IW and Plugfest Event Meeting
September 29th, 2008

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Welcome

11th Plugfest / 6th IW put on by SATA-IO

- 101 attendees
- 49 companies (37 total PF test teams, 15 IW products)
  - 23 roaming test teams
  - 14 stationary test suites

Our sponsors:
Agenda

• Event Timeline
• Differences between the IW and Plugfest
• Product vs a Building Block
• Things to do BEFORE attending the IW
• During the IW / Product Rules
• Test labs vs IW and IW Test Results
• After the IW
• Q & A
Agenda for the week

Monday, September 29th, 2008
8:00 a.m. – 9:00 a.m. -- Name badges and schedules available at the Grand Ballroom
9:00 a.m. - 10:00 a.m. – Kickoff Meeting, Q &A
10:00 a.m. - 12:00 p.m. -- Test Sessions
12:00 p.m. - 1:00 p.m. – Hosted Lunch
1:00 p.m. - 5:00 p.m. -- Test Sessions

Tuesday, September 30
8:00 a.m. - 12:00 p.m. -- Test Sessions
12:00 p.m. - 1:00 p.m. – Hosted Lunch
1:00 p.m. - 5:00 p.m. -- Test Sessions

Wednesday, October 1
8:00 a.m. - 12:00 p.m. -- Test Sessions
12:00 p.m. - 1:00 p.m. – Lunch (not hosted)
1:00 p.m. - 5:00 p.m. -- Test Sessions
5:00 p.m. – Pack-up & shipping (Plugfest only)

Thursday, October 2
8:00 a.m. - 12:00 p.m. -- Test Sessions (IW only)
12:00 p.m. - 1:00 p.m. – Lunch (not hosted)
1:00 p.m. - 5:00 p.m. -- Test Sessions (IW only)
5:00 p.m. – Pack-up & shipping (IW only)

Friday, October 3
8:00 a.m. - 12:00 p.m. -- Test Sessions (IW only)

Plugfest:
• Testing Mon-Wed
• 60-min timeslots

Interop Workshop:
• Testing M-F
• 2 hr timeslots

www.sata-io.org
IW / Logo Definitions

Interop - Interoperability Program

Logo Workgroup (WG)

- SATA-IO group that develops the Interoperability Program and Tests
- Organizes / staffs the IW test suites

IW – Interoperability Workshop

IL – Integrators List

- A list of end products that have passed testing at either a IW or Certified Test Lab
IW / Logo Definitions – Continued

UTD – Unified Test Description

- Describes all the tests executed as part of the Interoperability Program, including references to SATA specification requirements as appropriate.

MOI – Method of Implementation

- Vendor unique (by tool model(s) or tool revision) test procedures for each test.

Test Types

Normative – Tests which are required for IL listing

Informative – Tests that are in development,

- Required to be run, a pass NOT required to be placed on the IL

Optional – Relevant for optional features (e.g. NCQ),

- Pass NOT required to be placed on the IL, but necessary for product identification of that specific feature.

VTM – Management company contracted by SATA-IO
What is an Interoperability Workshop (IW)?

- A structured testing event where all testing conforms to approved or proposed test requirements in the UTD and by MOI procedures.

- Results are collected and analyzed to verify results consistency.

- Test suite staff & schedule are driven by SATA-IO.

- All testing is done by Test ID (TID).
Plugfest Overview

❖ What is a Plugfest?
- Participant defined testing
- SATA-IO collects no results
- Test suites staffed by individual manufacturers,
- Allowed exclusions and preferences
- Testing as 1-on-1 vendor interactions under NDA

❖ How / Why are they different?
- Early product tested at Plugfest
- Final product tested at IW or Test Lab
Overview of Plugfest Testing

• Your company signed a Non-Disclosure Agreement
  • “…You may be exposed to pre-release product information of Participants. You agree to treat the test activities, the test results, and the pre-release product information as confidential information (“Confidential Information”) and to refrain from disseminating or disclosing the same to others, except to your employees having a need to know…”

