

Institute of Aircraft Systems

University of Stuttgart

VVT Requirements Document

Capabilities and Limits of the XGEE Visualization Verification Pipeline

Team

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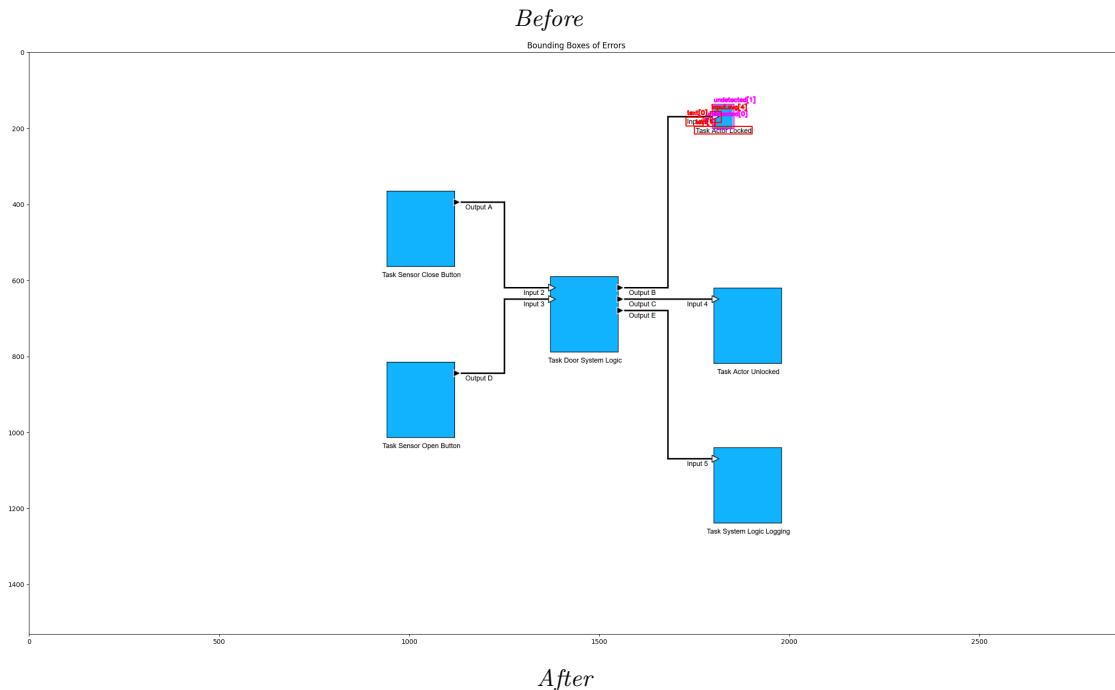
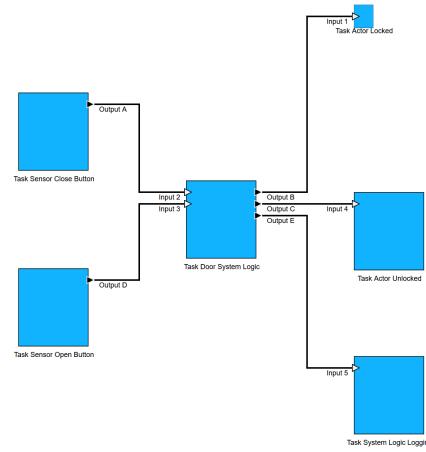
May 26, 2025

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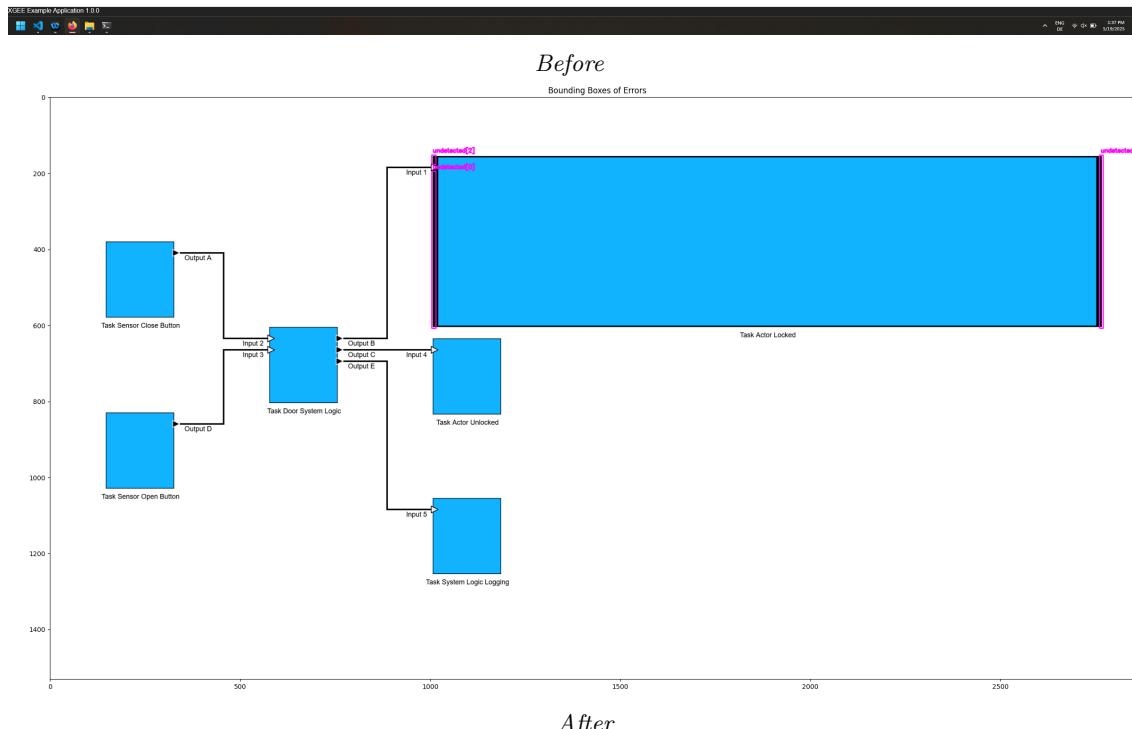
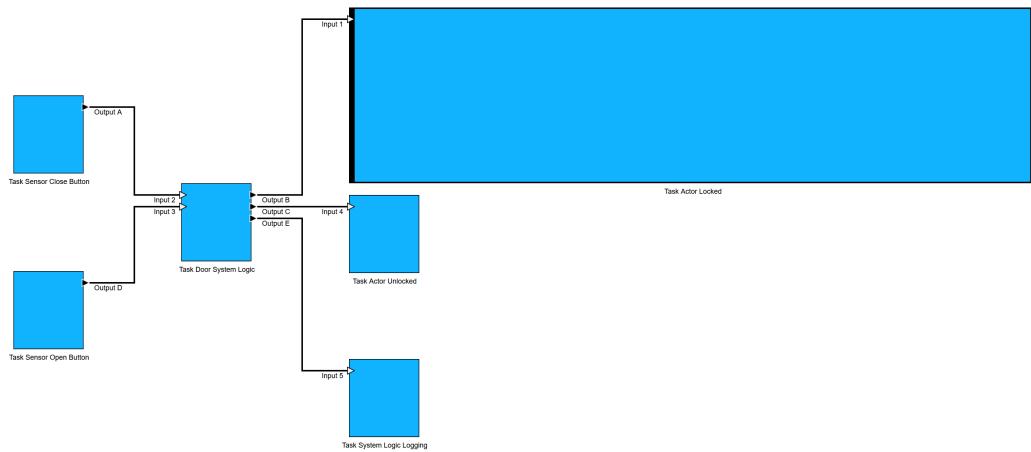
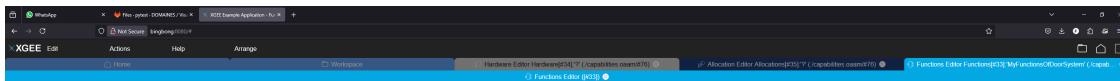
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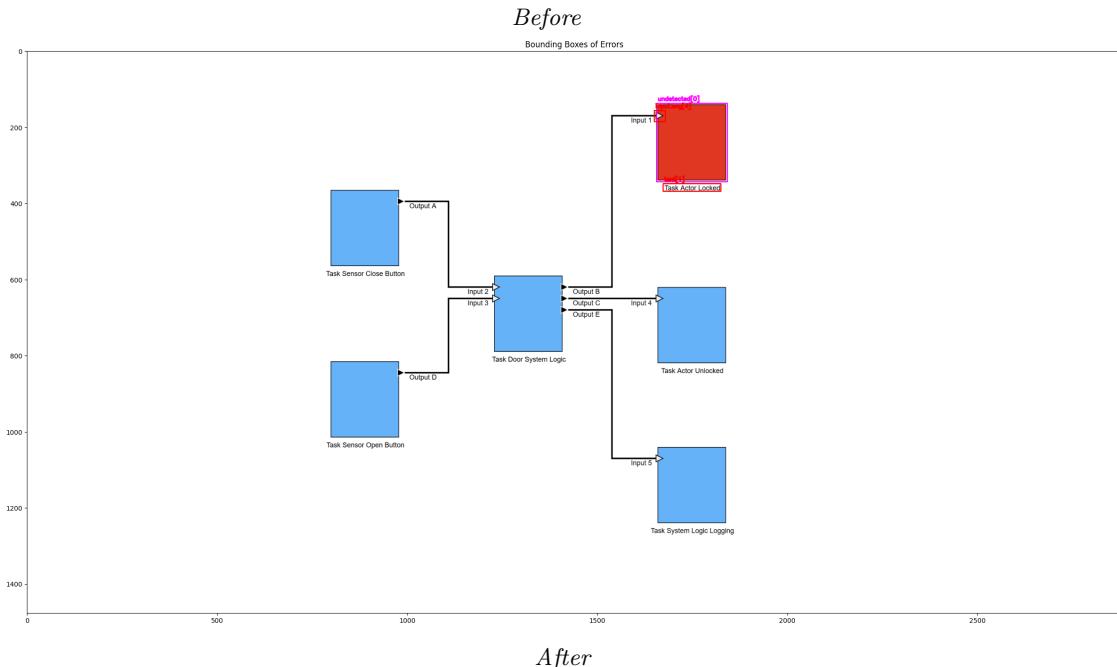
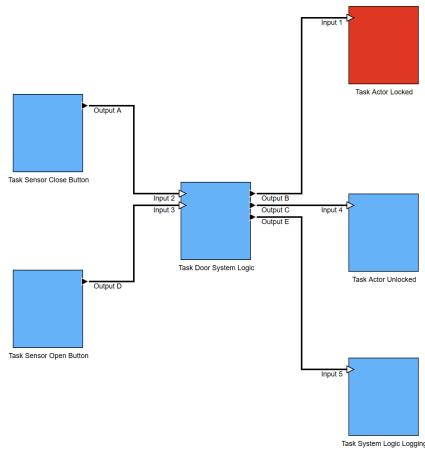
1 Vertex too small



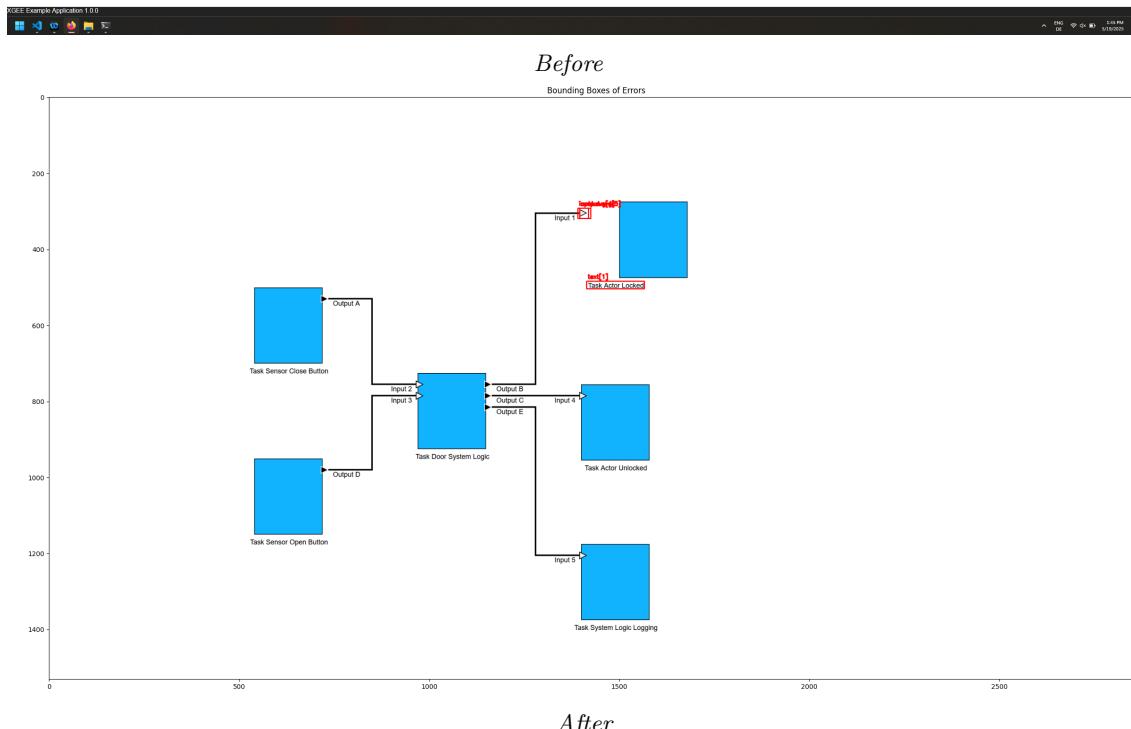
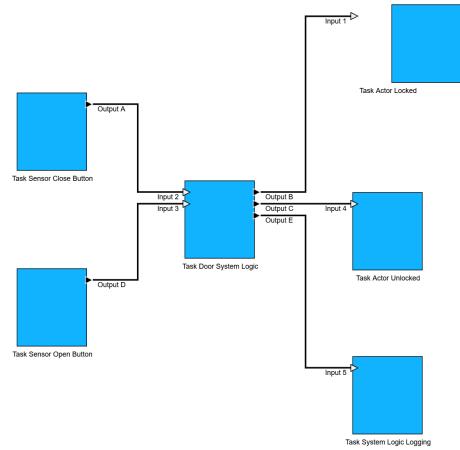
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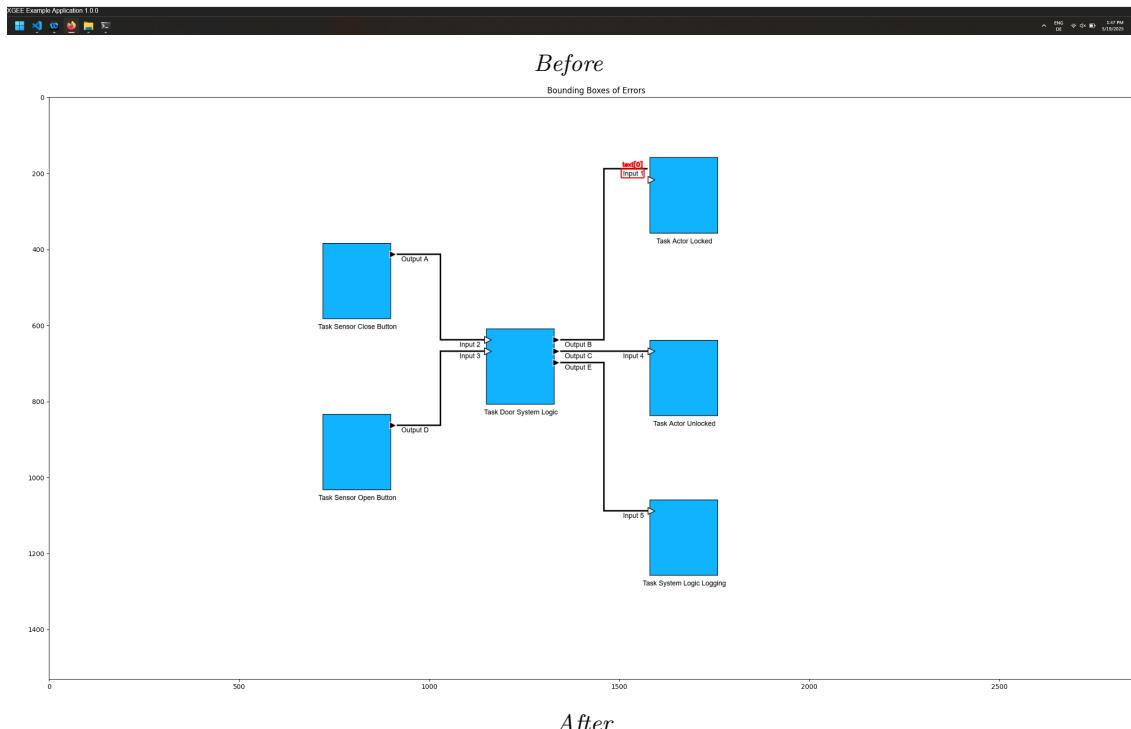
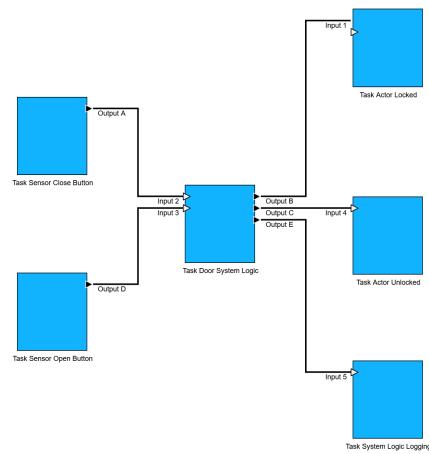
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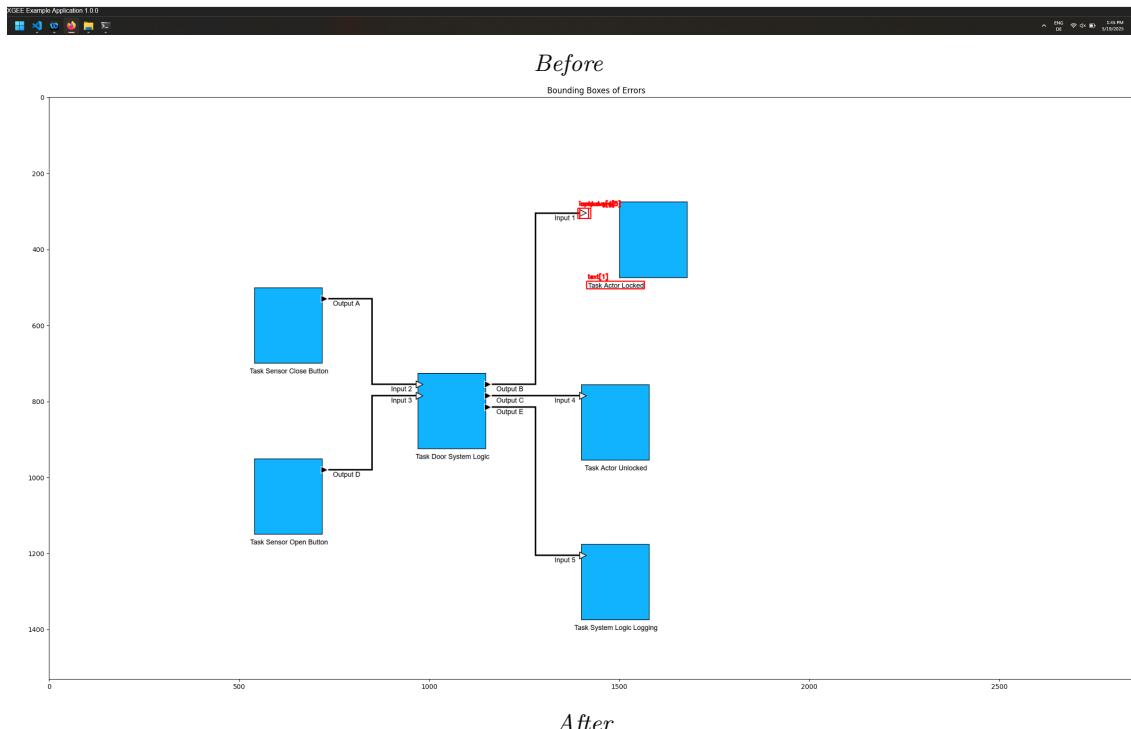
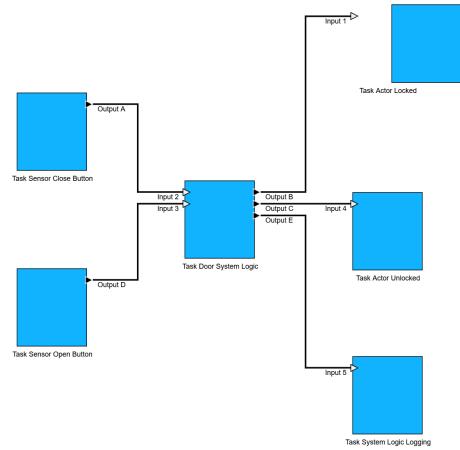
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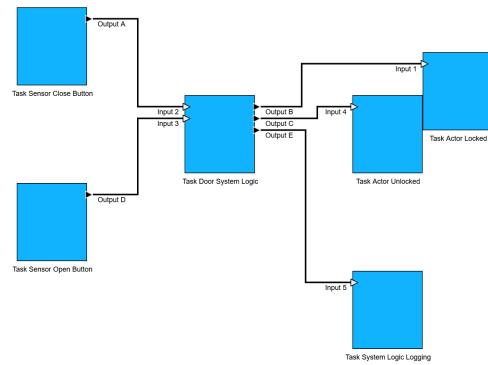
5 Vertex input in wrong position



