

ABSTRACT

Material requirements planning is a method for scheduling manufactured planned orders and purchased planned orders. Manufacturing planned orders used for further analysis with respect to the availability of capacity using CRP. Material requirements planning include things related to inventory system as well as its information system in order to achieve the system on time, right quantity, the right materials and the right price to ensure continuity of production.

Indonesian Aerospace (IAE) is a state-owned company engaged in the aerospace field with core competencies in the design development and manufacture of aircraft. Demand fluctuations caused Indonesian Aerospace, especially in the field of MPM Machining department had difficulty in controlling the production of stock that resulted in under capacity. One way to minimize under capacity condition is material requirements planning. The results of the material requirements planning will be used as a comparison between the required capacity to available capacity using CRP. Therefore, in this study will makes a material requirements planning system with Wagner Within Algorithm that can schedule the arrival of materials and reduce under capacity condition.

Final results from this study is a material requirements planning application that can perform data processing more accurate and can help Machining departement to make decision about capacity planning in each periode.

Keywords: material requirements planning, under capacity, decision