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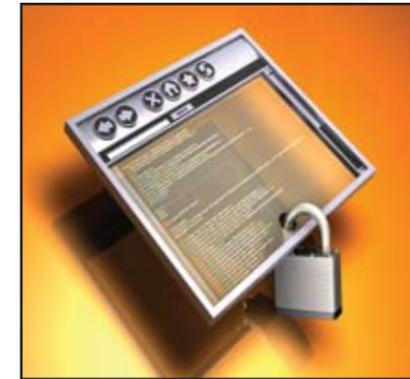
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6 Data Security: Have You Considered It? Data security is no longer optional. Stealing data is big business. Hundreds of thousands of dollars are lost daily, organizations reputations destroyed, and individuals' lives thrown into chaos due to data breaches. Explore the various aspects of this most important topic and see if there are some issues you might have overlooked. **BY MARK FULLER, NORTHGATEARINSO**

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INTERNATIONAL Spectrum

THE MULTIVALUE TECHNOLOGY MAGAZINE

FEATURES | SEPTEMBER/OCTOBER 2010

8 Silverlight-enable Your MultiValue Database Applications Most people who use the Internet are aware of Microsoft's Silverlight browser plug-in. Much more than just another way to watch online movies, Silverlight provides a platform within which large portions of applications can be developed. Find out more about this latest web architecture and how and mv.NET enables you to tie it in to your MultiValue data. **BY DAVID COOPER, BLUEFINITY INTERNATIONAL**

12 Pavuk Internet Development Framework v2.0: Part 1 — Introduction In order to survive and thrive in the modern information processing world, MultiValue applications need to put on a new GUI face as quickly as possible. Pavuk Internet Development Framework is a browser-based tool in this effort. Discover how it approaches the problem in this introduction. **BY BILL CROWELL, PAVUK TECHNOLOGIES**

20 Extending OpenInsight's O4W Web Development Toolkit With jQuery Plug-ins The new O4W web development toolkit included in OpenInsight 9.2 generates dynamic output using JavaScript, HTML, and Ajax and is based on an open-source library called jQuery. The jQuery library has hundreds of plug-ins available to help you create web pages that really sizzle. Find out how to make these available to O4W. **BY BRYAN SHUMSKI, REVELATION SOFTWARE**

24 Business Tech: Print Media — Part 2 Generating content (at least quality content) for print media hasn't changed much over the years. You still need people to write it, edit it, lay it out, etc. But today there are a number of tools which not only allow one person to assume more than one of these roles, but the format of the final product is also changing. See why "print" doesn't mean just print anymore. **BY CHARLES BAROUCH**

From the Inside

BY NATHAN RECTOR

Day after day, day after day,
We debug, nor breath nor R&D;
As idle as an end user.
Upon a painted data stream.
Information, Information everywhere,
and all the resources did shrink.
Information, Information everywhere,
and not a bit to read!

Ok, ok... who wants to read that poem again, although there are two versions out there that many of us can relate to:

intl-spectrum.com/s1034

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While you may not want to read a new version written for IT, or data resources, it points out a shortcoming that many different members of the MultiValue community have been trying to address for years.

Resources! Resources! Where can you find them? Where do I get the training needed for new developers?

Now, the resources exist, but they are spread out all over the place and are found in forums and web archives. Enter <http://www.intl-spectrum.com/resources/>

We are continuing to compile and index information found on the web, as well as articles and resources from Spectrum authors, magazines, and tech materials.

In order to help provide you with easier access to materials you may find of interest, we have introduced the "My Membership" section of the web site. This will provide you a place to bookmark articles on the web site and see other articles and materials that may be of interest to you. Go to

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The "My Membership" page (fig. 1) will also allow you to access and update your membership profile information, such as email addresses, mailing address, and database or software you are interested in.

We will continue to enhance this information to provide you more and valuable information, so make sure you take a look and update it today.

Please remember, that if you are reading this, then you already have a "Free Membership" setup. Use the Reference code on the magazine mailing label to access the "My Membership" page.

-NATHAN RECTOR

President, International Spectrum

nathan@intl-spectrum.com

INTERNATIONAL Spectrum

SEPTEMBER/OCTOBER 2010

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Learn more about the MultiValue Symbol and see what MultiValue Technologies and MultiValue Communities exist to help you support and manage your business and systems. To find out more visit

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Fig. 1 — "My Membership" Page.

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Data Security

Have you considered it?

MARK FULLER, NORTHGATEARINSO

As you work tirelessly to enhance your applications to provide the latest enhancements or to make use of the latest technology, something which is often overlooked is data security. We hear almost every day of a data breach here or a data breach there. And let's face it, it damages reputations, leads to financial losses, and could ultimately result in you facing prosecution. It's a foregone conclusion that there will be breaches given the sheer volume of ever growing data that we store electronically on computers.

Businesses, governments, and other organizations are becoming increasingly aware of the need to protect data against unauthorized access from both external and internal sources. Also the global rise of "identity theft" and recent legislation, such as the Health Insurance Portability and Accountability Act (HIPAA), has made data security an issue which can no longer be ignored.

The costs of recovery from a data breach are often overlooked. For instance, a single stolen laptop ended up costing one company in excess of \$500,000. It turns out that the laptop contained payroll information, and the costs soon mounted up when you take into account compensation, damage to reputation, and above all, management time in resolving the issue. So the next time you take your laptop out and about

with you, ask yourself, "Is the data on this laptop secure?" "Does it really need to be on here?"

Almost everyone is now implementing a disaster recovery plan, and part of this is to normally store your data backups off-site. Is this secure? No. Not unless it's encrypted. Remember, a backup is typically just a textual dump of your data. So if the media falls into the wrong hands, there's more than a fair chance that they can read it. If your media falls into the wrong hands, it won't take long for an individual to scan the media looking for

data patterns. For instance, a credit card number is relatively easy to look for, typically a 16 digit number. And as the first four digits identify the card supplier, it really isn't hard to look for four digits followed by a random 12 digits.

Continues on page 27

The costs of recovery from a data breach are often overlooked. For instance, a single stolen laptop ended up costing one company in excess of \$500,000.



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Silverlight-enable Your MultiValue Database Application

DAVID COOPER, LEAD DEVELOPER, BLUEFINITY INTERNATIONAL

Introduction

In this article we shall be exploring Microsoft's "Silverlight" environment and how to use the Silverlight support in BlueFinity's mv.NET product to create rich-client style applications running inside a web browser.

mv.NET is BlueFinity's flagship product. It is the foremost .NET to MultiValue connectivity and productivity aid for developers wishing to create state of the art application user interfaces and web services for MultiValue-based applications.

What is Silverlight?

Most of you have probably already seen the initial load of Silverlight happening within your web browser — this gives you the first clue as to what Silverlight is all about. Similar to Adobe Flash, Silverlight is a web browser plug-in (about 4 MB in size) that allows your browser (all of the current popular browsers are supported) to do so much more than you can using standard HTML.

One of the ways in which developers are utilizing Silverlight's power is to create a new generation of browser-delivered line of business (LOB) applications — the kind of applications that are the bread and butter of our MultiValue world — stock control, accountancy, ERP, CRM etc.

However, Silverlight is not just about the superb run-time experience provided to end users, it is also about the way in which we as developers create these applications. Microsoft has spent a huge amount of time and resources creating a sophisticat-

ed yet easy to use development environment (centered around Visual Studio) that allows developers to create Silverlight applications in a very similar way to that in which you create traditional rich-client applications. This is really good news because it dramatically simplifies the development and debugging process — reducing your application complexity and development timescales.

Silverlight Architecture

Silverlight applications are typically split into two discrete sections — a section which runs inside the web browser and a section which is hosted within an associated web service. The diagram in figure 1 summarizes this segmentation.

From the above diagram it can be seen that the Silverlight application section hosted within the web browser comprises two parts — one created using XAML, the other using a .NET managed programming language, typically VB or C#.

XAML stands for eXtensible Application Markup Language. It is a way for developers to define the content and layout of application interfaces in a way which provides a clear separation of interface design from underlying business logic. As its name suggests, it is a markup language and as such it is XML-like in syntax. Visual Studio has a WYSIWYG visual designer which allows you to create XAML via an easy to use graphical designer — or, you can write it manually — or, typically, do a bit of both.

Thus, the Silverlight environment runs the interface as defined in XAML as well as the immediate busi-

ness logic/interface event handling code locally within the browser. This promotes highly responsive, visually appealing, and very user-friendly application interfaces.

Closely associated with a Silverlight application will be the parent web site. This will typically be the web site to which the user initially navigates in order to run the application. This web site hosts a web service which is able to provide the Silverlight environment with access to resources located outside of the Browser environment, such as one or more database servers. Using mv.NET, this will be your back-end MultiValue database.

How does mv.NET Support Silverlight Development?

The latest release (version 4.2) of mv.NET contains many exciting features focused specifically on supporting Silverlight development.

The mv.NET Data Manager's Entity Modelling component (Solution Objects) has been extended to generate data access layer code compatible with the Silverlight environment. This means that with a click of a radio button you can now generate a data access layer capable of running within your web browser! The Solution Objects runtime libraries handle all of the browser to database communication activity.

The Data Manager has also been extended to provide a new "XAML Wizard" utility. This tool allows you to quickly create application navigation schemes (menus) and data entry forms based on your entity models.

The XAML Wizard's forms designer (fig. 2) allows you to drag and drop properties from your entity model classes onto the design surface, automatically selecting the appropriate input control

— or you can manually select which control type to use.

A key feature of the forms designer is to allow you to create forms which behave properly in a range of screen resolution and browser window sizes, ensuring that sections of the form resize properly to maintain a professional appearance.

