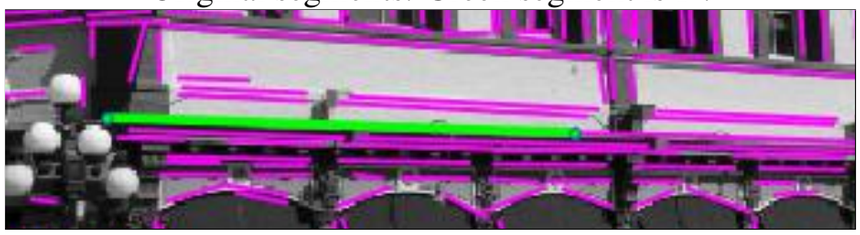
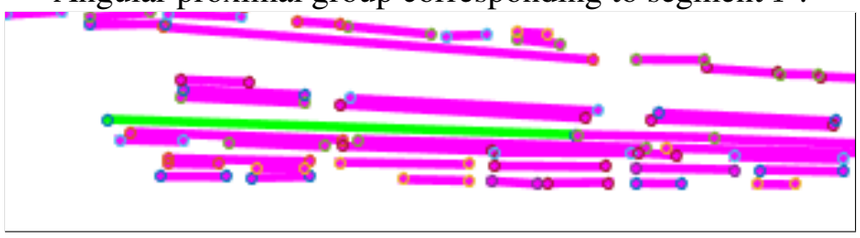
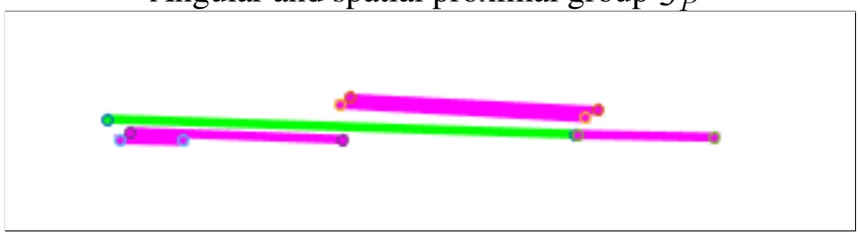
Original segments. Green segment is P.



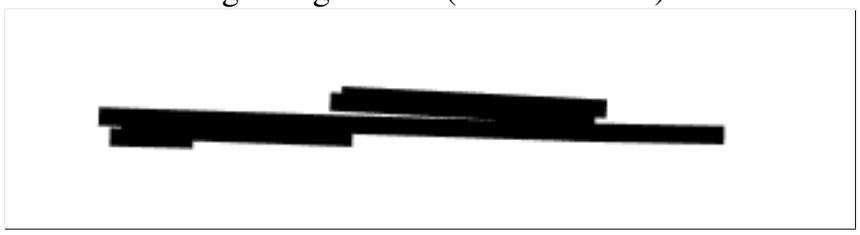
Angular proximal group corresponding to segment P.



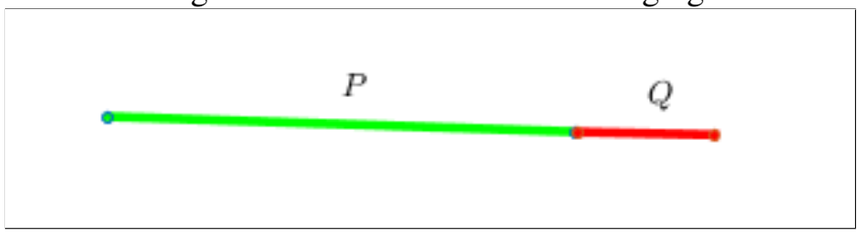
Angular and spatial proximal group $\mathcal{G}_P^{\mathcal{M}}$



Evidence image $E_{\mathcal{G}_P^{\mathcal{D}}}$ corresponding to segment P (color reversed)



Segments to be considered for merging



Merged segment with evidence $e_M = 1$

Visualizing line segment grouping and merging steps. Spatial and angular proximity measures to group line segments are applied for a selected segment P. Pairs in the group $\mathcal{G}_P^{\mathcal{M}}$ are passed through geometry, perception and evidence-based criterion to get a merged segment M.