

**Date – 08/14/2012**

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

**Missing with pre-excuse:** Roger Sowada, Bill Eklow,

**Missing:** Lee Whetsel, Matthias Kamm , Mike Richetti, Neil Jacobson, Ted Cleggett, Brian Erickson, Scott Wilkinson, Jason Chodora , Kent NG, Sankaran Menon, Ted Eaton, Rich Cornejo, Sam McMillan,

**Agenda:**

- 1) Patent Slides and Rules of Etiquette
- 2) Use LiveMeeting “Raised Hand” to be recognized and take the floor
- 3) Editor’s report on draft status
- 4) Discussion of \$instance\_string and \$context\_path (See email 8/11/2012 1:47PM)
- 5) Discussion of changes to package/package body

Not on the agenda: Discussion of bb) and cc) rules - Bill B said he would ‘table’ for further analysis

**Meeting Called to order at 10:30 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 Response

Review of Working Group Meeting Guidelines

No Objections

Audio trouble has caused some delay to the meeting.

Meeting moved to Carol’s Friday coordinates to host meeting

Draft status

Hugh feels that we need to tweak BNF

Carl – asks Hugh to send suggestions

Hugh – has been sending suggestions and examples.

Carl – has not been able to read the BNF. Does not understand the form that Hugh uses.

Emails have been helpful in getting to an understanding but need further clarification on BNF. Send suggestions in the form that 1149.1 is using.  
CJ – it would be a mistake to say that we should look at 1687 as it doesn't incorporate all the decisions that were made.  
Hugh – p1687 voted to not make any more changes and current 1687 BNF is up to date

iCall

Hugh – enumerations would want to be known in PDL

Carl – what is an enumeration?

Hugh – that is a mnemonic.

CJ – we have an iGet and that is for PDL1

    This here is for PDL0

Carl – instance path is just what was added by most recent iCall?

CJ – correct.

    Instance\_string is defined.

    You could do an iCall that passes in two levels of hierarchy

Carl – context\_path can change depending on your environment

CJ – right. You need the full path when you are inside.

    That is what context path represents.

CJ – Pre-defined variables.

Carl – this has no significant impact on PDL

    Would be low risk, if the group wants to add it, it can be added very quickly.

Wim – PDL 0 command? As opposed to PDL1

    If I compile something I don't know where to go with the message.

CJ – you would know. It should be for PDL 0. That is why I am using \$PDL Variable.

    If you are compiling PDL 0 you would most definitely know what the instance path is otherwise your iReads and iWrites wouldn't work.

    You need to know to concatenate the names.

Carl – the system knows that

Wim – only can catch compile errors for constraints

CJ - \$context\_path - does anyone have any objections to calling it this?

Carl – the long name is probably more fool proof. Would be less likely mistaken

Adam L – There should be some identification of the 1149.1 context

Carl – the standard level?

Adam L – a built in variable should be clearly construed in the 1149.1 context as opposed to a general purpose TCL variable. I'm sure TCL has built in variables and other libraries do as well. There is probably a best practice to adding variables

Adam L – not making a specific proposal but there should be something like \$1149.1 or \$STP1149\_1. Something that clearly identifies the source of these built in variables so they will not be aliased on to something that a user would create.

    At the least, we should understand what the best practice is

CJ – is not aware of any built in variables in libraries.. this use of a built-in variables is unique to PDL.

    Libraries don't usually have a built in variable but we will take a look at it and if there is a preference to putting something in the front we can look at that

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Carl – how about “PDL” added to it

CJ – yes.. That might work

Carl – limiting to PDL makes sense. Limiting to .1 doesn’t make sense.

Hugh – Level 1 PDL, we have an issue. We use the same construct to evaluate level 1 TCL. So we are using the \$xxx in 3ways. So we may have a problem

Should we make it a different syntax for our case?

Carl – Doesn’t see anything conflict. Each way is different

Hugh – when do you substitute?

Carl – always substitute unless it is in { }

Carol – a lot of languages use special characters for multiple purposes. Not a problem perse. Up to people who write BNF or compilers. As a user it doesn’t bother her.

Hugh – overloading \$xx . feels this is a problem.

Carl – makes motion to adopt the two predefined variables context path and instance path.

Seconded by Hugh.

Discussion

Ken – any other predefined variables that we can think of? Like time and date ?

