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# Tasys Management System Project

**Alex Murray**  
Private Bag 11-022,  
Palmerston North 4442

**Richard Dargie**  
Private Bag 11-022,  
Palmerston North 4442



## Abstract

The purpose of this project was to develop a Windows application capable of working with multiple web-based applications provided by Tasys for motor vehicle dealers.

The application required the development of several sub systems which included; user management, customer management, inventory management, sales management vehicle finance tracking, and customer finance tracking while incorporating mechanisms for transferring data securely and advanced error handling.

An agile methodology was use to develop the system.

The application was developed using a multilayer architecture where local database queries pass through three separate layers: Controller, Business Logic, and Data Access. This method provided a scalable and reusable development environment.

The application has assisted in the administration, trading, and financial transactions related to motor vehicle sales. The system can communicate with web-based systems to provide up to date information on all vehicles.

## Keywords

Agile methodology, user management, vehicle reporting, inventory management, finance tracking, secure data transfer.

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## Introduction

Tasys is an IT development and support entity notably developing PHP-based backend reporting systems for the business Autofinder.

The project aimed to deliver a system capable of working with multiple web-based applications and provide management systems to assist clients in administration, trading, and finance. The application had to be MS Windows based, capable of running on XP or higher.

## Methodology

To manage this project, the Agile System Development Life Cycle (Ambler, 2010) was used as a guide. The project involved the creation of several mini prototypes in iterative and incremental stages with high involvement from the project sponsor.

Key analysis documentation included Use Case, Entity Relationship and Sequence Diagrams.

Input/output designs were provided by the project sponsor.

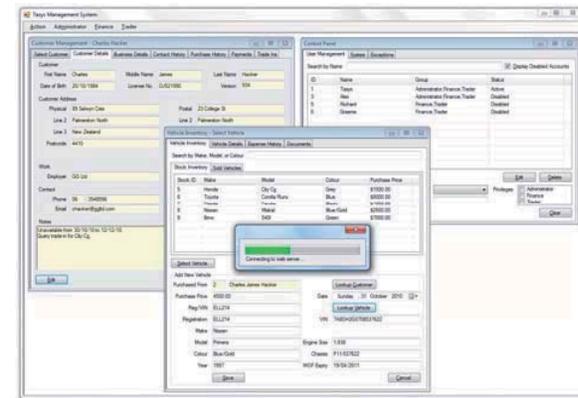
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Prototypes of major tasks were created and test tested for 100% functionality before adding to the final release.

## Results

A windows form frontend solution was developed using C# .NET 3.5 with a Microsoft SQL Server 2005 backend. A Multiple Document Interface (MDI) was implemented to allow users to work with several management systems at the same time. The system

connects to multiple remote data sources via web-based applications to query vehicle data and reports.



**Figure 1: Three management systems running simultaneously**

## Conclusion

A Motor Vehicle Dealership Management System has been developed that assists in the administration, trading, and financial transactions related to motor vehicle sales.

The system can communicate with web-based systems to provide up to date information on all vehicles.

Key features of the system include:

- Secure data transfers.
- Inventory management.
- Vehicle and customer finance tracking.

Advance error handling, reporting and control.

## References

Ambler, S. W. (2010). *The Agile System Development Life Cycle*. Retrieved 10 18, 2010, from Ambysoft: <http://www.ambysoft.com/essays/agileLifecycle.html>