Computer Graphics Labs

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LAB. 8

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Portugal
2011

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RASTERIZATION

1. Learning goals
2. Web links
3. Programming exercises

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RASTERIZATION

This lab covers the basics of rasterization of geometic primitives like lines, curves, triangles, and polygons.

1. Learning Goals

At the end of this lab **you should be able to**:

1. To implement the Bresenham algorithm for lines and circles.
2. To explain the rationale behind the decision parameter of Bresenham's.
3. To describe how to rasterize a triangle and convex polygons.

2. Web links

http://www.netgraphics.sk/rasterization-a-line
http://www.physicsarchives.com/index.php/courses/350
http://www.angelfire.com/linux/myp/LineRas/LineRas.html

3. Programming Exercises

1. Implement the direct scan conversion algorithm for line segments.
2. Implement the digital differential algorithm (DDA) for line segments.
3. Implement the Bresenham algorithm for line segments.