

Production Planning and Control Model of Technology Migration for DRAM
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Abstract

Due to product life cycle has been shortened rapidly, it forces the product generation and technology should be enhanced quickly. When technology generation change occurred, DRAM manufacturers always used the past experiences to handle the change process. However, the issues are totally different and it made the companies suffered many difficulties. In this work, a production planning and control model is developed. The production planning focuses on CCR (Capacity Constraint Resources) to define the complete wafer release schedule and apply X-factor to schedule the production processes during the migration period. Regarding to the shop floor control, there are two control mechanisms to control and monitor the migration process, real time control and predicting control. WIP status is the important factor to decide whether the production planner needs to launch the rescheduling module or not in the real time control portion. Besides, a foresee function is performed by predicting control portion which firing the rescheduling module by the bias between the loading and capacity curves.

Keyword : Technology Migration, DRAM Industry, X-factor, Production Planning and Control