



Kulula -  
A Text-based Domain Specific Programming  
Language To Wire Visual And Non-Visual  
Components

Matthias Christoph Sala  
salam@student.ethz.ch

Student Project<sup>1</sup>  
May 2005

<sup>1</sup>This is the report of the student project written during a study abroad semester at the Department of Computer Science, University of Stellenbosch, South Africa. The supervisor of the student project was Prof. Jürg Gutknecht (gutknecht@inf.ethz.ch), Programming Languages and Runtime Systems Research Group, Computer Systems Institute, Department of Computer Science, Federal Institute of Technology, Zurich. The technical support person for the *Bluebottle* system was Thomas Frey (frey@inf.ethz.ch). The contact person in Stellenbosch was Prof. Pieter de Villiers (pja@cs.sun.ac.za).

## **Abstract**

In the past, many different attempts for composing components, especially multimedia components, in a visual manner have been proposed. However, we believe that a classical text-based programming language can be very useful for specific tasks. In this paper we introduce a new language that enables to create nearly complete application in component-based environments like the *Active Oberon's Bluebottle* system. This language is named Kulula, the expression for '*It is simple*' in *Xhosa*, a South African language.