

# PxrBumpManifold2D

This node allows artists to place patterns using a 2D solution that typically relies on UVs provided by the artist. You may transform the resulting placement (translate, rotate, etc) or repeat the pattern using the controls below. This node also provides the correct useful derivatives needed for bump mapping.

## Input Parameters

### Center

Transformations are centered here

### Angle

Rotation angle around origin.

### Scale S

Frequency of a feature in the S direction.

### Scale T

Frequency of a feature in the T direction.

### Offset S

Offset from the origin in the S direction.

### Offset T

Offset from the origin in the T direction.

### Invert T

Flip the manifold in the T direction.

### PrimVar S/ST

Name of custom 1D S or 2D ST primvar.

### PrimVar T

Name of custom 1D T primvar.

### uvSet

Default is ST

## Output Parameters

### result

The 2D manifold.

### resultS

A float representation of the S component of the manifold.

### resultT

A float representation of the T component of the manifold.