RoomBuilding StarterKit

Thank you

for using **Room Building Starter Kit**. This project gives a room building solution to start your SIM game.

This document includes instructions that will help you get started easily.

If I left something unclear or if you encounter any problem to this project. Please don't hesitate to contact with me with:

Email: hurrywon@163.com
Discord: https://discord.gg/J7JTGqcf3v

Project Setup

Import Package

If you import the package into an empty 3D project. All the dependencies, settings and layers will be setup automatically during package installation. Note that this is an entire project, when import this package you will see a warning popup window told you import this package will overwrite your current project settings. **Please make sure you did backup if you need to import this package to your existing project!**

If some other assets already exist in your project, please notice that check the project settings assets in import package window will overwrite your current project settings! For example, if you have your own InputManger settings and Layers/Tags, please clear the checkbox of InputManager.asset and TagManager.asset for avoid overwriting your own input settings and Layers/Tags!

Update

If you encounter any problem when update from an old package to newest package, **please remove the old project then reimport the newest package!**

Dependencies

This project need **post-process** package for the visual effect and **newtonsoft.json** package for serializing game data during save/load. Please make sure these two packages installed in Package Manager.

Color Space

This project is created in **linear color space**. In order to make sure the colors in demo scene look right, please set project's color space to linear in Edit - Project Settings – Player – Color Space.

Layers

The project built-in layers will be added automatically during package import. Please make sure all the layers list in right picture are added correctly.

Build

Before build the project, you should create a directory "Assets/StreamingAssets/Data" then put "Assets\RoomBuildingStarterKit\Assets\Config\GameText.json" into that directory.
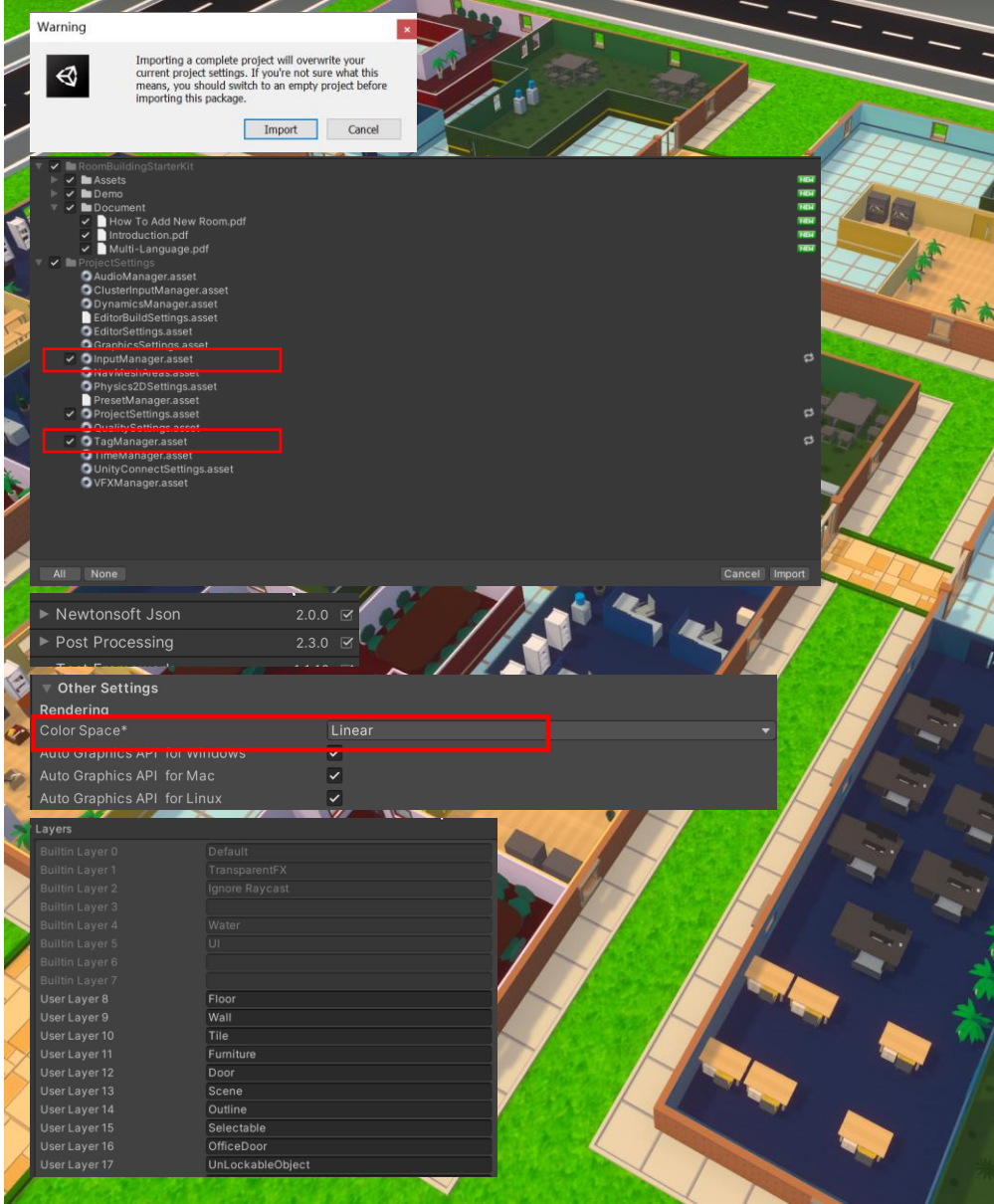
URP and HDRP

