Poster

Provenco Software Development Project

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1 Introduction

This development project was commissioned by Implementation Manager, Malcolm Perano of Provenco Retail Automation after identifying a need for an automated method of retrieving the product version and update history of Provenco software currently being utilised.

The scope of the project consisted of investigating an efficient automated method of retrieving and transferring product information back to Provenco. Then the design and development of both a fully functional Graphical User Interface Application and a Windows Service.

2 Objectives

The project included the following main objectives;

- Investigate an efficient automated method of retrieving Provenco product version and update history.
- Development a fully functional Graphical User Interface Application that offered the feature requirements sought by the project sponsor.
- Investigate and implement into the application, a means of transferring the data store file back to Provenco.
- Development fully functional Windows Service that incorporates all the features of the GUI Application and, in addition, introduce a method of scheduling tasks, while requiring no user interaction.

3 Methods

To determine the initial project requisites, meetings were held between the project manager, project sponsor and the Provenco Product Manager.

Once the initial requisites were established, an investigative phase was undertaken, to research the following technologies all of which were implemented into the software solution:

- Microsoft Windows Service Application programming
- Thread based programming; multithreading and thread management
- WMI (Windows Management Instrumentation) programming
- Socket based programming; UDP multicasting and TCP
- FTP, XML and SQL

The final software solution was then developed within the Microsoft .NET framework, utilising the C# programming language, Microsoft Application Programming Interfaces (API) and the Microsoft Visual Studio IDE (Integrated Development Environment).

4 Results

The final software solution consists of:

- **Provenco Product Information Retrieval Service**
- A Windows service that is installed with Provenco software products. This service, when requested will locate, retrieve and transfer Provenco product information back to the requesting software.
- **Provenco Product Information Request Application**
- A Graphical User Interface (GUI) application, which with minimal end user interaction will scan a selected network for the *Provenco Product Information Retrieval Service*.

5 Conclusion

On completion of the Provenco Software Development Project, a software solution was presented that together met the project requisites and expectations of the project sponsor.

This software solution offers Provenco:

- An automated method of retrieving the product version and update history Provenco software currently being utilised.
- A means of testing for potentially pirated Provenco software or abuse of Provenco software licensing.