



Costco wanted to upgrade its stock management application from VB6 to VB.NET platform

“ValueSoft successfully migrated our stock management application with more than 126,000 lines of code. In addition, they also implemented new features we had planned for the upgrade”

**INDUSTRY**  
Wholesale Retail

### ABOUT COSTCO

Costco is a membership warehouse club, dedicated to bringing their members the best possible prices on quality brand-name merchandise. With hundreds of locations worldwide, Costco provides a wide selection of merchandise, plus the convenience of specialty departments and exclusive member services, all designed to make your shopping experience a pleasurable one.

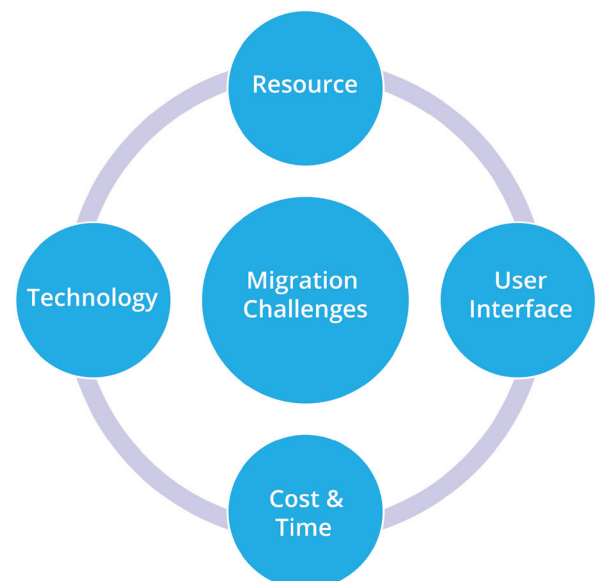
### PAIN POINTS

- Slow: Applications are extremely slow even to add an image into the already bloated file system.
- Limited Functionality: Current functionality is limited to looking up certificate numbers. They were unable to track outbound certificates of the items to the warehouses.
- Manual Database operations: The system requires a manual delete from the backend database by the Database Administrator in a few cases. The file system is at risk and can be inadvertently altered,

putting an item out of synch with the database.

- Integration with other apps: Management wanted to provide interfaces from this application to provide the data to the other systems.

### PLATFORM MIGRATION CHALLENGES



### Older Technology Usage

Following VB6 platform feature usage caused significant migration challenges to dot NET platform

- Usage of Windows APIs
- Usage of Third party components for UI
- Usage of VB Objects, Lang and Forms features
- Usage of Data Access Objects and Remote Data Objects
- Usage of COM/COM+

### Similar User Interface

- Ensuring similar User Interface before and after migration
- Refactoring for rich user experience after migration.

### Resource Availability

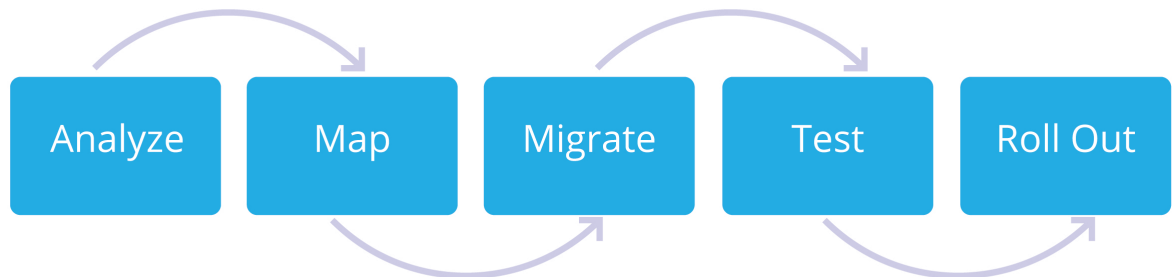
- Difficulty in getting resources with VB & dot NET skills for manual migration.

### Cost and Time

- Understanding the application due to poor documentation

## VALUESOFT PLATFORM MIGRATION SOLUTION

Valuesoft's 10 years of migration process expertise and Modernization Studio IP helped it to deliver a high performing .Net loan processing application in record time.