Import Package

After import the package, the "Assets", "Demo" folders under

<div align="center">"Assets/RoomBuildingStarterKit/"</div>

includes the assets and scenes work in Built-in Standard Render Pipeline. **Before import the URP or HDRP package, you need to delete these two folders first.**

For convenient to use the URP or HDRP project, we export the entire URP/HDRP project into two packages:

<div align="center">"Assets/RoomBuildingStarterKit/Install URP Assets.unitypackage"</div>

<div align="center">"Assets/RoomBuildingStarterKit/Install HDRP Assets.unitypackage"</div>

Import one of them, the "Assets" and "Demo" folder prepared for URP/HDRP project will be imported. Run the scenes under the Demo folder, that's all you need to do!

During import HDRP assets, there will be a popup window named "Render Pipeline Wizard" as right picture. Don't worry about the errors displayed on the wizard window. The HDRP project has no errors before export to package, after import the package the errors gone, no actions need you to do. The HDRP configurations are all under:

<div align="center">"Assets/RoomBuildingStarterKit/Assets/HDRPDefaultResources"</div>

You can select "DefaultSceneRoot" as the Default Scene Prefab.

URP ScriptableRendererFeature and HDRP CustomPass are used in this project! When the pipelines' version upgrade, the API maybe modified.

For URP versions, we tested the project from version 7.x to 10.x. It can work without any changes.

For HDRP versions, we tested the project from version 7.x to 10.x. Only v10.x need to update APIs. After upgrade the pipeline to v10.x, install the relative patch package under:

<div align="center">"Assets/RoomBuildingStarterKit/Patches/HDRP_v10.x_patch.unitypackage"</div>

If you encounter any problem when upgrade to newest version. Please don't hesitate to contact with me ☺
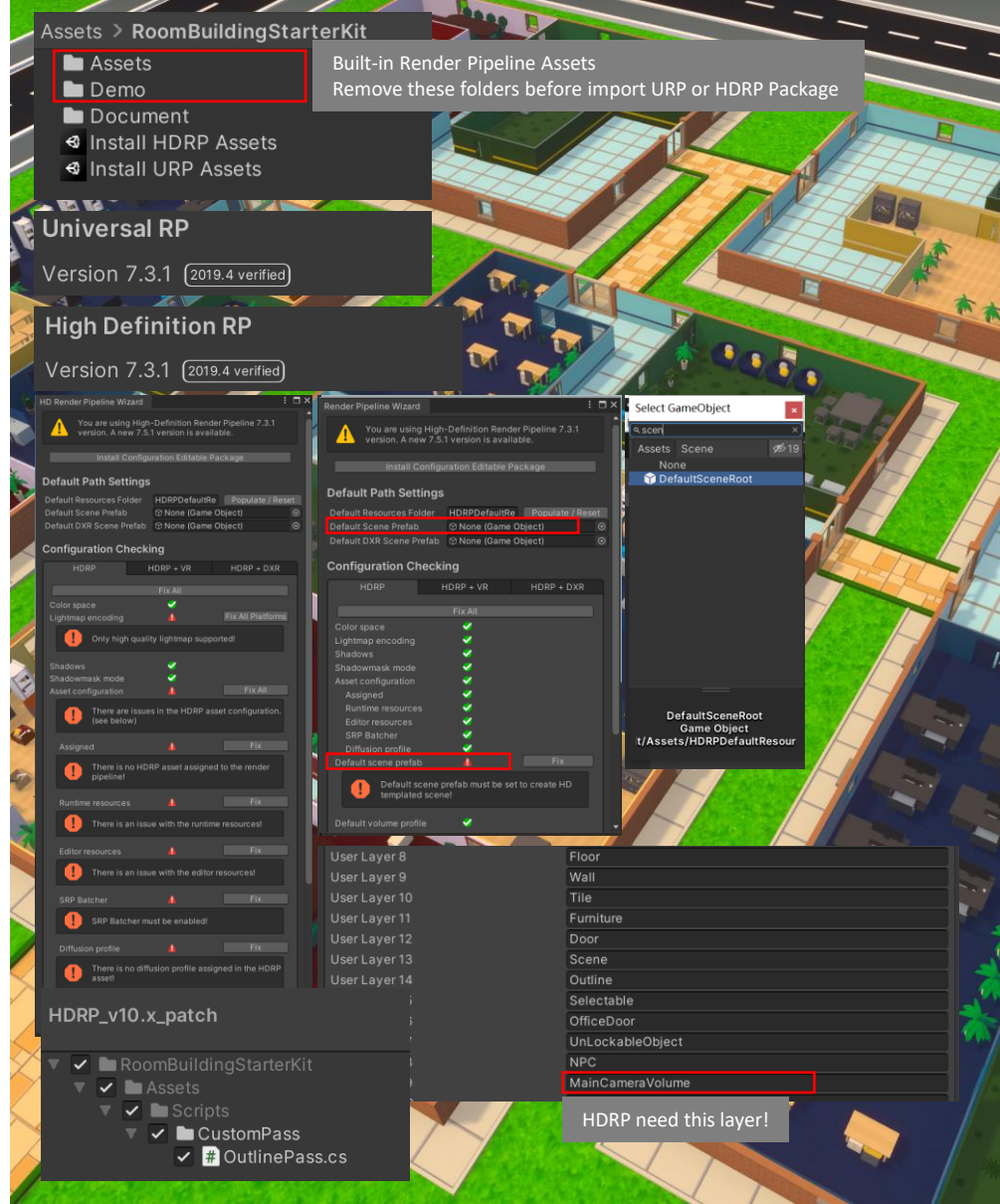
Start Menu

