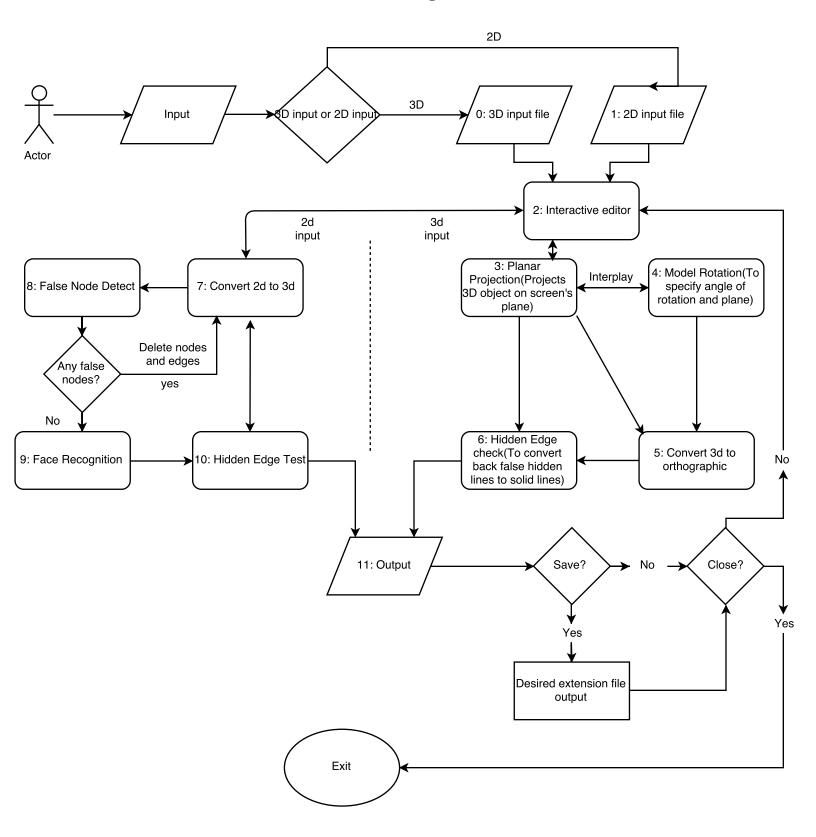
Functional Specifications

In this assignment we wish to highlight the use case of our project and the basic functional specifications to describe the workflow of our software and define its purpose.

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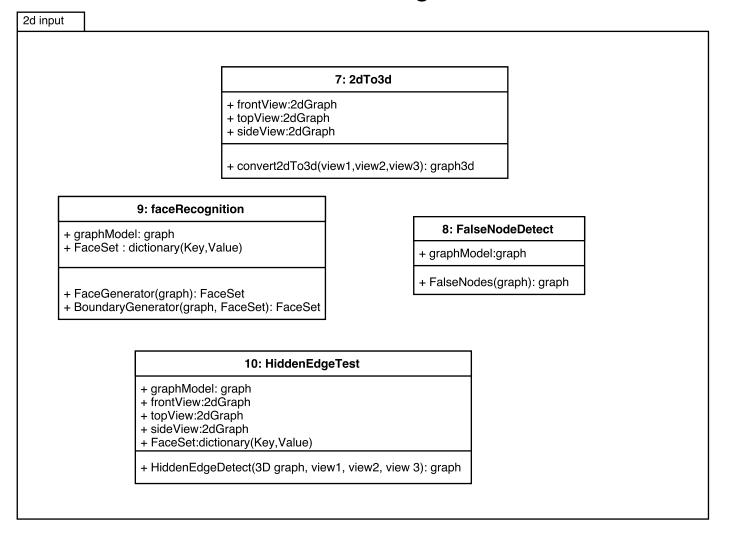
Use Case Diagram



Input

0: 3d Input file 2: Interactive editor + input: file + output: 3dGraph input: 3dGraph or [graph1,graph2,graph3] + fileTo3dGraph(file):3dGraph output: 3dGraph or [graph1,graph2,graph3] + joinNodes(coordinate1,coordinate2):none 1: 2d Input file + removeNodes(coordinate1,coordinate2):none + input: file + output:[graph1,graph2 ,graph3] 3dInteractiveInput 2dInteractiveInput + fileTo3dGraph(file):[graph1, + frontView:graph graph2,graph3] + 3dgraphModel:graph + topView:graph + sideView:graph + planeSelection(point1,point2,point3):2dgraph + extrusion(graph, value): none + saveGraph(graph):graph + suggestCorrespondences(view1,view2):none + saveGraph(view1,view2,view3):[graph1,graph2,graph3

2D Processing



3D processing

4: ModelRotation
+ 3dgraphModel: graph
+ rotation(3dGraph,axis,angle): graph

- planerProjection(equationOfPlane, 3dGraph,boolean):2dGraph(Hidden all)

5: 3dToOrthographic
+ graphModel: graph
+ convert3dTo2d(3dgraph):[graph1,graph2,graph3]

6: HiddenEdgeCheck
+ ConvertToSolid(view1, view2, view3, 3dgraph): [graph1,graph2,graph3]

Output

11: Output

+saveToFile2d([g1,g2,g3]):none +saveToFile3d([3dGraph]):none +printToScreen(2dGraphs):none

Thank you