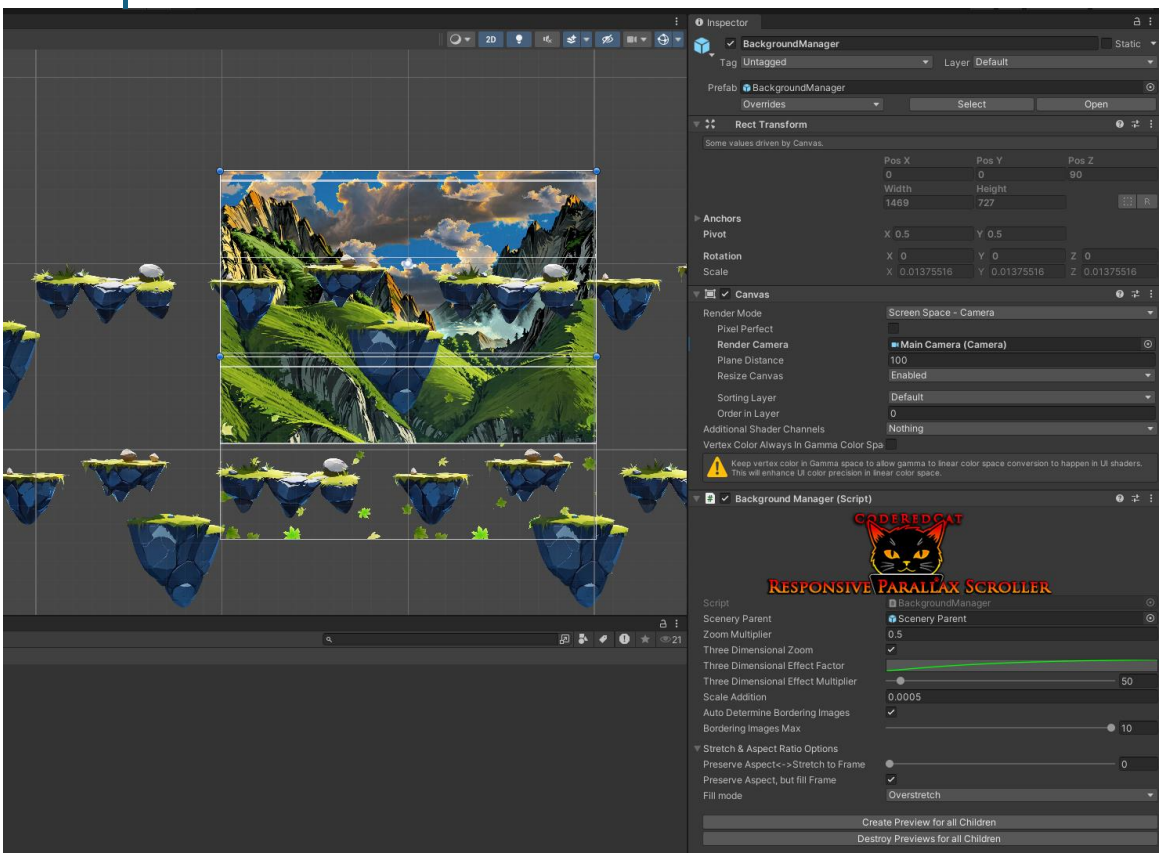
CODEREDCAT

RESPONSIVEPARALLAXSCROLLER

CodeRedCat

Responsive Parallax Scroller Documentation

A fast and complete parallax toolset



CodeRedCat ResponsiveParallaxScroller

Responsive Parallax Scroller Documentation

Use-Case

- This package helps to setup parallax backgrounds in your scenes comfortably
- Steps to set up each background have been polished
- Lightweight tool with high compatibility
- Works with backgrounds with a single vertical layer, tileable layers, or a composition of both
- Useful options for responsive design
- Can handle aspect ratio and resolution changes at runtime
- Works in all 2D directions, including up and down

Limitations

- Does not work well with vertical-only levels
- Intended to be used with seamless repeating images
- Setup relies on RectTransform Components

