Artistic Post-Process Pack

User Manual

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Compatibility

Artistic Post-Process Shaders Compatibility List

v 1.3	Shader Model			PC/Console		VR		Engine Versions					
Shader	SM5 (DX11, DX12)	SM6 (DX12)	ES3.1 (Mobile, Quest 2/3)	Deferred Rendering	Forward Shading	Deferred Renderng	Forward Shading	5.2	5.3	5.4	5.5	5.6	5.7
Outline	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Comicbook	✓	✓	☐	✓	☐	☐	☐	✓	✓	✓	✓	✓	✓
Cartoon	✓	✓	☐	✓	☐	✓	☐	✓	✓	✓	✓	✓	✓
Oil Paint	✓	✓	☐	✓	☐	✓	☐	✓	✓	✓	✓	✓	✓
Watercolor	✓	✓	☐	✓	☐	✓	☐	✓	✓	✓	✓	✓	✓
Digital Paint	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pop-Art	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sketch	✓	✓	☐	✓	☐	✓	☐	✓	✓	✓	✓	✓	✓
Impressionism	✓	✓	☐	✓	☐	✓	☐	✓	✓	✓	✓	✓	✓
Renaissance	✓	✓	☐	✓	☐	✓	☐	✓	✓	✓	✓	✓	✓
Pointillism	✓	✓	☐	✓	☐	✓	☐	✓	✓	✓	✓	✓	✓
Eastern Art	✓	✓	☐	✓	☐	✓	☐	✓	✓	✓	✓	✓	✓

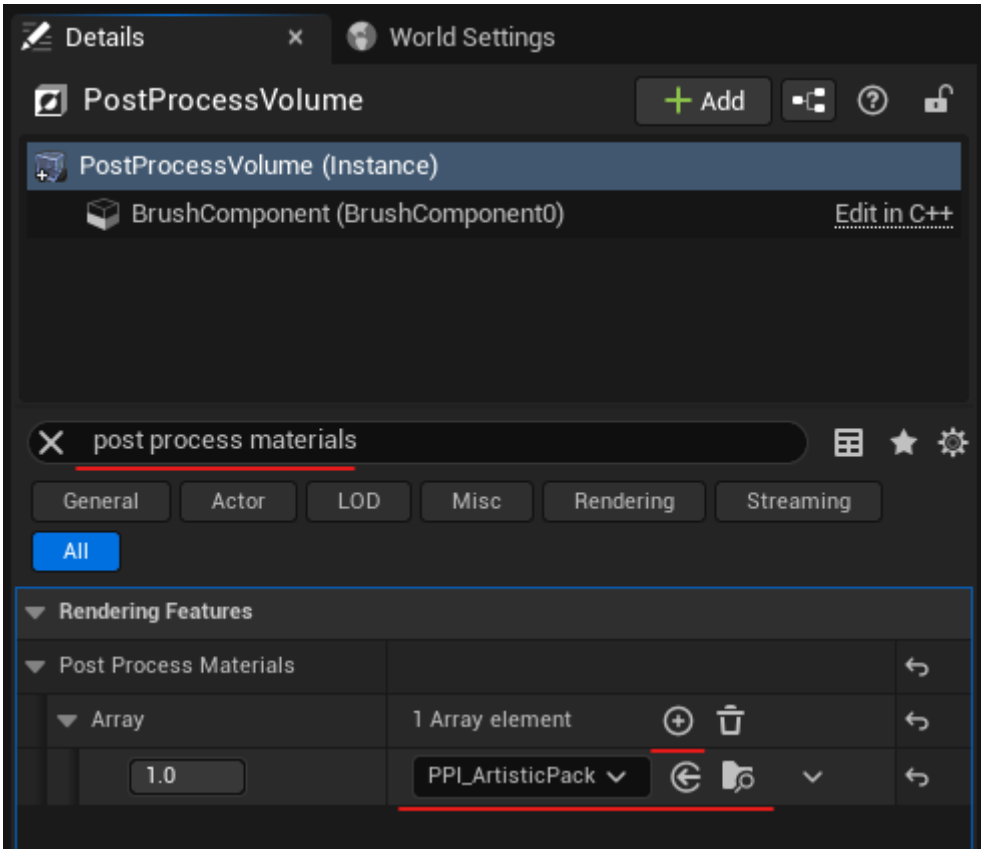
Notes

Outline with ES3.1 or Forward Shading has limited functionality - Normals Stroke and Noise Mask should be always disabled for the correct compilation

Forward Shading pipeline compatibility is in progress now and is planned to be released in update v1.4.

Quick Start Guide

All the effects are made as a post-process material, so to start using them you first need to add to your level Post Process Volume or CameraActor (or use Camera Component on your Player Pawn)



Then find in a search bar in the Details window “post process materials”, press the Plus button to add the reference to array and look for the desired post process material instance. If you would like to use all the effects combined in one single instance, look for the *PPI_ArtisticPack* asset. If you would like to use any effect separately, find their instances in the *ArtisticPack_PP_Materials - Single_Instances* folder. After you added the chosen instance into the array, open it and tune up the effect in a desired way.

NB! Post Process Material gets all the calculated pixels to its input as the Emissive Channel. It means that if the pixel is bright enough, it will have an emissive glow. To prevent the glow from appearing use darker colors in the effects settings. However, if you would like to have an emissive glow to be visible, you need to have Bloom parameter enabled in the Project Settings - Engine - Rendering.

NB! This pack uses Post Process Material to be rendered *Before Tonemapping*. Some effects have jittering issues because of the TSR (Temporal Super-Resolution) anti-aliasing method while Post Process pass is going to be calculated *After Tonemapping*. If your project nature doesn’t allow to render Post Process pass before tonemapping, you may not be able to use certain effects.

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Folders’ Structure

In the Artistic Post-Process Pack you may find following folders:

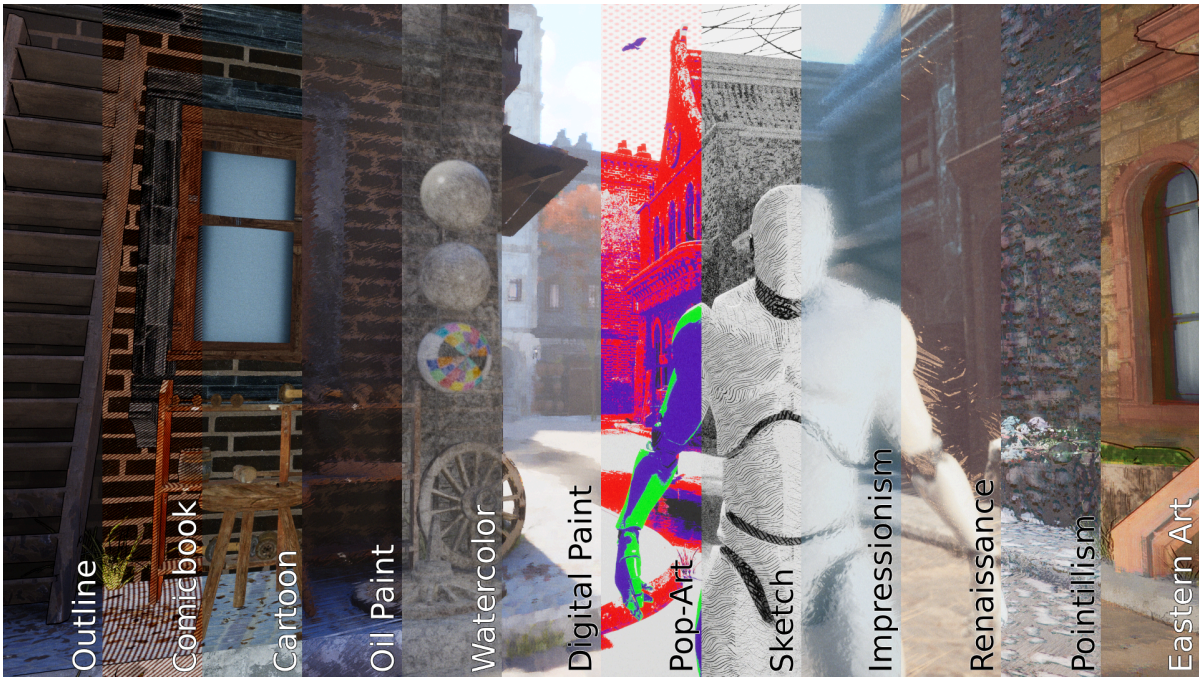
- **ArtisticPostProcessPack** - root folder, where you may find main material instance *MI_PPI_ArtisticPack*, which allows you to control all the effects and combine them using one instance only. Note that code of disabled effects is not calculated in runtime.
- **ArtisticPack_PP_Functions** - this folder contains all the functions and textures used for each effect. If you would like to modify code of any effect, choose the effect folder here and find needed functions to make changes. Every effect has a function with a name like this - [EffectNumber]_MF_[EffectName]_Output. This function contains the main code for the effect, while all others are secondary functions for some specific calculations. For example, the main code for the *Outline* shader is stored in the *MF_01_Outline_Output* function.
- **ArtisticPack_PP_Materials** - contains all the master materials and their instances for each effect. Actually, there is no code at all, because all master materials are using just the effects function’s output results. However, this folder is useful, if you would like to add to your post-process volume or camera just a single effect. It might be needed, for example, if you would like to make areas with different effects applied. For these purposes find the folder *Single_Instances*, where a separate instance for each effect is presented.
- **ArtisticPack_PP_Overview_Map** - contains small level and its assets to demonstrate all the effects in a simple manner. To see the demo level, open *APPP_Preview_Map*.

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Parameters Description

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00 - General switchers



Allows to enable all the styles independently in the *MI_PPI_ArtisticPack*. Single effects do not have this section in their instances. Each effect takes for its calculations the original render image (SceneTexture:PostProcessInput0), which includes all the passes and image processing made by the engine by default. Post-process materials are always calculated as the last pass in the rendering pipeline (if you didn't change pipeline order in the engine source files). In the *MI_PPI_ArtisticPack* instance each effect adds (node Add) its results to the previous shader calculations, so enabling all the effects at the same time might show a bit of an unpleasant picture. The only exception is the first shader - *Outline effect* - it takes other enabled shaders in the pack and makes its own calculations based on these results.

For the best results we recommend to test shaders with a combined material instance (*MI_PPI_ArtisticPack*) and then use single instances (folder *ArtisticPack_PP_Materials/Single_Instances*) to get the desired effect and fine tune it.

Regardless of the instance you are going to use, parameters' names and their groups are kept the same as marked in this manual below.

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01 - Outline effect



Elevate your project with the striking and dynamic Outline Shader, which gives every object its own distinct stroke. By calculating depth differences, this shader creates a contour mask that outlines objects, adding a specific color or highlighting key elements in the scene. For added creativity, a noise mask can be applied to introduce interesting stroke patterns or a secondary color, enhancing the visual appeal. This effect integrates seamlessly with other shaders, making it an ideal choice for object highlighting and adding an extra layer of artistic depth to your project.

010 - Outline - Main stroke

Disable Main Stroke - allows to disable main stroke completely (in case the Normals Stroke should be used only)

Main Stroke Inside/Outside - allows to choose where contour should be drawn - inside the edge of the object or outside of it. Mark option On to have stroke inside, and Off to have it outside.

