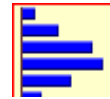


PeoplePolls.com



## Microsoft Windows DNA helps developers to quickly create versatile and powerful online-polling solution.

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***With the help of the Microsoft Windows DNA platform, a small group of developers created and deployed a Web site supporting professional polling on vital economic and financial matters. Using Visual Basic; Active Server Pages; SQL Server 7.0, including OLAP Services; and the Visual InterDev tool set, the developers built a highly functional and well-received solution within a narrow time frame. Since going live, the site has been used successfully for dozens of expert, customized, and public polls.***

### Situation

In early 1999, when Ed Yardeni was looking for a way to do online opinion polling, it was time, not technology, that concerned him most. As chief economist at Deutsche Bank, Yardeni was researching the opinions of top-level executives on a subject with an inescapable deadline: how major corporations were preparing their information systems for Y2K. "If we didn't get our site online by early summer, there would be no point in doing it," he says. "So I didn't care what technology we decided on, I just cared that we had a working site in time for the polling to matter."

To help him to make that decision, Yardeni turned to Andrew Brust, president of Progressive Systems Consulting (PSC), a New York-based company specializing in custom software solutions. To Brust, the decision was obvious: a browser-based application using the Microsoft Windows DNA platform, especially Active Server Pages (ASP), Visual Basic, and Visual InterDev. Soon, with a team consisting of himself and three other PSC developers, Brust got down to work. Despite the extra labor inherent in a browser-based design—primarily writing and testing generic HTML code—the team met the deadline with a highly functional online-polling solution that easily handled the demands of Yardeni's initial Y2K poll.

"I was relieved to see how smoothly the site worked for our first poll, which involved 15,000 IT professionals," Yardeni reports. "With that kind of an audience you don't want any glitches."

### Solution Overview

#### Customer Profile

PeoplePolls.com is a Web site devoted to online polling of professionals on economic and financial matters for Deutsche Bank. Progressive Systems Consulting is a New York-based company specializing in custom software solutions based on Visual Basic and Active Server Pages.

#### Business Situation

In early 1999, the chief economist at Deutsche Bank wanted an online-polling solution that could be deployed in time to conduct a Y2K-readiness poll among IT professionals.

#### Solution Benefits

ASP supports the browser-based nature of the solution and a highly automated set of services; SQL Server 7.0, including OLAP Services, supports sophisticated results analysis; Visual InterDev tool set helped to streamline development; an upgrade to Windows 2000 and COM+ will support future growth in site traffic.

#### Software and Services

Microsoft Active Server Pages  
 Microsoft Internet Information Server 4.0  
 Microsoft OLAP Services  
 Microsoft SQL Server 7.0  
 CDO (Collaboration Data Objects)  
 Microsoft Visual Basic 6.0  
 Microsoft Windows NT 4.0

#### Third Party

Progressive Systems Consulting

## Solution

Since that first Y2K-readiness survey, Yardeni has used the site, known as PeoplePolls.com, to conduct dozens of other polls on economic and financial matters. Many polls are conducted in partnership with professional organizations, associations, and trade groups to assess economic conditions in their fields. One monthly poll, for example, tracks the sentiment of a select group of top institutional equity portfolio managers and analysts on their outlook for the U.S. stock market. Another, commissioned by CIO Magazine, asks a panel of selected CIOs to assess the Internet economy. Still other polls are available for organizations to commission and customize as they see fit for their own internal use.

To ensure the polls are well-received by users—both participants and organizations commissioning them—the site supports various question types including multiple choice (lists, drop-down lists, radio buttons) and answer types in free-form text, numeric, and yes/no (checkbox). The site also supports “public,” “private,” and “expert” surveys and maintains a list of experts for topic-specific surveys.

*“I was relieved to see how smoothly the site worked for our first poll, which involved 15,000 IT professionals. With that kind of an audience you don’t want any glitches.”*

Ed Yardeni  
Chief Economist  
Deutsche Bank

## Benefits

### ASP Enables a Flexible, Browser-Based Approach

As PSC Director of Technology Paul Delcogliano points out, the browser-based PeoplePolls.com Web site is not a classic three-tier solution but more of a client/server application with the browser acting as a very thin client. To validate the business rules on the client side, developers used JavaScript, and to create dynamic Web pages, they used ASP for accessing a SQL Server 7.0 database directly. “ASP helped us to make the application browser-based because it supports working on the server and targeting any browser the user wants,” Delcogliano points out.

The PeoplePolls.com application comprises an administrative segment, which supports the creation of each poll and sets up its scheduling options, and a user segment, which lets poll participants enter their votes. The administrative segment uses a Visual Basic application for opening and closing surveys and dynamically creating Web pages to display survey results. The administrative segment also supports automated e-mail broadcasts via CDO (Collaboration Data Objects) for announcing the opening and closing dates of a poll and publishing results, automated updating of the home page with new polls and results, and automated scheduling of poll openings and closings. To do this, the application accesses the appropriate SQL Server 7.0 table, creates an ASP for that survey, and creates e-mail for all the potential participants. While the poll is ongoing the results are dynamic, which means that every time a user goes to view poll results, an ASP queries the database and returns the most current results in HTML to the Web site. Later, when the poll is closed, the application processes the results and creates an ASP to display them in static form.