The XAML Wizard's application navigation designer allows you to define your menu hierarchy along with the basic way in which the menu system is rendered. Currently there are two options — cascading menus or a sidebar ("Outlook" style) navigation area.

Based on your navigation and form designs, the XAML Wizard generates standard XAML and VB/C# code which

Continues on page 10

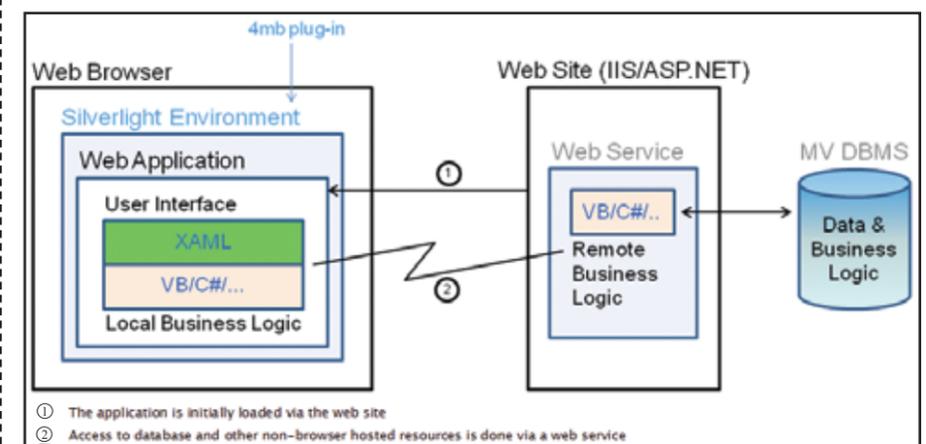


Fig. 1

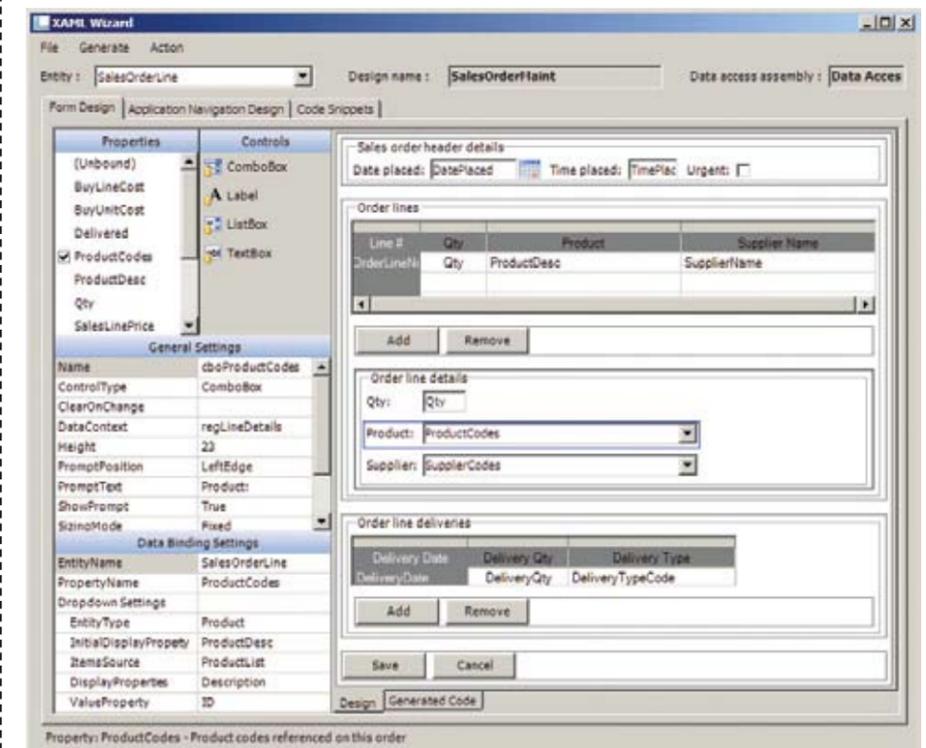


Fig. 2 — The new "XAML Wizard" within the mv.NET Data Manager - showing a sales order maintenance form

SILVERLIGHT-ENABLE YOUR MULTIVALUE DATABASE APPLICATION

Continued from page 9

you are able to customize and extend within Visual Studio as required. All of this results in rapid, open, extendible application development against MultiValue databases using industry standard tools.

The mv.NET runtime libraries coordinate all of the on-screen form management activity to ensure a clean, productive, and professional looking application user interface.

The data form shown in figure 3 has just performed a background validation of the order line quantity field using a MultiValue BASIC subroutine. The validation error has been reported back to the end user via the standard Silverlight data validation framework.

The above screenshot has been taken from the sample Silverlight application provided with the mv.NET devel-

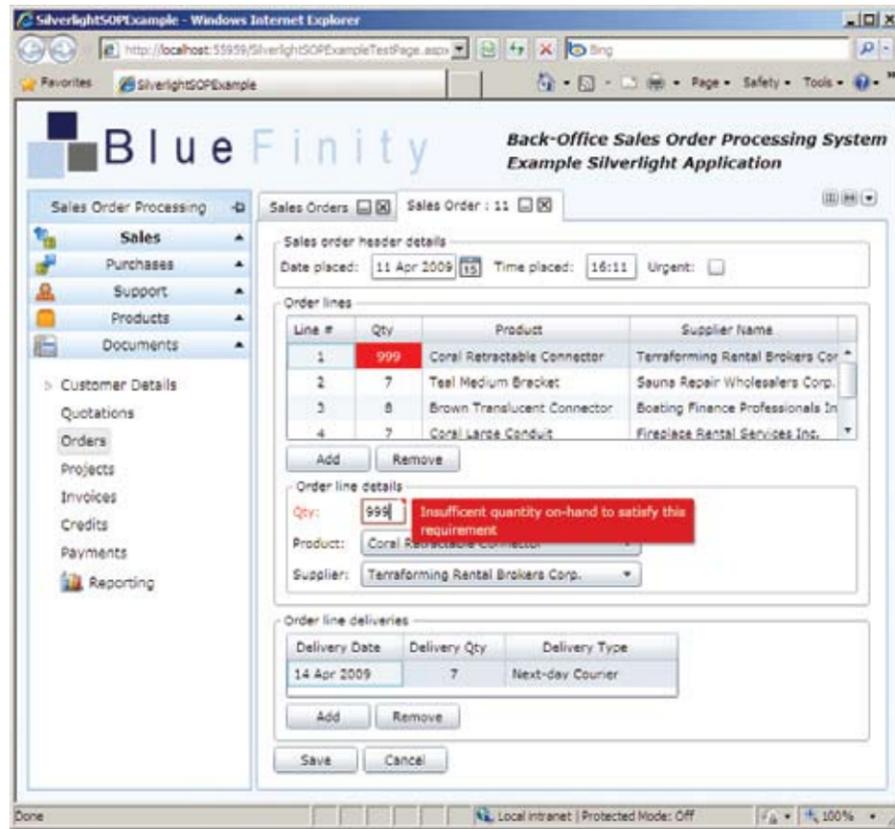


Fig. 3 — The sales order form running inside a web browser utilizing a “sidebar” style application navigation scheme – all created using the mv.NET XAML Wizard.

opment kit. This sample application illustrates many aspects of Silverlight development.

The 6 Steps to Create a Silverlight Application

So, what exactly are the steps required to get your Silverlight application development off the ground. Basically, it boils down to six main actions:

Step 1 – Install the mv.NET developer kit and Visual Studio 2010 onto your development workstation.

Step 2 – Use mv.NET’s Entity Modeller to create a data access layer to your application’s data files.

Step 3 – Create a Silverlight application within Visual Studio using the standard “Silverlight Application” template.

Step 4 – Use mv.NET’s XAML Wizard to create your application menu structure and generate the

code into your Visual Studio project.

Step 5 – Use mv.NET’s XAML Wizard to create your application’s data maintenance forms and generate the code into your Visual Studio project. Extend/customize/enhance as required using standard Visual Studio.

Step 6 – Blow your client base away with an amazing web-based interface to your MultiValue application!

Utilize a Phased Development Strategy

One of the great things about mv.NET’s Silverlight support is that it actively promotes a phased approach to Silverlight adoption. This allows you to avoid being caught in an all or nothing dilemma.

Clearly, your Silverlight application is going to be accessing the same da-

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Pavuk

Internet Development Framework v2.0

Part 1 – Introduction

It's all about applications. Everywhere you look, there exists a need for a strong, database application. There are two problems. First is how to build it quickly, efficiently, and to deploy it to the users who need it. Second is updating existing applications to embrace new technology. Pavuk IDF was created to solve these problems.

In this series, we will explore Pavuk IDF and how to create applications inside of it. Each part will move further into the structure of Pavuk and examine a different facet of its operation.

The web browser has become the de-facto universal interface, but the process of creating applications that run inside of a web browser is a multi-layered and time-consuming process. The standard way to create web applications requires development of forms to present the user interface and a series of scripts to link that form to the back-end system. Usually, there are teams of developers — the graphic designers, script writers, and database engineers. Making modifications requires coordination of all these teams. For the small development shop, having all the requisite skills in-house is daunting. For the large development team, simply coordinating all the work flow and testing protocols is equally challenging. It is all expensive.

Pavuk IDF does away with the standard approach entirely. The multiple layers are replaced with one single and simple layer for development and run-time. It is enabling technology for developers, as a tremendous amount of expertise is built in. This technology frees developers to concentrate on system design and reduces the amount of actual programming to specific

business rules functions for their applications via the application programmer's interface (API).

The goal of Pavuk is to provide all the components needed to develop and deploy database systems using web user interfaces and communication technologies. Starting with the browser, other device support and communication services will be added in the future.

