



## Case Study



**Icreon**

# Recursive Applications

Our client required a business application development tool which could generate applications in VB.NET. Initially our client had their own proprietary operating system which was widely implemented within Japanese IT organizations - a native scripting language was used by software engineers for developing applications. With the introduction of the Windows operating system and its increasing popularity, our client recognized a need for a platform wherein developers could input local scripting code resulting in its automated conversion to a VB 6.0 applications, compatible with the Windows O/S. Our team developed a platform for this conversion but after the introduction of VB.NET they felt a need to upgrade their existing platform. This led to the outsourcing of this solution requirement to Icreon and after analyzing the aspects and countering all the challenges Icreon successfully delivered the Business Application Development Tool.

## Customer Profile

Our client is a Fortune 500 company based in Japan. They are one of the leading electronic appliances producing company; catering to domestic as well as international audiences. Their products are being deployed by some of the major sectors of the economy. To manage business at such a large scale our client has deployed their own in-house software development team. Their self developed applications help in managing their other ancillary hardware producing units.

## Business Requirements

Our client is an electrical appliance producing company supplying their products globally. They provide electrical appliances for the following sections:

- Industrial
- Commercial
- Residential

Our client's main requisite was for an upgraded business application development tool that would be able to cater to the dynamic and highly recognized, VB .NET technology. The tool was intended to be able to enhance their application's scalability. They required a productive solution with a very systematic development approach. Icreon identified the following core requirements for the tool:

- The tool had to be developed in a way to bridge the gap between VB 6.0 and VB .NET technology.
- A Source Code Generator to generate and compile VB.NET code simultaneously.

## Upgrading dated to latest technology

The Business Application Development Tool was developed for providing a widely accepted application development platform to enhance flexibility and scalability of the applications. It was a challenging project for us as we were competing with the highly advanced Japanese technology

spectrum and we had to upgrade an existing Japanese system. To meet these challenges the development procedure was divided in two phases:

### **First Phase**

In the first phase of development we overcame the challenge of bridging the technical gap between VB 6.0 and VB.NET. There are some major differences between VB 6.0 and VB.NET technology such as Data Type, Fixed Length Strings etc. To counter these problems we modified the existing DLLs (Dynamic Link Libraries) and developed a generic class. We deployed the object of the generic class throughout the development of new runtime libraries. These runtime libraries are the base for the process of application development. These libraries have been coded in VC++ & VB 6.0 and they cater to three basic functionalities related to:

- Database
- Computation
- Report Generation

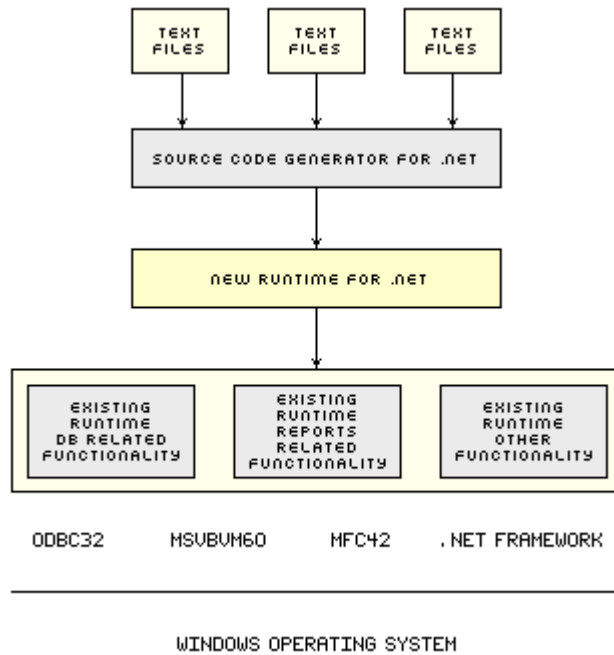
The coded libraries support single as well as double byte characters (Unicode and Shift JIS Character Set.)

### **Second Phase**

In the second phase of development we countered the challenge of developing a Source Code Generator. It was developed in VC++ code and was capable of simultaneously generating and compiling VB.Net code. We have integrated text files together with VC++ DLL, which acts as templates for VB.NET code files. In the process of developing the Source Code Generator we have implemented a separate architecture for:

- Batch Type Programs
- Client Server Type Programs
- MTS Type Programs

The entire development process underwent rigorous testing based on parameters such as defect detection, adherence to market standards and client requirements along with time tracking techniques to meet the specified timeframe.



**Technologies used in developing this application are:**



## Summary

The successful implementation of the upgraded platform was a milestone for Icreon. The concept behind developing this business application development tool is to facilitate the Japanese IT market in creating business applications for Windows OS without using the VB.NET technology. Our upgraded platform enhanced the scalability of the applications which were being developed by the Japanese IT market.