Technical Information

- Works with RectTransform anchors, layer positions can be changed with e.g. the default “Move tool”, by drag and drop
- Options for responsive design, preserving the image aspect ratio and filling the camera frame
- Images can repeat indefinitely to all 2D directions
- 3D Zoom effect option
- Layers scale can be adjusted normally
- One image required per layer. All repeating images will be set up automatically
- Option to use a different image when repeating up or down
- Option to preview the resulting scene setup
- Works with all Render Pipelines(URP, HDRP and SRP and the build-in renderer)
- Works with Unity 2021.3.0f1 or higher

Dependencies

- None

CodeRedCat ResponsiveParallaxScroller

Included in the package

- Component scripts and editor scripts for the scroller
- Setup for Assembly Definition References
- One Landscape background in 1080p consisting of six Layers
- A setup demonstration scene with an example environment and a camera script

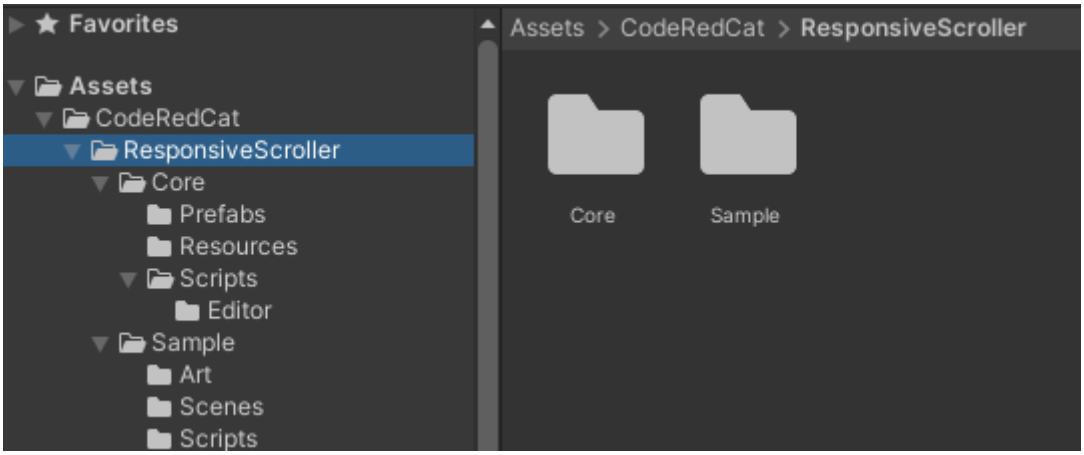


Figure 1: Included Folder structure

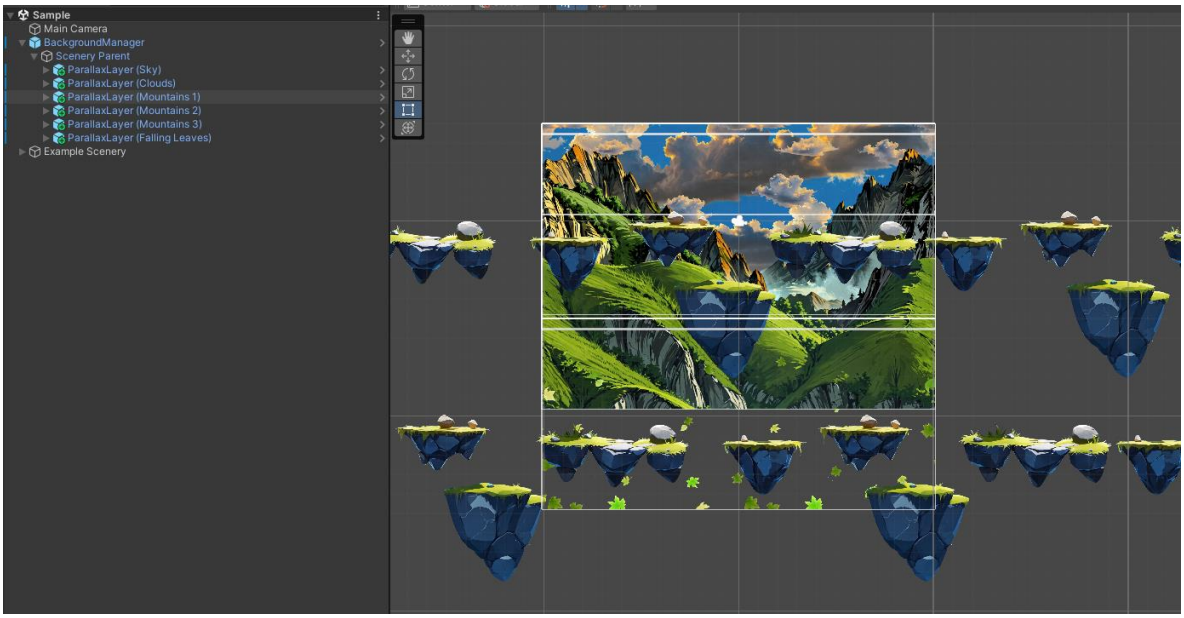


Figure 2: Sample scene

CodeRedCat ResponsiveParallaxScroller

Seamless image repetition in the demo scene

- The sky layer consists of one Main image
- The cloud Layer uses one Main image and one Down image
- All other Layers use a Main and a Top image
- The Top/Down image will repeat to the left and right
- The Main image will repeat in all directions
- The Top image will repeat to the Main image at the bottom side
- The Down image will repeat to the Main image at the top side

What does it do?

