# Map Value Node

Map Value node is used to scale, offset and clamp values.

## Inputs

**Value**

Standard Value input. (Value refers to each vector in the set.)

## Properties

**Offset**

Factor added to the input value.

**Size**

Scales (multiply) the input value.

**Use Minimum, Maximum**

Enable this to activate their related operation.

**Min, Max**

Defines a range between minimum and maximum to Clamp the input value to.
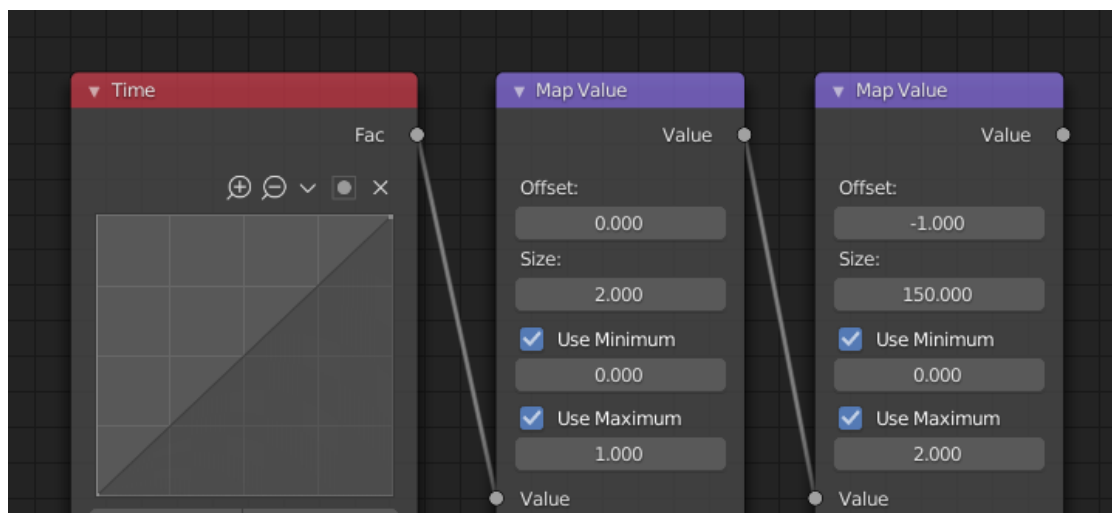
## Outputs

**Value**

Standard value output.

## Example

### Z-Depth Map

This is particularly useful in achieving a depth of field effect, where the Map Value node is used to map a Z value (which can be 20 or 30 or even 500 depending on the scene) to the range between (0 to 1), suitable for connecting to a Blur node.

### Multiplying Values

The Map Value node can also be used to multiply values to achieve a desired output value. In the mini-map to the right, the Time node outputs a value between 0.0 and 1.0 evenly scaled over 30 frames. The *first* Map Value node multiplies the input by 2, resulting in an output value that scales from 0.0 t 2.0 over 30 frames. The *second* Map Value node subtracts 1 from the input, giving working values between (-1.00 to 1.0), and multiplies that by 150, resulting in an output value between (-150 to 150) over a 30-frame sequence.

Using Map Value to multiply.