

# COLORING BOOK CUSTOMIZE AND CREATE

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## Coloring Book Restrictions:

There is no built-in limit on texture size, but due to low-end devices limitation, it's better to use textures with resolution up to 4096\*4096.

There is no limit on the amount of colors that can be used for a specific coloring book.

## Available Coloring Options:

Coloring books can be colored using either “Fill Tool” or “Brush”.

For “Fill Tool” there are currently 2 animation options:

- None: no animation
- CircleFill: circle-fill selected region, with click position as the center of the animation.

Brush tool can be configured with a brush texture (Materials\BrushMaterial.mat in project hierarchy) and a brush size, that can be configured using settings.

## Controlling the ColoringBookView:

If the selected coloring style is “Free Drawing”(Brush Tool) coloring book panel can be zoomed in/out using a pinch in/out gesture. To move the panel around, please use a move gesture with 2 fingers on a coloring book panel. This is made so users can draw with 1 finger on a screen.

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For other coloring styles, zooming in/out can be performed with 2 fingers, and panel panning with 1. Tap to drop the selected color on a region.

## **General ColoringBookView information:**

When initialized with ColoringBookData, ColoringBookView creates both Regions (regions created previously in the editor) to fill with color, and Region Color Views, to give a hint on what color the region it's assigned to needs to be colored with.

Region Color View can display either a number, color, or both as a hint to a required color. Use “**Region Color View Type**” to control this setting.

You can also specify what happens to Region Color View when the assigned region is filled. Options are:

- None, do nothing with the view,
- Hide Color View, hide it as soon as the assigned Region is filled,
- Hide When All Regions Colored, hide all views of this color when all Regions of this color are filled.

## **ColoringBookView related components:**

When initialized, ColoringBookView add the “ColoringBookViewClickHandler” component. It acts similar to button, and invokes “CheckClickAtScreenPoint” function on a ColoringBookView to check for a Region to be filled.

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This function is only invoked for Fill Tool coloring styles (None, CircleFillAnimation).

Every time a new ColoringBookData is loaded into ColoringBookView, if the selected coloring style is Brush Tool, the view will add an additional component called “ColoringBookViewDragHandler”. This component listens to Drag events, which are passed further onto RegionTexturePainter component.

## **RegionTexturePainter component:**

This component adds support for the Brush Tool. Fill Tool also uses this component when CircleFill coloring style is selected.

## **ColoringBookViewClickHandler component:**

Is active when “Fill Tool” is selected, and listens to clicks on ColoringBookView.

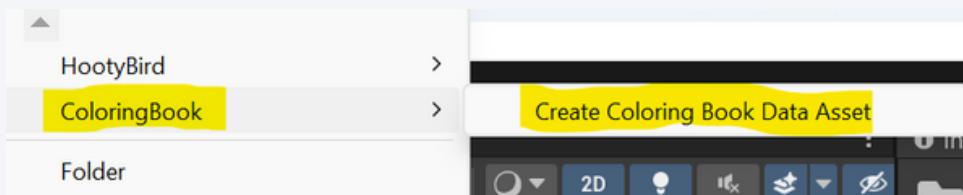
## **ColoringBookViewDragHandler component:**

Is active when “Brush” is selected, enabling drawing with a finger. Have an optional “**DragPointsModifier**” field, which will change the way points are handled by DragHandler. Currently, there is only 1 effect to assign: LiquidPaintPointsModifier, which can be found under “ScriptableObjects” folder.

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## Creating Coloring Book Data asset:

To create a new coloring book asset, right-click in the project view, and click on the "Create/ColoringBook/Create Coloring Book Data Asset" option.

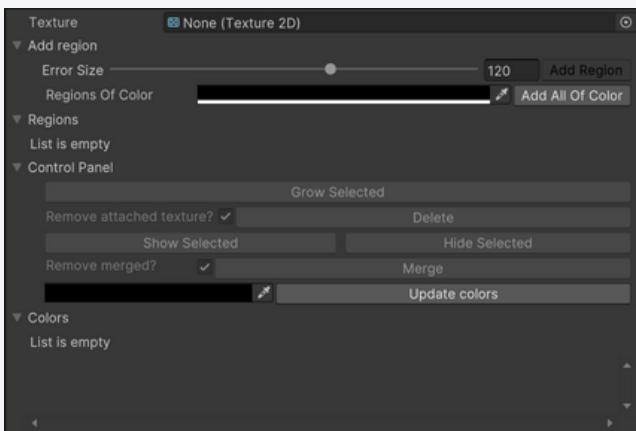


Doing so will create a new `ColoringBookData` asset.  
The section below will guide you thought it's functions.