### Analysis Phase

Value soft started the Initiation Phase with Current Application(s) Environment as a source, where the application(s) installed and any sub systems associated with the application to be migrated. This study covered a detailed inventory of code attributes, standards etc.

Initiation phase included the analysis of original specifications like SRS, design documents of the original VB code. List of Controls related with the application(s) are listed out.

Collect Information from application Users and Current application environment is setup in this phase.

### Mapping Phase

This is the Phase we analyzed and made a Gap Analysis of application(s) and created a migration strategy for code modification, test plan, checklist based review etc. Based on the analysis we customized our tool before we started actual migration.

This Phase included the following process

- Horizontal Migration
- Vertical Migration
- Gap analysis
- Customization of the tool

**BUSINESS NEED**  
Faster user experience  
New feature development  
Integration with other applications

**VALUESOFT SOLUTION**  
Microsoft Platform Migration Solution with Modernization Studio IP.

**TECHNOLOGIES**  
dot NET3.5,  
VB.NET, MS SQL  
2000, AS 400,  
Active Report 6.0

## Migration Phase

Value soft formed a team of one project manager, one team lead, four software Engineers and two Quality Analyst to head this Migration. The team initially migrated all the VB code to VB.NET and performed gap analysis. The Microsoft standard is maintained through out the code migration and proper comments (in the code) are given. The comments were comprised of suggestions and issues related to migration. The codes were kept in the source control program (TFS) for back up and versioning.

## Testing Phase

In this phase we performed following tests

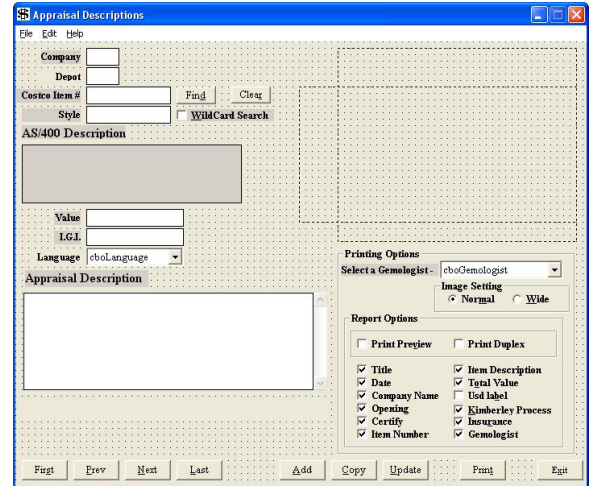
- Test cases for modules , screens and fields
- Functional Testing
- Version Testing
- Bug Entry & Revoke Bugs
- Application Integration Testing
- Application Security Testing

## Roll Out

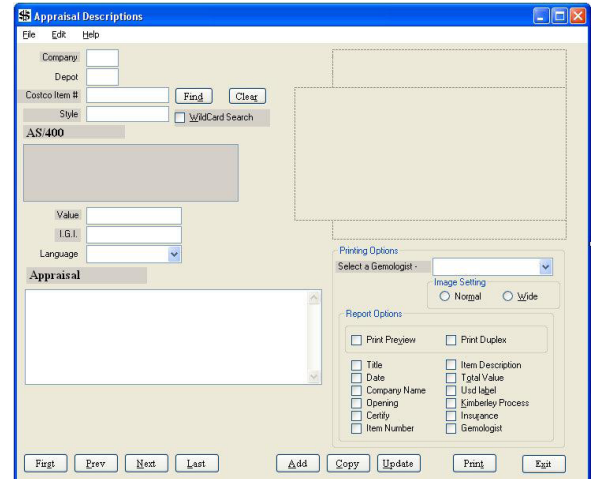
In this phase following actions were done

- Installation
- User Training
- Maintenance Support

**CLIENT OUTCOME**  
126,000 lines of code migrated within a record time. New features developed as per client requirement.



Sample VB Screen Shot



Sample VB.NET Screen Shot

## BUSINESS BENEFITS

- Proven methodology to reduce Risk, Cost and Increase ROI
- Improved Performance: Code level database calls were replaced with stored procedures to increase the application performance. Code duplications removed.
- Improved UI: Rich Screens are implemented using WPF.
- Ease of maintenance
- Integrated application: Application able to communicate with other applications