(as of the VE-SoundControl\_2013.02.06\_Setup.exe )

StylusAngleTool provides the following fields:

|  |  |  |  |
| --- | --- | --- | --- |
| shape | SFNode | inputOnly |  |
| angleFromSurfaceNormal | SFFloat | outputOnly |  |
| angleAboutSurfaceNormal | SFFloat | outputOnly |  |
| angleFromOrientationAtTouch | SFFloat | outputOnly |  |

**shape** is a container field for an H3D::Shape node. The prototype will reject anything that's not a Shape.

**angleFromSurfaceNormal** and **angleFromOrientationAtTouch** provide angle values (in radians) in the range [0, pi].

Unlike angleFromSurfaceNormal and angleFromOrientationAtTouch, which are unipolar, angleAboutSurfaceNormal provides a bipolar value in the range [-pi, pi]. If you touch the geometry and then rotate the stylus counterclockwise about the surface normal, you'll get positive values. Rotate clockwise about the surface normal, and you'll get negative values. Be careful though, because if, for example, you rotate counterclockwise past an angle of +pi, the value will "jump" to -pi and then increase toward zero.

For an example for how to use the StylusAngleTool prototype in your scenes, see <VESC installation root>/share/examples/Example\_StylusAngleTool.x3d.

Although it's "feature-complete", this version of the StylusAngleTool does not provide any visualization for the angles. I anticipate having that ready in another couple weeks.

- Karl