Color 2 Prefab

User Manual

Version 1.6

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Contents

1. Image Creation

The most common tool to paint levels is Photoshop but I recommend TILED, it's easier to use.
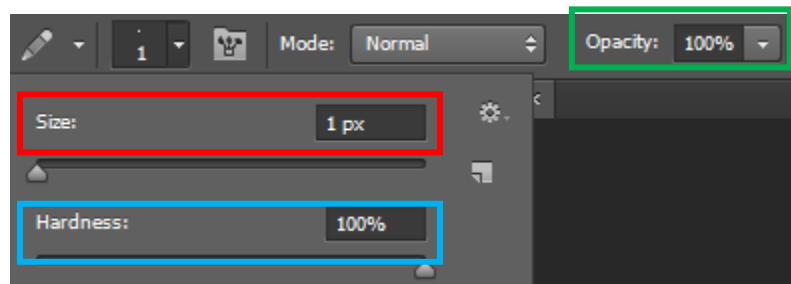Check in the recommendations section "What can I use to paint the level".

Setup

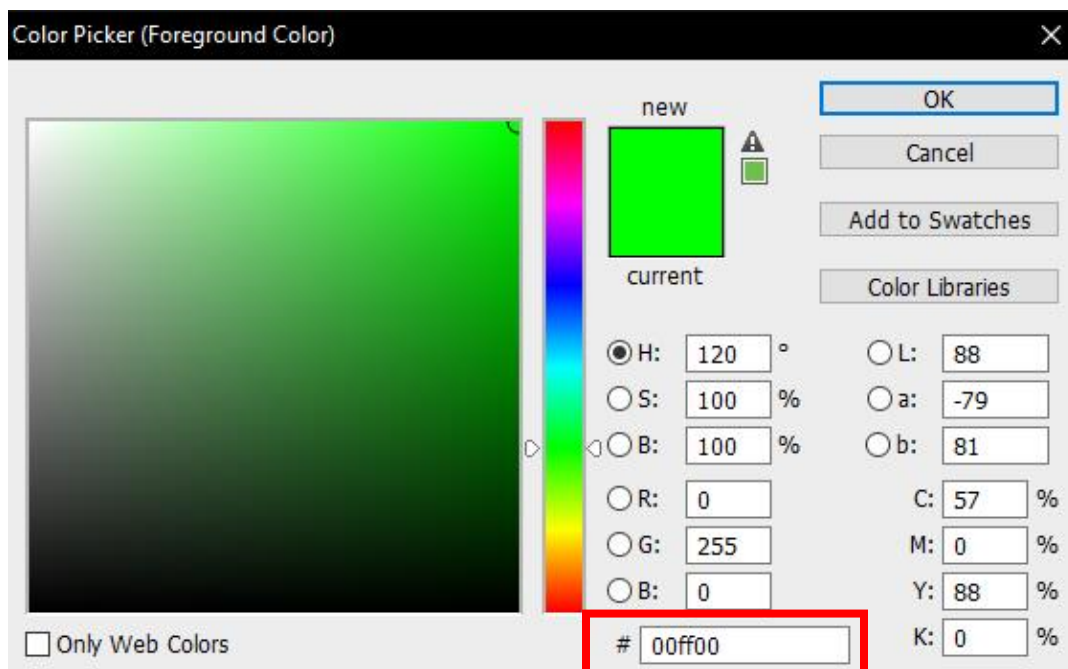

- The image must be in pixels

Use **The pencil tool** to paint

- Size: 1px
- Hardness: 100%
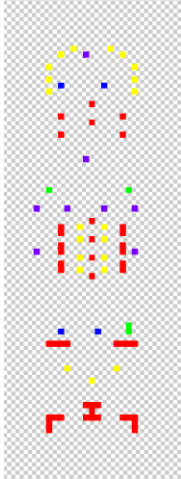- Opacity: 100%

Level Painting

- Select a color to start painting your level, it's very important to save the hexacode of the color because you are going to need it later in Unity3D.
- Example: #00FF00

- Time to paint!

- Paint your obstacles or level objects, painting a pixel where the pivot of the game object will be, because that's the position where the object will be spawned in Unity3D.

