

November 12, 2010

Minutes of IEEE 1149.1 - Initialize Sub-Group Meeting

Attendees:

Carl Barnhart
C J Clark
Dave Debberke
Adam Ley
Ken Parker
Carol Pyron
Mike Richetti
Francisco Russi
Brian Turmelle

Minutes:

Today's meeting started with a Ken's email showing the 1-bit TDR for controlling BYPASS reset.

- Ken: We need rules, probably more general than the drawing.
- Carl: questioned the timing of Update_DR and the loading of the BYPASS instruction. There may be a race here. May need to use a different state here (RTI?)
- Ken: Critical to maintain the traditional CLAMP instruction.
- Carol: want to see all resets except TRST* and POR* (asynchronous resets) moved to data input (synchronous resets).
- CJ: we need the BYPASS escape because the software could lose track of the state of the (dynamic) scan chain.
- CJ: We should make IDCODE mandatory if CLAMP_HOLD is used so TLR never loads BYPASS. Would mostly apply to complex chips usually implementing IDCODE anyway.
- Carol: Should the CLAMP_HOLD parameter TDR be reset by CLAMP_RELEASE?
- Adam: Instead of a TDR, we could have two CLAMP_HOLD instructions, one enabling the BYPASS escape, and the other not. That eliminates the DR scan.
- Mike: Make the BYPASS and CLAMP_RELEASE opcodes the same – they do the same things.
- Adam: Then we would not be able to turn off the BYPASS escape.
- CJ: Should IC_RESET turn off CLAMP_HOLD?
- Ken: IC_RESET is not yet defined and is in these drawings only as a placeholder.
- Carl: What is the use scenario for the BYPASS escape? How is the need for it detected?
- CJ: The BYPASS escape is used as an overriding clear of CLAMP_HOLD in complex systems with scan-path linkers. It would be used as a normal function, not just on detection of errors. Loading BYPASS is a traditional way to restore mission mode.
- Ken: Should we eliminate the defaults setting of the CLAMP_HOLD TDR?
- Carol (and general consensus): We could live without a default.

The meeting adjourned abruptly at 0951, apparently when the meeting server lost the cross-link to the telephone system for those that dialed in.

Current Status:

Formalize Rules – In progress.

BSDL Constructs - - BNF coding in progress, semantic checks in progress.

Formalize PDL constructs – In Progress.

Incorporate INIT into 1149.1 Std.

Actions:

- Carol to provide custom bidir IO example diagram.
- Ken to write draft rules for CLAMP_HOLD and CLAMP_RELEASE

Next meeting date:

Same time, Friday, November 19th.