Color Main Stroke - chooses the static color for the main stroke

Emissive Strength - adds emissive property to the main stroke

Thickness modulation - uses distance from camera as multiplier for the stroke thickness. When disabled - Max Thickness parameter is used as a constant.

Min Thickness - defines minimal thickness of the stroke. Minimum value is 0.6. Works on objects far from the camera.

Max Thickness - defines maximum thickness of the stroke on objects closest to the camera.

Min Thickness Distance - defines distance where Min Thickness should be applied.

Depth Threshold - defines depth threshold where stroke should be applied. Decrease to have more details outlined.

Limit Draw Distance - enables limiter for the draw distance for the main stroke. Distance is calculated from camera location, all the pixels out of the limit will be excluded from the effect.

Max Draw Distance - defines max draw distance for the main stroke.

Opacity Main Stroke - lerps stroke effect with a clear image.

Use Overlay Effect Main Stroke - blends stroke effect with clear image. Works as Layer Multiply in Photoshop.

Enable Noise on Main Stroke - enables noise mask on the effect. Creates a pattern on the stroke.

Noise Texture - allows to choose noise texture to be applied

Use Noise as Mask or Color - changes mode how the noise works. If the parameter is enabled (True), noise works as a mask between stroke and clear image. If the parameter is disabled (False), noise works as a color pattern overlay on the stroke

Noise Color Main Stroke - changes color of the noise pattern in the Noise Color mode.

Noise Color Emissive Strength - changes emissive power of the noise color in the Noise Color mode.

Noise Main Stroke Controls - press arrow to open settings in this parameter. Allows to change noise pattern properties.

- **Noise Size** - defines noise pattern size
- **Noise Contrast** - clamps values in pattern closer to 0 and 1, gets rid of halftone values in pattern.
- **Noise Opacity** - lerps effect with the noise mask with clear image (PostProcess0 output by default).

Noise Main Stroke Stretch - press arrow to open settings in this parameter. Allows to control noise pattern projection in the world.

- **Noise Stretch X** - allows to stretch the noise pattern in the X axis.
- **Noise Stretch Y** - allows to stretch the noise pattern in the Y axis.
- **Noise Stretch Z** - allows to stretch the noise pattern in the Z axis.

Enable Noise Animation - enables animation of the noise mask. Mask can move vertically and shake in XY axis (absolute world position coordinates taken)

Noise Vertical Speed - Adjust animation speed by Z axis. Defines how fast the pattern goes upwards. Use a negative number to flip direction.

Noise Shake Speed - changes speed of "shaking". Move is made by sine on XY coordinates for the pattern.

Noise Shake Amplitude - adjusts sine function amplitude for the pattern animation.

Enable Height Mask - adds height filter for the noise mask output. NB! When Noise Mask is disabled, Height Mask is unavailable.

Noise Height Fall-Off - defines threshold in height where Height mask should be applied.

Height Switch Clear of Outlined Image - allows to define what Height Mask should show after the threshold. Enable to choose clear render and disable to have Outline shader processed image without the Noise Mask

011 - Outline - Normals stroke

These parameters are similar to the Main Stroke, but allow to change how stroke on Normals looks like separately from the main contour.

Disable Normals Stroke - allows to disable normals stroke completely (in case the Main Stroke should be used only)

Color Normals - chooses the static color for the normals stroke

Emissive Strength Normals - adds emissive property to the normals stroke

Normals Thickness modulation - uses distance from camera as multiplier for the stroke thickness. When disabled - Max Thickness parameter is used as a constant.

Min Thickness Normals - defines minimal thickness of the stroke. Minimum value is 0.6. Works on objects far from the camera.

Max Thickness Normals - defines maximum thickness of the stroke on objects closest to the camera.

Min Thickness Distance Normals - defines distance where Min Thickness should be applied.

Depth Threshold Normals - defines depth threshold where stroke should be applied

Limit Draw Distance - enables limiter for the draw distance for the normals stroke

Max Draw Distance - defines max draw distance for the normals stroke

Opacity Normals Stroke - lerps stroke effect with a clear image

Use Overlay Effect Normals Stroke - blends stroke effect with clear image. Works as Layer Multiply in Photoshop.

Enable Noise on Normals Stroke - enables noise mask on the effect. Creates a pattern on the stroke.

Noise Texture Normals - allows to choose noise texture to be applied for the normals separately from the Main Stroke

Use Noise as Mask or Color - changes mode how the noise works. If the parameter is enabled (True), noise works as a mask between stroke and clear image. If the parameter is disabled (False), noise works as a color pattern overlay on the stroke

Noise Color Main Stroke - changes color of the noise pattern in the Noise Color mode.

Noise Color Emissive Strength - changes emissive power of the noise color in the Noise Color mode.

Noise Main Stroke Controls - press arrow to open settings in this parameter. Allows to change noise pattern properties.

Noise Size - defines noise pattern size

Noise Contrast - clamps values in pattern closer to 0 and 1, gets rid of halftone values in pattern.

Noise Opacity - lerps effect with the noise mask with clear image (PostProcess0 output by default).

Noise Main Stroke Stretch - press arrow to open settings in this parameter. Allows to control noise pattern projection in the world.

Noise Stretch X - allows to stretch the noise pattern in the X axis.

Noise Stretch Y - allows to stretch the noise pattern in the Y axis.

Noise Stretch Z - allows to stretch the noise pattern in the Z axis.

Enable Noise Animation - enables animation of the noise mask. Mask can move vertically and shake in XY axis (absolute world position coordinates taken)

Noise Vertical Speed - Adjust animation speed by Z axis. Defines how fast the pattern goes upwards. Use a negative number to flip direction.

Noise Shake Speed - changes speed of "shaking". Move is made by sine on XY coordinates for the pattern.

Noise Shake Amplitude - adjusts sine function amplitude for the pattern animation.

Enable Height Mask - adds height filter for the noise mask output. NB! When Noise Mask is disabled, Height Mask is unavailable.

Noise Height Fall-Off - defines threshold in height where Height mask should be applied.

Height Switch Clear of Outlined Image - allows to define what Height Mask should show after the threshold. Enable to choose clear render and disable to have Outline shader processed image without the Noise Mask

012 - Outline - Custom Depth

NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option “Render CustomDepth Pass”. All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually “Lit” is chosen there) => Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

Use Custom Depth Main Stroke - Allows to manually include or exclude actors from applying Main Stroke effects

Use Custom Depth Normals Stroke - Allows to manually include or exclude actors from applying Normals Stroke effects

Isolate Objects - defines whether chosen actors should have post-process effect enabled or not.

013 - Outline - Other Settings

Enable Parallel Angle Filter Main Stroke - prevents stroke to become a solid pattern on flat surfaces while the camera vector is almost parallel to the surface. Use carefully as this function affects outline setup significantly. Better to set up everything before and then only play with the parallel angle filter.

Enable Parallel Angle Filter Normals Stroke - does the same thing as previous parameter, but is applied to the normals stroke only.

Angle Limit - defines camera angle where filter applies. With higher value filter will enable closer to 90 degrees (between camera vector and the surface)

Angle Mask Power - makes spherical mask gradient (from white edge to black center) stronger

Angle Modulation Factor - defines overall filter strength

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02 - Comic Book effect



Inspired by classic comic books from the golden age, this shader removes the original lightmap from the render and uses it to make an overlay of lines and dots patterns. By default lines are showing shadowed areas, and dots pattern - highlights. Of course, all colors are adjustable, so you may create your own comic style.

020 - Comic Book - Shadows

Add Lines Pattern to Shadows - enables shadow pattern on the darkest part of the lightmap

Shadows Threshold - defines threshold on the lightmap where shadow pattern should be applied. The higher value leads to more shadow pattern in the scene

Shadows Pattern Density - setup size of the lines pattern

Shadows Pattern Angle - rotates lines pattern. -1 value is used to have it rotated 45 degrees clockwise

Lines Pattern Color - defines color of the pattern

Lines Pattern Opacity - change shadows pattern opacity

021 - Comic Book - Highlights

Add Dots Pattern to Highlights - enables dots pattern on the brightest part of the lightmap

Highlights Threshold - defines threshold on the lightmap where highlights pattern should be applied. The higher value leads to less highlights pattern in the scene

Highlights Pattern Density - setup size of the dots pattern

Highlights Contrast - adjust contrast of the dots pattern mask. Makes pattern smoother when parameter is decreased

Dots Pattern Color - defines color of the pattern

Dots Pattern Opacity - change highlights pattern opacity

022 - Comic Book - Color Correction

Original Lightmap Intensity - overlays scene with the lightmap from original render. Helps to highlight dark and bright areas under the patterns

Original Scene Brightness - changes brightness of the unlit scene without affecting the patterns. NB! This pass is calculated before the patterns will be applied and before the Color Correction parameter is enabled to the shader.

Original Sky Brightness - changes intensity of the skybox colors. Does not affect patterns and calculated before the Original Sky Tint parameter

Original Sky Tint - multiplies sky color with the chosen tint color. Helps to change the sky color palette without affecting patterns and the rest of the scene.

Original Water Brightness - changes intensity of the water surface colors. Works through a Specular pass mask, so other specular surfaces might be affected. Calculated before the patterns.

Original Water Tint - multiplies water surface color with the chosen tint color. Helps to stylize water look in a specific way. Does not affect patterns and the rest of the scene

Color Correction - adjust final image after processing to get the desired look

- **Hue** - setup tone hue of the processed image
- **Saturation** - setup saturation of the processed image
- **Brightness** - setup brightness of the processed image
- **Contrast** - setup contrast of the processed image

023 - Comic Book - Stroke

These parameters help to set up simple strokes in the scene. For better results a separate Outline shader is recommended to be used.

Use Stroke - enables stroke of all the objects in the scene

Enable Stroke Overlay - when enabled, stroke is overlaid with processed image, when disabled - clear color is used

Stroke Color - choose color for the stroke

Stroke Threshold - defines threshold in pixels in the Scene Depth pass, where stroke should appear. Higher value leads to even the smallest edges to be outlined

Stroke Distance - defines distance limit where stroke shouldn't be applied

Stroke Thickness - setup stroke line thickness in pixels. Value below 1 will not work as the stroke cannot be thinner than 1 pixels on any screen

Stroke Opacity - changes opacity of the final stroke result

024 - Comic Book - CDB Mask

NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option "Render CustomDepth Pass". All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually "Lit" is chosen there) => Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

