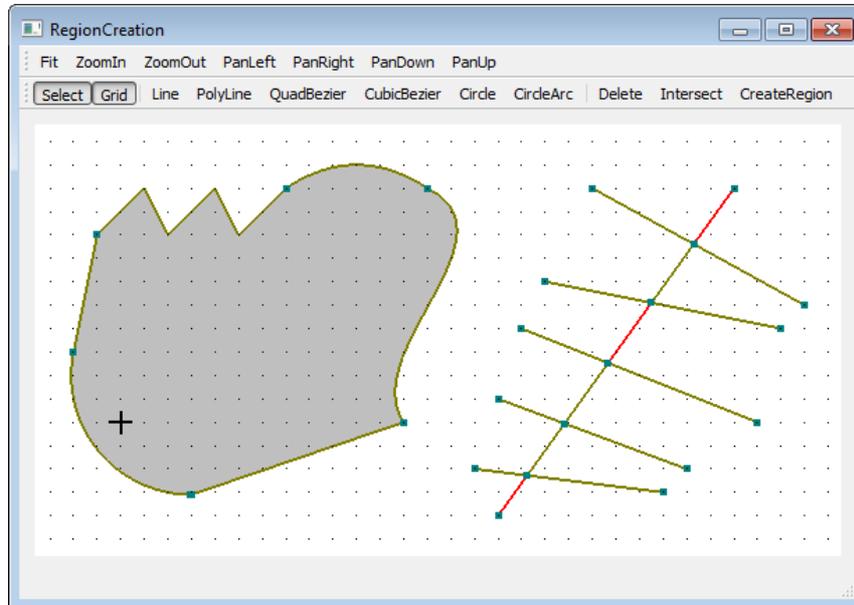


Introduction to Computer Graphics for Engineering

Short Course - 16th -18th June 2014

Implementation of Computational Geometry Algorithm



Complete the graphics program available in the course homepage:

<http://www.tecgraf.puc-rio.br/~lfm/HW4-RegionCreation.zip>.

This program uses Qt interface system and OpenGL graphics system.

Understanding the given code is part of the assignment.

An executable program, which is the solution of the assignment, is provided:

<http://www.tecgraf.puc-rio.br/~lfm/HW4-RegionCreation-solution.zip>.

Assignment

1. Complete the lines of code in file `glpanel.cpp` that are indicated by comments

```
/***/ COMPLETE HERE - GLPANEL: XX ***/.
```

2. Complete the lines of code in file `compgeom.cpp` that are indicated by comments

```
/***/ COMPLETE HERE - COMPGEOM: XX ***/
```

The following static methods of class `CompGeom` need to be implemented:

`CompGeom::computeSegmentSegmentIntersection`: intersection of two straight line segments

`CompGeom::isPointInPolygon`: check for point inclusion in polygon.

Image icons should be used in the graphics interface.