Random Map Generator

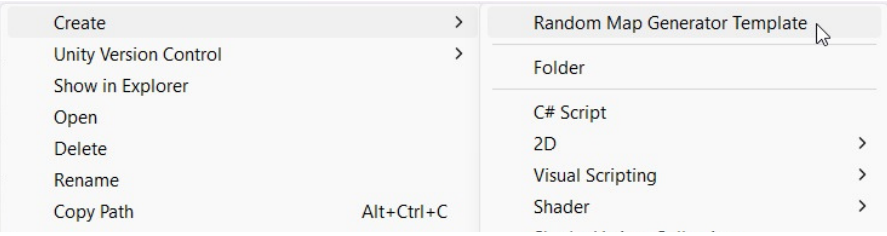
Setup & Usage

Add randomMapGenerator script to an empty game object in your scene.

Right click to an empty space in your "Project" windows and select:

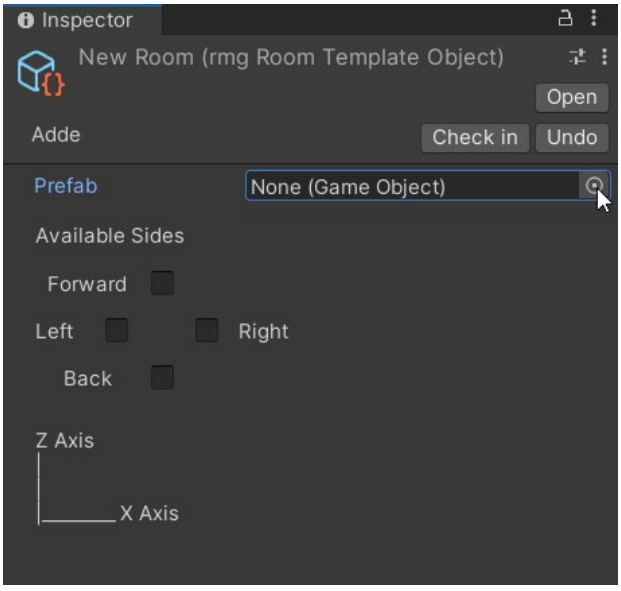
Preparing your Prefabs

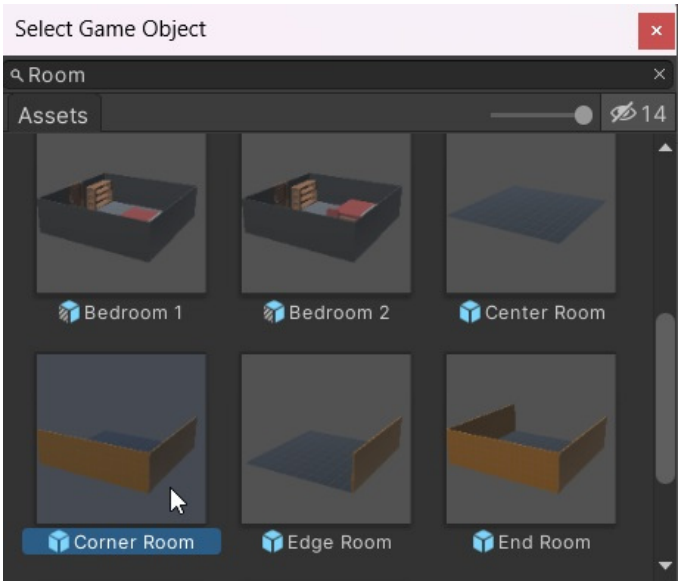
Create -> Random Map Generator Template



Open up the newly created Scriptable Object in inspector.

Select from or drag your prefab to the "Prefab" section.





