GSOSO! 最新最全AE模板影视平面游戏设计素材模型教程 更有独家Unity3d插件,AE模板,每日更新哦! **Welcome to Paintcraft!** Thanks so much for the interest in this package - we think you're really going to like using Paintcraft to build and launch your high-quality drawing applications. We are doing our best to make this pacakage artist firendly and really flexible so it will satisfy any of your needs. This quick tutorial is intended to walk anyone familiar with Unity3D through the basics of Paintcraft package in just about 15-30 minutes. Hopefully you'll learn how to make drawing application as fast as possible. **Package Structure** └─ NodeInspector # (1) OpenSource graph editor used in brush configuration BrushPack # (2) Contains built-in tools (Ink, Cryon, etc) # available in both (Base and Pro version) L— Basic — ColoringBook # (3) Complete coloring book project (fill free to use it for reskining) ├── DrawOnExistingImage # Drawing on top of existing image (eraser erase in to the original image rather than canvas coolor) OnePlayerBasic # Simple scene for one player coloring book — PatternBrush # Scene where you can use pattern brush stampBrush # Here you can use stamps(stickers)
SwitchPageLive # Demonstrate it : - Prefabs ├─ StampBrush # Demonstrate that you can switch pages without actual reloading scene TransparentBackground # Demonstrate coloring book with transparent canvas color TwoPlayersOneCanvas # Split screen mode where each player draw on the same coloring page TwoPlayersTwoCanvases # Split screen each player draw own image Engine # (4) Full source code of paintcraft package Prefabs # PaintCraft prefab gameobject # (5) This folder available only for customers purchased pro package # 3D scenes SVG # SVG packages

