

Minutes: 08/05/11

Attendees: Attendees: CJ Clark, Brian Turmelle, Carl Barnhart , Roland Latvala, Carol Pyron, Josh Ferry, Dave Dubberke, John Braden, Adam Ley, John Seibold, Ken Parker, Wim Driessen, Craig Stephan, Heiko Ehrenberg, Roger Sowada

Excused absences: Roland Latvala, Adam Cron

Group continued with a lively discussion the SAMPLE related email reflector threads that had occurred since the Tues. call.

Carol discussed further the scenarios which often cause issues for chip/IP vendors. Most of these relate to various powerdown aspects of pin related logic, particularly for HSSI pins. Several members said they would be fine with making the instruction completely optional. Discussion by several that SAMPLE is often not compliant on some pins/complete IPs today for many existing parts.

The JTAG tool vendors present were unanimous that SAMPLE is key to board and system debug support. All agreed that SAMPLE does not capture predictable data on SerDes types pins running at speed. However, multiple snapshots which do capture varying states are useful for debug to show pins are connected. However, there are pins which actually capture X and not varying pin states. This type of condition is not documented or documentable in BSDL today.

CJ and Adam L were against "opening the door to allow whole-sale gutting of SAMPLE"

Group discussed options for achieving a compromise to allow some supported "relaxation" of SAMPLE while instruction remains mandatory. CJ wanted to make any relaxation difficult and troublesome for Chip Vendors to support. Carol was wanting to not to introduce for much difficulty that vendor continue with just "lying" as is done today.

Dave discussed that non-standard SAMPLE can be documented in errata. Carol noted that it can also be tracked in DESIGN\_WARNING.

Ken noted that today we forcing people to "lie" on chip features. He suggested changing the Legal values of SAMPLE. Possibly mark new options as "not recommended" or "not compliant" (CJ).

Possible addition of a "powerdown" key word either in the Legal tables or in the per pin BSR entry.

Carol suggested possible bit in the BSR to indicate if associated pins were in a compliant SAMPLE state or not. A power-downed IP would set the bit to indicate current non-compliance and if the IP was powered up, the bit would indicate SAMPLE would work.

Discussed if we could have specific INIT\_SETUP procedures to force IP to power up.

Carol had action item to create a proposal.

- not recommended