Procedural Terrain Generator

Brief description

A procedural terrain generator allows you to create a terrain using a set of noise generators. Generators have a similar interface and a set of parameters. Generators use Perlin noise. Each generator is created for its purpose: generating landscape, textures, trees and grass.

How to use

1. Create a terrain

2. Assign the necessary generator files to the terraine.

3. Set required noise parameters

4. Click "Generate" button on each of the selected generators.

Basic noise parameters

Octaves	Number of levels of detail you want you perlin noise to have
Scale	Number that determines at what distance to view the noise map
Lacunarity	Number that determines how much detail is added at each octave
Persistance	Determines how much each octave contributes to the overall shape
Offset	By changing this parameter at random, you can make random noise

Basic parameters of generators

Randomize	Randomly changes the Offset parameter after generation calling.
AutoUpdate	Causes generation after each parameter change

Modules

Generators:

HeightsGenerator – generates terrain heights

Width	Terrane width
Length	Terrane length
Depth	Terrane height
HeightCurve	Rate of change of heights curve
FalloffDirection	Direction of change in average height

FalloffRange   Slope of the average height

UseFalloffMap   Use a fall in average height

TexturesGenerator – generates textures using custom images

Textures   Custom textures list

GrassGenerator – generates grass using a custom image

MinLevel   Minimum height of grass appearance

MaxLevel   Maximum height of grass appearance

MaxSteepness   Maximum landscape slope for grass appearance

IslandsSize   Size of grass areas

Density   Grass density on the map

TreeGenerator – generates trees using custom trees objects

MinLevel   Minimum tree height

MaxLevel   Maximum tree height

MaxSteepness   Maximum landscape slope for tree appearance

IslandsSize   Size of trees areas

Density   The density of trees on the map

Interfaces:

IGenerator – interface for generators

IMap – interface for height maps

Editors

GrassEditor - basic Editor for Grass Generator

HeightsEditor - basic editor for a height generator

TexturesEditor allows you to select custom textures.

TreesEditor is for a tree generator allows you to select custom trees objects

Maps

FalloffMap - allows to choose between an island, a central sea or a plain

PerlinMap - generates a noise map