| SimplySVG # Import this package for SimplySVG integration

L SVGImporter # Import this package for SVGImporter integration 1. Brush configuration is really flexible. You can controll your line almost at any point. And this plugin used to make it more user friendly. here is an example of one of the brush config Remove Duplicate Last Input Positions =SetLastPointReadyToApply BindScaleToLineConfig NextFilter NextFilter SplineInterpolator BindColorToDefaultCanvasColor →= RenderSwatch NextFilter ▼ Spacing Normal Material Property Type ●Era: ⊙ Fixed Region Material Value 2. We included several brushes to this package so you can freely use them in your project. and for sure you can play with any parameters. 3. This is a live project with picture selection and 2 players split screen drawing. You can test it here in the browser or on your mobile WindowsStore, Android 4. This is a source code of this package. if you are a programmer maybe it will be interesting to check the source code. It's available in base and pro package. 5. This folder available only for customers purchased PRO package and it contains SVG integration and 3D drawing implementation. If you are doing VR app probably it's what you need. PaintCraft prefab To start your first Drawing app project, the easiest thing to do is to use the PaintCraft prefab which is located at Assets/Paintcraft/Prefab folder. Find this object in your project and drag it to the scene Project 4 4 Create ' 🔓 Favorites Assets ► PaintCraft ► **Prefabs** PaintCraft ▶ 🚞 3DParty a BrushPack ▶ a Demo 🕨 🚞 Engine ▶ 🚞 Pro If you have a brand new scene you will get this structure ≔ Hierarchy √ Untitled* Main Camera ▼ PaintCraft ▼ PaintcraftCanvas CanvasCamera ScreenCameraAndInput LineConfig EventSystem This object already contains necessary configs, but it won't work immediatly because we need to tell our canvas where we want to draw. In case if you have DirectionalLight object just delete it. It comes from 3D default scene setup If you try to scene you will see the error in the console As you see it say that you have to provide page config. to fix that you need to Select PaintcraftCanvas game object and select page config. But first of all let's create new page config Page Config {#page-config} Let's create a new Page config. This object will keep configuration just the size our canvas will be. 1. Create a new folder for this Assets/Configs 2. Click right mouse button and select Create/PaintCraft/BlankPageConfig menu! [](/assets/create blank page config menu.png) 3. Setup options at your page config | Name | Description | | :---: | Uniqueld | This settings must be unique across all pages inside your project. This id used to store icons or actual changes so if you open your page next time you will see previous changes | | StartImagePath | Background image which you will draw on top of | | Size | Actual size of you image in pixels like (800x600). You are free to use any sizes and this size does not relate to the screen size as you can zoom your image and draw more details | After you set your configs you will get something like Apply new page config {#apply-new-page-config} Now you have a page config and you can use it with your canvas object 1. Select PaintcraftCanvas object in the hierarchy 2. Link your page config to the Page Config property 3. You can also change default background color of your canvas in the same Canvas Controller component change Default BG Color . I'll use default white color Here you go. Now press play button and you will be able to draw on your screen **Change Tools Button** Now we have a simple canvas. let's create some simple UI controls to change our tools. Ink Button {#ink-button} As you can see we have Basic and Advanced brush packs in the Assets/PaintCraft/BrushPack folder. And you can freely use them in your projects. Let's create standard unity buttons which will change some tools 1. Create one UI button GameObject/UI/Button I'll put it to the left bottom corner and name it Ink 2. Add ChangeBrushOnClickController on to it Add Component Q chan Search (d) Change Brush On Click Controlle (# Change Color On Click Controller New Script 3. Now you need to set 2 properties on this component so result will looks like this 🔻 😉 Change Brush On Click Controller (Script 🔯 🌣 Line Config LineConfig (LineConfig) Ink Tool (Brush) Brush 4. Set LineConfig refference to our prefab subcomponent on our scene PaintCraft/Canvas/LineConfig. Actually you can click right circle on the right side of this property and it will show you just one possible object, because we have only one right now. Select LineConfig Assets Scene 5. And final step is to set link to our tools. use the same circle and select Ink config from our basic pack. Don't forget to switch to Assets tab because this is a config stored in our project and not a scene object Select Brush Q1 Assets Scene AdvancedEraser AdvancedEraser (RegionSupport) Brush Tool (CommandBuffer) Bucket Tool Crayon Tool Eraser Tool Magnifier PatternBrush PatternBrush (RegionSupport) Pencil Tool Spray Tool StampBrush StampBrush (RegionSupport) TrailBrush Now you can start your scene and try to draw with the brush (because it's already selected in our line config as default tool) and after you click Ink button you will draw with ink Ink **Spray Button {#spray-button}** If you want to add more tools just clone InkButton object and change refference to the tool 1. To clone object select Ink Button gameobject in the Hierarchy panel and then click Edit/Duplicate Or just ctrl+D or cmd+D on mac 2. Rename new object to Spray Button 3. Change text on the button to Spray 4. Change position of this object. I'll change PosY in the rect transform so it will be alligned with my Ink button Rect Transform left Pos X Pos \ 10 Width Height E R 30 Anchors Y 0 Pivot X 0 Y 0 Z 0 Rotation 5. Setup Link to spray at ChangeBrushOnClickController Spray Tool (Brus O And now let's change our default tool in our line config. Select PaintCraft/LineConfig object. Click on Brush and select Ink .You can also change default scale at LineConfig so your line will be thinner. **PaintCraft Controls Button** At this step we will create 3 buttons Undo Redo and Clear Clear Button {#clear-canvas-button} 1. As usuall let's create button using top menu GameObject/UI/Button and put it to the right bottom control. To do that you can select RectTransform and change pivot and position at once. You need to click on the left top rect then hold down shift+alt click the bottom right corner Rect Transform Pos X Width Height Alt: Also set position right \longleftrightarrow $\stackrel{\bullet}{\longleftrightarrow}$ (0) **—** 2. Set small ofset. set PosX=-10 PosY=10 so it won't be right on the corner and change width=120. 