UNIFACE
Advanced Development Technology

The Japanese IT services company Synapse Innovation found that Uniface is a smart way to carry out package customizations, as well as standalone development

"Synapse Innovation has been working on many ERP package implementations and bespoke development with Uniface. Taking advantages of experience of system development when establishing HybridERP development framework, Uniface being technology independent itself has been the best practice to realize HybridERP."

Hirotaka Noguchi

The Need: Fast, Effective Development and Long-Lasting Add-on Customizations

Systems integrator Synapse Innovation provides bespoke solutions for customers, both on a standalone basis and through their HybridERP solution they can quickly deliver customizations and add-ons for packaged solutions.

Customizing the package in the conventional way using .NET and Java was not as efficient and productive as Synapse Innovation would have liked. Some ERP provide development tooling, but often there is the dependency to use external low productivity tools. In addition, Synapse Innovation encountered the common problem that when the package supplier released upgrades, it took a lot of work to re-implement the customizations to work with the new version.

Synapse Innovation started to provide the HybridERP as a new development method to add required functionality to existing ERP packages. Their previous experience and knowledge of Uniface helped Synapse Innovation to realize HybridERP functionality.

The Solution: Uniface

Synapse Innovation therefore choose to use Uniface to implement the add-on customizations, instead of making any changes to the package itself. The developers are able to configure Uniface to look just like the package so that users get a completely seamless experience. However, when the time comes to make changes or upgrade the package, the process is much easier because the Uniface functionality is actually quite separate from the core code.

10 Ways Uniface Helps You Succeed

Benefits of Using Uniface

A Range of Integration Options

Uniface offers developers a choice of integration capabilities: at the database level and also at the business logic level, where both traditional SOAP-packaged web services and also restful web services can be used. These features make it possible for developers to optimize the integration of each customized feature for both day-to-day use and smooth upgrades.

Add-Ons that Look Like Part of the Package

End-users don't see any difference between the standard ERP package and the customized add-on features – in fact they are not usually aware which they are using. This seamlessness is possible because Uniface screens and reports can be easily tailored to give a particular look and feel, and also because Uniface can emulate the user experience of the package using web and mobile clients that are based on JavaScript.

Support for Multiple User Interfaces

Uniface also makes it easy for new functionality to be delivered via a wide range of user interfaces, including client/server, web, mobile or some combination of these. By accessing new or existing web logic via web services, the same Uniface application can coexist with any of these.
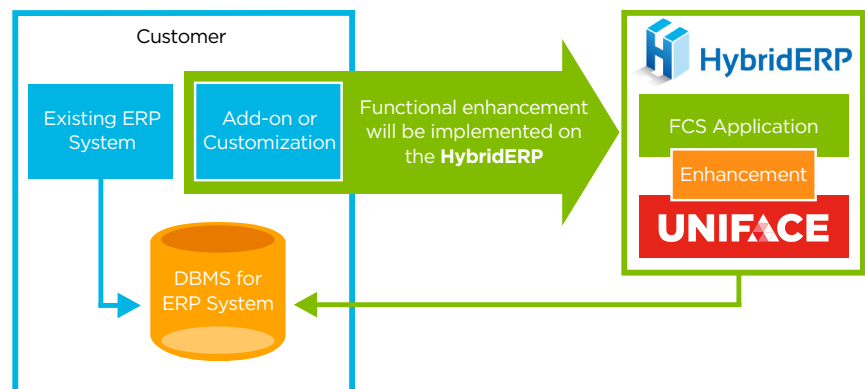

Figure 1:
Customer can easily revise their ERP package without restriction due to add-oncustomization

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Hirotaka Noguchi,
Synapse Innovation, West Japan
Division, Senior Manager, R&D

Productivity
The productivity of Uniface is bringing Synapse Innovation important advantages in several aspects of its work.

First, teams are able to develop rapid prototypes and proofs of concept showing that they can quickly add functionality to an existing system or database. This process starts with a demo which can be customized and run in a meeting in just a few minutes, providing striking evidence that Synapse Innovation can do what the customer wants and proves the productivity capabilities of Uniface. This in turn proves that Synapse Innovation are able to deliver to the customers' time frames which are often short. The demo starts with a Uniface feature called "load definitions" which automatically gathers information about a database's fields and relationships and imports them into the Uniface model, so that the customer immediately sees a demonstration that is relevant to their own business.

Synapse Innovation also has a "starter kit" of reusable Uniface code. When they have a new project they are able to deliver the finished application, or customized add-on within a short timeframe and at a competitive cost.

