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The Automatic Generation and Execution of Lean Cuisine+ Specifications

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ABSTRACT

Lean Cuisine+ (Phillips, 1995), a semi-formal graphical dialogue notation for describing the behaviour of event based direct manipulation GUIs, was developed at Massey University in the early 1990s. More recently, a software environment, SELCU (Scogings, 2003) has been built for Lean Cuisine+ which permits dialogue models to be manually constructed and edited using a drag and drop approach. The aim of the research presented in this thesis is to develop extensions to SELCU, which include the automatic generation of Lean Cuisine+ diagrams, and their execution.

A shortcoming of current prototyping tools and user interface builders is that although they permit the designer to construct a mock up of the look and feel of the interface, they provide no model of the interaction. The Auto-Generation Software is a tool which can automatically generate a Lean Cuisine+ diagram for a graphical user interface developed using Delphi. The generated description is represented as a text file, and in a format compatible with the SELCU system.

The Lean Cuisine+ Execution Environment is embedded in the SELCU application. It supports the execution of Lean Cuisine+ specifications, including meneme selection and task action sequence, and also takes account of triggers.

The SELCU extensions successfully integrate a graphical dialogue notation (Lean Cuisine+), an object oriented development environment (Delphi), and an existing support environment (SELCU). This offers a more complete environment for the early stages of the design of graphical user interfaces.

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