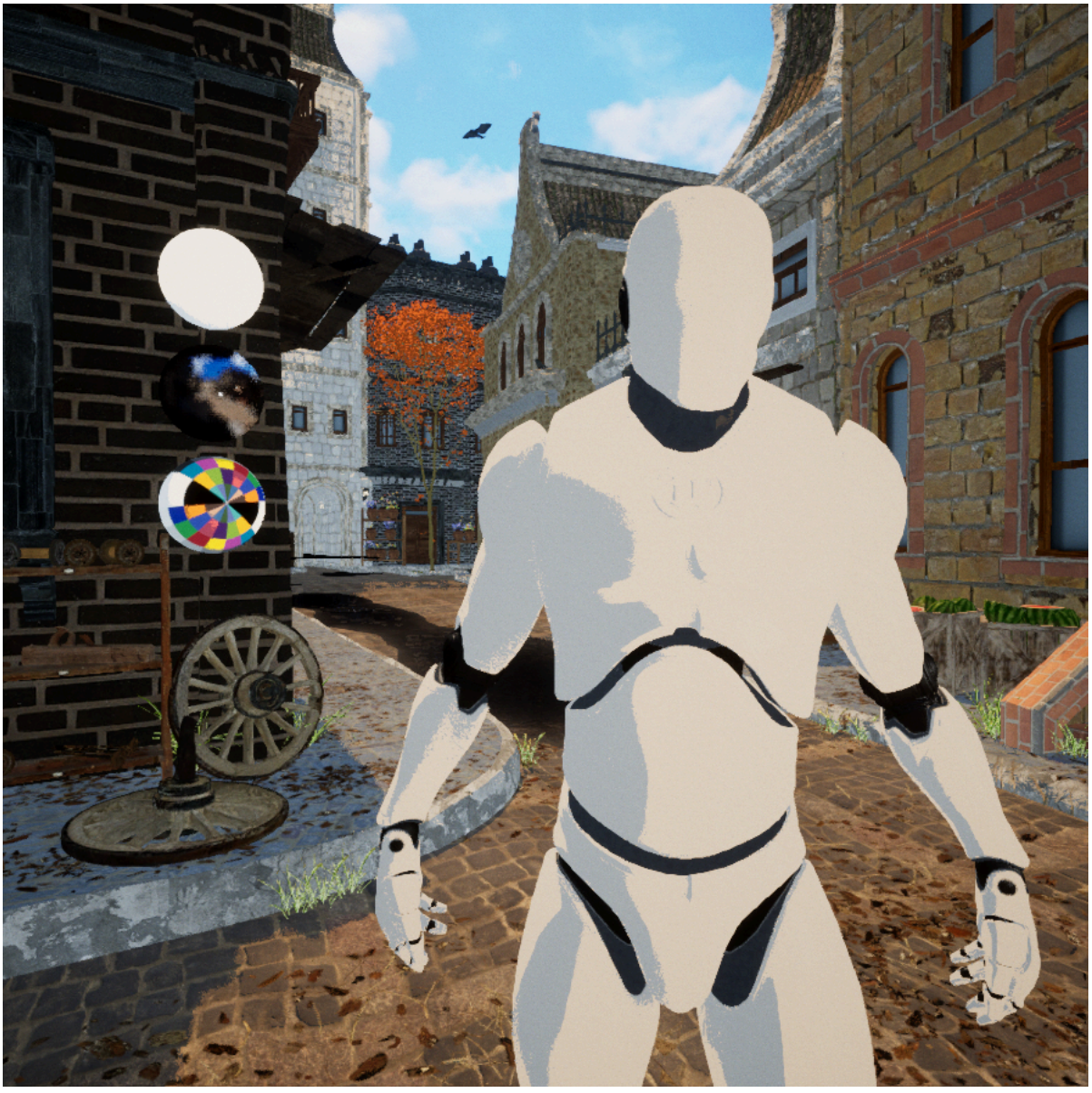
Enable Custom Depth Mask - allows to manually include or exclude actors from applying the shader

Isolate Actors from Effect - inverts mask so that all the actors in Custom Depth Buffer are excluded from the shader processing

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03 - Cartoon effect



Transform your project with the whimsical and vibrant look of a cartoon using our Toon Shader. This effect simplifies scene lighting, creating a bold and stylized aesthetic by dividing light into distinct areas of shadow and highlight. Shadows and highlights can be tinted with any color, adding to the playful and dynamic feel. Perfect for projects aiming to achieve a fun, animated look, this shader brings a unique, illustrative quality to your visuals, making them stand out with charm and creativity.

NB! *For the better performance and visual stability it's recommended to disable Global Illumination in the Project Settings and to use as flat normals on meshes as possible. At least - avoid using software Lumen, force it to the hardware ray tracing. Software Lumen, unfortunately, is too noisy and produces jittering on the light/shadow edges.*

030 - Cartoon - Setup

Scene Tone - enable effect on the scene except SkyBox

Sky Tone - enable effect on the SkyBox without affecting the Scene

Sky Sphere Radius - define the distance where effect is processed as the Sky part

Enhanced Effect - enable light map pre-simplification for the better visuals within the effect. NB! Costs additional performance!

LightMap Blur Radius - define light map blur radius during the pre-simplification

LightMap Blur Quality - define amount of cycles in the blur processing to change the quality of the light map. NB! Higher value leads to performance losses!

031 - Cartoon - Tone

Scene Tone Threshold - defines threshold where shadows and highlights should be applied. Range from 1 to 100. Affects scene only without a skybox.

Scene Tone Smoothness - change softness of the transition between shadows and highlights. 0 value makes transition perfectly sharp, 100 makes it smoothed as with gradient. Affects scene only without a skybox.

Sky Tone Threshold - defines threshold where shadows and highlights should be applied. Range from 1 to 100. Affects skybox only.

Sky Tone Smoothness - change softness of the transition between shadows and highlights. 0 value makes transition perfectly sharp, 100 makes it smoothed as with gradient. Affects skybox only.

032 - Cartoon - Colors

Highlights Tint - add color to the highlights part of the image. Tint color multiplies original pixel taken from Diffuse Color pass

Shadows Tint - add color to the shadows part of the image. Tint color multiplies original pixel taken from Diffuse Color pass

Color Controls - adjust final image after processing to get the desired look

- **Hue** - setup tone hue of the processed image
- **Saturation** - setup saturation of the processed image
- **Brightness** - setup brightness of the processed image
- **Contrast** - setup contrast of the processed image

033 - Cartoon - Reflections

Enable Reflections - adds reflections via Specular Color mask. Mainly it is needed to add a water surface to the final image.

Reflections Brightness - adjusts brightness of the specular surfaces

034 - Cartoon - Subsurface Color

Add Subsurface pass - adds subsurface color via Subsurface pass mask. Helps to have more natural look of foliage and other surfaces with the light scattering enabled

Subsurface Color Intensity - adjusts intensity of the subsurface color

035 - Cartoon - Stroke

These parameters help to set up simple strokes in the scene. For better results a separate Outline shader is recommended to be used.

Use Cartoon Stroke - enables stroke of all the objects in the scene

Enable Cartoon Stroke Overlay - when enabled, stroke is overlaid with processed image, when disabled - clear color is used

Cartoon Stroke Color - choose color for the stroke

Cartoon Stroke Threshold - defines threshold in pixels in the Scene Depth pass, where stroke should appear. Higher value leads to even the smallest edges to be outlined

Cartoon Stroke Distance - defines distance limit where stroke shouldn't be applied

Cartoon Stroke Thickness - setup stroke line thickness in pixels. Value below 1 will not work as the stroke cannot be thinner than 1 pixels on any screen

Cartoon Stroke Opacity - changes opacity of the final stroke result

036 - Cartoon - Custom Depth Mask

NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option "Render CustomDepth Pass". All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually "Lit" is chosen there) => Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

Enable Custom Depth Buffer Mask - allows to manually include or exclude actors from applying the shader

Exclude Objects - inverts mask so that all the actors in Custom Depth Buffer are excluded from the shader processing

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04 - Oil Painting effect



Transform your scene with the rich and textured look of traditional oil paintings using our Oil Paint Shader. This effect emulates the distinct brush strokes and vibrant, sharp colors characteristic of oil paint, bringing a sense of artistry and depth to your visuals. Perfect for projects aiming to evoke a classic, painterly feel, this shader enhances the visual storytelling with its bold and expressive style.

040 - OilPainting - Main Settings

Pattern Intensity - set up brush pattern intensity. Lower value flattens pattern normal map

Color Settings - adjust final image after processing to get the desired look
- **Hue** - setup tone hue of the processed image
- **Saturation** - setup saturation of the processed image
- **Brightness** - setup brightness of the processed image
- **Contrast** - setup contrast of the processed image

041 - OilPainting - Scaling

Enable Pattern Distance Scaling - allows to change pattern scale according to distance. Max Scale parameter is used as a static value, when this switcher is disabled.

Max Distance - defines distance where Min Scale parameter should be applied

Min Scale - changes scale of the pattern far away from camera on the Max Distance

Max Scale - changes scale of the pattern close to the camera

Stretch Pattern - allows to stretch pattern normal map in 3 dimensions

Stretch Controls
- **Stretch X** - stretch pattern by X axis
- **Stretch Y** - stretch pattern by Y axis
- **Stretch Z** - stretch pattern by Z axis

042 - OilPainting - Cracks

Use Oil Cracks Pattern - adds cracks noise pattern to the scene

Oil Cracks Color - adjust main color of the cracks

Oil Cracks Size - change cracks pattern size

Oil Cracks Intensity - setup cracks pattern intensity. It lerps with original image

Oil Cracks Opacity - change cracks opacity level

043 - OilPainting - Custom Depth Mask

NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option “Render CustomDepth Pass”. All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually “Lit” is chosen there) =>

Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

Enable Custom Depth Masking - allows to manually include or exclude actors from applying the shader

Exclude Actor by Custom Depth Mask - inverts mask so that all the actors in Custom Depth Buffer are excluded from the shader processing

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05 - Watercolor Painting effect



Infuse your project with the delicate and fluid beauty of watercolor painting using our Watercolor Shader. This effect transforms your visuals to resemble handcrafted watercolor art, with soft edges, blended colors, and a textured, ethereal quality. Ideal for creating unique, dreamlike environments, the Watercolor Shader brings a sense of warmth and nostalgia to your scenes. Perfect for storytelling and artistic simulations, this shader captures the charm and elegance of traditional watercolor paintings, enhancing your creative vision with its timeless appeal.

050 - Watercolor - Main Settings

Enable Watercolor Pattern - enables main effect on the scene, except sky box

Enable Sky Watercolor Pattern - enables main effect on the sky box (it has different projection method)

Enable Watercolor Blur - adds Gaussian blur to the image before the main pattern will be applied. Helps to simulate watercolor absorption effect

Add Paper Pattern - allows to process image with additional pattern which simulates paper surface

Edit Color - enables basic color correction parameter

Picture Setup - adjust main image properties

- **Hue** - setup tone hue of the processed image
- **Saturation** - setup saturation of the processed image
- **Brightness** - setup brightness of the processed image
- **Contrast** - setup contrast of the processed image

051 - Watercolor - Main Pattern

Watercolor Pattern Contrast - adjust contrast of light parts of the pattern. Higher value makes light parts brighter.

Watercolor Pattern Size - setup watercolor pattern size. Size is not changed within the distance

Watercolor Brush Strength - adjust virtual brush intensity.

Watercolor White Intensity - change pattern brightness

052 - Watercolor - Sky Pattern

Sky Watercolor Contrast - adjust watercolor brush pattern contrast on the sky. Higher value makes dark parts brighter.

Sky Watercolor Pattern Size - setup watercolor pattern size on the sky. Size is not changed within the distance

Sky Watercolor Brush Settings - adjust virtual brush intensity for the pattern on the sky sphere

Sky Watercolor Whites Intensity - change watercolor pattern intensity on the sky

053 - Watercolor - Blur

Watercolor Blur Strength - tune how strong the blur should be. Value defines distance of the sample pixels from the target pixel. Absolute values are used.

