CUSTOM VEGETATION PACK

JAPANESE GARDEN

DOCUMENTATION V.1.0

Introduction

Thank you very much for buying C.V.P - Japanese Garden. This vegetation pack was created from scratch collecting references, textures and real sounds of natural environments from Japan. The following will explain the main features and tips to get the most out of it.

You can check the online documentation here:

https://docs.google.com/document/d/1rqI6vAGlaJdQRXdwujPcxQVJkSsgAMGD-iSmISQtrZA/

1: First steps

To be able to import resources it is not necessary to have a new project. Just go to **Assets -> Import Package -> Custom Package** or import directly from the **Asset Store**.

This asset needs **Linear** color space and **Deferred** rendering path to work well, you can change this option on **Project Settings -> Player -> Other Settings -> Color Space** and **Project Settings -> Graphics -> Tier Settings -> Rendering Path**.

IMPORTANT: Compatibility

This assets is fully compatible with **Built-in Render Pipeline** / **Universal Render Pipeline** / **High Definition Render Pipeline** You need to follow the next steps for get everything ready to use:

1 - Once you get the pack imported you need to go into **DE Environment -> DEC Core -> Shaders** And import the correct Shaders for your Unity Pipeline and API version.

2 - Go to **DE Environment -> AE Alexander Elert -> C.V.P - Japanese Garden -> Assets -> Materials -> Render Pipelines Material Versions** and import the correct Materials for your Unity Pipeline and API version.

3 - Go to **DE Environment -> AE Alexander Elert -> C.V.P - Japanese Garden -> Demos** and import the correct Demos for your Unity Pipeline and API version.

4 - If you are on HDRP please add the **Diffusion Profiles** located in **DE Environment -> AE Alexander Elert -> C.V.P - Japanese Garden -> Assets -> Third-Party-Presets -> Unity-PostProcessing -> HDRP -> Diffusion Profiles** into the **Diffusion Profile List** in your **HDRP Render Pipeline Asset**.

5 - Once you open any demo scene It's recommended that you re-generate lighting information, for that go to **Window -> Rendering -> Lighting Settings** and press the **Generate Lighting** button.

CURRENT COMPATIBILITY INFORMATION:

HDRP: 7.4.3 / 7.5.1 / 8.2.0

URP: 7.4.3 / 7.5.1 / 8.2.0

Standard Render Pipeline: Unity 2018.04.20 or higher

If HDRP / LWRP / URP doesn't work and common mistakes

Be sure to download the **correct supported SRP Version**. Be sure you've downloaded all the **SRP dependency files** from the **Package Manager**! Be sure to **switch to linear** Space color.

2: Demo Scenes

You can try the different scenes that are included in this pack to have a reference of how they can be used to generate different atmospheres in different scenarios. (If you are on Standard Render Pipeline: To be able to appreciate them better, you must have **Post Processing Stack V2** installed (see more details in the **Third Party Assets section**).

Prefabs-Viewer

In **Prefabs-Viewer** the **grid prefabs** are shown. A more practical way to take a look at the whole pack or choose your favs, the lighting is quite standard simulating a **sunny day** outdoors. Otherwise **Sample-Scene** is a **very simple scene** to play with.

Ancient-Temple

This scene is designed to render cinematics, the density of the **vegetation is quite high** so it is not suitable for gameplay, but to achieve a very realistic scenery, the lighting simulates a **sunny day**.

Ancient-Temple-Night

Same scene but in **Night**, some **fog** and an atmosphere with different light conditions are shown in this scene.

3: Third-Party Assets

This pack includes some **presets** that can be used with other assets available in the Unity Assets Store. to use them it is **necessary to have previously installed versions compatible with these presets**. (We are working on new presets for other assets for purposes that will be included in future releases).

Post Processing Stack v2 Profiles

Post-processing profiles contain the touch-up seen in the sample scenes, it is necessary to have **Post Processing Stack v2** installed from **Windows -> Package Manager** to maximize its compatibility. Also included here are some extras such as **Cookies** for flashlight spotlights and textures for the **Lens-Dirt** effect in post processing.

Unity-PostProcessing

Post-processing and **Diffusion profiles** for **URP** and **HDRP** contain the touch-up seen in the sample scenes.

4: Working with LODs

The prefabs in Japanese Garden make use of the **Unity LODs System**, these are pre-configured to work with a **LOD Bias: 2** and **Maximum LOD Level: 0**. You can edit these configuration settings in **Project Settings -> Quality -> Others**.

Editing Prefabs with LODs

In certain cases and depending on the configuration of each project, it may be necessary to edit the LODs of the prefabs, you can access this option from the "**LOD Group**" component located in each prefab. In turn to access the models you can go to the folder **Japanese Garden -> Assets -> Meshes** there you will find extra less polygonal variants that were not used.

5: Prefabs

The Prefabs are located in the **Japanese Garden -> Assets -> Prefabs** folder where you will find subfolders that divide the content according to their type.

Vegetation/Plants

Small **bushes** and **plants** ideal to decorate gardens and populate lower forest areas.

Vegetation/Trees

All **common** tree variants are contained here.

Props/Ground-Covers

This contains **LichenMoss** and **Snow** surfaces to cover your sceneries with.

Props/Rocks

Two versions of rocks are available, **Common** and **Floor**; this last one is useful if you want to use it as **walkable platforms** for example, check the **garden pond rock path** example on the **Ancient-Temple** demo scene.

Props/Temple

It contains **statues**, decorative stuff and **basic blocks** that you can use for build structures as you want, please check **Customs** subfolder prefabs.

Props/Wood-Planks

Some **wood planks** that you can use for build structures as you want, please check **Customs** subfolder prefabs.

