



## 12.1.40 Editors - Geometry Nodes Editor - Header - Add Menu - Utilities - Rotation

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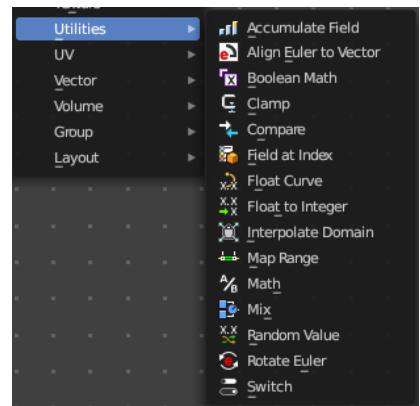
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## Add menu - Utilities

Utility nodes are mainly for mathematical operations.



## Align Euler to Vector

Aligns a euler value to a vector.

### Inputs

#### *Rotation*

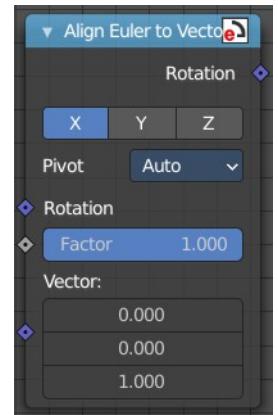
The input euler rotation vector.

#### *Factor*

The factor to align the euler value to the vector.

#### *Vector*

The vector to align to.



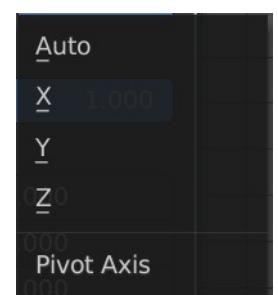
## Properties

### *Align Axis*

To which axis to align the vector.

### *Pivot*

The pivot axis.

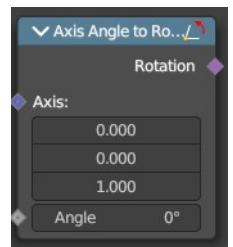


## Output

### ***Rotation***

The output rotation euler angle.

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## Axis Angle to Rotation

Converts an axis angle to a rotation.

### Inputs

#### ***Axis***

The input axis.

#### ***Angle***

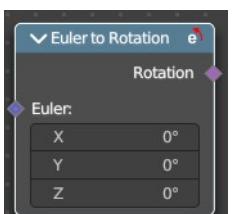
The input angle.

## Output

### ***Rotation***

The output rotation value.

---



## Euler to Rotation

Converts an euler angle to a rotation.

### Inputs

#### ***Euler***

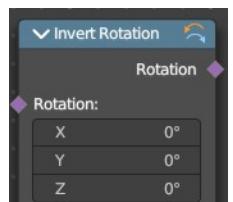
The input euler angle vector.

## Output

### ***Rotation***

The output rotation value.

---



## Invert Rotation

Inverts a rotation

## Inputs

### ***Rotation***

The input rotation vector.

## Output

### ***Rotation***

The output rotation value.

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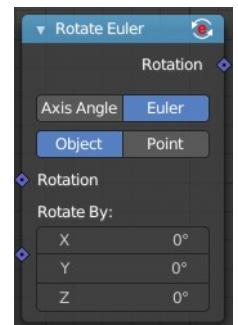
## Rotate Euler

Rotates an euler rotation.

## Inputs

### ***Rotation***

Use the rotation of an existing geometry.



### ***Rotate By***

The input rotation.

## Properties

### ***Rotate Type***

#### **Axis Angle**

Rotate around an axis by an angle.

#### **Euler**

Rotate around the x, y and z axis.

### ***Rotate Space***

#### **Object**

Rotate points in the local space of the object.

#### **Point**

Rotate every point in its local space.

## Outputs

### ***Rotation***

The euler angle output.

---

## Rotate Vector

Rotates a vector.

### Inputs

#### *Vector*

The input vector.

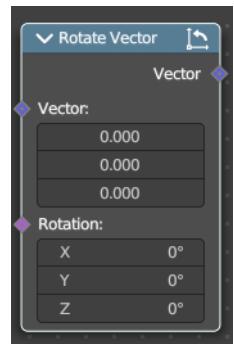
#### *Rotation*

The input rotation.

### Output

#### *Rotation*

The output rotation value.



## Rotate Vector

Rotates a vector.

### Inputs

#### *Vector*

The input vector.

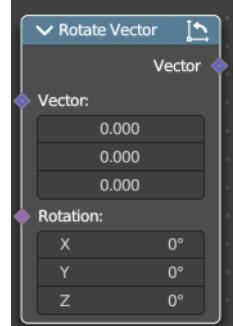
#### *Rotation*

The input rotation.

### Output

#### *Rotation*

The output rotation value.



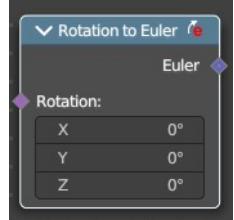
## Rotation to Euler

Converts a rotation vector to euler angle.

### Inputs

#### *Rotation*

The input rotation.



## Output

### *Euler*

The output euler angle.

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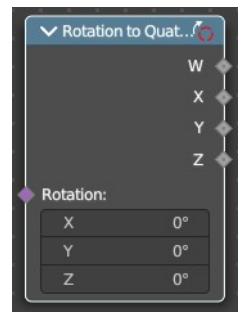
## Rotation to Quaternion

Converts a rotation vector to a quaternion.

### Inputs

#### *Rotation*

The input rotation.



### Output

#### *W, X, Y, Z*

The single output values of the quaternion.

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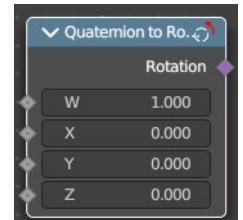
## Quaternion

Converts a rotation vector to a quaternion.

### Inputs

#### *W, X, Y, Z*

The single input values of the quaternion.



### Output

#### *Rotation*

The output rotation.