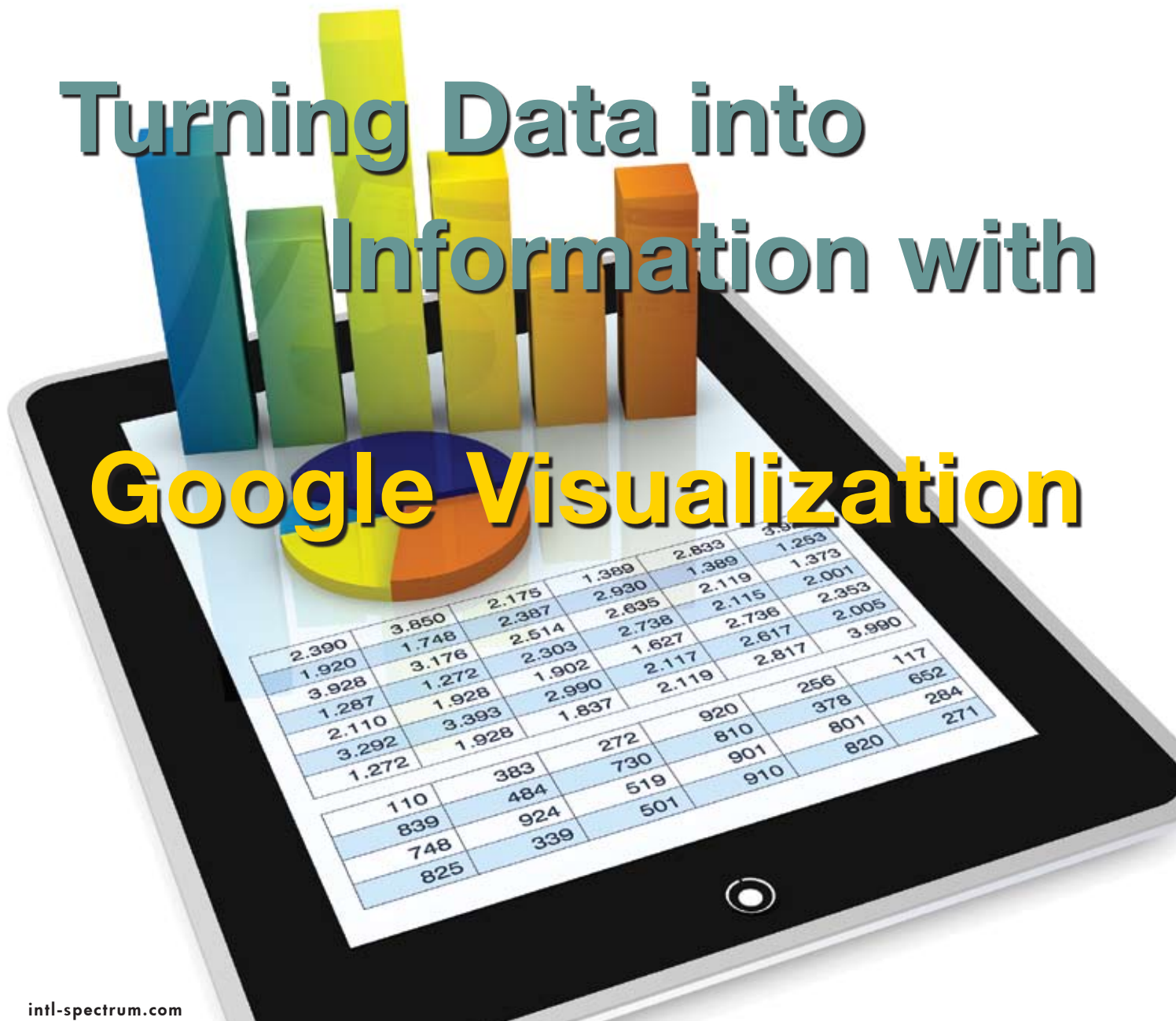


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Turning Data into Information with Google Visualization





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International
Spectrum Conference,
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6 Hey Good Looking! Using Google Visualization It has been said that a picture is worth a thousand words. If that is true, then a more modern version might be, “a picture is worth megabytes of data.” Not only does the modern user demand access to their data from anywhere, they want to be able to see, visualize, and quickly understand what that data is telling them in order to spot patterns and trends. Google Visualizations can provide you with this ability at a very attractive price – free.

BY BRIAN LEACH

FEATURES | MARCH/APRIL 2012

10 Creating MultiValue Data-Aware Web Elements Many modern web applications make use of the Model/View/Controller approach. As described in this article, InterSystems Caché’s Zen components make use of this approach. Find out more about this method of web development and how Zen can reduce the actual amount of programming required to produce a rich user experience.

BY LEE H. BURSTEIN, INTERSYSTEMS CORPORATION

12 Rolling Your Own MultiValue Web Connector – Part 2 Users demand access to their data from a variety of devices, many of which are web-enabled. Continuing from the last issue, part two of this series completes the picture in a simple, low-cost, effective way of providing access to your MultiValue data from web applications.

BY KEVIN KING

20 The Rock and the Hard Place: Parallel and Agile Development - Part 2: Agile Practices In today’s world, users demand with new solutions to problems and changes to existing solutions faster than traditional software engineering methodologies can produce them. The old tried and true methods simply do not work anymore. So what are we to do? Just write code for whoever screams the loudest? Agile practices help provide a balance between planning, communication with users, and doing just what needs to be done to get the next piece of functionality accomplished.

