HLS Noise Ino

Add pixel noise to the Hue, Lightness, Saturation, and Alpha.
The addition of noise adjustment to the cell picture, has been developed for the purpose of adapting the picture of the background.

The Alpha channel will determine the strength of the noise. Therefore, smooth edges will remain smooth.
The strength of the Alpha channel itself will also affect noise, check the value.

When you check the results, please do not use the sub-camera.
This is because in the sub-camera the range of the input image is different, the noise pattern will change.

--- Inputs ---

Source

Connect the image to process.

Reference

Connect the reference image to put the strength of the effect into each Pixel.

--- Settings ---

Hue

Specify the strength of the noise for the color (Hue).
Pixel value (8 or 16bits) specified as a value from 1 to 0.
Minimum value is 0, maximum value is 1.
It does not apply the noise to the color (Hue) when the value is 0.
The default value is 0.025.

Lightness

Specify the strength of the noise for the brightness (Lightness).
Pixel value (8 or 16bits) specified as a value from 1 to 0.
Minimum value is 0, maximum value is 1.
It does not apply the noise to the brightness (Lightness) when the value is 0.
The default value is 0.035.

Saturation

Specify the strength of the noise for the chroma (Saturation).
Pixel value (8 or 16bits) specified as a value from 1 to 0.
Minimum value is 0, maximum value is 1.
It does not apply the noise for the chroma (Saturation) when the value is 0.
The default value is 0.0.

Alpha

Specify the strength of the noise for the Alpha channel.
Pixel value (8 or 16bits) specified as a value from 1 to 0.
Minimum value is 0, maximum value is 1.
It does not apply the noise to the Alpha channel when the value is 0.
The default value is 0.0.

Seed

The value of the order to determine the random noise pattern of the image.
Specify an integer value greater than or equal to 0.
If this value is the same, it will reproduce the same pattern.
It will be a different pattern If you add the noise with a different value.
The default value is 1.

NBlur

It blurs the noise component, reduces the dot impression.
Minimum value is 0, maximum value is 1.
Because it is calculated only in pixels adjacent to the dot,
it will feel like a very light blur.
When the blur value is not 0, it will take the average of the pixels adjacent
to each other up to a value of 1.0.
The default value is 1.

Limits

The brightness (Lightness), chroma (Saturation), opacity (Alpha),
adjustment to effect the end value (in the vicinity of 0 to 1).
Applying the noise at 0 or near 1, will appear below 1 or more than the value of 0,
so it can not be expressed, because the values are each truncated to 0 or 1.
It is effective to compensate for the truncation.
--> "End value of Noise effect adjustment　Figure 1　comparison" reference
--> "End value of Noise effect adjustment　Figure 2　description" reference

Effective

Determines the strength of this effect (Limits).
It has no effect if the value is 0. Effect a table using a value greater than 0
A value of 1 will have the strongest effect.
The default value is 0.

Center

Determines the center of the effect.
Noise range deviation, the effect of the reduction of the noise width, most strongly
at the portion of 0 to 1 of the end value, will have no effect in the center.

Position the center value without this effect.
The value must be between 0 and 1.
If the value is 0, it will have no effect on a Pixel with a value of 0.
If the value is 1, it will have no effect on a Pixel with a value of 1.
The default Center value is 0.5.

Type

Select from the options of the Type of the effect.
If you select "Keep Noise", it maintains the (overall) noise width shifting of the noise range, the contrast of the entire image will shrink.
If you select "Keep Contrast", it maintains the contrast to reduce the noise width only at the end.
The default setting is "Keep Noise".

Premultiplied

If ON, RGB is already set to Premultiply
(The value of Alpha channel is multiplied in advance RGB channels)
and processes as an image.
At that time, and added to the Alpha processing, you may not get the correct image.
The default setting is ON.

Reference

Choose how Reference image values put the strength of the effect into each Pixel.
An image is connected to the "Reference" of the input,
Choose from Red/Green/Blue/Alpha/Luminance/Nothing.
Choose Nothing when you do not want this effect, it will turn off the connection.
The default value is Red.

