



# Jujube Map Editor - Tutorial

To learn how to use jujube map editor, it is recommended to edit the demo map first.

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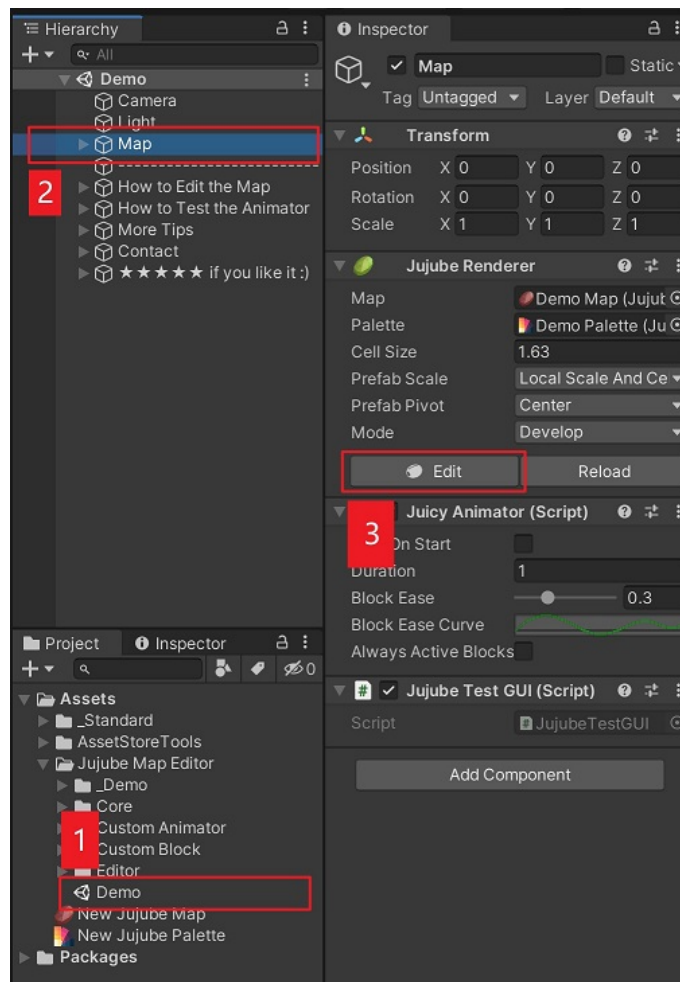
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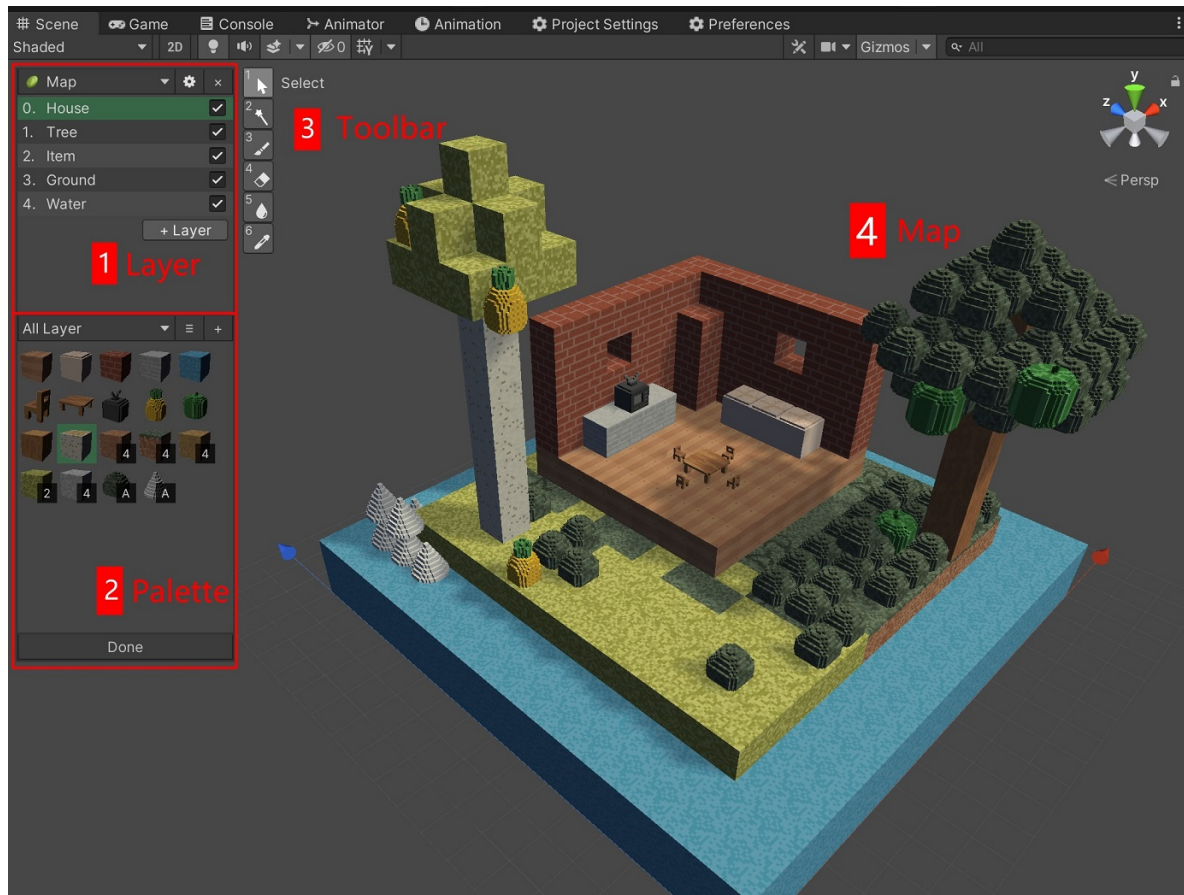
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## Edit The Demo Map