BY SUSAN JOSLYN

26 Business Tech: How to Win with Social Networking Many companies and professionals recognize the value of using social media to reach out to both existing customers and new prospects. Unfortunately, unless you have given careful thought to your use of these tools, the effort can backfire and have exactly the opposite effect of what you desired. Don’t let social media become “social blunder.”

BY CHARLES BAROUCH

DEPARTMENTS

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From the Inside



The user interface is changing again. Oh, Bother! Not again, but it is true. I expect to see a major change in the Business UI and applications within the next year.

Why do I say that? Well, let's take a look at the Microsoft Windows 8 and the rumored Google Android 5. Each of these operating systems are making a bid for the BYOD enterprise and how users interact with the enterprise.

If you are unfamiliar with the term BYOD, it stands for "Bring your Own Device." This philosophy stems from the fact that everyone now has a smartphone and their own laptop, with their own preferred software, and knowledge about how they work together. If you allow your employees to bring their own laptops, they will be more productive, and the maintenance and support costs go down.

The VM desktops, Terminal Services, and Desktop VHD are the current interfaces that are used. But as smartphone/tablet interfaces are built for the enterprise application, it doesn't take much to extend that to a windows application with something like PhoneGap, Titanium, and other development environments. Don't forget the standard web browser either.

Imagine using only your smartphone as your desktop processor, and then plugging it into a desktop or laptop dock to get more processing and/or screen real-estate.

Blackberry has tried this with the PlayBook, but users found it too proprietary. Motorola is doing it now with the Astrix. Asus is doing it with their

ePad and Transformer Tablets. Now Microsoft introduces an additional development framework (Metro) in Windows 8 that provides developers the ability to create one application that is desktop, tablet, and mobile friendly.

Now, why do I bring this up? We are going to see more and more heavy development put back onto the server, and more and more UI separation from the heavy lifting. This is going to affect how enterprise applications are built and designed:

Backend/Server

Smartphone (small screen design/limited input)

Tablet (Medium screen design/touch input)

Desktop (full screen design/extended full feature input)

Web Browser (public screen design/full input)

I believe if your application can't be accessed by these four user interfaces, you are going to be stuck in the Stone Age again. While it may take a few years to get to this point, it is coming, and now is the time to prepare.

We have a unique ability among developers. We can easily be this flexible, and if you provide this functionality now, you can impress your prospects and bosses. While this seems daunting, I can promise you that it is easier than you think it is.

Keep an eye out for more information in future issues that address this.

-NATHAN RECTOR

President, International Spectrum

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INTERNATIONAL Spectrum

MARCH/APRIL 2012

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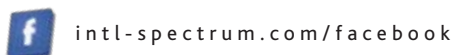
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Hey Good Looking!

Using Google Visualization

BY BRIAN LEACH

MultiValue systems, particularly those with a long pedigree, can be deep repositories of information — a potentially vital resource in business planning and in understanding historic and future trends. All that is needed is a way to tap that information and present it to the right people, in the right way, at the right time. MultiValue systems can deliver high quality information in many engaging ways and — always close to the hearts of MultiValue users — for relatively little outlay. Take a fresh perspective, add a pinch of imagination, and select a suitable toolset. One such toolset is Google Visualization.

Why Google?

Google is not the only provider of free, open source visualization software, but their toolkit scores high on a number of counts. First and foremost Google is a name that everyone can recognise, which makes it easier to sell your visualization project both in terms of budget and results. It's also a "safe" name for network administrators, important since the visualization tools are hosted on the Google code servers and downloaded on demand. Second, because the toolkit is structured in a manner that makes it especially easy to use. Third, it is well supported and documented, which is rare for open source projects. And last but not least, it looks good — even on older browsers.

Plumbing for Data

The first challenge is the change in mindset, particularly when it comes to funding. You need to sell your MultiValue application as more than simply a transactional workhorse. It is a resource stuffed full of useful trends and counters — almost anything that varies over time or by volume. You don't need to have a specialised data warehouse or software to plumb these: just regular mvBasic programming with its abil-

ity to process complexity and a willingness to go looking for scenarios on which to apply it.

If you work for a commercial organization, you can probably track volumes over time easily enough, but with even some simple programming you can let your imagination run wild. Take a question like customer retention — how many of your clients come back for more, and how often? Is there a pattern? You will be surprised just how many such metrics you can think up in five minutes. Building the data doesn't have to be complex. In most cases it requires no more than a set of phantoms building work files of simple counters against timestamps through the day.

The best thing is that once you start showing your first visualizations, it won't be long before it becomes contagious. Pretty soon you'll be adding breakdowns and applying multipliers and possibly gaining a whole new audience for your applications.

Showing Content

The Google Visualization tools are web based. You can, of course, create web pages in many ways. But if you don't want to get involved in web deployment, a simpler option is to use the WebBrowser control in .NET. This wraps Internet Explorer into a component that can be used in regular Windows forms. This makes it easier to interface with

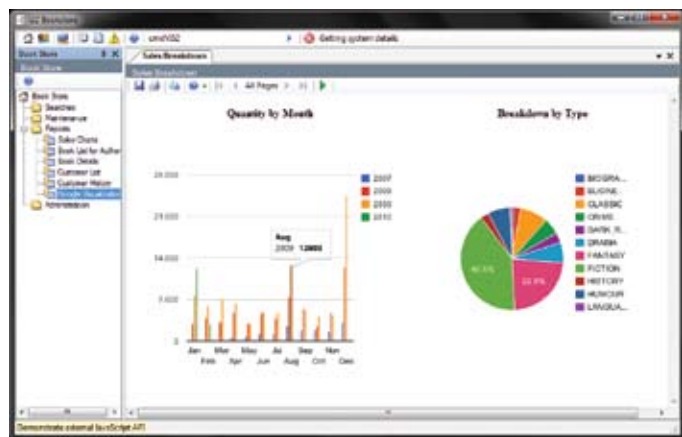


Fig. 1



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The best thing is that once you start showing your first visualizations, it won't be long before it becomes contagious. [You might gain] a whole new audience for your applications.

regular APIs such as UniObjects to call server subroutines or to execute commands that return their data as HTML and JavaScript, and to render them as shown in figure 2.