Watercolor Blur Quality - change amount of iterations in the blur calculations. Bigger values result in better blur quality, but take more performance costs. Absolute values are used, values above 5 are not recommended

Watercolor Blur Stretch X - change blur direction by X axis (viewport coordinates are used)

Watercolor Blur Stretch Y - change blur direction by Y axis (viewport coordinates are used)

054 - Watercolor - Paper Pattern

Paper Intensity - adjust intensity of the paper pattern. Sky box is not affected here

Paper Pattern Size - change paper pattern texture size

Paper Contrast - tune paper pattern mask contrast

Enable Sky Paper Pattern - allows to set up separate paper pattern overlay on the sky box as different projecting method is used there

Sky Paper Intensity - adjust intensity of the paper pattern on the sky

Sky Paper Contrast - tune paper pattern mask contrast on the sky

Sky Paper Pattern Size - change paper pattern texture size on the sky

Add Paper Overlay Tint - adds color overlay to the paper pattern

Paper Overlay Tint - choose paper pattern overlay color

055 - Watercolor - Custom Depth Mask

NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option “Render CustomDepth Pass”. All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually “Lit” is chosen there) => Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

Enable CDB Mask - allows to manually include or exclude actors from applying the shader

Exclude Actor by CDB Mask - inverts mask so that all the actors in Custom Depth Buffer are excluded from the shader processing

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06 - Digital Paint effect



Give your project the sleek and polished look of digital art with our Digital Paint Shader. This effect mimics the style of artwork created on digital devices, preserving sharp edges while smoothing colors and lights within objects using a specialized blur technique. The result is a clean, modern aesthetic with beautifully blended hues and a professional finish. Perfect for projects aiming for a contemporary, illustrative style, the Digital Paint Shader enhances your visuals with the sophistication and clarity of digital painting, bringing your creative vision to life.

060 - Digital Paint - Main Setup

Enhance Effect - switch between two different methods of processing of the image. When enabled, a more enhanced method is used - shader takes the whole RGB image and makes blurring smoother. When disabled, scalar matrix of the lightmap is used for the image processing, which takes less resources and keeps small details on the objects

Paint Strength - tune paint strength by changing kernel radius (distance of the sample pixels from the target pixel). Values above 3 are not recommended. Absolute values are used.

Paint Opacity - change processed image opacity by lerping it with the original image. Calculated after the basic Stroke effect applied.

061 - Digital Paint - Color Setup

Hue - setup tone hue of the processed image

Saturation - setup saturation of the processed image

Brightness - setup brightness of the processed image

Contrast - setup contrast of the processed image

062 - Digital Paint - Stroke

These parameters help to set up simple strokes in the scene. For better results a separate Outline shader is recommended to be used.

Use Digital Stroke - enables stroke of all the objects in the scene

Use Digital Stroke Overlay - when enabled, stroke is overlaid with processed image, when disabled - clear color is used

Digital Stroke Color - choose color for the stroke

Digital Stroke Threshold - defines threshold in pixels in the Scene Depth pass, where stroke should appear. Higher value leads to even the smallest edges to be outlined

Digital Stroke Distance - defines distance limit where stroke shouldn't be applied

Digital Stroke Thickness - setup stroke line thickness in pixels. Value below 1 will not work as the stroke cannot be thinner than 1 pixels on any screen

Digital Stroke Opacity - changes opacity of the final stroke result

063 - Digital Paint - Custom Depth Mask

NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option "Render CustomDepth Pass". All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually "Lit" is chosen there) => Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

Use CDB Mask - allows to manually include or exclude actors from applying the shader

Invert CDB Mask - inverts mask so that all the actors in Custom Depth Buffer are excluded from the shader processing

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07 - Pop-Art effect



Transform your scene into a vibrant pop-art masterpiece with this shader, inspired by the iconic style of Andy Warhol. Effect allows you to split lightmap into five distinct areas, each with customizable colors to achieve that bold, graphic look. Enhance your visuals further with optional patterns and fine-tune the threshold settings to control the transition between areas. Perfect for adding a striking, contemporary edge to your projects, this shader brings a splash of artistic flair and dynamic color to your scenes.

070 - Pop-Art - Settings

Main Brightness - adjust lightmap brightness. This parameter is critically important for all the rest settings as the shader takes an image lightmap and splits it into 5 areas. Brightness adjustment allows to tweak balance between areas in case the original one does not give desired result. Default value is 1. NB! Final render lightmap is highly dependent from the auto-exposure settings (in the post-process volume or pawn's camera setup) and might be completely different indoor and outdoor in the scene.

Enable 2nd (CDB) Palette - allows to add a different color palette to the objects, which are included into the Custom Depth Buffer. Don't forget to mark "Render CustomDepth Pass" parameter for the needed actor in the scene. NB! Sky box is excluded from the 2nd palette processing and will not be affected with this palette setup

071 - Pop-Art - Lightest Area

Lightest Threshold - defines threshold on the lightmap where settings for current area should be applied. Lightmap is taken as values of pixels from 0 (black) to 1 (white). Current area setup will work on pixels where light value is *above* the chosen threshold

Lightest Color - choose the main color for the current palette area

Lightest Secondary Color - choose secondary color as a background in case pattern is enabled for the current area

Enable Pattern for Lightest Area - allows to project texture in current area. Helps to simulate printing effect or to create a specific look of the scene

Lightest Texture Size - adjust pattern texture size

Lightest Pattern - choose texture for the pattern to be projected. Dots pattern is chosen by default

072 - Pop-Art - Light Area

Light Threshold - defines threshold on the lightmap where settings for current area should be applied. Lightmap is taken as values of pixels from 0 (black) to 1 (white). Current area setup will work on pixels where light value is *above* the chosen threshold

Light Color - choose the main color for the current palette area

Light Secondary Color - choose secondary color as a background in case pattern is enabled for the current area

Enable Pattern for Light Area - allows to project texture in current area. Helps to simulate printing effect or to create a specific look of the scene

Light Texture Size - adjust pattern texture size

Light Pattern - choose texture for the pattern to be projected. Dots pattern is chosen by default

073 - Pop-Art - Mid Area

Mid Threshold - defines threshold on the lightmap where settings for current area should be applied. Lightmap is taken as values of pixels from 0 (black) to 1 (white). Current area setup will work on pixels where light value is *above* the chosen threshold

Mid Color - choose the main color for the current palette area

Mid Secondary Color - choose secondary color as a background in case pattern is enabled for the current area

Enable Pattern for Mid Area - allows to project texture in current area. Helps to simulate printing effect or to create a specific look of the scene

Mid Texture Size - adjust pattern texture size

Mid Pattern - choose texture for the pattern to be projected. Dots pattern is chosen by default

074 - Pop-Art - Dark Area

Dark Threshold - defines threshold on the lightmap where settings for current area should be applied. Lightmap is taken as values of pixels from 0 (black) to 1 (white). Current area setup will work on pixels where light value is *above* the chosen threshold

Dark Color - choose the main color for the current palette area

Dark Secondary Color - choose secondary color as a background in case pattern is enabled for the current area

Enable Pattern for Dark Area - allows to project texture in current area. Helps to simulate printing effect or to create a specific look of the scene

Dark Texture Size - adjust pattern texture size

Dark Pattern - choose texture for the pattern to be projected. Dots pattern is chosen by default

075 - Pop-Art - Darkest Area

Darkest Threshold - defines threshold on the lightmap where settings for current area should be applied. Lightmap is taken as values of pixels from 0 (black) to 1 (white). Current area setup will work on pixels where light value is *above* the chosen threshold

Darkest Color - choose the main color for the current palette area

Darkest Secondary Color - choose secondary color as a background in case pattern is enabled for the current area

Enable Pattern for Darkest Area - allows to project texture in current area. Helps to simulate printing effect or to create a specific look of the scene

Darkest Texture Size - adjust pattern texture size

Darkest Pattern - choose texture for the pattern to be projected. Dots pattern is chosen by default

076 - Pop-Art - Lightest CDB Area

Lightest CDB Threshold - defines threshold on the lightmap where settings for current area should be applied. Lightmap is taken as values of pixels from 0 (black) to 1 (white). Current area setup will work on pixels where light value is *above* the chosen threshold

Lightest CDB Color - choose the main color for the current palette area

Lightest CDB Secondary Color - choose secondary color as a background in case pattern is enabled for the current area

Enable Pattern for Lightest CDB Area - allows to project texture in current area. Helps to simulate printing effect or to create a specific look of the scene

Lightest CDB Texture Size - adjust pattern texture size

Lightest CDB Pattern - choose texture for the pattern to be projected. Dots pattern is chosen by default

077 - Pop-Art - Light CDB Area

Light CDB Threshold - defines threshold on the lightmap where settings for current area should be applied. Lightmap is taken as values of pixels from 0 (black) to 1 (white). Current area setup will work on pixels where light value is *above* the chosen threshold

Light CDB Color - choose the main color for the current palette area

Light CDB Secondary Color - choose secondary color as a background in case pattern is enabled for the current area

Enable Pattern for Light CDB Area - allows to project texture in current area. Helps to simulate printing effect or to create a specific look of the scene

Light CDB Texture Size - adjust pattern texture size

Light CDB Pattern - choose texture for the pattern to be projected. Dots pattern is chosen by default

078 - Pop-Art - Mid CDB Area

Mid CDB Threshold - defines threshold on the lightmap where settings for current area should be applied. Lightmap is taken as values of pixels from 0 (black) to 1 (white). Current area setup will work on pixels where light value is *above* the chosen threshold

Mid CDB Color - choose the main color for the current palette area

Mid CDB Secondary Color - choose secondary color as a background in case pattern is enabled for the current area

Enable Pattern for Mid CDB Area - allows to project texture in current area. Helps to simulate printing effect or to create a specific look of the scene

Mid CDB Texture Size - adjust pattern texture size

Mid CDB Pattern - choose texture for the pattern to be projected. Dots pattern is chosen by default

079 - Pop-Art - Dark CDB Area

Dark CDB Threshold - defines threshold on the lightmap where settings for current area should be applied. Lightmap is taken as values of pixels from 0 (black) to 1 (white). Current area setup will work on pixels where light value is *above* the chosen threshold

Dark CDB Color - choose the main color for the current palette area

Dark CDB Secondary Color - choose secondary color as a background in case pattern is enabled for the current area

Enable Pattern for Dark CDB Area - allows to project texture in current area. Helps to simulate printing effect or to create a specific look of the scene

Dark CDB Texture Size - adjust pattern texture size

Dark CDB Pattern - choose texture for the pattern to be projected. Dots pattern is chosen by default

0791 - Pop-Art - Darkest CDB Area

Darkest CDB Threshold - defines threshold on the lightmap where settings for current area should be applied. Lightmap is taken as values of pixels from 0 (black) to 1 (white). Current area setup will work on pixels where light value is *above* the chosen threshold

Darkest CDB Color - choose the main color for the current palette area

Darkest CDB Secondary Color - choose secondary color as a background in case pattern is enabled for the current area

Enable Pattern for Darkest CDB Area - allows to project texture in current area. Helps to simulate printing effect or to create a specific look of the scene