*“A number of developers already had experience with Visual Basic, so they were able to leverage their expertise on this project. The integrated nature of these technologies also helped streamline development.”*

Paul Delcogliano  
Director of Technology  
Progressive Systems Consulting

### Sophisticated Analysis with Microsoft OLAP Services

To make the results data available for analysis, the PeoplePolls.com application moves the data off the transactional database and transforms it into a non-normalized form known as a snowflake schema. From this, the application creates OLAP cubes with the help of the SQL Server OLAP Services in combination with the SQL Server 7.0 database. Through these cubes, users can perform sophisticated filtering and drill-down analyses of poll results. For example, a



user may want to see the number of votes for each response to a given question according to industry, company size, geographical location, or other criteria.

According to Delcogliano, the SQL Server OLAP Services was a boon to the PeoplePolls.com development team. "Because OLAP Services is bundled with SQL Server 7.0, you can think of it as a drill-down feature in an already existing ASP application," he says. "That's what makes OLAP so great—you don't need a special front end or data analyst to use it."

### **Fully Integrated Toolset Streamlines Development**

For the user segment of the application, developers used ASP to create an HTML front end and Microsoft SQL Server stored procedures to save and edit administrative and survey data, including questions, allowable answers, and, when applicable, the logo of the company that has commissioned a given poll.

Developers also used Visual InterDev for creating and editing the JavaScript, ASP, and HTML pages. "The nice thing about Visual InterDev is that it gives us one place to combine all these technologies," says Delcogliano. "Moreover, because we can use Visual InterDev for editing SQL stored procedures, we can connect to the database, make a change to the stored procedures, and run the code all from one development environment. This is far preferable to having to use one editor for JavaScript, another for ASP, another for HTML, and yet another for stored procedures."

Visual Basic and ASP with VBScript proved to be similarly handy tools, Delcogliano adds. "A number of developers already had experience with Visual Basic, so they were able to leverage their expertise on this project," he says. "The integrated nature of these technologies also helped to streamline development."

Brust agrees. "If we were working in another environment, the permutations and combinations could easily become problematic," he says. "But working with the Windows DNA technologies, because they snap together so smoothly, we can do a lot more, and a lot more quickly, than we ever could with other tools." Brust also likes the way the integrated nature of the Windows DNA platform helps to position PeoplePolls.com for growth. "As site traffic grows, we can easily throw in another application server or cluster the database servers," he remarks. "We might even use MSMQ if we should need to start queuing transactions, that is, inserting votes into the database asynchronously."

### **Windows 2000 and Windows DNA Support Future Growth**

As Brust explains, such a scenario would also involve building COM+ components, a move that would fit in smoothly with plans already underway at PeoplePolls.com to upgrade the application server to Windows 2000. Should an increase in site traffic require it, developers also might redesign the site using a three-tier approach, moving some of the business logic to the middle tier with the help of Microsoft Transaction Server. "This would enable us to move some back-end processing to the middle tier and free up the database server," he explains.

Delcogliano says that other upgrade plans call for the likely addition of Microsoft Commerce Server 2000 for collecting user information. "Then, when visitors log in we can know who they are and configure the site accordingly or address visitors who haven't been there in a while," he says.

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Andrew Brust  
President  
Progressive Systems Consulting

As for still other enhancements, Yardeni envisions the site evolving into a more general information gathering and processing solution. For example, a business could use the solution to poll its sales force; a speaker could use the solution, with the help of hand-held devices distributed to audience members, to survey their immediate response to a lecture; or news organizations could use the solution, also with the help of hand-held devices, do voter exit polling. And these are just a few of the ideas that Yardeni is entertaining for the future of PeoplePolls.com. "Right this moment the site has more firepower than it needs, which is not a bad problem to have," he points out. "I'm eager to see where the technology will take us next."

Microsoft Windows DNA is Microsoft's platform for building and deploying integrated Web solutions that get to market quickly— from high-traffic eCommerce Web sites to corporate intranets to enterprise supply-chain integration. It provides the fastest, easiest way to develop Web applications that integrate and interoperate with existing applications, suppliers, customers, and future applications and devices. The Windows DNA platform consists of a set of complementary products that provide unmatched enhancement and adaptability of Web applications today and in the future. The core is Windows 2000, an operating system and application server with built-in Internet services that enables developers to focus on adding business value to their applications. Other Windows DNA building blocks include Visual Studio, SQL Server, Site Server 3.0, Site Server 3.0 Commerce Edition, SNA Server, and the COM+ component and programming model. All are best-of-breed products and technologies leveraging the skill and knowledge of more developers worldwide than any others.

## For More Information

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For more information on PeoplePolls.com, go to <http://www.peoplepolls.com/>. For more information on Progressive Systems Consulting products or services, go to <http://www.progsys.com/>.

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