Most developers agree that the one thing you can count on with code is that it will change. When changes happen, most of us don’t have the luxury to go through each piece of code. Although components aren’t an absolute requirement for development, they can save you significant time when making code changes. Components reduce the mundane engineering that developers worry about like portability, interoperability, scalability and performance. And that’s a big advantage.

So, if you think of components not as something that eliminates the need to write code, but instead as something that makes the process of writing code in a larger system manageable; you may have come up with a solid conclusion. The understanding that having a component-based application is important, not because somebody told you so, but because you understand the benefits it brings to the development process.

Never before have developers been challenged with code changes and portability issues as with .NET. While it is true that Microsoft has given developers all the things they’ve been asking for over the years—namely a true object-oriented programming language—.NET does come with many strings attached. By now many of you are figuring out how and when to deal with the task of porting existing enterprise applications to take full advantage of this wonderful new technology.

It was just recently, and during the porting of Software FX’s corporate intranet to ASP.NET that we came to experience and realize what .NET had to offer and the challenges involved with porting a functional application to a new platform. To us it was like a taste of our own medicine, as most of our intranet reports were built using our own product, Chart FX.

Interestingly, our developers had little problems or concerns connecting Chart FX to a myriad of data sources like SQL, XML and text files coming from external distributors. Similarly, they didn’t report any security, performance or scalability issues; or complain about porting old Chart FX code, most of which were legitimate concerns when we decided to make the switch to .NET.

Instead, we quickly realized our developers spent an unusual amount of time coding business rules and logic that would help upper management visualize areas that needed attention to make critical business decisions. Ultimately, we concluded that developers could not divorce themselves from coding and configuring data-presentation components since they were coupled directly to the data extraction process. Therefore, they couldn’t embrace the code-behind concept that separates code from the presentation layer. For example, we wanted chart markers to be colored according to a certain condition and provide drill down capabilities to find the root of such situations, this had to be done by carefully inspecting the data and coding such conditions in the application.

This way their main coding effort was invested in making the chart reflect these conditions, yet they were able to come up with truly astonishing charts in terms of presentation. The Chart FX for .NET Wizard and Resource Center were crucial to achieving this goal with little or no development efforts on their part. To us, that was a major accomplishment since Chart FX for .NET provides over 800 properties, methods and events that they didn’t have to learn before they could be productive with our tool. The last thing you want to do when porting an application to .NET is spend significant resources learning how third-party components work and behave.

Chart FX for .NET exploits GDI+ and the .NET Framework to allow developers to quickly and easily integrate impressive charts into their Windows Forms or Web Forms applications. For example, the chart properties and default values were carefully studied and selected so developers need not spend a lot of time dealing with cosmetics resulting in a shorter development cycle and with impressive results.
From Primary Care to Specialist

However, in the end we found ourselves in a situation where the GUIs, and especially the charts, were tightly bound to the data. And as a result, if any business rules changed or any of our data itself changed, it had this tremendous rippling effect throughout our code. We knew this situation would make our intranet unable to respond to future business needs. In other words, an application that although built with the latest .NET technology, was resistant rather than resilient to changes.

This situation reached dramatic proportions when our developers were investing countless hours trying to satisfy the information needs of our sales, marketing and support departments. At this point, they were concerned that we were diverting from the original project and were still far from completion.

The question was how to minimize development and increase customer satisfaction?

The solution, to us, was simple: Chart FX Extensions.

With these extensions, Chart FX promises easier integration to connect more meaningfully with your data. This means developers are no longer required to spend countless hours configuring a generic charting component to specific data. Instead, Chart FX Extensions can be stitched together to adapt to data sources enabling organizations to quickly and economically gain access to specialized solutions that meet unique business needs.

To the right are a series of snapshots about Chart FX Extensions and how we were able to consume them for our own benefit. In the end, Chart FX had the cure for what ailed us.

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How does marketing keep track of where products sell?
This is performed by a different set of queries that integrate data from our internal point of sales system as well as data coming from external distributors, each of which has its own different IT system. We ended up with an ASP.NET page that would take data from a variety of sources, including SQL and XML, and map the data using universally supported SVG images. Chart FX Maps would simply take this data source and would allow logical groupings and views that would otherwise take weeks to code. Get more information at www.softwarefx.com/maps.

How do our managers slice and dice our sales data?
We OLAP-enabled our point of sales system using SQL Server Analysis Services and integrated Chart FX OLAP and ADOMD to connect to a multi-dimensional data source that is navigated without additional efforts from our developers. The result: a simple ASP.NET page that exposes a chart with a powerful, yet simple, user interface that allows data pivoting, drilldown and slicing to present data views that would otherwise take months to code. Learn more at www.softwarefx.com/olap.

How do we analyze thousands of leads?
Populating and configuring a charting solution with large datasets is not easy, the chart looks clogged and it is difficult to read. Chart FX Statistical allows us to focus on data analysis, quality control and data modeling on processes that generate large amounts of data like trial downloads and web traffic. We bound the chart to the database and the Chart FX Statistical extension quickly produces descriptive statistics, correlations and SPC charts, among others. Get more at www.softwarefx.com/statistical.

How can our staff react immediately to support requests?
Our developers built a real-time data extraction application from on-line newsgroups, Microsoft Exchange Server and support accounts that uses Chart FX Real-Time’s server-side in-memory data storage to create charts with open support issues that are displayed in real-time in the browser without the need to manually refresh. See more at www.softwarefx.com/realtime.