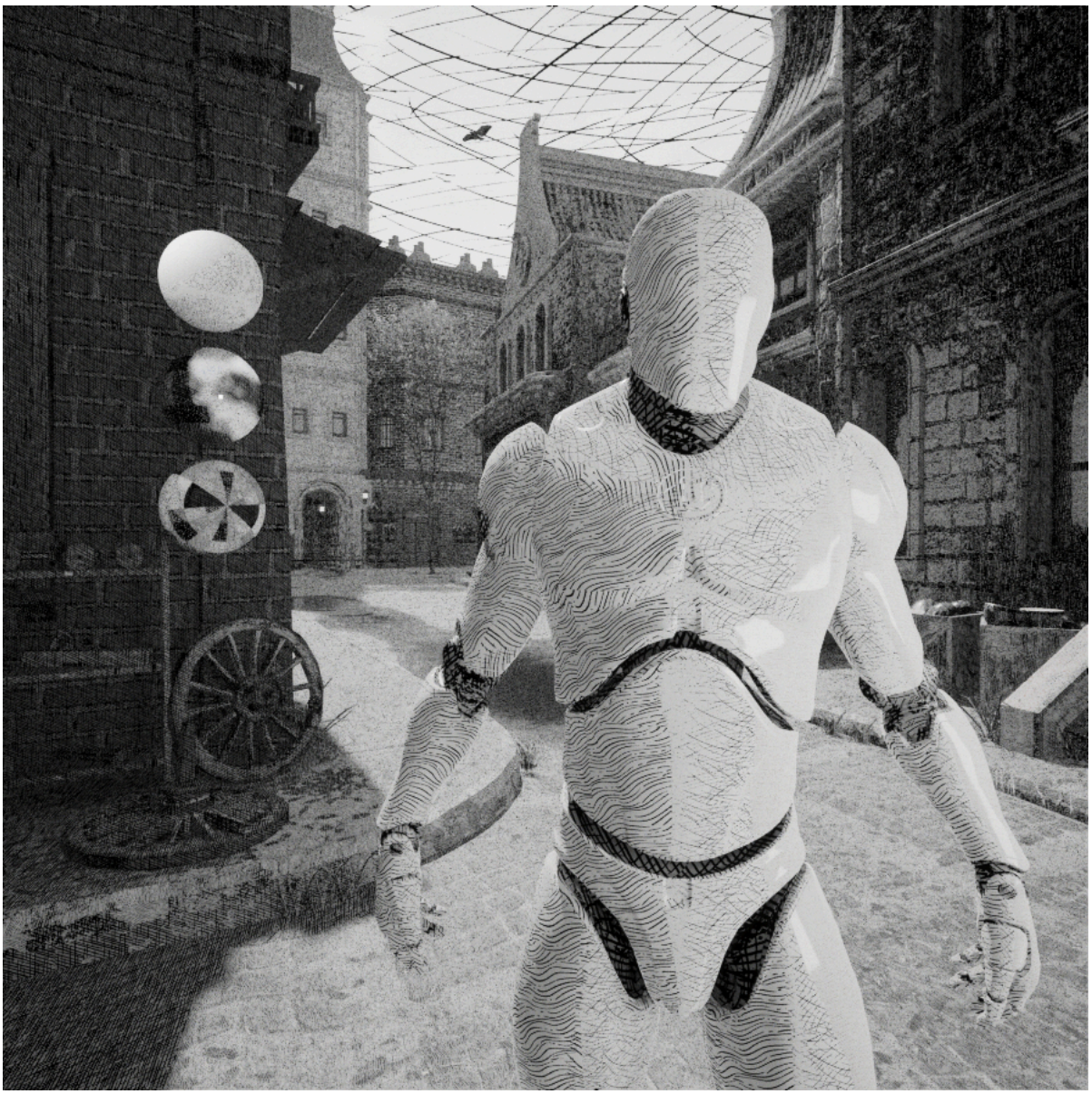
Darkest CDB Texture Size - adjust pattern texture size

Darkest CDB Pattern - choose texture for the pattern to be projected. Dots pattern is chosen by default

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08 - Sketch effect



Transform your project into a hand-drawn masterpiece with our Sketch Style Shader. This effect overlays your scene with various sketch patterns, replacing the original lightmap to create the appearance of pencil or ink sketches. You can choose to keep the image in black and white for a classic sketch look or retain the original colors within the patterns for a vibrant, artistic feel. Perfect for projects aiming to evoke the charm and spontaneity of hand-drawn illustrations, the Sketch Style Shader adds a unique, creative touch to your visuals, capturing the essence of traditional sketch artistry.

080 - Sketch - Settings

Enable Debug Mode - special mode made for balancing thresholds for the sketch pattern areas. When enabled, the picture is colored by areas, where sketch patterns will be applied. Red color stands for shadows, green - for semi-shadows, blue - for semi-highlights and black

- for highlights. Tune thresholds in the groups below in this mode to get a perfectly sketched picture. NB! Sky box is not affected here.

Enable Sky Debug Mode - same mode as previous, but made for the sky box only. Sky box uses a different setup of thresholds on areas because of the different projecting method. Debug colors are the same: red for shadows, green for semi-shadows, blue for semi-highlights and black for highlights. Parameter is available only when the SkyBox Pattern is enabled.

Main Contrast - adjust lightmap for the pattern projecting. This parameter is critically important for all the rest settings as the shader takes an image lightmap and splits it into 4 areas. Contrast adjustment allows to tweak balance between areas in case the original one does not give desired result. Default value is 1. Sky is not affected here.

Enable SkyBox Pattern - allows to project sketch patterns to the sky box separately from the main scene settings. When disabled - pure white color is used on the sky.

Sky Box Contrast - adjust lightmap for the pattern projecting on the sky box. This parameter is critically important for all the rest settings as the shader takes a sky box lightmap and splits it into 4 areas. Contrast adjustment allows to tweak balance between areas in case the original one does not give desired result. Default value is 1. Main scene is not affected here.

SkyBox Distance - defines distance where skybox settings will be applied. Helps to tune effect for the sky spheres of different sizes, works as a SceneDepth mask between the scene and everything else. Default value is 10^7, which is perfect for the sky sphere simulating Earth, for example, Ultra Dynamic Sky plugin. If you use smaller sky spheres (as in our preview map), SkyBox Distance might be much smaller.

Use Sky Solid Color - enable to use solid color for all the patterns on the sky. Disable to have patterns overlaid with the original sky color

Sky Pattern Color - choose the color for the sky patterns. Parameter is active when Sky Solid Color and SkyBox Pattern are enabled only.

Sky Overlay Intensity - adjust intensity of the original sky colors as an overlay on the sky patterns. Parameter is active when Sky Solid Color is disabled only.

Use Original Sky Lightmap - adds original shadows from the sky to the image. Helps to highlight volumetric clouds and create a feel of more realistic sky even when it’s painted by pencil

Original Sky Lights Contrast - tune contrast of the shadows and lights of the original sky lightmap. Parameter is active when Original Sky Lightmap is enabled only.

Sky Background Brightness - tune background brightness on the sky. Parameter is active when Original Sky Lightmap is disabled only.

Add Paper Color - enable simple tint on the whole image to simulate paper color

Paper Color - choose color for the image tint

Enable CustomDepth Buffer Mask - allows to manually include or exclude actors from applying the shader

NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option "Render CustomDepth Pass". All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually "Lit" is chosen there) => Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

Exclude Actors by Depth Mask - inverts mask so that all the actors in Custom Depth Buffer are excluded from the shader processing

082 - Sketch - Shadows

Shadows Threshold - balance current area threshold where it should be applied according to the lightmap. Lightmap is used as a pixel brightness value from 0 to 1, so the threshold should be in this range as well. Current area pattern will be applied on each pixel with the brightness value *below* the chosen threshold. This parameter is better to be used in the Debug Mode.

Shadows Contrast - adjust current area pattern contrast

Shadows Texture Size - change current area pattern texture size

Shadows Solid Color - enable to use solid color for the pattern, disable to have the pattern overlaid with the original image color

Shadows Color - choose a color for the current area pattern. Parameter is active when Solid Color is enabled only

Shadows Overlay Brightness - change overlay intensity in the current area pattern. Parameter is active when Solid Color is disabled only

Use Original Shadows - adds original lightmap in the current area. Helps to create a more realistic and solid look for the sketched image (hyper-realism style)

Original Shadows Contrast - adjust original lightmap contrast in the current area. Parameter is active when Original Shadows are enabled only

Shadows Background Brightness - tune background brightness in the current area. Parameter is active when Original Shadows are disabled only

082 - Sketch - Semi-Shadows

Semi-Shadows Threshold - balance current area threshold where it should be applied according to the lightmap. Lightmap is used as a pixel brightness value from 0 to 1, so the threshold should be in this range as well. Current area pattern will be applied on each pixel with the brightness value *below* the chosen threshold. This parameter is better to be used in the Debug Mode.

Semi-Shadows Contrast - adjust current area pattern contrast

Semi-Shadows Texture Size - change current area pattern texture size

Semi-Shadows Solid Color - enable to use solid color for the pattern, disable to have the pattern overlaid with the original image color

Semi-Shadows Color - choose a color for the current area pattern. Parameter is active when Solid Color is enabled only

Semi-Shadows Overlay Brightness - change overlay intensity in the current area pattern. Parameter is active when Solid Color is disabled only

Use Original Semi-Shadows - adds original lightmap in the current area. Helps to create a more realistic and solid look for the sketched image (hyper-realism style)

Original Semi-Shadows Contrast - adjust original lightmap contrast in the current area. Parameter is active when Original Shadows are enabled only

Semi-Shadows Background Brightness - tune background brightness in the current area. Parameter is active when Original Shadows are disabled only

083 - Sketch - Semi-Highlight

Semi-Highlight Threshold - balance current area threshold where it should be applied according to the lightmap. Lightmap is used as a pixel brightness value from 0 to 1, so the threshold should be in this range as well. Current area pattern will be applied on each pixel with the brightness value *below* the chosen threshold. This parameter is better to be used in the Debug Mode.

Semi-Highlight Contrast - adjust current area pattern contrast

Semi-Highlight Texture Size - change current area pattern texture size

Semi-Highlight Solid Color - enable to use solid color for the pattern, disable to have the pattern overlaid with the original image color

Semi-Highlight Color - choose a color for the current area pattern. Parameter is active when Solid Color is enabled only

Semi-Highlight Overlay Brightness - change overlay intensity in the current area pattern. Parameter is active when Solid Color is disabled only

Use Original Semi-Highlight - adds original lightmap in the current area. Helps to create a more realistic and solid look for the sketched image (hyper-realism style)

Original Semi-Highlight Contrast - adjust original lightmap contrast in the current area. Parameter is active when Original Shadows are enabled only

Semi-Highlight Background Brightness - tune background brightness in the current area. Parameter is active when Original Shadows are disabled only

084 - Sketch - Highlight

*Highlight area has no separate threshold to be chosen because it is applied to all the pixels whose brightness value on the lightmap is **above** other areas thresholds.*

Highlight Contrast - adjust current area pattern contrast

Highlight Texture Size - change current area pattern texture size

Highlight Solid Color - enable to use solid color for the pattern, disable to have the pattern overlaid with the original image color

Highlight Color - choose a color for the current area pattern. Parameter is active when Solid Color is enabled only

Highlight Overlay Brightness - change overlay intensity in the current area pattern. Parameter is active when Solid Color is disabled only

Use Original Highlight - adds original lightmap in the current area. Helps to create a more realistic and solid look for the sketched image (hyper-realism style)

Original Highlight Contrast - adjust original lightmap contrast in the current area. Parameter is active when Original Shadows are enabled only

Highlight Background Brightness - tune background brightness in the current area. Parameter is active when Original Shadows are disabled only

085 - Sketch - Sky Shadows

Sky Shadows Threshold - balance current sky area threshold where it should be applied according to the lightmap. Lightmap is used as a pixel brightness value from 0 to 1, so the threshold should be in this range as well. Current sky area pattern will be applied on each pixel with the brightness value *below* the chosen threshold. This parameter is better to be used in the Sky Debug Mode.

