

## Asset Tracking and Inventory

*Business Transformed:* Infinity helps DSC develop trek it! a revolutionary product for asset tracking and inventory control.

*"DSC turned to Infinity to provide the product architecture and consulting for our Trek I.T product. Infinity's creative use of technology and quick understanding of the business knowledge has helped us in successfully launching the product."*

*"We look forward to using Infinity's expertise as a strategic outsourcing partner in our many product and software initiatives"*

**- LC Seah, CEO**

Digital Scanning Corporation

## Customer Introduction

Digital's main focus is in distribution and system integration of automatic identification and data collection equipment, consumables and software.

DSC Systems Pte Ltd, the R&D and software arm, had the vision of creating an off-the-shelf software called Trek IT! © This software was to eliminate the need for businesses to engage expensive software companies to write mobile data collection applications.

With Trek IT! ©, companies will be able to implement inexpensive solutions in the areas of inventory control, asset tracking, file or document tracking, labor tracking and tools tracking using the humble barcode or more sophisticated radio frequency identification (RFID) tags.

## Business Situation

DSC systems had for a long while intended to migrate its data acquisition and supporting applications to .NET. Along with the migration, DSC wanted to make significant enhancements to the product.

However, they were unable to themselves architect a product which would be competitive in the general market. The vision of the product was to create an integrated development environment and RF communications server that contains all the tools necessary to design, build, test and deploy your own barcode and wireless RF data collection applications.

They then turned to infinity for its product development and .NET skills to architect and implement the system.

## The Challenge

1. DSC Systems vision was to create a product that will allow their customers to use Trek IT! to develop their own barcode and RFID applications for inventory control and asset tracking.
2. An architecture and prototype needed to be developed to help DSC get started
3. The internal team had to be brought up to speed and guided during the development process, to ensure compliance with the architecture document.

## Case Profile

**Asset Tracking and inventory system for Digital Scanning Corporation**

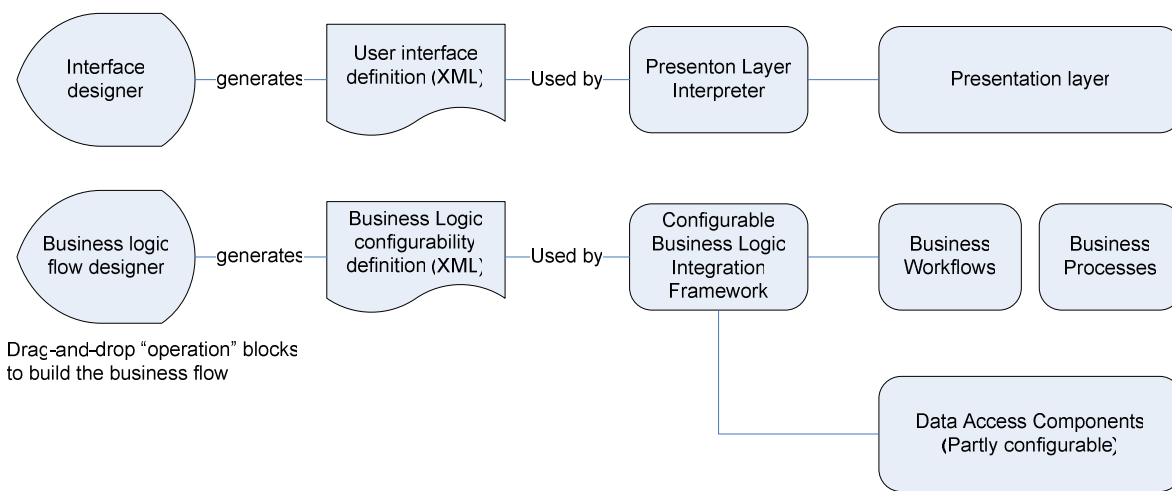
**Duration::** 6 man months

**Environment::** Windows 2003 Server System, SQL Server, Visual Studio .NET 2003, .NET Compact Framework.

**Technology used::** SQL Server Publishing, interactive and rich windows forms client, Smart devices client, Hardware level interfacing for RFID and Bar codes, portability to embedded device application.

**Services::** Product Architecture, .NET consulting, prototyping

**Results::** Shipped on time, huge success at International exhibition, innovative solution to configurability



Diagrammatic representation of the presentation layer interpreter and CBLIF.

## Innovative solution to Configurability

To make the business logic layer configurable, Imfinity came up with a revolutionary solution called CBLIF (Configurable Business Logic Integration Framework).

Item tracking involves only certain kinds of operations and business flows. These flows were pre-defined as business templates in the form of *macro* operations. Simple operations like mathematical operations and database operations were defined as *micro* operations. The idea was to abstract as much detail from the users as possible. Each of these operations could then be configured through this XML file.

The CBLIF engine was written to assemble and execute the business logic from the XML file.

With this concept, it was possible to completely change the flow of a business process, to the extent that new user customizable operations could also be added on-the-fly, even when the application had been deployed.

## Solution Highlights and Results

- **Shipped on time:** The trek IT! product after facing many internal delays due to lack of product feature management and architecture skills, was completed and shipped.
- **Well received by potential customers:** The product has provided DSC with an innovation that has resulted in a surge of enquiries. The product was also the main attraction at the recent Cards Asia 2005 event.
- **Highly configurable:** Innovative solution to allow both UI and business logic configurability. A powerful architecture was implemented called CBLIF—Configurable Business Logic Integration Framework

# imfinity

*Transforming businesses*

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