

ABSTRACT

**Implementation of
a Flexible Workflow System
using Extensible Markup Language****Feleisha Sharon Fyzoudeen**

Workflow Management Systems provide a means of automating the traditionally manual tasks of the business processes. In the modern workplace, Workflow Management Systems form an integral part of business solutions. The benefits they bring to organizations have undoubtedly secured them a continuing role in businesses of the future. However, in order for them to contribute in the emerging business environment, software solutions need to evolve in order to meet the expectations and requirements of continuously changing business processes. Unfortunately traditional software, by its very nature, is static and does not naturally complement these changing processes.

A new technology, Extensible Markup Language (XML), provides a means of accurately representing these business processes in a manner that can be easily modified without embedding the processes in the compiled application, thus providing flexibility. In this thesis, a flexible workflow system is presented using XML and is demonstrated with a case study. The manner in which the business rules are expressed in the XML workflow language and the way the system provides software flexibility is discussed. In order to create a truly effective system, the flexibility must be cascaded throughout the system and is achieved by the dynamic loading and execution of software components. The workflow language can be expanded to include more complex process definition, which adds to its flexibility and facilitates future organizational growth and development.

Keywords: **Workflow, Extensible Markup Language, XML, Automating Business Processes, Dynamic Software Composition**