1. Open the demo scene at "Assets / Jujube Map Editor / Demo".
2. Select "Map" gameObject in the Hierarchy.
3. Click "Edit" in Inspector to start edit this map.

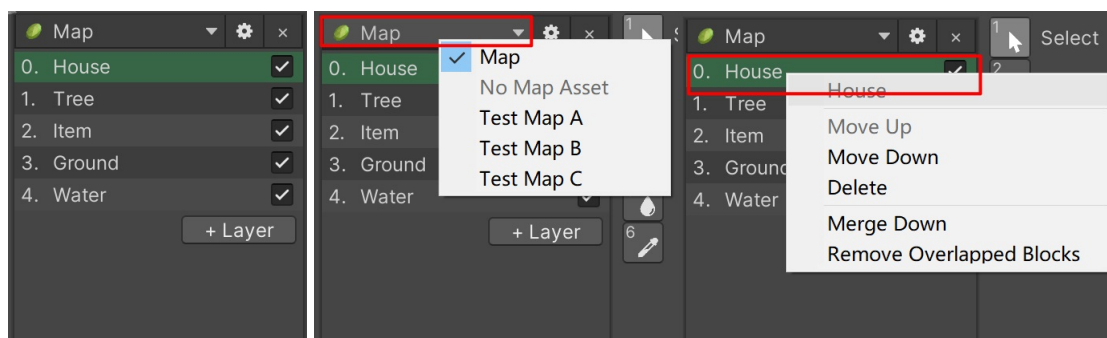


4. In the scene view, it shows the map which current editing with some extra UI.



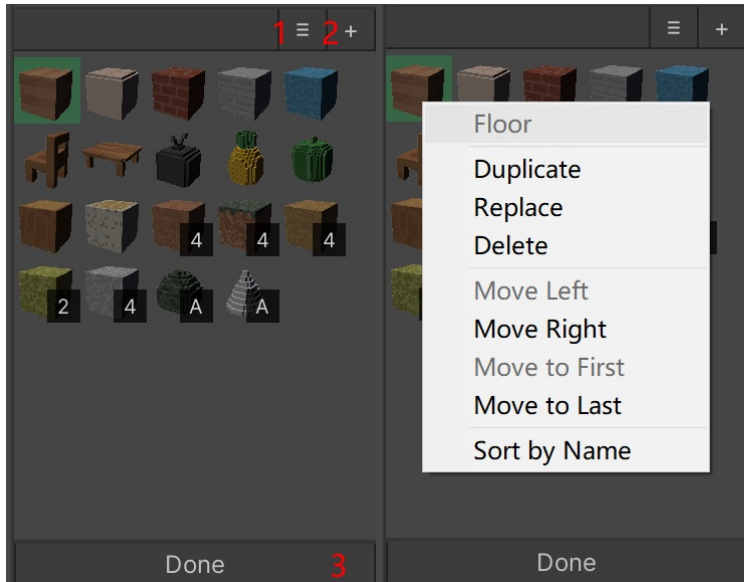
## Layer Panel

- Click the button on top left makes it shows a menu. You can switch to another map in the current scene using this menu.
- Click on the layer name to select a layer. The block you paint will be placed in the selecting layer.
- Right click on a layer will show some options about this layer.
- The gear button opens the setting window for this map editor. The "x" button stop edit this map.



## Palette Panel

- Palette panel shows all the prefabs in the palette asset referenced by the editing map.
- Click on the prefabs icon will select that prefab. You can use the brush tool and paint tool to paint the selecting prefab on the map.
- Use "Shift+WASD" to move the palette cursor;
  - ① Show or hide the state info below this panel.
  - ② Add a new prefab into this palette. You can also add them by drag and drop into the palette panel.
  - ③ Stop edit this map.



## Toolbar

- There are 6 tools in the toolbar, each one of them (except pick tool) have a few options shows below the toolbar when it is selecting.

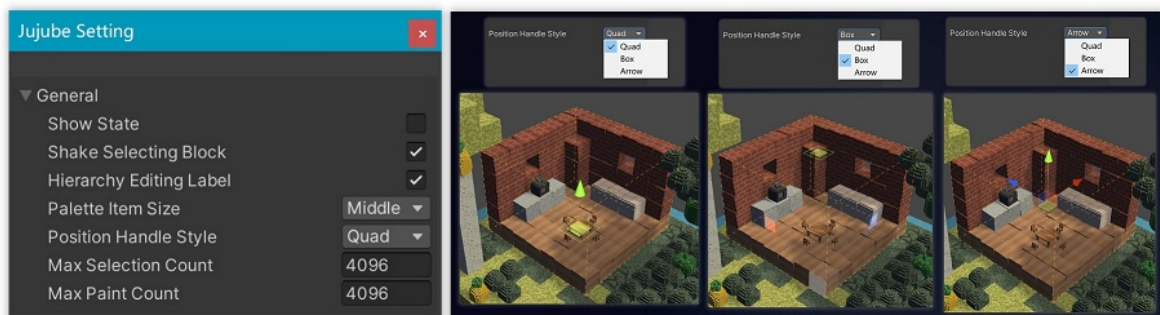


- The hot key of each tool is M,N,B,R,G,P. Alpha key 1 ~ 6 also works for select those tools.
- With "Select Tool" selected, drag on the map with mouse left button will make a box range, release the button will select the blocks inside the range. You can move the selecting blocks by dragging the handle shows on the dotted range, or rotate them by pressing "Q" or "E" on keyboard. Press "Delete" key will delete the selecting blocks. Press "WASD" will move the selecting blocks;
- "Wand Tool" also can select blocks in the map, it will select all the same blocks next to the block you click on. If you set the option to "Any Prefab" instead of "Same Prefab", the wand tool will select all the blocks next to the clicked block.

- "Brush Tool" is the one that add blocks into the map. By left click on the map, there will be a block spawn on the place you pointed. You can also drag a range to add multiple blocks at one time. Click on the option button will change the rotation of the block you add. Also use "Q" or "E" to change this rotation.
- Click or drag with "Erase Tool" selected will make a range and delete blocks in that range.
- "Paint Tool" works similar with brush tool, this tool change prefab of existing block instead of spawn new blocks. The rotation of those blocks will stay the same. Switch to "Bucket" mode in the option will make this tool paint like the wand tool.
- Click a block with "Pick Tool" will set the selecting prefab to the prefab of that block. You can hold "Shift" key to switch to this tool with any tool selected.

