



# Nodes **PGMVC Capture surface node**

Positive General Mean Value Coordinate capture node, adds attributes require by the PGMVC deform surface node

This node will capture geometry using a closed capture cage of arbitrary topology. The cage should completely enclose the geometry to be captured and be as simple as possible using the fewest number of points possible. The geometry to be captured can be placed anywhere inside the cage and the weights assigned will mean that when it is deformed with the PGMVC deform surface node it will maintain its relative position to the deforming cage.

## Usage

Simply wire the geometry you wish to deform into the first input and the control cage into the second input.

### Note

The control cage must be completely closed, it can be any shape but don't have parts that overlap itself.

## Parameters

Samples	The higher the number the more samples are sent from each geometry point to be captured. These samples are used to calculate the weight attributes at each point. High numbers mean greater accuracy but will take longer to calculate. If you are getting good deformations with low numbers don't turn it up.
Tolerance	Intended for use with the sparse option. Any weight below this value will be set to 0, When sparse is selected this will have the effect of reducing the number of stored weights. As the tolerance value is increased the accuracy of the final deformation will reduce. This value should be tuned whilst looking at the final deformation and set just below the value where the lost of accuracy becomes too noticeable.

Sparse	The number of weight attributes created will match the number of points in the capture cage, hence the need to keep it as simple as possible. However in complex situations many of the weights will in fact be zero, turning on Sparse attributes will remove the need for these zero values to be stored, and can therefore greatly reduce the memory usage. Performance will be very slightly higher with this option off so it is a slight tradeoff between memory and performance.
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### Tip

Start with low sample frequency values and only increase this number if the quality of the capture is not good.

## Usages in other examples

Example name   Example for

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