ABSTRACT

With the increasingly number of industries that move in manufacturing line, the company management is required to constantly be able to satisfy necessities desired by consumers. PT Ometraco Arya Samanta (OAS) is an industry that move in building construction line in which their occupational scope in the form of adequately broad volume projects. With production system of job order in accomplishing scheduling of the projects. PT. OAS frequently has obstacles in allocating resources that would be allocated to every project work activity due to limits of resources namely workforces allocated to any project hence the company side often engage in rescheduling. Yet, on the other hand, the project must be punctually completed as agreed by consumers (owner).

Brooks Algorithm will be applied based on criteria of ACTIM (Activity Time) and TIMRES (Time Multiplied by Number Resources) to accomplish scheduling with resource limits. This research was implemented by way of collecting actual data from projects will be worked on encompassing various activities, inter-activity relation, duration as well as the required number of workforces. Based on the obtained data, so values of ACTIM and TIMRES could be found later where these values were applied as references in the sequence of project activity scheduling. Output that would be resulted in the form of Gantt Chart and allocation of resources. As a case study, in this research scheduling for component-fabrication-project was accomplished for development of Maspion Mall.

Conclusion can be drawn that project scheduling will be applied by means of Brooks Algorithm with ACTIM criteria in conjunction with processing duration for this Maspion project and will be completed in a time period of 86 days because this method results in realistic scheduling and in line with the desired time.

Key word: resource limits, Brooks Algorithm, ACTIM and TIMRES criteria.