6 Vertex task in wrong position

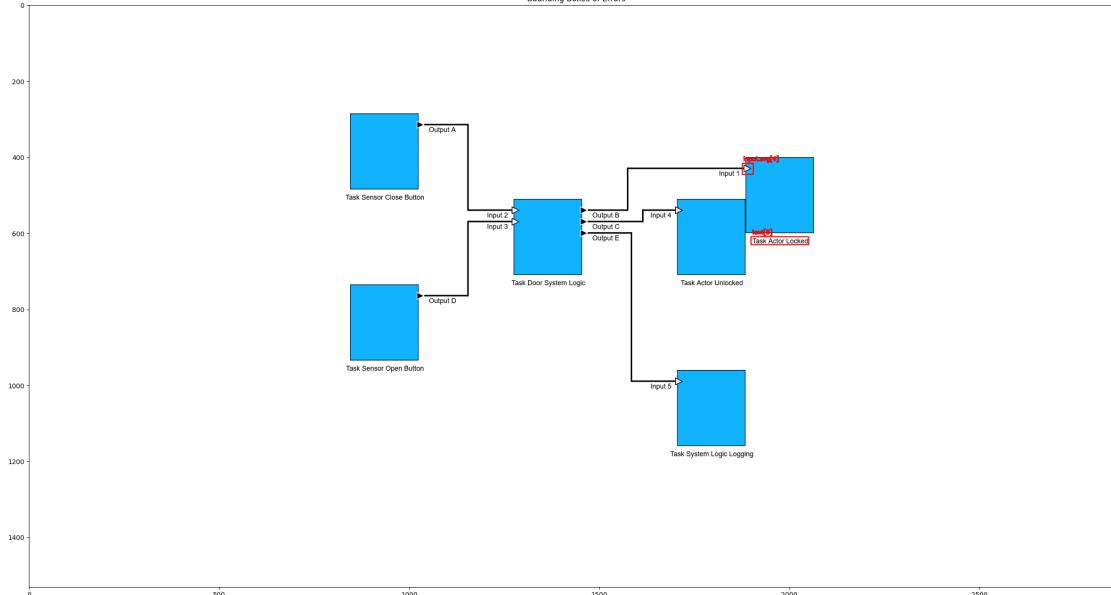


7 Vertices too close to each other



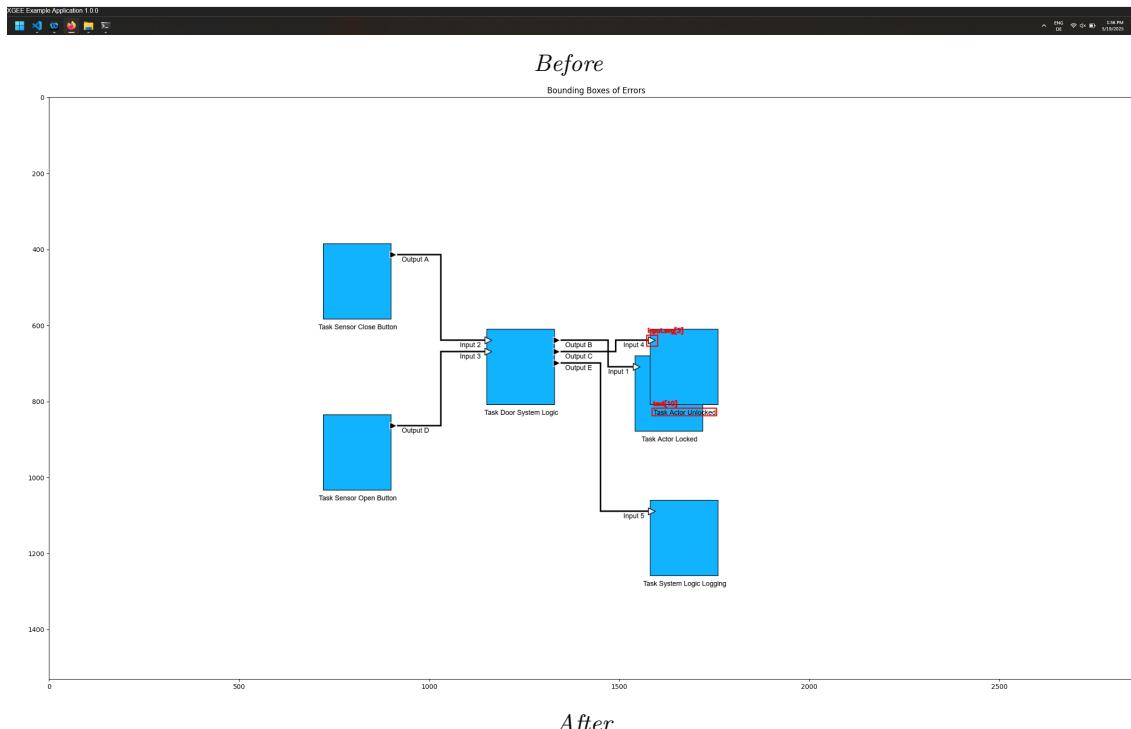
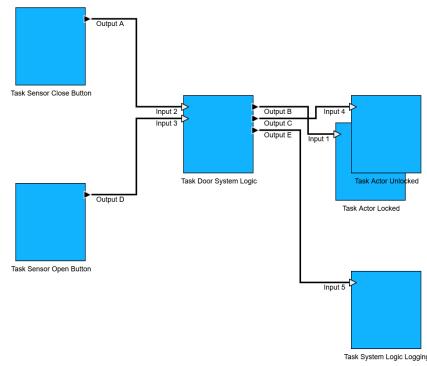
Before

Bounding Boxes of Errors

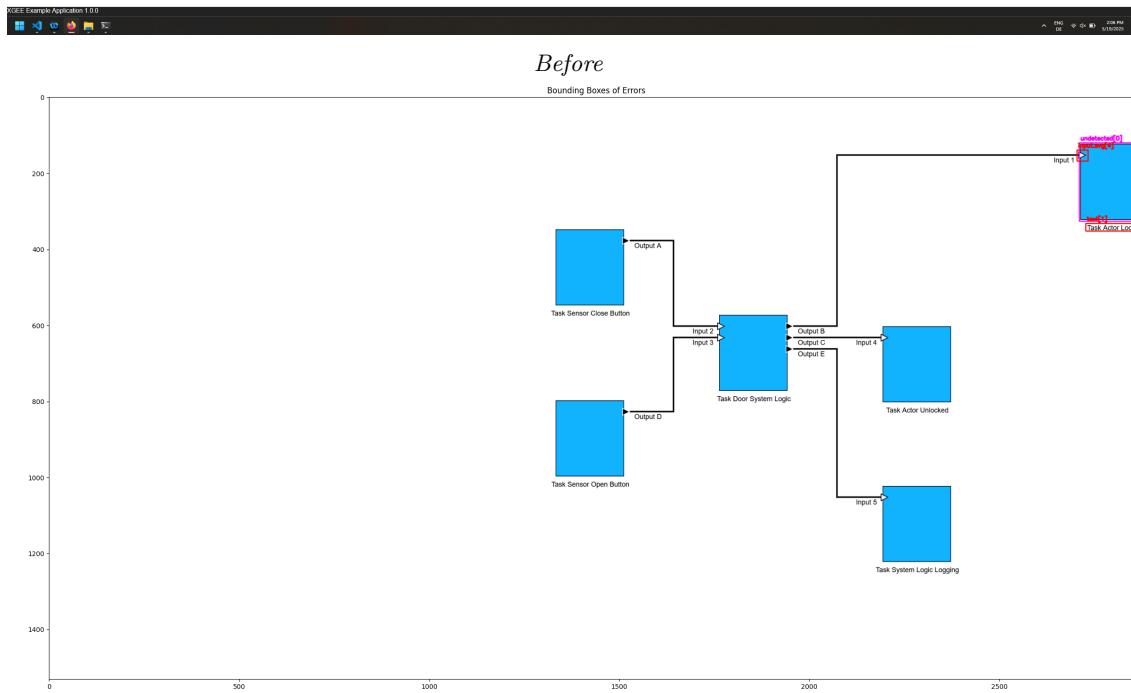
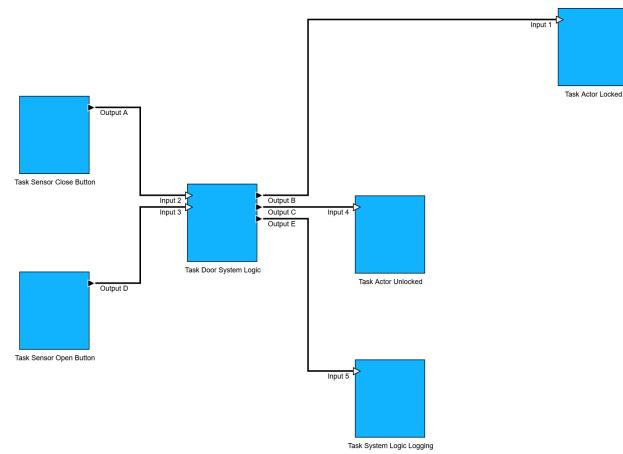