JavaScript functions executing in the WebBrowser control can call back into your .NET code by using the window.external object. By assigning a class to the ObjectForScripting property of the WebBrowser you can supply a set of static (VB Shared) methods that can be called directly from JavaScript. This means your page can interact with the database directly through your regular transport without the inconveniences of Ajax. Similarly, your .NET code can run JavaScript functions in the browser by calling the InvokeScript method on the current WebBrowser Document, so you have control in both directions.

```
public void run_js_function(string funcName,
    → string[] args)
{
    webBrowser1.Document.
    InvokeScript(funcName, args);
}
```

Figure 3 shows a typical lifecycle for a page interacting with the server through the .NET client.

The Visualization Tools

The Google Visualization tools cover charting, gauges, tables, organizational charts (good for any flowchart style representation) and advanced timelines using a mixture of VML, HTML 5 Canvas, SVG and Adobe Flash, depending on the capabilities of the browser. These tools must be downloaded through the Google loader as a set of packages as follows:

```
<script type='text/javascript' src='https://
    → www.google.com/jsapi'></script>
<script type='text/javascript'>
google.load('visualization', '1', {
    → packages:['gauge,corechart,
    → annotatedtimeline']});
```

Because the packages are downloaded asynchronously, it is important that you only try to make use of them once they are ready. You can do this by assigning your own function to be called when the load has completed:

```
function readyForData(){
    // get my charts
    window.external.getCharts();
}
google.setOnLoadCallback(readyForData);
```

Once downloaded, using the tools is very straightforward. The tools provide different features and presentations, but all are drawn against the same underlying data structure and using the same method making it easy to share code between them. The data is held as a DataTable, a simple two dimensional structure of rows and columns. Each tool must be told where on the page it should be drawn — typically they are passed a <div> into which to render. Each tool exposes a draw() method that is passed a DataTable and a dictionary of options:

```
var place = document.getElementById(divName);
var chart = new google.visualization.
    → PieChart(place);
var options = {width: 400, height: 400};
chart.draw(data, options);
```

Returning the Chart Data

One of the many nice aspects of JavaScript from a MultiValue perspective is the ease with which you can pass complex structures to and fro. JavaScript objects can be represented using a simple standard notation known as JSON (JavaScript Object Notation). Because Multi-

Continues on page 8

```
protected void showText(string text){
    try {
        if (webBrowser1.Document == null) {
            webBrowser1.DocumentText = text;
        } else {
            webBrowser1.Document.OpenNew(true);
            webBrowser1.Document.Write(text);
        }

        webBrowser1.Dock = DockStyle.Fill;
    } catch (Exception ex) {
        showError("Error loading page " + ex.Message);
        return;
    }
}
```

Fig. 2

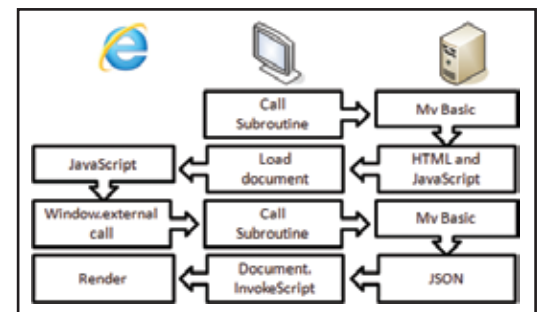


Fig. 3

HEY GOOD LOOKING! — USING GOOGLE VISUALIZATION

Continued from page 7

Value Basic is so good at string handling, it is easy to format any data you pass back to your client into a JSON representation inside your subroutines. This then saves a world of work parsing these on the client side. Although some browsers have built in JSON parsing, you may need to download a parser to include in your page — the most popular is probably the json2.js parser by Douglas Crockford, available from www.json.org.

Using JSON you can neatly encode a JavaScript object to represent your chart data (fig. 4).

Showing Charts and Tables

The standard presentation tools are the charts like those in figure 1. Charts come in a number of styles including the familiar pie charts, line, bar and area charts, and some more

obscure types. The Google charts present a very clean view of the detail which comes to life as you pass the mouse over their surface. For bar and line charts each additional column of the DataTable creates a new series. You can also use the `Google.Visualization.Table` to show a (scrolling) table of the data, which is useful in backing up the figures in your graphical representation.

Showing Gauges

The most striking of the tools is the Gauge (fig. 5). This is a perfect choice for any critical threshold such as disk utilisation or trade flow. The gauge is provided with a value and the thresholds for red, amber and green sections:

```
var chart = new google.visualization.  
    → Gauge(place);  
var options =  
{width: 200, height: 200, redFrom: 90,  
  → redTo:100, yellowFrom:75, yellowTo:  
  → 90, minorTicks: 5};  
chart.draw(data, options);
```

```
SUBROUTINE test_chart(ChartInfo)  
ChartInfo = \{"chartType":"bar"\  
ChartInfo<2> = \\"cols":["Months","Values"]\  
ChartInfo<3> = \\"colTypes":["string","number"]\  
ChartInfo<4> = \\"series":[["Jan","Feb","Mar"],[10,20,30]]\  
Convert @FM To ", " In ChartInfo  
RETURN
```