At the heart of Pavuk is the QM database from Ladybridge Systems (www.openqm.com). As one of the fastest and most reliable database systems available, it is also a post-relational database that does not have the headspace issues encountered by fully normalized databases. An individual database may have many millions of records with no degradation in performance.

On the front of Pavuk is the ExtJS Javascript library from Sencha (www.sencha.com). ExtJS provides the JS components that place intelligence on the client side and create a rich user interface. This exciting library is constantly being expanded and new components added in ExtJS are being incorporated into Pavuk.

Pavuk IDF Enterprise Edition is deployed in Mac OS X Server. Based on FreeBSD Unix, OS X Server is a robust and secure environment. User authentication

and permissions are controlled through OpenDirectory (OpenLDAP). Pavuk's user authentication uses OpenDirectory. OpenDirectory can integrate into other LDAP services including Windows ActiveDirectory thus making a Pavuk server simply "plug in" in a corporate environment. Enterprise Edition is ideal for Cloud Computing/SAAS.

Standard Edition is available in Linux and uses standard password authentication. It is intended for product development and deploying smaller systems. Both utilize identical forms and APIs.

Pavuk is a development framework. It is a meta-application that runs all applications developed inside of it. All of the major components of an application exist inside the framework — HTTP service, dynamic form rendering, database update, query processing, history and audit tracking, linked binary attachments, user validation, etc.

To demonstrate the basics of developing in Pavuk, we are going to build a simple database complete with a form. We have a server with Pavuk installed and have created an account called Spectrum. We're now ready to begin. There are 3 steps to build our database and form:

1. We're going to define our database in the Database Designer.
2. We're going to define our form in the Form Designer.
3. We're going to test and run our new form.

For step 1, we run the Database Designer. We're going to call our database "U.PEOPLE" so we enter that into the record locator and click "Get". The Get button loads the database record or starts a new one. figure 1 shows our starting point.

We're presented with a grid that represents our "file layout," but with much more information. These properties are used to control our application. The numbers down the left column of the

The goal of Pavuk is to provide all the components needed to develop and deploy database systems using web user interfaces and communication technologies.

grid represent the field (attribute) numbers. Clicking on a row loads a popup

where we modify the properties of the selected field as shown in figure 2.

As you can see from the popup, there are many different properties that may be assigned to each field. The one field property that we must select is the Element. Pavuk includes a library of database elements. Elements are intelligent and control form rendering, data validation, and contextualization. (These will be explained in more detail in Part 2 of this series.)

Continues on page 14

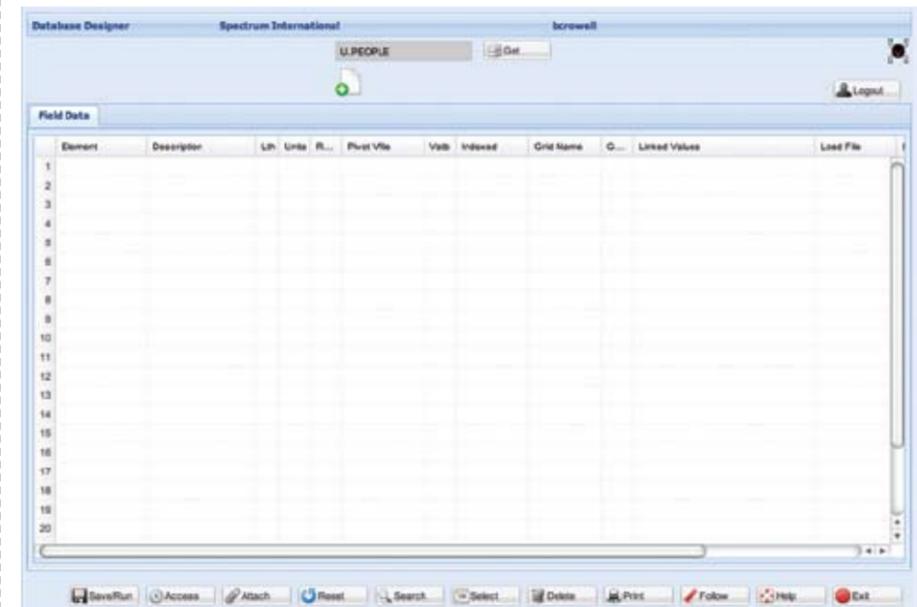


Fig. 1

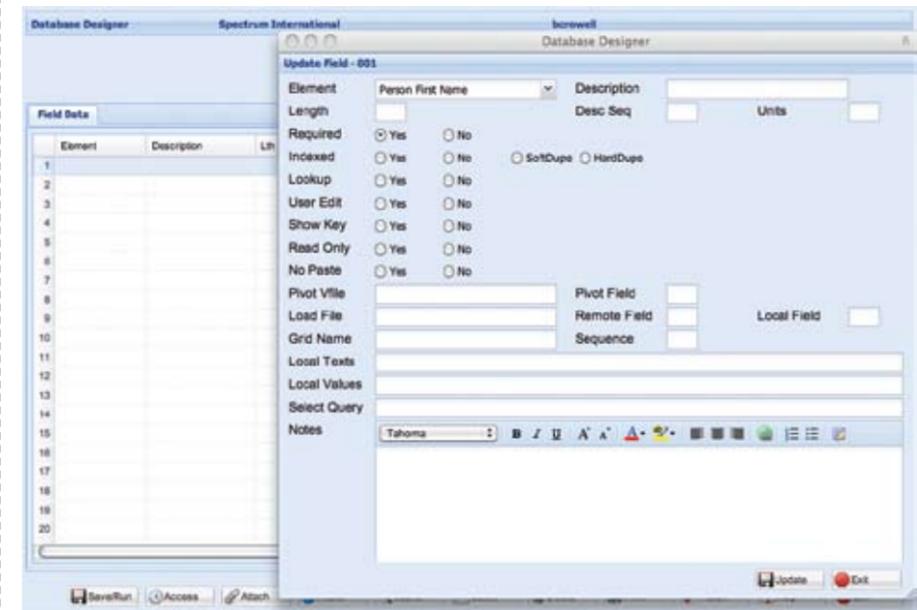


Fig. 2

PAVUK INTERNET DEVELOPMENT FRAMEWORK V2.0 – PART 1 - INTRODUCTION

Continued from page 13

Each field may have a large number of properties selected to further customize the field from the default values of the element. We can also link other databases into our field using the pivot functions. As we build our field, we're also documenting it. We can enter free-form notes on each field to further enhance our documentation.

We continue entering the field properties to populate our database definition. The result is shown in figure 3.

We now click the Save/Run button and Pavuk saves our database definition to the master database. Upon a successful save, a standard "post-save" event calls an API function. This API function performs special processing on this database. It does the following:

1. Creates the physical database files and control files.

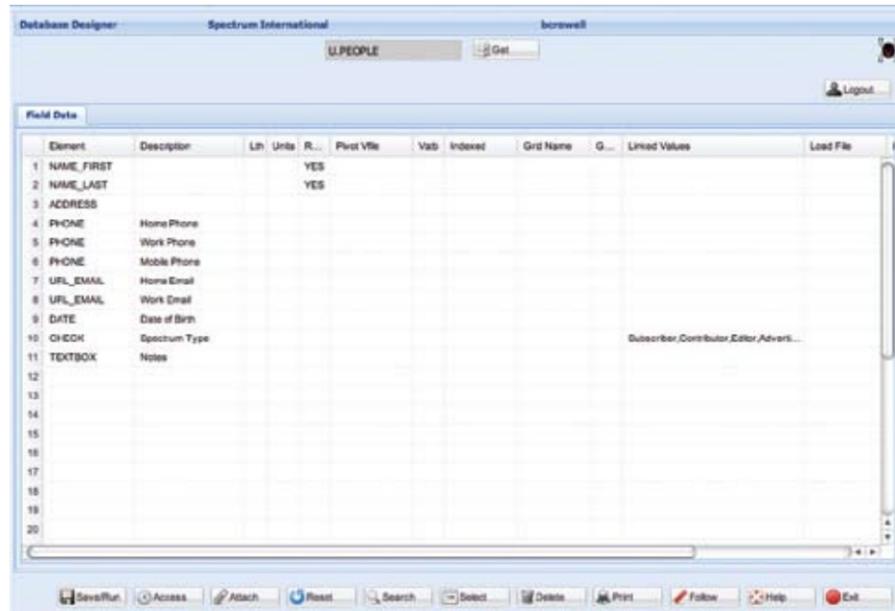


Fig. 3

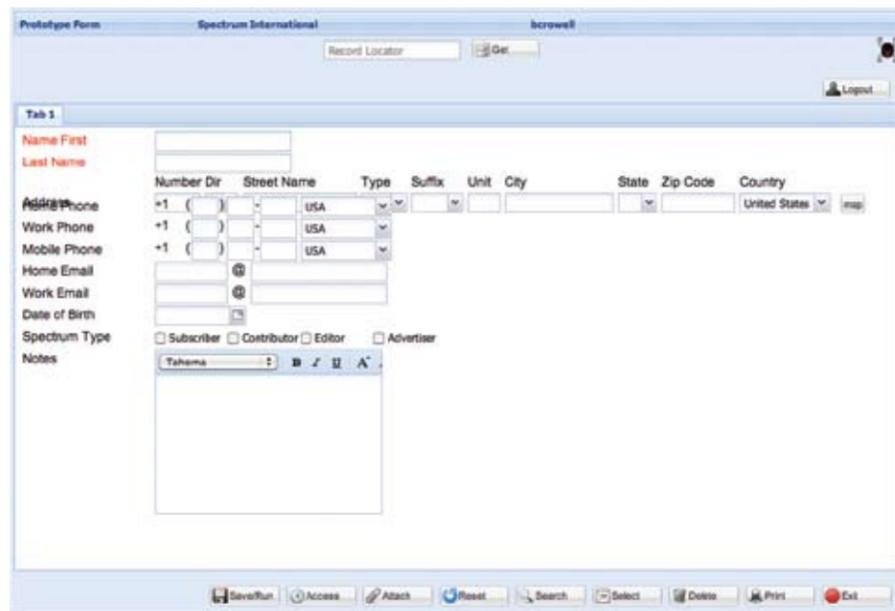


Fig. 4

2. Creates the dictionaries used by the query processor.
3. Creates the directory structures for linked binary attachments.
4. Starts a background process that creates any field indices.
5. Links the database into the Prototype Form so we can check our work.

