P1450.4 meeting minutes - 12/10/03

Attendees: Dave Dowding, Jim O'Reilly, Ernie Wahl, Jim Mosely, Don Organ, Eric Nguyen, Doug Sprague, Yuhai Ma, Jose Santiago

Not present:

Agenda:
- Discussion of STC (Semiconductor Test Consortium) desire for closer work between STIL extensions and vice versa.
- Confirm/clarify diagrams and concepts of the attachment (describing the test program constructs).
- Discuss our meeting schedule through January.
- Review of minutes and email communications in the past week.

SUMMARY:
The topic of discussion today was primarily about the efforts of the STC (Semiconductor Test Consortium), and how their efforts and ours might be coordinated.

In short, STC (a consortium of ATE vendors, test module vendors, and customers of those two industries) is developing an open hardware and software architecture for ATE systems.

As the STC efforts (particularly as related to ATE software) have a fair degree of overlap to the efforts of the various STIL working groups (WGs), STC is initiating a proposal for the two groups to cooperate in the development of industry standards for ATE SW.   **JIM'S NOTE:** I believe that initially, the STC is intending for the initial cooperation to be in the area of test flow/test program specification - because, based on the current state of development of that standard by the 1450.4 WG, it is in the best position to benefit from such cooperation. The 1450.4 standard is still very much a work-in-progress, whereas some of the other standards do not necessarily apply to ATE software (P1450.1), or are essentially complete and ready for ballot (P1450.3).

Yuhai Ma and Jose Santiago gave a brief summary of the STC activities and progress and answered questions from others in the group about the STC and its activities.

We also discussed the meeting schedule over the holidays. It was agreed that, since we probably won't have a chance to meet during the holidays, we'd meet twice in the next week (our normal 1 hour Wednesday meeting on 12/17, and a second 2 hour meeting on Tuesday 12/16). The second meeting is needed to help us finalize our conceptual models.

Paraphrased transcript:
Yuhai: Summary of STC activities: defining standards for ATE HW and SW. On SW side, includes test program language (test plan, patterns, timing, etc.) Want to coordinate with STIL (on test program language especially - flow, multi-site testing, binning, etc.), since efforts are similar, and since STIL 1450.4 WG already includes some members from STC consortium companies.

Jim O: How much is STC using, or planning to use, of the already-approved STIL standards (.0, .2)

Yuhai: STC is discussing this issue, but a final decision has been not reached. It's quite likely that, where STIL already provides a solution, it will be used as the standard, or one of the standards, of STC.
Jim O: Is STC developing something completely separate?

Yuhai: Already have the language - OTPL (OpenStar Test Programming Language). 0.5 already released, 1.0 due for release in January (?). Patterns, flow, binning, levels, timing, etc. Leverages from STIL, but adds customizations. In areas where STIL doesn't provide a solution, leverages from existing languages (Advantest and others). Will build on existing languages, but doesn't simply use them unchanged.

Doug Sprague: Are you getting good cooperation from various ATE vendors? And is STC an IEEE consortium?

Yuhai: Not an IEEE-sponsored activity - rather, it's an industry consortium of ATE vendors, module vendors, and customers (Philips, Intel, Motorola, Advantest, Inovys, Wavecrest, Loos). Not published publicly yet, but currently only available to STC member companies.

Jose: Have some participation from ATE vendors, but only a couple (Advantest, Inovys). Trying to address needs similar to STIL, but on a faster timeline. Plan from STC board to communicate with IEEE 1450 WG regarding collaboration (to minimize redundant efforts and overlap). Should be sent to IEEE this month? Exploratory meetings beginning in January? Advised Tony Taylor and Greg Maston about this.

Dave: Any other questions?

Jim O: Will standard (eventually) be published publicly?

Jose: Not sure.

Don: Should be some middle ground - to facilitate cooperation between STIL WGs and STC. Some STC info should be available to STIL WGs on a need-to-know basis.

Jose: Yes, that's the intent of the letter being sent from the STC board to the IEEE. And if we agree to work together, we (the STIL WGs) will need to know some of that information.

Don: IEEE generally is open to all participants, and can freely accept proposals from any organization, assuming that the contributed intellectual property is free of constraints.

Jim: Procedurally, how was STC able to produce the standards they've already produced in (apparently) a shorter time than the STIL .4 WG? Was there a starting point, to which additions were made? What sort of advice can you offer us in this area?

Jose: Starting point for STC OpenStar language was TPL (Advantest). Also, remember that there are only two ATE companies in STC - most of the module vendors don't really care about some aspects of the test program language (i.e., test flow, binning). Much of the work was to define APIs for interfacing to modules and instruments.

Yuhai: Advantest contributed spec for TPL, which was then suitably modified to meet the additional needs.

Ernie: Are any other ATE vendors besides Advantest and Inovys members of STC?

Yuhai: Apart from Advantest and Inovys, the other hardware vendors are mostly module or instrument vendors.

Dave: We're agreed to accept any of the specification from STC, and also any advice or hints on the process side.

Dave: For now, until cooperation is approved, we can still move forward. If there's a potential for sharing (if only on a conceptual level), that's fine - it would be good for us to do that. We welcome the added insight, and added spec background from the STC.

Jose: I second that - but STIL .4 should proceed - the potential cooperation shouldn't alter where we are or where we're heading.

Yuhai: Makes sense - proceed with our work, and when we reach agreement to cooperate with STC, we can work out the details of how to proceed.

Ernie: We can't afford to wait - we need to push forward, and accept input from all comers, including STC.

Ernie: Carry on as we have been - we can't afford to wait - we need to push forward, and accept input from all comers, including STC.

Dave: I'd like to propose that we're agreed to accept any of the specification from STC, and also any advice or hints on the process side. Over the next couple of calls, let's try to wrap up our conceptual models.

All: General agreement on this point.

Jose: If/when we reach agreement on cooperation, either Yuhai or I will share what we're doing in STC (JIM'S NOTE: perhaps describe the details of the STC language - especially as related to flow).

Dave: Would like to complete the conceptual view in the next couple of weeks. To that end, can we hold an additional meeting within the next week?

After group discussion, we settled on Tuesday 12/16 at 10:00 pm PST, for two hours, and we'll have our normal meeting on Wednesday 12/17. Those two meetings will constitute our final two meetings for 2003.

Dave: I'll update the various diagrams with input from discussions during the last few meetings, and distribute.

At this point, the call concluded.

Till next week,

Jim