IEEE 1149.1- 2011 Boundary Scan Working Group Minutes

Date – 07/26/2011

Attendees: CJ Clark, Bill Tuthill, Adam Ley, Adam Cron, John Seibold, Wim Driessen, Craig Stephan, Brian Turmelle, Ken Parker, Carl Barnhart , Roland Latvala, Heiko Ehrenberg, Carol Pyron, Ted Eaton,

Missing with pre-excuse Dave Dubberke, Bill Eklow, Josh Ferry,

Missing: Lee Whetsel, Neil Jacobson, Mike Richetti, Ted Cleggett, Matthias Kamm Peter Elias, Francisco Russi, John Braden,

Agenda:

1) *11:00* Patent Slides and Rules of Etiquette
2) 11:05
3) Draft discussion
4) Further discussion on mixed Register_Fields and Register_Assembly
5) Reflector Emails
6) Homework assignments

Meeting Called to order at 11:00 am EST
Minutes:

Review Patent Slide – Reminder sent out over email during the last week.
Review of Working Group Meeting Guidelines

Draft Discussion
B8.18 Register Definition attributes
        Register fields and Register Assembly into single clause
B8.18.1
        Specifications
                Unique to Register Fields
                Unique section to Register Assembly

        Key words for reset were both structural and value.
        Now resets are relegated to be pure type assignments and a new value called
RESETVAL to give value
        Type assignments can only go on fields.
        Value assignments can go on fields and instantiations
        8.18.2/3 Examples have been added for Register Assembly and Register Fields

        No Example of USE Statement.
        No package example yet in Draft

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Would like the group to review latest version of draft that was sent out on Saturday (7/23) as not many had viewed it yet

Email discussion
      Register_Fields
      CJ shows a viewer to show the bits in the Register Fields
      Review example that Carl sent out in email for my_mbist
      Go and Done bit both pointing to bit 17
      May cause some confusion to the end user not knowing if the From UUT data is valid
      Resets will allow these fields to be filled in if known
      Mnemonics can be used to show values of the bits. Without the Mnemonics you would not be able to easily distinguish the data in the viewer.
      Register has a construction and fields are just pointers into the register.
      What happens if you only list the go bit and only list PI. Doesn't describe the psychical behavior of the cell. If you don't add the done/PO part than how does the tool Handel that.
      Tool would error and show a mistake if cell was not defined correctly
      Carl- doesn't have the read or write definition in mnemonics anymore.
      Carol- we had changed that
      Carl –it's the value assignment on the field.
      CJ – NOPO would show error if you tried to write to it and NOPI would show error if you tried to read from it.

      Ted – doesn't want to assign semantic checks to key words that don't exist in 1687 (iwrite and iread exist in 1687 and NOPO and NOPI don't exit)
      Carl – purely a tool issue
      CJ- reason we put NOPO in was to guide people not to write to the register
      Ted- ok. As long as there was no Symantec checks added to PDL
      Ken- Confused about having a cell with NOPI and NOPO
      Carl – changing definitions of NOPI and NOPO so that the FIELD name doesn't have an out or in
      Ted – how do you associate the mnemonic to the register fields
      CJ – Reset will show resetvalue that is set.
      Ted – how does someone developing BSDL know if a mnemonic is used on input or output
      Carol – do we want to restrict a mnemonic to only be output or input?
      Carl – mnemonic require description of input and output cell
      Carol – works well when input and output side are the same width
      CJ – you are allowed to use X on captures in mnemonics
      Carl – still use meaningful field names
      CJ – other alternative is break fields down to smaller chunks
      Ted – still have NOPI and NOPO to define mnemonics.
      Carl – NOPI and NOPO do not assign any mnemonics.
      CJ – only used for check

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Carol- need to work through method and Symantec check to fix being able to define a bit two ways . Current definitions do not support what we are showing.
Carl – able to use NOPI and NOPO on the same line
CJ – seeing we have multiple ways to manage data on the TDI or TDO side.
Carl – this is rule problem that needs to be fixed.
Roland – would be more intuitive to have a readonly/writeonly keyword. Might make it more obvious
Carl – that is what NOPO and NOPI is to convey.. Perhaps too confusing and will look into making it clearer

HomeWork
        Heiko is still working on examples.
        John S's examples are added to the homework assignments.

Homework assignments.
        Heiko and Carol's assignments are outstanding and will be done for next week's meeting
        Bill E – work on more concrete example and definition of the ESSID register

- • **Meeting adjourned: 12:03** EST.

Next Meeting: 8/2/2011 11:00 AM EST

0 Motions Made

NOTES:

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

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

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