- If your object is bigger than one block, don't paint all the pixels of that object yet, just paint the one where the object's pivot will be.

- **Important:** use transparent background.
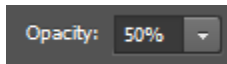
- Now, if your blocks are bigger than one pixel, you can paint the rest of them with a lower opacity. The one that is important to keep with full opacity is the pixel where the object's pivot will be.
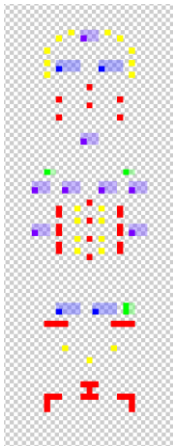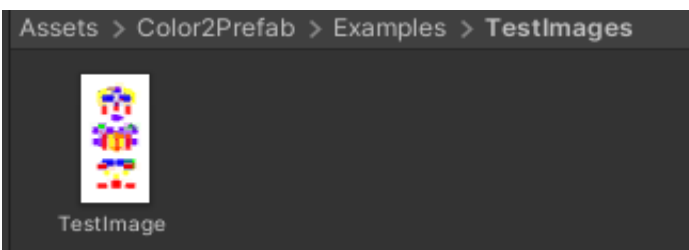
- The final image should look like this

- Pixels with full opacity for the object's pivot, and representative pixels with 50% of opacity.

- It is not necessary to add the representative pixels, but they will help you to see how many pixels has the object.

Export
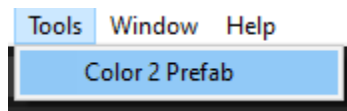
- Export it as a PNG file

Import to Unity

- Save the image wherever you want into your Unity's project.

- It is recommended to create a specific folder to store the level images.

2. How to access the tool
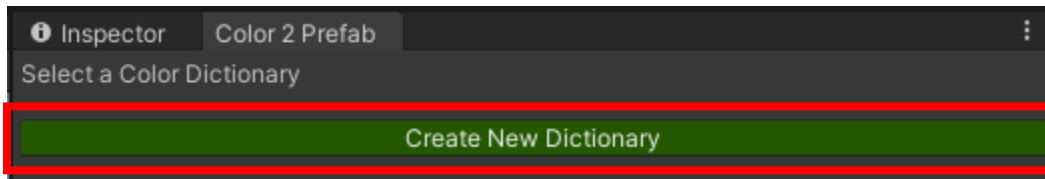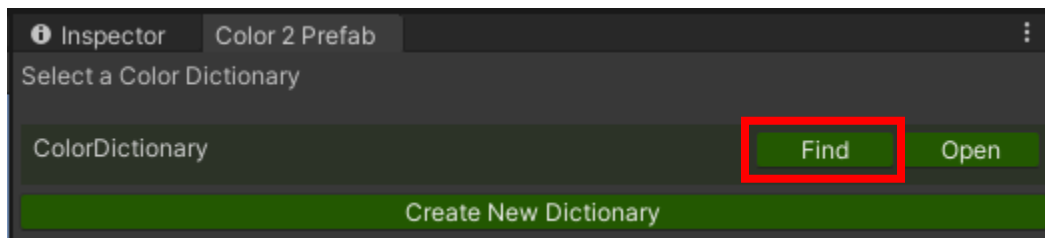
Open The Tool
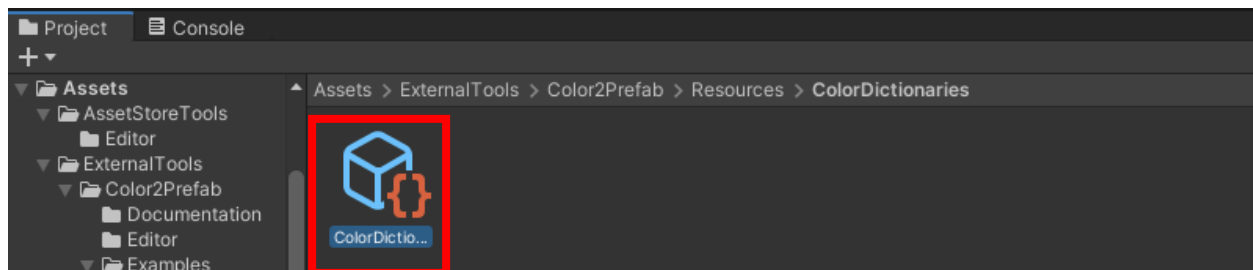

