renderFEMMesh 1

```
//ノードの描画
   glPointSize(10);
   glBegin(GL_POINTS);
   for (i = 0; i < _mesh->num_node; i++) {
    //頂点の状態に応じて色を変える
 5
 6
        switch (_mesh->node[i].state) {
        case NODE_FREE:
8
            glColor3d(0, 1, 1);
9
            break;
10
        case NODE_FIXED:
11
            glColor3d(1, 0, 1);
12
            break;
        case NODE_DEFORM:
13
14
            glColor3d(1, 1, 0);
15
            break;
16
        //頂点の座標を指定
17
        glVertex3dv(_mesh->node[i].new_position.X);
18
19
   g | End();
20
21
   //ノード間ラインの描画(変形前・変形後)
22
   for (i = 0; i < _mesh->num_tetrahedra; i++) {
        for (j = 0; j < 4; j++) {
for (k = 0; k < j; k++) {
24
25
26
                 glLineWidth(0.5);
27
                 glColor3d(0.3, 0.3, 0.3);
28
                 glBegin(GL_LINE_STRIP);
29
                 g|Vertex3dv(_mesh->tetrahedra[i].position[j].X);
30
                 g|Vertex3dv(_mesh->tetrahedra[i].position[k].X);
31
                 g I End();
32
33
                 glLineWidth(1);
                 g|Color3d(0, 0, 0);
g|Begin(GL_LINE_STRIP);
34
35
36
                 g|Vertex3dv(_mesh->tetrahedra[i].new_position[j].X);
37
                 g|Vertex3dv(_mesh->tetrahedra[i].new_position[k].X);
38
                 g I End();
39
            }
40
        }
41
42
43
   //要素ポリゴンの描画
   g|Color3d(0, 0, 1);

for (i = 0; i < _{mesh}->num_tetrahedra; i++) {
44
45
        calColorMap(_mesh->tetrahedra[i].mises_stress / _max_mises_stress, &color);
        for (j = 0; j < 4; j++)
47
48
            glColor3dv(color.X);
49
            glBegin(GL_TRIANGLES);
50
            glVertex3dv(_mesh->tetrahedra[i].new_position[(j + 0) % 4].X);
51
            glVertex3dv(_mesh->tetrahedra[i].new_position[(j + 1) % 4].X);
52
            glVertex3dv(_mesh->tetrahedra[i].new_position[(j + 2) % 4].X);
53
            g I End();
54
        }
55
  }
```