

Circle criterion applied to blue triangle: since the given triangulation is a valid space subdivision, we only have to test the black vertices. In the examples, for each triangle (blue), the yellow vertices are not tested. Is it possible to pre-compute on loading time (when the geometry is loaded line by line from the input) the small set of black vertices for each triangle?. You can simplify as much as possible the DCEL data structure, because for this problem many features of DCEL are not used, and moreover, you can add the information you need per triangle to perform a fast circle criterion verification.