((lambda (discussions) (report on X3J13)) (purposes))

by
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X3J13, the technical committee for the standardization of Common Lisp, is moving ahead in a number of areas. At the meeting in Palo Alto (March 16-18, 1987) there was a long presentation and discussion on the object system proposal. The object system proposal has evolved from a number of different proposals all of which had individual names and all of which had their strong proponents. Some of the initial discussions seemed to be centered around what we would call it and thereby which group would get more credit for proposing it. The committee working on this proposal has made a lot of progress and developed an approach that draws many of the best ideas together. This approach now seems to be so much a part of the way people are thinking about the language that what to call it no longer seems to be a topic for discussion. I think this is a very positive sign about the mutual support for this proposal.

Object oriented programming is a popular discussion topic in the C and Ada communities as well. I feel very positive about this Common Lisp Object System proposal. I think it is setting the pace for the others to come up to. I am however going to refrain from trying to explain it and leave that to the committee members themselves. Besides explaining this proposal in ways that are understandable and appealing to Lisp programmers, we (here I mean computer scientist people in general) also need explanations and tutorials that are appropriate to the C and Ada communities.

The committee working on the object system proposal has also set a high standard for other subcommittees within X3J13. They have done excellent work. The Palo Alto meeting was a very productive one and I think a lot of the credit must go to this subcommittee, which included the authors and contributors to their report: Daniel G. Bobrow, Linda G. DeMichiel, Richard P. Gabriel, Sonya Keene, Gregor Kiczales, David A. Moon, Patrick Dussud, Kenneth Kahn, Larry Masinter, Mark Stefik, Daniel L. Weinreb, and Jon L White.

Another area where the X3J13 committee made some progress was in the area of language issues and "clean-up." That subcommittee made a preliminary report, but I expect that the June 30-July 1 meeting in Cambridge will focus heavily on their work. A related area is conformance and validation. The issues here are not yet well defined for the Common Lisp community so it is a little harder to see the progress, but I think this will be a major topic for future meetings.

Gary Brown from Digital Equipment Corporation also made a very important announcement -- that DEC is willing to support the development of the text of the draft standard through a full-time technical editor. This is very much appreciated and is indicative of the kind of support that various companies are giving to the effort to develop a standard for Common Lisp. The details of how to resolve issues, circulate them for review, write them up in an appropriate way, and have broad involvement have not been worked out, but everyone is feeling very positive.

I wanted to end this column by reporting on the approval by the committee of their own statement of their purposes. This had been a topic of discussion since the first meeting and served as a forum for bringing various issues up for discussion. I think it now expresses the goals and desires of the committee. Quoting from what is now a standing document of X3J13 (SD-5, March 16, 1987):

> 1. X3J13 is chartered to produce an American National Standard for Common Lisp. It will codify existing practice and provide additional features to facilitate portability of code among diverse implementations.
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> 2. The committee will begin with the language described in Common Lisp: The Language by Guy L. Steele Jr. (Digital Press, 1984), which is the current de facto standard for Common Lisp. Whenever there is a proposal for the standard to differ from Common Lisp: The Language, the committee shall weigh both future costs of adopting (or not adopting) a change and costs of conversion of existing code. Aesthetic considerations shall also be weighed, but as subordinate criteria.
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> 3. The committee will address at least the following topics in the course of producing the standard, in each case either incorporating specific features or explaining why no action was taken:
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> (a) Repairing mistakes, ambiguities, and minor omissions in Common Lisp: The Language
> (b) Error handling and condition signalling
> (c) Semantics of compilation
> (d) Object-oriented programming
> (e) Iteration constructs
> (f) Multiprocessing
> (g) Graphics
> (h) Windows
> (i) Validation
> (j) One versus two namespaces for functions and variables
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> Topics (a)-(c) concern deficiencies in Common Lisp: The Language that require resolution. Topics (d) and (e) are not addressed by Common Lisp: The Language, but appear to be well-understood and ready for standardization. Topics (f)-(i) concern areas where standardization is desirable but not crucial to production of a standard. Topic (j) is an area of current controversy within the Lisp community. Other topics may be considered if specific proposals are received.
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> 4. The committee recognizes that Lisp programming practice will continue to evolve and anticipates the need for future revisions and extensions to the standard. This may include a family of Lisps and/or a layered Lisp model.
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> 5. X3J13 is committed to work with ISO toward an international Lisp standard.

I want to remind everyone that membership on X3J13 is open to interested experts who are willing to make a commitment to continuing participation. Please contact me directly for more information on the topics discussed here or other issues you think X3J13 is, or should be, considering.