06-B-01

Point Location

Slab Method

- Slab Decomposition

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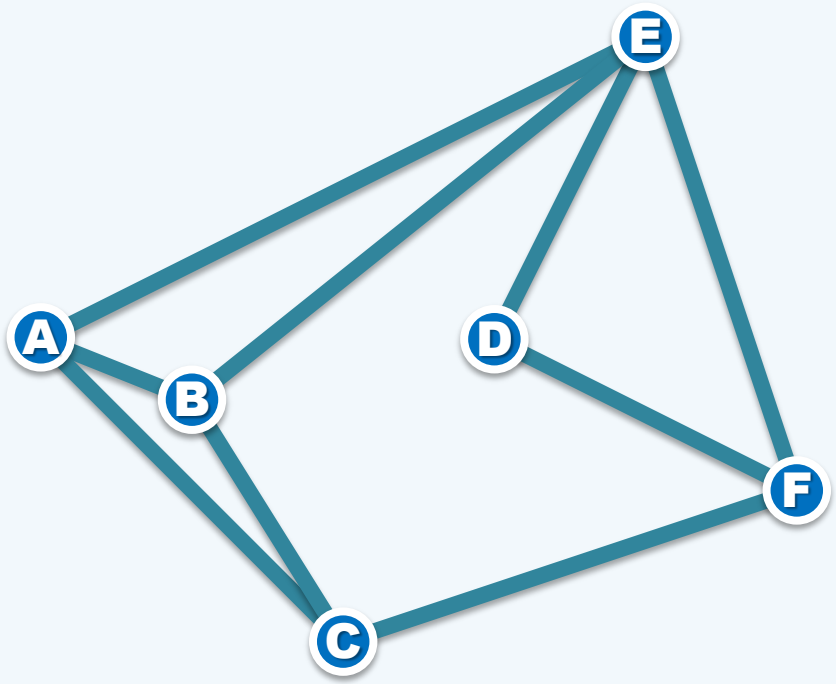
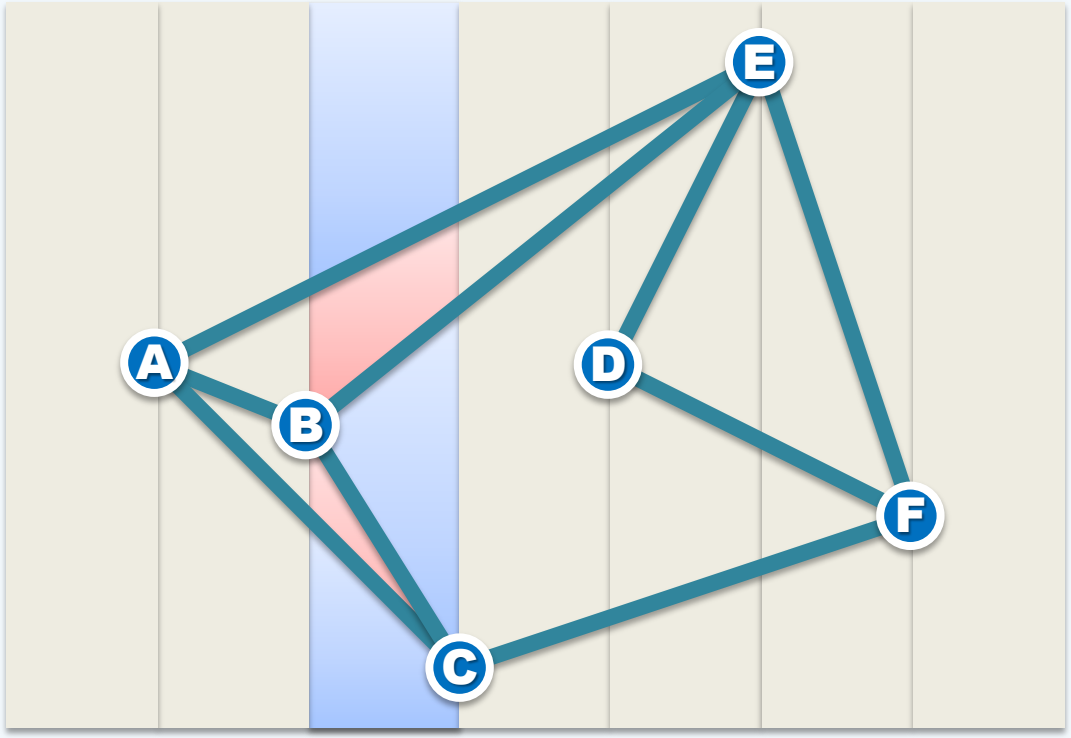
❖ A number of slabs are obtained by