## Setting

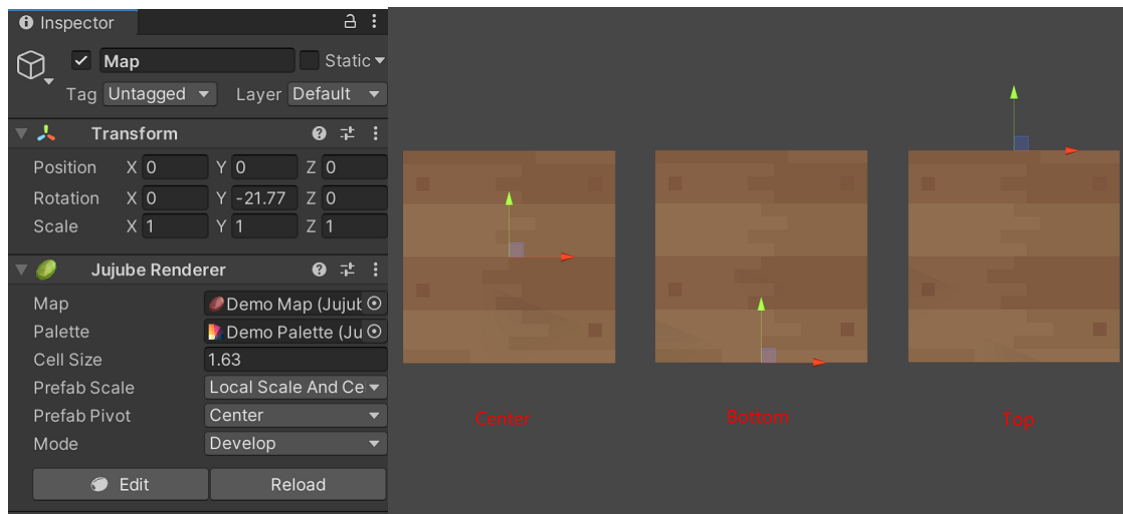
- Open the setting window by "Tools / Jujube Map Editor / Setting" in the navigation bar. Or press the gear button when there's a map editing.
- Show State option works the same with the state button in Palette Panel. I put it there to make the setting window looks more solid.
- With "Shake Selecting Block" checked, the selecting blocks will have a cool-looking shake effect. If you don't want your scene view refresh all the time, you can uncheck it.
- "Hierarchy Editing Label" is the label shows next to the name of map's gameObject when you edit the map.
- "Palette Item Size" only change the UI size of the palette panel item.
- "Position Handle Style" gives you three ways of moving the selecting blocks, shows in the image below.
- "Max Selection/Paint Count". this option controls how many blocks you can select or paint at once.



## Inspector

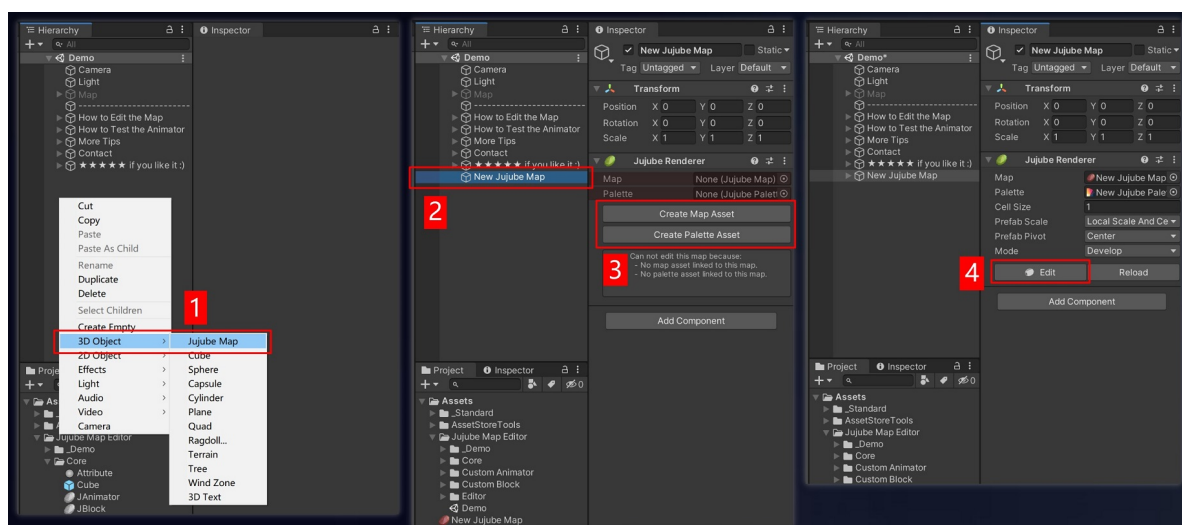
- The image below shows the inspector of Jujube Renderer. Click the "Edit" button to edit this map. "Reload" button reload all gameObjects inside this map.
- "Map" and "Palette" is the assets referenced by this renderer.
- "Cell Size" is the grid size in unit.
- There's four ways of prefab scale.
  - "One" will always set the scale of block prefab to (1,1,1);
  - "Local Scale" set it to the same with the prefab asset;
  - "Cell Size" set scale to (Cell Size,Cell Size,Cell Size);
  - "Local Scale and Cell Size" set it to the product of prefab asset's local scale and cell size;

