An Algorithm For Customizing Slicing Floor Plan Design

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The idea is to propose a linear time algorithm for customizing the modules of a given slicing floor plan in the following two ways:
– customize a module by changing the aspect ratio or by changing either its height or width while preserving its area,
– customize a module by changing its area while retaining either of its initial height or width or aspect ratio.
Both the aforementioned approaches shows that for any aspect ratio and area, a slicing floorplan can be generated while mimicking the module adjacencies as present in the original floor plan. An illustration based on a developed prototype has been provided to validate the feasibility of the aforementioned approaches.

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