Sky Shadows Contrast - adjust current sky area pattern contrast

Sky Shadows Texture Size - change current sky area pattern texture size

086 - Sketch - Sky Semi-Shadows

Sky Semi-Shadows Threshold - balance current sky area threshold where it should be applied according to the lightmap. Lightmap is used as a pixel brightness value from 0 to 1, so the threshold should be in this range as well. Current sky area pattern will be applied on each pixel with the brightness value *below* the chosen threshold. This parameter is better to be used in the Sky Debug Mode.

Sky Semi-Shadows Contrast - adjust current sky area pattern contrast

Sky Semi-Shadows Texture Size - change current sky area pattern texture size

087 - Sketch - Sky Semi-Highlight

Sky Semi-Highlight Threshold - balance current sky area threshold where it should be applied according to the lightmap. Lightmap is used as a pixel brightness value from 0 to 1, so the threshold should be in this range as well. Current sky area pattern will be applied on each pixel with the brightness value *below* the chosen threshold. This parameter is better to be used in the Sky Debug Mode.

Sky Semi-Highlight Contrast - adjust current sky area pattern contrast

Sky Semi-Highlight Texture Size - change current sky area pattern texture size

088 - Sketch - Sky Highlight

*Sky highlight area has no separate threshold to be chosen because it is applied to all the pixels on the sky whose brightness value on the lightmap is **above** other areas thresholds.*

Sky Highlight Contrast - adjust current sky area pattern contrast

Sky Highlight Texture Size - change current sky area pattern texture size

089 - Sketch - Stroke

These parameters help to set up simple strokes in the scene. For better results a separate Outline shader is recommended to be used.

Use Sketch Stroke - enables stroke of all the objects in the scene

Use Sketch Stroke Overlay - when enabled, stroke is overlaid with processed image, when disabled - clear color is used

Sketch Stroke Color - choose color for the stroke

Sketch Stroke Threshold - defines threshold in pixels in the Scene Depth pass, where stroke should appear. Higher value leads to even the smallest edges to be outlined

Sketch Stroke Distance - defines distance limit where stroke shouldn't be applied

Sketch Stroke Thickness - setup stroke line thickness in pixels. Value below 1 will not work as the stroke cannot be thinner than 1 pixel on any screen

Sketch Stroke Opacity - changes opacity of the final stroke result

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09 - Impressionism effect



Immerse your project in the dreamy and expressive world of Impressionist art with our Impressionism Style Shader. This effect applies a distinctive brush pattern, softly blurs the image, and allows for customizable colorization to capture the essence of Impressionism. Perfect for projects aiming to convey emotion and movement, the Impressionism Style Shader transforms your visuals into vibrant, painterly scenes, reminiscent of masterpieces from the Impressionist era. Enhance your creative storytelling with this evocative and artistic shader, bringing a timeless, captivating quality to your work.

090 - Impressionism - Main Switchers

Enable Brush Overlay - adds brush pattern distortion to the image

Enable Blur - adds Gaussian blur to the image

Enable Stroke - adds simple stroke to the image

Enable Vignette - adds a simple vignette to the image. If a usual vignette with darker corners is needed, it's better to use native engine vignette from the post-process tools. This one is more expensive in performance, but allows to change color and shape of the vignette

Enable Cracks Pattern - adds cracks projected pattern to the scene

Enable Light Correction - adds lightmap correction options to the image. Might be used in case of very specific needs or when effect should be applied within a custom depth mask. In other cases native engine light correction is more effective in performance costs

Enable Color Correction - allows to colorize highlights and shadows in the image.

091 - Impressionism - Brush Pattern

Brush Size - change brush pattern size

Brush Softness - make brush pattern smoother by changing its intensity

Brush Opacity - change opacity for the image processed with the brush pattern

Brush Offset Radius - adjust dissolve radius of the brush pattern

Brush Desaturation - desaturate processed image before next passes

092 - Impressionism - Blur

Blur Radius - tune how strong the blur should be. Value defines distance of the sample pixels from the target pixel. Absolute values are used.

Blur Quality - change amount of iterations in the blur calculations. Bigger values result in better blur quality, but take more performance costs. Absolute values are used, values above 5 are not recommended

Blur Direction X - change blur direction by X axis (viewport coordinates are used)

Blur Direction Y- change blur direction by Y axis (viewport coordinates are used)

093 - Impressionism - Stroke

Use Stroke Overlay - when enabled, stroke is overlaid with processed image, when disabled - clear color is used

Stroke - Color - choose color for the stroke

Stroke - Threshold - defines threshold in pixels in the Scene Depth pass, where stroke should appear. Higher value leads to even the smallest edges to be outlined

Stroke - Distance - defines distance limit where stroke shouldn't be applied

Stroke - Thickness - setup stroke line thickness in pixels. Value below 1 will not work as the stroke cannot be thinner than 1 pixel on any screen

Stroke - Opacity - changes opacity of the final stroke result

094 - Impressionism - Vignette

Vignette - Color - change vignette color

Vignette - Size - change vignette size (calculates from the center of the viewport)

Vignette - Sharpness - adjust sharpness of the vignette gradient transition

Vignette - Brightness - change vignette brightness

095 - Impressionism - Cracks

Cracks - Color - adjust main color of the cracks

Cracks - Size - change cracks pattern size

Cracks - Intensity - setup cracks pattern intensity. It lerps with original image

Cracks - Opacity - change cracks opacity level

096 - Impressionism - Light Correction

Edit Light Equalizer - switches to the light correction mode., Equalizer takes lightmap with pixel brightness values from 0 to 1, splits it into 10 channels with 0.1 step and allows to add/subtract values for each channel.

Highlights Edit - adjust brightness of the highlight tones. Active when equalizer is disabled

Darks Edit - adjust brightness of the dark tones. Active when equalizer is disabled

Highlights Edit - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

- **+5** - add/subtract brightness value for the pixel on the lightmap in 0.9-1.0 range
- **+4** - add/subtract brightness value for the pixel on the lightmap in 0.8-0.9 range
- **+3** - add/subtract brightness value for the pixel on the lightmap in 0.7-0.8 range

Midtones Edit - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

- **+2** - add/subtract brightness value for the pixel on the lightmap in 0.6-0.7 range
- **+1** - add/subtract brightness value for the pixel on the lightmap in 0.5-0.6 range
- **-1** - add/subtract brightness value for the pixel on the lightmap in 0.4-0.5 range
- **-2** - add/subtract brightness value for the pixel on the lightmap in 0.3-0.4 range

Shadows Edit - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

- **-3** - add/subtract brightness value for the pixel on the lightmap in 0.2-0.3 range
- **-4** - add/subtract brightness value for the pixel on the lightmap in 0.1-0.2 range
- **-5** - add/subtract brightness value for the pixel on the lightmap in 0.0-0.1 range

097 - Impressionism - Color Correction

Tint - Highlights - choose color tint for the highlights

Tint - Shadows - choose color tint for the shadows

Tint - Balance - adjust balance between shadows and brightness

Tint - Opacity - change tinted image layer opacity

Tint - Saturation - change tinted image layer saturation

098 - Impressionism - Custom Depth Mask

NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option "Render CustomDepth Pass". All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually "Lit" is chosen there) => Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

Enable CustomDepth Mask - allows to manually include or exclude actors from applying the shader

Remove Actors by CD Mask - inverts mask so that all the actors in Custom Depth Buffer are excluded from the shader processing

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10 - Renaissance effect



Step back in time and bring the grandeur of classical art to your project with our Renaissance Style Shader. This versatile shader adds a specific brush pattern, subtly blurs the image, applies a Look-Up Table (LUT) for authentic color grading, and introduces the delicate cracks of old paintings. Perfect for projects seeking to evoke the timeless beauty and sophistication of Renaissance masterpieces, this shader enhances your visuals with a rich, historic texture. Transform your scenes into works of art with the Renaissance Style Shader, capturing the elegance and depth of a bygone era.

100 - Renaissance - Main Switchers

Use Color Correction - allows to colorize highlights and shadows in the image or apply a LUT colorization

Use Light Correction - adds lightmap correction options to the image. Might be used in case of very specific needs or when effect should be applied within a custom depth mask. In other cases native engine light correction is more effective in performance costs

Use Brush Pattern - adds brush pattern distortion to the image

Use Cracks Pattern - adds cracks projected pattern to the scene

Use Stroke - adds simple stroke to the image

Use Vignette - adds a simple vignette to the image. If a usual vignette with darker corners is needed, it's better to use native engine vignette from the post-process tools. This one is more expensive in performance, but allows to change color and shape of the vignette

101 - Renaissance - Blur

Enable Blur Debug Mask - use to calibrate blur strength on the distance

Distance Scale - defines max distance for the blur strength modulation. At the chosen distance Background Blur Tune parameter will become active

Distance Threshold - choose threshold in the Depth Pass (pixel value from 0 to 1) where blur should be disabled

Foreground Blur Tune - choose blur strength multiplier for objects close to the camera

Background Blur Tune - choose blur strength multiplier for objects far from the camera

Blur Controls - usual blur controls. Radius defines main blur strength before the modulation settings will be applied

- **Radius** - tune how strong the blur should be. Value defines distance of the sample pixels from the target pixel. Absolute values are used.
- **Quality** - change amount of iterations in the blur calculations. Bigger values result in better blur quality, but take more performance costs. Absolute values are used, values above 5 are not recommended
- **Direction X** - change blur direction by X axis (viewport coordinates are used)
- **Direction Y**- change blur direction by Y axis (viewport coordinates are used)

102 - Renaissance - Light Correction

Enable Light Equalizer - switches to the light correction mode., Equalizer takes lightmap with pixel brightness values from 0 to 1, splits it into 10 channels with 0.1 step and allows to add/subtract values for each channel.

Highlights Tune - adjust brightness of the highlight tones. Active when equalizer is disabled

Darks Tune - adjust brightness of the dark tones. Active when equalizer is disabled

Overall Brightness - change overall image brightness. Active when equalizer is disabled

Highlights Edit - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

- **+5** - add/subtract brightness value for the pixel on the lightmap in 0.9-1.0 range
- **+4** - add/subtract brightness value for the pixel on the lightmap in 0.8-0.9 range
- **+3** - add/subtract brightness value for the pixel on the lightmap in 0.7-0.8 range

Midtones Edit - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

- **+2** - add/subtract brightness value for the pixel on the lightmap in 0.6-0.7 range
- **+1** - add/subtract brightness value for the pixel on the lightmap in 0.5-0.6 range
- **-1** - add/subtract brightness value for the pixel on the lightmap in 0.4-0.5 range
- **-2** - add/subtract brightness value for the pixel on the lightmap in 0.3-0.4 range

Shadows Edit - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

- **-3** - add/subtract brightness value for the pixel on the lightmap in 0.2-0.3 range
- **-4** - add/subtract brightness value for the pixel on the lightmap in 0.1-0.2 range
- **-5** - add/subtract brightness value for the pixel on the lightmap in 0.0-0.1 range

103 - Renaissance - Color Correction

Use Predefined LUT - enable color correction by Look Up Table. In this shader a volumetric texture is used as a LUT sample, and it cannot be changed from material instance. To change the LUT sample open material function *10_MF_Renaissance_Output* and find a code part called *LUT Processing*. There, in the *Texture Sample*, you might change LUT texture. NB! Do not try to turn the *Texture Sample* node to the *Texture Parameter*! If you want to change LUT Sample, change your texture *Mip Gen Settings* to *NoMipBias*, set tile size the same as the amount of color squares on your texture, and choose the correct Compression Method. In current shader LUT textures are compressed as *HDR (RGBA16F, no sRGB)*, but your samples might require different compression.