and you can then build your DataTable with ease:

```
function buildTable(chartData) {  
    var data = new google.visualization.DataTable();  
    var noCols = chartData.cols.length;  
    var noSeries = chartData.series.length;  
    var noRows = chartData.series[0].length;  
    for(var i = 0; i < noCols; i++){  
        data.addColumn(chartData.colTypes[i],chartData.cols[i]);  
    }  
    data.addRows(noRows);  
    for(var i = 0; i < noRows; i++){  
        for(var j = 0; j < noCols; j++){  
            v = chartData.series[j][i];  
            if(chartData.colTypes[j] == 'date'){  
                data.setValue(i,j,new Date(v + 732 * 86400 * 1000));  
            } else{  
                if(chartData.colTypes[j] == 'number'){  
                    data.setValue(i,j,parseInt(v));  
                } else{  
                    data.setValue(i,j,v);  
                }  
            }  
        }  
    }  
    return data;  
}
```

Fig.4



Fig. 5

that has an explicit width and height set, and it also requires

Showing Time Lines

For deeper level of trending or time based series, the outstanding tool is the timeline chart (fig. 6). Unlike the others this is rendered in Flash for a greater degree of interaction.

Unlike the other tools the timeline must be drawn into a <div>

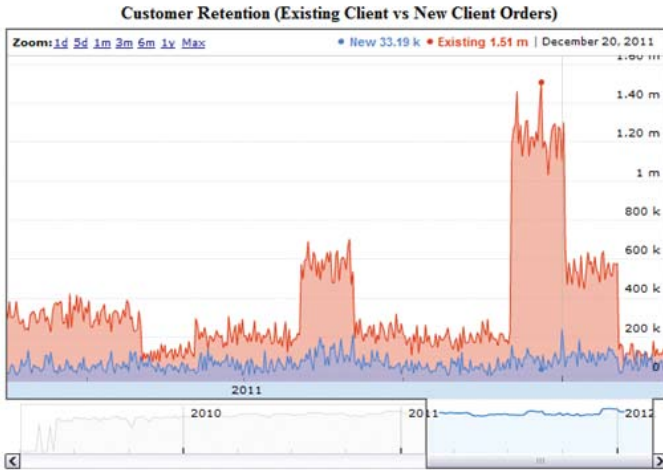


Fig.6

that the first column of your DataTable holds JavaScript dates. These can be created from MultiValue dates using the following formula:

```
jsDate = new Date((mvDate + 732) * 86400 *
    → 1000)
```

The selection area beneath the timeline and the timeline surface lets you scroll up and down the timeline and also increase and decrease the span presented. This makes the timeline a perfect tool for spotting trends and anomalies, in which you can drill into interesting sections of the data.

Next Steps

There are further tools in the Visualization toolkit and plenty more to say about them, but the best option is to simply play with these yourself. Google provides a Code Playground online where you can test out all the features. As you do so you will soon appreciate that these form a powerful and well structured library for representing real information and a great way to freshen up the presentation of your data. And best of all, they are free. **IS**

BRIAN LEACH is an independent MultiValue and .NET consultant working in the UK. He is past president of the International U2 User Group. Find out more at www.brianleach.co.uk.



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Creating MultiValue Data-Aware Web Elements

BY LEE H. BURSTEIN, INTERSYSTEMS CORPORATION

Today's users expect the web interfaces to their applications to be highly dynamic. Forms should auto-complete, charts, meters, and tables should update and change based on user actions. To achieve that, you need to create web interface elements that are "data-aware" — connected in real time to the MultiValue data that they display.

While there are several ways to approach this, one well-known architecture is the Model/View/Controller (MVC) approach (fig. 1) that is widely accepted for web-based applications. MVC is a combination of server-side and client-side components.

Model - A server-side component that defines your data. The model can represent one file or combine data from several files. When multiple files are involved you will need to write the code to retrieve and store the data properly.

View - A client-side component, such as a form, that defines the user

An MVC approach to web application development can make for a very rich user experience while reducing the amount of programming needed.

experience for interacting with the data defined by the model.

Controller - Server-side and client-side components that provide the plumbing for the view to interact with the model.

An MVC approach to web application development can make for a very rich user experience while reducing the amount of programming needed. At the same time, existing legacy code can be used to support the business logic needed by the web application.

Caché and MVC

InterSystems Caché, a high-performance object database, provides MultiValue developers with Zen, a framework for rich web development. Zen supports, but does not mandate, an MVC approach. For example, a web page can read and write to a MultiValue file through a controller that is tied to a file by way of a persistent class associated with a DICT. It can also read and

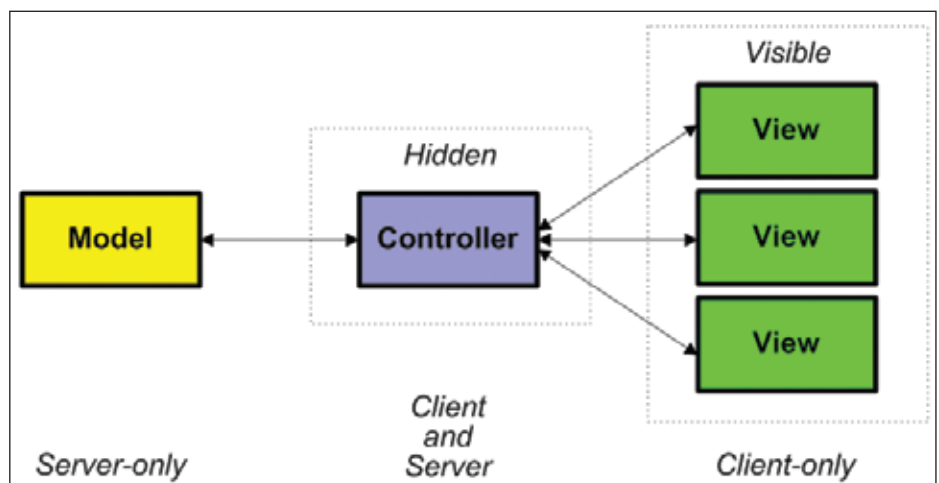


Fig. 1



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write through a custom model class that combines fields from several files.

