## ABSTRACT

PT Len Industri, one of the companies that produce electronic products and infrastructure based projects, have problems in terms of production planning. Production system based on order for the project requires a customized production planning with the fluctuated demand for solar module products in PT Len Industri. Production system simulation approach to the real situation is one way to solve the problem in PT Len Industri These simulations which later can become a tool in decision making to solve problems in production planning.With these simulations, the proposed of three scenarios to be taken into consideration as the production planning of PT Len Industri in 2011. The first scenario is the planning with 1 shift in all the batches with the ratio of delay (50 Wp = 14.702; 100 Wp =2.213). The second scenario is planning with 2 shifts on first batch by the ratio of delay (50 Wp = 2; 100 Wp = 3) and the ratio of inventory (50 Wp = 756; 100 Wp = 3693). While for the third scenario performed with 2 shift for the third batch, the ratio of delay (50 Wp = 2; 100 Wp = 3) and the ratio of inventory (50) Wp = 10 ; 100 Wp = 2489). From the ratio of delay and the ratio of inventory so it can inferred that the third scenario which is the best proposal for the production planning of Solar Module at PT Len Industri.

Keyword : production planning, simulation