexible enough to support both workflows.

For ease of use, the biome also includes ready to use PCG setups for both Procedural (Skinned Mesh) and Static Mesh versions. This allows you to instantly generate a forest or integrate the assets into your own custom setups.

This documentation will guide you through the basic setup and explain how to get the best results from the pack.

PCG Setup

The PCG setups included in this package are carefully configured to match natural Scots Pine distribution and do not require additional fine tuning.

For best results, keep the PCG area scale between **100 and 125** to achieve a dense forest. Increasing the scale will create larger open spaces and natural meadow gaps. For large environments, multiple PCG areas can be used together, similar to the example scene included in the pack.

Each PCG area also includes a spline based water path. When placed on a landscape, it is generated automatically and does not require any additional setup.

Static Mesh Workflow

The Static Mesh Scots Pines are intentionally split into multiple parts. Each part is optimized individually using Nanite and provides more accurate distance field shadows.

Inside the PCG system, all parts are spawned at the same point and automatically combined using a Hierarchical Instanced Static Mesh setup, allowing efficient rendering while preserving detail.

Procedural (Skinned Mesh) Workflow

The Skinned Mesh Scots Pines are created using Unreal Engine's Procedural Vegetation Editor.

A fully editable preset is included in the package, allowing you to generate unlimited Scots Pine variations. You can modify tree structure, shape, and behavior directly inside the editor.

This preset is created using the CropCraft PVE Tool. The tool itself is not included in this package and is available separately.

Wind System

All Static Mesh Scots Pines and shrubs use Pivot Painter 2.0 for wind animation. Wind settings are preconfigured and controlled through a shared Material Parameter Collection, allowing you to easily adjust intensity and behavior.

The Skinned Mesh Scots Pines use Unreal Engine's built in wind system designed for the Procedural Vegetation Editor. A ready to use blueprint is included in the example level, allowing you to quickly adjust wind settings for these trees.

Meadow vegetation uses a simpler wind setup. Wind intensity is controlled through the same Material Parameter Collection used by the Pivot Painter system, ensuring consistent behavior across the scene.

Technical Details & Recommended Usage

Recommended Settings

For best visual results, we recommend using the provided Default Engine Settings.

Lighting, shadowing, and overall visual quality may vary depending on your project configuration.

Performance Tips

For large environments, using multiple PCG areas instead of a single large one can provide better control and more natural results.

Adjusting PCG scale and density allows you to balance visual quality and performance based on your needs.

Requirements

To ensure the package works correctly, the following must be enabled:

- Procedural Content Generation plugin
- Procedural Vegetation Editor plugin
- Nanite Foliage (Project Settings)

These settings are required for the PCG systems, procedural trees, and Nanite based foliage to function as intended.

> Note: All objects in the package utilize Nanite, When using this package with Unreal Engine 5.7 and above, it is strongly recommended to utilize the Nanite and Lumen systems.
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> https://docs.unrealengine.com/5.0/en-US/lumen-global-illumination-and-reflections-in-unreal-engine/