A data model is defined on the server where MultiValue fields become properties of the model class. When the model represents a single MultiValue file, it is easy to do reads and writes. When the model combines fields from several MultiValue files, custom code written in MVBasic is written to populate the model properties during a read, and update the appropriate files during a write.

Zen data controller components can be added to any Zen page. While the controller is not visible on the page, it handles the communication between a model class on the server and data view components on the web page. By defining the model class for the Controller, its properties are exposed to view components on the web page. Multiple controllers can be placed on a page.

Forms, charts, meters, and dynaGrids are all data view components. Any control (i.e., text box) placed on a form that is associated with a controller will be data aware. Any change in the data on a form notifies the controller so that the changes will be saved when the save method is called. When a form issues a save, the controller communicates with the model class on the server to validate and store the data.

It is common for multiple data views to share a controller; for example, dif-

ferent types of charts on the same page could share the same data controller to display different visualizations of the same data. If there are multiple data view components connected to the same data controller, they are all notified of any change to a bound control.

For example, when you change a value in the dynaGrid, the corresponding value in all the charts (or meters) on the same page are updated (fig.2), be-

cause all of them share the same data controller.

The Model/View/Controller approach to web development is an effective way of integrating server-side data and business logic with a web user interface. Rich data-bound web pages can be built without worrying about the connection to the server (handled by the controller), allowing the developer to concentrate on the user experience.

Each week, a tip for MultiValue users of Caché is published at: <https://sites.google.com/site/intersystemsmv/home/a-cache-of-tips>. You can post comments if you are a member of the InterSystems MultiValue Community. Please join our discussions at <http://groups.google.com/group/InterSystems-MV>. **IS**

LEE H. BURSTEIN is a Product Manager with InterSystems Corporation.



Fig. 2

MultiValue Web Connector

Part 2

BY KEVIN KING

In “Rolling Your Own MultiValue Web Connector — Part 1,” we created a simple bit of code to allow a Basic subroutine to be invoked from outside of your MultiValue environment. With a subroutine like this and one environment variable we can take the first step to untethering our MultiValue applications from Telnet.

Believe it or not, going from here to the web is a very short step. All we need is a web server, PHP, and one dinky little script. (This procedure could be accomplished with just about any scripting language but we’ll stick with PHP because of the awesome session management features discussed previously.)

Starting with the web server, we have a couple of options. If you fancy Microsoft “technologies” feel free to use IIS. On the other hand if you are more interested in things just working with fewer headaches, the Apache web server is a beautiful thing. Apache runs on Windows too!

Apache is a brilliant example of an efficient, highly scalable, and highly securable threaded server that can be used to serve up just about anything using the simple http and secure https protocols.

In November 2011, Netcraft published a survey stating that Apache runs **two times** more websites than every other web server **combined** (intl-spectrum.com/s1047). Whether you’re running your MultiValue database on Windows, *nix, or something else, there’s likely an Apache version for the platform. Visit <http://httpd.apache.org> for downloads, details, and documentation, or visit the website for your specific OS vendor to find a platform specific build. However, don’t go downloading just yet as we have some important details yet to discuss.

“WAIT A MINUTE,” I can hear you say. “Are you suggesting that we put a web server alongside our MultiValue da-

tabase and all of our confidential and priceless information?” As a matter of fact, I am suggesting **exactly** that. With that in mind, please restrain your security ninja for the time being as there is much more to this puzzle than just dropping Apache on the same server as your MultiValue database.

While Apache is known as a web *server*, that doesn’t mean it has to serve web *pages*. Rather, Apache is a brilliant example of an efficient, highly scalable, and highly securable threaded server that can be used to serve up just about anything using the simple http and secure https protocols. In this example, we’ll be serving up MultiValue data with the Basic subroutines created last time and a little bit of PHP. Next time we’ll finish up this series with another Apache instance and a little more PHP to tie things together nice and securely.

For all intents and purposes, the Apache server sitting next to our MultiValue database (let’s call it the “private Apache”) will be used only to read from and write to our database. It will fulfill requests for information **only** from the other (let’s call it the “public Apache”) server. The public Apache server will

Continues on page 14



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ROLLING YOUR OWN MULTI-VALUE WEB CONNECTOR – PART 2

Continued from page 12

then be responsible for serving all of the web content including HTML, Javascript, CSS, and images to support the user interface for our web applications. This division of labor will allow our MultiValue system to serve up data assets with no impact or concern for all of the web deliciousness you might choose to use on your public facing server.

Note the word “only” in the previous paragraph. It’s critically important to security that the private Apache be restricted to accept connections only from the public Apache server. Fortunately, this is easily configured. It is also important to the overall efficiency of the solution that the private Apache not be burdened with serving HTML, CSS, Javascript, and images.

Installing Apache and PHP on Windows systems is an absolute breeze, as the installers do all the heavy lifting to integrate PHP into Apache. Installing on Linux is usually even easier because most distributions either have it installed by default or have everything you need in one or more convenient installation packages. To save some space I won’t get into the details of all that here, but if you’re interested in learning more I’ll be demonstrating the installation procedure in detail at the 2012 Spectrum conference.

