



iNEMI[®]

International Electronics Manufacturing Initiative

**Functional Test
Coverage
Assessment Project**

ITC 2009

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Potential Follow-on Activities

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Potential Follow-on Activities

- **Obtaining feedback**
- **More examples**
- **Extending and enhancing the assessment method**
- **Tools**

Obtaining feedback

- **Obtaining feedback from application of the assessment method**
 - **How can feedback be solicited? How can it be collected?**
 - **Will existing documentation be updated or enhanced with feedback from the industry?**
 - **What DOE's and papers can be produced?**
 - **Comparison of different test stage coverage**
 - **Case studies of usage**

More Examples

- **Who says there is no free lunch?**
 - **What coverage is available without writing tests?**
 - **POST/Boot**
 - **Initialization**
 - **Protocol functionality**
 - **BIST**

Boot

Init/Training/Enum

**BIST/Diag
Tests**

FT

More Examples

- **POST or Pre-OS boot and initialization:**
 - Examples of assessing coverage
- **OS Initialization**
 - Examples of all interfaces discovered/initialized by OS



More Examples

- **Examples of coverage available in protocols discovery, training, initialization of standard interfaces? Examples:**
 - PCIe
 - USB
 - SATA
- **Can access to more protocol functionality be exposed?**
 - Invokeable enumeration, training, initialization
- **Examples of portable blocks of pre-scored coverage**
- **Are there any BIST tests that are run automatically?**

Boot

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FT

Extending/Enhancing the Assessment Method

- **System Stress:**
 - Concurrent system operation (processor, memory access, multi-core, multi-thread, maximum throughput, mass data transfer, etc.)
- **The premise of the original functional categories of FAIM included I, or in-parallel testing**
 - I = In-parallel operation or the capability to generate system stress with simultaneous subsystem operation
 - Can system stress be assessed objectively and in a consistent manner for widely diverse products?
- **Diagnose-ability**
 - Can a test be assessed/scored for its ability to diagnose a failure to the root defect?

Potential Follow-on Activities

- **Any SW tools for functional assessment?**
 - GUI enabling consistent manual assessment data input
 - Standardized summary report generation
 - Import of files:
 - To list components
 - To list pins
 - To list coverage from previous test stages



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