Date - 4-27-2010

Attendees: CJ Clark, Bill Tuthill, Dave Dubberke, Heiko Ehrenberg, Ken Parker, Carol Pyron, Ted Eaton, Carl Barnhart, Adam Ley, Adam Cron

Missing with pre-excuse:

Missing: Bill Eklow, Roland Latvala, Wim Driessen, Francisco Russi,

Agenda:
1) Update on INIT
2) Feedback on Carl's feedback
3) Ken's proposed changes
4) Additional items

Minutes:
Init update
Carol –had polled attendees at init meeting to see who was willing to work
CJ volunteered that he would provide the BNF at previous INIT meeting
CJ – didn't incorporate Ken's new syntax into draft. Is it still up in the air?
Carol – yes it is still up in the air. Still need to work out some of the syntax specifics
Carol – at the last meeting we reviewed slides. Made updates to the slides where necessary. Sent out PDF of updated slides to working group

Need to add additional figures. One specifically that would show how INIT would look on a board where some chips may support different aspects or none of Init commands
Carl – we should go over the action list from the meeting.

Spent much of the meeting getting organized to start producing usable information rather than discussing issues.
Carol –Carl volunteered to put together straw man list of tasks
Carol will be presenting at conference at Austin, TX. Will be talking about Init and showing slide set to show what the working group is working on.
Carl – Init powerpoint slide set might get expanded to a presentation at ITC.
Ken – you should add date code to the bottom of slides to track version of the slides.
CJ – wants a few minutes during meeting on Friday to talk to the group about using PDL from 1687. May run into some issues and wants to discuss some possible problems.
CJ – INIT is the big item that needs to be incorporated into the draft.

Feedback from Carl regarding the draft
CJ – specifically feedback on Observe Only
CJ – Forward definition of BSDL
Carl – biggest objection to chapter 11 is the use of the BSDL key words (input, clock, observe_only) in the actual test and rules of the body of chapter 11. No need to do that. We can define "redundant observe only" and have it identified in the BSDL as observe only

Carl - Chapter 11 should be talking about the structure of BSDL
Carl – added definition of Redundant Observe Only in beginning of text
CJ - added constant 1 and constant 0 to the package file.
Suggest that everyone take a look at the responses to Carl
CJ – Observe Only
Carl - observe only function is only the redundant cell
There are observe-only bc4 that are used
CJ – removed observe-only because it is confusing and referred to the cells without control.
Carl - no objection to cell without control terminology if used consistently
Use Redundant for any situation that it can be removed.
CJ – standard does use that wording already for redundant.
Carl – right which is why I adopted the redundant terminology
CJ - haven't adopted most of what Carl has asked. Some were ok but others were not.
CJ – should take conversation offline to get

Input on issue with Observe Only on TAP pin.
Adam – don't require a vote on it
CJ – ok with direction to exclude the 5 tap pins
Adam – ok with it but will bring it up as an objection.
Ken – don't want to put a cell on a pin with a race condition
Adam – agreed but seems arbitrary to exclude them
Adam – don't think it requires further discussion
Carl – makes motion. Remove 11.4.1.c from the document.
Adam L – seconded motion.
CJ – clarifies. – Removing 11.4.1.c – no provision that says you can't have a boundary cell on anything. That means entire section would be removed.
Carol –wants it to be a change in the permission. Doesn't want there to be a requirement to have boundary scan cells on these pins.
Carl – sections of chapter 11 that discuss where cells are required. Nothing that says where these redundant OO's are required.
Adam C – is this a rule. "Shall not be required" is a weird rule
Adam L – agrees with that. A rule is a statement of requirement. To negate the requirement doesn't make sense.
Carl – turn this into a permission.
CJ – would have to change a lot of things on the tool side. BSDL would have to change. Lots of change for low hanging fruit
Carl – is a lot of work with all the other things that have to change.
CJ – yes it is. More semantic checks would have to change. Extra work to modify that.
Carol – industry has been living a long time without boundary cells on the tap pins
Carl – was just cleaning up the rules to get rid of an exception
Adam l – should be called to question.
CC – motion too remove 11.4.1.c rule
Adam C – abstain
Adam L – YES
Carl – YES

Carol – NO
Dave d – YES
Heiko – YES
Ken – NO
Ted – abstain
Bill t – NO
3 no 4 yes 2 abs

Carl switches his vote to NO.
4 no 3 yes 2 abs
Motion doesn't pass. Section 11.4.1.C will stay
CJ – doesn't seem like there is a strong majority and this is a small group
Carl – was torn and just wanted to just help clean up the rules but could go either way

Ken's proposed changes.