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## ColoringBookDataEditor information:

This is what the default coloringBookData asset will look like.



**Texture** field. The actual coloring book texture needs to be assigned here. After it is assigned, view at the bottom will display it. The texture view can be zoomed in/out, and panned using middle mouse button.

### **Add Region** section:

Error Size Slider - when adding a region from coloring book texture, this value will be used to allow for a wider range of colors to be included in a Region, thus making it bigger.

The “Add Region” toggle button switches the editor to “Add Region” mode, and selecting a coloring book texture while this button is active will start the process of adding new region to the coloring book. You can also just “**Shift + Left Click**” to add new region without activating “Add Region” button.

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Depending on a Region's size, it can take up to a few seconds. When complete, you will see a new white region at the click location. The folder containing the ColoringBookData will also have the Region texture added.

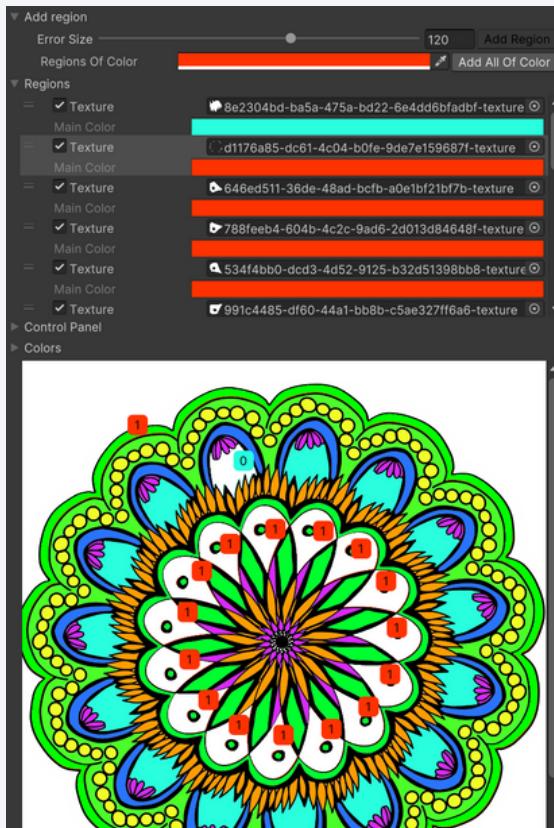


Above is an example of a ColoringBookData asset with an assigned texture and 1 Region added (index 0 on a book view).

**Regions Of Color** is a color picker with an “Add All of Color” button. When color is selected (from the coloring book texture view below) and the button is pressed, it will start the process of scanning and adding regions of this color from the main texture. It can take up to a minute depending on the number of Regions and their size.

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Below is an example of this operation with “red” color selected:



## Regions section:

This section contains all Regions added to the coloring book. Each region has a toggle to turn it on/off (effective in the editor only) and a field with the assigned color. The color field is read-only. Region color can be changed from the control panel only.

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## **Control Panel** section:

Contains different operations that can be performed on selected regions.

- Grow Region operation. “Grows” selected region, makes it bigger.
- Delete Region button. Removes region, if the “Remove Attached texture” toggle is selected, also removes the assigned texture. Can be performed on multiple regions.
- Show selected, enables all selected regions.
- Hide selected, hides all selected regions.
- Merge regions, merge all selected regions into one. this operation also merges all assigned textures into one. If the “Remove Merged” toggle is selected, will also remove selected regions' textures after merge.
- Update Color field. Update selected regions with color from the Color field.

## **Colors** section:

Look-up list with all common colors in all Regions. Can be used to select Regions of a given color, and serves as a reference to the number of colors used. When clicking on a value from the list, regions of this color will be selected. Multiple entries from the colors list can be selected.

This can help with merging regions or minimizing the number of colors in a coloring book.

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## **Coloring Book View** section:

Displays assigned texture and existing Regions.

You can left-click to select an existing Region. Clicking while holding the **Ctrl** button will add a region to the selection. Clicking on an already selected Region will update its **RegionColorView** position.

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## Settings:

- TargetFramerate - target framerate.
- DownscaleSettings - when creating Regions for a coloring book, values from this setting will be used to calculate the number of pixels on a downscaled (for better performance) version of a Region texture. **Changing this will** make the saved downscaled pixel number different from the one calculated during runtime. Thus forcing you to remake all Coloring books in the editor.
- RegionsErrorSize - makes it easier to fill region when Brush Tool mode is selected. Generally, regions with more pixels allow for smaller error sizes.
- MinBrushSize - minimal value for brush size. Only for Brush Tool.
- MaxBrushSize - max value for brush size. Only for Brush Tool.
- DefaultBrushSize - default brush size when the coloring book is opened.