Create New Dictionary

Rename Dictionary

- Press "Find" to focus on The Dictionary that you want to rename
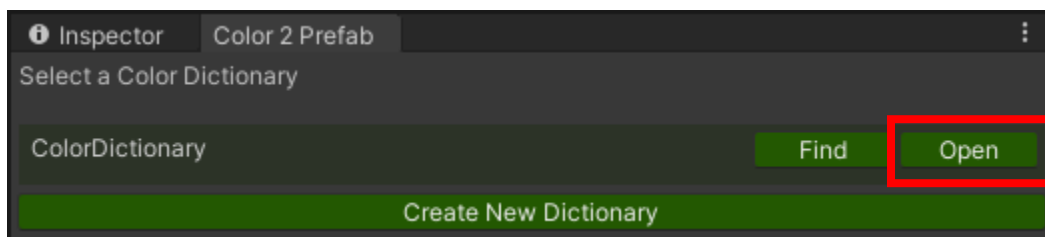


- Rename the ScriptableObject

Open a Dictionary

- Press "Open" to open a dictionary

3. Tool Usage

Setup

1. Select the level image to generate that you have created before. (Image Creation)
   - You can drag it from the folder to this field.
   - You can touch the circle at the end of the field and select the image.

2. Select the axis that will be used to generate your level
   - XY: Recommended for 2D games. Axis (x, y).
   - XZ: Recommended for 3D games. Axis (x, z).
   - YZ: Optional. Axis (y, z).
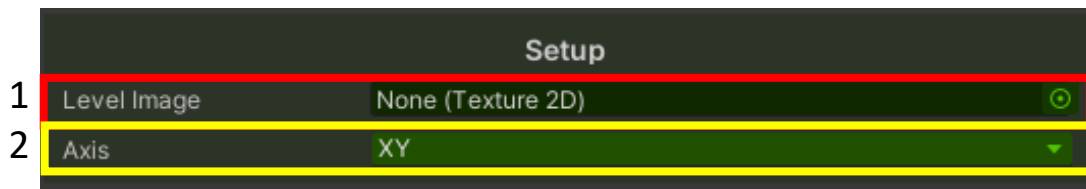
Color Dictionary

Add New Elements

- Press "Add Element"
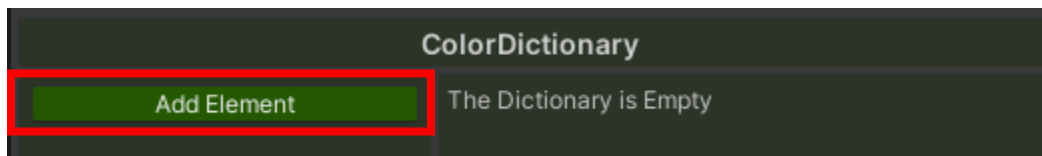
Sidebar Elements Settings
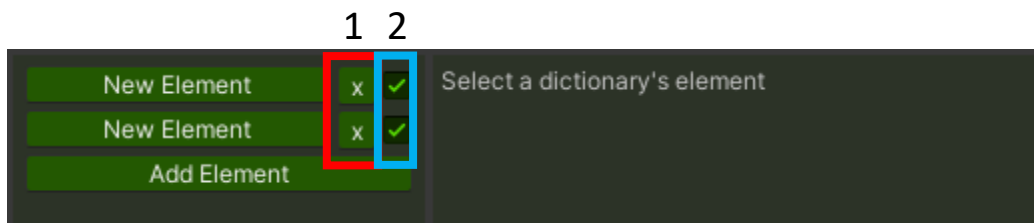
1. Press the "X" button next to the element to remove it from the dictionary
2. Uncheck this if you don't want to generate or delete the GameObjects linked to this element, otherwise keep it checked.

