

CHROMA KEY KIT 2.0 MANUAL

ChromaKeyKit delivers a background removal feature with a wide range of chroma key color options. Asset contains MultiShaderKit(MSK) components that allows to apply additional shaders to established in material. Also using tools of chroma, blur and mask you will be able to make sequence of shaders, each of which is applied to result of previous. It enables you to achieve the best results.

MSK CONTROLLER

MSKController - consistently applies shaders of MSKComponents to source material. Shaders will be applied in that order in which they are in the array "components".

CHROMA KEY COMPONENTS

MSKComponent - sets values to it's shader properties. Shaders for components are duplicated with BlendMode Off, for correct render.

ChromaKey_Alpha_Simple (MSKComponent)

KeyColor - Color that will be transparent on the result;
DChroma - Chroma difference in Color between Key and Source;
DChromaT - Chroma tolerance;
ChromaKeyShader - Set MSK/ChromaKey/BlendOff/ChromaKey_Alpha_Simple;

ChromaKey_Alpha_General (MSKComponent)

KeyColor - Color that will be transparent on the result;
DChroma - Chroma difference in Color between Key and Source;
DChromaT - Chroma tolerance;
DLuma - Luma difference in Color between Key and Source;
DLumaT - Luma tolerance;
ChromaKeyShader - Set MSK/ChromaKey/BlendOff/ChromaKey_Alpha_General;

ChromaKey_BgColor (MSKComponent)

BgColor - Color that will be placed instead of KeyColor;
KeyColor - Color that will be BgColor on the result;
DChroma - Chroma difference in Color between Key and Source;
DChromaT - Chroma tolerance;
Chroma - Result chroma of color: closer to Source(0) -> closer to Bg(1);
Luma - Result luma of color: closer to Source(0) -> closer to Bg(1);
Saturation - Result saturation of color: closer to 0(0) -> closer to result chroma(1);
Alpha - Result alpha of BgColor;
ChromaKeyShader - Set MSK/ChromaKey/BlendOff/ChromaKey_BgColor;

ChromaKey_BgTextureColor (MSKComponent)

BgTex - Texture that will be placed instead of KeyColor;
KeyColor - Color that will be BgTex on the result;
DChroma - Chroma difference in Color between Key and Source;
DChromaT - Chroma tolerance;
Chroma - Result chroma of color: closer to Source(0) -> closer to Bg(1);

Luma - Result luma of color: closer to Source(0) -> closer to Bg(1);

Saturation - Result saturation of color: closer to 0(0) -> closer to result chroma(1);

Alpha - Result alpha of BgTexture;

ChromaKeyShader - Set MSK/ChromaKey/BlendOff/ChromaKey_BgTex;

BLUR COMPONENTS

Blur_Simple (MSKComponent)

BlurXY - The spread by X and Y (X = Y) used when filtering the image;

BlurShader - Set one of the shaders in this section MSK/Blur/BlendOff... ;

Blur_General (MSKComponent)

BlurX - The spread by X used when filtering the image;

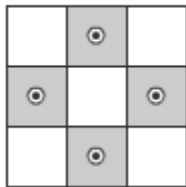
BlurY - The spread by Y used when filtering the image;

BlurIterations - The number of times the filter operations will be repeated (Low value = faster);

BlurShader - Set one of the shaders in this section MSK/Blur/BlendOff... ;

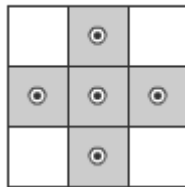
Blur shaders:

SPREAD DIRECTION



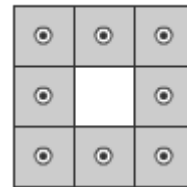
Blur_010-101-010.shader

SPREAD DIRECTION



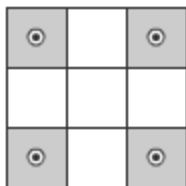
Blur_010-111-010.shader

SPREAD DIRECTION



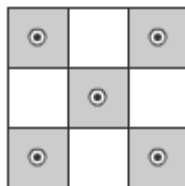
Blur_111-101-111.shader

SPREAD DIRECTION



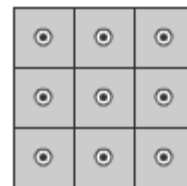
Blur_101-000-101.shader

SPREAD DIRECTION



Blur_101-010-101.shader

SPREAD DIRECTION



Blur_111-111-111.shader

MASK COMPONENTS

MaskAlpha_Simple (MSKComponent)

