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Adding an Intelligent Component
to an Existing Decision Support System

A thesis presented in partial fulfilment of the requirements for the degree of

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ABSTRACT

A framework to guide the development of an intelligent component and its integration with an existing decision support system has been proposed. An initial framework was outlined, drawing concepts from the fields of decision support systems, knowledge based systems and intelligent decision support systems. This framework was applied to a problem in the domain of dairy farm management. A prototype intelligent decision support system was developed. Experiences gained during the development process enabled refinements to the framework to be made. The prototype was tested to assess the success of the framework in producing the desired results. The development framework was evaluated based on criteria drawn from relevant literature. The proposed development framework is considered to be a useful tool for intelligent decision support system development from an existing decision support system. Its success is attributed to the integration of methods and techniques drawn from a number of well established methodologies.

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