

ABSTRACT

Job Scheduling is one important factor in production activity, especially for companies MTO (Make to Order). Various problems might appear due to in appropriate scheduling, such as production completion time is too long, delay from the specified due date. Therefore, this research will create a scheduling using fuzzy logic method that can reduce delays and reduce the makespan.

Based on existing condition, makespan which required to complete the Ship Navigation DM.30/MI/X/007 product is quite large. The proposed fuzzy logic scheduling method aims to determine optimal job sequence to produce smaller makespan than the existing one. In a scheduled job that uses fuzzy logic method, the input variables that must be considered is the determination of rules that will provide a weight output for each job so the job which has a weight "most important" will be scheduled. This will be repeated until the last job scheduled.

Based on the results of processed data using fuzzy logic method, we can concluded that job scheduling using fuzzy logic method has been successfully created and is able to reduce makespan. This scheduling proposals produce a faster makespan for 18935 minutes or approximately 315 hours, faster than existing scheduling for 16165 minutes, or approximately 296 hours. This is a great improvent for a decrease in 17.13% to be compared with the current makespan.

Keywords : scheduling, fuzzy logic, makespan.