LUT Color Opacity - adjust image opacity after LUT was applied

Highlight Tint - choose color tint for the highlights

Darks Tint - choose color tint for the shadows

Tint Balance - adjust balance between shadows and brightness

Tint Opacity - change tinted image layer opacity

Saturation - change tinted image layer saturation

104 - Renaissance - Brush Stroke

Brush Color - choose color for the brush distortion pattern

Brush Size - adjust brush pattern size

Brush Strength - define strength of the brush distortion

Brush Intensity - adjust intensity of the distorted image

105 - Renaissance - Cracks Pattern

Pattern Color - adjust main color of the cracks

Pattern Size - change cracks pattern size

Cracks Intensity - setup cracks pattern intensity. It lerps with original image

Cracks Opacity - change cracks opacity level

106 - Renaissance - Stroke

Overlay Stroke - when enabled, stroke is overlaid with processed image, when disabled - clear color is used

Stroke Color - choose color for the stroke

Stroke Threshold - defines threshold in pixels in the Scene Depth pass, where stroke should appear. Higher value leads to even the smallest edges to be outlined

Stroke Distance - defines distance limit where stroke shouldn’t be applied

Stroke Thickness - setup stroke line thickness in pixels. Value below 1 will not work as the stroke cannot be thinner than 1 pixel on any screen

Stroke Opacity - changes opacity of the final stroke result

107 - Renaissance - Vignette

Vignette Color - change vignette color

Size - change vignette size (calculates from the center of the viewport)

Sharpness - adjust sharpness of the vignette gradient transition

Vignette Brightness - change vignette brightness

108 - Renaissance - Custom Depth Mask

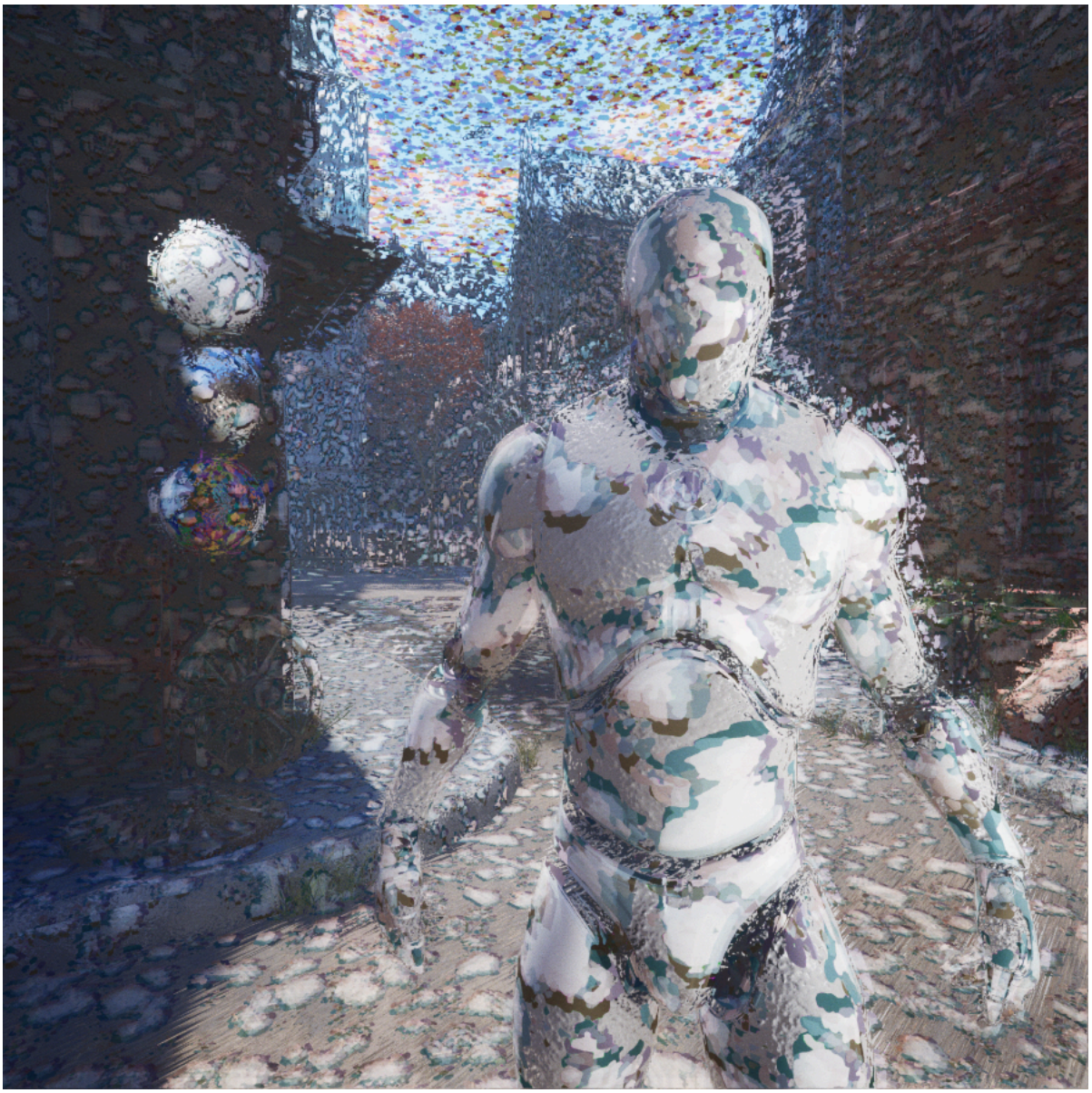
NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option "Render CustomDepth Pass". All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually "Lit" is chosen there) => Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

Enable Custom_Depth Mask - allows to manually include or exclude actors from applying the shader

Exclude Actors by CD Mask - inverts mask so that all the actors in Custom Depth Buffer are excluded from the shader processing

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11 - Pointillism effect



Bring the unique and vibrant technique of Pointillism to your project with our Pointillism Style Shader. This effect dissolves the image into dozens of brush-shaped dots, creating a dynamic and textured visual experience. You can customize the color tint for each set of dots and adjust their spread, allowing for intricate and colorful compositions. Perfect for projects aiming to replicate the detailed and lively style of Pointillism art, this shader adds a playful and artistic touch to your visuals, transforming them into captivating, dot-filled masterpieces.

110 - Pointillism - Main Switchers

Enable Pointillism Pattern - stylize image with the points distortion pattern. Shader takes 6 directions to distort the main scene and 3 directions additionally to distort the sky box. Each direction has a separate color tint to achieve a pointillism effect.

Enable Brightness Correction - adds lightmap correction options to the image. Might be used in case of very specific needs or when effect should be applied within a custom depth mask. In other cases native engine light correction is more effective in performance costs

Edit Colors - allows to colorize highlights and shadows in the image or apply a LUT colorization

111 - Pointillism - Dots Pattern

Brush Pattern Size - define the size for the brush pattern

Brush Pattern Strength - adjust strength of the brush pattern

Enable Distance Modulation for Color Dots - allows to change color pattern size in dynamic according to the distance from the camera. When disabled - Color Pattern Size Max is taken as a static value

Color Pattern Distance - define distance where min value should be applied

Color Pattern Size Min - choose density of the pattern at the max distance

Color Pattern Size Max - choose density of the pattern close to the camera

Enable Distance Modulation in Mask Offset - allows to change mask offset in dynamic according to the distance from the camera. Mask is used in linear interpolation between distorted by 6 directions and tinted image and original image with the brush pattern applied

Offset Distance - define distance where min value should be applied

Offset Min - choose density of the pattern mask at the max distance

Offset Max - choose density of the pattern mask close to the camera

Pattern Threshold - define threshold in the mask where pattern should be applied

Color 1 - choose 1st color tint for the dots pattern on the scene

Color 2 - choose 2nd color tint for the dots pattern on the scene

Color 3 - choose 3rd color tint for the dots pattern on the scene

Color 4 - choose 4th color tint for the dots pattern on the scene

Color 5 - choose 5th color tint for the dots pattern on the scene

Color 6 - choose 6th color tint for the dots pattern on the scene

112 - Pointillism - Sky Pattern

Enable Pattern on Skybox - adds points pattern to the skybox. When disabled - original render is used for the sky

Sky Sphere Distance - defines distance where skybox settings will be applied. Helps to tune effect for the sky spheres of different sizes, works as a SceneDepth mask between the scene and everything else. Default value is 10^7, which is perfect for the sky sphere simulating Earth, for example, Ultra Dynamic Sky plugin. If you use smaller sky spheres (as in our preview map), SkyBox Distance might be much smaller.

Sky Mask Size - defines mask pattern size on the sky. Mask is used in linear interpolation between distorted by 3 directions and tinted image and original render of the sky

Sky Mask Offset Radius - defines offset of the mask in each direction

Sky Mask Threshold - choose threshold where mask on the sky should be applied

Sky Color 1 - choose 1st color tint for the sky pattern

Sky Color 2 - choose 2nd color tint for the sky pattern

Sky Color 3 - choose 3rd color tint for the sky pattern

113 - Pointillism - Brightness Correction

Edit Light Channels - switches to the light correction mode. Equalizer takes lightmap with pixel brightness values from 0 to 1, splits it into 10 channels with 0.1 step and allows to add/subtract values for each channel.

Highlights Adjust - tune brightness of the highlight tones. Active when equalizer is disabled

Darks Adjust - tune brightness of the dark tones. Active when equalizer is disabled

Highlights Channels - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

+5 - add/subtract brightness value for the pixel on the lightmap in 0.9-1.0 range
+4 - add/subtract brightness value for the pixel on the lightmap in 0.8-0.9 range
+3 - add/subtract brightness value for the pixel on the lightmap in 0.7-0.8 range

Midtones Channels - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

+2 - add/subtract brightness value for the pixel on the lightmap in 0.6-0.7 range
+1 - add/subtract brightness value for the pixel on the lightmap in 0.5-0.6 range
-1 - add/subtract brightness value for the pixel on the lightmap in 0.4-0.5 range
-2 - add/subtract brightness value for the pixel on the lightmap in 0.3-0.4 range

Shadows Channels - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

-3 - add/subtract brightness value for the pixel on the lightmap in 0.2-0.3 range
-4 - add/subtract brightness value for the pixel on the lightmap in 0.1-0.2 range
-5 - add/subtract brightness value for the pixel on the lightmap in 0.0-0.1 range

114 - Pointillism - Color Correction

Use Predefined LUT - enable color correction by Look Up Table. In this shader a volumetric texture is used as a LUT sample, and it cannot be changed from material instance. To change the LUT sample open material function *10_MF_Renaissance_Output* and find a code part called *LUT Processing*. There, in the *Texture Sample*, you might change LUT texture. NB! Do not try to turn the *Texture Sample* node to the *Texture Parameter*! If you want to change LUT Sample, change your texture *Mip Gen Settings* to *NoMipBias*, set tile size the same as the amount of color squares on your texture, and choose the correct Compression Method. In current shader LUT textures are compressed as *HDR (RGBA16F, no sRGB)*, but your samples might require different compression.