This is the same API available to all Pavuk developers.

Our Prototype Form is shown in figure 4.

At this point, we have a fully functional database. We could begin loading or modifying records, uploading attachments, and any other operation. However, our Prototype Form is not very elegant. The Address element is a 2-line control and it is interfering with the Home Phone field. Remember, the Prototype Form is intended only to quickly check our work.

We need to create a proper form to render our database and ensure that all of our fields display nicely and where we want them in the form. For that, we'll run the Form Designer and create

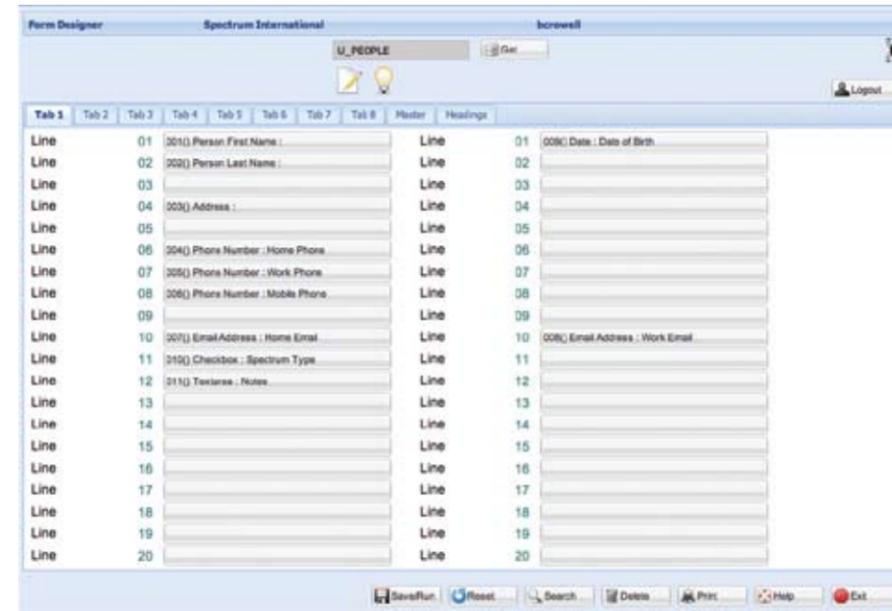


Fig. 5

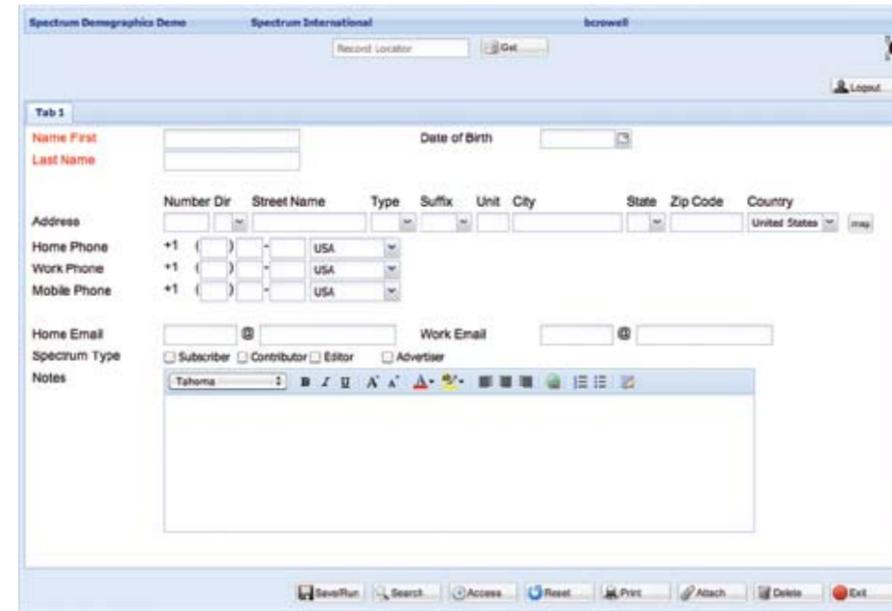


Fig. 6

a form called "U_PEOPLE" as we move on to step 2 in our process as shown in figure 5.

(Database and form naming conventions will be discussed in Part 4 of this series: Using Pavuk applications in Cloud Computing/SAAS.)

Pavuk forms have a standard layout. All forms have a header section. In a data form, the record locator entry field is present along with graphical indicators showing the status of each record. In our case, the new document image shows we're creating a record. The

lightbulb shows that it is an active record. The Logout command button is always available.

The center area of the form is the data/menu/reporting section. It is built using tabs to minimize scrolling and panning by users. Testing has shown that users prefer clicking on tabs when presented with large volumes of data. Each form may have up to eight tabs. Each tab has two columns with 20 rows. This makes a theoretical maximum of 320 data fields in any single form.

The bottom area of the form is where command buttons are located. Which command buttons are available on any form is up to the designer, though an Exit button is always automatically generated in the lower right corner.

The geometry is fixed for rendering consistency and displays fully on the iPad in landscape mode. The controls are rendered to facilitate user comfort and click-ability on touch devices.

Any number of forms may be created. A single database may have numerous forms to show multiple views of the data as appropriate for different users. Users who have restricted access to some data will have their own form showing only what they're authorized to see.

We save our form definition and our resulting form is shown in figure 6.

Our form and database are ready for our end-users. If our users wish to have a field moved to a different area of the

Continues on page 29

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NEWSMAKERS



Sysco Denver Food Service Company Uses UniData To Track And Manage Its Trucks And Drivers

Sysco Denver Food Service Company is a wholly owned subsidiary of The Sysco Corporation and is the largest food service distributor in the Rocky Mountain area. Sysco Denver has supplied hotels, motels, restaurants, schools, hospitals, and multi-unit accounts with high quality food, supply, and equipment items for over 60 years.

Situation

Operating from a 430,000 square foot warehouse, Sysco's refrigerated dock and fleet of 130 trailers and tractors provide service to 7,000+ accounts running 600 routes per week. Ten years ago, the company was dispatching its equipment using a "cards-and-slots" system, but wanted an easy, logical system to keep track of the drivers who were already dispatched, the ones that had not been dispatched, and ones who were not available. Additionally, Sysco needed the ability to have days, weeks, months — and even years — of history on these drivers, as well as their equipment and loads.

Implementation

In just a few months, Sysco Foods of Denver was dispatching its fleet using a MultiValue database called UniData from Rocket Software with software from U2logic, Inc. This system had the ability to fulfill the requirements that allowed them to track the hundreds of loads they dispatch every day.

Several years later, U2logic upgraded that software to a Web-based product, which used forms featuring Microsoft's IIS server using active server pages built with HTML and JavaScript. The results were phenomenal — Sysco could create reports instantly, and the Web interface was easy to use and required little training.

Benefits

In 2009, the dispatch software was again upgraded. Using open source technology such as Apache Tomcat, json.org, and Eclipse-based programming tools has allowed U2logic to update the interfaces and keep all of the desired functionality with new technologies such as drag-and-drop dispatching. All data entry screens that have grids that can be sorted by any column, and the lookups allow filtering on each column to gradually reduce the lookup when trying to find a specific item. The software runs anywhere from 10% to 700% faster than the previous version using the latest version of UniData database and U2WebLink middleware.

Call U2logic at 303-659-8778 so you can be a success story as well. ■



Zumasys Acquires Assets of Choice Computing; Opens Offices in New York & New Jersey

Zumasys, a leading provider of Cloud Computing and on-site infrastructure technology solutions, announced today that it has acquired the assets of Choice Computing, a software development firm based in Ithaca, New York. Together, the companies will offer ERP systems, custom development and application hosting services to Zumasys' customer base of more than 2,000 companies, many of whom are based in the New York and New Jersey area.

As part of the transaction, Ray Gasser will join Zumasys as Vice President and manage a new support center for the company based in Ithaca, New York. Additionally, Frank Petillo will join Zumasys as a Senior Systems Engineer based in Manahawkin, New Jersey. Zumasys will also be using the expertise of Maria Gasser, one of the principals of Choice Computing and a Lead Software Developer.

The combined entities will offer local engineering resources and bi-coastal support for Zumasys' on-premise and hosted "Cloud" customers. Additionally Zuma-

sys will offer Web, Windows & Mobile software applications to businesses including those running D3, a Multivalue DBMS from TigerLogic Corporation. Zumasys will also allocate increased development resources to MetalTrack, a leading ERP system for metal distributors owned by Choice Computing.

"In a period where the emphasis is on cost savings, Zumasys continues to invest in customer service. This East Coast facility is part of our continued strategy to offer national technology services combined with local touch," said Paul Giobbi, President of Zumasys. "Choice Computing has a reputation for providing excellent support and for making software that is tailored to the needs of its customers and we look forward to building on that important legacy."

"We feel honored to join the talented and devoted group of technology professionals at Zumasys," said Ray Gasser, President of Choice Computing. "Choice Computing has spent 30 years building strong relationships with customers. Many already have used Zumasys' services and been as impressed by them as we have. We look forward to building on our past relationship with Zumasys and getting to know and support our new customers."

Zumasys will ensure that Choice Computing customers continue to receive uninterrupted service during this transition. Customers are encouraged to begin using the new phone numbers and email ad-

resses below.

