

# PxrVariable

Allows GPrim primitive variables (primvars) to be delivered through pattern graphs. This can be used in place of [PxrPrimvar](#)

## Input Parameters

### Variable Name

The name of the primitive variable. If none are selected, you should complete the field for "PrimVar" in the UI to specify your own selection.

Options may include:

- Shading position ( $P$ )
- Undisplaced position ( $P_0$ )
- Shading normal ( $N_n$ )
- Geometric normal ( $N_{gn}$ )
- Undisplaced normal ( $N_{0n}$ )
- Shading tangent ( $T_n$ )
- Normalized view vector ( $V_n$ )
- Length of view vector ( $V_{Len}$ )
- Surface mean curvature ( $curvature$ )
- Surface curvature in U direction ( $curvature_u$ )
- Surface curvature in V direction ( $curvature_v$ )
- Ray Spread ( $incidentRaySpread$ )
- Ray Radius ( $incidentRayRadius$ )
- Micropolygon radius ( $PRadius$ )
- Micropolygon size ( $mpSize$ )
- Reflection Bias ( $biasR$ )
- Transmission ( $biasT$ )
- Surface U ( $u$ )
- Surface V ( $v$ )
- Surface W ( $w$ )
- Surface UV ( $uv$ )
- Surface UVW ( $uvw$ )
- Ray footprint U ( $du$ )
- Ray footprint V ( $dv$ )
- Ray footprint W ( $dw$ )
- Ray footprint UV ( $duv$ )
- Ray footprint UVW ( $duvw$ )
- Surface derivative U ( $dPdu$ )
- Surface derivative V ( $dPdv$ )
- Surface derivative W ( $dPdW$ )
- Velocity ( $dPdtime$ )
- Time ( $time$ )
- Outside IOR ( $outsideIOR$ )
- Opacity ( $oi$ )
- Forward Motion ( $motionFore$ )
- Backward Motion ( $motionBack$ )

### Variable Type

The type of the primitive variable, this must match the type you've chosen as the Variable:

- float
- float2
- color
- point
- vector
- normal

### Coordinate System

By default, the shader uses the current coordinate system. Possible coordinate systems include *world*, *object*, or a *user-defined* coordinate system.

## Output Parameters

### result RGB

The result as a color.

### result F

The result as a float.

**result F3**

The result as three floats.