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8 Vertices overlapping

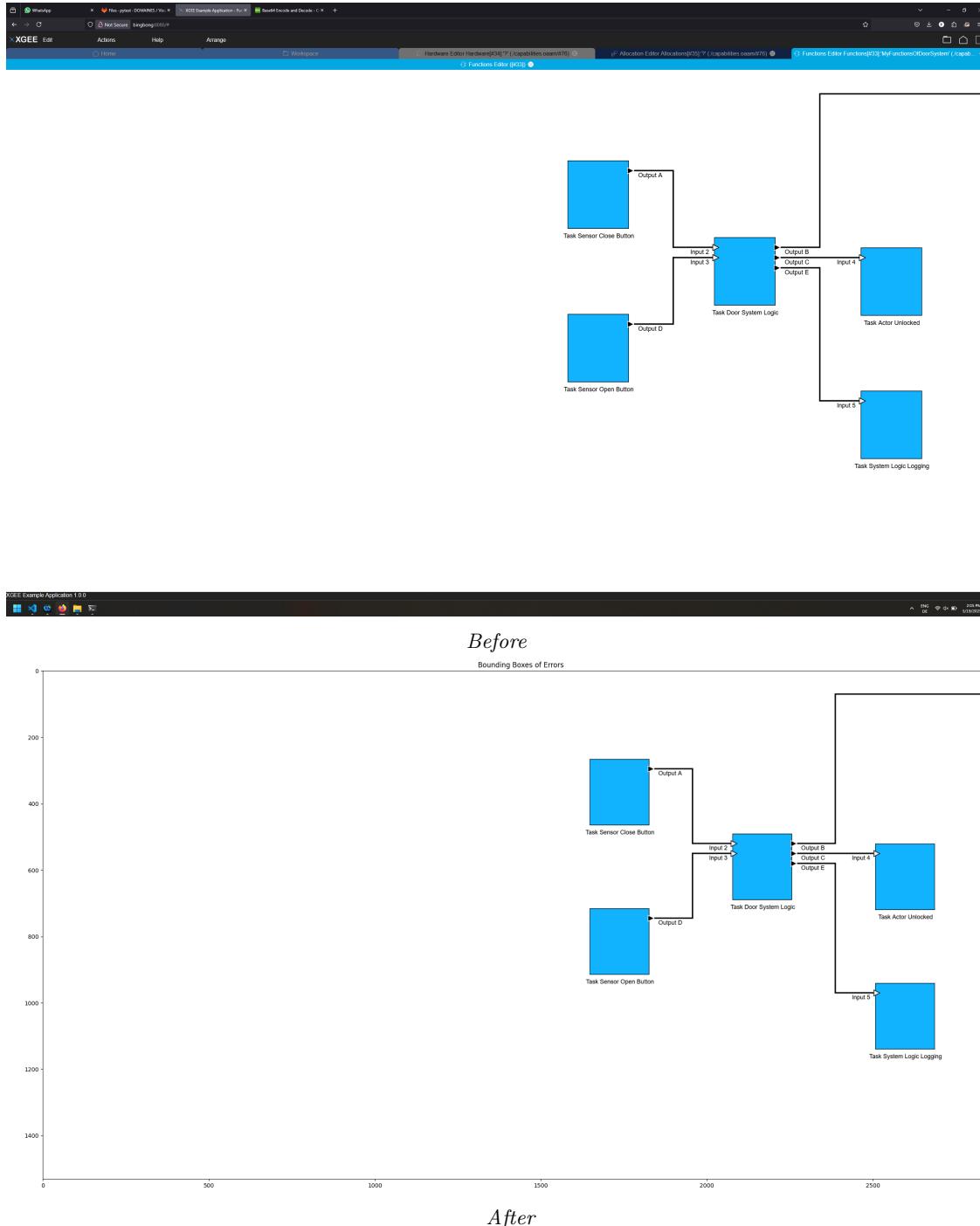


9 Vertices Partly offscreen

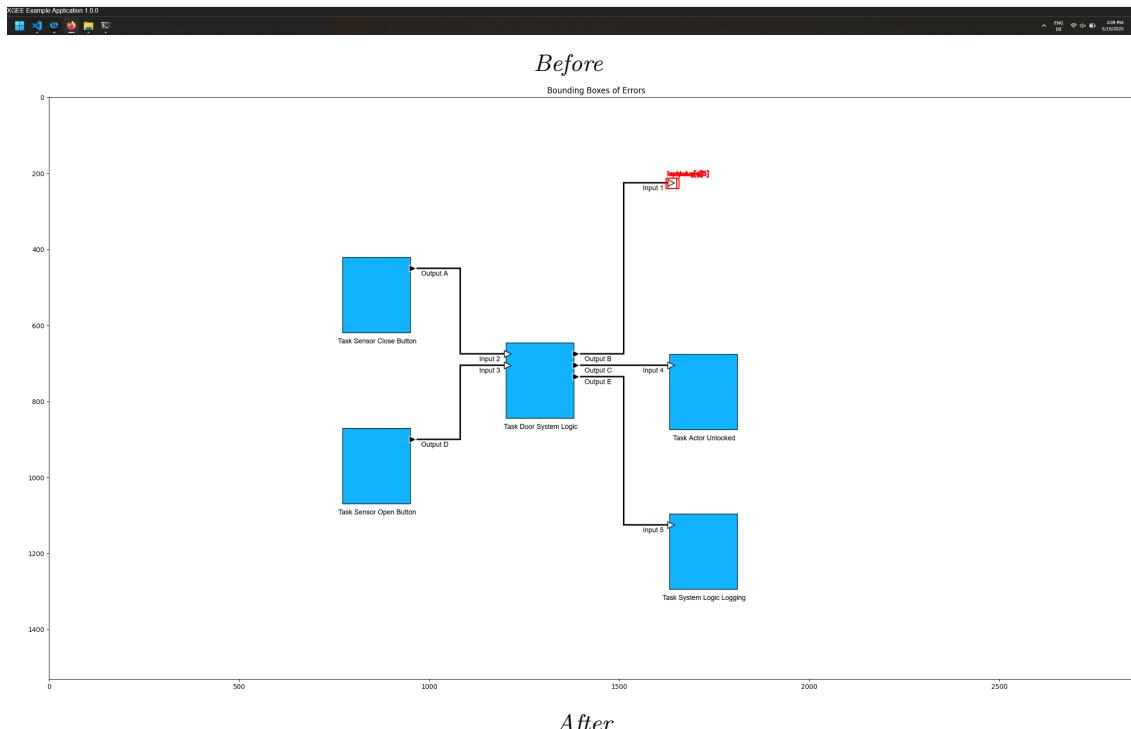
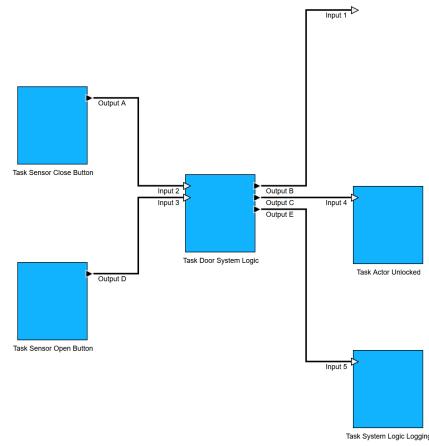


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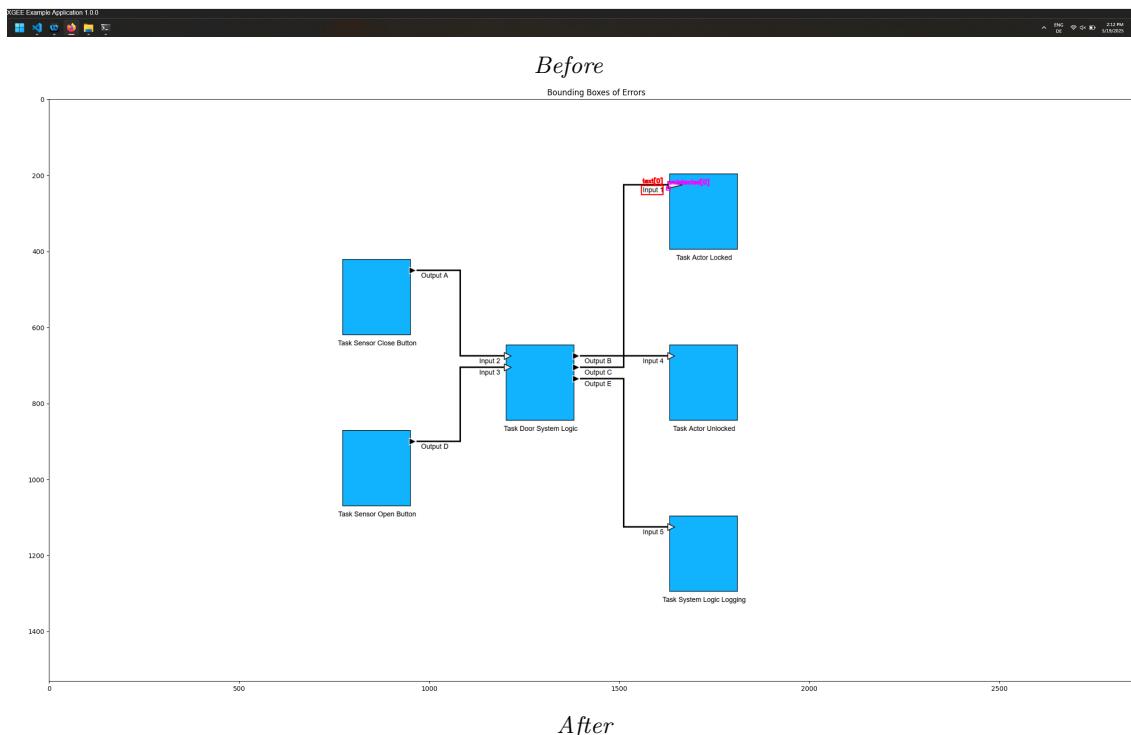
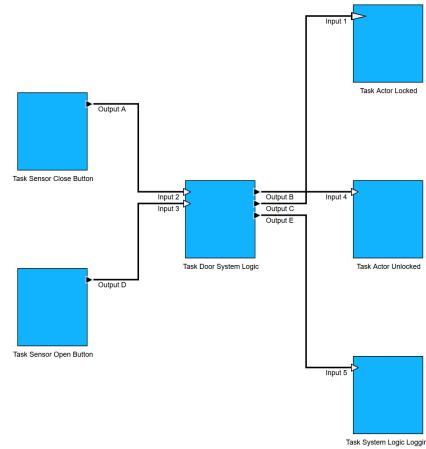
10 Vertices Completely offscreen



11 Vertex without parent element

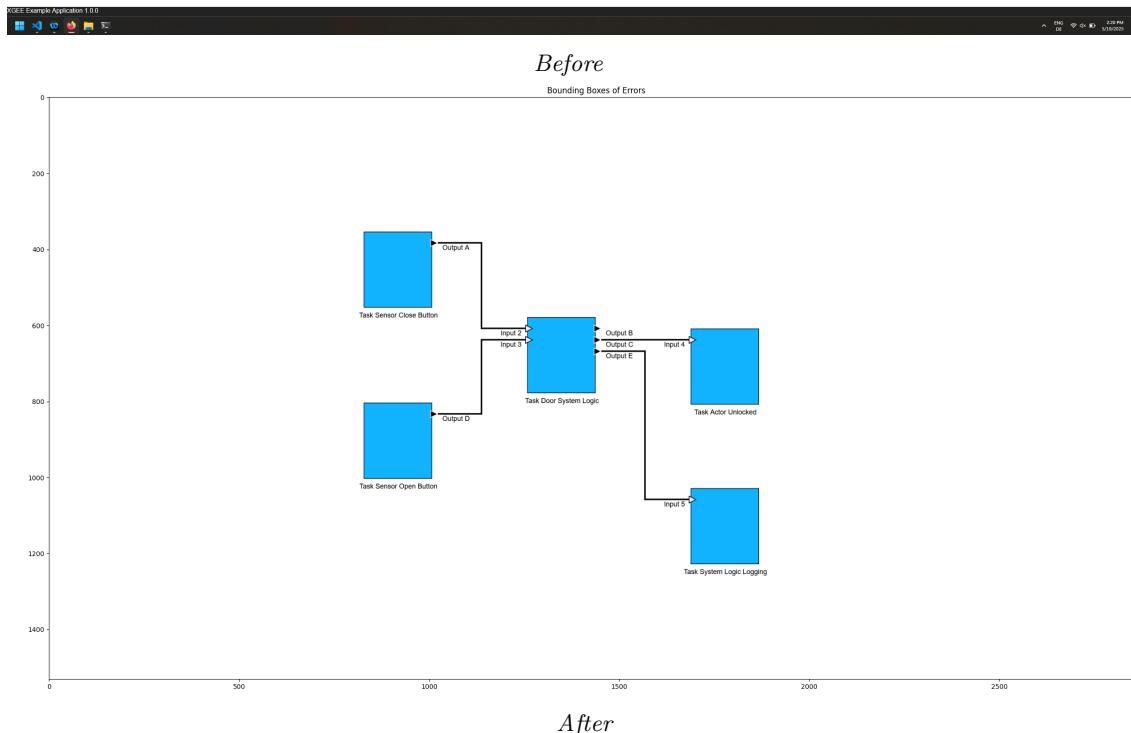
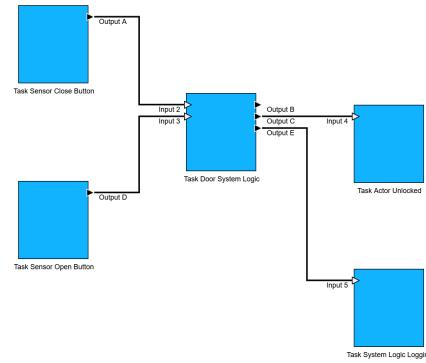


12 Vertex displayed incorrectly

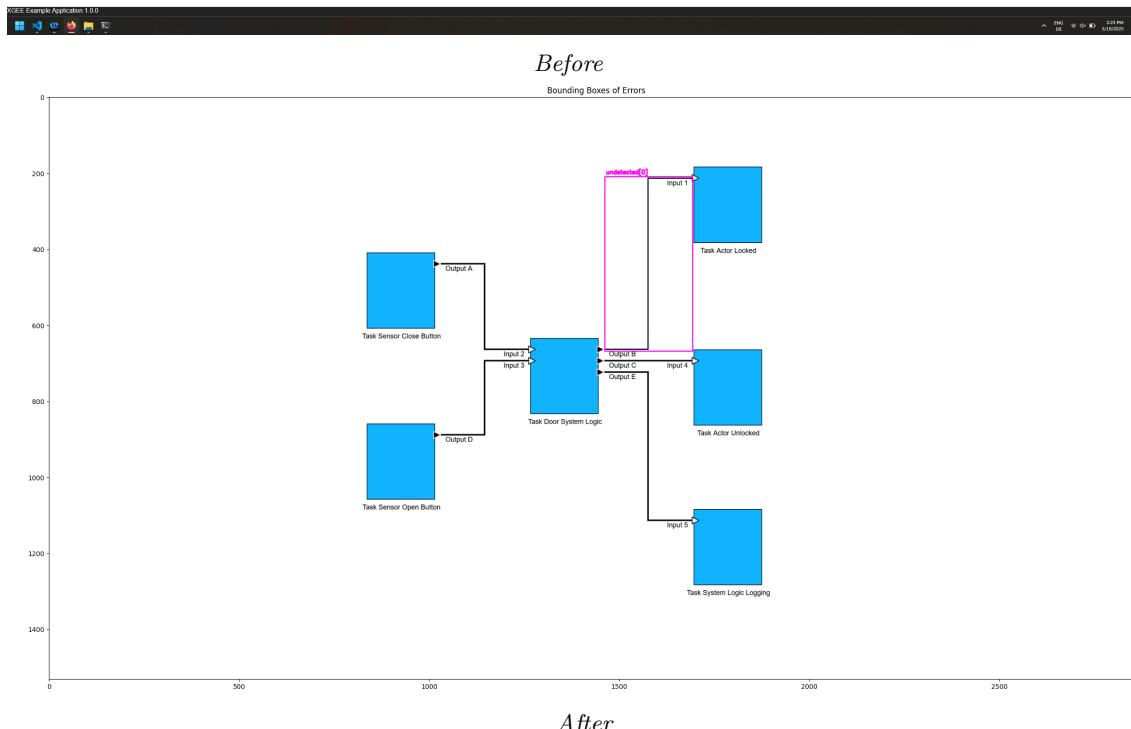
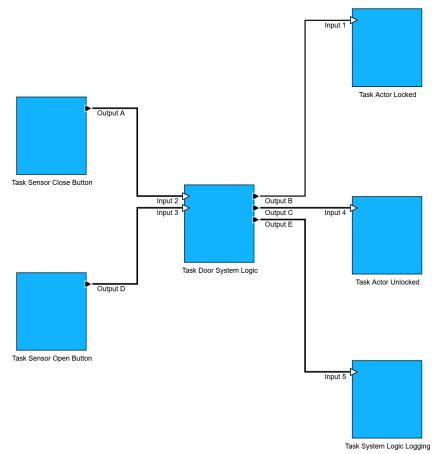


13 Vertex in visualization, but not in model

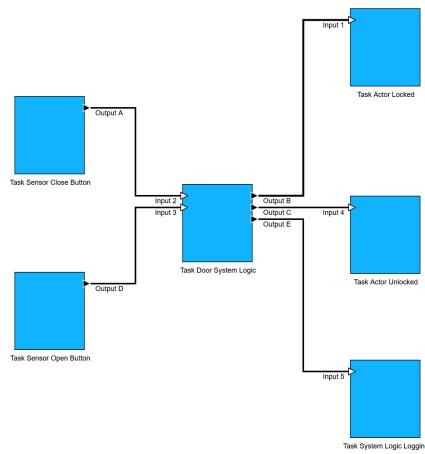
14 Vertex in model, but not in visualization



