

# DISC

## Spoken Language Dialogue Systems and Components: Best practice in development and evaluation.

Esprit Long-Term Research Concerted Action No. 24823

1 June 1997 - 30 November 1998

### Background

*"I have read that robust spoken language dialogue systems (SLDSs) technologies are now a reality. If this is true, could such a system be a good choice for solving my task?"*

*"How can I assess whether a technology on offer has been produced according to the best practice criteria of the field? By the way, what are the best practice guidelines for SLDSs development?"*

*"Of these two speech recognisers/synthesisers, which is the better one for my purposes?"*

*"How will users react when confronted with SLDSs?"*

*"Which methods and tools should I use when constructing a dialogue manager? Which platforms are available?"*

These and many other related questions are being asked with increasing frequency as a growing number of SLDSs and components for different languages are entering the market place. DISC aims to support users and developers in answering them.

### Actions

The DISC consortium is currently performing an in-depth examination of a broad selection of state-of-the-art SLDSs and components in order to identify current development and evaluation practices and pinpoint their deficiencies. DISC will then develop, test and disseminate a first detailed reference model of best practice procedures and methods, as well as a toolbox of associated concepts and software tools.

DISC focuses on the following aspects of SLDSs: speech recognition, speech generation, language understanding and generation, dialogue management, human factors and systems integration.

### Expected results

DISC will contribute to integrating SLDSs best practice into software engineering best practice and, thereby, to the establishment of dialogue engineering standards.

Moreover, DISC will provide

*to end users*

- guarantees that a product has been developed following best practice for software and dialogue engineering
- concepts, tools and methods to assess different systems and component technologies against one another and to choose the right product according to purpose, quality and price

*to service providers*

- increased product quality, flexibility and adaptability
- improved maintenance possibility and the re-usability of resources and components;

*to developers*

- possibilities of a more exact feasibility assessment - thus reduced risks in the development of SLDSs
- systematically improved procedures, methods, concepts and tools for the development and evaluation of SLDSs - thus reduced development time and cost.

### **DISC needs your input**

Given its objectives, DISC needs and welcomes the widest possible collaboration in order to maximise usability and relevance of its results. Therefore, the DISC Advisory Panel has been set up. Please join the Panel if you are interested in contributing to DISC's work on SLDSs best practice - by commenting on intermediate results, providing access to products, to your own SLDS prototypes or components under development, and/or making us aware of practices, theories and tools in current use. Members of the DISC Advisory Panel will regularly be informed about the latest developments within DISC and will have early access to DISC documents.

### **How to join the Advisory Panel?**

To join the DISC Advisory Panel, you may 1) complete and return to ELSNET (coordinates below) the form attached to this brochure; or 2) send a e-mail message to ELSNET; or 3) complete the 'Advisory Panel' form at URL <http://www.elsnet.org/disc/>.

### **More information about DISC**

More detailed information on DISC is available at URL:

<http://www.elsnet.org/disc/>

This web site includes all publicly available DISC documents and links to other relevant information.

To receive a DISC document by surface mail, contact ELSNET (coordinates below) and specify the document you want to receive.

### **DISC partners and people**

- The Maersk Mc-Kinney Moller Institute for Production Technology (MIP) (coordinating partner)  
Odense University, Campusvej 55  
5230 Odense M, Denmark  
Phone: (+45) 65 57 35 44  
Fax: (+45) 66 15 76 97

Ole Bernsen, contact person  
(nob@mip.ou.dk)  
Laila Dybkjær (laila@mip.ou.dk)  
Merete Bertelsen, DISC administration  
(merete@mip.ou.dk)

- Human-Machine Communication Department  
Centre National de la Recherche Scientifique (CNRS-LIMSI)  
Bâtiment 508  
B.P. 133  
F-91403 Orsay Cedex, France  
Phone: +33 1 69 85 80 63  
Fax: +33 1 69 85 80 88

Lori Lamel, contact person  
(lamel@limsi.fr)  
Francoise Néel (neel@limsi.fr)  
Joseph Mariani (mariani@limsi.fr)  
Jean Luc Gauvain (gauvain@limsi.fr)  
Patrick Paroubek (pap@limsi.fr)  
Lin Chase (chase@limsi.fr)

- Institut für Maschinelle Sprachverarbeitung (IMS)  
Universität Stuttgart  
Azenbergstraße 12  
D-70174 Stuttgart, Germany  
Phone: +49 711 121 1373  
Fax: +49 711 121 1366

Ulrich Heid, contact person  
(heid@ims.uni-stuttgart.de)

Hans Kamp (hans@adler.ims.uni-stuttgart.de)

- Department of Speech, Music and Hearing  
Kungliga Tekniska Högskolan (KTH)  
Drottning Kristinas Väg 31  
S-100 44 Stockholm, Sweden  
Phone: +468 780 7563  
Fax: +468 790 7854

Inger Karlsson, contact person  
(inger@speech.kth.se)  
Rolf Carlson (rolf@speech.kth.se)  
Björn Granström (bjorn@speech.kth.se)

- Vocalis Ltd  
Research and Development  
Chaston House, Mill Court  
Station Road, Great Shelford  
Cambridge CB2 5LD, UK  
Phone: +44 012 23 846177  
Fax: +44 012 23 846178

David Williams, contact person  
(david.williams@vocalis.com)  
Klaus Failenschmid (klaus@vocalis.com)

- Daimler-Benz AG  
F3M/S  
Wilhelm-Runge-Straße 11  
Postfach 2360  
D-89013 Ulm, Germany  
Phone: +49 731 505 2152  
Fax: +49 731 505 4105

Paul Heisterkamp, contact person  
(heisterkamp@dbag.ulm.daimlerbenz.com)

- ELSNET  
Trans 10  
NL-3512 JK Utrecht, The Netherlands  
Phone: +31 30 253 6039  
Fax: +31 30 253 6000

Steven Krauwer, contact person  
(s.krauwer@let.ruu.nl)  
Yvonne van Holsteijn (elsnet@let.ruu.nl)