IEEE 1149.1 Boundary Scan Working Group Minutes

Date – June 8th 2010

Attendees: CJ Clark, Carl Barnhart, Adam Ley, Adam Cron, Wim Driessen, Ted Eaton, Ken Parker, Roland Latvala, Dave Dubberke, Francisco Russi, Carol Pyron,

Missing with pre-excuse: Unknown

Missing: Unknown

Agenda:
       Continue discussion on INIT.

Minutes:

       CJ – Motivating, enumerating, and then discussing each of the INIT control categories he has defined and is suggesting to the group.

       Ted – Requested clarification of why classification is desirable, or even reasonable. (Agreed to defer question.)

       CJ – Classification may allow relaxed rules for some resources, and tighter rules for others.
       CJ – First group: Analog power or reference pins, no observation required but would be nice.
       CJ – Second group: External (thru the pins) digital signals; required observation.

       Ted – Objecting to apparent duplication of observation in init-status (or init-data) and boundary register.
       Carl – Observation cells could be shared, but since failure of init may mean EXTEST doesn't work, cannot rely on EXTEST to detect that init data pins are defective.

       CJ – Third group: internal or init-data TDR digital signals; observation not required.
       CJ – Fourth group: I/O that require FSM processing; observation of completion required.

       Ted – Asserted that the original scope of init task group provides significant value to the test community and as we expand that scope we need to be very careful that we do not over-specify this and drive people away. (Ted had to leave.)
       CJ – We need rules even if we know many users will avoid/work around them and be only partially compliant. This is common now and will always be, but the Standard has to create the base requirements for designers to measure themselves against.

       CJ – Final group: internal (system logic) init for "cool and safe" state: need some status back.

Carol – Strongly asserted that the non-I/O initialization be defined only in descriptive text, not normative.

Ken – Standard needs to provide guidance as to what "cool and safe" means in board test.

Carl – There are cases of multiple, interacting state machines that never reach a "done" state, just a stable state negotiated amongst them, and there may not realistically be any externally meaningful status.

CJ – Still, in the big picture, the Standard needs to define the "good practice" in its rules.