

ABSTRACT

Measurement of productivity is one of the important things to know about efficiency of the company. Line balancing is needed to balance work load at every workstation so it can increased efficiency and productivity. PT. Aswi Perkasa is a company engaging in industry manufacture of bag and wallet. This company has problem at assembly line of bag, so this company cannot reach production target.

The purpose of this final project is to make line balancing at bag's assembly to balance work load and minimize idle time of every employee so it can increase the efficiency and the productivity. This research requires data such as time of process, number of demands, and precedence constraint. Whereas the methods used for line balancing are Killbridge Wester and Ranked Positional Weight then they will be visualized with a simulation using Pro Model 2001.

Based on the results of the research, simulation from line balancing using killbridge wester method give efficiency and productivity better than the use of Ranked Positional Weight method. Line balancing using killbridge wester method produced 95.936% of line efficiency or increased about 20% from existing line and also increased production capacity to 48 units per day with the number of work stations decreased from 8 work stations to 6 work stations. In addition, there are 2 alternatives of the other line balancing that they are used to reach production target. The alternative 1 has 7 workstations. The alternative 1 gives 90.922% of line efficiency and number of production of 52 units per day. Line of alternative 2 has 6 workstations with overtime 1 hour. The alternative 2 gives 96.31% of line efficiency and number of production of 55 units per day.

Key Words : Line Balancing, Efficiency, Killbridge Wester, Ranked Positional Weight.