

# Ultimate Inventory System

## Case Study

CS1109 July 2009

### A complete Inventory and Business Management system

#### Project Summary:

The Ultimate Inventory System (UIS), created using Adobe Flex, Adobe AIR, PHP, .net 3.0 and MySQL is a complete inventory and business management system, built for auto parts dealers. UIS has application in auto part reseller and recycling, and car dismantling facilities as a single solution to online sales, live inventory updating and administrative and accounts management.

UIS operates as a stand-alone (AIR) application that can connect in real time, or synchronised, with a common data website. Using this technology, car parts listing can be automatically uploaded to an application instance as well as providing the ability to search and order parts from another dealer. Common connectivity can also provide average pricing and sales data on a specific part.

The system manages all aspects of inventory and business management from item listings, sales and accounts and interacts with the secure "Capricorn" payment system. All information is exportable to an accounting package for streamlined and assimilative functionality.

#### Client:

Ultimate Inventory Systems, (Parts Locator Group).

<http://www.partslocator.com.au>

<http://www.ultimateinventory.com.au>

#### Client Business Background:

Ultimate Inventory Systems, is part of the Parts Locator Group, is the leading provider of inventory software to auto recycling facilities in Australia.

Parts Locator has been publishing a national auto parts magazine since 1985. The website, [partslocator.com.au](http://partslocator.com.au), was developed to add another dimension in bringing together the buyers and sellers of auto parts whether recycled, genuine, non genuine, replacement, reconditioned, or rebuilt.

#### Project Challenge:

Ultimate Inventory Systems needed a solution that would allow them to run a desktop application offline, but could connect to the internet and synchronise with the website.



#### Actions:

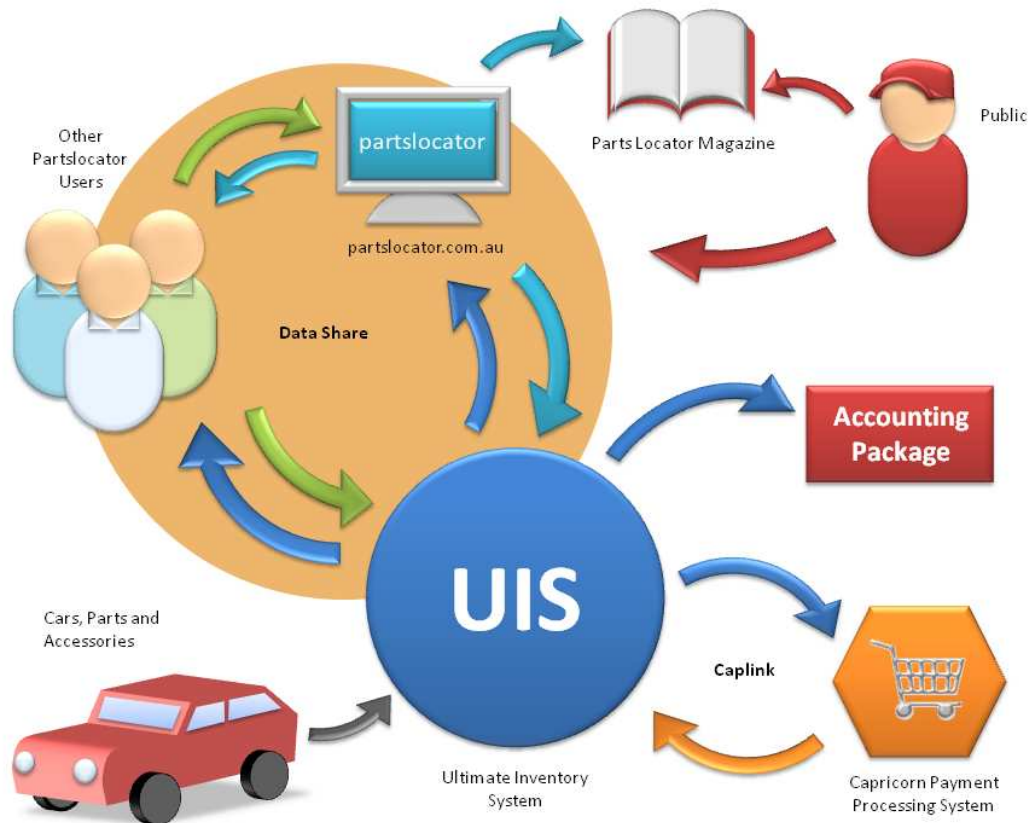
Application development including:

