Graph Elimination Ordering with several degree measure

Let’s denote variables as.

X: input graph (used used A\_Network structure)

XU: undirected graph generated from X

OL: ordering list to remove vertices

T: array for each vertex’s tree

VD: array of all vertices with degree measure value of XU

P: array to mark whether vertices of XU are processed.

i: loop variable

s: current element’s vertex no selected in VD

1. Create X from a file with edge pairs.
2. Convert X to XU.
3. Initialize all elements of d as 0, all elements of P as false, i as 0.
4. Calculate the degree measure of every vertex of XU.
5. Sort VD as ascending order of degree by using heapsort.
6. Get i-th element’s vertex no s in XU.
7. Add s to OL.
8. Add the vertices connected with s to s’s tree list T[s].
9. Set P value to the vertices connected with s as true.
10. Set P[s] as true.
11. If all the vertices of XU are processed, go to next else set i = i + 1, go to f) .
12. Output OL and T.
13. Finish algorithm.