Projecte 10
Sweep line algorithm to intersect line segments

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In this project, you try to solve the problem defined as:

> given a set S of n closed segments in the plane, report all intersection points among the segments in S.

Consider the plane sweep algorithm, in which there is an imagery line swept across the plane. The status of the sweep line is the set of segments intersecting it. The status changes while the sweep line moves to the right, but not continuously. Only at particular points is an update of the status required. These points are called event points of the plane sweep algorithm. In this algorithm, the event points are the endpoints of the segments and the intersection points.

The implementation must offer a friendly user graphic interface to show the algorithm features such that shows the sweep line itself, the known events, the segments that are on the sweep line, and highlight the changes that happen during events. It must allow a straightforward computation or a step-by-step computation. Your implementation must be platform independent. For example, you can chose to implement either a Java program or an applet to be triggered from a web browser.