LUT Color Opacity - adjust image opacity after LUT was applied

Highlight Tint - choose color tint for the highlights

Darks Tint - choose color tint for the shadows

Tint Balance - adjust balance between shadows and brightness

Tint Opacity - change tinted image layer opacity

Saturation - change tinted image layer saturation

115 - Pointillism - Custom Depth Mask

NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option "Render CustomDepth Pass". All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually "Lit" is chosen there) => Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

Enable CD Mask - allows to manually include or exclude actors from applying the shader

Exclude Actors with CD Mask - inverts mask so that all the actors in Custom Depth Buffer are excluded from the shader processing

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12 - Eastern Art effect



Infuse your project with the serene and elegant aesthetics of Eastern art using our Eastern Art Style Shader. This effect softly blurs the unlit scene, reintroduces simplified lighting, outlines objects with delicate strokes, and alters the color palette to reflect traditional Eastern artistry. Perfect for projects aiming to capture the timeless beauty and minimalistic charm of Eastern art, this shader transforms your visuals into graceful and harmonious compositions, evoking the spirit and tranquility of classic Eastern paintings.

120 - Eastern Art - Main Switchers

Enable Brush Simulation - use brush effect on the image. When disabled - clear unlit scene goes to the next passes

Setup Brightness Correction - adjust brightness by channels. As shader uses unlit version of the scene, this correction takes dark and bright pixels regardless of the original lightmap

Adjust Color Correction - tune colors on the processed image

Add Shadows - enable to add tints to the highlights and shadows areas on the image. Original lightmap is used as a mask for this overlay

Setup Stroke - add simple stroke to the image

121 - Eastern Art - Brush Simulation

Brush Simulation Strength - set up how strong brush simulations should be. Values above 3 are not recommended, absolute values are used.

Simulation Opacity - adjust opacity of the brush simulation on the image

122 - Eastern Art - Brightness Correction

Tune Light Equalizer - switches to the light correction mode., Equalizer takes an unlit image with pixel brightness values from 0 to 1, splits it into 10 channels with 0.1 step and allows to add/subtract values for each channel.

Decrease Highlights - adjust brightness of the highlight tones. Active when equalizer is disabled

Increase Darks - adjust brightness of the dark tones. Active when equalizer is disabled

Common Brightness - change overall image brightness. Active when equalizer is disabled

Edit Highlights - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

- **+5** - add/subtract brightness value for the pixel on the lightmap in 0.9-1.0 range
- **+4** - add/subtract brightness value for the pixel on the lightmap in 0.8-0.9 range
- **+3** - add/subtract brightness value for the pixel on the lightmap in 0.7-0.8 range

Edit Midtones - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

- **+2** - add/subtract brightness value for the pixel on the lightmap in 0.6-0.7 range
- **+1** - add/subtract brightness value for the pixel on the lightmap in 0.5-0.6 range
- **-1** - add/subtract brightness value for the pixel on the lightmap in 0.4-0.5 range
- **-2** - add/subtract brightness value for the pixel on the lightmap in 0.3-0.4 range

Edit Shadows - channels are splitted with 0.1 step in the pixel brightness value. Parameter is active when Light Equalizer is enabled

- **-3** - add/subtract brightness value for the pixel on the lightmap in 0.2-0.3 range
- **-4** - add/subtract brightness value for the pixel on the lightmap in 0.1-0.2 range
- **-5** - add/subtract brightness value for the pixel on the lightmap in 0.0-0.1 range

123 - Eastern Art - Color Correction

Color Edits - adjust final image after processing to get the desired look

- **Hue** - setup tone hue of the processed image
- **Saturation** - setup saturation of the processed image
- **Brightness** - setup brightness of the processed image
- **Contrast** - setup contrast of the processed image

124 - Eastern Art - Shadows

Shadows - Threshold - defines threshold where all dark areas become 0 and all bright areas become 1. Original lightmap is used here to create a mask for the color tinting

Shadows - Smoothness - adjust gradient transition between dark and bright areas

Highlights - Color - choose color tint for the highlights

Shadows - Color - choose color tint for the shadows

125 - Eastern Art - Stroke

These parameters help to set up simple strokes in the scene. For better results a separate Outline shader is recommended to be used.

Enable Overlay Stroke - when enabled, stroke is overlaid with processed image, when disabled - clear color is used

Stroke Color - choose color for the stroke

Stroke Threshold - defines threshold in pixels in the Scene Depth pass, where stroke should appear. Higher value leads to even the smallest edges to be outlined

Stroke Distance - defines distance limit where stroke shouldn’t be applied

Stroke Thickness - setup stroke line thickness in pixels. Value below 1 will not work as the stroke cannot be thinner than 1 pixel on any screen

Stroke Opacity - changes opacity of the final stroke result

126 - Eastern Art - Custom Depth Mask

NB! Custom Depth option allows to exclude the whole scene from post-processing with chosen effect, except certain actors in the scene. To use this feature you need to choose an actor on the level and enable the option "Render CustomDepth Pass". All the actors with this option enabled will have post-process effect applied. You can also easily check what is included into CustomDepth Pass in editor: View Mode (Usually "Lit" is chosen there) => Buffer Visualization => CustomDepth. Note that Custom Depth Buffer is a part of Custom Stencil Buffer array with an index of 0.

Enable CDB Mask - allows to manually include or exclude actors from applying the shader

Exclude Actors with CD Mask - inverts mask so that all the actors in Custom Depth Buffer are excluded from the shader processing

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Material Functions Description

Custom Material Functions

MF_CompareCustomDepth - compares Custom Depth value between 2 pixels

MF_DetectEdges_Normal - detects edges for the kernel pixels by WorldNormal pass

MF_DetectEdgesDepth - detects edges for the kernel pixels by SceneDepth pass

MF_GetKernel - returns 4 pixels value around target pixel

MF_Mask_CustomDepth - filters image to add stroke to object in the Custom Depth buffer

MF_MaskDepth - creates mask on the objects by taking the min value from the Scene Depth kernel pixels

MF_NoiseMask - projects noise texture to the scene and creates mask from it

MF_ParallelAngleFilter - prevents stroke to become a solid plane when the surface and camera angles are almost parallel

MF_Thickness_Modulation - changes stroke thickness based on the Scene Depth data

MF_CustomDepthMask - creates a mask for the objects in the Custom Depth Buffer

MF_DistanceMask - changes input value based on the distance from camera

MF_HSV_Adjustments - allows to edit image per channel in HSV format

MF_Simple Outline - makes primitive outline on the objects in the viewport based on the SceneDepth pass

MF_UVDistanceScale - scales input values by distance, allows to return UV vector or scalar value

MF_WorldAlignedTexture - projects input texture to the scene in the viewport based on the WorldNormal pass. Sky box is not affected here.

MF_BlurCollectionDither - adds temporal dither to the blur calculations

MF_GaussianBlur - blurs input image by the Gaussian blur algorithm

MF_CompareDeviation - compares pre-calculated standard deviation in sample areas

MF_GetAreaKernel9 - returns 9 pixels value in 4 areas around target pixel

MF_GetArithMeanOf9 - returns arithmetical mean of 9 input arguments

MF_GetLightMap - gets lightmap from the final render image. V value is taken from the HSV format

MF_GetRGBImage - simple way to get final render image in the RGB format (3-channels output)

MF_StandardDeviationOf9 - calculates standard deviation of 9 input arguments

MF_LightTune - splits brightness value from the HSV vector into 10 channels with 0.1 step and allows to edit each channel

MF_SimpleColorTint - allows to multiple original image with 2 tints, splitted by bright and dark areas

MF_SimpleLightTune - changes brightness value in the HSV vector by lerping 2 input arguments

MF_Vignette - adds vignette to the image and allows to tune it

MF_PointsDissolve - projects points pattern to the scene and adds UV offset to it. Returns processed image and mask for it

MF_GetUnlitScene - gets BaseColor pass as it is stored in the GBuffer. Similar to the Unlit view in the editor

MF_RGBtoHSV - converts image from RGB colorspace to HSV

MF_HSVtoRGB - converts image from HSV colorspace to RGB

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Engine Functions Dependencies

Here is the list of all engine native functions, which were used in Artistic Post-Process Pack shaders, including basic and simple as Add, Subtract and so on. That might be needed if you made changes in the engine source code and shaders are not working as expected. If you didn't edit engine source code, skip this part.

Add	Saturate
Subtract	BreakOutFloat3Components
Multiply	MakeFloat3
Divide	CheapContrast_RGB
Power	Ceil
Abs	Floor
Frac	Round
Mask	Clamp
Lerp	Append
If	Sqrt

OneMinus	SmoothStep
Step	Desaturation
Distance	SmoothCurve
Min	Switch
Max	

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Statistics

Development and testing time: 10 months

Shaders: 12

Unique materials: 13

Material instances: 13

Custom material functions: 44

Parameters: 556

Textures: 16

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Credits

All the shaders in the Artistic Post Process Pack are developed and tested by Igor Bogdanov and Igor Pushkar. Code changes are allowed after purchase. Code sharing with third parties without purchasing the pack on their side is prohibited. All rights reserved.

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Changelog

v1.3 - UE 5.2-5.7

Watercolor (+2 parameters)
- Changed watercolor texture overlay method for a more physically realistic rendering
- Fixed bug with missing paper texture on a sky

Cartoon (+6 parameters)
- Fixed bug with incorrect colors in Subsurface material domain
- Fixed bug with missing sky in the processed image
- Changed lightmap extraction method for more accurate rendering
- Added lightmap simplification for the better light/shadow edge calculation (Enhanced Effect, LightMap Blur Radius, LightMap Blur Quality)
- Added switchers for the scene and sky box - now effect can be disabled separately (Scene tone, Sky Tone).
- Added Sky Sphere Radius parameter to adjust effect areas edge from the Material Instance
- Removed unused code

Comicbook (+2 parameters)
- Added opacity parameters for both patterns (Lines Pattern Opacity; Dots Pattern Opacity)

v1.2 - UE 5.2-5.4

Outline (+14 parameters)
- added animation functionality for the noise mask - vertical panning and XY axis shaking
- added height mask for the noise mask - now noise mask output might be lerped with clear render or usual outline output by the pixel world position by Z axis

Sketch and Pointillism
- added parameter to define the distance where the sky pattern should be applied. Helps to tune effect for the different sizes of the sky sphere.

All shaders
- fixed functions' references across all the shaders in pack

v1.1 - UE 5.2-5.4

Cartoon
- fixed issue with black meshes on the distance from camera above 1000 units
- fixed issue with static skybox sphere mesh, when effect wasn't applied to it

Watercolor

- changed pattern contrast adjustment method, now dark parts might be clamped creating much softer picture
- pattern contrast settings are working independently now for the scene and for the skybox

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Contact us

If you have any questions related to the Artistic Post-Process Pack usage, reach us on Epic's forum.In your request, please, try to describe the issue as detailed as you can, also, any screenshots or videos will be appreciated.

Thank you for choosing our shaders to elevate your projects! You are the best! :)

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