• Stationary vs Roaming
  • Roaming teams: devices, cables, add-in hosts
  • Stationary teams: host controllers/motherboards, systems, test tools
  • Stationary schedules posted on windows
  • Be courteous – cancel if not interested
    • Make contact with the company
  • 55 min test slots - Stop testing at 5 minutes of the hour
IW #6: Performing UTD Rev. 1.3 Testing

• Same Testing as IW #4
• eSATA Testing is Still Informative
  ➡️ Reason: Not enough product has been tested to enable System Interop
• Port Multiplier Testing is Still Informative
  ➡️ Reasons: Not enough product has been tested, Need non-DOS System Interop developed / validated
• 1.8” uSATA Testing is Still Informative
  ➡️ Reason: UTD Missing critical measurement
Building Blocks are reference designs (not complete end products)

- Unable to complete full Interoperability testing without additional matching components (SATA or non-SATA)
- Tested at certified test labs, lower priority at IW
- Leverages existing UTD tests and MOI procedures, but allows test areas to be optional
- Listed on the SATA-IO members only website (separate from existing IL)
- Typical: silicon vendor reference boards, IP cores, bridges

Products: Tested at IW and Test Labs
Before the IW

Things to do BEFORE attending the IW:

- TEST your product – Interop program is an AUDIT
- TEST all areas: Phy electrical, digital, mechanical, system interoperability
- Review the UTD and know the tests that are going to get run
- TEST your product
Bring to the IW....

Bring the following to the IW:

- 3 Identical products for testing
- Knowledge on all the SATA features of the product:
  - BIST-T-A-S (HFTP, LFTP, MFTP, LBP-18), BIST-L, disconnect
  - OOB calibration
  - Interface Power Management (IPM) support (IPMh and/or IPMd)
  - HOSTs: BIOS configuration to boot DOS USB key, HDD and ODD

- S/W Tools – Hosts
  - Go into BIST-T-A-S (HFTP, LFTP, MFTP, LBP-18), and BIST-L
  - Enable and invoke IPM events, both IPMd and IPMh
During the IW

• Pretest: Screening of product capabilities for test compatibility
  ✷ (BIST patterns, tool capabilities, etc)
• You need to obtain detailed results from vendors
  ✷ SATA-IO only provides summary results from one vendor
• Network with appropriate tool and test lab vendors for future interactions.
Product handling rules

- IW Product handling rules
  - 2 product samples + 1 backup – Identical except s/n
    - Exact same hardware
    - Exact same firmware and features
    - Exact same capacity
    - Marked with TID labels – DO NOT REMOVE
    - Allows parallel test execution during the IW

- Once PreTest starts:
  - NO hardware updates allowed
  - NO firmware updates allowed
  - NO configuration changes allowed (via software, f/w or jumpers)
Testing at IW vs Test Labs

Same tests, equipment and procedures

- **IW:**
  - Tested by 2 – 4 different equipment vendors (multiple results)
  - Earliest view of new tests
  - Lower cost / SATA-IO Membership benefit

- **Test Labs:**
  - Available all year (only 2 IW / year)
  - Quicker turn around time
  - Multiple testing passes (IW is one shot)
  - More products (IW limited to 1 product / vendor)
  - Design debug and consultation possible
Test Result Timeline

Why is the test result timeline longer for an IW than a Test Lab?

- IW Test Results – MORE than one purpose
- Correlation between multiple sources
- Correlation and verification of additional test labs
- Correlation and verification of additional test tool
- Initial release of new Revision
- Interoperability documentation must be approved by the Logo WG and the SATA-IO BoD before results are published

- After review is complete, passing / failing results will be sent to the product vendor
- If passing, the vendor will be added to the IL if they choose
General Reminders

• Registration information
  - Badges / Schedules
  - Feedback forms
  - IW : Product Info Sheets

• Morning and afternoon snacks in Sponsor Suite Room 537
• Hospitality suite for questions/issues : Room 502
• Plugfest on 5th floor, testing completed COB Wednesday
• IW on 4th floor, testing completed noon Friday
Before you leave the event...

Drop off necessary items to Hospitality Suite:

- **Return** monitors or borrowed equipment
- **Turn in your** feedback forms for the event
- *(Interop only) Drop off a single sample of your product*
Questions and Answers…