

RiDeclare Variables

The following variables are pre-declared:

```
Declare "__CPUTime" "uniform float"
Declare "Ci" "varying color"
Declare "Clipping" "uniform float[2]"
Declare "ClippingPlane" "uniform float[6]"
Declare "CoordinateSystem" "uniform string"
Declare "CropWindow" "uniform float[4]"
Declare "Cs" "varying color"
Declare "DepthOfField" "uniform float[3]"
Declare "Detail" "uniform float[6]"
Declare "DetailRange" "uniform float[4]"
Declare "FormatPixelAspectRatio" "uniform float"
Declare "FormatResolution" "uniform int[2]"
Declare "FrameAspectRatio" "uniform float"
Declare "GeometricApproximationFlatness" "uniform float"
Declare "GeometricApproximationFocusFactor" "uniform float"
Declare "GeometricApproximationMotionFactor" "uniform float"
Declare "IlluminateHandle" "uniform string"
Declare "Ka" "uniform float"
Declare "Kd" "uniform float"
Declare "Kr" "uniform float"
Declare "Ks" "uniform float"
Declare "Matte" "uniform int"
Declare "N" "varying normal"
Declare "Ndsp" "vertex normal"
Declare "Ng" "uniform normal"
Declare "Ngn" "varying normal"
Declare "Nn" "varying normal"
Declare "Np" "uniform normal"
Declare "Oi" "varying color"
Declare "Orientation" "uniform string"
Declare "Os" "varying color"
Declare "P" "vertex point"
Declare "PixelFilterName" "uniform string"
Declare "PixelFilterWidth" "uniform float[2]"
Declare "PixelSamples" "uniform float[2]"
Declare "PixelVariance" "uniform float"
Declare "ProjectionName" "uniform string"
Declare "Pt" "vertex float"
Declare "Pw" "vertex hpoint"
Declare "QuantizeDither" "uniform float"
Declare "QuantizeRange" "uniform int[3]"
Declare "QuantizeType" "uniform string"
Declare "RelativeDetail" "uniform float"
Declare "ReverseOrientation" "uniform int"
Declare "ScopedCoordinateSystem" "uniform string"
Declare "ScreenWindow" "uniform float[4]"
Declare "ShadingInterpolation" "uniform string"
Declare "ShadingRate" "uniform float"
Declare "Shutter" "uniform float[2]"
Declare "Sides" "uniform int"
Declare "T" "varying normal"
Declare "TextureCoordinates" "uniform float[8]"
Declare "Tn" "varying normal"
Declare "VLen" "uniform float"
Declare "Vn" "uniform vector"
Declare "VolumePixelSamples" "uniform float[2]"
Declare "a" "varying float"
Declare "abort" "uniform int"
Declare "adaptall" "constant int"
Declare "addcoverage" "uniform float"
Declare "aggregate" "constant string"
Declare "aggregateprecision" "constant float"
Declare "algorithm" "uniform string"
Declare "amplitude" "uniform float"
Declare "apertureAngle" "float"
Declare "apertureDensity" "float"
```

```
Declare "apertureNSides" "int"
Declare "apertureRoundness" "float"
Declare "archive" "uniform string"
Declare "asfinal" "constant int"
Declare "assignment" "constant string"
Declare "atmospheres" "constant int"
Declare "attributecombining" "constant string"
Declare "attributes" "constant string"
Declare "autobias" "constant int"
Declare "backfacetolerance" "uniform float"
Declare "backfacing" "uniform int"
Declare "background" "uniform color"
Declare "beamdistribution" "uniform float"
Declare "bias" "constant float"
Declare "bias0" "uniform float"
Declare "bias1" "uniform float"
Declare "binary" "uniform int"
Declare "__bound" "float[6]"
Declare "__bound0" "float[6]"
Declare "__bound1" "float[6]"
Declare "brickmemory" "uniform int"
Declare "bucketsize" "uniform int[2]"
Declare "bucketstride" "uniform int[2]"
Declare "bvhcompression" "constant float"
Declare "cachediffusecolors" "uniform int"
