

Improving Fab Productivity via Enhancements to Overhead Transport

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In the 300mm semiconductor industry the automated material handling systems play a role in the cycle time of material. In an effort to improve tool utilization and reduce cycle time our factory formed an overhead transport team. For the last year, the objective of this team has been to find the key issues to improve the system methodologies, tool utilization and reduce transport time.

This paper will address the key issues, goals, methodologies and lessons learned by this team. The key issues are primarily related to idle tools and cycle time due to waiting for FOUP deliveries. Some specific goals targeted include 60% automated dispatching/delivery, 15% reduction in the average delivery time, and reduce the percent and duration of a tool being idle waiting for carrier.

We will present some new metrics and methods as well as lessons learned and results of our team. These activities include the implementation of auto-dispatch automation, database for OHT metrics, and integration of Real Time Dispatch and the controller for the FOUP transport system.