

Shading (OpenGL)

The shading performance is calculated by running three different tests:

T1 – Polygon count

A fractal is displayed with an increasing number of polygons (64, 1024, 4096, 16384, 36864, and 65536) to test how well the shading algorithm deals with large polygon counts. For every test the total surface covered by the polygons is constant.

The result is computed from the area under the time polygon curve.

T2 – Wireframe

A scene with a camera walkthrough is displayed in wireframe mode and animated to test the raw line draw speed of the shading engine.

T3 – Textures

A scene with a camera walkthrough is displayed in texture shading mode and animated to test the shading and texturing speed of the shading engine.

Finally the three tests are combined by the following formula:

$$\text{result} = 0.4 * T1 + 0.3 * T2 + 0.3 * T3$$