Declare "__cachemode" "uniform int"
Declare "camera" "uniform int"
Declare "camerahitmode" "string"
Declare "centered" "uniform int"
Declare "centerfilter" "uniform int"
Declare "chanlist" "uniform string"
Declare "checknans" "uniform int"
Declare "clampcolor" "uniform float[2]"
Declare "clamped" "uniform string"
Declare "clampingenable" "uniform int"
Declare "clampmotion" "uniform int"
Declare "clampwidth" "constant int"
Declare "clearlocals" "uniform int"
Declare "colorclamp" "uniform float[2]"
Declare "command" "constant string"
Declare "compression" "uniform string"
Declare "compressionerror" "constant float"
Declare "compressionquality" "uniform string"
Declare "coneangle" "uniform float"
Declare "conedeltaangle" "uniform float"
Declare "constantwidth" "constant float"
Declare "continuationbydefault" "uniform int"
Declare "dPdtime" "vertex vector"
Declare "dPdu" "vertex vector"
Declare "dPdv" "vertex vector"
Declare "darkfalloff" "constant float"
Declare "debug" "uniform int"
Declare "decimationrate" "uniform float"
Declare "deepshadowerror" "uniform float"
Declare "deepshadowmemory" "uniform int"
Declare "deepshadowsimplifyerror" "uniform float"
Declare "deepshadowtiles" "uniform int"
Declare "defcache" "uniform float"
Declare "definition" "string"
Declare "depthbias" "uniform float"
Declare "deptherror" "constant float"
Declare "depthfilter" "uniform string"
Declare "depthmode" "uniform string"
Declare "dfamode" "uniform int"
Declare "dicemethod" "uniform string"
Declare "diffuse" "uniform int"
Declare "diffusehitmode" "string"
Declare "diffusehorizonculling" "constant int"
Declare "dirmap" "constant string"
Declare "disable" "uniform int"
Declare "disablelights" "string"
```

```
Declare "displacement" "uniform float"
Declare "displacements" "constant int"
Declare "displace_ratios" "uniform float[2]"
Declare "display" "uniform string"
Declare "displayonlyeditlights" "uniform int"
Declare "distance" "uniform float"
Declare "dither" "uniform float"
Declare "dof" "uniform string"
Declare "dofaspect" "uniform float[2]"
Declare "dsofile" "uniform string"
Declare "dsofloat" "uniform float"
Declare "dsominmax" "constant int"
Declare "__dsoname" "string"
Declare "dsoparam" "uniform int"
Declare "dsostring" "uniform string"
Declare "dynamic" "uniform int"
Declare "editlights" "string"
Declare "emissionbias" "constant float"
Declare "emissionpointcloud" "uniform string"
Declare "emit" "uniform int"
Declare "enable" "uniform int"
Declare "enable_gaussian" "uniform float"
Declare "enable_lerp" "uniform float"
Declare "enablelights" "uniform string"
Declare "endofframe" "uniform int"
Declare "epsilon1" "uniform float"
Declare "epsilon2" "uniform float"
Declare "excludesubset" "constant string"
Declare "exitat" "uniform int"
Declare "exposure" "uniform float[2]"
Declare "extrapolate" "uniform int"
Declare "extremedisplacement" "uniform int"
Declare "extrememoffset" "uniform float"
Declare "extrememotiondof" "uniform int"
Declare "eyesplits" "uniform int"
Declare "fStop" "float"
Declare "falloffpower" "uniform float"
Declare "farClip" "float"
Declare "file" "constant string"
Declare "filemode" "uniform string"
Declare "filename" "uniform string"
Declare "filter" "uniform string"
Declare "filtering" "int"
Declare "filterwidth" "uniform float[2]"
Declare "flatness" "uniform float"
Declare "focalDistance" "float"
Declare "focalLength" "float"
Declare "focusfactor" "uniform float"
Declare "focusregion" "uniform float"