CJ – would like to focus on these variables.

Bill B- these are reserved names?

CJ – yes..

Bill B – make them uppercase so they stand out

Adam C – icontextpath with no underscore

Carl – will work out those details. The question on the floor is do we add these 2 substitution variables and make them part of the language. The final name is a detail

CJ – note variable final name to be determined by editor.

Carl – are substitution variables case sensitive?

CJ – yes

Bill B – where are we on overloading of \$

CJ – it probably needs to be discussed. Would like to get to the motion

Carol – Calls the question

No objections to calling the question

Yes

Bill B.            Carol P            John B            Roland L

Bill T            Craig S            Josh F            Wim D

Brian T            Hugh W            Ken P

No

Abstain

Adam C            Carl B            Francisco R      Jeff H

Adam L            Dharma K        Heiko E            Peter E

Motion passes

10 yes

0 no

8 abstain

### Changes to Package/Package Body

There are 2 sections in package file

Hugh would like to see an example of the Package File

#### Description of the problem

Carl – it was pointed out that normally a package is where VHDL you put all your declarations and signals and components. They all get declared in package block. So you have your declaration in first part. In the Architecture you have the code that does things. It was pointed out that there was no BNF for the standard package. Before 2012, the standard package contained nothing that was unique to BSDL. It was pure VHDL. So it was already defined. Now we are adding register fields. We have the declaration but if you put in the actual register field for the seg select, now you have a string that needs to be parsed by BSDL rules. So the standard package is no longer pure VHDL. So it follows the intent of VHDL to have the actual attributes with the string values in the body and reserve the header for declarations.

So by using the attributes which are currently at the bottom to the package body so the standard package becomes pure VHDL again and don't need a BNF.

It is a theoretical point. Doesn't make any difference but would be more in line with VHDL.

CJ – what is the impact on the draft?

Carl – about a dozen lines that need to be changed.

CJ – user defined package file

- Need to allow for additional use statements.

- Need to parse more than one use statement.

Carl – didn't have user packages was not allow in any package or package body in 2001

- So if we put it in the package or package body it is no additional work.

Ken – why does moving definitions from package to package body makes a difference

Carl – because the definitions are independent from the package.

Most user packages that are just for documenting registers will be empty and will end up in package bodies.

Hugh –is this a preference or normalizing VHDL?

- If we are using VHDL in a non standard way we should straighten it out

Carl – it is brining it in to conformance with the intent VHDL not necessarily with the rules. The general intent of VHDL is that that the declarations are in one place and the logic is in other.

CJ – it will allow a VHDL compiler is to compile this without error

Bill B – are we clear of what needs to go into the package itself if we do this.

- Is it really empty?

Carl – it would be empty unless you are defining your own boundary cell.

Bill B – if we are just putting in the stuff from the new standard it would be just those 3 lines. ?

CJ – yes

Carl moves that we make the change to the package file structure as described

Ken seconds.

Peter - do we need this?

Does it give any trouble in the hierarchy?

Carl – it is covered.

Peter – also covered if you have some layering?

Carl – yes.

CJ – suggests that Peter take a look at the 1500 example.

Question called

Yes

Adam L            Brian T            Craig S            Heiko E            Ken P

Bill B            Carl B            Dharma K            John B

Bill T            Carol P            Francisco R            Josh F

No

Abstain

Hugh W            Roland L            Jeff H.\*

Peter E            Wim D

\*did not answer when called upon

13 Yes

0 No

5 Abstain

Motion passes

CJ – the vote for editor to go ahead makes him uneasy. The Chair is Looking for an end date. When does the Editor plan to provide group with ballot draft.

Carl – it will be a week to get the draft out

CJ – We should have a vote next week on removal to annex A?

Carl –that section it is out of date material. Section is not being brought up to date.

Would be carrying dead wood to bring it forward.

Bill B – was there to show LSSD when it was new.

Carl – right and it's not the case now.

**Meeting adjourned: 12:08 pm EST.**

***Summary of Motions Voted on***

**2 Motions voted on**

1. Motion to adopt the two predefined variables context path and instance path.
  - a. *Passes*
2. Motion that we make the change to the package file structure as described
  - a. *Passes*

**Next Meeting:** 8/21/2012 10:30 AM EST

NOTES:

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

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