Key Contact Info:

Ray Gasser, 866-ZUMASYS x228, rayg@zumasys.com
 Maria Gasser, 866-ZUMASYS x229, mariag@zumasys.com
 Frank Petillo, 866-ZUMASYS x361, frankp@zumasys.com
 Paul Giobbi, 866-ZUMASYS x300, paulg@zumasys.com

About Zumasys

Zumasys provides enterprise-class infrastructure technologies to small and medium sized businesses across North America. Founded in 2000, Zumasys specializes in implementing solutions that reduce costs and boost productivity including Virtual Desktop Infrastructure (VDI), Disaster Recovery, Storage, Server Virtualization, VoIP and

Custom Software Development. In 2006, Zumasys launched an Application Hosting offering that allows companies to move their applications to a hardened data center and run their business on a 100% virtual server platform. This highly flexible model incorporates rental licensing and is perpetually upgraded. By outsourcing management of their IT infrastructure, Zumasys' customers benefit from the latest software and hardware technologies, world-class telephone support from 5am-5pm and ultimately become free to focus on their core business. Zumasys is a fast-growth company and its deployments have been featured in publications including Computerworld, eWEEK and Network World. Zumasys appeared twice on the Inc. 5000, Inc. Magazine's List of the 5,000

Fastest Growing Private Companies and appeared on Deloitte's Technology Fast 50 for Orange County in 2008. Zumasys is a Microsoft Gold Partner and holds reseller agreements with Citrix Systems, VMware, NetApp and SonicWALL. Zumasys is headquartered in Irvine, CA.

About Choice Computing

Choice Computing began in 1983 as an independent computer programming company based in Maplewood, NJ, and relocated its headquarters to Ithaca, NY in 1996. The company has refined its focus to provide customized ERP systems for several industries with standard modules that can be easily customized to the specific needs of the customer. Choice specializes in deploying

applications that leverage the power and flexibility of D3, the MultiValue DBMS from TigerLogic Corporation (Nasdaq: TIGR). Choice Computing owns MetalTrack, a scalable system for metal distributors and importers with \$10M-\$250M in annual revenues, and supports customers across North America including Summit Stainless Steel, Dodson Global and Sumitomo Corporation of America (SCOA). ■

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New Products



Entrinsik Announces Informer 4.1 Featuring a NEW Cutting Edge Plug-in Architecture

Entrinsik Inc., a leading provider of innovative web-based operational reporting and analysis solutions, recently announced the latest release of their Informer Web Reporting software – Informer 4.1. Informer's new plug-in architecture allows developers to amend and extend core Informer functionality for seamless integration into existing organizational environments.

Informer enables hundreds of organizations around the world to transform real-time data from multiple data sources into actionable intelligence without the need to set up and manage a separate data store. Informer extends self-service reporting and analysis capabilities to users who can uncover critical insights in the information they work with every day by querying, reporting, analyzing, delivering, and displaying real-time operational data in any way they choose.

"This latest release of Informer represents a giant leap forward for our software," says Doug Leupen, President at Entrinsik.

"With Informer 4.1, we are now able to offer our Partners and end user administrators the ability to do things like provide end user authentication and single sign-on within Informer, rebrand the user interface, and even develop known quality reports and mappings to bundle with the installation package to speed rollout."

With examples and documentation provided with the new release, Partners and Informer administrators can now create a highly integrated reporting environment customized to meet specific organizational needs.

Entrinsik, Inc.

Since 1984, Entrinsik Inc. has been developing, implementing, and supporting database solutions that enable organizations to maximize performance and improve bottom lines by tracking, understanding, and managing information. With tens of thousands of users across various industries, Entrinsik's Informer Web Reporting software delivers true real-time access to multiple data sources simply and easily using a built-in web-based query engine. Informer extends self-service operational reporting and analysis capabilities to both technical and business users who can now quickly and easily perform their own analyses on the fly in faster more powerful ways than ever before.

Entrinsik is headquartered in Raleigh, NC. For a demonstration of Informer or a free trial, call us today at 888-703-0016 or visit www.entrinsik.com. ■



Revelation Software Announces the Release of OpenInsight Development Suite 9.2

Revelation Software today announced the availability of the latest release of OpenInsight Development Suite (OI) 9.2. OI 9.2 provides the following new components:

- OpenInsight for Web (O4W) – A web 2.0 development toolkit that empowers OpenInsight developers to rapidly create browser based forms, reports, menus, dashboards, and programs.
- SQL Connector – With this new connector, SQL tables are now seen as native tables to all components of OpenInsight including forms, reports, popups, stored procedures, and O4W.
- OpenInsight for D3 – This connector will allow OpenInsight to be a front end application development tool with the D3 database from TigerLogic Corporation.
- Single Sign-On (SSO) – By configuring SSO, OpenInsight users can be authenticated via traditional OpenInsight methods, via Windows security, or via a combination of both.

• Bitmap Indexes – This type of index is used where the number of indexed values are relatively small; e.g. Sex (M/F), Active (Yes/No), etc. Bitmap Indexes are extremely fast, and are much faster than our existing Btree indexes.

• OECGI3 – This is the OpenEngine Common Gateway Interface version 3 which supports Failover and Load Balancing modes. These modes make OECGI3 a more robust connection object and allows for extra capacity and/or redundancy to be added to a web application.

"This release continues our commitment to extended OpenInsight by embracing new technologies as well as providing seamless integration with external databases. In and of itself O4W is so feature rich it could have been marketed as a standalone product," said Mike Ruane, President/CEO Revelation Software. "The inclusion of O4W as part of our OpenInsight Development Suite further empowers our development community."

OpenInsight Development Suite 9.2 can be purchased as a front end development toolkit for the U2, D3 and SQL Server databases. "With the release of OpenInsight 9.2 we have introduced new licensing which allows both MultiValue and SQL developers to purchase OpenInsight as a front end development toolkit without our Linear Hash database," said Robert Catalano, Director of Sales, Revelation Software. "When purchased as a toolkit only, the price is \$60.00 per user with a minimum of 10

users for web-based applications."

OpenInsight Development Suite 9.2 is available from Revelation Software, or through their network of resellers. See Revelation.com for details.

About Revelation Software

Founded in 1982, Revelation Software delivers a suite of application development tools and companion services that take full advantage of leading network computing architectures, messaging, groupware, and client server platforms. Today, the company's flagship product OpenInsight is the only database development and application environment that provides both Windows and Java-based GUI tools to develop and deploy web-based and client server applications that support native and relational XML, SQL, Lotus Notes, and the leading legacy MultiValue data sources such as Arev, Pick and IBM Universe. There are more than 1.5 million licensed users of Revelation products across 60,000 deployed sites worldwide. The company has offices in Westwood, New Jersey, as well as a European distributor in the United Kingdom, and an Asia Pacific subsidiary in Australia. ■

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Extending OpenInsight's O4W Web Development Toolkit with jQuery Plug-ins

Revelation Software recently released OpenInsight 9.2, which includes the highly-anticipated O4W web development toolkit. O4W generates dynamic Web 2.0 output using JavaScript, HTML, and Ajax. Rather than develop such technology from scratch, Revelation Software decided to leverage the functionality of the widely-accepted jQuery open-source library. By writing O4W to be jQuery compatible, all of the functionality and advantages of jQuery become available to MultiValue developers, while the O4W “wrappings” around jQuery make this functionality accessible and understandable to the MultiValue world.

jQuery has a number of features that make it an ideal choice for a web development framework, but one of the most exciting has to be the active jQuery development community that has generated literally hundreds of “plug-ins” that extend the user interface and functionality of the basic jQuery library. Whatever requirement you may have for your web page, a jQuery plug-in has likely been developed for it. And, since O4W uses jQuery, it is usually a simple matter to make that plug-in available on your O4W generated web page.

Most of the jQuery plug-ins — either developed externally by the jQuery community, or “UI” elements that are part of jQuery itself — rely on the web developer to first create some standard HTML element(s), and then instruct jQuery “turn _that_ into _this_”. For example, for the menu plug-in that is included in O4W, the underlying software first creates a list, and then applies

a “menu plug-in” to the list of elements; for the table pager and sorter plug-in, a regular table is first created, and then the plug-in is applied to the table; for the tabs control, a series of sections is first created, and then the plug-in is applied to those sections, etc.

For many of the O4W provided APIs, for “developer ease”, this functionality is “wrapped” behind other O4W API calls (for example, the O4WTabs function), but fundamentally, what O4W does is:

- Determine what plug-in is needed;
- Load in the stylesheet and js files for that plug-in;
- Figure out what “initial” element or control is needed;
- Create that initial control;

- Use the O4Wplug-in API to apply the plug-in to the control

Using this same process it is possible to add non-O4W-provided jQuery functionality. For example, perhaps an “accordion” control should be added to a web page, but no accordion is included in O4W. Using a search engine, we can find that an accordion control is provided with the basic jQuery UI files, and learn what is required to implement it. According to the jQuery UI web page:

The markup of your accordion container needs pairs of headers and content panels:

```
<div id="accordion">
<h3><a href="#">First
  → header</a></h3>
<div>First Content</div>
<h3><a href="#">Second
  → header</a></h3>
```

```
<div>Second content</div>
</div>
```

This tells us what basic HTML O4W needs to generate to work with the accordion, and additional reading indicates some options that can be applied if we wish to use something other than links for the accordion headers. For this example, instead of links we will use sections for the titles. By giving each section a style name (in this case “header”), the plug-in can identify

them correctly. To make the HTML that looks similar to the above, use the O4W routine in figure 3.

Of course, instead of, or in addition to, the O4WText that has been put in each content section, any other elements (textboxes, images, etc., etc.) could be used. When run, this generates the output in figure 4.