This is a lightweight parallax scroller utilizing RectTransform anchorPositions for scrolling. It provides basic functions and prefabs, for fast setup of a scene containing multiple layers. This includes an easy preview option to check for errors in the tiling of your images. The camera can move in all 2D directions, and the layers will scroll in that direction indefinitely. Also provides options to handle different screen sizes.

Base Setup

The ***ResponsiveParallaxScroller*** is based on the ***BackgroundManager***, which is a child of the MainCamera GameObject. Make sure to reference the Camera in the Background Manager Canvas Component, which has its *Render Mode* set to *Screen Space - Camera*. The ***BackgroundManager*** Prefab is set as the parent of a "*scenery parent"* GameObject, which holds the whole scenery for its background. Each GameObject inside the ***BackgroundManager*** has a RectTransform on it, which is set to *stretch* mode. To change the position of all layers, this *scenery parent* can be edited in its anchor position.

The individual layers are expected to be a child GameObject of the "*scenery parent*" and have a Prefab named ***ParallaxScroller***. This is the base for each individual layer and holds a child GameObject with the image for that layer. Put multiple ***ParallaxScroller*** GameObjects into the "*scenery parent"* as child GameObjects and adjust their intended height, by editing their anchor values. Adjust each layer scroll speed, and you will have a parallax effect, when moving the camera.

CodeRedCat ResponsiveParallaxScroller

Sample Scene

The Sample Scene has been set up with the **Base Setup** instructions. It also includes a ***Camera Scroll*** script, that is used to test camera movement. Change the ***Camera Scroll*** values in the inspector to preview camera scrolling. A placeholder scenery has been set up, which represents an example world created for a 2D platformer game.

