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Convex Hull

Incremental Construction

- Exterior/Interior

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Good News

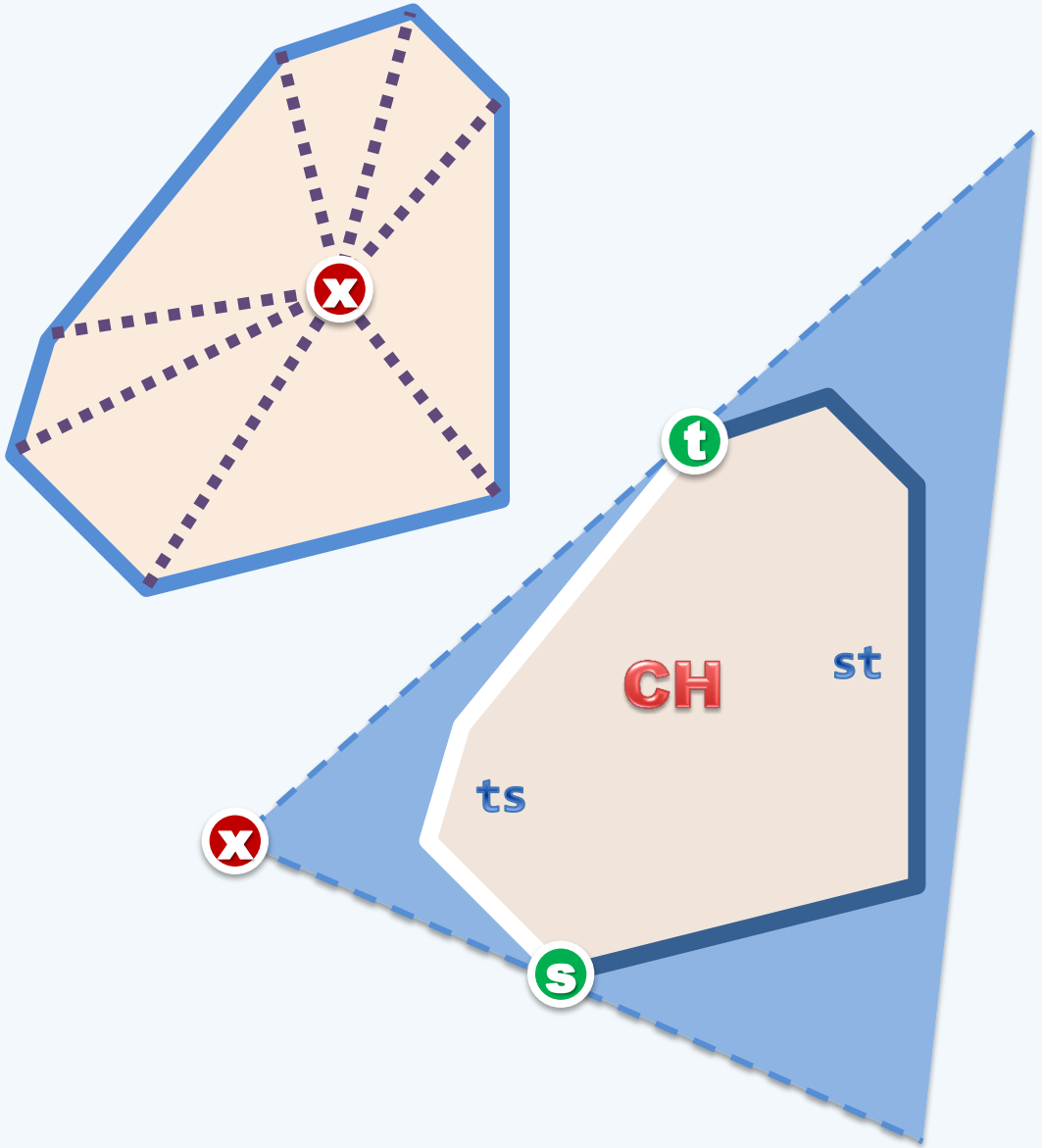
- The above criterion can be

  even further generalized to

  arbitrary [x]

- Actually,

  - [x] lies inside the hull iff
  - [ts] is empty iff
  - every vertex has an [R+L] pattern



Algorithm

- Traverse the CH and //O(n)
  examine the pattern of every vertex [v]

- If its pattern is [LL] / [RR]
  then let [s] / [t] = [v]

- If [s] and [t] are not found
  then return //x is not an EP
  Else
  release [ts] and
  connect [s] and [t] with [x] resp.

- Hence each point can be inserted in O(n)