3. Name this button as Clear 4. Now we need to ad event to this button. Click + in OnClick() event Runtime Onl‡ No Function None (Ob ⊙ 5. Click on the object field and select Cavnas Select Object Nage (Script) 🕟 🗹 Button (Script) ₽ \$, Interactable Color Tint Transition Target Graphic Normal Color **Highlighted Color** Pressed Color Disabled Color Color Multiplier Fade Duration Navigation Visualize On Click () Runtime Onl‡ No Function You can also drag and drop PaintCraft/Canvas scene object to this property 6. Now you need to select the Canvas.ClearCanvas() function. To do that click on No Function button select CanvasController and ClearCanvas function On Click () Canvas 0 √ No Function GameObject Transform bool enabled string name string tag bool useGUILayout BroadcastMessage (string) Cancellnvoke () Redo () SaveChangesToDisk () SendMessage (string) SendMessageUpwards (string) StopAllCoroutines () StopCoroutine (string) Thats it. start your scene, try to draw something and then clear canvas Undo/Redo {#undo/redo} Let's repeat button creation process for undo/redo 1. Clone your Clear button 2 times. 2. Setup (1) clonned button position. change caption, name and set following position: PosX=-75 PosY=50 Width=55 Rect Transform Pos X Pos Z -75 50 Width Height □ R 30 Anchors X 1 Y 0 Pivot Y 0 Z 0 Rotation X 0 3. Setup (2) clonned button position. change caption, name and set following position: PosX=-10 PosY=50 Width=55. You should get nicely alligned buttons at the right bottom corner, something like this: Undo Redo Clear 4. Select Undo button and Remove OnClick handler using minus button 5. Add UndoActiveButtonController to UndoButton 6. Select Canvas for this controller you will get this. Make sure that OnClick() is cleared properly ▼ (OK) ✓ Button (Script) Interactable Transition Color Tint Number of the Button (Imag Target Graphic Normal Color Highlighted Color Pressed Color Disabled Color Color Multiplier Fade Duration 0.1 Navigation On Click () must be empty 🔻 🚰 Undo Active Button Controller (Sc🔲 🖏 Canvas Add Component 7. Select Redo and repeat steps 4 to 6 but this time add RedoActiveButtonController Your systems buttons are ready and you can start your scene and check that everything is works properly. You can even see that undo/redo is clickable only if you have something to undo or redo. By default history size is 10. **Line Color and Thickness** Color {#color} Let's create several buttons which will shift our colors. First we need to create panel. 1. Select unity UI Canvas and create a new child Unity File Edit Assets GameObject Component Mo **企器N** . . . Create Empty Create Empty Child NGア ■ Pivot 3D Object '≔ Hierarchy 2D Object Light ₹ 🔂 docs* **Audio** Main Camera Video ▶ PaintCraft ► Spray Button Particle System ► Ink Button 2. Let's place it at the middle of our screen Pos X **VidiClickshere** 30 Anchor Presets Shift: Also set pivot Alt: Also set position right \longleftrightarrow 1 3. Name it ColorsPalette and set PosY=10 and height=30 4. Add standard unity ui HorizontalLayoutGroup script on it set spacing=10 and childForceExpand=false. Then Add ContentSizeFitter and set HorizontalFit=MinSize ✓ ColorsPaletter ☐ Static ▼ Tag Untagged ‡ Layer UI ***** Rect Transform ₫ \$, ▶ Padding 0 Spacing Child Alignment Upper Left Height Control Child Size Width Height ▼ 🗐 🗹 Content Size Fitter (Script) Min Size Vertical Fit Unconstrained Now our root objects for our colors is ready and it would have nice feature. it would grow automatically and you can add several colors and all of them would be automactically aligned. so let's do that 1. create GameObject/UI/Button and make it as child for our ColorsPalette element and name it 'ColorButton' ▼ ColorsPaletter ► ColorButton 2. Remove text Text child object of our button. so you won't have any caption on it 3. Set button size Width=30 and Height=30 4. Now you can clone our buttons as many times as you want to have in your final app. I'll make 5 colors. here is hierarchy and how it looks on scene ▶ ColorButton ColorButton (1) Spray ColorButton (3) Butt Butt Butt Butt Butt ColorButton (4) 5. Now we need to change color of our button. Select ColorButton object ImageComponent and click on Color property and in dropdown list select required color. Repeat this step for each ColorButton 000 Inspector ☐ ColorButton ☐ Static ▼ Tag Untagged ‡ Layer UI Rect Transform ▼ 🍢 🗹 Image (Script) ិ UISnrite Source Image Color Material None (Material) Raycast Target \checkmark Image Type Sliced Fill Center ☑ Button (Script) ▶ 🖳 🗹 Layout Element (Script) 255 Add Component 255 255 255 6. Final step would be add color change controller to do that you need to select all color buttons buttons in inspector ColorsPaletter ColorButton ColorButton (2) ColorButton (3) then add ChangeColorOnClickController And finally copy our colors from our Image component to this controller. To Do that you need to select component menu (little gear at the top right corner of our component) and select Copy Color 🔻 🕝 🗹 Change Color On Click Controll 🕒 🖎 Line Config Color Move Up Copy Component Paste Component As New Edit Script from Image and then select LineConfig ad you did that in tool change step. Now check all your color buttons and make sure that all of them has link to LineConfig and every one has the same color as button. Click play button and try to change line of your color Redo Clear Ink **Coloring Page** Drawing on plane canvas it's cool but let me show you how to create a coloring page. where all your drawings would be restricted to predefined regions. We would need to setup 3 image and i'll explain you where each of them is used for. Page Config {#page-conifg} 1. First of all we need to create a new page config go to your Configs folder and create new page config file. but this time New Coloring Page Config <u>□</u> \$, Open ColoringPageConfig 0 Script Unique Id None (Texture 2D) 0 Start Image Path 0 Outline Path None (Texture 2D) Region Path None (Texture 2D) 0 Icon Path None (Texture 2D) 0 ${\tt select \ RightClickButton/Create/PaintCraft/ColoringPageConfig \ .}$ 2. As usual you need to setup UniqueId property. Start image if you want to use it and setup 3 image links. Right now let'd just define UniqueId 3. Here i should notice you that every image used as coloring page must be stored somwhere in Resources folder so it won't be loaded automaticaly to the memory and your app will works on any mobile device even if you will have on handreed pages. So let's create Resources folder first and one subfolder for our image NewPage1 and place our images(icon, outline and region) there Configs 🔚 Resources rabbit_outline rabbit_regio OutlineLayer {#outlinelayer} In coloring page we use 2 layers. One layer is the same as on blank page where we draw our graphics. and 2 layer contains our actual image. On the screenshot below we hasn't drawn anything and our back layer is blank and white. Outline layer contain Bear image. And as you see Outline layer must have transparency, you could have any colors on it. something like shades color injections and so on it's not mandatory to have black and white image. You can open demo project pictures and see that it has some transparent shades like on the png image below (shadows below the bird and on wings)