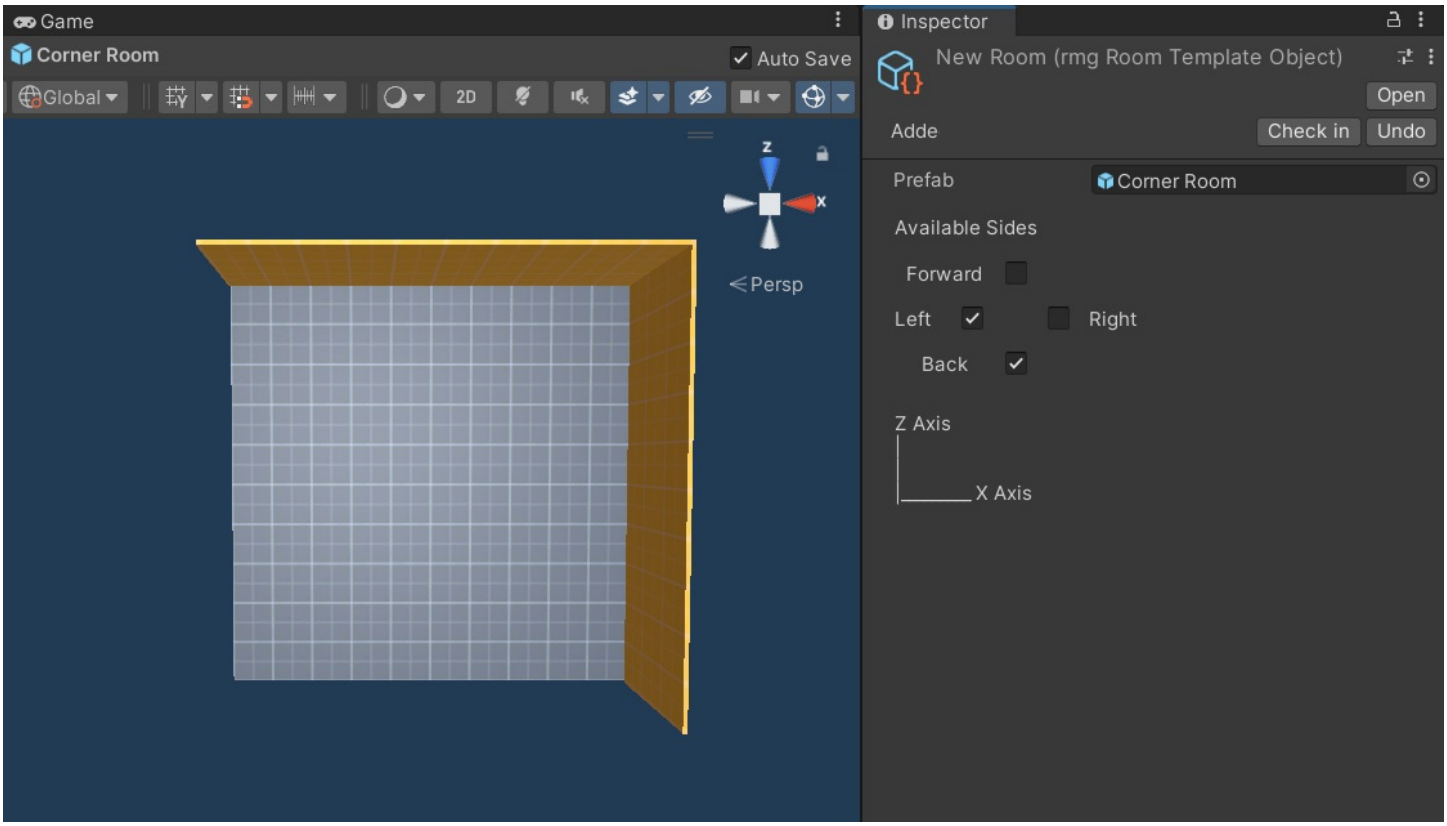
Select available sides (sides that the generator connect other rooms to this prefab) of your prefab.

Set the Axes correctly or the created map might not be traversible.

Warning: For the script to work properly you need at least one room with the following attributes.

- *Center = Room with all sides available*
- *Edge = Room with 3 sides available*

- *Hall = Room with 2 opposing sides available*
- *Corner = Room with 2 adjacent sides available*
- *End = Room with only 1 side available*



Repeat for all prefabs you want to use.