Once Apache and PHP are installed, the next step is to create that little bit of script that allows Apache to set the appropriate environment variables and launch our MultiValue environment. (See “Rolling Your Own MultiValue Web Connector — Part 1” in the Jan/Feb 2012 Spectrum magazine for more details about this part.)

Figure 1 shows how this could be accomplished. We start by retrieving a request variable (“subrName”) to tell us the name of the MultiValue Basic subroutine to be called. If this variable

is set, we calculate a somewhat unique name for our output file, extract the data from another request variable (“data”), and build our environment variable to send into our shell — Unidata, in my case.

Next, we set the environment variable as expected by our Basic connector, change to the appropriate directory, and start up the Unidata shell. When this is done we simply read the output that was written by the Basic subroutine, display it, do a bit of cleanup, and the process is complete.

The astute among us will immediately notice that this example does no error checking. This is intentional to promote simplicity of the example. With this much working, one could easily add error checking and other features expected of a more customer-ready solution.

With all of these pieces in place, we can now call our TEST.SUB subroutine (from last issue) from a browser. By entering a URL like the one shown in figure 2, we can call our Basic subroutine to convert the input to lower case, as shown in the browser window. Admittedly this example has a slightly anticlimactic end result, but with more powerful subroutines perhaps you can see how we could do just about anything in our MultiValue system, all from the context of a web browser.

With all that working, we once again return to the issue of security. Obviously, we don’t want to be allowing just anyone access to this private Apache server because right now it provides unrestricted access to your MultiValue information. (While the solution is restricted by the subroutines written for it, that’s just not restricted enough.)

The default configuration for Apache on Windows is usually wide open, al-

```
1 <?php
2 //*****
3 // SpectrumConnect.php
4 //*****
5
6 $subrName = $_REQUEST['subrName'];
7 if($subrName != '')
8 {
9     $outName = 'web' . $_SERVER['REMOTE_ADDR'] . '-' . time();
10    $data = $_REQUEST['data'];
11    $webreq = $subrName . ',' . $outName . ',' . $data;
12
13    putenv('WEBREQ=' . $webreq);
14    chdir('/ibm/ud72/demo');
15    exec('/ibm/ud72/bin/udt');
16
17    $fullName = '_HOLD/' . $outName;
18    echo file_get_contents($fullName);
19    unlink($fullName);
20 }
21 ?>
```

Fig. 1



Fig. 2

```
<Directory "C:/Program Files (x86)/Apache Software
Foundation/Apache2.2/htdocs">
```

Fig. 3

lowing connections from anyone anywhere, and is therefore far too open for our tastes. However, using the simple Order, Allow, and Deny directives in our configuration, we can lock it all down pretty tight. These directives can be used in a variety of places in your Apache configuration, but as a simple introduction we could open our httpd.conf file (the Apache configuration file) and look for something like figure 3.

This is the configuration block for the default “localhost” in a standard Windows install. Near the bottom of this block you’ll see something that looks like this:

```
#
# Controls who can get stuff
# from this server.
#
Order allow,deny
Allow from all
```

Let’s say we only want to be able to restrict this server so that it can only be accessed locally - not from anything else on the network. This simple change will accomplish that objective:

```
Order deny,allow
Deny from all
Allow from 127.0.0.1
```

The Order statement says to check the Deny statements first, then apply any Allow statements afterward. “Deny from all” denies ... well, everyone! Finally, by allowing access from 127.0.0.1, Apache will only accept requests from its own server.

With this change in place, we’re a simple Apache restart away from a much more secure solution. **IS**



KEVIN KING is the President and Chief Technologist with Precision Solutions, Inc., a leader in technology solutions, support, and training. He is also the author of SB+ Solutions, an enthusiastic private pilot, and Christian guitarist and producer... as time allows.





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Revelation Software Announces the Release of OpenInsight Development Suite 9.3.1

Revelation Software today announced the availability of the latest release of OpenInsight Development Suite (OI) 9.3.1. OI 9.3.1 provides the following new components:

- OpenInsight for Web (O4W v1.3) – O4W v1.3 includes additional integration with the new Banded Report Writer, support routines for RSS feeds, and a new “ad hoc” report builder, along with a number of additional mobile enhancements such as mobile-specific menu and report output. Through O4W’s integration with jQuery Mobile (the companion library to O4W’s jQuery), web pages can be built using “finger friendly” user interface elements and design.
- OpenInsight for QM Connector – The OI for QM connector provides the ability to connect with the QM database from Ladybridge Systems Limited.

“With this latest release, we’re proving our commitment to our

Revelation and MultiValue community”, said Mike Ruane, President/CEO Revelation Software. “They asked us for a connection to QM from Ladybridge, and we listened. Our users also gave us a list of enhancements and suggestions for the Banded Report Writer, and we’ve taken care of them as well.”

Also included in the OI 9.3.1 are a number of patches and enhancements for the Banded Report Writer, Table Builder, and Database manager.

“Mobile computing is an essential requirement for any application development,” said Robert Catalano, Director of Sales, Revelation Software. “We are empowering the MultiValue community with one of the best mobile computing toolkits on the market that is affordable, familiar to MV developers, and connects to their existing database with no change.”

OpenInsight Development Suite 9.3.1 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, and operating environments. Today, the company’s flagship product OpenInsight is the only database development suite that provides both Windows, Web 2.0 and .Net tools to develop and deploy mission critical applications. 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. ■



Datatel and SunGard Higher Education Close Transactions to Combine their Businesses

Hellman & Friedman, Datatel+SGHE, and SunGard Data Systems today announced that the transactions to combine the businesses of Datatel and SunGard Higher Education have closed. As a result, more than 3,000 employees will be dedicated exclusively to delivering solutions to education institutions in 40 countries.

