Accellera C Standard Group Meeting

June 27th 2000
@ Sun Microsystems in Sunnyvale CA

Attendees:
Brian Bailey Mentor Graphics Interim Chair
Kevin Kranen Synopsys
Daniel Gajski UCI
Grant Martin Cadence
Paula Menzingian CoWare
Martin Baynes C Level Design
Simon Davidmann Co-Design Automation
Asa Ben Tzur Intel
Filip Thoen Virtio
Charles Cheng Sun
Yuri Panchul C Level Design
John Sanguinetti CynApps
Shrenik Mehta Sun
Dennis Brophy Mentor (phone)
Vassillios Gerousis Infineon (phone)
David Springer CynApps (phone)
Duncan Girley Fujitsu

Meeting Convened at 9:00
Brian Bailey gave an introductory presentation. It covered the original establishment of the group, its initial charter and its relationship to the ALC work. This presentation is to be made available on the web site. There was one clarifying question regarding the need for a concrete syntax and implementation. This was explained as a function that needs to be performed in order to show an example of how to implement the defined semantics and was a secondary role of the group.
Dennis Brophy also clarified that while the Accellera board press release implied a focus on C/C++ this is in no way exclusionary and the intent is to allow other efforts to co-exist under the ALC umbrella.

This was followed by a set of presentations, which provided Points of View from a number of interested organizations. It was stated ahead of time, that only clarifying questions would be permitted since the afternoon was set aside for a general discussion of all material.

Martin Baynes
Martin's presentation illustrated C-Levels competence in this area and presented an number of Motions that ranged from structural motions to interaction with other bodies. Many of these proposals were provocative but provided a framework for some of the resulting discussions.
A question was raised regarding if Accellera had any mechanisms for licensing.
Dennis - Accellera does not have in place any mechanisms today to deal with licensing. A Cadence supplied mechanism was examined. However, the working groups have always found ways that mean they have not had to follow through on them such as utilization of IEEE standardization.

John Sanguinetti
John's presentation showed the approach that they had used to solve this problem but expressed that the end solution is not the most important thing. Instead, what is required is a good base on which everyone can build tools. He outlined a number of attributes by which implementation could be rated and implied that many of these attributes are a result of the underlying semantic model.

Since Dennis was joining us from Japan, he had to depart at this point. However, he had a few points to make before his departure
This group has a wide scope and will challenge the current organization of Accellera. The group needs to work out how it wishes to do business within the guidelines established by OVI. Voting members should

Vassilios as the chair of the ALC and it is his responsibility to bring any major changes before the board.

Kevin Kranen

regarding the end goals of the Accellera effort. He asked questions of the group in order to seek clarification and to understand how the two organizations could work together.

round. He felt that this was a good way since it allowed for unimpeded donations of technology. How would SystemC respond to semantics created by Accellera
the Steering committee.

Dan
Dan gave a presentation showing some of the important aspects of the design problem. His main points were that we had to have defined semantics so that synthesis results were explicit and predictable and that

constructed using the best in class tools from multiple vendors.

This ended the formal presentation part of the meeting. Since Martin had provided a good set of questions

were ever formally introduced as motions but served to lead the discussion. On many occasions the discussions moved between issues, so the final results of each discussion are presented here.

❑ 1.2. Motion 1
  ❍ Accellera CDI charter must require member companies to actively participate through technology donation, active consultation, pilot programs or product development. There should be a "audit" relationship for those who wish to be informed but not be active.

The group was unanimous in their desire to have active participants although it was also accepted that members or companies could not always be expected to participate in all meetings. The final agreement was that all 'members' would be able to vote if they had attended at least 2 of the last 3 meetings. Each 'member' company would get 1 vote. The question of who was a member was set to be any person who had read and agreed to the groups published charter and who met the other criteria stated above for attendance. The group chair would keep the list of who were active members. All attendees at this inaugural meeting were considered to be voting members. There was also deemed to be the need to have two classes of membership, active and audit. The active members are described above. The audit group does not have to attend meetings but is expected to review documents or proposals at various times. NO criteria were set for dropping audit members if review responses are not received.
At certain times a full member review would be required, for example when voting on a document ready to be sent to the steering group. This would be conducted through email. Although there was a lot of discussion about quorum requirements, which were felt to generally be a good idea, no decision was reached on this.
In addition, a number of other resolutions were made. The principle one regarded to posting and member access to documents. It was agreed that all documents, which includes minutes, presentations, working documents, referenced documents etc should all be kept on a web site accessible to all active members. A limited subset of these would be accessible to audit members.

❑ 2.2. Motion 2
  ❍ A. Accellera calls on Open SystemC to follow the lead of OVI & VI and merge its organization into Accellera as soon as its legally possible.
  ❍ B. Accellera calls on SpecC to follow the lead of OVI & VI merge its organization into Accellera as soon as its legally possible.
The group felt that this was an appropriate direction to go in, although the suggested end goal was premature. It did result in two actions for Dan and Kevin to go back to respective organizations and to find out from them what level of involvement may be appropriate.

*Kevin Kranen noted 7/5/2000. I don't think your characterization of group sentiment
on literal intent of this motion is accurate. What I heard was that people
in the room believed that collaboration among referred to groups was
important to avoid unwanted "language wars", but any kind of legal merging
was definitely not in the cards. I seem to remember Dan G. also making a
point of this ! I think you need to alter your incorrect characterization
below for the minutes record (suggested amendment in caps)*

 *THE GROUP CONCURRED THAT COLLABORATION WOULD BE NEEDED BETWEEN THESE
GROUPS TO AVOID THE DREADED LANGUAGE WARS IN THE SYSTEM LEVEL DOMAIN, BUT
THAT LEGAL/PRACTICAL INTEGRATION OF THESE GROUPS WAS NOT REALISTIC. It did
result in two actions for Dan and Kevin to go back to respective
organizations and to find out from them what level of involvement may be
appropriate.*

- ❏ 3.2. Motion 3
    - ❍ Accellera CDI should consist of technical committees (cf VSIA DWG) coordinated by a steering group

Agreed by simple consensus, & that the ALC is the steering committee, the CDI is one of the working groups and others may be formed in time.

