



Integration issues with IM 200mm to 300mm transition

Case study: Standard integration on 300mm CMP tool

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Two Success cases: 200mm vs. 300mm

- 200mm; Closer to the process is better
 - Immediate feedback
 - Efficient Closed Loop Control
 - Typical range improvement 2x
 - Expensive, complicated integration
- 300mm; Standardization dictates type of Integration?
 - Compromise IPC for tool design standardization
 - Integration Standard non-exist
 - ❖ Lost the benefit of standardization



Standardize IM Integration

- Adopt/Create HW interface standard
 - 300mm BOLTS?
- Adopt 300mm SW interface standard
 - IM direct interface to Tool SW (soft I/O)
 - ❖ Avoid I/O hardware
 - Data transfer routing resolution

WWW Gains

INTEGRATED
PROCESS
CONTROL™

- Win/Win/Win situation
 - IC Mfg: Cost, Reliability, TTM, Flexibility
 - PEM: Cost, Reliability, TTM, Flexibility
 - IM supplier: Cost, Reliability, TTM
- Focus on Applications, Process Control
- Integration important where possible to get closer to process

Use 300mm conversion to standardize IM integration

- Process Equipment design for IM
 - Same approach as exist to Sensors
 - Design for Single Wafer IPC