

SECOND KL-ONE WORKSHOP

Christmas Farm Inn
Jackson, New Hampshire
October 16-20, 1981

Ron Brachman and Jim Schmolze

Amidst the beautiful foliage in Jackson, N.H., the Second KL-ONE Workshop was held over a five-day period this past October. Last year, almost fifty researchers with a strong interest in KL-ONE -- a knowledge representation language/system developed over the last several years -- gathered together for two days of discussions and getting to know one another. This year we decided to be more ambitious. Not only did we have a general conference session, wherein people could report on activities at their own institutions, discuss issues of general interest, etc., we also had a two-and-a-half day working research session.

The technical discussion part of the Workshop preceded the general conference, so that we could report on findings to the larger group of participants (forty-six this year, from twenty-one institutions). In hopes of actually getting some technical work done, we had only a very small number of people attend the technical discussions. Also, we planned to cover only a small number of topics. In particular, we attempted to come to some consensus on these issues in KL-ONE:

- representing assertions and propositions,
- "realization" (attributing new descriptions to individuals as they are learned about) and "classification" (putting KL-ONE descriptions into a taxonomy according to their internal structure),
- individual concepts,
- "role set relations" (the way to represent constraints in concept definitions in KL-ONE) and "qua-Concepts" (concepts defined as functions of other concepts),
- and some system maintenance and utility issues (KL-ONE is implemented in INTERLISP at BBN and SmallTalk at Xerox PARC).

To allow us to get right to work, the chairman of

each session circulated a position paper to the group, raising the questions he wanted to see addressed at the Workshop.

For the general conference session, we invited groups from various sites to report on interesting applications of KL-ONE, problems with it, interesting technical questions, etc. Topics of the talks included "KloneTalk" (a version of KL-ONE implemented in SmallTalk at Xerox PARC -- this included a videotaped demonstration of the system's interface), prototypes in knowledge representation, translation of INTERLISP KL-ONE to FranzLisp, a calculus of Structural Descriptions, and the KL-ONE Classifier, not to mention several others. We also had the larger group break up into smaller working groups to consider inference in KL-ONE, representing beliefs, some KL-ONE practice examples, and transporting KL-ONE to other machines.

This year we have succeeded at producing an extensive Proceedings of the Workshop. This Proceedings includes summaries of all Technical Discussion sessions, papers for each of the presented talks, summaries of the working group discussions held during the general conference, and an extensive set of position papers, solicited from all participants in the Workshop. The Proceedings is being published as a joint BBN/Fairchild report, and is available from either of the following:

Ron Brachman
Fairchild Laboratory for
Artificial Intelligence Research
MS 30-888
4001 Miranda Ave.
Palo Alto, CA 94304

Jim Schmolze
Bolt Beranek and Newman Inc.
10 Moulton St.
Cambridge, MA 02238 ■