### Date - 06/05/2012

**Attendees:** CJ Clark, Adam Ley, Bill Bruce, Bill Tuthill, Brian Turmelle, Carl Barnhart, Carol Pyron, Craig Stephan, Dharma Konda, Dave Dubberke, Francisco Russi, Heiko Ehrenberg, Hugh Wallace, Jeff Halnon, John Braden, John Seibold, Josh Ferry, Peter Elias, Rich Cornejo, Roland Latvala, Wim Driessen,

Jason Chodora – college of Hugh's at agilent. Checking in on direction of team to make sure it is aligned with Agilent.

Scott Wilkinson – Also works at Agilent. Here to learn how the eBNF works for 1149.1

# Missing with pre-excuse: Ken Parker,

Missing: Lee Whetsel, Matthias Kamm, Mike Richetti, Neil Jacobson, Ted Cleggett, Brian Erickson.

Adam Cron, Bill Eklow, Kent NG Roger Sowada, Sankaran Menon, Ted Eaton,

# Agenda:

- 1) Patent Slides and Rules of Etiquette
- 2) Use LiveMeeting "Raised Hand" to be recognized and take the floor

# Meeting Called to order at 10:37am 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.

Agilent asserts that there is a possible patent issue and is reviewing the changes to the standard. Will forward information at some point

Review of Working Group Meeting Guidelines No Objections

Carl would like everyone to review draft as we are getting close to balloting. Especially the implementers. Make sure that there isn't a change that inadvertently causes problems to implementation. Most of changes are in annex b and c

On Friday there was a new proposal to add to Register Association from Hugh Carl - Change is restricted to Register Association which has been expanded from Register Port Association.

# IEEE 1149.1-2012 JTAG Working Group Minutes

Added Port, Info, sysclk, user,

CJ – port and sysclk are providing specific information that tools need to supply diagnostic information.

Info tag is just for information

User field is just documentation for information. Tool can take that information because it is generic.

Carl – basic idea that the tool provider could define a user field that had a specific format to an info tag.

Hugh – key point is that in a standard way to document what a unit is.

Jeff – what is the difference between user and info tags.

Carl – user is providing extensibility. If we don't want to add units officially, and tool vendor could use user to define their own information.

Info tag is restricted to just information

Jeff – for adding information but gets nervous when there is free-range usage where people can stick things in there at will when there are no other constraints.

CJ - a difference between the user and info.

Info is an entire sentence. That you can add more and more info to.

User tag is intentionally generic so it can be used. It is just the documentation that comes out.

Hugh's proposal is to added Unit Value and Unit Link

Hugh – Units needs a structure.

Heiko – no info tag in examples?

Carl – info tag is optional. But it was in example.

Hugh – 99% of people will just use it to describe their units.

CJ – PDL can be used to provide information

Hugh –need a standard way to allow someone to describe units

CJ – a need for this has not raised it's head.

Hugh – all it does is allow someone to say what the SI Unit is

CJ – what is special about using transducer standard? 1451

Hugh – no other standard that specifies SI units. Wants to point standard

Allows user to document what the SI unit is

CJ – you can do this without the field

Hugh – no. wouldn't be a standard way. Any two people wouldn't be able to do it the same way

CJ – just documentation

Carol – views this as a simple update and optional.. Is there any downside to add this?

CJ – tools have to subject it

Hugh – tools would just have to parse it, do not need to support it.

CJ – can't be skipped if it is part of the standard.

Carol – view user portion similar to BSDL extensions

Brian – registers have encoded values that wouldn't actually correlate to a unit

Hugh – if you need something more complex you would put it as part of a TED. Not saying you have to decode the relationship between unit and register. Saying is it something physical.

Adam L – doesn't understand the assertion what tools must support. BSDL is simply documentation. That is standardized, but free to use the documentation in anyway appropriate to test. There is no requirement to put any documentation into any database. CJ – would be required to parse it?

Adam L- as soon as you see the field you can skip and go to the end of the closed parenthesis

CJ – would be considered to be non compliant if you didn't support these fields? Adam L – no declaration in standard to say tools need to be in compliance.

Tools do not need to support this.

CJ – could see a customer saying a tool is not compliant if not using all data that was supplied. But probably splitting hairs.

Adam L – tools shouldn't comply to 1149.1

CJ – what people mean is that they can parse BSDL and make use of constructs.

Carl – and verify BSDL is compliant with standard.

Adam L – BSDL stands on it's own and does not specify a tool

Bill B – Tool may not be required to be compliant with standard but BSDL is. So a tool that can compile BSDL needs to check and parse it needs to know 1149.1. Would like to see the 1451 standard. Need to see it and make sure we can parse it

Hugh – cut from section 4.11

Carl – all we are doing is providing a means that a tool that is aware of 1451 can use it.

Carl – what is the rate of adoption of 1451. Is it being used in industry?

# Motion to adopt 1451.0 description of UNIT as an association to 1451 in the Register\_Association attribute.

Carl Seconds

Roland – do we have to understand all the options of this field?

Hugh – there is a simple decoder for this

Roland – would that mean that a tool vendor would have to parse to make sure the value was a valid argument.

Hugh – you can skip it if you don't use it.

Carl – simply intending to say field is 22 value character hex value and point to 1451.0

CJ – would need to know what the 1451 standard is

Carl – to be 1149.1 compliant you would just need to know if it is 22 characters.

#### Call for vote.

Yes			
Adam L.	Carl B.	Carol P.	Dave D.
Hugh W.	Jeff H	John B.	John S.
No			
Brian T	Craig S		
Abstain			
Bill B.	Bill T	Dharma K	Francisco R
Heiko E	Josh F	Peter E	Rich C
Roland L	Wim D		

8/2/10

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Motion Passes.

Bill B – SegMux encoding?

Carl – continue discussion on reflector. Seems like syntax

Carl – 2001 of a real in BSDL to allow signing of exponent?

Bill B- yes.

CJ – commented on in email. Thinks it's an oversight. Intent was to have a negative on a real.

Carl –needed a clear direction

Adam L – supposes it was an oversight

Carl – 2000 standard has negative exponent.

Bill B – where did we leave off with Zero Length.

CJ – good reminder.

CJ – wants to take care of motion about Context switching which has not yet been put in the draft. We should either add it or vote again to remove it if we now feel that it is not needed..

Was a motion made by Ted earlier. Was in line with 1687 Motion # 55 on motion chart.

CJ will bring it back up for next weeks meeting

Meeting adjourned: 12:00 pm EST.

Summary of Motions Voted on
1 Motions voted on
to adopt 1451.0 description of UNIT as an association to 1451 in the
Register\_Association attribute
8Yes/2No/10Abstain

**Next Meeting**: 6/12/2012 10:30 AM EST

NOTES:

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

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# IEEE 1149.1- 2012 JTAG Working Group Minutes

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

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