

## SUMMARY

A new mobile computing framework allows retailer to drive continuous improvements in inventory systems and overall customer satisfaction throughout their stores.

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# Mobile Solution Improves Inventory Management for Retailer

## BUSINESS CHALLENGE

This national chain of home improvements stores was implementing new store systems to support improvements in the replenishment, receiving and inventory management processes. The initiative included updates to hardware and software systems throughout the enterprise. A key component is the suite of mobile applications used to manage inventory at the store level. This initiative included the re-architecture and re-deployment of the current suite without disrupting store operations. Next generation mobile applications needed to be flexible, fast and extensible to support future business needs. Changes to the user interface were intentionally avoided to minimize re-training expense.

## SOLUTION

Using a customized version of the Rapid Process Map (RPM) approach specifically for this conversion effort, the team was able to quickly extract business logic from the existing application and define system interfaces. The team of Daugherty and client resources collaborated in crafting UML design artifacts utilized by multiple teams to easily and rapidly convert code in parallel. The solution moved away from a procedural language toward an N-tier, object-oriented system implemented in C# .NET, leveraging the .NET framework. A tabbed user interface was introduced to allow users to switch between applications easily. This improved the user experience and provided a new level of device independence for the mobile suite. To make future modifications easier, quicker to deliver, and less expensive, a custom interface layer was built which isolated the in-store mobile applications from existing

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*Just wanted you to know how much I appreciate your team's contribution and the professionalism they have demonstrated throughout this project. I have been particularly impressed with the oversight and governance."*

*~Director of IT, Store Operations*

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4GL legacy systems. Daugherty, in concert with select client resources, led the project from inception through to production delivery. Daugherty .NET developers, architects and managers were involved in the analysis, design, development and software quality assurance phases of the project, and supported client resources during pilot and rollout.

## RESULTS

In just 9 months Daugherty re-architected and re-wrote a wireless, mobile solution used by over 12,000 inventory management associates in approximately 1900 stores. The mobile application suite allows this group to update inventory and note exceptions, optimize and place orders, update pricing, and print signage. As a result, the mobile application suite is more stable and extensible and offers an improved user experience. The re-architecture and re-deployment established a new mobile computing framework to allow the retailer to take advantage of next generation mobile computing platforms and to drive continuous improvement in inventory systems and overall customer satisfaction throughout their stores.