

ACL 2007



ACL 2007

Proceedings of the Workshop on Grammar-based approaches to spoken language processing

**June 29, 2007
Prague, Czech Republic**



Production and Manufacturing by
Omnipress
2600 Anderson Street
Madison, WI 53704
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Preface

Even though the statistical paradigm is dominant in research on spoken language processing, grammar based approaches are used to a great extent in industry and are also a popular choice for building command and control applications. They are particularly useful in situations where there is a lack of appropriate training data for particular domains, or even in some cases for the language as a whole, and when it is important to encode global structural constraints. Several platforms are now available that support construction of grammar-based spoken dialogue systems, including SRI's Gemini, NASA and Geneva University's Regulus and Chalmers and Gothenburg University's GF, and a variety of substantial applications have been built using these tools.

This workshop will provide an opportunity for researchers in this area to present results, compare systems and exchange practical experience in grammar based development for spoken language understanding systems.

Organizers

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Pierrette Bouillon (Geneva University)
Manny Rayner (Powerset Inc and Geneva University)

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Conference Program

Wednesday, June 29, 2005

Session 1: Overview Talks

- 9:30–9:45 Opening Remarks
- 9:45–10:15 Aarne Ranta: An Overview of GF
- 10:15–10:45 Manny Rayner: An Overview of Regulus
- 10:45–11:15 Break

Session 2: GF

- 11:15–11:40 *Speech Recognition Grammar Compilation in Grammatical Framework*
Björn Bringert
- 11:40–12:05 *Converting Grammatical Framework to Regulus*
Peter Ljunglöf
- 12:05–12:30 *Dialogue System Localization with the GF Resource Grammar Library*
Nadine Perera and Aarne Ranta
- 12:30–14:30 Lunch

Session 3: Grammar-based vs statistical approaches AND applications

- 14:30–14:55 *Grammar-based context-specific statistical language modelling*
Rebecca Jonson
- 14:55–15:20 *Handling Out-of-Grammar Commands in Mobile Speech Interaction Using Backoff Filler Models*
Tim Paek, Sudeep Gandhe, Max Chickering and Yun Cheng Ju
- 15:20–15:45 *A Bidirectional Grammar-Based Medical Speech Translator*
Pierrette Bouillon, Glenn Flores, Marianne Starlander, Nikos Chatzichrisafis, Marianne Santaholma, Nikos Tsourakis, Manny Rayner and Beth Ann Hockey

Wednesday, June 29, 2005 (continued)

15:45–16:15 Break

Session 4: Demos and panel

16:15–17:30 Demos

A Development Environment for Building Grammar-Based Speech-Enabled Applications

Elisabeth Kron, Manny Rayner, Marianne Santaholma and Pierrette Bouillon

Björn Bringert: Generation of speech grammar formats from GF

Pierrette Bouillon and Manny Rayner: The MedSLT medical speech translator

Nadine Perera: Using GF resource grammars

17:30–18:15 Panel discussion