

ABSTRAK

PT XYZ is a manufacturing company that produces paint products. The products produced there are 5 types, namely, water-based product, solvent-based products, construction chemicals and adhesive products. Based on sales results in 2015, the percentage of sales respectively was 90% (water-based), 6% (solvent-based), 3% (chemical construction), and 1% (adhesive product).

This study will focus on scheduling in water-based products. In the water-based products, there are two types of production are A to Z process and base tinting process. A to Z process is a production process that is completed the first product of grinding, additives to packaging. While the base tinting process is a production process that will produce a base paint and stored in a special tank for further processing coloring.

Scheduling in this study will use the method of Campbell, Dudek and Smith (CDS). The results will be compared with the existing scheduling spelled using Shortest Processing Time (SPT). By using SPT, minimum makespan produced amounted to 387.25 minutes. And by using CDS, the minimum makespan produced amounted to 361.17 minutes. The procedure is recommended for water-based scheduling is pengantrian job on each machine, and scheduling using CDS on each machine, manufacture Gantt Chart, and makespan calculation on each of the alternative solutions.

Keywords : Scheduling, CDS method, SPT method, *job*, *makespan*, *Gantt Chart*