Declare "forcedsampling" "uniform int"
Declare "format" "constant string"
Declare "fov" "uniform float"
Declare "framebuffer" "constant string"
Declare "frequency" "constant string"
Declare "frequencyframetime" "uniform float"
Declare "from" "uniform point"
Declare "frustum" "uniform int"
Declare "geocachememory" "uniform int"
Declare "geometricapproximation" "constant int"
Declare "gprimlog" "uniform string[2]"
Declare "gprimsplits" "uniform int"
Declare "gridarea" "uniform float[2]"
Declare "gridmemory" "uniform int"
Declare "gridsize" "uniform int"
Declare "hair" "uniform int"
Declare "handle" "uniform string"
Declare "__handleid" "uniform string"
Declare "hidden" "uniform int"
Declare "holdout" "constant int"
Declare "id" "uniform int"
Declare "id2" "uniform int"
```

```
Declare "ignorereferenceinstance" "constant int"
Declare "illuminatevalue" "uniform int"
Declare "immediatesubdivide" "int"
Declare "improvedhorizonculling" "constant int"
Declare "incremental" "constant int"
Declare "indexofrefraction" "uniform float"
Declare "indirect" "uniform int"
Declare "__instanceid" "constant string"
Declare "instanceprojection" "uniform string"
Declare "instancestrategy" "uniform string"
Declare "instanceworldldistancelength" "uniform float"
Declare "intensity" "uniform float"
Declare "interleave" "uniform string"
Declare "interpretation" "uniform string"
Declare "intersectpriority" "uniform int"
Declare "interval" "uniform int"
Declare "iotracefilename" "constant string"
Declare "__islight" "constant int"
Declare "jitter" "uniform int"
Declare "keepfiles" "uniform int"
Declare "levelset" "constant float"
Declare "lightcolor" "uniform color"
Declare "lodrange" "uniform int[2]"
Declare "lpeggroup" "uniform string"
Declare "march" "uniform int"
Declare "matrixcachememory" "uniform int"
Declare "mattefile" "uniform string"
Declare "maxangle" "uniform int"
Declare "maxdepth" "constant int"
Declare "maxdiffusedepth" "constant int"
Declare "maxdispwarnings" "constant int"
Declare "maxdistance" "uniform float"
Declare "maxerror" "uniform float"
Declare "maxhairlength" "uniform int"
Declare "maxhairvolume" "uniform int"
Declare "maxpathlength" "uniform int"
Declare "maxpixeldist" "uniform float"
Declare "maxraydepth" "constant int"
Declare "maxsamples" "constant int"
Declare "maxspeculardepth" "constant int"
Declare "maxvpdepth" "constant int"
Declare "membership" "uniform string"
Declare "merge" "uniform int"
Declare "mergedifferingobjectids" "uniform int"
Declare "micropolygonlength" "constant float"
Declare "midpoint" "uniform int"
Declare "mindistance" "uniform float"
Declare "minextrasamples" "constant int"
Declare "minlength" "uniform float"
Declare "minlengthspace" "uniform string"
Declare "minmax" "uniform int"
Declare "minsamples" "constant int"
Declare "minwidth" "constant float"
Declare "mode" "string"
Declare "motionfactor" "uniform float"
Declare "mpcache" "uniform int"
Declare "mpcachedir" "uniform string"
Declare "mpcachestride" "uniform int"
Declare "mpmemory" "uniform int"
Declare "multigrids" "uniform int"
Declare "name" "uniform string"
Declare "nearClip" "float"
Declare "nearhither" "uniform float"
Declare "newer" "uniform int"
Declare "newgroup" "uniform int"
Declare "nonplanar" "constant int"
Declare "nonuniform" "uniform int"
Declare "nurbcurvaturedicefactor" "uniform int"
Declare "objectcache" "uniform float"
Declare "objectspaceoffset" "constant point"
Declare "objectspaceoffsettype" "constant int"
```

```