15 Edge too thin

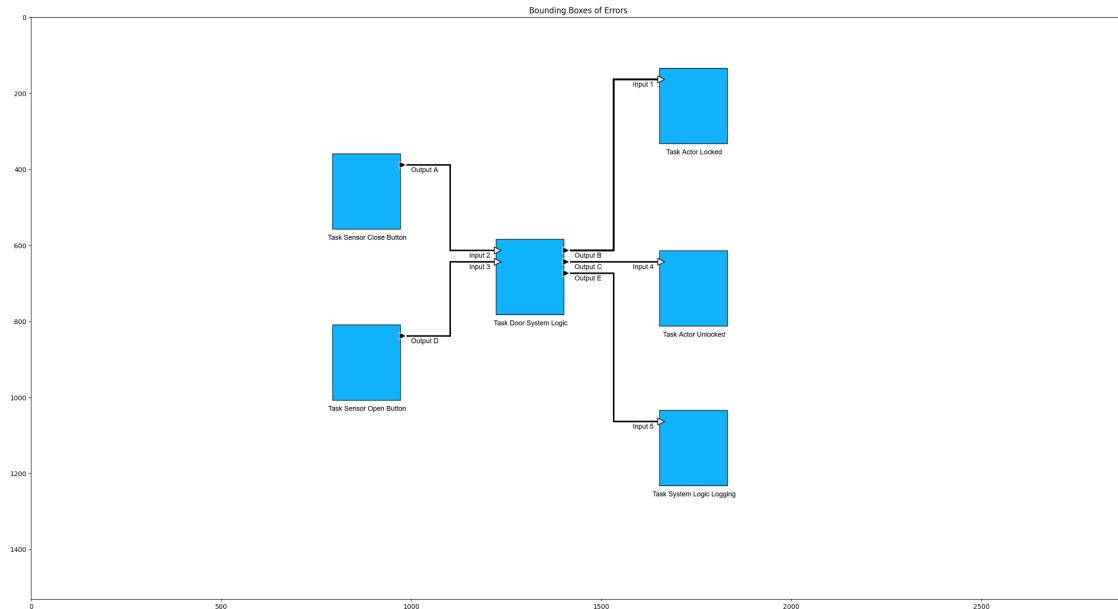


16 Edge 1px too wide



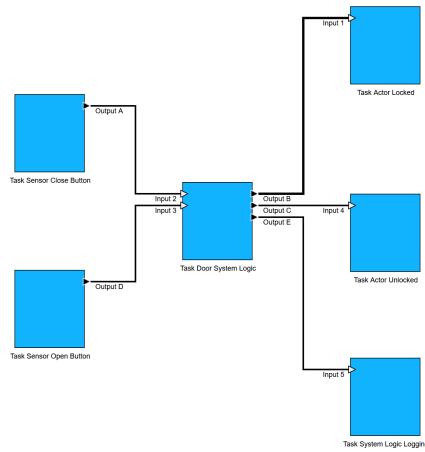
Before

Bounding Boxes of Errors



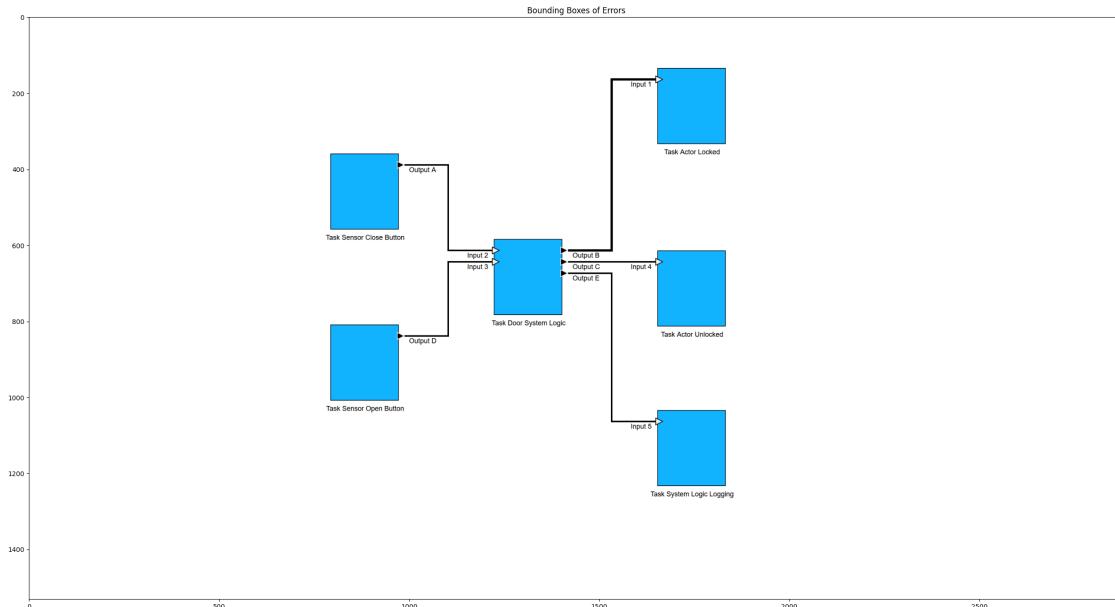
After

17 Edge 2px too wide



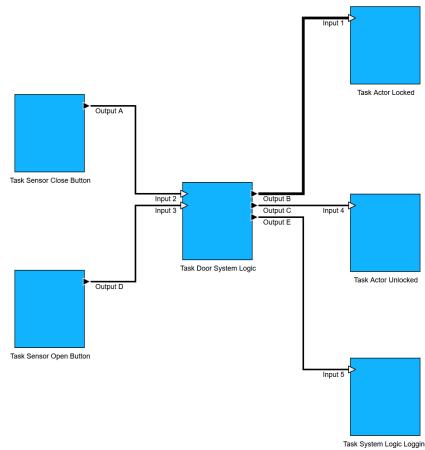
Before

Bounding Boxes of Errors



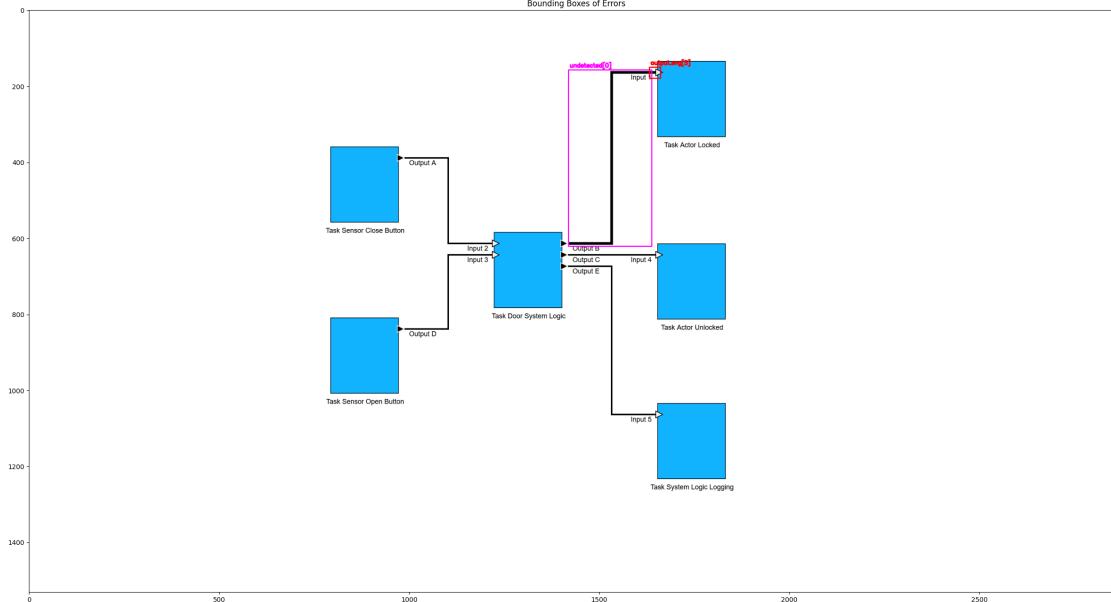
After

18 Edge 3px too wide



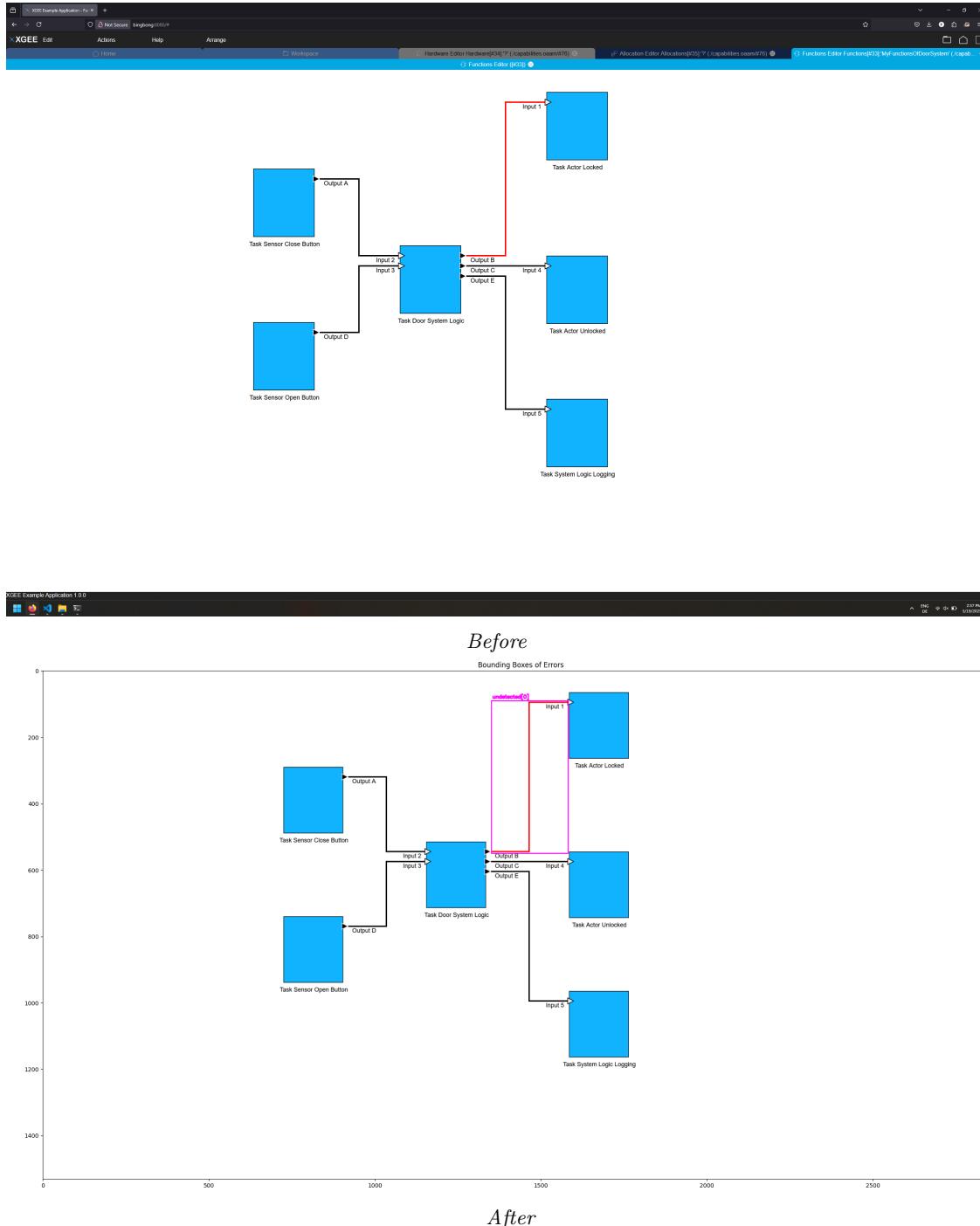
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Bounding Boxes of Errors

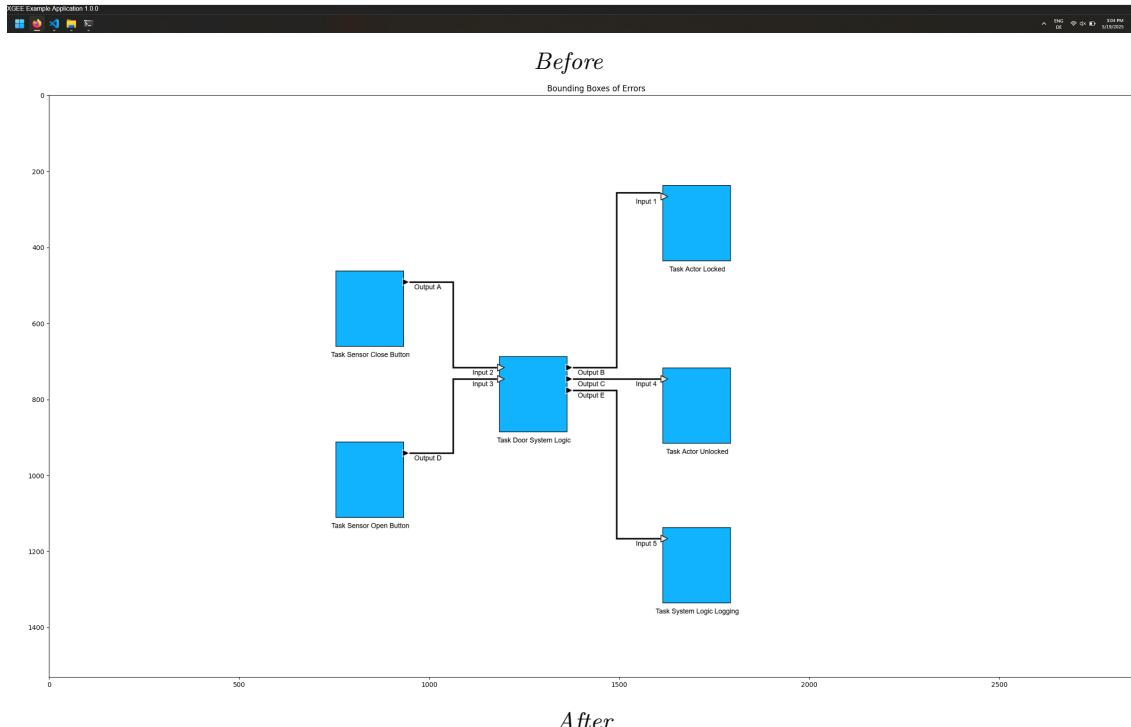


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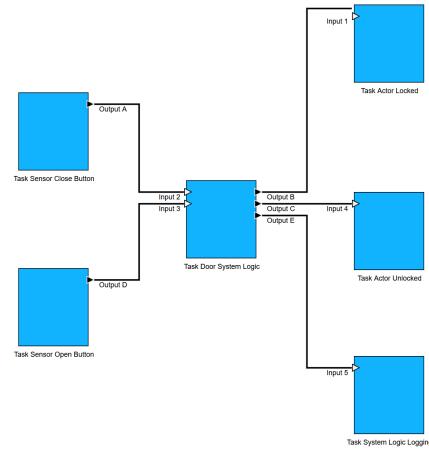
19 Edge wrong color



20 Edge 10px too high

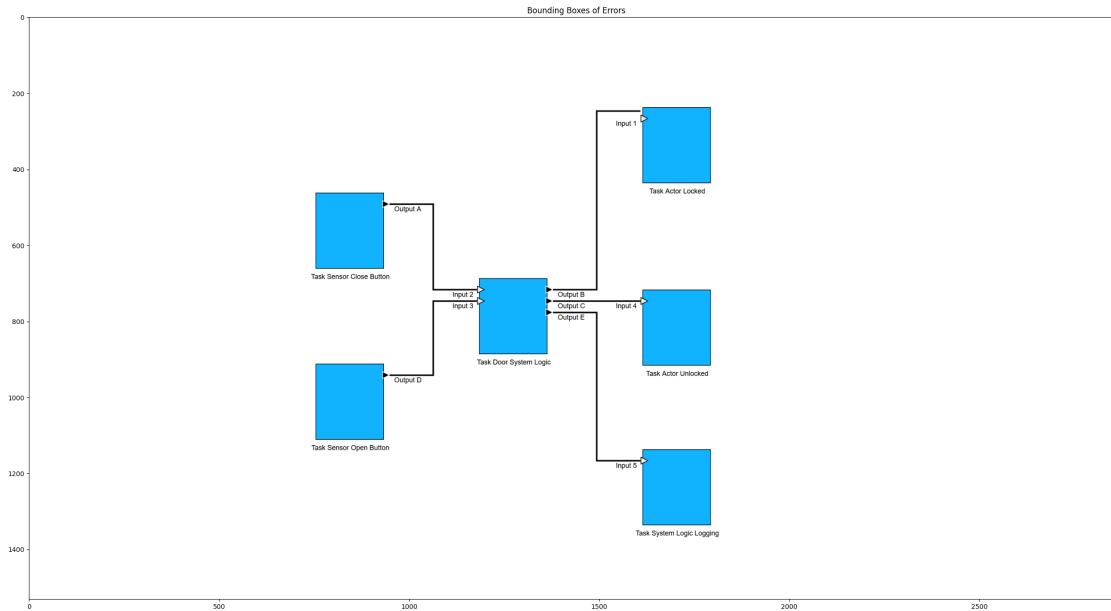


21 Edge 20px too high



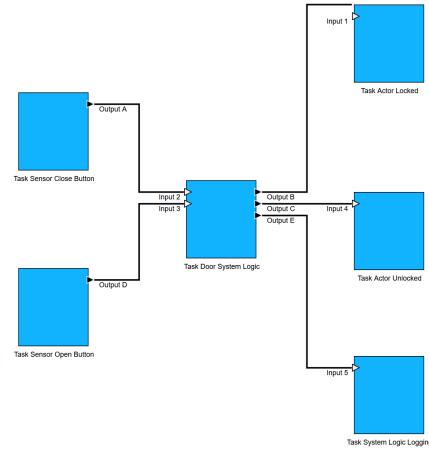
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Bounding Boxes of Errors



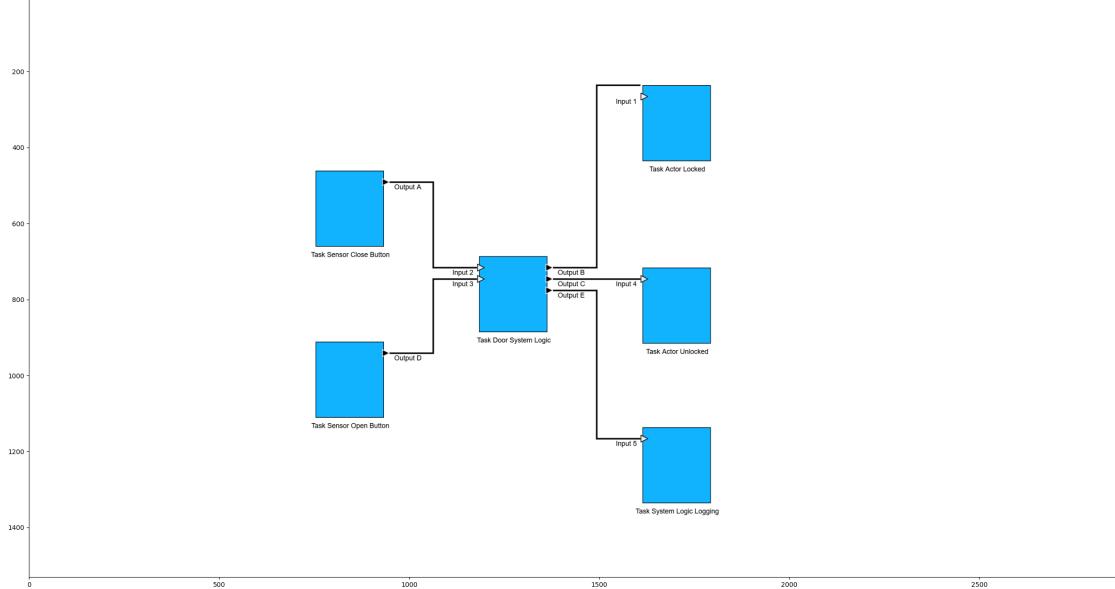
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22 Edge 30px too high



