

e-Manufacturing Workshop Summary

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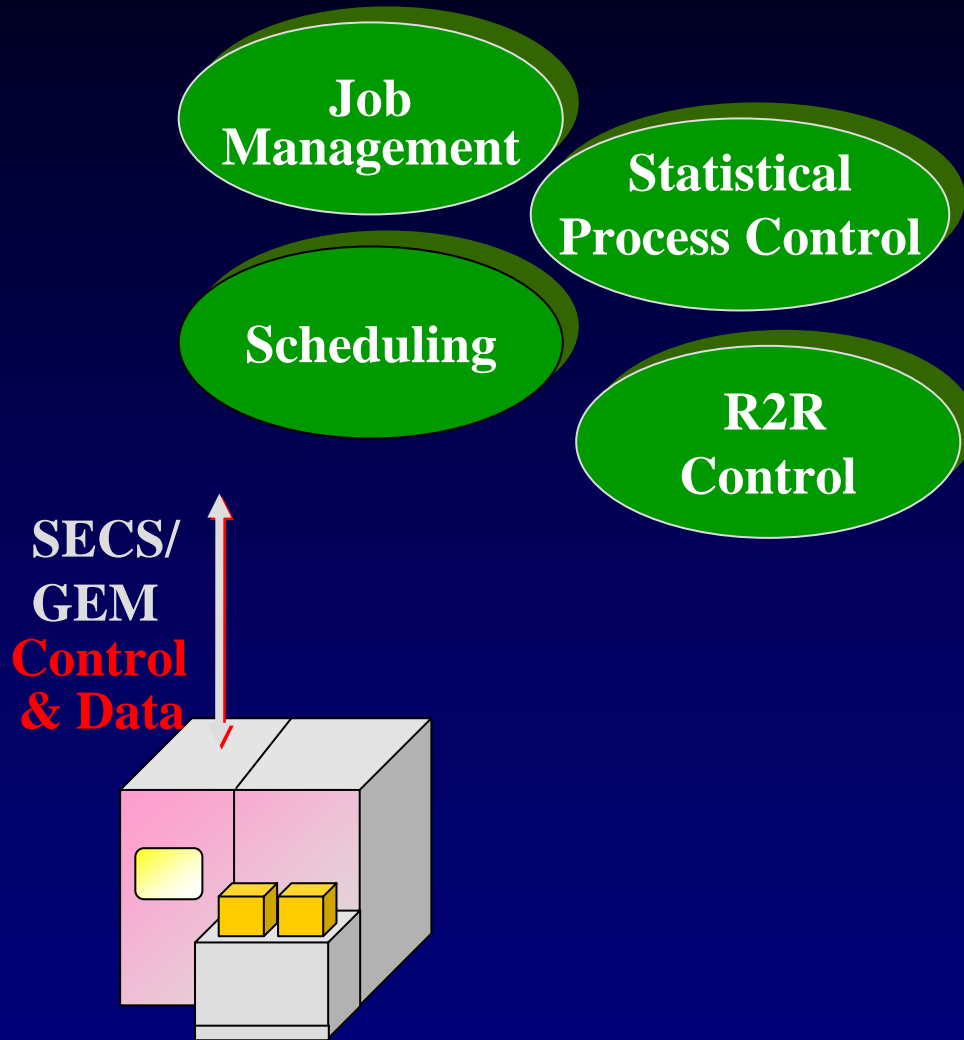
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References

