Texture Pack 8K – Outdoor Surfaces

Version: 1.0.0
Pipeline Compatibility: Built-in (Standard), URP, HDRP

Overview

Welcome to **Texture Pack 8K – Outdoor Surfaces**, featuring **21** outdoor-focused textures at **8K** resolution. Perfect for natural landscapes, they support the Built-in pipeline and can be adapted to URP or HDRP. These assets cover a variety of terrains—mud, sand, grass, ice, water, etc.—to bring realism or stylized flair to your project.

Contents

1. **Dirt** (3 variations: Dirt1, Dirt2, Dirt3)
2. **Dry Desert**
3. **Dry Dirt**
4. **Forest Floor**
5. **Grass** (2 variations: Grass, Grass2)
6. **Ice**
7. **Lava**
8. **Mud** (2 variations: Mud, Mud2)
9. **Ocean**
10. **Sand** (2 variations: Sand, Sand2)
11. **Savanah Grass**
12. **Snow** (2 variations: Snow, Snow2)
13. **Water**

14. **Weathered Rock**
15. **Wood Bark**

Each material contains up to **Base, Normal, Occlusion, Height, Specular/Metallic,** and **Emission** maps as required by its surface characteristics.

Demo Scene

A sample scene configured for the Built-in pipeline to preview each texture in a realistic outdoor environment.

Terrain & Texture Application Tool

A bonus tool that simplifies terrain painting and parameter adjustments.

Installation & Usage

1. Importing the Package

1. Download from the Unity Asset Store.
2. In Unity, open **Package Manager** and import the package.

2. Pipeline Setup

Built-in (Standard)

- Textures come set up for Standard Metallic/Specular workflows.
- The included demo scene uses the Built-in pipeline.

URP / HDRP

- Convert each material to URP/HDRP (Lit) shaders if required.
- Use Unity's Render Pipeline conversion wizard (in **Window > Rendering**).

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3. Demo Scene

- **Location**: The “Demo” folder within the package.

- **Showcase**: View all of the textures on a cube and sphere with some scaled to see more details.
- **Natural Setting**: A procedural landscape is included to demonstrate real-world conditions, created by the bonus terrain and texture tool.

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4. Terrain & Texture Application Tool

- **Folder**: Located in the “Tools” subfolder under “Demo.”

- **Usage**:

    1. **Add the Component**

        - Attach the `TerrainGenerator` script to a GameObject in your scene (e.g., an empty GameObject named “TerrainManager”).

        - In the Inspector, drag and drop your **Terrain** object into the `terrain` field.

    2. **Configure Terrain Generation Parameters**

        - **heightmapResolution**: Controls the terrain’s heightmap detail (e.g., 513).

        - **terrainWidth**, **terrainLength**, **terrainHeight**: Set the overall size of the terrain in world units.

        - **noiseScale**, **octaves**, **persistence**, **lacunarity**, and **seed**: Adjust these Perlin noise properties to define the shape and randomness of your terrain.

        - **flattenHeight**: The default height value used by `FlattenTerrain()`.

    3. **Set Up Terrain Layers**

        - In the `terrainLayers` array, configure each **TerrainLayerSettings**:

- **layerName**: Name your layer (e.g., “Grass”).
- **diffuseTexture**: Base or Albedo texture.
- **normalMap**: Corresponding Normal Map.
- **minHeight** and **maxHeight**: The height range where this layer will appear.
- **minSlope** and **maxSlope**: The slope range (in degrees) where this layer will appear.
- **tileSize**: Tiling value for the texture.

4. **Generate the Terrain**
    - Call `GenerateTerrain()` (e.g., via a button or in the Editor) to create a Perlin-noise-based terrain surface using your specified settings.
    - The script calculates heights and sets them on the active TerrainData.
5. **Apply Textures to the Terrain**
    - Call `TextureTerrain()` once the terrain is generated (or if you already have a terrain).
    - The script automatically applies all **TerrainLayerSettings** and distributes the textures based on height and slope rules.
    - A smoothing pass is run to produce more natural blend transitions between layers.
6. **Flatten the Terrain** *(Optional)*
    - Use `FlattenTerrain()` to reset the entire terrain heightmap to a single level defined by **flattenHeight**.
    - This can be helpful if you want to quickly prototype or reset the terrain shape.
7. **Undo Changes** *(Optional)*
    - The script keeps a backup of heights, alphamaps, and layers.

- Call `UndoTerrain()` to revert your terrain to the state before the last generation or texturing step.

8. **Experiment and Refine**
    - Adjust the noise parameters, layer settings, or flatten height as needed.
    - Regenerate and retexture until you achieve the desired result.

By following these steps, you can **quickly generate** a procedural terrain, **apply** multiple texture layers based on height/slope rules, **flatten** if needed, and **undo** if your changes require reverting. This workflow streamlines the creation of varied outdoor landscapes using the **Texture Pack 8K – Outdoor Surfaces** textures.

Support & Future Updates

For questions or feedback, reach us via the Unity Asset Store. If community demand arises, we may introduce further expansions or pipeline-specific features.

Thank you for choosing Texture Pack 8K – Outdoor Surfaces!
We hope these detailed 8K outdoor textures enhance your environments and speed up your workflow. Enjoy crafting immersive landscapes!