

# A Scalable DCEL implementation

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## Improvements on CGAL implementation...

- ▶ Discard the use of *insert\_non\_intersecting\_curve*. It does not create the DCEL correctly...
- ▶ Given a try to polylines insertion. It inserts a sequence of segment lines and use the previous segment to locate the position of the next one.

## Performance...

- ▶ The reference executes 97.6 s for the construction of only one arrangement of uniform random segments with 1,366,364 edges.
- ▶ New implementation using polylines in the CA polygon dataset (avg of 5 runs):

	<b>Number of edges</b>	<b>Time(s)</b>
CA 2000	1,002,370	30.61
CA 2010	2,896,123	659.36