- ❏ 4.2. Motion 4.
    - ❍ A. The steering group owns the overall flow and architecture, and sets scope and charter for the working groups.
    - ❍ B. The architecture/flows will be working documents until refined by the working groups feedback & will become the master standard.
    - ❍ C. Once approved by the steering group, the working group proposed documents become subordinate standards.

Not explicitly covered but seemed to be accepted without discussion

- ❏ 5.2. Motion 5
    - ❍ A. Accellera C task force should adopt the GSRC/PtolemyII model of systems definition (not the simulator) –confirmation of ALC decision
    - ❍ B. Accellera C task force should adopt the VSIA 1.0 taxonomy of terminology for systems design – confirmation of ALC decision

    Agreed by simple consensus

- ❏ 6.2. Motion 6
    - ❍ Accellera CDI should use OVI rules for membership, participation and voting for both working groups and steering groups.

Agreed by simple consensus, once they had been clarified –see motion 1

- ❏ 7.2. Motion 7
    - ❍ Accellera CDI technology working groups should follow VSIA concepts {motion 7}, using VSIA documents if VSIA agrees.

Not agreed, as the VSIA procedures needs a fax machine and a DWG chair has veto power over membership, but OVI rules tightened to obviate need for this –see 1.
There was strong reinforced about the need for publishing & email.

- ❏ 8.2. Motion 8
    - ❍ Donating companies (or surrogate volunteer companies) need to enhance the donated technology to provide reference implementations of the agreed standard on behalf of the initiative. These efforts should be registered with the steering committee and the appropriate working group.

Not discussed as premature –not ready to discuss donations yet.

But need to work on mechanisms for handling them (AMS gives example) –Dennis needs to work through those.

- ❑ 9.2. Motion 9
    - ❍ A. Accellera needs to develop an acceptable community license &
    - ❍ B. Accellera needs to host download capabilities for licensees to access released standards, documentation and technology.

While not needed at this moment, it will be important to ensure that it is in place when needed.

- ❑ 10.2. Motion 10
    - ❍ The CDI and the ALC should reverse relative positions, making the SRM a working group of the C task force.

This was a motion intended to discern understanding of issues & test resolve of group to create a major initiative –it was not passed, but did help clarify thinking. It was acknowledged that the ALC does need to review some of its charter, establish its goals and direction so that it can act as an effective steering group. It was also questioned if the current work of the ALC should remain in the ALC or if separate working groups should be established for them so that the steering group can be freed of these responsibilities.

Technical discussion revolving around the first step that the group should take. It was agreed by general consensus that it was important to build a base on RTL semantics although it was not agreed that this was the end result of the group.

Elections for permanent chair

Two nominations were received. The first was from Martin Baynes (C-Level Design) and seconded by Grant Martin (Cadence) for Brian Bailey. The nomination was accepted on a temporary basis for approximately the next 3 months. The second nomination was from John Sanguinetti for Daniel Gajski. Dan was unsure about his acceptance of the nomination based on concerns about the amount of procedural activity that it may involve. Brian Bailey proposed a joint chair with Dan, where Dan will take the technical lead. All attendees accepted this and was passed by a unanimous vote.

Next Meeting

Next meeting about 1 month –set for Thursday 27 July, at Intel (Asa)
The meeting adjourned at 3:00

**ACTION ITEMS

A-1 The chair should establish and maintain two reflectors. One for active members and one for audit members. Both of these lists should be managed as described above. Brian Bailey.
A-2 The chair should establish and maintain a web site contained the above specified documents. If Accellera cannot provide this in a timely fashion (within 2 weeks) a temporary site will be created and hosted by C-Level Design. Brian Bailey & Dennis Brophy.
A-3 A formal charter for the group needs to be written and balloted. Brian Bailey
A-4 Accellera tasked Kevin Kranen (System C) to meet with the Open SystemC steering committee and discuss possible areas of collaboration, e.g. critique of proposals/technology & possible future closer collaboration

> *Added by Kevin Kranen 7/5/2000:*
> *Grant, Vassilios and I did go back and begin the process of working out*
> *what kind of formal collaboration might benefit both SystemC and Accellera.*
> *Bottom line - Steering Group believes that we should at least have simple*
> *asynchronous information exchange in place, similar to that that has*
> *produced successful results with VSIA SLD. Both groups provide key contact*
> *people for sharing information asynchronously, and for working through*
> *technical questions/issues to get alignment. We didn't have a chance to go*

any further in this in 6/29 Steering Group meeting.

A-5 Accellera tasked Prof Gajski (Spec C) to talk to the SpecC consortium and have similar discussions to action A-4

A-6 Need to establish a viable licensing mechanism with Accellera. Dennis

A-7 Need to re-establish the role and charter of the ALC and it interaction with sub-groups. Also look into the best working structure for the ALC. Brian Bailey and Vassillios Gerousis.

A-8. Establish a working group to define RTL semantics (in Verilog, VHDL) –Dan G to recommend a book –due week of July 3rd.

A-9 Find out common subset & document differences in existing models –an expert from each company to meet (SystemC, CynApps, C Level, with reference to Verilog, VHDL) –e.g. to define how interact with Verilog or VHDL model. Meet next week, Kevin (contact point), John (contact point), Martin (contact point).