The newly formed company will have a new name, which will be launched in the first half of 2012. Until that time, it will be referred to as Datatel+SGHE.

“Education is entering a new digital era that presents both challenges and opportunity to educational institutions around the world,” said John Speer, president and chief executive

officer, Datatel+SGHE. “Our clients rely on us to help them navigate in this shifting environment, and their success remains our priority. The combined company will continue our histories of providing reliable software and services to our clients as we make available new options to help them shape the future of education.”

Many factors are forcing significant change in education. Datatel+SGHE will help institutions succeed through:

- **Continued investments in current solutions:** The combined companies plan to support the software solutions of both companies, including Advance, Banner, Colleague, and PowerCAMPUS administrative systems.
- **A broader portfolio of solutions:** The combined portfolio of products and services will open new choices and capabilities for clients.
- **Accelerated innovation:** An expanded pool of resources and talent will accelerate research and development with targeted investments focused on major challenges in the education community.
- **An expanded knowledge-sharing community:** Collaboration, creativity and knowledge-sharing will grow across the expanded global client community of 2,300 colleges, universities, foundations and state systems.

“As a customer who has worked with both Datatel and SunGard Higher Education as indepen-

dent companies, I see great opportunity for synergy in the combined business to deliver even more value and consistency," said Dr. Debra Derr, president, North Iowa Area Community College. "They understand education and can provide the functional, technical and strategic expertise institutions need to thrive in today's changing education environment."

As previously announced, John Speer, former president and chief executive officer of Datatel, will serve as the new company's president and chief executive officer. Ron Lang, former chief executive officer of SunGard Higher Education, will serve as vice chairman of the board of directors. Drawing talent from both companies, a management team with decades of higher education experience will lead the company.

As described in the initial announcement of the proposed combination, affiliates of private equity firm Hellman & Friedman LLC have acquired the SunGard Higher Education businesses from SunGard Data Systems Inc. and are combining the acquired businesses with Datatel, an existing Hellman & Friedman portfolio company, under a new holding company.

"The combined company has the vision and resources to lead the way through the issues facing higher education around the world," said Anupam Mishra, managing director at Hellman & Friedman. "We believe in the power and possibilities of education and are honored to be supporting the company in this mission."

To learn more, please visit www.datatel.com or www.sungardhe.com. ■



Firms Form Strategic Partnership to help Companies Manage U2, MultiValue Databases

SJ+ Systems Associates, Inc. and Pelican Professional Services have formed a strategic partnership to help clients deploy PRC, the popular software configuration management tool for Unidata and Universe (U2) and MultiValue database environments.

Pelican principals Steven Horwitz and David Haynes will be working closely with SJ+ founder Susan Joslyn to handle complex implementations of PRC, and help meet growing user demand for the tool. This more formal relationship is the natural culmination of the companies' long-term cooperation and friendship. "Pelican has already worked on the front-line of PRC implementations and has more experience than anyone else outside the development team," notes Susan Joslyn. "They are in a unique position to know and

understand the current and prospective PRC customer, and we believe they will be able to provide a very high level of support for clients as deployments become increasingly more complex."

PRC is a complete software configuration management and development lifecycle management tool that provides IT governance, including compliance with many regulatory agencies and initiatives. PRC is available for all U2 development and a select set of MultiValue environments. The tool provides critical documentation and smooth automation as well as transparency for improved visibility. In addition, its robust security framework and comprehensive auditing capabilities enhance overall management.

About Pelican Professional Services

Pelican Professional Services provides business and enterprise resource program (ERP) consulting services for system selection, project management, implementation and modification. Pelican brings proven industry experience and application expertise to deployment, upgrade and migration projects.

About SJ+ Systems Associates

SJ+ Systems Associates develops and supports PRC, a mature, complete software configuration management tool for U2 and MultiValue applications, including SB+.SJ+ has the experience and education in IT governance, audit, software quality and industry-leading best practices to help customers implement a comprehensive lifecycle management strategy that is both

compliant and productive. For more information, visit <http://sjplus.com> ■



Precision Solutions Launches Red Leaf version 5

Precision Solutions is pleased to announce the availability of Red Leaf version 5, the web based information portal for Epicor Prelude customers. With Red Leaf, Prelude sites can offer their customers an online web 2.0 shopping experience including full product search with real time pricing and availability, multiple shopping carts, multiple "favorites" lists, plus up-to-the-minute access to current and historical quotes, orders, and invoices.

Connectivity is the theme of Red Leaf, and this version adds two significant new connectivity features: Red Leaf Mobile and Red Leaf Connect. With Red Leaf Mobile, all the power of Red Leaf is now available on mobile devices like tablets and smart phones. "The future of applications will be defined by accessibility," stated Kevin King, President and Chief Technologist, "and what better way to define 'accessibility' than with the devices we carry in our pockets every day."

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FROM THE PRESS ROOM

Continued from page 18

Red Leaf Connect also offers access to Prelude information but through a URL-based interface. This allows Red Leaf to be more easily integrated into corporate websites using simple REST techniques that can accept results in either JSON or XML format. This also allows Prelude sites the ability for customers to gather real time pricing and availability information using programmatic interfaces. ■



Entrinsik to Release Informer Dashboards for Real-time Data Visualization

In 2002, Entrinsik, Inc. announced the launch of Informer, an operational reporting tool which would intuitively help end users get direct access to their MultiValue-based data and help improve decision support across the enterprise. Today, over 1,000 organizations have adopted the use of Informer and this has greatly increased the usability of their existing applications. Entrinsik continues to honor its pledge to serve the MultiValue consumer base in a number of exciting ways.

