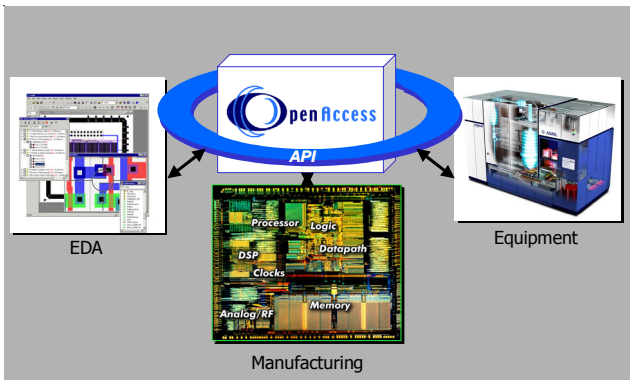




The **Design-to-Manufacturing Coalition** is a partnership of leading semiconductor, EDA, and equipment suppliers focused on enabling improved cycle times and yield ramps through bi-directional sharing of data across design and manufacturing flows.

Industry Challenges:

- **Processing times worsening** in physical design, mask data preparation, mask writing, and mask inspection
- **Increasing mask set re-spins** add to product cost and delay
- **Wafer yield** no longer limited by random defects, but by sub-optimal design trade-offs
- **Design/Mask rule checks** must be sensitive to design intent and process variation
- **DFM / DFY tools** require common semantics and access to manufacturing data



A common API enables a unified information backbone for the semiconductor industry

DTMC Vision:

- Open infrastructure enabling bi-directional data exchange between design and manufacturing
- Migration from sequential files to incremental, on-demand API-based communications
- Built-in scalability and extensibility for future
- Secure data extensions supporting disaggregated supply chain

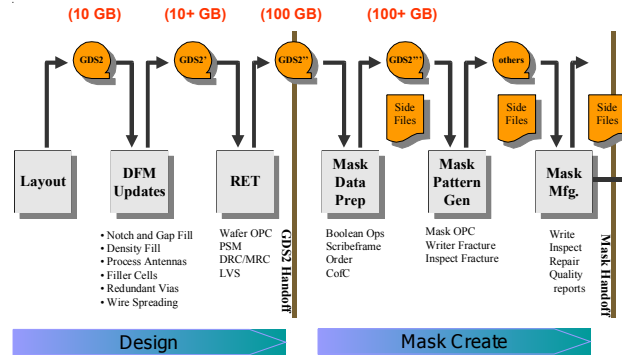


Figure 1. Traditional manufacturing data flows lack design intent and suffer from slow, sequential file transfers

DTMC Approach:

- Cross-education program between design and manufacturing domain experts
- Shared repository of industry test cases
- Identify commonality in data, process flows
- Prototype data model and API extensions using OpenAccess, exploiting its' unique extensibility features
- Series of benchmark experiments identify high-value data exchange benefits
- Formalize shared data extensions into OpenAccess-UDM as open industry standard

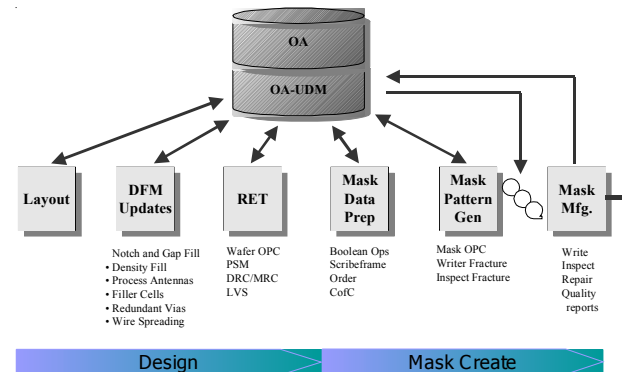


Figure 2. OpenAccess-UDM extensions enable bi-directional, incremental data exchange for more efficient, intelligent flows

DTMC Member Benefits:

- Integration partnership among IDMs, EDA, and equipment suppliers
- Sharing of all DTMC benchmarking results
- Access to contributed test case repository
- Early advantage from contributed technologies and OA-UDM prototypes
- Eases integration of novel DFM / DFY applications
- Fast, incremental access and cycle time gains

Membership: Open to all Si2 members

Silicon Integration Initiative - Si2

Si2's mission is to achieve industry-wide adoption of collaborative technologies and services that deliver significantly higher levels of design integration enabling compelling advantages for our members through reduced costs, faster time to market, enhanced IC design capabilities and improved quality of results. EDA, semiconductor and systems companies are part of the membership at Si2.

Si2 has over seventeen years of experience as a not-for-profit consortium that is focused on collaborative development of open, industry standards and enabling technology with its members. Si2 understands that in order to be successful, it must pursue rapid development, promotion and adoption of open technologies. Si2 focuses on project accomplishments that can be attained in minimal time spans.

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