- Import part details including
- Automated part listing on [partslocator.com.au](http://partslocator.com.au)
- Live inventory management
- Access Privilege Management
- Administration interface
- Communications with external systems and users
- Statistical reporting
- Purchasing interface
- Invoicing and Quotation capabilities
- Full accounts operation
- Integration with Capricorn payment gateway
- Integration with Accounting Packages
- Bar Codes
- Data Share with other Parts Locator users

## Outcomes:

The Internet Vision Technologies built Ultimate Inventory System is a complete inventory and business management system for Auto Recycler's. In addition to managing inventory, UIS features comprehensive Invoicing features, the ability to purchase, import and sell new and used parts & accessories, the ability to manage dismantling operations, UIS easily interacts with MYOB Accounting software to synchronize your data and keep your details up to date. UIS also interacts with the Capricorn payment processing system.

Some of the most impressive features of UIS include Data Share, which enables you to search for parts held by other UIS users, and other UIS users to purchase parts directly from your system, and a live link to [partslocator.com.au](http://partslocator.com.au), the leading auto parts website in Australia, so your inventory is advertised automatically.



The Dashboard displays to the user a graph history of sales, all recent sales and any quotes that are presently on the system. You have the ability to view any of the Invoices displayed, Reprint the Invoices, View any of the Quotes displayed, Reprint Quotes, Convert Quotes to an Invoice or alter any of the Quotes.

The Sales Tab displays all Transactions, Quotes and Credits done on the system. They are displayed with the most recent one done at the top of the list. You can filter the number of days being displayed by changing the drop down option on the top right hand side of the screen.

The system has allowed the user to:

- Enter part listings
- Create new Invoices.
- View or Reprint an existing Invoice.
- Print Statements for Customers.
- Process Payments.
- Create a Credit Note.
- Apply a Credit to an existing invoice.
- Pay a refund for an existing Credit.
- Create Quotes
- Convert a Quote into an invoice.
- Process Capricorn Payments.
- Check for any Part Requests.
- Search / browse all listed parts
- Generate various reports for Accounts, Sales, Inventory, Accessory
- Automatically create magazine listings from stock
- Communicate with other suppliers through part requests
- Scan bar codes

## Technology Used:

The Ultimate Inventory System was created using Adobe Flex, Adobe AIR, PHP, .net 3.0 and MySQL.

### Adobe Flex/AIR:

Adobe Flex/AIR is a software development kit released by Adobe Systems for the development and deployment of cross-platform rich Internet and desktop applications based on the Adobe Flash platform. Rich Internet applications (RIAs) are web applications that have some of the characteristics of desktop applications.

Flex is a highly productive, free open-source framework for building and maintaining expressive web applications that deploy consistently on all major browsers, desktops, and operating systems.

The advantage of Flex is that it doesn't rely on page reloads, can have animations, interactive graphs and handles large datasets.

### PHP:

PHP is a widely-used general-purpose scripting language that is especially suited for web development and can be embedded into HTML.

### .Net 3.0:

The Microsoft .NET Framework is a software framework that can be installed on computers running Microsoft Windows operating systems. It includes a large library of coded solutions to common programming problems and a virtual machine that manages the execution of programs written specifically for the framework. The .NET Framework is a key Microsoft offering and is intended to be used by most new applications created for the Windows platform. Version 3.0 of the .NET Framework is included with Windows Server 2008 and Windows Vista.

### MySQL:

MySQL is a relational database management system (RDBMS). The program runs as a server providing multi-user access to a number of databases.

## Extension and Application:

The Ultimate Inventory System has application in the auto parts and car dismantling industry.

## Screenshots:

The screenshots display various features of the Ultimate Inventory System:

- Dashboard:** A line graph showing sales trends over time, with a table below it listing items, dates, and amounts.
- New Inventory:** A table listing inventory items with columns for Item No., Description, Amount, and Status.
- Accounts Report:** A detailed table showing sales transactions, including Invoice No., Date, Operator, Status, and Total \$.
- Prescribed Item Sales Date Range:** A dialog box for selecting a date range (Start Date: 01/03/2009, End Date: 06/03/2009) and a list of parts with descriptions.
- Locations:** A dialog box for managing locations, showing a list of locations like YARD, L-R8B2B, L-R12B1A, etc.
- Change Part Location:** A dialog box for changing the location of a specific part, with fields for Tag Number, Current Location, Part, Make / Model, and New Location.