

## RAGE

Simple example game  
"DolphinClick"

```

package myGame;

import java.awt.*;
import java.awt.event.*;
import java.io.*;

import ray.rage.*;
import ray.rage.game.*;
import ray.rage.rendersystem.*;
import ray.rage.rendersystem.Renderable.*;
import ray.rage.scene.*;
import ray.rage.scene.Camera.Frustum.*;
import ray.rage.scene.controllers.*;
import ray.rml.*;
import ray.rage.rendersystem.gl4.GL4RenderSystem;

public class SimpleTest extends VariableFrameRateGame
{
    // to minimize variable allocation in update()
    GL4RenderSystem rs;
    float elapsTime = 0.0f;
    String elapsTimeStr, counterStr, dispStr;
    int elapsTimeSec, counter = 0;

    public SimpleTest()
    { super();
      System.out.println("press T to render triangles");
      System.out.println("press L to render lines");
      System.out.println("press P to render points");
      System.out.println("press C to increment counter");
    }

    public static void main(String[] args)
    { Game game = new SimpleTest();
      try
      { game.startup();
        game.run();
      }
      catch (Exception e)
      { e.printStackTrace(System.err);
      }
      finally
      { game.shutdown();
        game.exit();
      }
    }

    @Override
    protected void setupCameras(SceneManager sm, RenderWindow rw)
    { SceneNode rootNode = sm.getRootSceneNode();
      Camera camera =
        sm.createCamera("MainCamera", Projection.PERSPECTIVE);
      rw.getViewport(0).setCamera(camera);
      SceneNode cameraNode =
        rootNode.createChildSceneNode(camera.getName()+"Node");
      cameraNode.attachObject(camera);
    }
}

```

```

@Override
protected void setupWindow(RenderSystem rs, GraphicsEnvironment ge)
{ rs.createRenderWindow(new DisplayMode(1000, 700, 24, 60), false);
}

```

```

@Override
protected void setupScene(Engine eng, SceneManager sm)
    throws IOException
{ Entity dolphinE = sm.createEntity("myDolphin", "dolphinHighPoly.obj");
  dolphinE.setPrimitive(Primitive.TRIANGLES);

  SceneNode dolphinN =
    sm.getRootSceneNode().createChildSceneNode(dolphinE.getName()
    + "Node");

  dolphinN.moveBackward(2.0f);
  dolphinN.attachObject(dolphinE);

  sm.getAmbientLight().setIntensity(new Color(.1f, .1f, .1f));
  Light plight = sm.createLight("testLamp1", Light.Type.POINT);
  plight.setAmbient(new Color(.3f, .3f, .3f));
  plight.setDiffuse(new Color(.7f, .7f, .7f));
  plight.setSpecular(new Color(1.0f, 1.0f, 1.0f));
  plight.setRange(5f);

  SceneNode plightNode =
    sm.getRootSceneNode().createChildSceneNode("plightNode");
  plightNode.attachObject(plight);

  RotationController rc = new
  RotationController(Vector3f.createUnitVectorY(), .02f);
  rc.addNode(dolphinN);
  sm.addController(rc);
}

```

```

@Override
protected void update(Engine engine)
{ // build and set HUD
  rs = (GL4RenderSystem) engine.getRenderSystem();
  elapsTime += engine.getElapsedTimeMillis();
  elapsTimeSec = Math.round(elapsTime/1000.0f);
  elapsTimeStr = Integer.toString(elapsTimeSec);
  counterStr = Integer.toString(counter);
  dispStr = "Time = " + elapsTimeStr + " Keyboard hits = " + counterStr;
  rs.setHUD(dispStr, 15, 15);
}

```

```

@Override
public void keyPressed(KeyEvent e)
{ Entity dolphin=getEngine().getSceneManager().getEntity("myDolphin");
  switch (e.getKeyCode())
  { case KeyEvent.VK_L:
    dolphin.setPrimitive(Primitive.LINES);
    break;
    case KeyEvent.VK_T:
    dolphin.setPrimitive(Primitive.TRIANGLES);
    break;
    case KeyEvent.VK_P:
    dolphin.setPrimitive(Primitive.POINTS);
    break;
    case KeyEvent.VK_C:
    counter++;
    break;
  }
  super.keyPressed(e);
}
}

```