Call for Participation
Purdue Compiler–Construction Tool Set Workshop

July 25,26 1994
Sponsored by Parr Research Corporation
Workshop location at
NeXT, Inc.
400 Seaport Ct. Ste 201
Redwood City, CA

July 19, 1994

Abstract

[*We are in the process of obtaining ACM SIGPLAN "in-cooperation" status and expect to be awarded this status shortly.*]

The workshop will provide tutorials, "practice & experience" presentations, discussions about the future direction of PCCTS, and finally an opportunity for PCCTS users to exchange ideas. Much fun will be had by all.

We encourage the submission of short "position" papers and/or "experience" presentations (¡=30 min). For more information contact Terence Parr at parrt@acm.org [We have room for about 3 more papers if people would like to submit them SOON (even if you can't attend, the papers will go into the proceedings)]. We hope to make the proceedings available those unable to attend the workshop as well.

SCOPE / WHO WOULD BE INTERESTED

Users of PCCTS, users of other language tools, persons interested in learning more about language tools, persons interested purely in the predicated-LL(k) parsing strategy of the ANTLR parser generator, instructors interested in using PCCTS for their compiler courses (there are already a fair number of courses being taught with PCCTS), and businesses interested in evaluating PCCTS or other language tools.

WHY

We would like to more actively support the growing PCCTS community, to promote the exchange of ideas between users, to discuss the future directions of the tools.

PROCEEDINGS

We will be printing copies of the notes, presentations, position papers prior to the workshop. We also hope to make electronic or printed copies of the proceedings available to other PCCTS users.

FEE

$75. This covers our cost for printing the proceedings, coffee/refreshments for two days, and two box

lunches. We will be collecting money at the door in the form of personal check, cashier's check, or money order. No credit cards or cash–sorry. Please make checks payable to Parr Research Corporation.

CURRENT SUPPORT
NeXT has donated the use of a room in their large training facility.

REFRESHMENTS
We anticipate serving refreshments/box lunches to promote informal discussions at meal times rather than forcing attendees to go off site.

AFTER-SESSION ENTERTAINMENT
We hope to provide suggestions and organized "field trips" to the many sites in the San Francisco Bay area.

HOW TO REGISTER
Send email to parrt@acm.org with a Subject line of "workshop register" with the following information:

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Name
Email
Company or affiliation (if any)
Work Phone
Special food needs (if any); e.g., vegetarian, etc...
Any other special needs
Anything in particular you would like to see at the workshop

Please register only if you are positive that you will be
attending.
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Planning group:

Terence Parr	parrt@acm.org	U of MN
Gary Funck	gary@intrepid.com	Intrepid Technology Inc.
Steve Robenalt	steve@molly.dny.rockwell.com	Rockwell International
Ivan Kissiov	ivan@cadence.com	Cadence

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                    AGENDA for First Annual PCCTS Workshop

Session I   -- Introduction to PCCTS

    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)

Session II  -- Source-to-Source Translation

    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)
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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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