ABSTRACT

Scheduling is the details of an output from the planning phase before the implementation and production control phase. In creating the schedule, companies are often faced with several constraints such as the availability of machines, limited resources for some jobs and the due dates that has been compromised to customer. PT. XYZ is a company engaged in manufacturing services which produces commercial aircraft components. The production process start from cutting raw materials until it become aircraft components in the form of pin, bearing, washer, bushing, cap, spring, retainer and cover.

Products produced are in small quantities but have large variations. The production floor using group technology layout and applied general flow shop manufacturing process with parallel machine. Methods of Campbell Dudek and Smith (CDS) algorithm and lot distribution are used to figure out new job sequence so as to minimize makespan and lateness. Results obtained will be compared with the existing schedule which applied the Most Operation Remaining (MOPNR) method. By using CDS method, the minimum makespan obtained is 15833 minutes (18,9 days) and is reduced by 16% from the existing makespan.

Keywords: flowshop, makespan, CDS algorithm, lot distribution