

Date – 04/24/2012

Attendees: CJ Clark, Adam Cron , Adam Ley, Bill Tuthill, Brian Turmelle, Carl Barnhart, Craig Stephan, Dave Dubberke, Heiko Ehrenberg, Hugh Wallace , John Seibold, Josh Ferry, Ken Parker, Peter Elias, Roger Sowada, Sankaran Menon, Ted Eaton, Wim Driessen, Bill Bruce,

Missing with pre-excuse: Bill Eklow, Carol Pyron,

Missing: Lee Whetsel, Matthias Kamm , Mike Richetti, Neil Jacobson, Ted Cleggett, Brian Erickson, Francisco Russi, Dharma Konda, Jeff Halnon, John Braden, Kent NG , Rich Cornejo, Roland Latvala,

Agenda:

- 1) Patent Slides and Rules of Etiquette
- 2) Use LiveMeeting “Raised Hand” to be recognized and take the floor
- 3) Editor’s comments on new draft
 - a) Homework assignment
- 4) System Clock for INIT_SETUP
- 5) Finalizing for Ballot (What is left to tweak?)

Meeting Called to order at 10:35 am EST

Minutes:

Review Patent Slide – Slide Presented to the Group.

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

No responses

Review of Working Group Meeting Guidelines

No Objections

Review of Annex C

Table C has been updated and now should be correct

Ted – why are we limited to 32 bit numbers

Carl – that is a TCL limitation in 8.4

Hugh – that should not be a limitation to PDL0. It should be handled.

If you are not doing an expression and just parsing what it is as a number, it is an extension

Carl – decimal number 1 gets used as loop counts.

Expressions are created in BSDL so decimal number 1 doesn’t apply

If people object, please take it to the reflector.

CJ – You can use a hexadecimal. Bill Bruce had suggested it having the 32bit limit.

Hugh – will contact Bill B.

CJ – this is for a BSDL limitation I think. Bill needed it to be limited in BSDL.

We can take this offline with more comments to the reflector

Carl added a lot of text to fill in holes in the spec.

CJ – iGetStatus there was a desire to align on returning a numerical value rather than pass/fail string. This would be good to align with p1687 if the group agrees.

CJ will write something up and send it to the reflector

CJ suggests that iUntil might need a key word in front of text string like on iSetFail?
The need wasn't seen. CJ withdraws the comment on iUntil

Sections C1 and C2 is assigned for homework for this week.

You may want to get started on section C3 as well (going to be homework for next week)

Hugh – in this standard are we going to have an appendix that has all the BSDL sentences listed out? This would make it easier to pull out for a parser

CJ – let Carl work that out? Wasn't how BSDL wasn't delivered that way..

Hugh – BSDL has been extended so we have a substantial body of ebnf now.

Carl – not difficult to create such a thing but difficult to keep in sync. Changes would have to be made in 2 different places.

Hugh – if you cut the line numbers out it would be easier to cut and paste.

Carl – can provide an additional PDF without line numbers

Ken – Points out that Carl has put bookmarks into the PDF so that there are links to definitions for key words.

Discussion on using System clock for init_setup

Ken – is there more than one init-setup process

Carl – has been limiting talk to init-setup to setup an interconnect test.

Ken – init-setup should not require a system clock or more in order to prepare for EXTEST.

Carl – what about init-run. How is it different than init-setup?

Ken – I agree. We shouldn't have system clocks for init-run in preparation for EXTEST. TCK should be enough to get it done.

Ken – there was talk that there should be a system clock that is running during init-setup and turned off for EXTEST. EXTEST itself should not be dependent on EXTEST.

Dave has slides that show a summary of the emails going around.

Dave –there is a need for a small delay when entering EXTEST to setup IOs. INITRUN would be used to create that delay.

When you do init run, It does take control of the IO.

Question is - Is updating electrical characteristics of the IO a bad thing before letting the Boundary Scan register take control(IC is still in mission mode).

CJ – Also wonders if this is a bad thing

Dave – have heard it is not a bad thing but wants to pose the question

Ken – is that invasive ?

Dave – if you are changing electrical you are changing what they are doing already. Wouldn't call it invasive.

Carl – data driven vs. analog characteristics. Not invasive to change the analog characteristics. But invasive to change the data driven

Dave – likes what John S. put out about clocks.

Thinks it's the proper way of going about it.

Would need iCLOCK

Carl – can only use 1 clock in a given procedure, not sure what you would do with multiple clocks other than multiple procedures.

Dave – at a board level,

Ken – any limit to the number of clocks on a given chip?

Dave – config vs. data rate clock. Typically on a processor there is one that you need to initialize logic so that you can proceed. But the way John S. wrote it up you can put multiple clocks.

John – adds that in his company they only use one clock for initialization.

CJ – where do we go with this? Always thought it was a challenge to design a pull architecture. Where you put data into a register and the state machine pulls data out.

Ken – It gets messy if you don't have any rules and people do what they want.

CJ – does it make sense to have simpler operation? Have init-setup.

How would you know if electrical parameters changed during init-setup and not waiting till init-run

Ken – want to put out some restrictions and rules that make sense to IC developers and board developers.

CJ – moving towards a simplified environment will probably make it easier.

CJ – wants to make a standard that people don't violate from the get go.

Ken – that is a major goal.

CJ – that is why we should look at relaxing some of the rules.

Ken – always some period time where a chain was moving from preload to EXTEST where there was a chance of something weird happening.. But was always in a single TCK cycle. Now there will be many TCK cycles.

CJ – the IO has been designed such that they are in a tristate or input mode as default. So changing the characteristic of the IO isn't a problem during setup.

John S- if you have some non JTAG components on a board you have to deal with whatever state they are in. Assume they are in a safe state.

If you are going to require a lot of clocks to run to setup the device. Then your first test should be a safe state to make sure the device is setup correctly. Then run the EXTEST. Don't see a huge conflict other than knowing what components are on the board and you safe vectors.

Carl – poses the question is there a problem with the changing the analog state of the driver? If there isn't a concern than we should relax the rule

CJ – Bill E. had brought up a scenario where this could be a problem and parts could be damaged.

Will shoot for next Tuesday to wrap this up?

Meeting adjourned: 12:11pm EST.

Summary of Motions Voted on
0 Motions voted on

Next Meeting: 5/1/2012 11:00 AM EST

NOTES:

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

To Join the meeting

<https://www.livemeeting.com/cc/intellitech/join?id=2CQ2PQ&role=attend&pw=n%26d%5DNqX%284>

Meeting time: Tuesdays 10:30 AM (EST) (Recurring)

AUDIO INFORMATION

-Computer Audio(Recommended)

To use computer audio, you need speakers and microphone, or a headset.

-Telephone conferencing

Use the information below to connect:

Toll: +1 (218) 862-1526

Participant code: 11491

FIRST-TIME USERS

To save time before the meeting, [check your system](#) to make sure it is ready to use Office Live Meeting.

TROUBLESHOOTING

Unable to join the meeting? Follow these steps:

1. Copy this address and paste it into your web browser:

<https://www.livemeeting.com/cc/intellitech/join>

2. Copy and paste the required information:

Meeting ID: F9R6S6

Entry Code: k/d6<@M6j

Location: <https://www.livemeeting.com/cc/intellitech>

If you still cannot enter the meeting, [contact support](#).

NOTICE

Microsoft Office Live Meeting can be used to record meetings. By

participating in this meeting, you agree that your communications may be monitored or recorded at any time during the meeting.