This project has all the basic game UI includes main menu and in game menus.

Start Game

Start a new game to experience this project.

Load Game

You can save your scene in **save menu** during game play, then load it in the **load menu**.

Settings

This project supports two languages: English and Chinese. You can change this setting in start menu or during game play. All the texts will be changed at the time you change the language setting.

Other common see game settings are all included, such as resolution, screen mode and graphic quality.

Build Rooms

When you enter the game scene, there are four offices can be used to build room. The center one has already unlocked. Other three offices are occupied by some buildings. You could buy the building to unlock the office. (Currently, shopping system has not been implemented, so you can unlock them without any limitation.)

You can build rooms in the unlocked offices. There are two buttons on the tool bar. One is for settings, the other is for building room. In the room list, you could choose one to build.

Blue Print

After you choose a room type to build. You will enter blue print mode. There will be a cursor on the office ground.

Expand Space

The default state is expand space when enter blue print mode. Or you can click the brush button switch to expand space state. Press mouse left button then drag to get the blue print framework of your room. Then you can still use this function to expand the base framework.

Reduce Space

Click the eraser button will switch to delete mode. You can delete some part of the blue print.

With these two functions, you can customize your blue print. The limitation is the blue print space must be connected. You couldn't build a room with two separate spaces. (You should build two rooms for this situation.)

Move

By clicking any floor of the blue print. The blue print will be raised up on the ground and follow your mouse. You can move it to another place then put it down.

Rotate

When the blue print is raised up, you can press R to rotate it.

Furnitures

During design the blue print foundation. You can choose a furniture in furniture list. There will be a furniture cursor follow your mouse. Click mouse left button to build the furniture.

Door

Every room should have at least one door. When you build the door, the cursor will auto attach on the blue print wall.

Window

Same with the door, window will auto attach on the wall. About the window, there are some very cool functions: The window will break through the shared walls between two neighbor rooms! (The door has this feature too) When you build a room connect with the office wall. The windows will be auto generated by the office windows!

Put Furnitures

Choose a furniture in the list, a furniture cursor will follow your mouse. You can press 'R' to rotate it and choose a place to put it on the blue print by clicking left mouse button.

After put down a furniture on the blue print, move the mouse hovered on it, the furniture will be outlined, then you could raise it up by clicking it. It will follow your mouse, you can put it to any other place on the blue print or press E to remove it.

*Wall Furnitures

Please see details here: https://youtu.be/j_lgr6UD0Pk

*Office Furnitures

Please see details here: https://youtu.be/Uc-oE3Uufgc

Notice that the office furnitures can only be moved during Office Furniture Panel Opening.

Build / Remove

When you finish the blue print design, and all your operations fullfill the checklist (the list on the right side of the screen.). Click confirm button to build the room out.