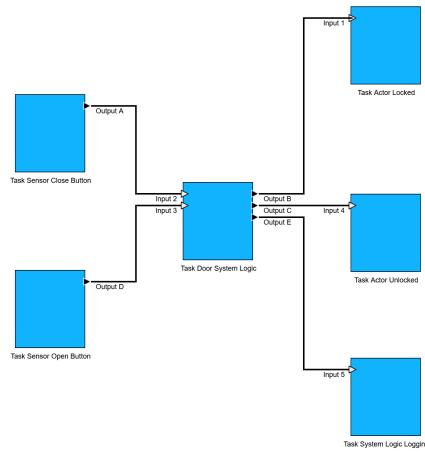
Before

Bounding Boxes of Errors



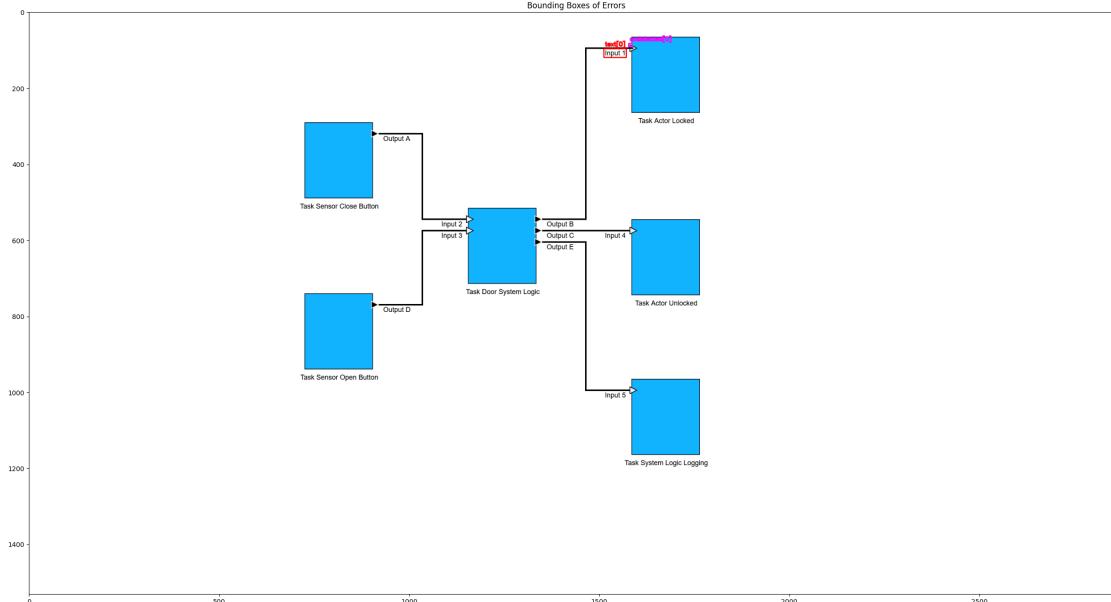
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23 Edge 10px too long



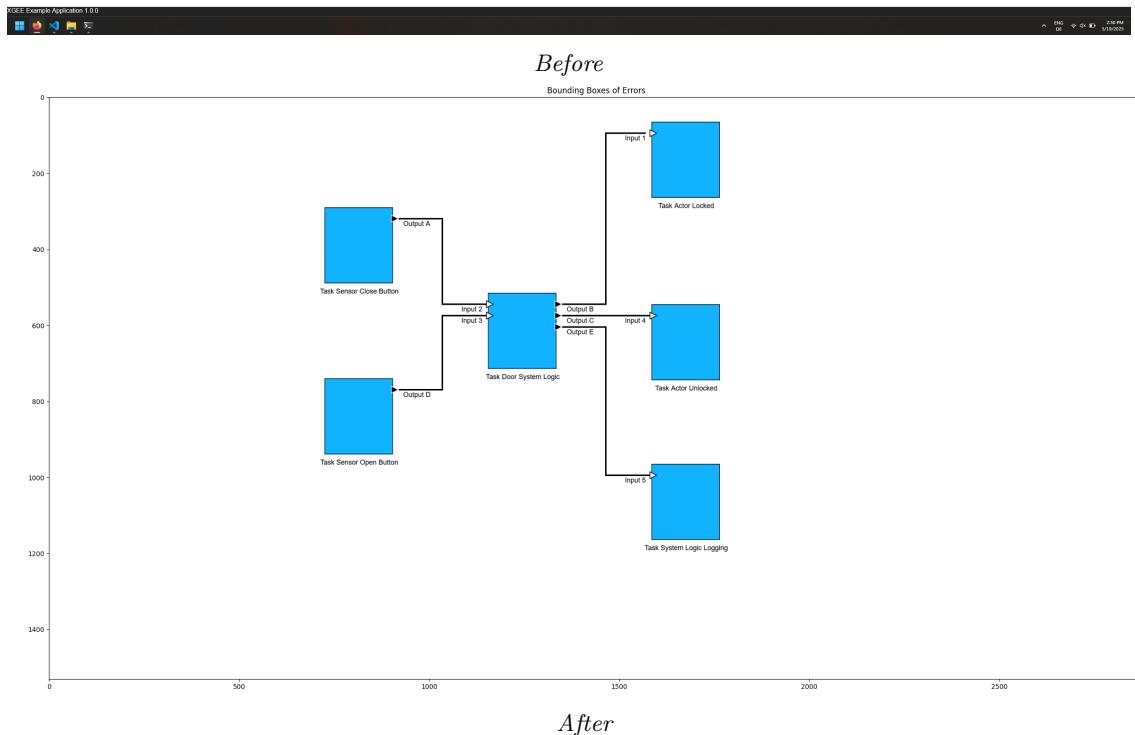
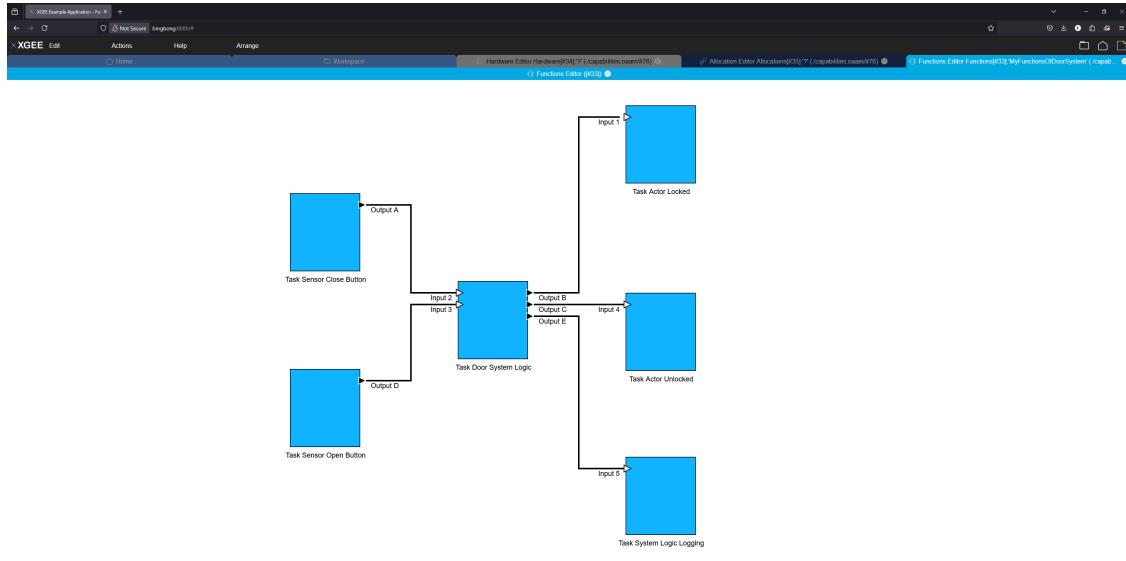
Before

Bounding Boxes of Errors

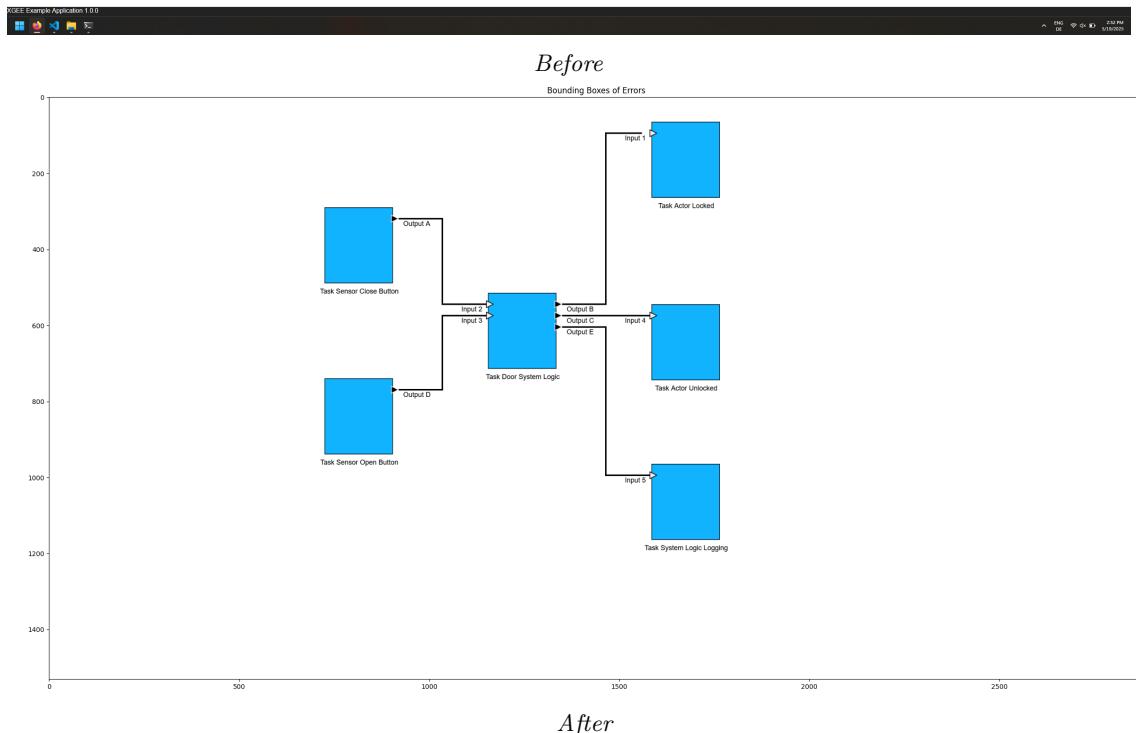
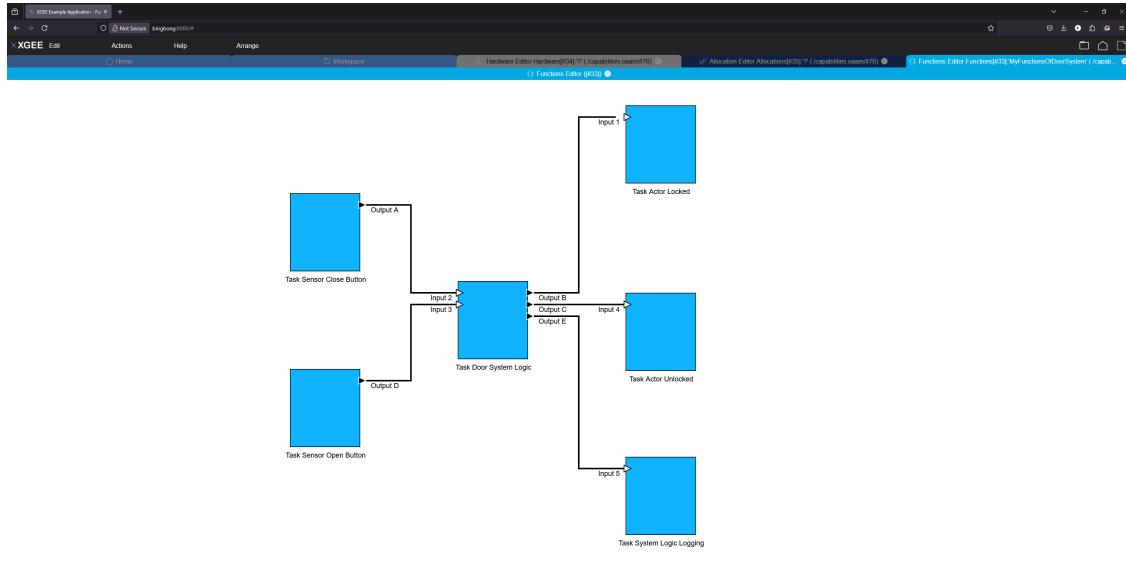


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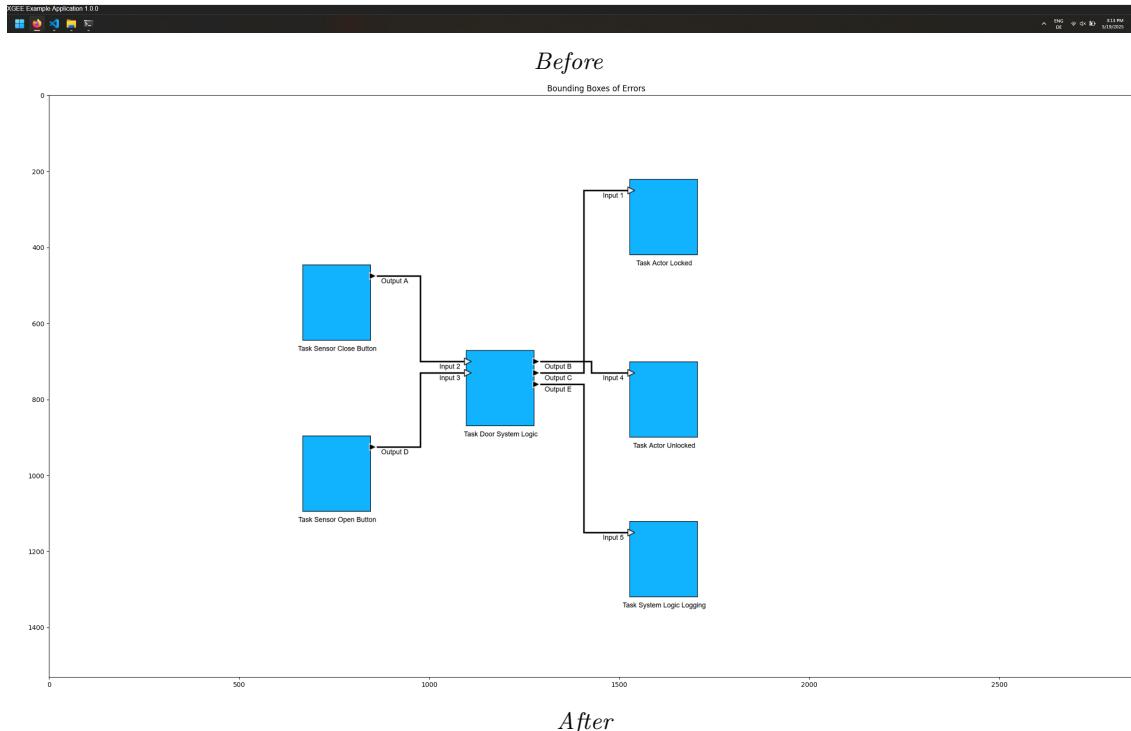
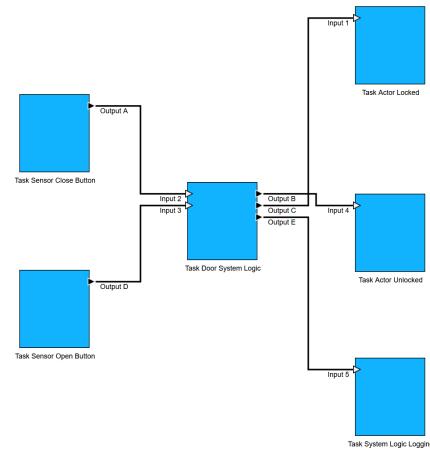
24 Edge 10px too short



