

リスト 7.7	noise3D1B.frag
<pre> varying vec3 P; varying vec3 N; uniform float threshold; uniform sampler3D smpl3D; vec4 col1 = vec4(0.2, 0.1, 0.9, 1.0); vec4 col2 = vec4(0.9, 0.5, 0.2, 1.0); void main(void) { vec3 L = normalize(gl_LightSource[0].position.xyz - P); N = normalize(N); vec4 ambient = gl_FrontLightProduct[0].ambient; float dotNL = dot(N, L); vec4 diffuse = gl_FrontLightProduct[0].diffuse * max(0.0, dotNL); vec3 V = normalize(-P); vec3 H = normalize(L + V); float powNH = pow(max(dot(N, H), 0.0), gl_FrontMaterial.shininess); if(dotNL <= 0.0) powNH = 0.0; vec4 specular = gl_FrontLightProduct[0].specular * powNH; //統合 float intensity = texture3D(smpl3D, gl_TexCoord[0].stp).r; if(intensity > threshold) gl_FragColor = (ambient + diffuse) * col1 * intensity + specular; else gl_FragColor = (ambient + diffuse) * col2 * intensity * 2.0 + specular; } </pre>	