

Abstrak

Industri manufaktur adalah sebuah industri bergerak di bidang pembuatan *furniture*. Industri manufaktur ini sering mengalami keterlambatan dalam penyelesaian suatu proyek mebel dikarenakan dikarenakan *backtracking* / arus bolak balik. Metode *Systematic Layout Planning* (SLP) dan *Automated Layout Design Program* (ALDEP) digunakan untuk mengatasi masalah *backtracking* yang menyebabkan biaya material handling menjadi mahal dengan membandingkan metode apa yang lebih efisien dalam mengurangi biaya material handling. Hasil penelitian ini menunjukkan bahwa metode *SLP* dapat menurunkan biaya material handling sebesar 6,92% yaitu Rp 706.372.591. Software *ALDEP* dapat menurunkan biaya material handling sebesar 11,14% yaitu Rp 674.379.464. Dari hasil ini, dapat disimpulkan bahwa *layout* usulan terbaik adalah software *ALDEP* dikarenakan penurunan ongkos material handling yang termurah.

Kata kunci: Tata Letak Fasilitas , ALDEP, SLP, Ongkos Material Handling

Abstract

The manufacturing industry is an industry engaged in producing furniture. This manufacturing industry often experience delays in completing furniture projects due to backtracking. The Systematic Layout Planning (SLP) method and the Automated Layout Design Program (ALDEP) software were used to overcome the backtracking problem that causes material handling costs to be expensive by comparing which methods are more efficient in reducing material handling costs. The results of this study indicate that the SLP method has decreased the material handling costs by 6,92% to Rp 706.372,591. ALDEP software has decreased the material handling costs by 11,14% to Rp 674.379,464. From these results, it can be concluded that the best-proposed layout is ALDEP software due to the cheapest material handling cost reduction.

Keywords: Layout of Facilities, ALDEP, SLP, Cost of Material Handling