

2-Dimensional packing algorithm on a variable size rectangular interface

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The purpose of this work is to propose effective approximate algorithms capable to generate in a very short time feasible 2-dimensional configurations (interfaces) containing A set of given menus adapted to a certain user context (physical activity for example)..As in some previous works, the proposed heuristic gives good solutions that minimize the used surface to pack all the tiles into a variable-size bin. Such a size should respect a fixed ratio for the screen between its width and its height. Moreover, the proposed heuristic (based on shelf strategy), is compared to an exact model. The exact resolution of this mathematical model gives an optimal solution only for small instances. For the other instances, it is difficult to reach the optimal value in a short running time, which shows the practical interest of the proposed heuristic.