Continues on page 22

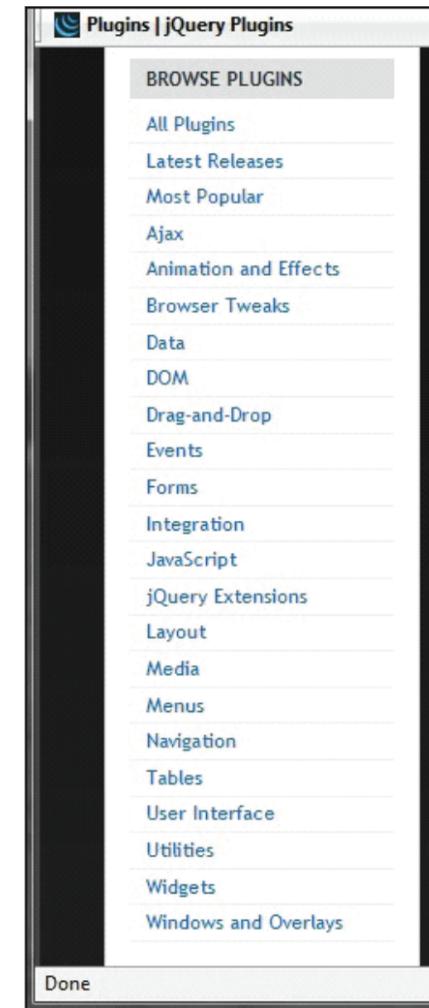


Fig. 2



Fig. 1

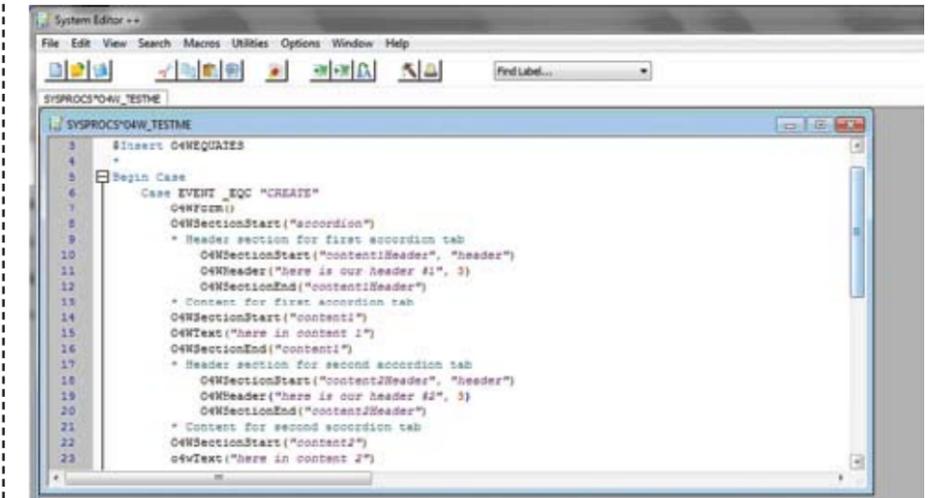


Fig. 3

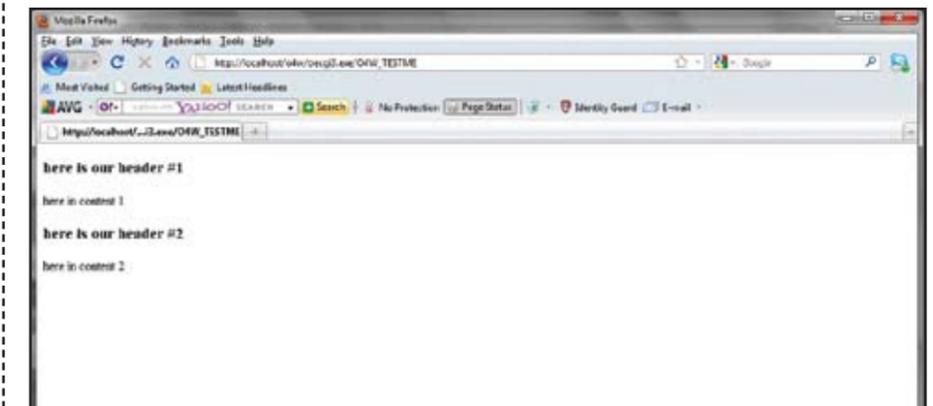


Fig. 4

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EXTENDING OPENINSIGHT'S O4W WEB DEVELOPMENT TOOLKIT WITH JQUERY PLUG-INS

Continued from page 21

Once the initial elements have been created, the plug-in must be applied to it — and again looking at the jQuery UI site, you'll see that in HTML what you need is:

```
$("#accordion").accordion();
```

Adding in our options to change the accordion headers, that translates in O4W to the code in figure 5.

This says to take the ID "accordion" (the 1st parameter) and apply the plug-in "accordion" (the 2nd parameter) to it. Any other options (which most plug-ins allow) are passed in the 3rd parameter. This generates the following output in figure 6.

To learn what options are available for a plug-in, review either the plug-in description, or search for the plug-in with a search engine. Note that all options are wrapped in curly braces, that the option name is separated from the (normally quoted) option value by a colon, and multiple options are separated by commas.

Another feature of jQuery is the ability to change the overall "theme" of the user interface; this can be done on any O4W site from the configuration screen, and can provide a complete change to the look of the website with minimal effort (fig. 7).

By changing which theme is used for the jQuery UI and providing an O4W "template" to contain the accordion form, the generated output can be made to conform to any existing web site (fig. 8).

Please note that the difference between the first and second accordion image required no change to the actual O4W code; the completely different look was obtained merely by changing the theme and template used by the code — and this ability to "theme" your

```

SYSPROCS\O4W_TESTIME
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
O4WSectionEnd("content1Header")
* Content for first accordion tab
O4WSectionStart("content1")
O4WText("here is content 1")
O4WSectionEnd("content1")
* Header section for second accordion tab
O4WSectionStart("content2Header", "header")
O4WHeader("here is our header #2", 3)
O4WSectionEnd("content2Header")
* Content for second accordion tab
O4WSectionStart("content2")
O4WText("here in content 2")
O4WSectionEnd("content2")
O4WSectionEnd("accordion")
* apply the accordion plugin
Options = "(title: 'div.Header')")
O4WPlugin("accordion", "accordion", options)
End Case
Return 0

```

Fig. 5

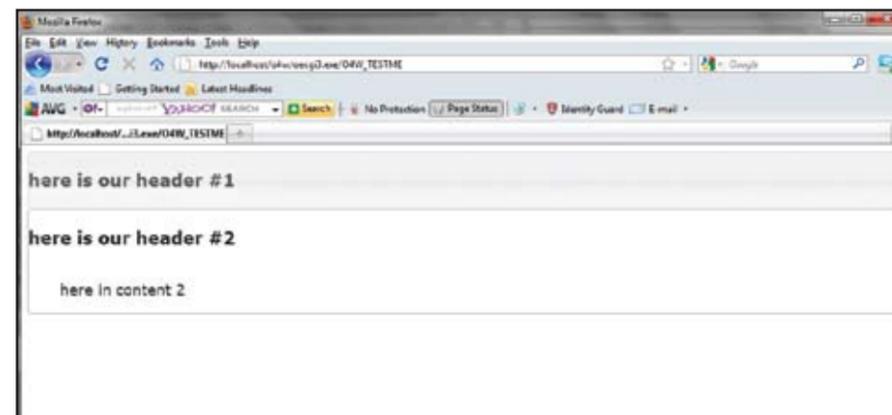


Fig. 6

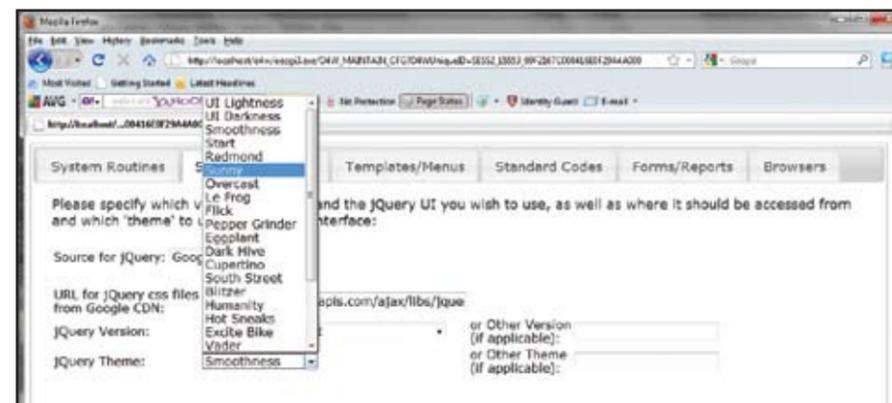


Fig. 7



Fig 8

generated output is part of the built-in jQuery functionality, too.

jQuery's powerful features make it one of the most popular web development toolkits available, used and recommended by individuals and companies large and small. These features are available for your MultiValue applications through O4W, and functions that aren't bundled directly in O4W can be added through the jQuery plug-in technology. Adding your own plug-in does take a bit of legwork/research and some knowledge of HTML and jQuery for more advanced operations. But with this information, your MultiValue applications can continue to grow along with the rest of the Web. IS

Feedback

What came first, the letters or the letters-to-the-editor department?

We are making another change to International Spectrum Magazine — a Feedback Department, sometimes known as Letters to the Editor.

We want to hear your comments, your reactions, your agreement or disagreement with what you see. Also, do not hesitate to let us know about things happening in the MultiValue Community we may not have heard about yet.

Please send your comments by e-mail to: editor@intl-spectrum.com



Business Tech

Print Media

Part 2

BY CHARLES BAROUCH

Breaking News

I'm taking a break from finishing layout on the largest circulation regional Mensa publication in the world, to talk about how Print isn't dead. Be assured that it isn't dead, it is just changing.

