

CASE STUDY

Lottrac

"For a car dealer and a logistics company handling more than 20,000 cars in a 32 acre lot and 14 dealers, we developed a web based application that automated the tracking, managing and reporting of vehicle's status online. We developed a Flash Map that shows the position of a vehicle on the lot based on GPS and slots"

expert
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The Client

One of the US major car dealers and a logistics has a lot, measuring more than 32 acres and has a capacity of 20,000 vehicles. Typical inventory levels are between 5000 and 7000 vehicles, peaking at the end of each month. Peak levels of stock in/out reach 150 vehicles per day per dealer, although 300 vehicles per day is a more typical number.

To manage the inventory and logistics the system lacked automated data entry, resulting in inconsistent, missing, and inaccurate data. Further, the company handles all records manually, keeping administrative costs high.

The Challenge

The dealer needed an automated system to locate and track the vehicle movements without spending much time finding a car in a lot, eliminating the physical lot check and employee time and paperwork that goes into recording the stock-in process.

It required designing and developing of real-time logistics management software for the retail and automotive industries. The system had to offer real-time view of the logistics process including automated stock in, accurate car location, simplified lot checks, proof of delivery information for vendors and customers, and mobile employee management.

Our application features include:

- ▶ Stock-In vehicles with inspection reports in real-time, with automated VIN decoded information.
- ▶ Locate vehicle location on lot (by zone) on a flash map.
- ▶ Automatic email notifications / alerts on discrepancies.

The Solution

Web Solution

The LotTrac application was developed to organize and report real-time field information in a simple to use, web based solution. This allows the client to offer its customers full web accessibility, centrally managed scalability, daily backups, and 99.9% uptime reliability. LotTrac offers users both administrative and user level functions.

The web application allows users to view current inventory receive stock in and/or damage alerts (via email or text message), create custom reports about vehicle stock-ins, vehicle stock-outs, and unregistered vehicles. Users can view full vehicle details, including the fully decoded VIN information, current and past location information, and full stock out information, including container and seal numbers. Images 1 and 2 show the inventory and vehicle detail screens.

Administrators can perform all user functions, as well as several additional functions, including creating and deleting user accounts, viewing driver GPS paths, and editing all field reported data.

Phone Application

Employees use Motorola i355 phones with Symbol Technologies AC25 attached barcode scanners to scan vehicles and smartcards to perform various field-based functions. The phones leverage Nextel Communications GPRS data network to report scan data to web application in real-time. In limited cases of dead spots, data remains on the phone until it is back within range.

Employees can perform the following field functions -

- a) vehicle stock in, b) single vehicle check in, c) physical lot check, and d) vehicle stock out.
- ▶ In vehicle stock-in, employees scan vehicle VIN numbers, assign and attach a barcode stock number on each car, and complete a full inspection report, which triggers a damage alert to the appropriate customer and/or administrator.
- ▶ In vehicle check in, employees indicate a zone number to indicate where the vehicle is being parked combined with the GPS data returned from the scan, the vehicle can later be located reliably and accurately.
- ▶ In the physical lot check function, lot employees scan all vehicles, taking a full physical inventory by rapidly scanning the barcode on each vehicle.
- ▶ During the stock-out process, lot employees record the time, location, and identity of the person accepting the vehicle for pickup or delivery.

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Benefits :

- Eliminate Paperwork.
- Increase Employee Productivity.
- Reduce Administrative Costs.
- Improve Inventory Management.

Inventory Report selection form

Inventory Report

Select at least one: ☒ Show Vehicles in Inventory ☒ Show Vehicles In Transit/Unaccounted

Date Entering Inventory Range : OR

Stock Number :

VIN : (Enter at least last 4 characters separated by comma)

Dealership :

Lot : Location :

Make : Year :

Model : Type :

Exterior Color : Interior Color :

☒ Select All

Status * : ☒ Available For Sale ☒ Delivered ☒ Delivered - Swap

☒ Hold Request Pending ☒ On Hold ☒ Sold

Stock In Report

Stock In Report

Date Range : OR

Dealership :

Stock Number :

VIN : (Enter at least last 4 characters separated by comma)

Stock In Report

172 Records Found

Stock Number	VIN	Dealership	Last Action	Last Action Timestamp	Stock In Timestamp	View
80689lh	JTHB346G482166067	Lexus Massapequa	Stock In	10/09/2007 9:35 AM	10/09/2007 9:35 AM	
80738hh	JTKDE167880249714	Atlantic Toyota	Stock In	10/09/2007 9:35 AM	10/09/2007 9:35 AM	
80690lh	JTHBL46F685055181	Lexus Massapequa	Stock In	10/09/2007 9:34 AM	10/09/2007 9:34 AM	
80688lh	JTHB346G682164305	Lexus Massapequa	Stock In	10/09/2007 9:34 AM	10/09/2007 9:34 AM	
R85639mh	JTJBT20X880150813	Lexus Rockville Centre	Stock In	10/09/2007 9:33 AM	10/09/2007 9:33 AM	