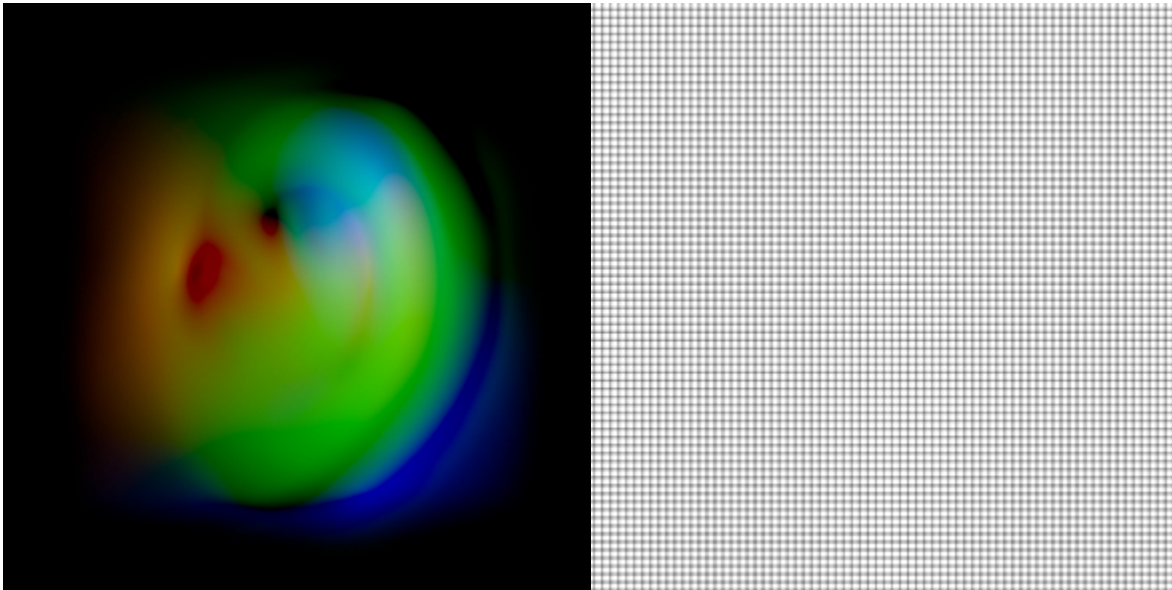


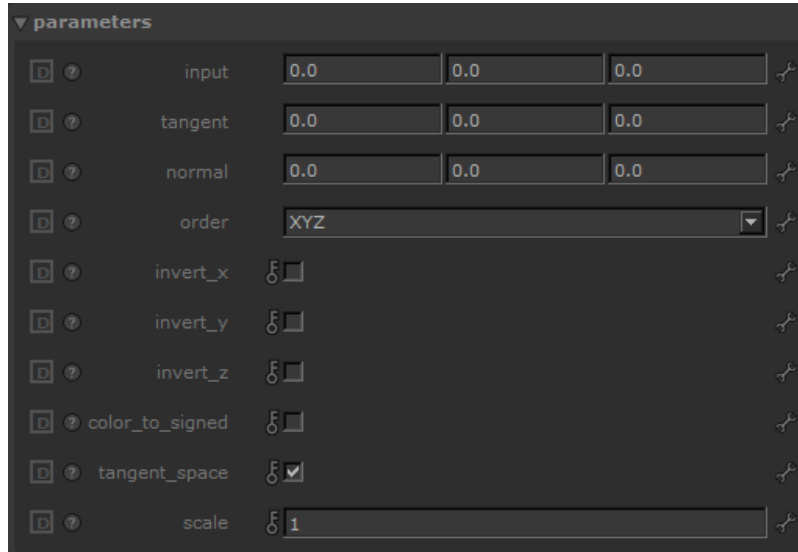
Vector Map



Ear tangent space vector displacement map from Mudbox

Polygon plane displaced with ear vector displacement map

Traditional displacement maps are not used for any surface change that is not perpendicular to the base mesh's polygons. Vector displacement maps can displace in directions other than the face normal, which is much more flexible. Vector displacement uses the color channels that specify a vector in a certain space to displace the vertices of the geometry in that direction and magnitude.



Input

The map, usually exported from Mudbox or ZBrush.

Tangent

The tangent map. Together with the shading normal, it defines the tangent coordinate system that the input vector applies to. If available from your sculpting tool, you should connect here the tangent map that the normal map relies on. If 0, the shader attempts the following actions to build the frame:

1. Look for vector user data named "tangent" and "bitangent".
2. Use the UV derivatives.
3. Build its own local frame.



The shader works in tangent space only. If your tangent map was exported in either world or object space, you can instead use the more generic `space_transform` shader.

Normal

The normal and tangent parameters can be optionally linked to define a custom tangent coordinate system that the input is transformed from. If the normal is not linked, it will use the default surface normal.

Order

Lets you shuffle the input channels order.

Invert X

If enabled, inverts (1-channel) the x input channel.

Invert Y

If enabled, inverts (1-channel) the y input channel.

Invert Z

If enabled, inverts (1-channel) the z input channel.

Color to Signed

For 8-bit maps. If enabled, the input is remapped to the $[-1, 1]$ range.



The default values of these parameters (*Order*, *Invert*, *Color To Signed*) let you correctly import a map generated in Mudbox in tangent coordinate space.

Tangent Space

Specifies if the input is in world space or tangent space.

Scale

Scales the result vector.