When I was a kid, my mom ran a local temple newsletter. Her cut and paste was literal — we cut galley proofs into columns, hand glued them to boards, added scraps of paper with “continued on next page,” and copied the results. Putting together a newsletter was a ten to twelve hour process. Today, I use \$99 worth of software to edit and layout a magazine with a print run of roughly two thousand copies per issue. With all my technology, it still takes a good ten to twelve hours to really do it the right way. If I compare the effort my mom put in to my current level of effort, the big difference is the glue smell. When I compare the results, that's a different story entirely.

Her best efforts were limited by the quality of the reproduction and the straightness of the glue job. Not only do I have superior tools at my disposal, but I can do trial prints because moving a column does not require scrapping and rebuilding boards. Making a magazine is just as hard but fine tuning it is easier. I spend the same time now as she did then, but I get a more polished outcome. The gap between good amateur print and good professional print is narrowing.

This is why your mailbox is flooded with publications for every niche aspect of human activity. More

people can do what I do than could do what she did. More of it looks professional, even when the content is not. That makes life harder for real professionals. That isn't just a magazine thing, it is a book thing, too.

Growing Demand

It used to be that if my college professor self-pressed the textbook, I could tell at a glance. Now, it might actually look better than the larger volume, commercial grade, texts. What used to be Vanity Press — I want my book published, even if I have to pay for it — has become Print On Demand. The stigma is gone, and the quality has improved.

Print On Demand is a great place for a tech-savvy company to be. Imagine an author uploading a text document to an edit-on-demand service, sending along a picture and a jacket blurb, and getting back one or more books at a time, based on orders and, of course, discount breaks for volume. Then stop imagining and look at the dozens of businesses already doing exactly that every day.

The tech here is obvious — a web site to accept the text and allow a selection of services. Same site for re-orders. Any of a thousand editing and layout packages along with a good photo clean-up program. The custom programming goes into the site, the background project management to keep the manuscript moving toward its destination as a finished book, and the accounting to go with it.

Continues on page 26

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Topics that can be found at the International Spectrum Conference:

- Integration**
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 - Google
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 - Web Services
 - Ajax
 - Salesforce
 - .NET

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- Data Modeling
 - Security
 - Virtualization
 - Administration
 - System Analysis

- Mobile Integration**
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What's Missing

What Print on Demand is missing is, ironically, the demand. If I wanted to collect the Business Tech series into a book, I could easily arrange for Print on Demand. The hard part is getting the word out, convincing people of the value of paying for a re-packaging of the columns you can read from your free subscription, or — in the case of non-Spectrum readers — convincing them that I am an expert worth reading.

So, while Print On Demand Publishers are a business market where we can make money doing tech, every author who uses them is also a market. They need the tech to support a marketing effort. They may need to tour with the book, which involves scheduling software, expense tracking, and possibly project planning software.

One of the smartest ways to tour a self published book is to tour the content and *give* the book to people who pay to attend the class/lecture/seminar/rally which provides the spoken content. I took a Delphi class where the textbook version of the class was the reward for signing up early. The product became the perk and the marketing tour became the product.

Immersion

It used to be that media kept to one form. Books were books and nothing more. We live in a multi-media world now. Things are constantly crossing over. D&D started as a game. It has expanded into cartoons, movies, books, comics, and more games. Star Wars started as a movie and has spawned an empire (pun intended) of media and other merchandise. One of the growing categories for this crisscrossing creativity is software.

Self Help books come with Personality Assessment Software. Movies inspire computer games. Just because we do

Print isn't dead, it is evolving. We can ride that wave.

business tech does not mean we can't provide value in these areas as well. Unless you are what Clif calls a Multivalue Couch Potato, you probably know something about PHP or C++ or other languages. Even as pure business programmers, you know something about graphical interfaces. Put it to work.

When I play Worlds of Warcraft, mostly what I do is manage inventory, buy and sell in a market where demand affects price, juggle deadlines for various missions, and... wow, this all sounds so familiar. As a programmer, I manage inventory, write systems to manage purchasing and sales, develop scheduling tools for juggling deadlines, and more. When you see past the Elf in leather and really look at these games, a lot of them are resource management. We know how to program resource management. If it makes you sleep better, call them business simulations, because that's what most of those hot/cool/rad games really are. The kids are playing a version of what we do for a living. They think their generation invented it, and they are sure we don't understand it. See past the Dwarf selling warhammers and see the business model underneath. We do understand. We are, if we let ourselves be, cool.

So, extending print through immersive software allows us tech people to participate. One example which comes to mind was a project offered to me — long, long story — to build software for a cookbook so that buyers would get a recipe organizer for their own creations. The possibilities are endless once you understand that you are someone who can extend print into software. Not bad when a "dead" business like Print can create new and vibrant business opportunities.

What if it is Dead?

There are places where print is dying. Wikipedia, warts and all, is better than most print encyclopedias. Where print is weak or gone, stronger models arise. Many of those models involve software. If my wife wants the weather report, she used to look at the paper, then she graduated to watching the five-day forecast on the news. Now she pops up an application on her Android phone. Someone has to write that application. Someone needs to interface the phone to the central database which holds the data. Why not us?

Craigslist is a prime example of a successor to print. Newspapers all over the world are reporting declining ad sales for all sorts of "Help Wanted" or "Want To Sell" type blurbs. I'm not saying that all of that business went to one site, but Craigslist has become a central point for that sort of commerce. Other sites, like Freecycle — sort of a pick-up-for-free model — have given a home to ads that never made sense in a pay environment. If I give it away, I'm not inclined to spend money looking for a taker. Where Print is no longer the best fit, technology is also in demand. One of my daughters just got a Nook — the Barnes and Noble eBook reader. My sister-in-law just showed me her Kindle — the Amazon eBook reader. My wife's friend scoffed and recommended a competing product from Sony. My iPhone currently has six different eBook readers installed. While none of these are literally Print, they are all proof that there is a market for books, magazines, and newspapers. Print isn't dead, it is evolving. We can ride that wave. **IS**



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DATA SECURITY, HAVE YOU CONSIDERED IT?

However, there are steps that as MultiValue technology providers we can take to protect our businesses and ourselves as much as possible. One option is to break sensitive data up. For instance, you may choose to break a credit card number into smaller chunks and store it in separate files or attributes, however this will almost certainly involve changing the application and there is still a problem with this — the software developers and support staff who have access to the application source code can still piece back together the data! So ask yourself, "Should they be able to review other people's personal data?"

So after considering whether you should actually be storing certain pieces of information, as with all databases, some of what is stored is not necessary. What's the next step?

Data Encryption at Rest

Data Encryption at Rest refers to all data stored in computer storage, both for on-line access and off-line data archiving. Data Encryption makes your data more secure, allowing you to control which users can access particular files. Each encrypted file has an associated encryption key which is used to encrypt the data. Users are granted access to the file by having permission to use that key to successfully decrypt the data. If they do not have access to the correct key, then they will not be able to see the data. A good data encryption system should also have the ability to securely manage the encryption keys, as the security of these will still dictate the security of the data. And should also allow you to pick more than one security algorithm.

Now some have asked, "What is the cost of implementing such technologies?" Well in "Reality" there is no budgetary cost to worry about. But as you're encrypting and decrypting data "on-the-fly," you will experience more

CPU usage, and this will occur whichever encryption methodology that you deploy. However, as with all MultiValue databases, they tend if anything to be disk bound and not heavy on CPU, so there is typically more than enough CPU availability to cope with this. Of course, there will always be an exception. But in general, servers should be able to cope with this additional load on the CPU.

In summary, everyone who is responsible for storing personal data should first evaluate whether they need to store this information and if they do, for how long. Once this decision has been made, you should look to encryption to help maintain the security of that data as physical boundaries are no longer sufficient.

Some key points to look for when evaluating Data Encryption.

- The operation should be seamless — there should be no application changes required to implement it.
- It should automatically encrypt any data associated with the file, such as an index.
- You should have the ability to use the same encryption algorithms from within your application.
- The ability to create an encrypted backup should also be available, regardless of whether the data is encrypted.
- A secure method of managing the encryption keys should also be available.
- And above all, it shouldn't be an optional extra feature. **IS**

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SILVERLIGHT-ENABLE YOUR MULTIVALUE DATABASE APPLICATION

tabase instance as your existing application, but mv.NET also uses standard MultiValue item locking and standard MultiValue dictionaries. This means that Silverlight and non-Silverlight application interfaces can happily co-exist together. Also, you are able to utilize your existing MultiValue Basic routines within your Silverlight application.

Summary

It's not common that development activity from different software vendors dovetails together. But we have an example here of where this has happened.

Silverlight provides a powerful framework for Rich Internet Application (RIA) development; mv.NET provides a powerful MultiValue aware data access and application development framework capable of running within Silverlight.

The current Silverlight release is version 4. This version is mature and stable and is used extensively throughout the world. mv.NET is also at a mature point in its development path.

MultiValue developers have an opportunity here to create application interfaces that will captivate, retain, and extend their client base. What's more, this can be done with tools used by millions of developers around the world, which makes the task of undertaking application development more achievable, less risky, and more long lasting.

The tools described in this article are not difficult to learn and use — well within the grasp of anyone who has learnt MultiValue Basic. So, get to it. Amaze your customers and users by giving your MultiValue application development the Silverlight touch! **IS**

Number to Word conversion

Some of your business processes are complex, some are simple. Let's look at check writing as an example. This is a really simple process, but you can run into one small snag.

When writing checks, you likely want to spell out the dollar amount that the check is for as an additional security feature.

\$1023.23 = One Thousand Twenty-Three and Twenty-Three Cents.