- "Prefab Pivot" should be set to the same value of your prefab's pivot, like the image below shows.
- The map can only be edit in "Develop" mode. You can switch between "Develop" and "Release" mode any time you want. If a map is in "Release" mode: there will be no extra collider add to the block gameObjects, and the adaptive block will make effect. You need to press the "Reload" button after switch the renderer mode to make the gameObjects reload.



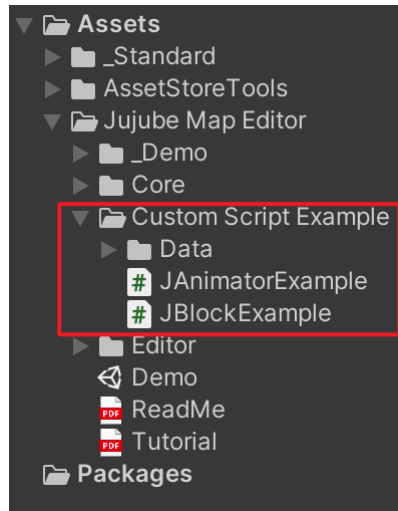
## Create New Map

1. To create a new map, right click in Hierarchy and choose "3D Object / Jujube Map".
2. Select the gameObject just created.
3. Click "Create Map Asset" and "Create Palette Asset" in Inspector. If you want to use a map (or palette) asset which already created, drag and drop the asset to "Map" (or "Palette") field above the button.
4. Click "Edit" button to start edit this map.
5. Now you can edit a new map in the Scene view.



## Custom Script Setup

- There are two examples of custom block and animator for research.



- JBlock - Block with custom logic.
  - Create a new C# script, and make it child class of JBlock ( namespace `JujubeMapEditor.Core`);
  - Override method `OnBlockLoaded` like the image below;
  - Create a prefab for this block, add this script to the root of the prefab. Then, add this prefab to the palette used by your map;
  - When you place this block by brush or reload map, `OnBlockLoaded` will be invoke;

```
using JujubeMapEditor.Core;

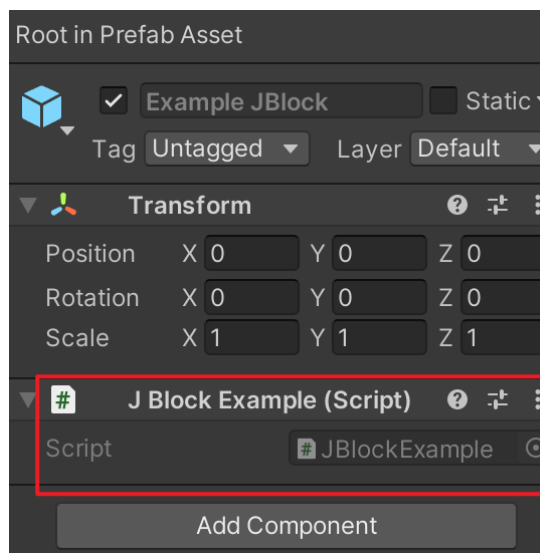
public class JBlockExample : JBlock {

    public override void OnBlockLoaded (JujubeRenderer renderer, JujubeBlock block) {

        // ...Write Your Code Here...

    }

}
```



- JAnimator - Load map with custom animation.

1. Create a new C# script, and make it child class of JujubeAnimator ( namespace JujubeMapEditor.Core );
2. Override `GetSpreadAmount` and `SetSpreadAmount` like the image below;
3. Add this script to the root of map object, next to the `JujubeRenderer` ;
4. Enter play mode, and select the map object. There will be buttons for play this animator shown in the Inspector.