Declare "occlusionbound" "uniform float"
Declare "octreememory" "uniform int"
Declare "offscreenstrategy" "constant string"
Declare "offset" "uniform float"
Declare "opacity" "uniform string"
Declare "opacitycachememory" "uniform int"
Declare "opacitymethod" "uniform string"
Declare "opacitymultiplier" "uniform float"
Declare "opacitysamples" "constant float"
Declare "order" "uniform string"
Declare "orderorigin" "uniform int[2]"
Declare "orientspheretotransform" "constant int"
Declare "origin" "uniform int[2]"
Declare "othreshold" "uniform color"
Declare "outputalldeclares" "uniform int"
Declare "pattern" "uniform string"
Declare "pdisc" "uniform int"
Declare "pdisk" "uniform int"
Declare "planarprojection" "uniform string"
Declare "pointmemory" "uniform int"
Declare "prebias" "uniform float"
Declare "precision" "uniform int"
Declare "preservevcv" "uniform int"
Declare "print" "uniform int"
Declare "procedural" "uniform string"
Declare "proceduralbakingclumpsize" "uniform int"
Declare "ptexturamaxfiles" "uniform int"
Declare "ptexturememory" "uniform int"
Declare "pvn" "uniform float[4]"
Declare "pyramid" "uniform int"
Declare "pyramidenable" "uniform int"
Declare "quantize" "uniform int[4]"
Declare "radiositycachememory" "uniform int"
Declare "radiositycacheomitminusone" "uniform int"
Declare "radius" "varying float"
Declare "rasterorient" "uniform int"
Declare "raydepth" "constant int"
Declare "referencecamera" "constant string"
Declare "reflectexcludesubset" "uniform string"
Declare "reflection" "uniform int"
Declare "reflectsubset" "uniform string"
Declare "refwarning" "uniform int"
Declare "relativemicropolygonlength" "constant float"
Declare "relativepixelvariance" "uniform float"
Declare "relativeshadingrate" "uniform float"
Declare "remap" "constant float[3]"
Declare "rendermemory" "uniform float"
Declare "rendertime" "uniform int"
Declare "repelfile" "uniform string"
Declare "repelparams" "uniform float"
Declare "rerenderbakedbdir" "uniform string"
Declare "resetrelativemicropolygonlength" "uniform float"
Declare "resetrelativeshadingrate" "uniform float"
Declare "resize" "uniform string"
Declare "resolution" "uniform float[2]"
Declare "resolutionunit" "uniform string"
Declare "resource" "uniform string"
Declare "reversesign" "uniform int"
Declare "rixplugin" "uniform string"
Declare "roughness" "uniform float"
Declare "roundcurve" "constant int"
Declare "rowsperstrip" "uniform string"
Declare "s" "varying float"
Declare "samplemotion" "constant int"
Declare "sampleoffset" "constant int"
Declare "samplestride" "constant int"
Declare "__savedattributes" "string"
Declare "savesshaderstate" "uniform int"
Declare "scopename" "constant string"
Declare "selectionlearningscheme" "constant int"
Declare "sense" "uniform string"
```

```
Declare "serverarchive" "constant string"
Declare "serverdisplay" "constant string"
Declare "serverprocedural" "constant string"
Declare "serverresource" "constant string"
Declare "serverriffilter" "constant string"
Declare "serverrixplugin" "constant string"
Declare "servershader" "constant string"
Declare "servertexture" "constant string"
Declare "shadegroups" "uniform int"
Declare "shadegroupsizefactor" "uniform float"
Declare "shadequeuesizefactor" "uniform float"
Declare "shader" "uniform string"
Declare "shaderprofile" "uniform string"
Declare "shadesize" "uniform int"
Declare "shadinggroup" "uniform string"
Declare "shadow" "uniform int"
Declare "shadowexcludesubset" "uniform string"