BSDL version number

Ken – agnostic either way. But was sought out by users in the community that have old BSDL and no easy way to decide if there is a change to the BSDL. If there was a key word there may be a way for a tool to tell user if the BSDL is old and that they could get a new one
Ted – revision won't tell user if there is a new BSDL
Ken - BSDL creator (vendor) could track BSDLs better and provide information to user easier.
CJ– how do I compare my current BSDL to what the vendor has on website to know if there is a new version available.
Ken – companies could post BSDL and most current revision. Can be automated if the bsdl has a machine readable revision code.
Ken – just seeing if there is interest in this. Not the person who asked the question but wanted to bring it up.
Ted – could be useful. A lot of work needs to be done to be useful. But first step is to get it in the BSDL.
CJ – seems that it is missing some important pieces. How the vendor distributes information to relay to user that there is a new BSDL is available.
Adam c- describing poll usage. Could be a push model. Where user sends BSDL to designer and designer could see that wrong version.
CJ – still seems that a human is validating BSDL version
Adam c – that is because the structure isn't there today.
Ken – not going to say more about it. Was just a question asked to bring up.
CJ – seems like it is missing something. But if those pieces are added it could have value.
Carol – makes sure there are clear comments in headers of BSDL. Have a file revision in the file name to keep track of files.
Carol – should we have attribute. Would be easy to add. Not sure if ken's example is sufficient.
CJ – comments should be a string that goes with the version.
Carl – do you need the whole history

Ted- it could. Might have a different version of the chip
Carl – a change in silicon changes the id code. Revision code would have to be in conjunction with the id code.. BSDL revision code is one more piece of information that may help debugging
Carol – agree. Would put a stamp in the BSDL.
Carl – optional or mandatory
Carol – standards time stamp would allow older BSDLs to pass if it as mandatory.
Ken – make it optional and could be retrofitted into older BSDLs.
CJ – I think it is a start. Might need more work to gel it out.
Adam l – think a similar topic was discussing in 1687
Ted – planning on a version statement in PDL but not in BSDL .
Adam l – looking for version for PDL only or icl. Why not ICL?
Ted – subject of versioning is up in the air.
CJ – only in DPL but could be used in ICL. No discussion about BSDL.
CJ – try to gel it more offline. Probably needs more work.
CJ –latest version might not be the one that you want. Revision tied to device id is important.
Ted – it is important knowing that every system is using the same version BSDL.

New business

No new business

Meeting adjourned: 12:04 EST.

Next Meeting: May 4th 2010, 11:00am EST

Action Item by Carl to elaborate on concerns that he has with OO s on power pins and any rules that would need to be added to the standard to address those concerns.

Current Issues listed and who will champion that issue.

1 Observe only. – Ken and Carl
1. Directionality linkage. - CJ
2. Power Pins. - Heiko
3. Pairing power pins with functional I/O - CJ
4. Sample / Capture. – Carol (Freescale) & Roland
5. TRST included in PCB level diagram. – Adam L.
6. Slow to Fall/Rise signaling issue – CJ
7. "No Connect" – Ken and Francisco.
8. Device ID – Still needs work
9. Low-Voltage self observe shorts coverage problem – JJ & Intel
10. Init – Carol & Carl

Action Items:

- CJ will post 1149.1 draft on website with line numbers to make it easier to refer to items in discussion
- Comment #10 CJ will take action to look at possibilities to add to the 1149.1WG website a document which shows which standards are based on 1149.1
- Comment #8 CJ will make changes to draft for observe only
- Comment #7 CJ will get in touch with Doug to get input regarding Comments
- Comment #5 CJ will Add a figure and little text to address TRST use with interconnection of components
- Comment #4 Adam L to add comment about TRST. Update figure 6.8
- Comment #3 Adam L will update language for any proposed change for this section.