



Borland® Delphi™ allows FutureWare to quickly develop new and

BORLAND ACCELERATES SUCCESS

custom applications by re-using large amounts of object-oriented code



For FutureWare, its ability to quickly develop custom programs is what keeps the company ahead of the competition in a number of markets. By using Borland® Delphi,™ FutureWare built an object-oriented core program that served as a launching pad for a full suite of related applications; all developed with interoperable, reusable Delphi object code.

Background: Building custom applications, quickly

Like any software developer whose company has been around since 1984, FutureWare president Chuck Brooks knows a lot about code. He also knows that in order to keep his business running, he can't spend too much time concentrating on it.

"I've always been a techie – so innovations in software are always interesting to me," says Brooks. "But over the years, I also learned something important about selling software: nothing happens until somebody signs a check."

Focusing on the customer is a mantra at FutureWare, a small Fullerton, Calif., concern that offers a wide variety of products, ranging from information security, graphic and digital asset management programs, to marketing and promotional tools, business objects, and health tracking applications for individuals and health professionals. The company's goal is to spend as much time as possible getting its products in front of customers, and less time working on back-end platform code.

What FutureWare takes the most pride in, however, is its ability to quickly customize applications for customers, and also take advantage of new markets. How it does this is a constant challenge to the company, as it is advantageous to keep as much of its code reusable as possible.

Challenge: How to spend more time marketing, less time tinkering

"The impetus for us is to develop products quickly, to meet market opportunities," Brooks says. To accomplish that task, all the FutureWare products rely heavily on an object-oriented programming structure that revolves around core frameworks of basic programming elements that can be reused in multiple, discrete applications.

This model was adhered to when the company built its MedWatch line of products, a group that started with a program called HypertensionTracker, used to track daily blood-pressure readings that could provide early warnings to otherwise undetectable diseases.

FAST FACTS

BACKGROUND:

FutureWare has been offering award-winning products since 1984, including software for information security, digital asset management, marketing and promotional tools, and health tracking applications for individuals and health professionals.

CHALLENGE:

FutureWare needed a RAD tool that would support the company's decision to quickly build customized and related products from "core" frameworks of object-oriented code.

SOLUTION:

Borland Delphi, according to FutureWare, is the only development tool that is reliable, fast, and powerful enough to allow the company to move quickly, helping to develop custom applications that have a time-tested foundation with a wide range of back-end interoperability.

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Chuck Brooks, President, FutureWare SCG

According to Brooks, HypertensionTracker had at its core eight distinct code objects; each designed to handle a different part of the program.

“Our rule was that objects could only know about themselves,” Brooks says. The individual pieces of HypertensionTracker, he says, are all standalone objects whose methods, properties and events are exposed, and do not require any reference to the invoking object. Such a design, he says, allows for programs with elements that can be developed independently of others, and can be quickly assembled – like Legos – into more complex programs, without having to know the details of their inner workings.

As FutureWare sought to expand the abilities of HypertensionTracker to other related medical applications – including the monitoring of blood glucose, insulin, and ketones for diabetics – it needed a rapid application development (RAD) environment with a large, solid library of pre-built components so that FutureWare didn’t have to reinvent the building blocks of coding every time it needed a new application.

Another important must-have was interoperability, particularly with respect to databases. “When you go into a corporate customer environment, you have to be able to offer a wide range of interoperability,” Brooks says.

Solution: Borland Delphi keeps FutureWare up to speed

The only product FutureWare has been able to rely on – and keeps relying on to get the job done – is Borland Delphi.

Dedicated to preserving developer investments in language expertise, framework knowledge, and source code to the highest levels possible, the wide range of Delphi components, libraries, and third-party add-ons has made it the RAD resource-of-choice for FutureWare.

To get a jump-start in building HypertensionTracker, FutureWare was able to leverage the rich component palette of Delphi, which boasts more than 350 reusable components. Of particular interest were Delphi VisualCLX GUI input components, a list that includes Menus, Radio Buttons, SpeedButtons, Sliders, and more all designed to give developers a quick start toward building rich application interfaces.

According to Brooks, the Delphi VisualCLX GUI components make up a big part of the standard presentation “surface” that is the face of the HypertensionTracker program, an application with numerous

input capture and validation points. HypertensionTracker also makes use of Delphi’s numerous support objects, a list that includes e-mail, file management, and software protection functionalities.

“We were also able to build new objects and components inside the Delphi environment to extend its reach,” Brooks said. One example he gave was a custom graphing object FutureWare built with Delphi, which allowed for on-screen as well as printed outputs of the various readings of data in the HypertensionTracker program in a graph-based format, instead of just lines or bar charts.

“Building a new component inside the environment itself is something no other tool program can do,” Brooks said. Once the custom object was built, it became a part of the overall Delphi library, and could be applied to the base application presentation surface at run time, Brooks says.

“Over the years we’ve examined a lot of other products,” Brooks says, including Microsoft Visual Basic as well as Sybase PowerBuilder. “But none can give us the across-the-board capabilities that Borland Delphi has.”

And Delphi does all this quickly, Brooks adds.

“If you use Visual Basic to write the same program, it takes three times as long as it would using Delphi,” Brooks says. “We know, because we’ve timed it.”

Visual Basic also creates headaches on the deployment side; a problem Brooks says Delphi doesn’t have.

“Deployment with Delphi is simple,” he says. “We don’t have to deal with any of the issues that arise with the Microsoft OCX modules and DLLs.”

Results: FutureWare and its customers win with Borland Delphi

The combination of the FutureWare strategy and the power of Delphi resulted in the now-expanded MedWatch line of FutureWare products. According to Brooks, HypertensionTracker itself spurred the expansion, when a doctor asked if the company had more programs similar to it.

“A doctor saw HypertensionTracker and asked us if FutureWare had a version for diabetes,” Brooks says. The company didn’t, but not for long. A new product called Diabetes Combo, Brooks says, was produced using HypertensionTracker code at the core, with the only

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significant difference being the addition of new or re-tuned objects for diabetes-specific data.

“By using the speed of Delphi, it took us only about two hours to create the new product,” Brooks says.

CholesterolCounter and PrescriptionTracker soon followed, also based on the HypertensionTracker core code.

While the objects might have been originally built for HypertensionTracker, Delphi allowed them to be added to each of the MedWatch products “in a matter of seconds,” Brooks says.

“We are able to do these things not because we’re 10 feet tall,” Brooks says, “but because Delphi has a large library of objects that allow for heavy reuse of code.”

Brooks also has praise for Delphi support for multiple SQL databases, which ensures that FutureWare never has to go to a client preaching the use of only one platform. And he also likes Delphi support for the OpenTools API, which lets FutureWare automate even more parts of its production process.

“Some of the things we can do with Delphi just can’t be done with other RAD tools, and for all the others, we can do them a lot faster with Delphi,” Brooks says. “The main thing for FutureWare is the speed of product development and knowing that the result will be operable, reliable, and powerful. No tool other than Delphi can meet our RAD requirements, across the board, with such reliability, power, and ease-of-use.”

TECHNICAL ENVIRONMENT

Database Server	Microsoft® SQL Server,™ all versions
Operating System:	Microsoft® Windows® 95, 98, 2000, Windows® XP, Windows NT™
Hardware Platform:	Intel® Pentium,® all versions
Number of Users:	n/a
Team size:	3 Borland Delphi developers

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