1. **Element Name**: This is the name that will be display in the elements list, also when prefabs are generated, they'll have this name as suffix.
   a. **Important:** if you have pressed the "generate level" button, don't change this name because the "empty containers" button will use the elements names to find the GameObjects that will be deleted.
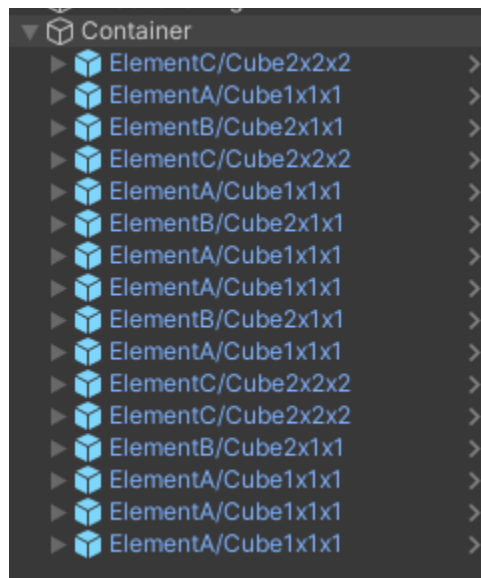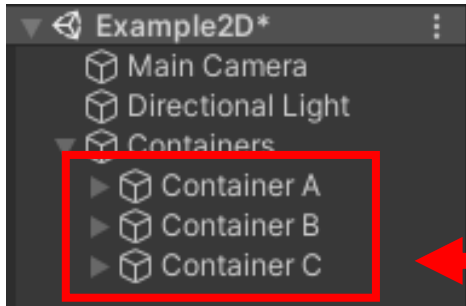
2. **Parent Name**: Write the name of a GameObject in the
scene to store the GameObjects generated by the tool.

- o For example: create empty GameObjects with the names inside the rectangle of the image in the left, then in the Color Dictionary write those names in different dictionary elements and generate the level pressing the "Generate Level" button.
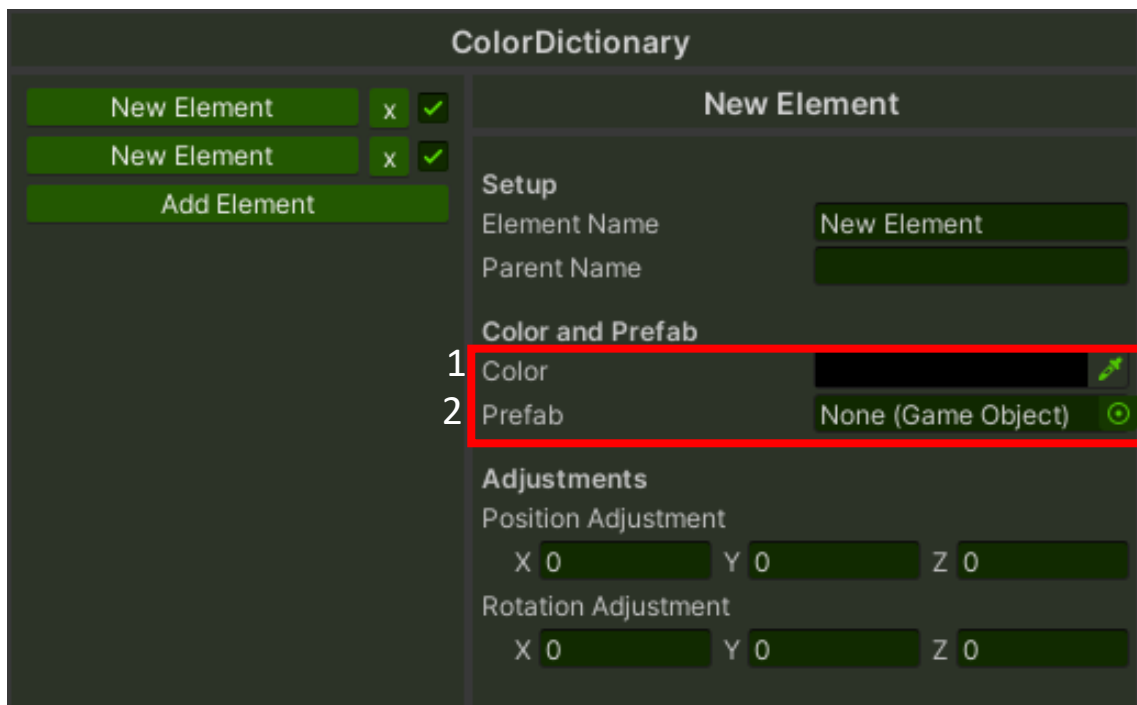
1. Select one of the colors used in the level image. To be sure that you are selecting the same color, you can write or paste the **hexacode** of the color

Paste here the hexacode

2. Assign to this field the prefab of the Game Object that you want to generate using the selected color.

Position Adjustment

If your Game Object's pivot is not where it should be and you don't know how to fix this, you can adjust the position where the game object will be generated.