Ease of Upgrades
Because the package itself hasn't been altered, implementing the new release for each customer is easy. In addition, there is no need to redo the add-on customizations. Clean interfaces between the package and the custom Uniface modules mean that the upgrade can usually take place without any changes to the customized add-on software.

When integration is at the database level, and the structure of the package database alters, Uniface's "load definitions" feature, mentioned above, can automatically update the Uniface model, removing the need for manual updates. For other types of integration such as web services, the clear separation between user interface and business logic ensures that business logic within the Uniface software can continue to be used even when the ERP package functionality changes.

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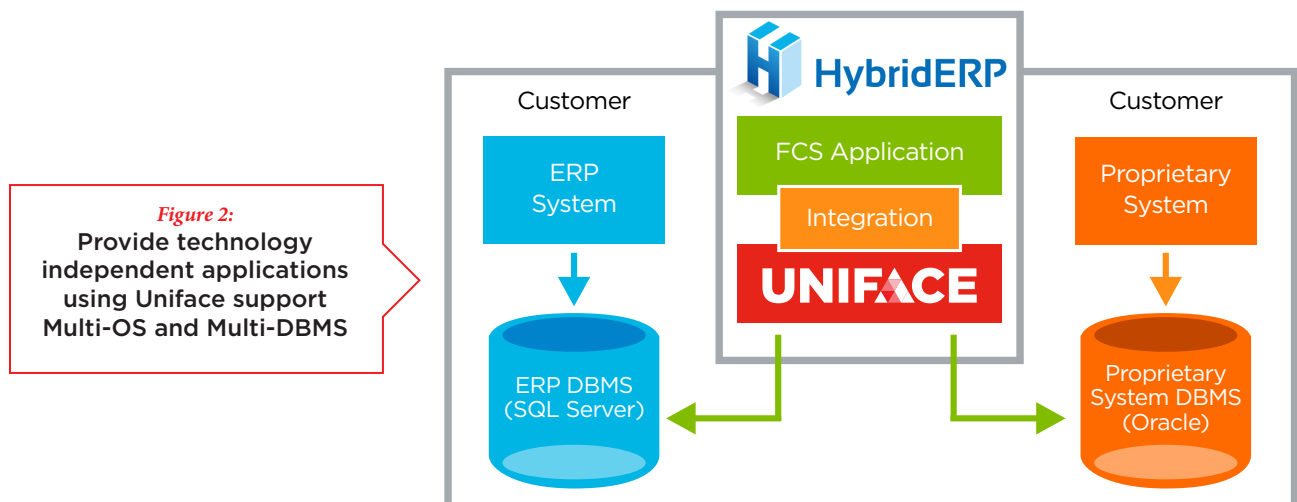Advanced Development Technology

Reinforcing Best Practice and Underlining Synapse Innovation's Credibility

In addition to the benefits listed, Uniface is helping Synapse Innovation to ensure that it follows the latest best practice in software development.

With Uniface-based development, Synapse Innovation achieves a high level of customer engagement throughout the process of creating a new application or enhancement. After the initial demonstration with the customer, the high productivity prototyping approach continues throughout development: Developers maintain a high level of engagement by working side by side with the future users, capturing their feedback to ensure that the eventual solution fully meets the business need. If a requirement has been omitted from the original specification, it is usually easy to add it on a case by case bases, in contrast with conventional development methodologies where a change request can be a big deal.

The Synapse Innovation development team use as many of the key productivity features in Uniface as possible to ensure they are working as efficiently and smartly as possible. A key point is the reuse of as many existing assets as possible. As much application functionality as possible is maintained in the application model, and the Synapse Innovation development team have a catalog of features and functionality which they can use across different deployments of the HybridERP solution.

The end users of the hybrid application are usually not away that some of their ERP is built in Uniface, a real example of the seamless integration that HybridERP brings. Once in production, the maintenance of the hybrid application is often under taken by Synapse Innovation, which is a reflection of the trust and rapport they build with their customer. There are also instances where the customer is so impressed with the productivity and simplicity of Uniface that they undertake the maintenance and ongoing enhancements themselves, using their own development teams.

Figure 2:
Provide technology independent applications using Uniface support Multi-OS and Multi-DBMS

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About Uniface

Uniface, the most productive, reliable development tool in the industry, provides a model-driven environment for the rapid development of scalable enterprise mission-critical applications. Learn more at www.uniface.com

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