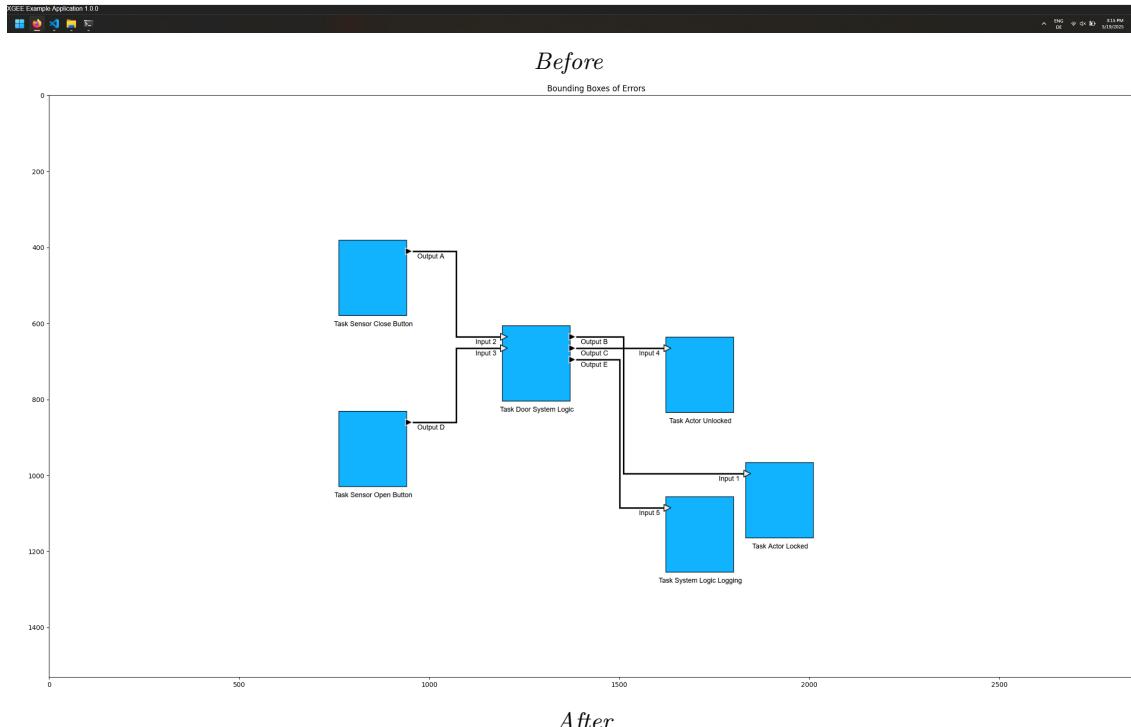
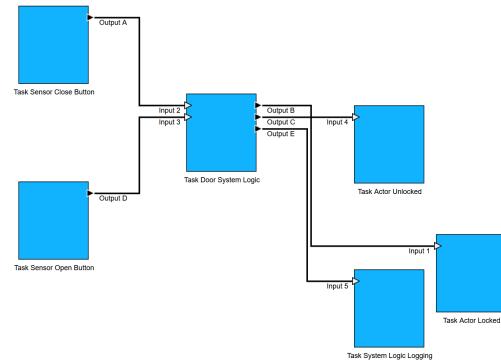
25 Edge 20px too short



26 Edge connecting wrong elements

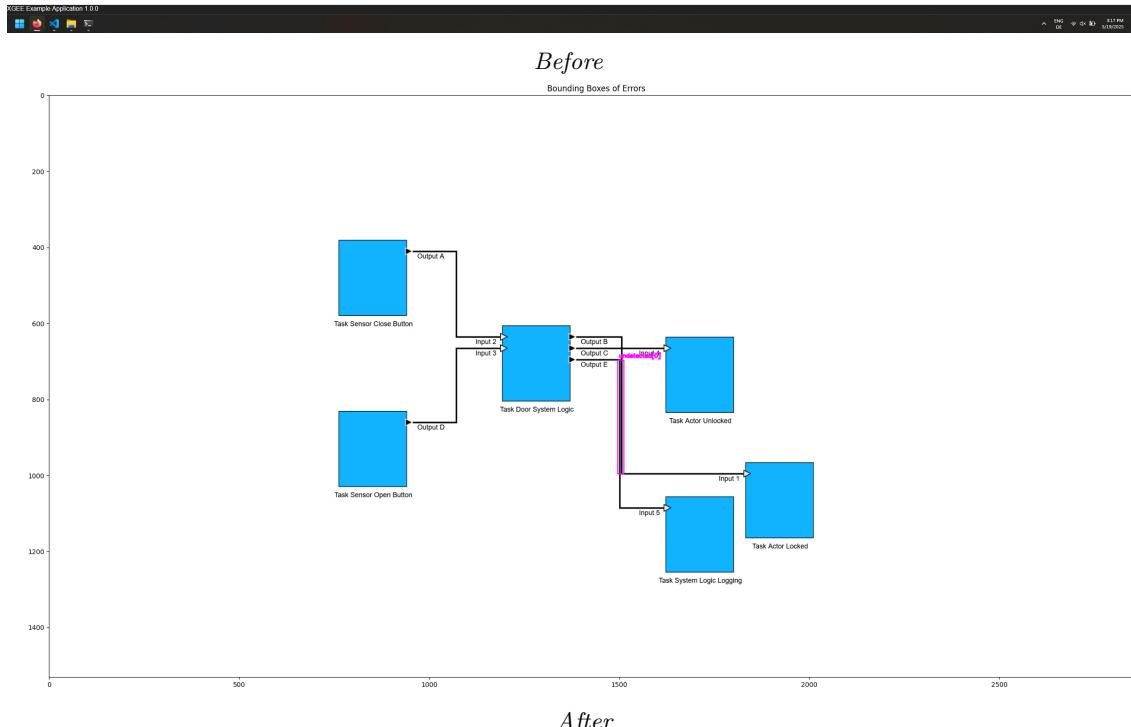
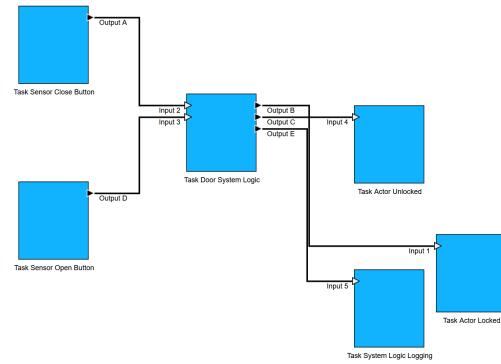


27 Edges too close to each other - 10px

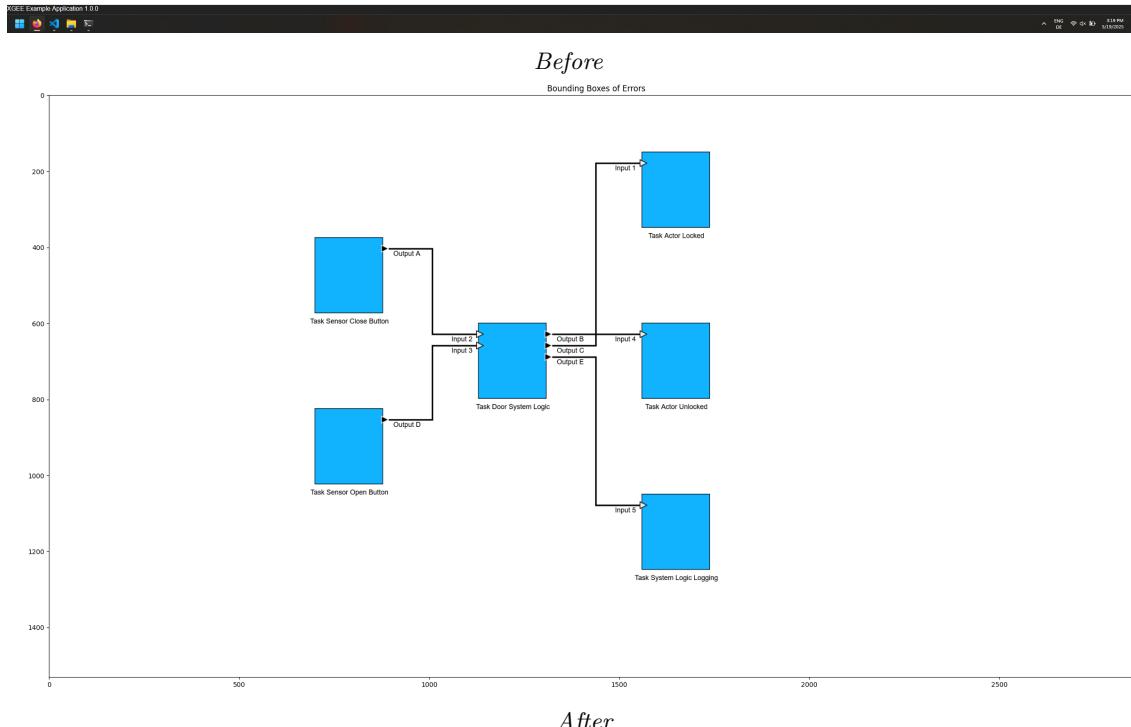
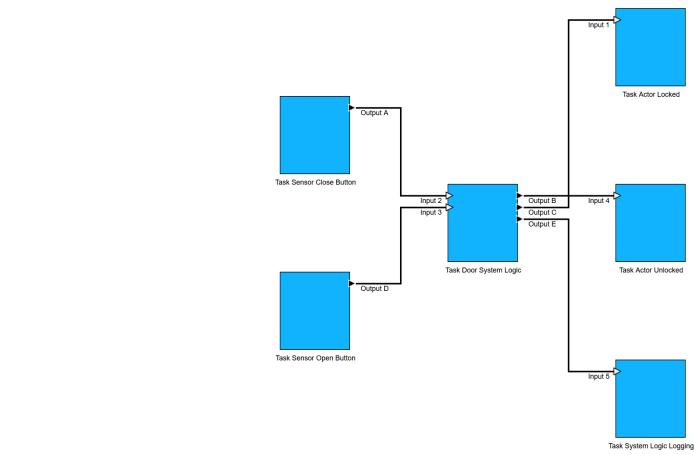


After

28 Edges too close to each other - 5px



29 Edges forming ambiguous intersections

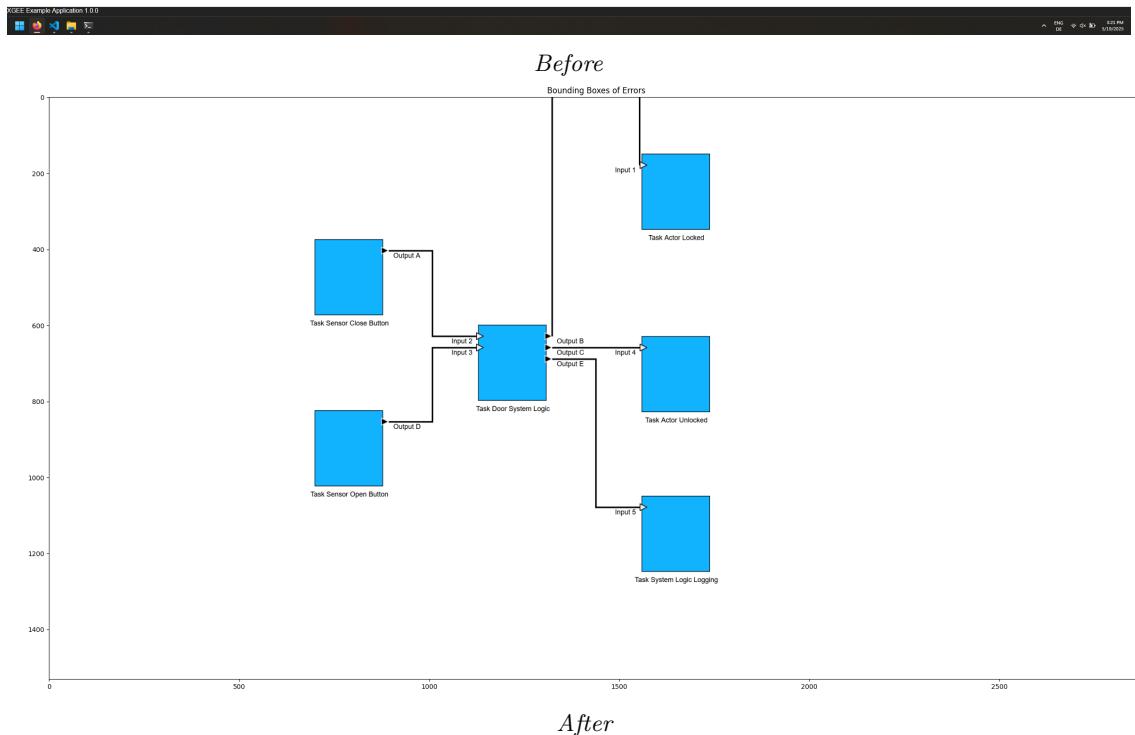
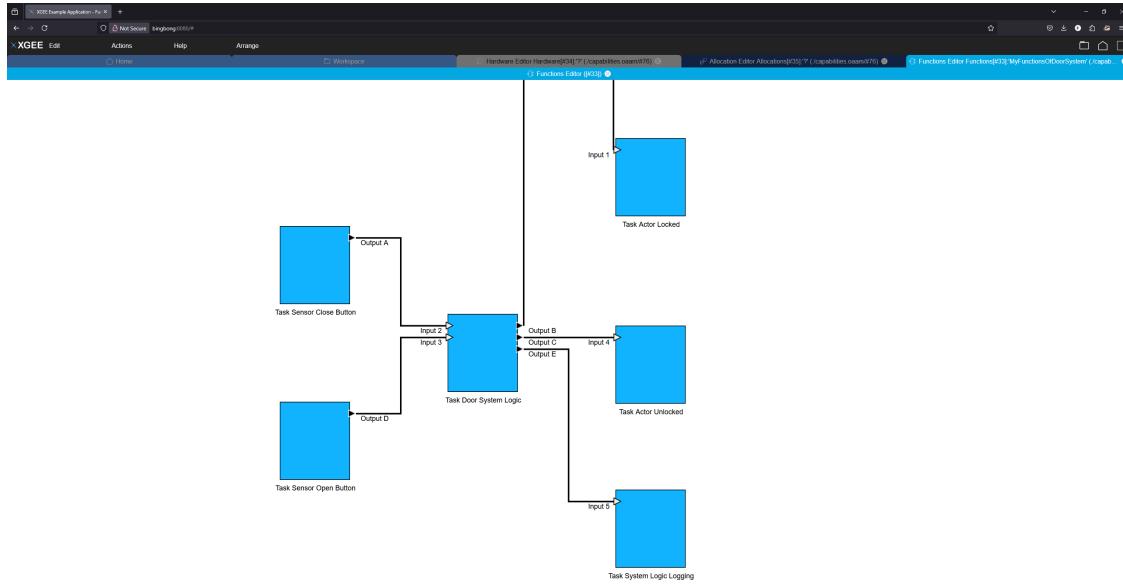


After

30 Edges partly offscreen



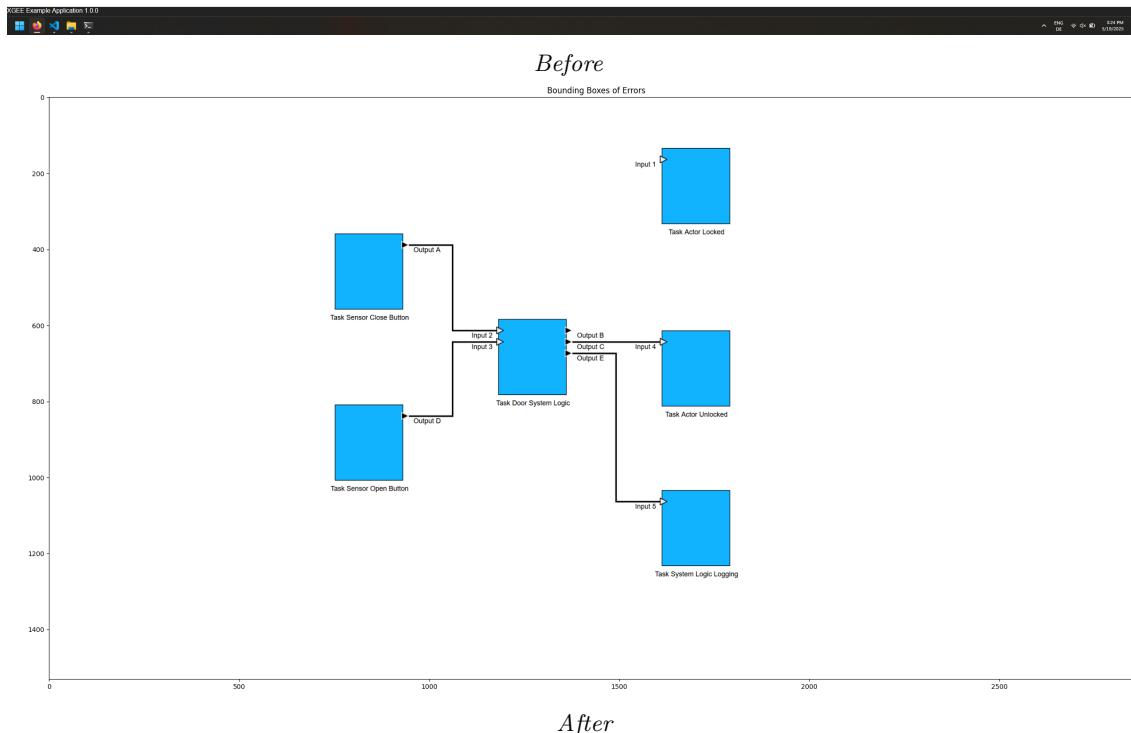
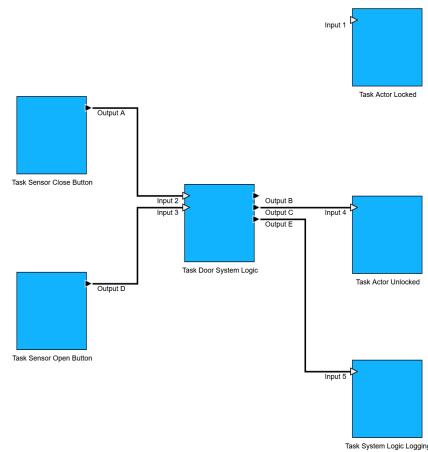
31 Edges completely offscreen