Then you need to fix import settings. By default unity could use power of 2 settings so your image would be stretched. to fix that select your outline image and then in inspector change TextureType=Advanced (Default on Unity5 and later) and then Non Power of 2 = None and also we don't need MipMaps so you could disable them as well. Here you could check

Open

what i have.

Inspector

Texture Type

Texture Shape

▼ Advanced

Wrap Mode

Filter Mode

Compression

Icon {#icon}

✓ Canvas
Tag Untagged

Prefab Select Revert

➤ Transform

▼ G S Canvas Controller (Script)

Cam Max Zoom In Per 500

Page Config
Outline Layer Offset
Back Layer Material

Back Layer Offset

Preview Icon Width
Preview Icon Height

Default BG Color
Force Clear On Start

with the same region.

filter)" **value

1 Inspector

Texture Type

Texture Shape

▼ Advanced

sRGB (Color Texture) 🗹

Alpha Is Transparency

Non Power of 2

Read/Write Enabled

Generate Mip Maps

Compression

Unique Id

Region Path

Page Config

Brush Offset

Brush Layer Id

History Size 10
Preview Icon Width
Preview Icon Height 330
Default BG Color
Force Clear On Start
Input Treshold Margin 300

Input Bounds

Free Aspect

Spray

Back Layer Offset

Start Image Path

scene or prefab objects.

Outline Layer Offset 25

Temp Render Layer Id 10

regions just assign alpha = 0 to it.

rabbit_regions Import Settings

Default

Input Texture Alpha

Anisotropic filtering is enabled for all textures in Quality Settings.

None

Final config {#final-config}

MyNewImageUniqueID

None (Texture 2D)

Now you could select this config in your CanvasController component.

New Coloring Page Config (Color ○

And now you could start your scene and start drawing your image

rabbit_regions
rabbit_icon

Canvas Camera Contro

100

50

Center: X 0 Extents: X 0

New Coloring Page Config

2D

Outline Material Brush Offset

Brush Layer Id 9 Temp Render Layer Id 10

Script

sRGB (Color Texture)

Alpha Is Transparency 🗹

Read/Write Enabled
Generate Mip Maps

Non Power of 2

rabbit_outline Import Settings

2D

None

Clamp

None

settings for the icon size by default it 440x330

Laver

Canvas Camera Contr @ Canvas Camera (Ca O

100

50

☐ Static ▼

For import settings you could have the same import settings which you used for outline layer

Open

. □ | # | **.**

Revert Apply

At this point you should have all 3 images. let's setup links to them in our config file

Open

0

0

Maximize On Play | Mute Audio | Stats | Gizmos

Redo

Clear

Undo

If your images would be stored not inside Resource folder, this inspector will notify you about this. Also if you will change location of this images you would need to setup this link again, unity won't change lnks to them automatically as it does for

To make region texture what you need to do is just paint your texture in image editor. where every region has own unique color. And if you want to merge some regions you can assign the same color to it. For example you can make the same color for all grass on the image. or for all body parts so if player click on one region with bucket all body parts will be filled

• Any _regions where alpha = 0 will be ignored _for painting. This means that if you don't want to allow user paint some

• Finally you need to make proper setting for the texture. Critical part here is a **FilterMode **it must have **"Point (no

Predefined Regions {#predefined-regions}

Bear (ColoringPag ⊙

■ BackLayerMaterial ○

OutlineMaterial

(1) Anisotropic filtering is enabled for all textures in Quality Settings

± □ □ +

just user changes and looks like this (after result of floodfill with black and green color)

‡

We need separated downscaled icon because of the following reason. When you make any changes on the canvas we store this state on the disk. so when your player would comeback it will be able to work with this image. And we do not store mix of the backgraound layer (where you draw) and outline layer and it's just a lines which you made. The stored layer contains

And we need to blend this with outline layer. It won't work well on older devices if we will blend this with original outline layer. because each image would consume to much memory, and this is why we need to add downscaled image.

Icon size depends on you which size of image do you want to have. if you will open canvas controller you will see the

Alpha Source Input Texture Alpha

Default