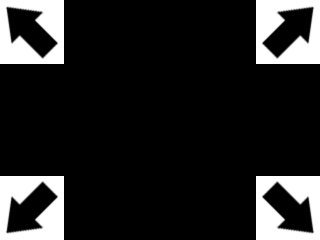
**Tutorial07 - Cortando Texturas**

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No último tutorial, apenas mapeamos toda a textura. Aqui vamos mapear partes de uma textura para renderizar imagens

**A textura07.java**

**import static org.lwjgl.glfw.GLFW.\*;**

**import static org.lwjgl.opengl.GL11.\*;**

**import org.lwjgl.glfw.GLFWKeyCallback;**

**import org.lwjgl.opengl.GL;**

Na parte superior do textura.java, importamos algumas bibliotecas para cortar a textura.

**Textura07.java**

**private GLFWKeyCallback keyCallback;**

**public Textura07() {**

**if (!glfwInit()) {**

**System.err.println("Falha ao inicializar GLFW!");**

**System.exit(1);**

**}**

**System.out.println(VIEWPORT\_MODE\_FULL);**

**long win = glfwCreateWindow(SCREEN\_WIDTH, SCREEN\_HEIGHT, "Window", 0, 0);**

**glfwShowWindow(win);**

**glfwMakeContextCurrent(win);**

A função GLFWKeyCallback evita que nossa janela seja interrompida mais tarde. Primeiro 0 serve para permitir que mudemos a tela para Tela cheia. (Caso queira, substituir 0 por glfwGetPrimaryMonitor().

**Textura07.java**

**GL.createCapabilities();**

**initGL();**

**glEnable(GL\_TEXTURE\_2D);**

**int gViewportMode = VIEWPORT\_MODE\_FULL;**

**Textura tex = new Textura("./res/arrows.png");**

**while (!glfwWindowShouldClose(win)) {**

**glfwPollEvents();**

**glClear(GL\_COLOR\_BUFFER\_BIT);**

**// Input.keys[GLFW\_KEY\_SPACE]**

**if(glfwGetKey(win, GLFW\_KEY\_SPACE) == GL\_TRUE) {**

**gViewportMode++;**

**if( gViewportMode > VIEWPORT\_MODE\_RADAR )**

**{**

**gViewportMode = VIEWPORT\_MODE\_FULL;**

**} }**

Cria o contexto e permite que o opengl desenhe nele.

**Textura07.java**

**//Abaixo a esquerda red quad**

**glViewport( 0, 0, SCREEN\_WIDTH / 2, SCREEN\_HEIGHT / 2 );**

**glBegin( GL\_QUADS );**

**glTexCoord2f(0.5f,0);**

**glVertex2f( -SCREEN\_WIDTH / 4.f, -SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(0.5f,0.5f);**

**glVertex2f( SCREEN\_WIDTH / 4.f, -SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(0,0.5f);**

**glVertex2f( SCREEN\_WIDTH / 4.f, SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(0,0);**

**glVertex2f( -SCREEN\_WIDTH / 4.f, SCREEN\_HEIGHT / 4.f );**

**glEnd();**

**//Abaixo a direita green quad**

**glViewport( SCREEN\_WIDTH / 2, 0, SCREEN\_WIDTH / 2, SCREEN\_HEIGHT / 2 );**

**glBegin( GL\_QUADS );**

**glTexCoord2f(0.5f,0.5f);**

**glVertex2f( -SCREEN\_WIDTH / 4.f, -SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(0,0.5f);**

**glVertex2f( SCREEN\_WIDTH / 4.f, -SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(0,0);**

**glVertex2f( SCREEN\_WIDTH / 4.f, SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(0.5f,0);**

**glVertex2f( -SCREEN\_WIDTH / 4.f, SCREEN\_HEIGHT / 4.f );**

**glEnd();**

Aqui o nosso while desenha cada quadrado em um determinado canto da tela.

**//Acima a esquerda blue quad**

**glViewport( 0, SCREEN\_HEIGHT / 2, SCREEN\_WIDTH / 2, SCREEN\_HEIGHT / 2 );**

**glBegin( GL\_QUADS );**

**glTexCoord2f(0,0);**

**glVertex2f( -SCREEN\_WIDTH / 4.f, -SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(.5f,0);**

**glVertex2f( SCREEN\_WIDTH / 4.f, -SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(.5f,.5f);**

**glVertex2f( SCREEN\_WIDTH / 4.f, SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(0,.5f);**

**glVertex2f( -SCREEN\_WIDTH / 4.f, SCREEN\_HEIGHT / 4.f );**

**glEnd();**

**//Acima a direita yellow quad**

**glViewport( SCREEN\_WIDTH / 2, SCREEN\_HEIGHT / 2, SCREEN\_WIDTH / 2, SCREEN\_HEIGHT / 2 );**

**glBegin( GL\_QUADS );**

**glTexCoord2f(0,0.5f);**

**glVertex2f( -SCREEN\_WIDTH / 4.f, -SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(0,0);**

**glVertex2f( SCREEN\_WIDTH / 4.f, -SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(0.5f,0);**

**glVertex2f( SCREEN\_WIDTH / 4.f, SCREEN\_HEIGHT / 4.f );**

**glTexCoord2f(0.5f,.5f);**

**glVertex2f( -SCREEN\_WIDTH / 4.f, SCREEN\_HEIGHT / 4.f );**

**glEnd();**