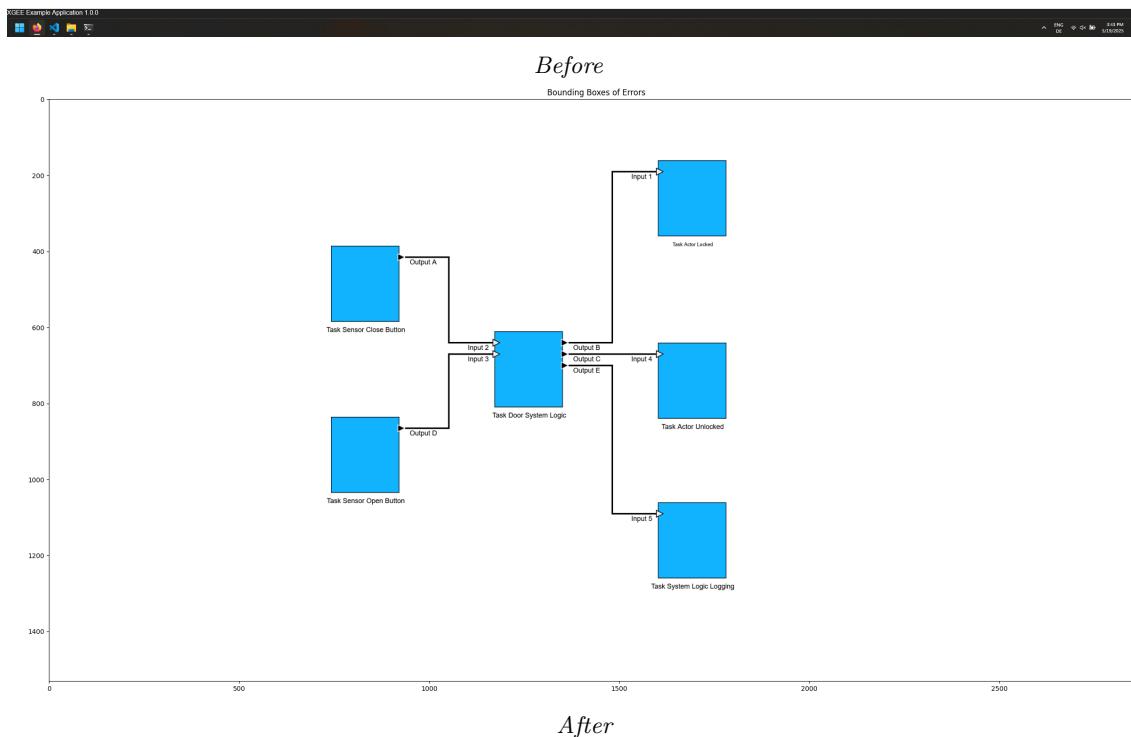
After

32 Edge in visualization, but not in model

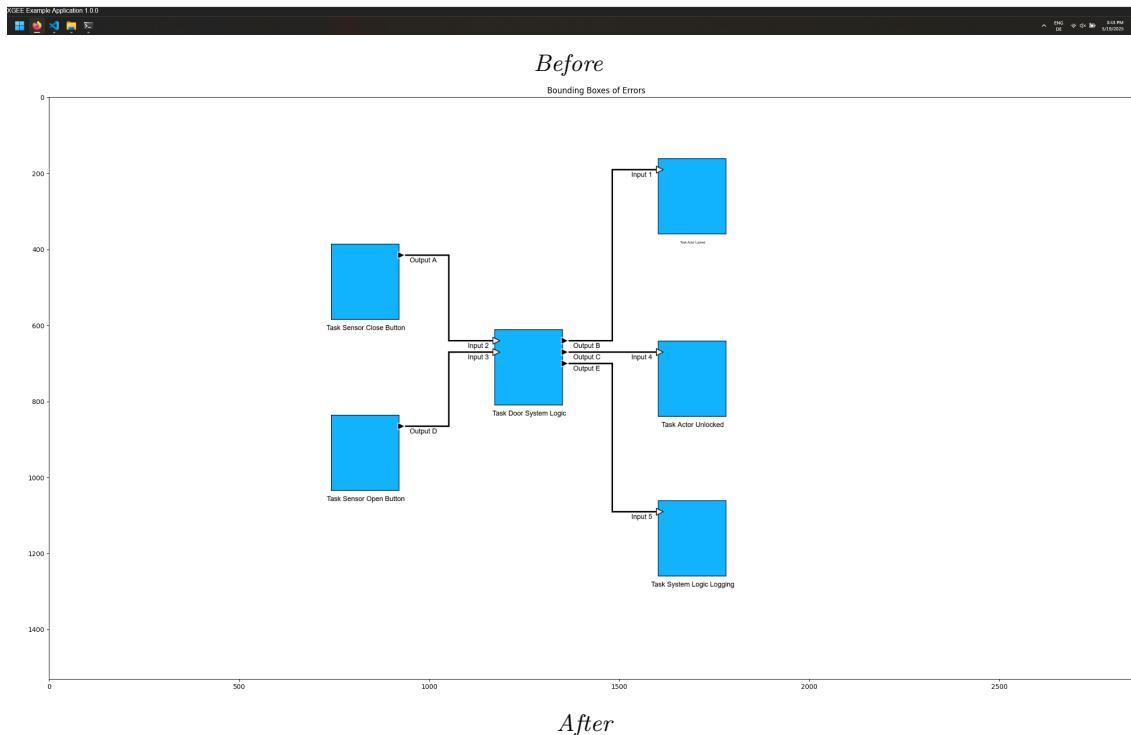
33 Edge in model, but not in visualization



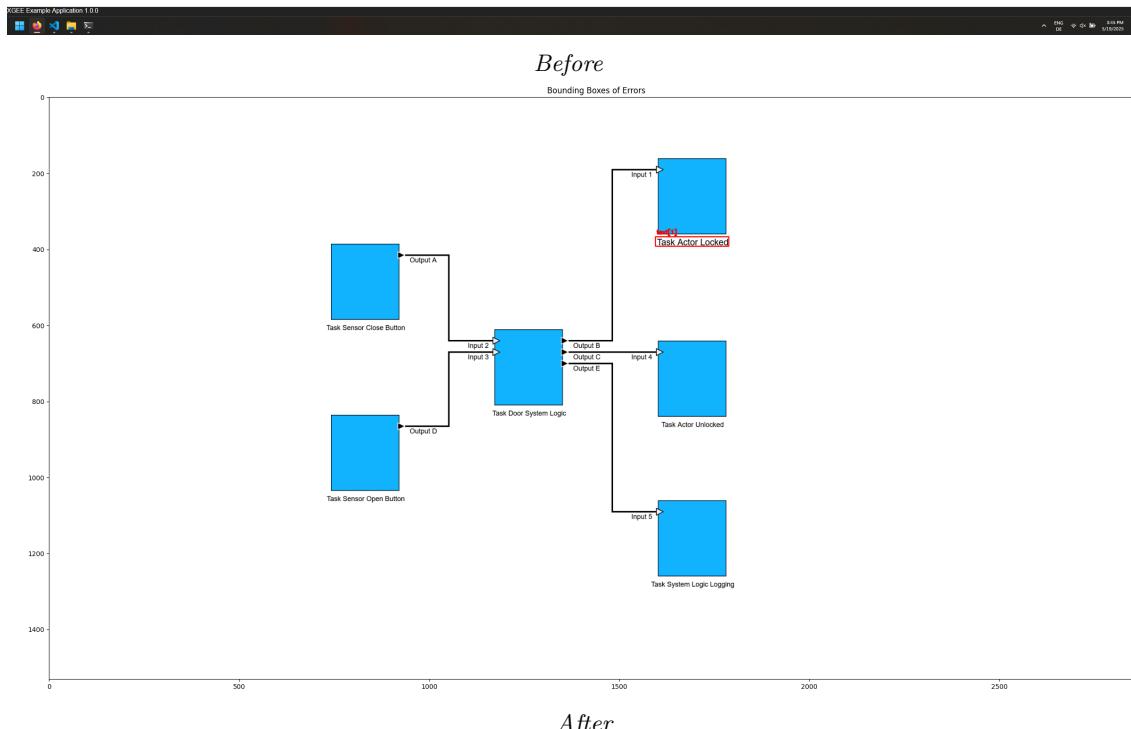
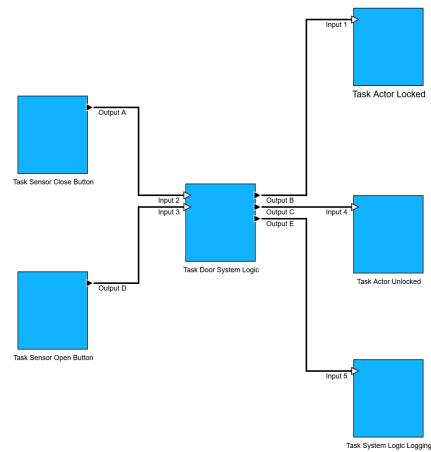
34 Text 5pt too small



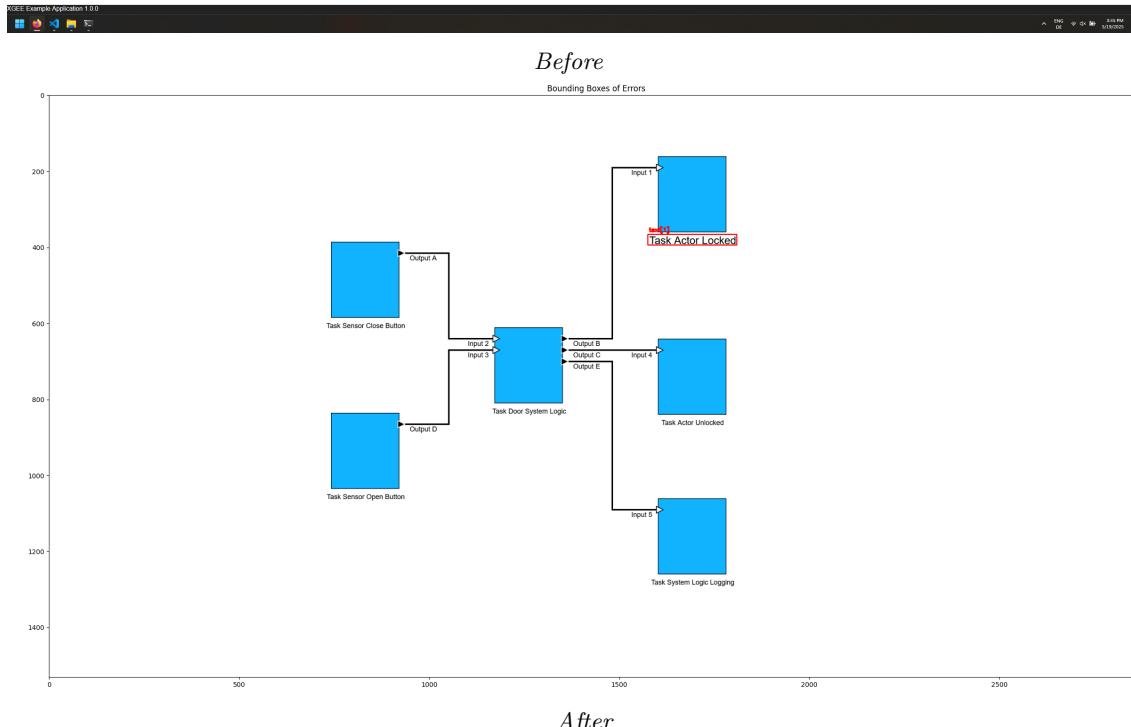
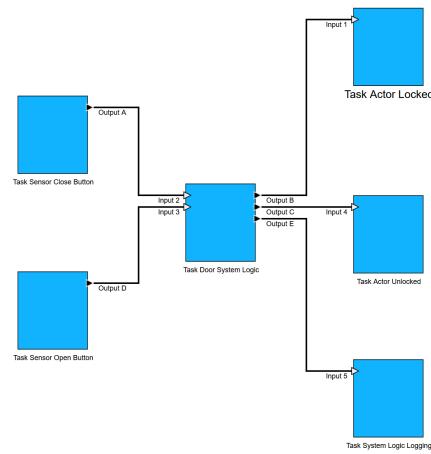
35 Text 10pt too small



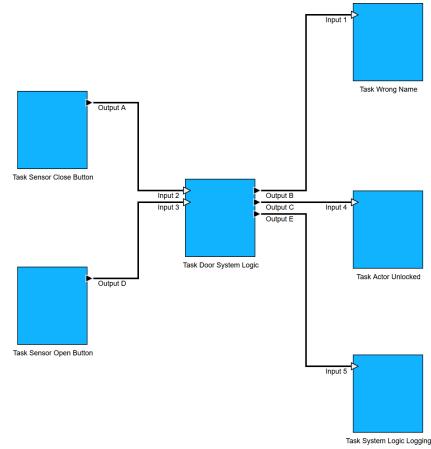
36 Text 5pt too large



37 Text 10pt too large

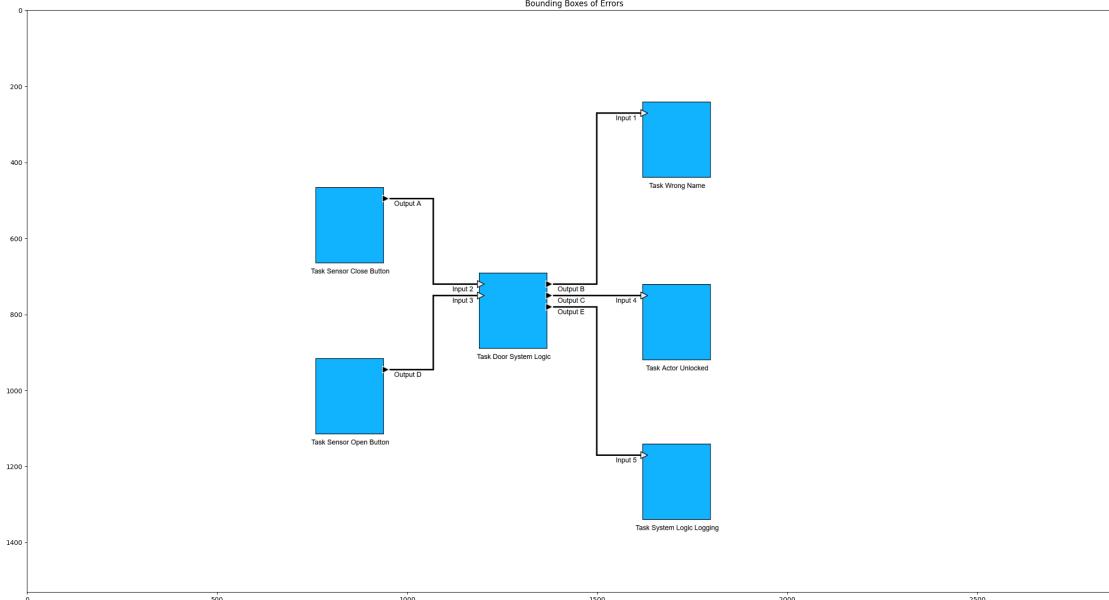


38 Text wrong in visualization



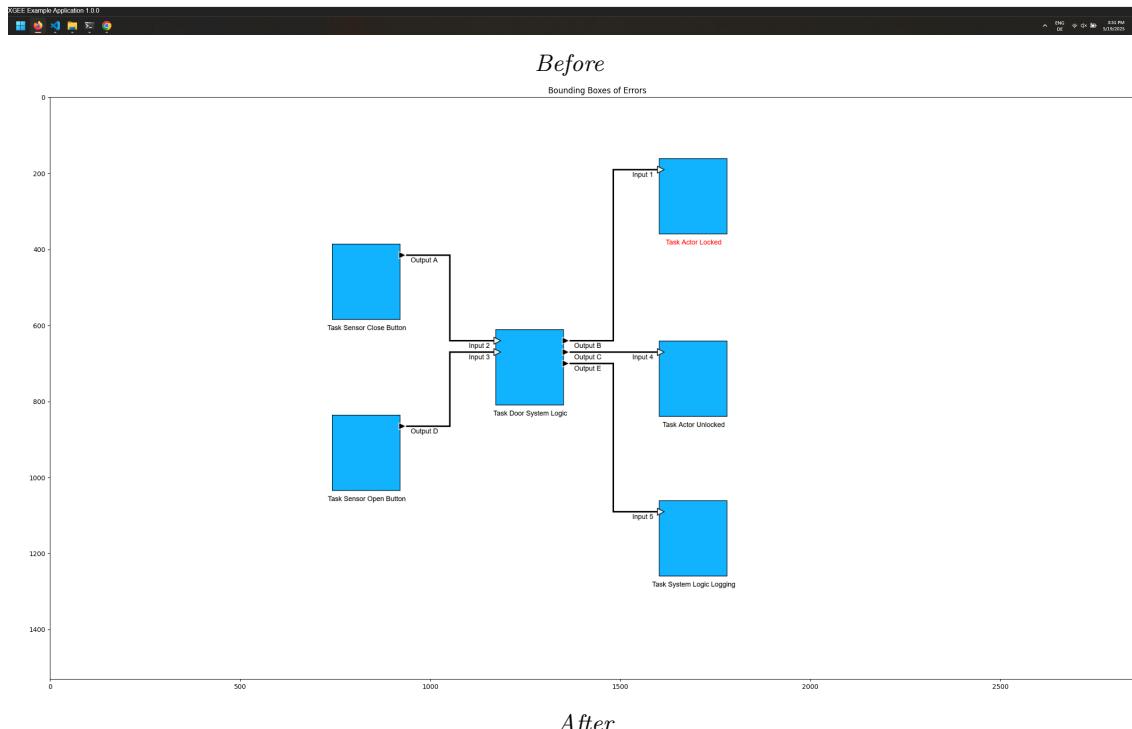
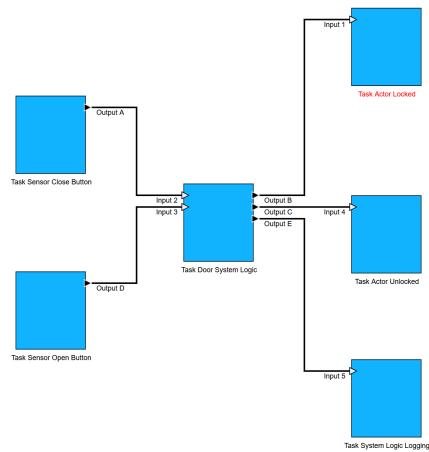
Before