drawing a vertical line thru every vertex





❖ Each slab is further broken into a number of trapezoids

Properties

❖ For every slab S, denote the set of edges intersecting S as $\mathcal{E}(S)$

- Each edge in $\mathcal{E}(S)$ intersects S

  exactly **once**

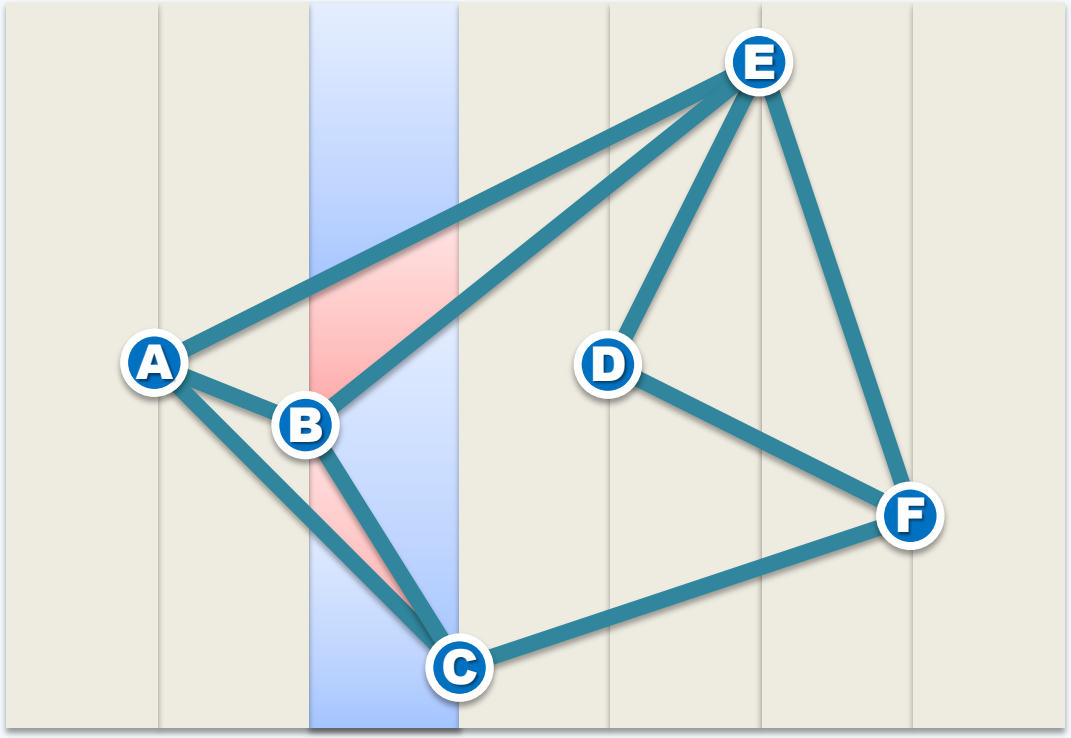
- All edges in $\mathcal{E}(S)$

  completely **span** S

  (i.e. having no endpoints in S)

- **No** edges in $\mathcal{E}(S)$

  intersect with each other



- Every trapezoid belongs to a **unique** face of the input subdivision