MicroWorld - Short User Guidance

Full online documentation: here.

MicroWorld: Your Complete Solution for Effortless Game Level Creation

This is a comprehensive solution for creating ready-to-use game levels. The asset will allow you to easily create game levels ready for use in your game. You will only need to create your characters and game objects on the prepared terrain.

MicroWorld works both in editor mode and in runtime. You can generate both pre-prepared game levels and an infinite number of random levels in runtime. Open world with smooth streaming of locations in the background is supported.

The asset includes a generator of various terrains, filling with various vegetation, grass, stones, trees, water, construction of simple buildings in different styles, labyrinths or open areas. All necessary textures and meshes are included in the asset. Some of them are generated procedurally.

MicroWorld is for those who want to focus on the gameplay and want to get ready-made terrain and level design.

Installation

Built-In Project

- Install the package

URP Project

- Install the package.
- In Start Screen press button "Convert To URP"
- Enable Opaque Texture in URP settings

Quick Start

The easiest way to study MicroWorld is to open demo scene "01 - Basic" and play with it:
1. Goto folder MicroWorld/Demo and open scene "01 - Basic".
2. Select the MicroWorld object and press button Build. Alternatively you can press "Tools/Micro World/Build Terrain" from the main menu, or just press F5.
   Also you can change the MicroWorld seed if you wish.
3. Enjoy! 😃

To make static MicroWorld terrain from scratch:
1. Go to main menu, press "Tools/Micro World/Create/Micro World On Separate Scene"
   The system will create a new scene, a MicroWorld object with random seed and set of required spawners.
   In principle, you can already build terrain. But for spawning vegetation and rocks, you need to add a few more spawners.
2. Goto folder MicroWorld/Prefabs. Drag and drop the Rocks prefab inside the MicroWorld object.
3. Goto folder MicroWorld/Prefabs/Biomes. Drag and drop the BiomeTemperate prefab inside the MicroWorld object.
   You should to get the following structure in Hierarchy panel:

4. Select the MicroWorld object and press the Build button.
   The system will build terrain.
5. Open Lighting panel (Window/Panels/Lighting) and press Generate Lighting. Unity will ask to save scene and bake environment lighting for the created scene.
6. Congratulations! Your first MicroWorld scene is ready 😀

Do not forget to adjust postprocessing to achieve great results.

Note. If you use Built-in pipeline, it is recommended to use Forward rendering.
If you are in URP, better to use the Deferred rendering path.
In both cases Linear color space is preferable.

FAQ

❓ Can I use my own models and textures to build MicroWorld terrain?

Of course you can use your own prefabs, models, textures and shaders.

❓ Does MicroWorld contain models and textures?

Yes, MicroWorld comes with a set of models and textures for building terrains of different styles. It is grass, plants, bushes, rocks, trees and so on.
Also it contains models of building parts - walls, gates, columns, etc. (buildings are in development stage for now)

❓ Is it possible to place my own buildings, NPCs or other objects on the terrain?

Yes, it is possible. Terrain has essentially a cellular structure. You can create your own types of cells with the properties you need (for example, with a flat surface, and without trees and bushes), in which you can place your building objects. These can be statically manually placed

buildings or dynamically created buildings. However, note that MicroWorld is more focused on dynamic procedural level building.

Also you can spawn your objects via MicroWorld's spawners in a true procedural way.

❓ Can MicroWorld make buildings or other artificial objects on the terrain?

Yes. MicroWorld can create mazes or separate buildings built into the landscape. This feature is currently in active development to generate more complex and diverse buildings.

❓ Does MicroWorld build roads?

Yes and no. MicroWorld builds the terrain in such a way that all cells are connected to each other. That is, from one cell there is always a path to any other cell, without significant differences in height. In this sense, the entire terrain is covered with a network of roads. But visually these roads are not being built at the moment. Perhaps MicroWorld will do this in the future.

❓ Can I manually change terrain after it was built by MicroWorld?

Yes, you can. In most cases MicroWorld builds terrain via a standard terrain system, including heightmap and detail layers. So you are free to change the landscape as you want. But note, if you rebuild the landscape by MicroWorld again, all changes made manually will be lost.

❓ What rendering paths does MicroWorld support?

MicroWorld supports Forward, Forward+ and Deferred rendering paths. It is supported in Build-in and URP pipelines.

❓ Does Microworld work in runtime or in the editor?

MicroWorld can build both static terrains in the editor and dynamic terrains in runtime. Static terrains are built on a separate scene, which can be dynamically loaded during gameplay. Construction in runtime works in the background, without freezing the current gameplay.

❓ Does MicroWorld support mobile devices?

No, it does not support. MicroWorld is aimed at PC devices with a mid-range or high-end video card.

❓ How long the MicroWorld builds level?

Typically in the editor it takes about 2 seconds to build for a micro size level. Large level - up to 5 seconds.

Runtime, in background asynchronous mode, building takes longer because MicroWorld prevents FPS from dropping: about 7 seconds for a typical level.

Troubleshooting

💔**I build static MicroWorld in the editor and save it as a prefab. But after prefab opening, the terrain does not display correctly.**

You can't save a built terrain as a prefab. A built terrain can only be saved as a scene.
You need to create a separate scene, build a MicroWorld there and save the scene.
You can also automatically create a scene from the main menu "Tools/Micro World/Create/Micro World On Separate Scene".
Once the scene is created, you can load it into your main scene in Additional mode, or use it as a standalone scene.

💔**Textures are pink in URP project.**

You should convert MicroWorld to URP. To do this, go to the main menu and open the start screen "Tools/Micro World/Start Screen". There, press the "Convert To URP".
Then, rebuild MicroWorld terrain.

💔**Water is not displayed correctly in the URP project.**

Enable option "Opaque Texture" in URP settings. You should make it for all quality levels.

💔**I have built a static terrain and want to change the material settings for some detail layer. How do I do this?**

All dynamic materials are listed in Terrain gameobject. Just select the Terrain object and adjust the required materials in the inspector.

Support

Discord: https://discord.gg/setUfUtc
E-mail: tps99tps@gmail.com
Full documentation: here