When you want to delete a room. Just click any floor of the room. A tool bar will show on the screen. Click the sell button then choose yes on the popup window. The room will be removed.


Do you want to delete this room?

Modify Existing Rooms

Modify

After build a room, you can enter its blue print mode again and modify it by clicking any floor of the room then click the blue print button on the tool bar. If you don't satisfy your modification, just click the close button on the furniture list to undo your changes. The blue print and room will restore to the original design!

Copy

Another cool function is copy room. By clicking the copy button on the toolbar. You will get a new blueprint which exactly same with the target room. The new copied blue print will be raised up and follow your mouse. (Just like the move blue print state.)
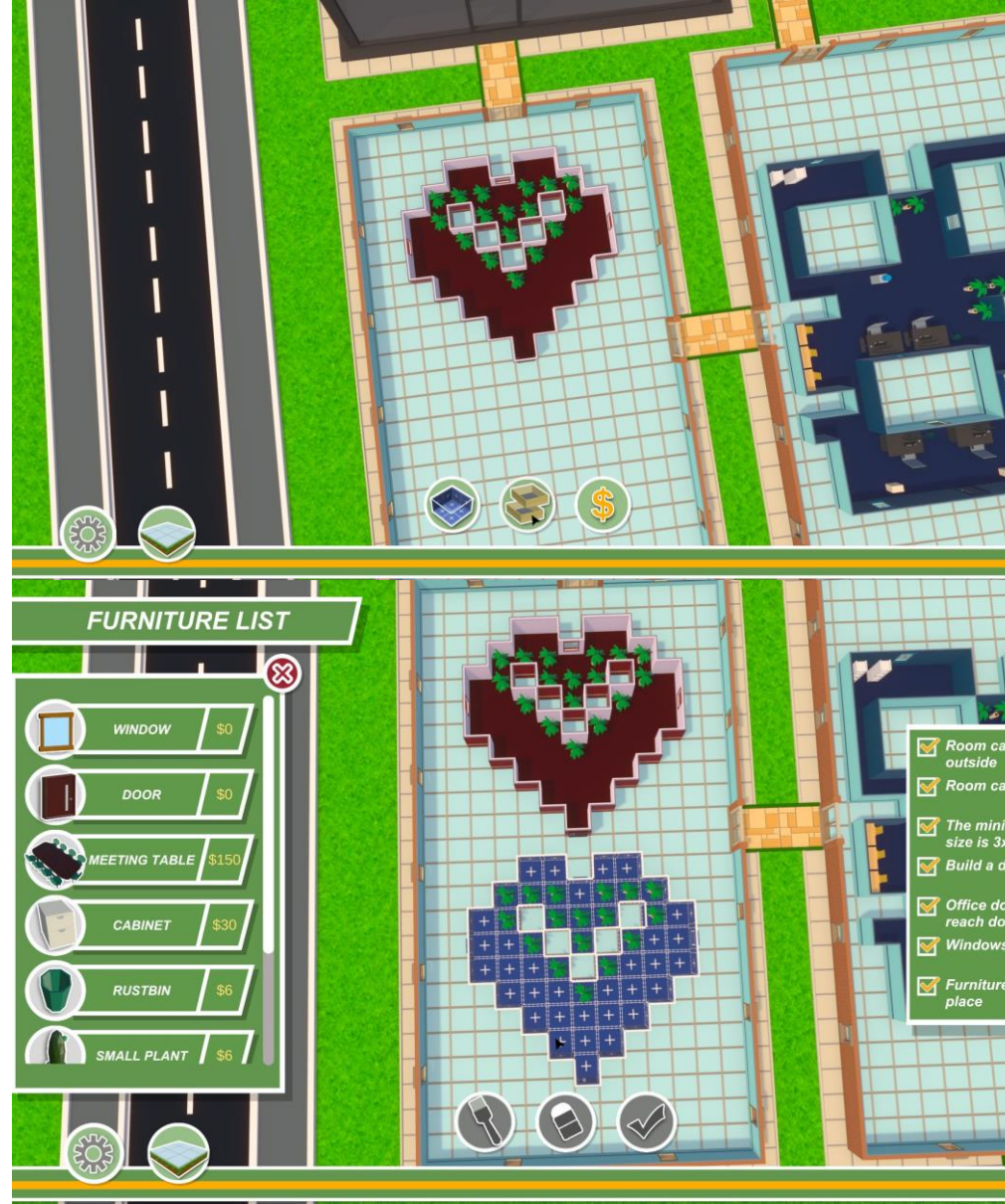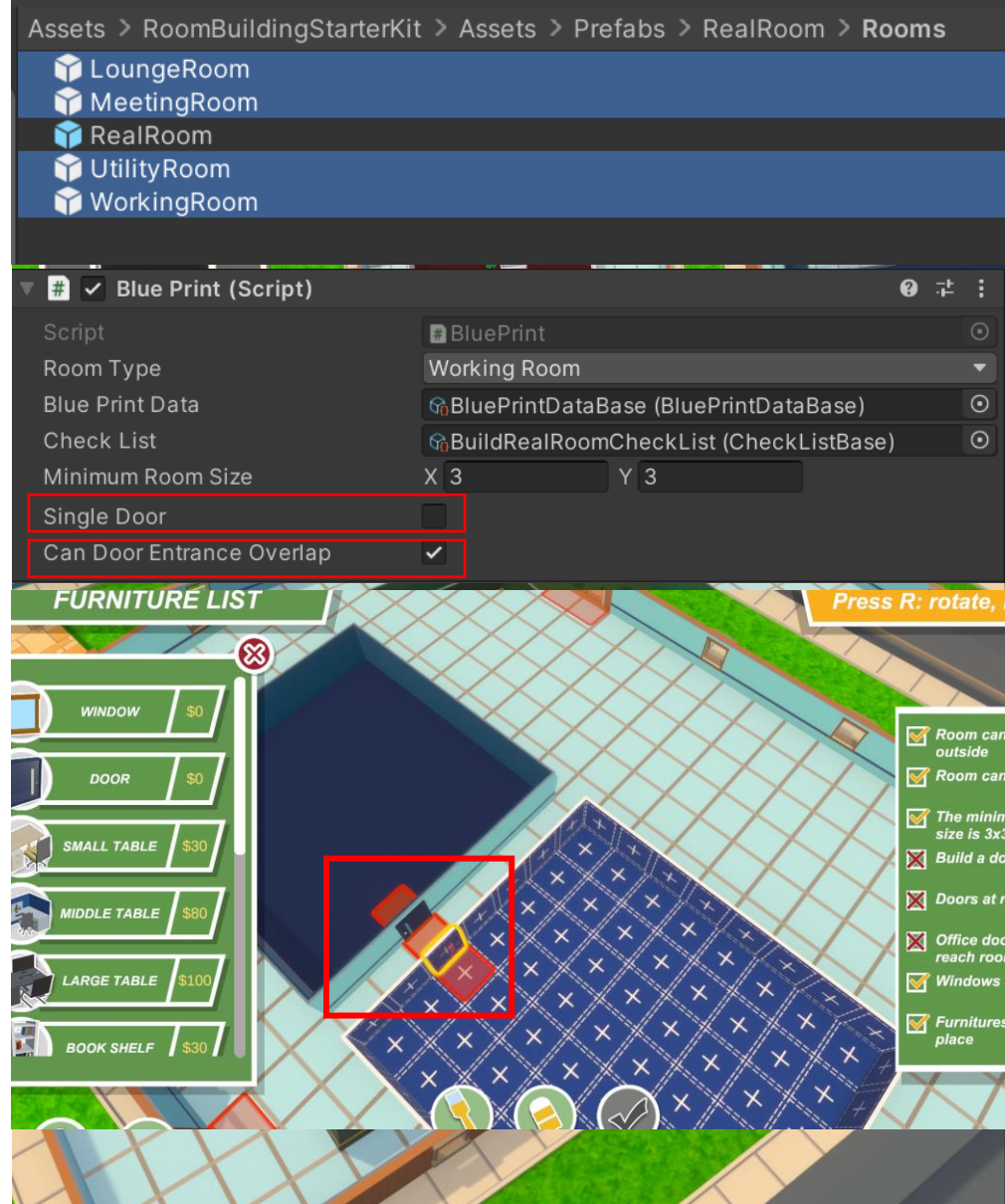
Room reachable validation

All the rooms build in an office should be reached from every office doors. Such as if you have NPCs in your game. The NPCs will enter the office from the office doors. Then they can walk in the office and they need pass through room's doors when they want to enter a room. In this project, you can build doors between rooms which means NPCs could directly enter a room from another room. You can also build rooms around by another room depends on the requirement in your game.

One room could build more than one door. **We supply an option for you to choose single door or multiple doors for a room.** You can change it at: "Assets/RoomBuildingStarterKit/Assets/Prefabs/RealRoom/Rooms"

We also give an option to determine two doors' entrances can overlap or not. This function is used to avoid doors collide if NPC need to push to open the door. When check the "Can Door Entrance Overlap", no two doors' entrances can overlap with each other.

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