Raycast Node

The *Raycast* node intersects rays from one geometry onto another. The source geometry is defined by the context of the node that the *Raycast* node is connected to. Each ray computes hit points on the target mesh and outputs normals, distances and any surface attribute specified.

Inputs

Target Geometry

Geometry that rays are tested against.

Attribute

An optional field input evaluated on the *Target Geometry* that will be interpolated at the hit points. The resulting values are outputted with the *Attribute* output.

Source Position

The position from where to start each ray. By default, this is the same as if the Position Node was connected.

Ray Direction

Direction of each ray from the starting position. The field is evaluated on the geometry from the context of the field evaluation, not the *Target Geometry*.

Ray Length

Maximum distance a ray can travel before being considered “no hit”.

Properties

Mapping

How attributes of the target mesh are mapped to the attribute values on the result geometry.

Interpolated:

Vertex and corner attributes are interpolated smoothly, with a bilinear function.

Nearest:

Choose the value of the closest vertex without interpolating.

Outputs

Is Hit

Boolean output that is true for each ray which has hit the *Target Geometry*.

Hit Position

The location of the intersection point with the target mesh.

Hit Normal

The surface Normal vector at the hit location.

Hit Distance

The distance from the *Source Position* to the *Hit Position*. If the ray does not hit, the *Ray Length* is returned.

Attribute

Interpolated values of the *Attribute* input sampled at the *Hit Position*.