

# Travel Report

Project VODA on "Grammar-Based Systems"

22th June, 2006

## Travel Details

### Destination

ITI'2006 Conference, Cavtat, Dubrovnik–Croatia

### Date

16 to 22 June, 2006

### Visitors

Pedro Henriques / UM (Portugal)

Maria João Varanda / IPB (Portugal)

Daniela da Cruz/ UM (Portugal)

### Travel Purpose

This visit has 2 main purposes: to present a paper on AspectLISA, an outcome of the bilateral project "VODA – Grammar Based Systems", and to continue the joint work in the project.

It is also added another objective: to discuss future trends of Alma in the context of PCVIA project.

### Financial Support / Grant

This visit was supported by:

- Portuguese GRICES and Slovenian Government under a bilateral agreement for joint research projects support (project No. BI-PT/04-06-008). .
- PCVIA, a FCT supported research project under contract POSC/EIA/57662/2004

## Travel Report

### Aims & Objectives

The objectives for this working visit were:

- To participate in ITI'06, the "Information Technologies for Interfaces" International Conference, presenting the paper "Specifying languages using aspect-oriented approach: AspectLISA" (an outcome of VODA project);
- To discuss improvements in AspectLISA (a VODA project task).
- To discuss VisualLISA, a new visual language to describe LISA AG specifications (a VODA project task).
- To discuss Alma version 2 — Alma is supported by LISA — with the Slovenian team (a PCVIA task).

### Achievements

All the objectives listed above, were achieved:

- The paper was successfully presented (slides are attached)
- About VisualLISA:
  - we discuss the design of the language, and we came up with a first proposal, *based on nested rectangles, representing a production* (schema attached);
  - we discuss the possibility to use *devil* tool to generate an editor+compiler for VisualLISA;
  - we start the specification of the VisualLISA in *devil*, in order to create as soon as possible a prototype.

- About AspectLISA, some details concerning the present way to specify pointcuts and advice were discussed, to clarify how to take actually advantage of this approach. Some drawbacks, that make the use of AspectLISA very hard, were identified. A short document describing a way to overcome them is attached.
- Damijan presented the new site of LISA that now gathers the link to download the system and many documentation that helps its installation and use; also the new facility provided—*LISA as an web-service*—was shown. This important and interesting feature allows us to execute LISA system on the Server via a web interface (to generate a language processor for a given input language, and test it with source files), or to call it inside another application (an intelligent adaptative interface, for instance).
- Concerning Alma, and after the validation of the actual status, the following actions were decided:
  - reformulate the construction of visualizing and rewriting rules using classes (already done);
  - design a new graphical representation;
  - extend the system to support non-scalar types;
  - find a way to systematize the expression evaluation;
  - test Alma with LISS language (integers, sequences and sets);
  - implement subroutines in Alma and test again with LISS.

## Future Work

Future tasks, necessary to finish this second year of VODA project and to keep PCVIA going, were listed in the previous section.

## Next Meeting

- ??? in ???