MaskShader - Set MSK/Mask/BlendOff/MaskAlpha_Simple;

Mask Alpha_General (MSKComponent)

AlphaPow - Pow of alpha value;

MaskShader - Set MSK/Mask/BlendOff/MaskAlpha_General;

MaskAlpha_Expert (MSKComponent)

AlphaEdge - Alpha gradient edge;

AlphaPow - Alpha power;

MaskShader - Set MSK/Mask/BlendOff/MaskAlpha_Expert;

FILTER COMPONENTS

FilterHSBC (MSKComponent)

BaseColor - Color multiplier;

TintColor - Color tint;

Hue - Color hue(0 -> 360);

Saturation - Color saturation;

Brightness - Color brightness;

Contrast - Color contrast;

FilterShader - Set MSK/Filter/BlendOff/FilterHSBC;

USAGE

CONNECTION

Shader only

The fastest way is to use one of **ChromaKey_Alpha_** shaders ("**ChromaKey_Alpha_Simple**", "**ChromaKey_Alpha_General**", ...) to material. It will behave like unlit with chromaKey properties.

MSK Bridges

To connect MSKController to texture source, use MSK bridges. By default, the Asset contains **MSKBridgeVideoPlayer** for **VideoPlayer** component and **MSKBridgeWebCamPlayer** for **WebCamPlayer** component. You can create your own bridges, using the methods to get the texture from your source, and the MSKController's methods:

SetSourceTexture(Texture texture) – use when the texture instance reference changes;

RenderIn() – use for one render iteration into own texture and return it;

RenderOut(RenderTexture rt) – use for one render iteration into **rt**;

KEY COLOR → ALPHA / BACKGROUND

In difference from ChromaKey_Alpha, background components changes key color to background color. It well is suitable for images in which there are transparent objects, fine details, etc.:

