DEVELOPING SOFTWARE PROTOTYPE FOR SOLVING FURNITURE LOADING PROBLEM INTO CONTAINERS

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ABSTRACT

The effectiveness of the packing make transportation more effective and give competitive advantage for the company. Packing problem becomes a major problem for companies in today to reduce costs, and be an interesting study because it occurs in a real case. By maximizing the volume of container can increase profits also can reduce the risk of product damage during travel. Many researchers have developed a problem-solving algorithm for packing three-dimensional rectangular shape or irregular shape. Front Bottom Left Fill and Preprocessing Algorithm (make a proxy) become basis algorithm in this research.

In this study conducted a few experiments to determine the behavior of the system. The experiments scenarios in this study include: experimenting with variations of the input sequence objects, varying the amount of kinds of sofas, proxy creation sequence variation, variation in the proportion of the number of inputs, variations in the number of proxies. The results from this experiments are: when longest object insert firstly density loss will be smaller, the more number of objects that included make density loss will be smaller when the objects has many quantities, the establishment of a proxy will produce a smaller density loss when the first proxy is created has the longest length and width is shorter. Produce more number of proxies will be make the density value smaller if the input of container has many quantities.

Key Words: Irregular Shape, Front Bottom Left Fill, Preprocessing, Proxy