Configuração da visualização em OpenGL

```
#include <stdlib.h>
#include <GL/glut.h>
#include <iostream>
#include <stdio.h>
#include "scene.h"

#define MAX_DEPTH 6

Scene* scene = NULL;
int RES_X, RES_Y;

void reshape(int w, int h)
{
      glClearColor(0.0, 0.0, 0.0, 0.0);
      glClear(GL_COLOR_BUFFER_BIT);
      glViewport(0, 0, w, h);
      glMatrixMode(GL_PROJECTION);
      glLoadIdentity();

      gluOrtho2D(0, RES_X-1, 0, RES_Y -1);
      glMatrixMode (GL_MODELVIEW);
      glLoadIdentity();
}

// Draw function by primary ray casting from the eye towards the
scene's objects
void drawScene()
{
      for (int y = 0; y < RES_Y; y++)
      {
        for (int x = 0; x < RES_X; x++)
        {
            Ray ray = scene->GetCamera()->PrimaryRay(x, y);
            Color color=rayTracing(ray, 1, 1.0 ); //depth=1, ior=1.0
            glBegin(GL_POINTS);
                  glColor3f(color.r(), color.g(), color.b());
                  glVertex2f(x, y);
            glEnd();
            glFlush();
        }
      }
      printf("Terminou!\n");
}

int main(int argc, char**argv)
{
     scene = new Scene();
     if(!(scene->load_nff("jap.nff"))) return 0;
     RES_X = scene->GetCamera()->GetResX();
     RES_Y = scene->GetCamera()->GetResY();
```

```
    printf("resx = %d  resy= %d.\n", RES_X, RES_Y);

    glutInit(&argc, argv);
    glutInitDisplayMode(GLUT_SINGLE | GLUT_RGBA);

    glutInitWindowSize(RES_X, RES_Y);
    glutInitWindowPosition(100, 100);
    glutCreateWindow("JAP Ray Tracing");
    glClearColor(0, 0, 0, 1);
    glClear(GL_COLOR_BUFFER_BIT);

    glutReshapeFunc(reshape);
    glutDisplayFunc(drawScene);
    glDisable(GL_DEPTH_TEST);

    glutMainLoop();
    return 0;
}
```