Figure 1 Noise effect comparison of the values

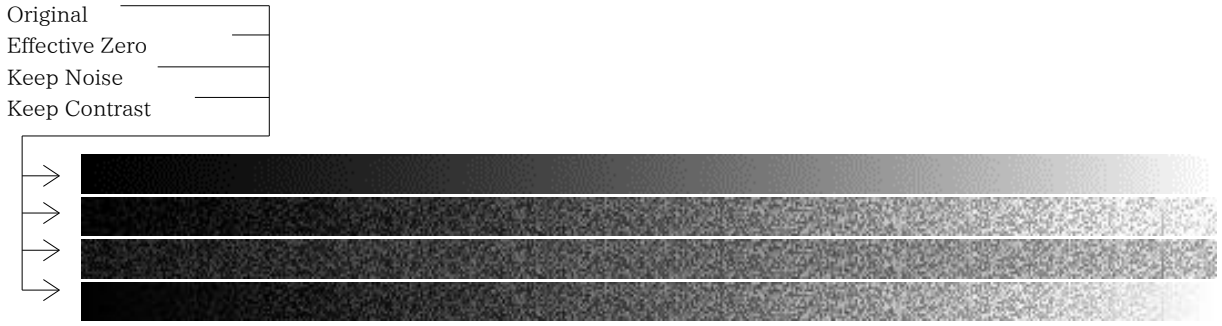
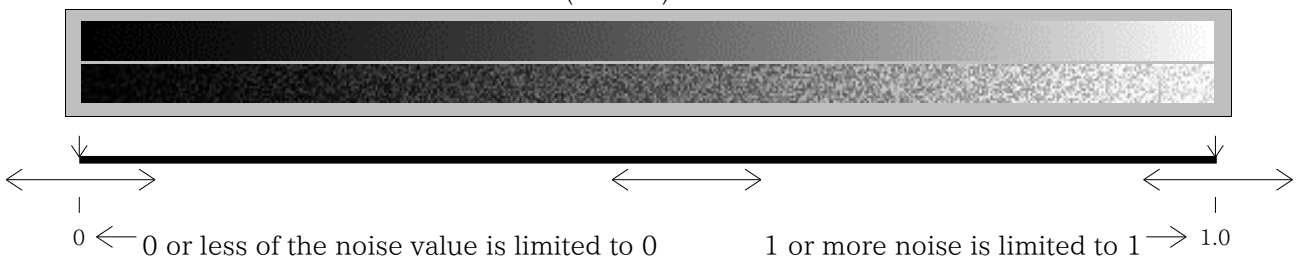
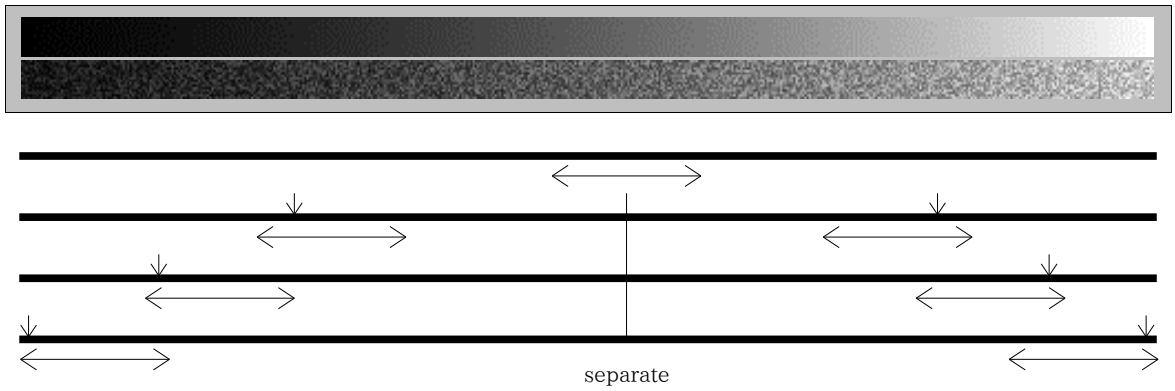


Figure 2 Noise range change illustration of the values

Effective Zero　The value of the noise is cut (default)



Keep Noise　Shift to maintain the noise. Contrast is reduced. It shifts the overall noise position



Keep Contrast　Reduce the noise width. Maintain the contrast. Noise width is reduced only at the end