

Date – 04/08/2011

Minutes of the IEEE-1149.1 Working Group Friday meeting

Attendees:

Dave Dubberke,
Adam Ley,
Brian Turmelle,
Carol Pyron,
Craig Stephan
Roland Latvala,
Heiko Ehrenberg
John Braden
CJ Clark
Carl Barnhart
Francisco Russi
Ted Eaton
Ken Parker

Meeting called to order at 8:35 am MST

Current Draft: [P1149 1 Draft 20110404.pdf \(-clean.pdf\)](#)

Agenda:

Continued review of:
Clause 16 (Reset-Select Register)
Clause 17 (Claiming conformance to this standard)

Minutes:

Clause 16 - Reset-Select Register:

Carl sent out a revision of Clause 16 Reset-Select Register this past Wed with updates to Fig 16.2 and new Table 16-1 that address race condition concerns raised by Ken Parker.

Our discussions today on this summarized here:

- Carl added RS_system reset* mux to Figure 16-2
- Carl also added text and table 16-1 describing the potential for glitching between the reset control, enable and the system reset pin if any two of them transition at the same time.
- General thought is that tool vendors will likely be resolved with multiple scans to load those registers. Although other solutions are possible.
- Carol took action to discuss with a logic designer to see if TAP states can be used strategically to gate the data and select to the mux from the reset-select register.
- Francisco also asked about registering these signals.

- Ted mentioned people can handle this in different ways. Carl asked him to send him any ideas he has on this via email.
- WG consensus was that this may be a lot of discussion over an issue common to industry today and that we shouldn't spend too much more time on this.

Clause 17 - Claiming conformance to this standard:

Discussion points centered on rules 17.3.1.a and 17.3.1.b.(1-9)

Rule a.) states that a components response to public instructions must be documented per Annex B.

Rule 17.3.1.a.

- Adam mentioned the intent was to have good documentation and to add 'where applicable' into rule a.)
- Carl revised the wording to include BSDL (Annex B), PDL (Annex C), and hardware documentation.
- Roland asked about IC vendors requirement to provide PDL files. Are these templates only? Carol answered yes: Templates only and limited specific where appropriate..

Rule 17.3.1.b.

- Rule b is a lengthy 9 part rule itemizing the BSDL documentation.
- This rule seems to have parts that are non-BSDL, and question was if this needs to be rewritten or not?
 - Carl – Do you document all public instructions?
 - Carl – Clamp scans the bypass but uses the boundary register.
 - Nobody documents all the registers they use.
 - Carol – App notes don't focus on JTAG. Mnemonics are defined but hopefully this moves into PDL in the future.
 - Ted – Does this include all registers the TDRs talk to, Bist engines, etc?
- CJ said let's leave well enough alone. It makes sense to keep this rule as it is, since people have followed it up to now.
- CJ – Any objections?
- **The WG was polled and it was felt that this section can be left alone to avoid a major rewrite.**

Wim's new proposed State Machine Diagram:

- Carol – Wim proposed this new TAP state diagram.
- Carl/Ken pointed out that it is missing some states and has typos.
- Wim's point was to avoid line crossings.
- Carl took action to provide feedback to Wim.

PDL:

- No time for PDL review today. CJ has new materil to share in future meeting.

Meeting adjourned: 9:51am MST

Action Items:

- WG members to review Clauses 16 and 17 and provide final feedback by Tues. for vote to incorporate changes into next draft.
- Carol to review reset-select mux glitch issue with logic designers
- Carl to feedback information to Wim on the state machine diagram proposal

Next Friday Meeting:

- Next week Friday April 15, 2011