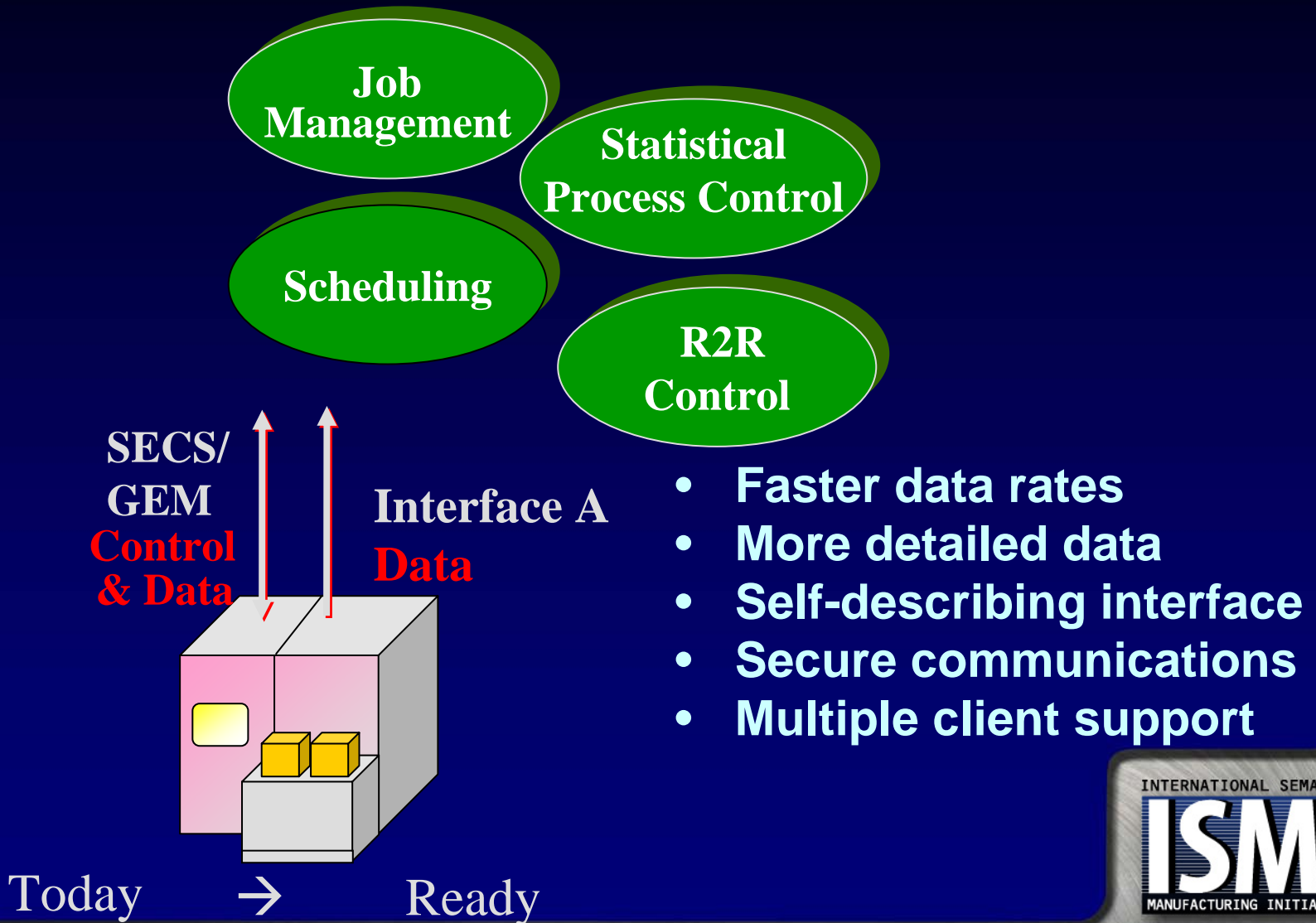
- **SEMI EDA standards: E120, E125, E132, E134**
downloads.semi.org/PUBS/SEMIPUBS.NSF/webstandardssoftware!OpenView
teams.semi.org/QuickPlace/stds_icdda/Main.nsf/h_Toc/
- **e-Diagnostics Guidebook, v2.1**
ismi.sematech.org/docubase/document/4153deng.pdf
- **EEC Guidelines, v2.5**
ismi.sematech.org/emanufacturing/docs/eecguidebook.pdf
- **EEC High-level Requirements for APC**
ismi.sematech.org/emanufacturing/docs/EECReqs.pdf
- **Usage Scenarios, 04104579B-TR**
ismi.sematech.org/docubase/abstracts/4579btr.htm
- **EDA Evaluation Methodology**
ismi.sematech.org/docubase/abstracts/4664atr.htm
- **Virus Protection, 04104567B-ENG**
ismi.sematech.org/docubase/abstracts/4567beng.htm
- **Time Synchronization, 04094557A-ENG**
ismi.sematech.org/docubase/abstracts/4557aeng.htm

