Workflow Designer Software for a Local City Council

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1. Introduction

In this poster paper, we describe a Bachelor of Computing Systems (BCS) programme capstone project at Bay of Plenty Polytechnic (BoPP, 2005) which was conducted by the first author and supervised by the second author. The project was conducted in corporation with local software company that has been providing software systems to local government in New Zealand since 1991. The project is about the design and creation of a Workflow Designer application software (Workflow Management Coalition, 1995). The client of the project is a contact centre business unit of a local city council.

2. Objectives

There are seven main objectives of the project which are:

a. To create a windows application that could be plugged into local city council software system suite.

b. To enable a user to create a graphical view of the workflow process.

c. To use drag and drop for added functionality and usability.

d. To connect to the existing database via the middleware of an enterprise management system software.

e. To display workflows in graphical form for easy viewing.

f. To display an indicator for workflows already in progress.

g. To add new functionality so users can add their own data to more than just conditions and messages for a more generic and usable system.

3. Methodology and Technology

The project implemented Rapid Application Development (RAD) methodology (Martin, 1991). This methodology was chosen after comparing it with other available methodologies.

Microsoft Windows Workflow Foundation (Microsoft, 2007), Visual C#.NET Language and Microsoft SQL Server 2005 DBMS were the preferred technologies used in the project.

Near the end of the project a number of interface design tests were done by involving a number of prospective users of the system. The format of the test was structured around the modified interface design test as prescribed by Nielsen (1994).

4. Results

The final prototype was considered to successfully mimic the data produces by the old application software and uses the existing data. It is also able to be integrated with the current local city council application software suite. Finally the users are able to view the workflow data in a graphical view.
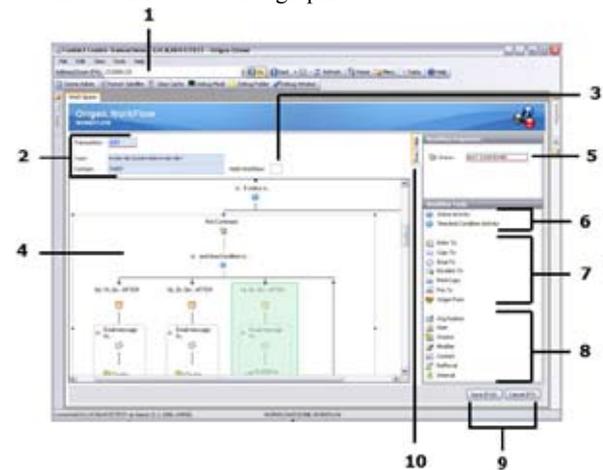

Figure 1: Workflow Designer application software.

5. Conclusion

The software meets all stated objectives and requirements of the project. Microsoft Windows Workflow Foundation is used in the project that helps to create graphical workflow based application software by providing necessary frameworks and libraries. The software is already implemented in the client's workplace and receives good feedbacks from the users.

6. References

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