



THE META TECHNOLOGY COUNCIL PROUDLY AWARDS THE META SEAL OF RECOGNITION TO

# XFST by Xerox

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*In recognition of software, products, and services which actively contribute to the European Multilingual Information Society.*

On behalf of the META Technology Council

**Hans Uszkoreit**  
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## Lauri Karttunen (video)

On behalf of the META Technology Council

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# **XFST**

## **Xerox Finite-State Toolkit**

Lauri Karttunen

with

Ronald M. Kaplan, Todd Yampol, Pasi Tapanainen,  
Kenneth R. Beesley, Hervé Poirier, André Kempe,  
Tamás Gaál, and many others

1993 – present and future

# What is XFST?

- A development tool for compiling finite-state networks from
  - strings
  - text files
  - xfst regular expressionswith calculus operations (union, intersection, composition,...)
- A utility for applying finite state networks to text for
  - rewriting
  - tokenization
  - morphological analysis and generation
  - pattern matching

# What is XFST used for?

- Since its inception in 1993 XFST has been used to create lingware for dozens of languages
  - English, Finnish, French, German, Italian, Spanish, ...
  - Arabic, Basque, Georgian, Irish, Turkish, ...
  - Mongolian, Rotokas, Sámi, Zulu, Xhosa, ...
- Industrial users of XFST and its commercial version include
  - Temis
  - Basis Technology
  - SAP
  - Microsoft

# Future of XFST

- In the near future Xerox will release the source code of XFST and its enhanced industrial version freely for non-commercial use under a click-through license.
- The current executable is available at  
<http://www.stanford.edu/~laurik/.book2software/>
- Other resources:  
*Finite State Morphology*  
Kenneth R. Beesley and Lauri Karttunen  
CSLI Publications, 2003  
<http://www.fsmbook.com/>