Background Color



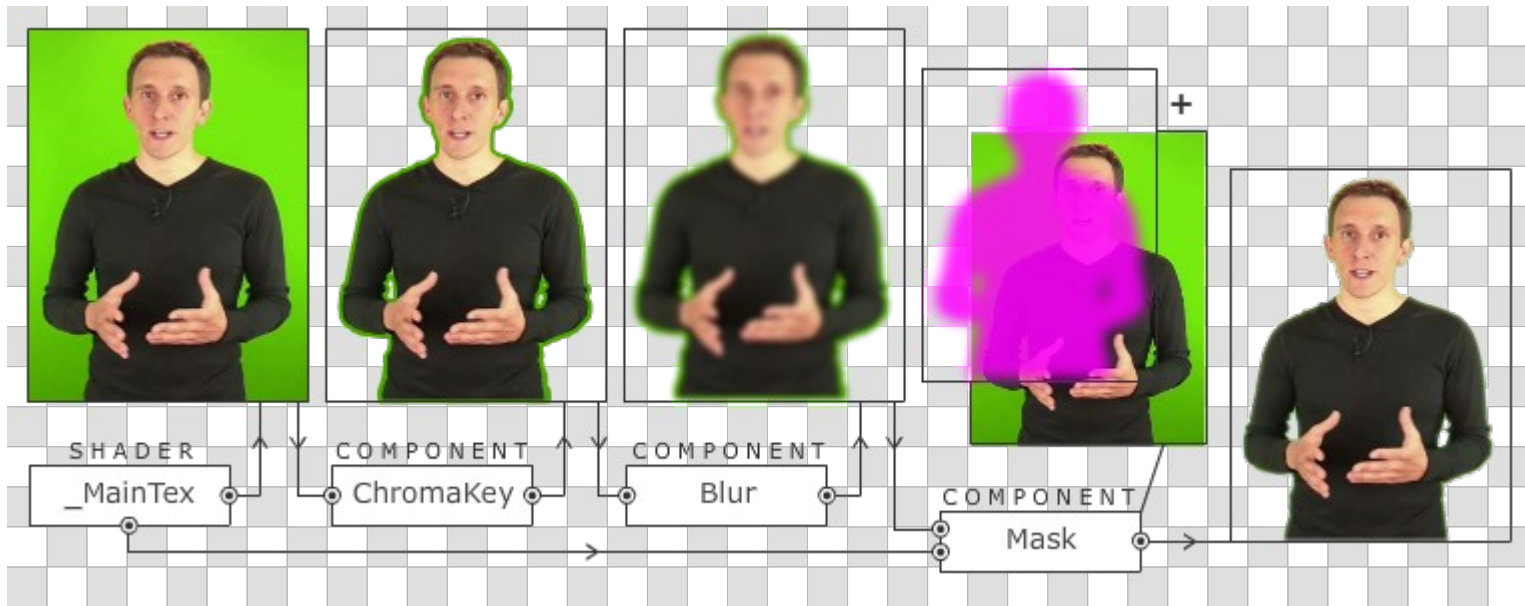
Background Texture



Use the corresponding shaders or binding MSKController + **ChromaKey_Bg_** component ("**ChromaKey_BgColor**" or "**ChromaKey_BgTexture**").

Best quality

Use a sequence of components:

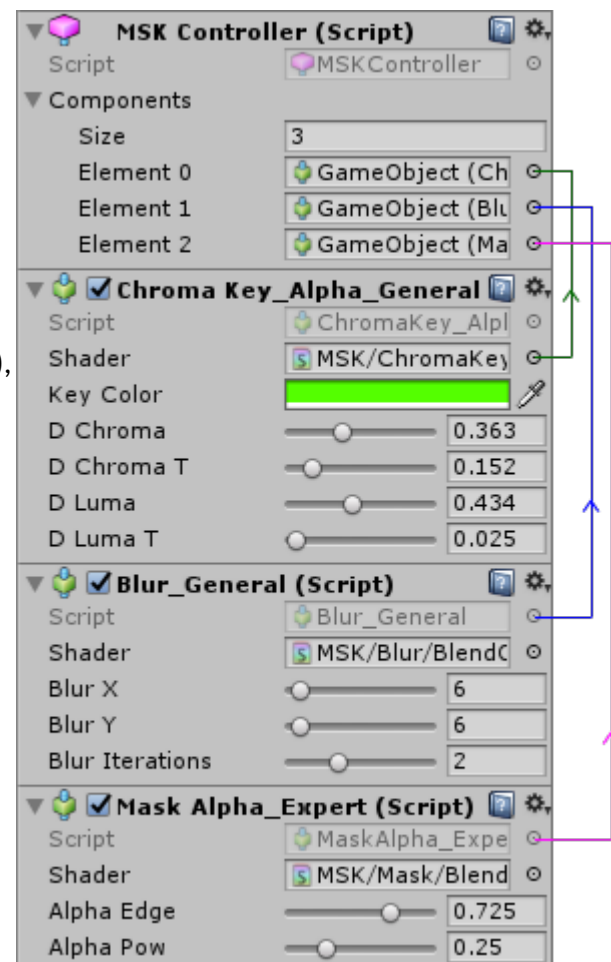


– add to your GameObject **MSKController**
set ComponentsSize to 3;

– add to your GameObject **ChromaKey_Alpha_** component
("ChromaKey_Alpha_Simple" or "ChromaKey_Alpha_General"),
put it in MSKController in components at 1st position;

– add to your GameObject **Blur_** component
("Blur_Simple" or "Blur_General"),
set corresponding shader,
put it in MSKController in components at 2nd position;

– add to your GameObject **MaskAlpha_** component
("MaskAlpha_Simple" or "MaskAlpha_General" or
"MaskAlpha_Expert"),
put it in MSKController in components at 3d position;



You can also use prefabs "**Renderer-VideoPlayer-ChromaKey**" or "**ChromaKey-Blur-Mask**".

In this case, you can select any shader to the used material.

SUPPORT

Contact

If you have any comments, questions, or issues, please email me at nexweron@gmail.com.