Bounding Boxes of Errors

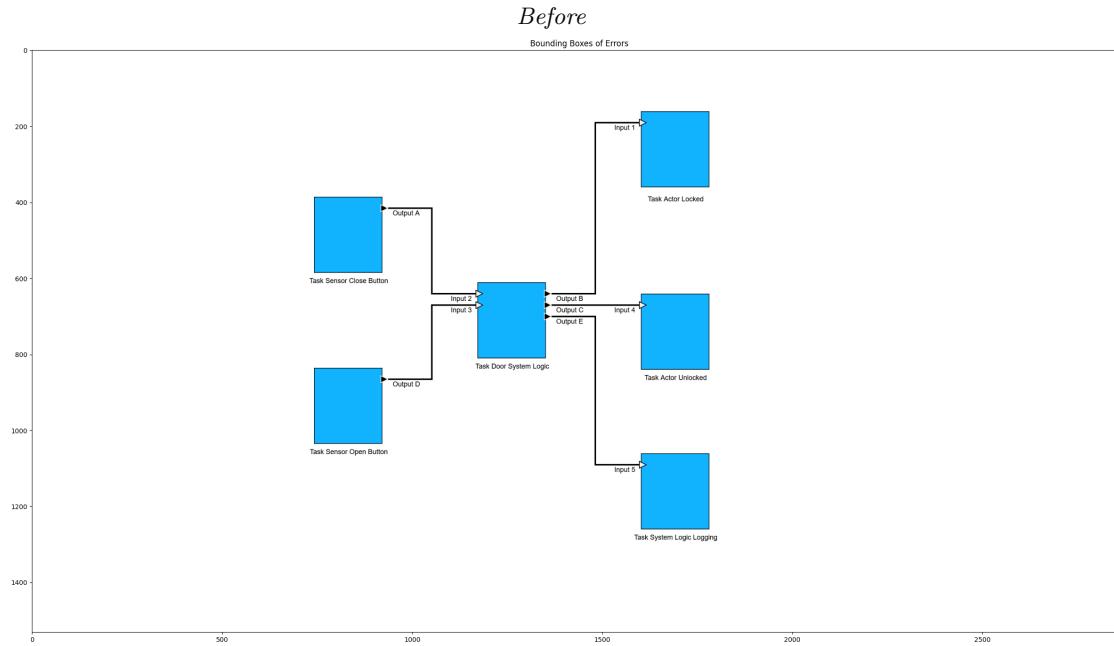
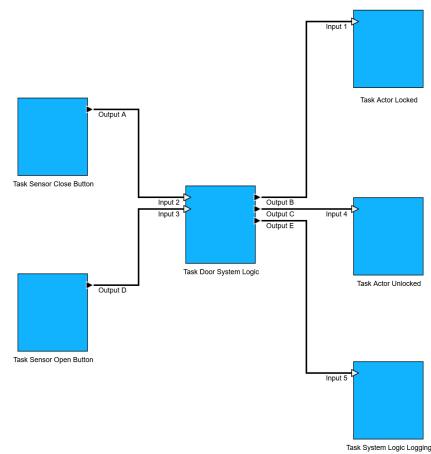


After

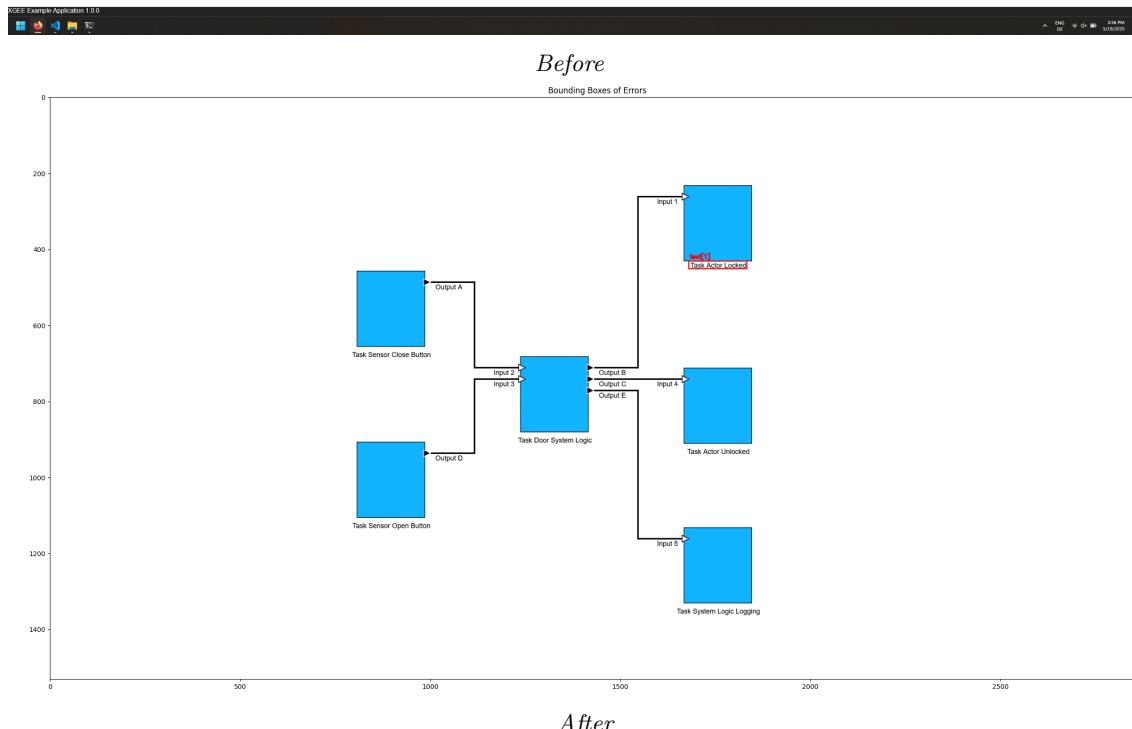
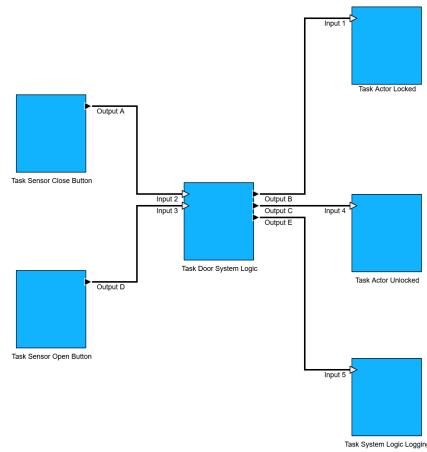
39 Text wrong color



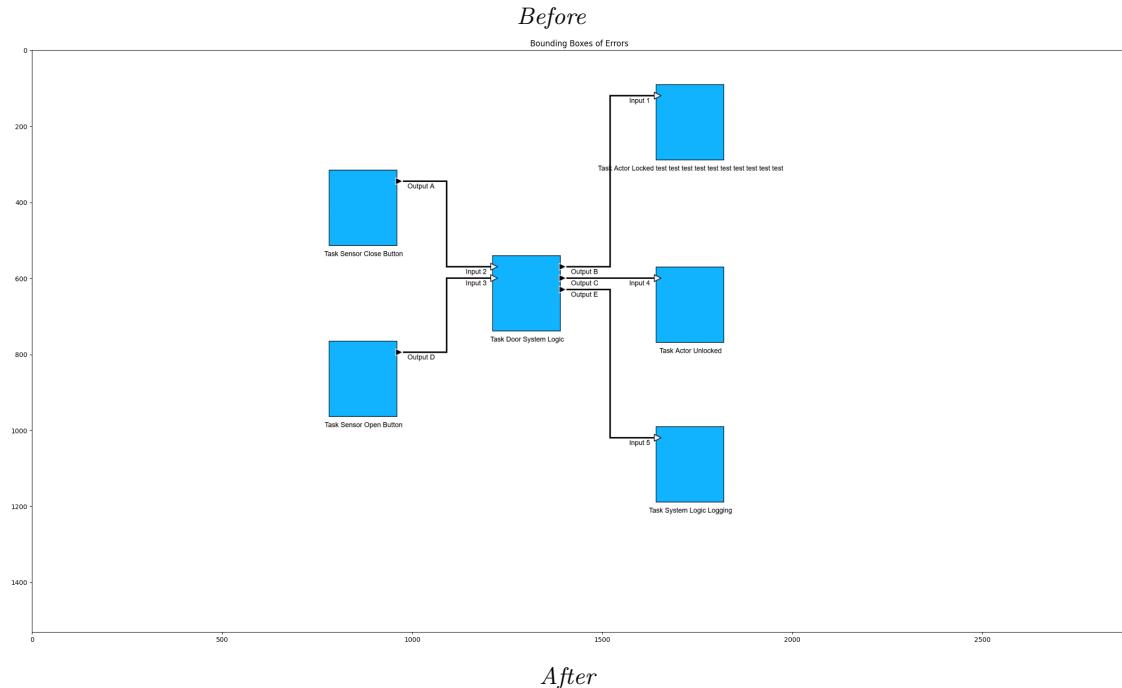
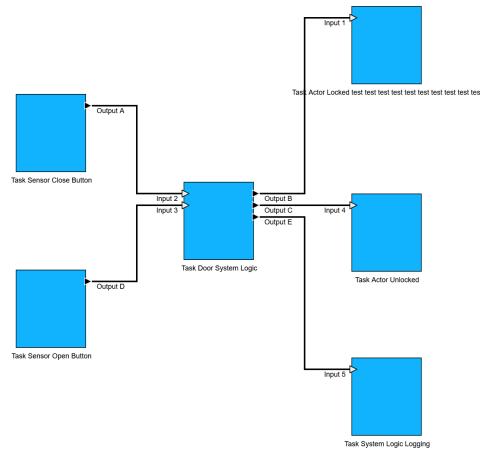
40 Text 10px too low



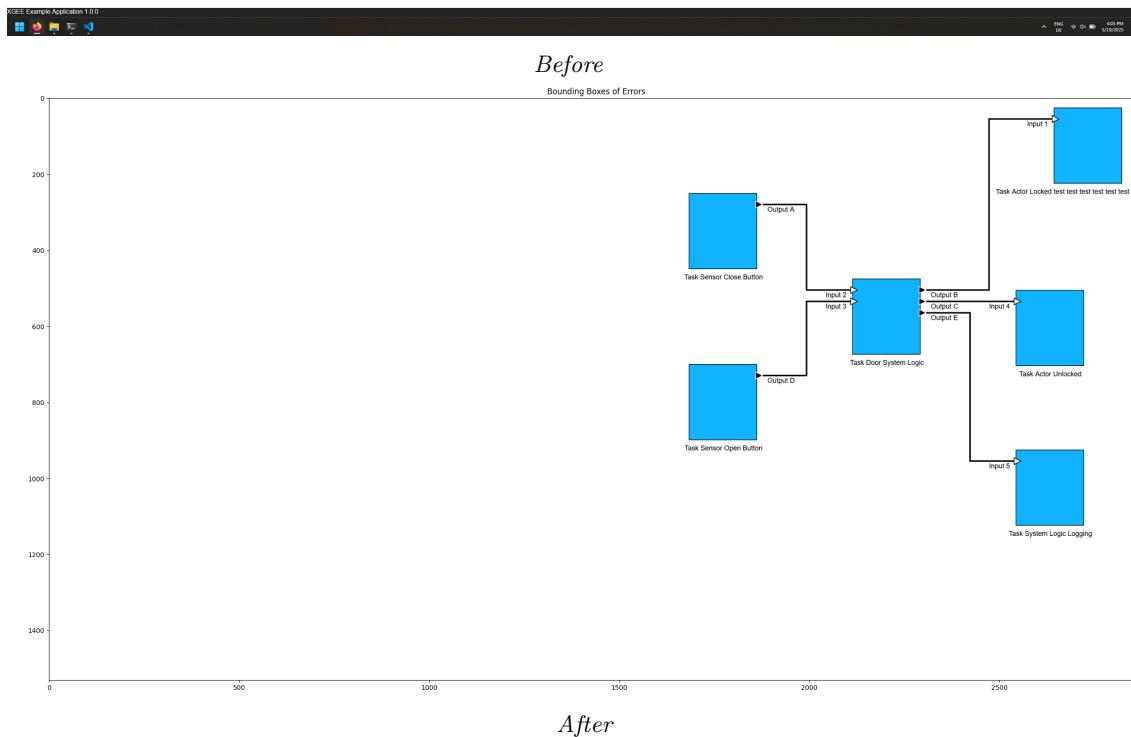
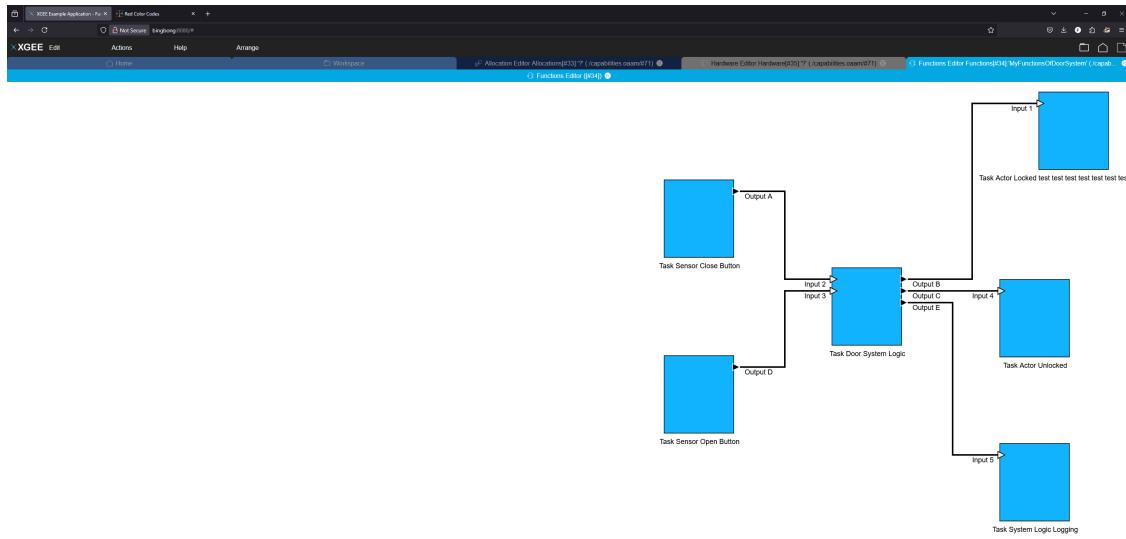
41 Text 10px too high



42 Text overlapping with other elements



43 Text offscreen



44 Text in visualization, but not in model

45 Text in model, but not in visualization

