First Annual
Purdue Compiler–Construction Tool Set Workshop

July 25,26 1994
Sponsored by *Parr Research Corporation*
Workshop located at and in cooperation with
NeXT, Inc.
400 Seaport Ct. Ste 201
Redwood City, CA

Planning group:

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AGENDA for First Annual PCCTS Workshop

Session I   -- Introduction to PCCTS

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    09:30 - 10:00    Introduction to PCCTS components
                     Description of Compilation/Translation tasks and how
                     PCCTS fits can be used.
    10:00 - 10:30    LL(k) parsing
                     What is it?  Why is it useful?  How can I use it?
    10:30 - 11:00    Predicated LL(k) parsing
                     [Russell Quong]
                     Semantic predicates explained.  How can I use them to
                     recognize difficult language constructs?
    11:00 - 11:15    Break (refreshments)
    11:15 - 11:45    Yet more predicated parsing
                     Syntactic predicates.   Example usage.
    11:45 - 12:30    Abstract Syntax Trees
                     What are they for?  How do I build them?  How do I use
                     them once they are built?

    12:30 - 01:30    Lunch (box lunches brought in)
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Session II -- Source-to-Source Translation

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    01:30 - 02:15    SORCERER
    02:15 - 03:00    Fortran-P Translator
                     A description of how the Fortran-P translator at U of MN
                     Army Research Center is structured and how it uses SORCERER.
    03:00 - 03:15    Break (refreshments)
    03:15 - 04:15    Source-to-Source Translation
                     [Gary Funck]
                     Including: Pascal->Ada translation, structure, use
                               of PCCTs tools, lessons learned
                     Possibly also: interfacing hand-rolled scanners to ANTLR
    04:15 - 04:30    Open discussion about translation issues
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Session III -- PCCTS Experiences and Future Directions

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    09:30 - 10:30   NeXT C++ Grammar
                    [Sumana Srinivasan]
                    Demo of NeXTStep browsing C++ code + discusion about grammar
                    and experiences.
    10:30 - 11:00   Terence and Sumana on parsing really nasty languages
    11:15 - 12:15   Using PCCTS for an Oberon compiler
                    [Steve Robenalt]
                    Oberon compiler project overview.
                    The use of semantic and syntactic predicates in an
                        Oberon compiler.
                    Tree transformations to improve register usage in
                        80X86 integer expressions.
    12:15 - 12:30   Open discussion

    12:30 - 01:30   Lunch (box lunches brought in)
```

Session IV -- Future Directions

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    01:30 - 02:00   ANTLR
                    Short presentation of ideas, then open discussion
    02:00 - 02:30   DLG
                    Short presentation of ideas, then open discussion
    02:30 - 03:00   SORCERER
                    Short presentation of ideas, then open discussion
    03:00 - 03:15   Break (refreshments)
    03:15 - 03:45   Implementation Language
                    Short presentation of opinion by Terence, then open discussion
    03:45 - 04:15   Plans for book & even more open discussion
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