

Shape Interrogation for CAD/CAM

geoms.c

Evaluate a position, normalized tangent directions in u,v, normal direction, max/min principal curvatures, and normal u,v curvatures of an open NURBS surface at (u,v).

Do:

```
prompt> make geoms
```

```
prompt> geoms -i input_surface_file -p u_value,v_value [-o output_file_name]
```

Output: Evaluation results

Note: No spaces before or after the "comma" in -p command line option.

Example:

Example 1.5.2 of the hyperbook (or in pages 32-33 of the hardcopy version) for $\theta = \varphi = 45^\circ$

```
prompt> geoms -i s.surf -p 0.414213562,0.414213562 -o s.out
```

Note: For the file format of the input surface (s.surf), see ../README.pdf