There is no OCONV function that will do this for you, so this simple little program will likely come in handy:

```
NUMBER = "127.35"  
CALL NUMBER.TO.ALPHA(NUMBER,INT.WORD,DEC.WORD,"0")  
CRT "NUMBER: ": NUMBER  
CRT "WORD: ": INT.WORD : " AND ": DEC.WORD : " CENTS"  
END
```

This will produce the following results:

```
NUMBER: 127.35  
WORD: ONE HUNDRED TWENTY-SEVEN AND THIRTY-FIVE CENTS
```

In addition to converting numbers into dollar formats, you may need to convert it into an alpha counting format, such as:

```
NUMBER: 127.35  
WORD: ONE HUNDRED TWENTY-SEVENTH POINT THIRTY-FIFTH
```

You can download the code for this subroutine from:

http://www.intl-spectrum.com/resource/173/Numeric_To_Alpha_Conversion.aspx **IS**

Do you have a Tech Tip to share? E-mail it to editor@intl-spectrum.com

PAVUK INTERNET DEVELOPMENT FRAMEWORK V2.0 – PART 1 - INTRODUCTION

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form, we simply open up the Form Designer and modify the location. If we wish to add or change fields, we go back to the Database Designer and the Form Designer and make the changes. To create more databases and forms, we simply repeat these basic steps.

We have the beginnings of an application system, but we've not written any code and that is precisely the point. We've neither composed a line of Basic nor have we delved into Apache, PHP, Javascript, CSS, and Ajax and had to learn and debug an extensive chain of different tools.

So, what's left for the programmer you may ask. The answer is system design and writing APIs. Good design is the key to the effectiveness of any application. While Pavuk has many built-in validation and update components, it cannot anticipate the wide variety of business rules that require a good programmer to create. To accommodate different types of business data, new elements and API functions are created.

Pavuk provides a large number of events within the application run-time where user-written APIs may be called. APIs may be as simple as performing some type of a calculation on the data to a full-fledged HTTP connection to disparate systems. API events can be defined in both the database definition where they apply to all forms using that database and they can also be defined in a form definition to perform processing specific to that form.

A sample of events:

1. Read
2. Refresh Form
3. Pre-Save
4. Post-Save
5. Pre-Delete
6. Post-Delete

For every event, multiple API functions may be called. They are in an ordered list and execute sequentially. The developer determines the order of execution.

A 200+ user enterprise medical application was built using Pavuk in under two man-years. This system has 124 interconnected databases, 128 forms representing thousands of fields of data, yet it has only 42 API functions to process specialized business logic. Pavuk developers are busy building other types of applications.

Standard features of any database and form are:

1. Queries are contextualized to the input fields in the form. Users enter portions of data that they wish to find and click the Search button. They may select an entry from the query report for updating or export the query report data to CSV files or XML documents.
2. Any number of binary attachments may be linked to a given database record. Image scans, spreadsheets, documents, A/V files. Pavuk is a content/document management system.
3. Full update audit trails and revision history on each record for audit and compliance.
4. Transactional updating of the database and control structures which ensures data integrity.

Pavuk IDF is ideal for creating new systems. It is also useful for the migration of legacy systems to using web forms with a much lower total cost of development than the standard methods presently in use. Migration may be phased in using the API interface to connect to the legacy system.

Pavuk IDF has only begun. New features, elements, and standard API routines are continuously being developed. As new releases become available, these updated features will automatically become part of any Pavuk application. An end-user community is forming and provides useful feedback.

In Part 2 of this series, we will discuss the dynamics of field definitions and the database hierarchical database structure. For more information, please visit www.pavuk.com. **IS**

BILL CROWELL is an application developer with 30 years of experience in IT, with 27 years of design and development experience in large transaction systems. He holds a degree in Business Administration from UNC Charlotte and has served as CTO of two medical systems development companies.

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NAME _____ TITLE _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE _____ FAX _____

E-MAIL _____ WEB SITE _____

SIGNATURE _____ DATE _____

(All questions must be answered. Incomplete forms will not be processed. Complimentary subscriptions are limited to U.S. addresses.)

1. What is your job function/title?

- Principal/Owner
- President/GM/CEO
- MIS/DP Manager
- Controller/Financial
- VP/Department Head
- Sales/Marketing
- Programmer/Analyst
- Purchasing
- Consultant
- Other _____

2. Is your company a (check one):

- Computer System Supplier
- Dealer/OEM/VAR
- Software House
- Consultant
- End User
- Other _____

3. What MultiValue Databases does your company use? (check all that apply)

- D3
- Native MultiValue
- Reality
- Other _____

- jBASE
- uniData
- UniVerse
- uniVision

5. What major business/industry most clearly describes your company?

- Accounting
- Medical
- Direct Marketing
- Legal
- Banking/Finance
- Dental
- Construction
- Retail
- Education
- Insurance
- Other _____

6. What are your firm's approximate gross annual sales?

- Under \$500,000
- Over \$1 million - \$5 million
- Over \$10 million - \$25 million
- Over \$100 million - \$500 million
- \$500,000 - \$1 million
- Over \$5 million - \$10 million
- Over \$25 million - \$100 million
- Over \$500 million

IS 03/08

CLIF NOTES

Continued from page 31

cause it is beneath you to explain how to do something to a mere user shows disrespect. You may be busy, and you may make more money (although you might also be surprised), but your time is not inherently more valuable than their time. As a matter of fact, in many cases, they add more value to the company's bottom line than you do.

When the user asks a question to which you don't know the answer and you either start making guesses, or worse, making it up as you go along, that's not just disrespect. That's lying.

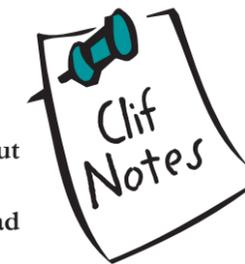
Please don't misunderstand. I do know how frustrating it can be working with some users. The military has a saying. "No battle plan survives first contact with the enemy." I have modified that slightly. "No program survives first contact with the users." But that's part of the job. And by failing to respect the users, we turn what should be a cooperative work environment into a stressful battle zone populated by snipers. We will never be treated with the respect that we crave if we are not willing to treat anyone outside of our own technology clique with respect.

So the next time that you are tempted to either roll your eyes or baby talk to a department manager because he doesn't understand or remember that the cursor control keys don't work in your green screen application, perhaps you could try respecting him for what he can do that you can't. Then look for a better way to explain things. You'll get more respect by showing respect.

As a friend of mine who is a graduate of a rather prestigious university put it, "Eventually I learned that just because I'm smart, that doesn't mean that other people are dumb."

And no. Wearing blue jeans and a black turtleneck to work isn't going to let you get away with it either. **IS**

Are You Dissin' Me?



I just don't believe it. I don't have an MBA and never took any marketing classes. But it seems to me that announcing, "sure our product sucks, but it doesn't suck as bad

as our competitor's," is a rather bizarre way of getting new customers or making existing customers happy with their purchase decision.

Let's briefly recap. In the last issue we talked about the problems that Apple was having with the antenna design on the new iPhone 4. It turns out that the antenna, which runs around the edge of the phone, has a small gap in the lower left-hand corner. If your fingers should close this gap, you lose your signal. This was seen by most customers as being a problem. Apple's response? No it isn't; You're holding the phone wrong.

Predictably the iPhone 4 customer base went apoplectic. The rest of the smart phone market went into hysterics. Telling your customers that they are too dumb to use the product they bought is a rather interesting approach to customer service.

A simple workaround was to put a piece of duct tape over the gap, but that looks tacky. A nicer solution is to get a plastic or rubber case for the phone. Leaked internal documents show that AppleCare had been instructed to tell people that Apple was not going to be providing these.

This fiasco has become known as Antenna-gate.

Well, there have been some developments in this saga since the last column. Apple came back and announced that, without really admitting that there was a problem with the antenna, they were going to offer free cases, or in some circumstances, even refunds to iPhone 4 users. Then they turn around and say that antenna problems are common to all smart phones, and that the iPhone 4 antenna problems are not as bad as their competitor's. They even published their own lab results to prove it. (That tactic didn't work for BP Petroleum, either.)

Let's summarize. There is no problem with our product. You people just don't know how to hold a phone. Oh wait. The problem that doesn't exist isn't hardware; it's a software bug. Okay, now even Consumer Reports is hal-

lucinating and thinks there's a problem. So we're going to go ahead and give you a phone case that gets around the problem that doesn't exist. By the way, our problem, that doesn't exist, isn't as bad as our competitor's problems.

Color me flabbergasted. Don't get me wrong. I've always known that Apple was arrogant. They insist that their usability lab tests show that people do not use keyboard shortcuts to access menu items. Combine that with the idea that most users would get confused if the mouse had more than a single button. So in order to activate a pop-up context menu, you have to use your other hand to simultaneously hold down the control key while you click the mouse. So it's easier to remember and use two hands to perform a keyboard and mouse sequence than it is to right-click on a two button mouse? Give me a break. So the attitude is nothing new. It's just one of those things that Apple users have to put up with, the same as Windows users have their crosses to bear. It's just that Antenna-gate and the fact that it happened in the consumer electronics market, not just the more limited Apple computer users market, has made this a particularly glaring public example. And in my opinion, Apple deserves the ridicule they've received.

I think there is a lesson in this for all of us. It comes down to respect, or in this case, lack of respect. No respect of users. As a computer professional I absolutely cringe when I see some 23-year-old IT "professional" go into an accounting or administrative department, cop an arrogant attitude, and start treating users twice their age as a bunch of ignorant buffoons. That shows disrespect for the users.

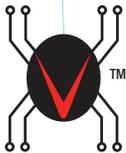
When a user asks a question about, what to us, is a very simple thing, throwing out a lot of technical jargon just be-

Continues on page 30

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