

# PxrDispVectorLayer

This pattern layers the input vector displacement patterns.

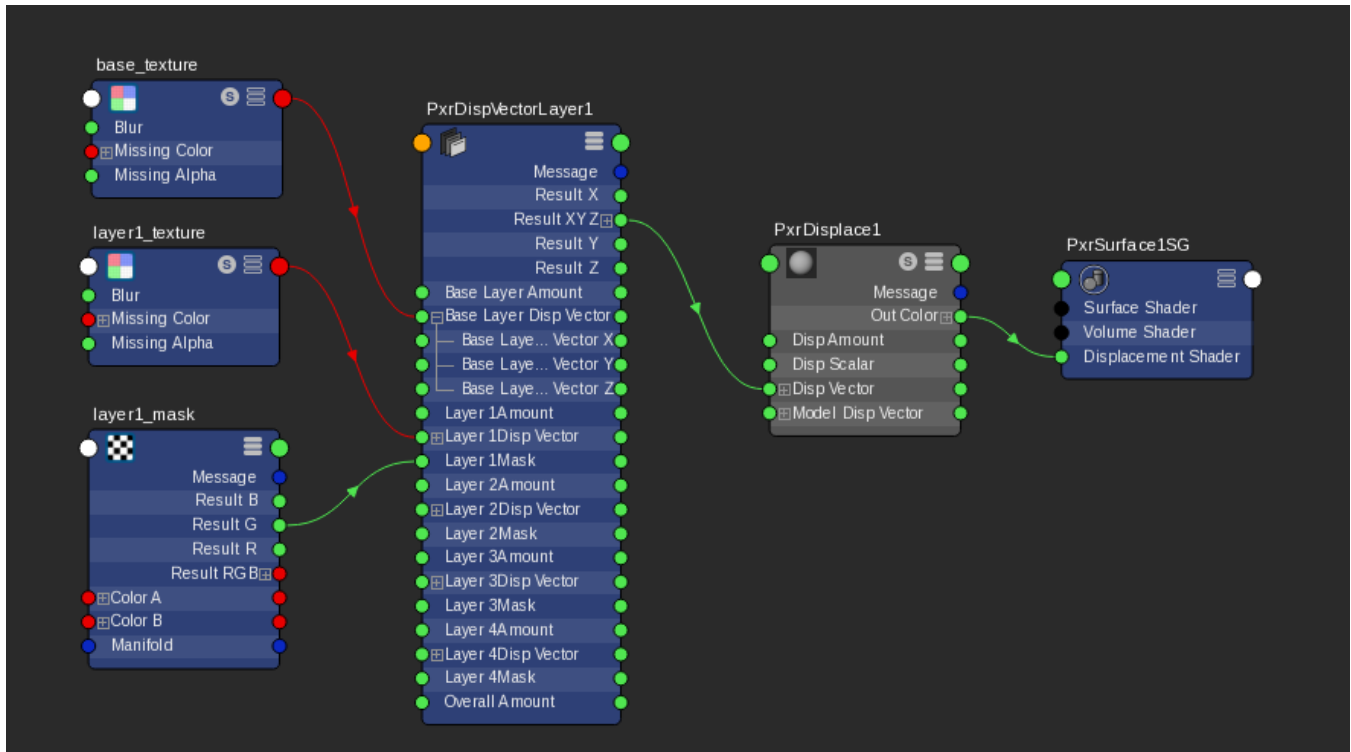
Each PxrDispVectorLayer supports up to 5 layers. To use more than 5 layers, we could connect the result of one PxrDispVectorLayer node to the input of another PxrDispVectorLayer node.



If you need more than 5 layers, connect the result of one PxrDispVectorLayer node to the input of another PxrDispVectorLayer node.



We need to connect the result to the input of PxrDisplace's Vector Displacement in order to displace the geometry.



## Input Parameters

### Overall Gain

Controls the gain of the final layered vector displacement result. This is handy when we want to globally adjust the amount of all layered displacement values. Each layer's gain is being multiplied by this parameter.

### Base Layer

#### Enabled

By default, the base layer is enabled. But say we need to debug, we can disable the base layer by unchecking this parameter. If it is unchecked, the base layer will be skipped for layering.

#### Base Layer Gain

Gain for the base layer.

#### Base Layer Vector

Connection to the vector displacement pattern. It can be any pattern's output a vector or color result such as resultXYZ or resultRGB.

## Layer1

## Enabled

If checked, layer 1 is enabled.

## Layer 1 Gain

Gain for the layer 1.

## Layer 1 Vector

Connection to the vector displacement. It can be any pattern's output a vector or color result such as resultXYZ or resultRGB.

## Layer 1 Mask

Mask for this layer 1. Values closer to zero will apply less of this layer.

## Layer 1 Operation

Choose how this layer's displacement combines with the base layer.

- 1: Add - adds each vector component of layer 1 to the base layer.
- 2: Over - composites each vector component of layer 1 on top of the base layer.
- 3: Multiply - multiplies each vector component of layer 1 with the base layer.
- 4: Average - returns the average of each vector component between layer 1 and the base layer.
- 5: Min - returns the minimum of each vector component between layer 1 and the base layer.
- 6: Max - returns the maximum of each vector component between layer 1 and the base layer.

## Layer2

### Enabled

If checked, layer 2 is enabled.

### Layer 2 Gain

Gain for the layer 2.

### Layer 2 Vector

Connection to the vector displacement. It can be any patterns that output a vector or color result such as resultXYZ or resultRGB.

### Layer 2 Mask

Mask for this layer 2. Values closer to zero will apply less of this layer.

### Layer 2 Operation

Choose how this layer's displacement combines with the previous layer. If the layer 1 is not enabled, it will combine with the result of the base layer.

- 1: Add - adds each vector component of layer 2 to layer 1.
- 2: Over - composites each vector component of layer 2 on top of layer 1.
- 3: Multiply - multiplies each vector component of layer 2 with layer 1.
- 4: Average - returns the average each vector component of between layer 2 and layer 1.
- 5: Min - returns the minimum each vector component of between layer 2 and layer 1.
- 6: Max - returns the maximum each vector component of between layer 2 and layer 1.

## Layer 3 to 4

Similar parameters to Layer 2.

## Output Parameters

### resultXYZ

The vector result.

### resultX

The X component from the resultXYZ output.

### resultY

The Y component from the resultXYZ output.

**resultZ**

The Z component from the resultXYZ output.