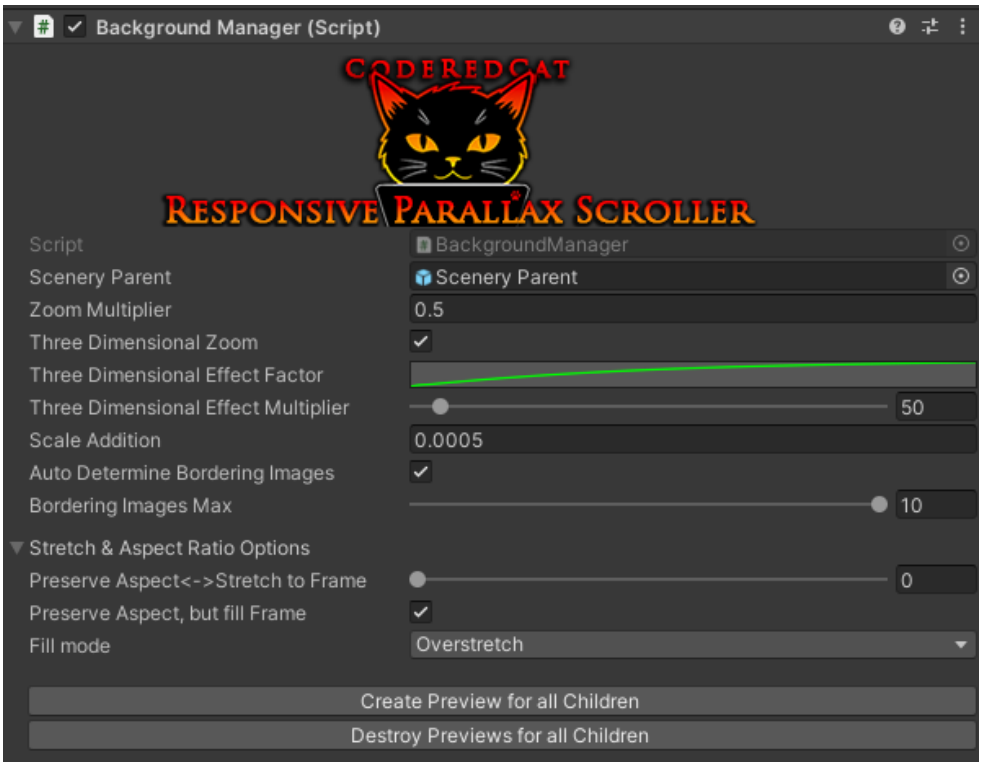


Figure 3: BackgroundManager Component

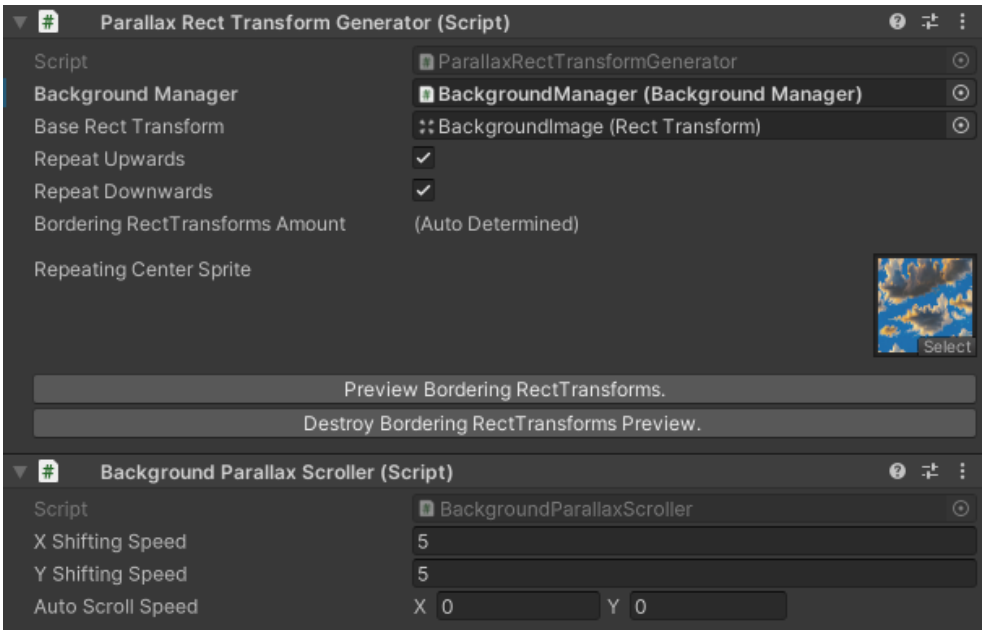


Figure 4: The Image Generator and Parallax Scroller, which are added as components on each layer