Declare "shadowsubset" "uniform string"
Declare "shutterCloseTime" "float"
Declare "shutterOpenTime" "float"
Declare "shutteropening" "uniform float[2]"
Declare "sigma" "uniform int"
Declare "sigmablur" "uniform float"
Declare "source" "uniform string"
Declare "specular" "uniform int"
Declare "specularcolor" "uniform color"
Declare "specularhitmode" "string"
Declare "specularhorizonculling" "constant int"
Declare "specularthreshold" "uniform float"
Declare "sphere" "uniform float"
Declare "sphericalprojection" "uniform string"
Declare "splitmode" "uniform int"
Declare "srgb" "uniform int"
Declare "st" "varying float[2]"
Declare "statistics" "uniform string"
Declare "stereoplanedepths" "uniform string"
Declare "stereoplaneoffsets" "uniform string"
Declare "stitch" "constant int"
Declare "strategy" "uniform string"
Declare "stylesheet" "uniform string"
Declare "subpixel" "uniform int"
Declare "subset" "constant string"
Declare "subwindow" "uniform int[5]"
Declare "t" "varying float"
Declare "tessellateretainbspline" "constant int"
Declare "texture" "uniform string"
Declare "texturememory" "uniform int"
Declare "texturename" "uniform string"
Declare "textureperthreadmemoryratio" "uniform float"
Declare "texturestatslevel" "constant int"
Declare "threads" "uniform int"
Declare "__threshold" "constant float"
Declare "timer" "uniform int"
Declare "to" "uniform point"
Declare "trace" "constant int"
Declare "traceenable" "uniform int"
Declare "traceminwidth" "constant float"
Declare "tracesubset" "uniform string"
Declare "trackassetobjects" "constant int"
Declare "transform" "uniform matrix"
Declare "transmission" "uniform int"
Declare "transmissionhitmode" "string"
Declare "transmitexcludesubset" "uniform string"
Declare "transmitsubset" "uniform string"
Declare "trimdeviation" "uniform float"
Declare "trimrange" "uniform float[2]"
Declare "twiceasslowwithmoreartifacts" "uniform int"
Declare "type" "constant string"
Declare "u" "varying float"
Declare "__ubasisname" "constant string"
Declare "usegutcache" "constant int"
```

```
Declare "uv" "varying float2"
Declare "v" "varying float"
Declare "varsubst" "string"
Declare "__vbasisname" "constant string"
Declare "vdmag" "uniform float[4]"
Declare "viewfrustumdistance" "uniform string"
Declare "volumeinterpretation" "uniform string"
Declare "vpdepthshadingrate" "uniform float"
Declare "vpinteriorheuristic" "uniform int"
Declare "vprelativeshadingrate" "uniform float"
Declare "vpvolumeintersections" "uniform int"
Declare "watertight" "constant int"
Declare "width" "varying float"
Declare "worldddistance" "uniform string"
Declare "worldddistancelength" "uniform float"
Declare "worldorigin" "constant string"
Declare "xmlfilename" "uniform string"
Declare "ysplits" "uniform int"
Declare "z" "varying float"
Declare "zblur" "uniform float[6]"
Declare "zblurFarDiameter" "float"
Declare "zblurFarDistance" "float"
Declare "zblurFarFocusDistance" "float"
Declare "zblurNearDiameter" "float"
Declare "zblurNearDistance" "float"
Declare "zblurNearFocusDistance" "float"
Declare "zcompression" "uniform string"
Declare "zfile" "uniform string"
Declare "zlerp" "uniform int"
Declare "zthreshold" "uniform color"
Declare "coordinatesystem" "uniform string"
Declare "_curvesWidth" "constant float"
Declare "__immediatesubdivide" "int"
Declare "_pointsWidth" "constant float"
Declare "_polygonUV" "varying float[2]"
Declare "shadingrate" "uniform float"
Declare "shutter" "uniform float[2]"
```