

Date – 12/13/2011

Attendees: CJ Clark, Bill Tuthill, Brian Turmelle, Adam Cron, Carl Barnhart, Ken Parker, Bill Bruce, Dave Dubberke, Jeff Halnon, Adam Ley, Craig Stephan, Heiko Ehrenberg , Wim Driessen, John Braden, Josh Ferry, Francisco Russi, Ted Eaton, Carol Pyron, Brian Erickson,

Missing with pre-excuse:

Missing: Lee Whetsel, Neil Jacobson, Mike Richetti, Ted Cleggett, Matthias Kamm , Peter Elias, Roland Latvala, Roger Sowada, Dharma Konda, John Seibold, Bill Eklow, Sankaran Menon,

Agenda:

- 1) Patent Slides and Rules of Etiquette
- 2) Review of Draft changes, Q&A on draft
- 3) PDL Level 1

Meeting Called to order at 10:30am EST (new starting time)

Minutes:

Review Patent Slide – Reminder sent out over email.

Solicited input from anybody who is aware of patents that might read on our standard.

No responses.

Review of Working Group Meeting Guidelines

New Member – Kent NG – Microsoft. Works with Jeff Halnon. Implements dft requirements for silicon.

Review of Draft Changes.

No new changes for this week

2) Motion to

*Motion to document procedures (iProc/Proc) to define EXECUTION of new instructions rather than an BSDL Attribute *_EXECUTION (leave legacy RUNBIST_EXECUTION and INTEST_EXECUTION attributes - would work as usual) when something more than just loading the instruction is needed.*

Seconded By Ken P.

Discussion

Bill B: concerned that you might paint yourself into a corner with this.

Carl: not concerned about it and if a problem comes up will deal with it then

Carol: PDL procs will be required if you have a ECIDcode, init_setup, init_run?

Carl: ecid_execution attribute is not required today. Need PDL proc for initialization though.

Adam C: what is the mechanism for creating PDL? By hand or is there some automation?

CJ: in this case I can't see how, it seems that the creator of the ECID will have to make it by hand.

ADAM C: other PDLs?

Carl: most of them at some point have a manual creation behind them. For Init_Data we have some tools that can pull information out and make the final PDL automatically. For the chip designer this will be mostly manual.

Carol: agrees that an ECID PDL would be a manual creation

CJ: Do we define ECID Execution and INIT_RUN Execution. The question is do we want to define these in PDL

Carol: is in favor of it.

John H: doesn't see a viable alternative.

Ted: feels that we are duplicating efforts from 1687

CJ: feels this is different.

Carol: is this standardizing the proc name?

CJ: yes. This is the intent of the motion

Carl: yes it would become a reserved word

Ted: what about INIT_RUN. Will there be different ways to configure

CJ: INIT_SETUP is a predefined proc name.

Ted: how does a device provider deal with the multiple options? Does the device designer provide procs with different names and we are to pick one?

Carl: no the final proc is made by the test engineer.

CJ: this is in INIT_SETUP. Current motion is for INIT_RUN and ECID

Adam C: motion says "to use" is this a rule or recommendation

CJ: if you don't need a procedure than you don't need one\

Carl: should be if "to document"

Adam C: if we vote for this can you still not use the PDL if you only needed a simple wait.

Carl: wouldn't be a wait. Either the information will be available immediately or you need to provide a PDL proc to say how to get at it.

CJ: If something more than just loading the instruction is needed you would have to define that in a proc including a wait.

Adam C	Abstain	Dharma	Abstain	Jeff H	Abstain
Adam L	Abstain	Francisco	Abstain	Wim	Abstain
Bill B	Yes	Carl	Yes	Dave	Yes
Bill T	Yes	Carol	Yes	John B	Yes
Brian	Yes	Craig	Yes	John S	Yes
Ken	Yes				
Ted	No				

Carl's Motion passes.

10 yes 6 abstain 1 no

PDL/PDL level1

PDL level 0

iMatchLoop

Ted: loops happen but different than the concept of iMatchLoop

Matchloop is used to attempt to sync the tester to an asynchronous event coming out of the device.

CJ: this is more in terms of registers. Waiting for a done bit to be set in a register. So our construct is a little simpler. So given that we are looping until something passes (ready). The converse is looping until something fails.

Carl: are we supporting Loop until Pass and Loop until Match

CJ: question for the group

Carl: what is the difference?

CJ: looping on iApply is for pass/fail. Match loop needs to match a value

Carl: does 1687 have loopuntil

CJ: no they don't

Carol: likes being as consistent with 1687 as possible

CJ: we do have different needs in the board test community.

Carol: 1687 is for any level of design.

CJ: really for the chip

Carl: chip internals

Carol: our keywords should match 1687 and we should have a new keyword if we do something different.

Carl: that is what we are trying to do.

Ken P: not a good enough feel for iMatchLoop being different from the

Looping on iApply

scanned
CJ: iApply you are doing a scan over and over and can't change data being

In iMatchLoop you can have different expected values

Ken: MatchLoop is like a WHILE statement? Where the test is done at the top of the loop

CJ: yes. That is right.

Ken: seems like a Do Until. Check conditions at end of loop to return to top

CJ: Let's take this off line. I need to get more documentation in draft to clear this up.

CJ: just the table of instructions. Not the only information in the draft. Just for quick reference.

CJ: iEntity. Seems the same as iProcTarget.

CJ: something things haven't been worked out well in 1687 and there is room to consolidate.

PDL Level 1

CJ: big issue is getting into Level 1. It is in C.4 in Draft.

Sees it necessary for someone providing an IP block.

CJ: Level 1 allows you to Return a value. Allows you to take an action on the value that comes back. This is an important capability

Carl: obviously needed for ECID

CJ: Level 1 allows you to manipulate a returned value.

Carl: other than iGetReadValue I don't know what is in Level 1. Need to see more commands to know if it is necessary. How do you use TCL in Level 1 and not in Level 0? How do you prevent someone in Level 0 to not use TCL and now do you let TCL be used in Level 1

CJ: at the top of the file it tells you what level PDL the file is. And the tool will reject it.

Ted: Level 0 came about because some people didn't like TCL and wanted to have a set of concise commands that can easily be parsed.

CJ: by dovetailing with TCL we can bring value to the ip provider. IP will probably be more complex that it will need more iread and iwrite?

CJ: the EDA Community is familiar with TCL.

Meeting adjourned: 11:59 EST.

Motion Summary

1 Motion Made

Motion to document procedures (iProc/Proc) to define EXECUTION of new instructions rather than an BSDL Attribute *_EXECUTION (leave legacy RUNBIST_EXECUTION and INTEST_EXECUTION attributes - would work as usual) when something more than just loading the instruction is needed.

10 Yes

1 no

4 abstain

Next Meeting: 12/20/2011 11:00 AM EST

HomeWork Status

John has passed his examples in to the working group. CJ is running them through the parser.

Carol – is still working on examples

Heiko is still working on examples.

CJ is still working on port assignments

Homework assignments.

Heiko and Carol's assignments are outstanding and will be done for next week's meeting

CJ will have examples of port assignments

Bill E – work on more concrete example and definition of the ESSID register

NOTES:

1149.1 working group website - <http://grouper.ieee.org/groups/1149/1/>

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[ppppp11491p*pp03820#](#)

JOIN the meeting as GUEST – will have to ask to present

Meeting time: Tuesdays 11:00 AM (EST) (Recurring)

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