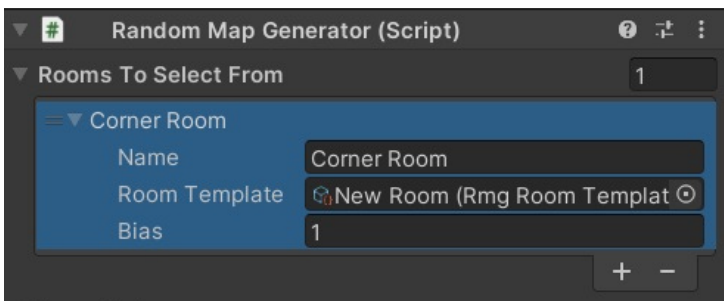
Adding your Prefabs to the Map Generator

Open up the empty game object you have put the randomMapGenerator script on in the inspector. Extent the "Rooms to Select From" section. Press the "+" on the bottom of the list to add a new room.

Extend the newly created list item and Name the room in a way that you can identify it.

Select from or drag your scriptable object into the "Room Template" field.

Set the “Bias” variable. This option is used to affect the selection process of the rooms while generation of the map. More bias means the room is more likely to be selected over its counterparts (Only works between same room types. Eg. Between Corner rooms). 0 means that room will not be used in the generation process.



Repeat for all rooms you have created.

Set up the rest of the options

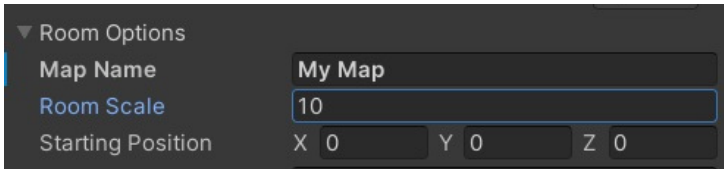
Later extend the "Room Options" menu.

Here you can select a name for your map. This name will be assigned to the parent game object that will hold all your rooms inside.

Set the "Room Scale" to the width of your rooms in unity units.

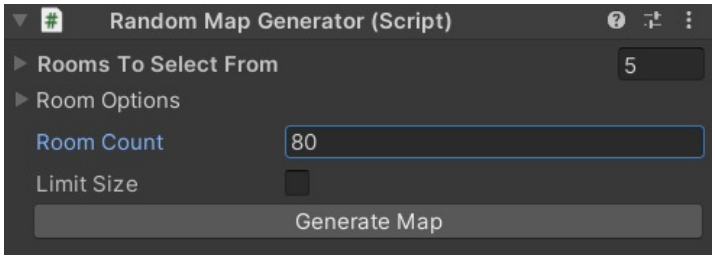
Warning: All rooms must have the same Width and Height (X and Z Axes).

You can also set “Starting Position” to set the position of the first room the map generator creates. Default will start at position 0,0,0 .



Generating the Map

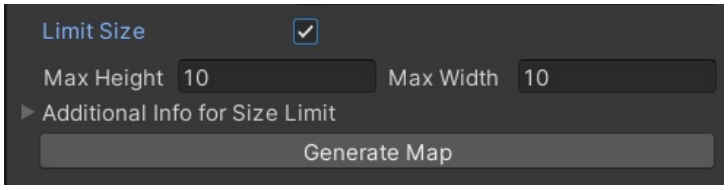
Now everything is set up. We can start generating maps. First set the "Room Count" variable. This will tell the generator how many rooms to create.



If you want to limit the size of the map in a grid, you can tick the box in the "Limit Size" option. This will give you additional parameters.

"Max Height" will determine how many rooms there will be in the Z axis.

"Max Width" will determine how many rooms there will be in the X axis.



For best results use a "Room Count" of 80% of the maximum grid size (Max Height Max Width).

Warning: If you set a "Room Count" more than the maximum size of the grid (Max Height Max Width) it will be overridden by the grid size.

Now you can press the "Generate Map" button to generate maps. Each press will create a new map **destroying** the old map.