Supporting Factory Applications

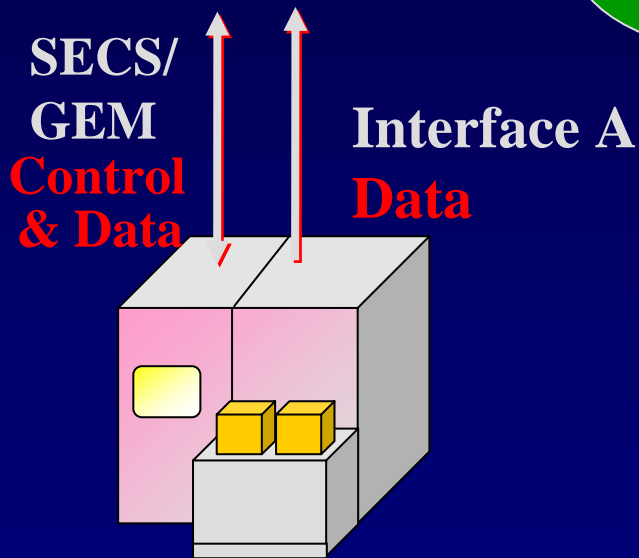
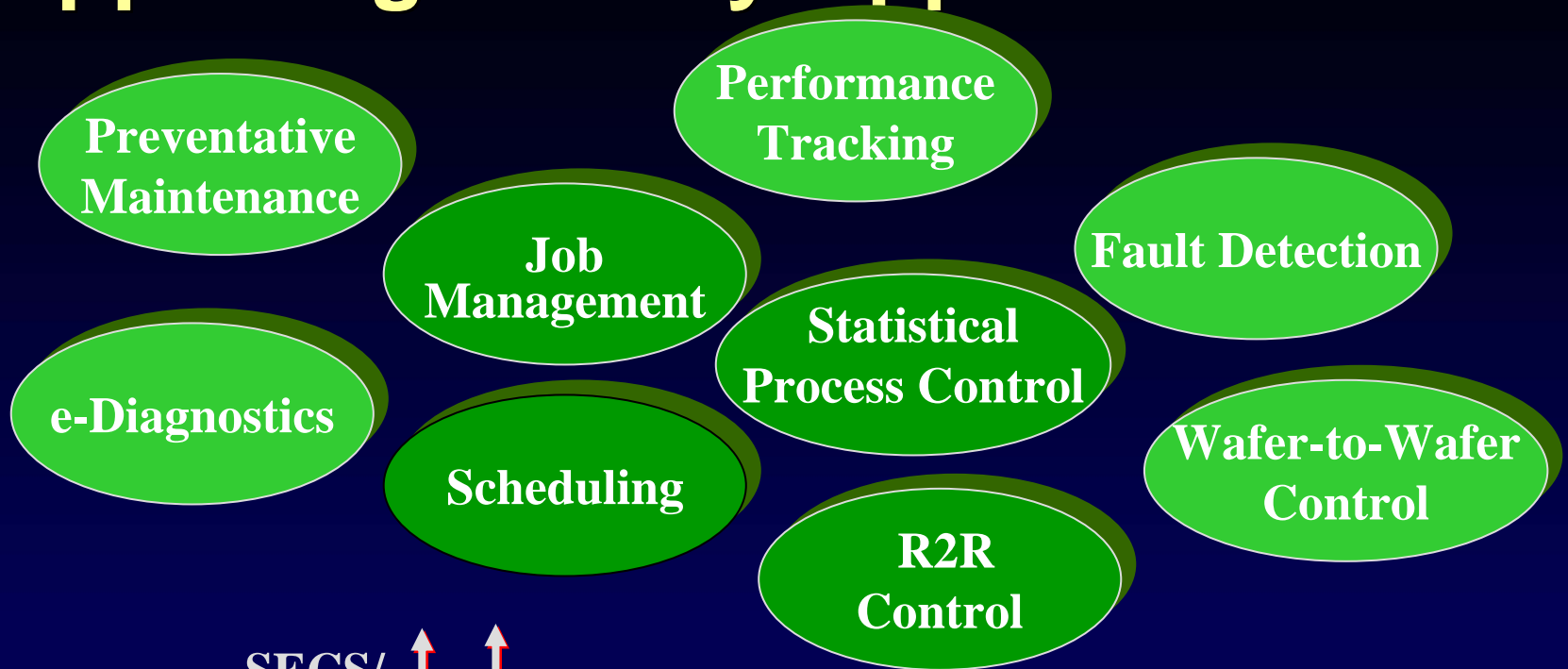


Today

Supporting Factory Applications



Supporting Factory Applications



- Faster data rates
- More detailed data
- Self-describing interface
- Secure communications
- Multiple client support

EDA Accomplishments to Date

- ✓ Established ISMI member company consensus requirements and communicated requirements to suppliers
- ✓ Standards are complete, modern Internet-based interface standards (Ethernet TCP/IP)
- ✓ Prototypes have demonstrated EDA (Interface A) feasibility
- ✓ Performance Studies have demonstrated EDA (Interface A) capabilities
- ✓ Evaluation Method
 - ✓ ISMI Usage Scenarios represent the member company fab usage and define expected behaviors
 - ✓ ISMI providing common client software (ECCE) to suppliers (exe file) and ISMI members (source code)
- ✓ Compatibility Profiling
 - ✓ Support for commercial implementers to check software interoperability
- Testing
 - Developing Advanced Tester Software

EDA Open Issues

1. Tester

2. Further clarification of IC Maker factory architecture

- Sharing software components across clients
- Control point for data volume
- ...

3. DDA TF is working on open issues list

- Currently there are no Critical or Must-Have issues
- Some result in document and schema changes

4. Cross Version Compatibility

- Interoperability depends on the use of the same Interface A standards version
 - Different versions will not interoperate - by definition

Key ISMI Member Company Messages

1. **Interface A (aka EDA) provides rich data at high throughput to enable both IC makers and suppliers to improve manufacturing performance. This will be THE data acquisition mechanism going forward.**
2. **Interface A standardization is complete, supplier community is implementing, & IC makers are deploying.**
3. **The ISMI member companies are collaborating with suppliers to mature and deploy Interface A implementations for mutual success.**
4. **ISMI is evaluating production-level Interface A implementations.**
5. **ISMI member companies and non-members requiring Interface A on equipment purchases.**

Conclusion

- *EDA (Interface A) enables transmission of process and equipment data for e-Manufacturing, APC, equipment health monitoring, and other equipment productivity enhancement applications*
- **Interface A is being deployed!**