Ground Surfaces

Here are **Terrain Layers** to use on your own terrains, all the **PBR** base maps are available under **textures** folder for custom **maskmap** creation depending on your terrain rendering solution.

Particles

It contains **Unity Particle System** prefabs that simulate **falling leaves**, **mist**, **candle lights**, **flies**, **fireflies**, **etc.**

Sounds

Prefabs of **loop ambient sfx** and **Reverb Zones** sounds that can work well together with the **Audio Mixers** also some **music** and **footsteps** examples.

Windzones

C.V.P - Japanese Garden works with the **Unity Wind Zone** component in conjunction with the "**DE Environment Global Controller**" component. To add wind effect on the vegetation please go to **Window -> DEC Environment -> Tools -> Add Global Controller**.

Skyboxes

To help with the ambient lighting and reflections of your scenes you can use the available **skyboxes** with drag and drop from the **Lighting tab -> Skybox Material** then pressing the **Generate Lighting** button above the window.

6: Working with DEC Shaders

DEC Shaders are a custom **optimised and powerful** set of shaders that will provide you **AAA results** for the environment rendering **in every pipeline**.

SHORT SHADERS DESCRIPTION LIST:

- **Billboard Vertex Wind Simple:** Cheap for Billboard LODs.
- **Cutout Wind Vertex Translucency:** Best for Leaves.
- **Surface Wind Vertex Detail:** Best for Bark.
- **Surface Detail:** just like the previous one but without wind.
- **Surface Detail Displacement &/or Tessellation:** perfect for ground details.
- **Water Lake:** simple but powerful for water surfaces like pool, lakes, ponds and puddles.

7: Tips and Tricks

Some helpful ideas to improve the graphics, performance and level design.

Reduce Shadow Distance and Camera Clipping Planes

It is a good practice to limit the distance of the shadows as much as possible in scenarios with high density of objects such as forests, since you will not be able to see too much in the distance anyway. You can access this from **Project Settings -> Quality -> Shadow Distance**. It is also highly recommended for the same reason, adjust the **far** property in **Camera Clipping Planes** of your Main **Camera** and make sure that the Shadow Distance is not greater than the far Clipping Planes.

Occlusion Culling

Use walls, terrain elevations or other obstacles on your stage to **reduce the amount of objects rendered per frame**, making efficient **Occlusion Culling** bake.
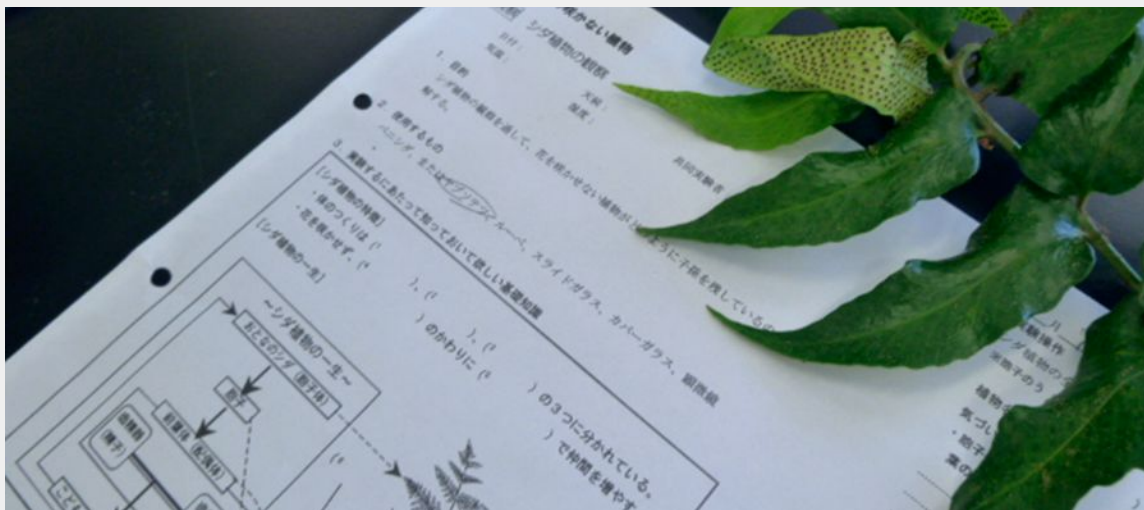
8: About Licences

- **C.V.P Japanese Garden 2020© by AE Alexander Elert.**

    This Asset is governed by the Asset Store EULA
    https://unity3d.com/de/legal/as_terms

    By installing, copying, accessing, downloading or otherwise using the Assets, End User agrees to be bound to the provisions of this EULA. All definitions of the Terms shall also apply in this EULA unless the context clearly provides for a different understanding.

    Frequently Asked Questions:

    Can I use these Assets on my Game Project?

    Yes. You can use it for production like Video Games, 3D Renders, Film or any interactive applications created with Unity®.

    Can I redistribute or sell these Assets?

    No. You can't resell or redistribute these assets. If you need an extended licence or any custom solution please contact us.

Music Tracks:

The songs are provided in a collaboration with PulseSound.com You can use it on your projects, if you want to resell or redistribute please contact the author.

LICENSING – DEC Core shaders and files:

DEC shaders are developed by others, please visit **https://www.deshaders.com** for more information. All contents of files in folder "DEC Core" are passed governed by the Asset Store EULA **https://unity3d.com/de/legal/as_terms**

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9: Change Log

- v1.0 First Release.

10: Known Issues

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11: Contact

Thank you for reading this documentacion. If you find some errors, suggestions or need a new customized pack of vegetation you can contact me at:

e-mail: **alexanderelert@outlook.com**

discord: **https://discord.gg/NJZhZVY**

Check my other assets for sale on: **https://assetstore.unity.com/publishers/46732**

- **I'm waiting to see your creations using the C.V.P - Japanese Garden!**