For example, if the GameObjects related to the selected color, spawn 1 block to the right from the position **that you painted in the level image**, you can write in the **X** position of this field a **-1** to reduce 1 tile to the left **the X axis** and fix the position.

Rotation Adjustment

If you want to rotate the game objects related to the selected color, just write the degrees that you want to rotate the objects. For example, you can have the same game objects assign to different colors, with the difference of having a custom rotation for one color and default rotation.
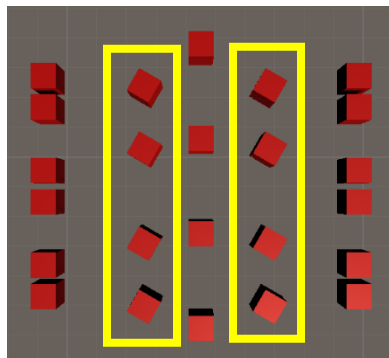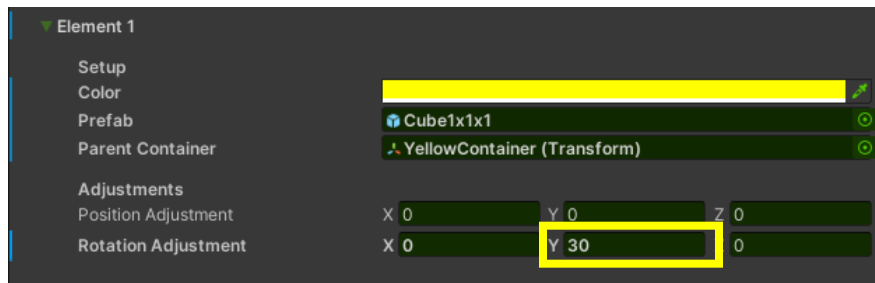
Actions
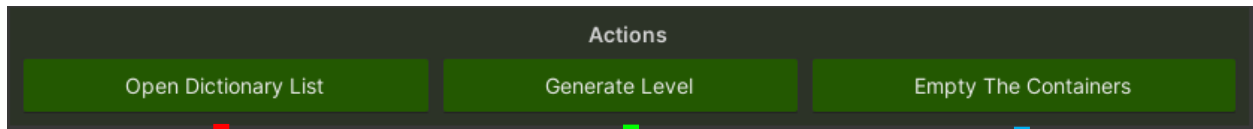
Press to see the dictionary list

Press to Generate the level

Press to Empty the containers

4. Errors

NF1: Image Not Found

- Remember to assign an image to the dictionary.
- Check "Setup" in "Tool Usage" Section

NF2: Dictionary Elements List is Empty

- It is necessary to add elements into the dictionary to generate the level
- Check "Color Dictionary" in "Tool Usage" Section

NF3: Color Not Found in Dictionary

- Check that you've added all the colors present in the image with **the right Hexacode.**
- Check "Color and Prefab" in "Tool Usage > Color Dictionary" Section

NF4: Missing Prefab

- Remember to assign a prefab to the element in the dictionary
- Check "Color and Prefab" in "Tool Usage > Color Dictionary" Section

NF5: Couldn't Find Parent Container in Scene Hierarchy

- Check if you have assigned a parent to the element and the name isn't miss spelled
- Check point 2 in "Tool Usage > Setup Element" Section

5. Recommendations

What can I use to paint the level?

I use TILED to pain my levels. With photoshop I've created a TileSet with multiple colors. You can get that TileSet here.

For this is very important to paint in tiles of 1px X 1px, otherwise 1 tile could represent a bigger number and instead of creating 1 block per pixel you could be creating 32 blocks per pixel.

How to change the size of the tile in TILED?