Entrinsik is very proud to announce its upcoming release of

Informer 4.3, which will support the use of dashboards and key metrics for its users. With this functionality, end users will be able to define and publish key performance indicators (KPI) for themselves and others. The functionality will allow for data “roll ups” and include a library of widely used visualizations such as speedometers, traffic lights and other gauges. It will also take away the laborious work of “interpreting” data and give decision makers a “quick glance” read on the performance of any area which they wish to track.

Informer has also recently expanded its support for relational databases and will support database applications and warehouses running on SQL Server, Oracle, MySQL and many more! Beyond that, Informer’s UNIQUE architecture allows users to point to different data across different databases and database platforms and publish those within the same report in real time, without the need for ETL or the time and costs involved with a data warehousing project. This has exponentially increased the usability of not only MultiValue applications, but also the relational systems that are also necessary in running the many parts of today’s sophisticated enterprise.

For technical administrators, Informer is lightweight and easy to install and deploy. It can even be embedded within existing applications via our robust SDK kit. For end users, Informer is the most intuitive ad hoc reporting tool in the market and is the perfect tool for publishing reports, analyzing data and improving operational decision support.

See for yourself! Watch our 7 minute tour at <http://www.entrinsik.com/solutions/informer-product-tour> or contact us for a demo at sales@entrinsik.com or call 888-703-0016. ■



BlueFinity Integrates MultiValue with Leading Mobile Device Platforms

BlueFinity International is enhancing its leading mv.NET product to enable applications running on any flavor of MultiValue database to be deployed across any of the wide range of today’s interface devices — workstations, tablets, browsers, handhelds, phones and other mobile devices. By building strong working relationships with the leading technology players in the mobile platform arena mv.NET developers can utilize the very best toolsets safe in the knowledge that they are mv.NET and MultiValue compatible.

Using mv.NET, it is possible to maximize the return on the investment in an existing MultiValue application and take valuable business logic to new heights by creating powerful mobile solutions that address the evolving needs of users and customers in a timely, comprehensible and affordable manner.

“Developers can literally go from design to deployment in a matter of hours,” states David Cooper, Lead Developer at BlueFinity. “Because we provide all of the plumbing and framework to support your application creation process, you will save valuable time and money as well as reduce the inherent risks of developing your own framework in getting your application implemented and ready to launch. All of your mobile and .NET needs are embraced in one tool (mv.NET) so if you write an add-on application or generate a new GUI for your existing MultiValue application it’s all utilizing a single technology for the key middle-tier.”

mv.NET allows developers to leverage strong code sharing capabilities against multiple mobile device platforms. Cooper explains, “a key feature that we have been keen to enable through our Mobile Technology partners is that of code sharing. This means the ability to share as much code as possible across the different implementations of the same application on various mobile platforms. This is true irrespective of whether you are developing software in C# or HTML/JavaScript.”

Native applications can be produced for iPhone/iPad/iPod or Android using a common C# based development environment. Alternatively, browser based applications can be created using ASP.NET, HTML5 that adapt themselves to the appearance of native platform. mv.NET provides the route to fulfill both of these requirements without learning multiple mobile platform skill sets. .NET develop-

ers don't even need MultiValue knowledge to produce applications. Organizations can utilize the massive resource pool of .NET developers to boost application development bandwidth and reduce development timescales.

mv.NET also supports Windows Phone and Windows 8. "Think of it as Silverlight re-imagined," says Cooper. "Utilize all of your existing Silverlight development skills to create stunning mobile applications for Microsoft's superb new 'Metro' interface for mobile devices. Microsoft provides simply the most comprehensive and productive development environment for mobile application development. Get on board now before the train

departs – with a bit of help from BlueFinity of course!"

For more information visit sales@bluefinity.com.

About BlueFinity International

BlueFinity International, part of the Mpower1 group of companies, supplies leading-edge software development tools and consultancy services to the MultiValue database and Microsoft developer communities. Its flagship product - mv.NET – is a comprehensive solution for developers wishing to access MultiValue databases from within Microsoft's .NET environment. ■

Feedback

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

International Spectrum Magazine has a Feedback Department, sometimes known as Letters to the Editor.

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The Rock and the Hard Place

Parallel and Agile Development

Part 2: Agile Practices

BY SUSAN JOSYLN

Note about the series: As we are reach for the best way to deliver the highest quality of software and services we find ourselves considering parallel development and pondering the whole concept of Agile. It may be that there is a sweet-spot between the two — and for each company that might be a slightly different spot. These articles will explore the perils of parallel development in part 1, the angst of Agile in part 2, then how to pick and choose to find the right balance for your organization in part 3.

We are all aware of Agile practices. We may, in fact, be in the process of implementing or at least considering Agile development methods. Or we may be practicing our own artful techniques in dodging them. Frequently those of us in MultiValue view mainstream software lifecycle practices as something that doesn't apply to us. That somehow we can't adopt them, or that we don't need to adopt them. It is true that when we consider mainstream models and processes, there is a certain amount of adaption and translation that must sometimes occur. But one thing we should all do — if we do nothing else — is recognize that our similarities outweigh our differences. Mainstream approaches can absolutely be applied and their benefits realized within our community. Realizing benefits from

It would be a powerful thing if our environment came to be known as fast and good and cheap. You know, instead of the traditional two out of three.

something like Agile practices is a cha-cha ... a dance step that may take you two steps back before you can lunge forward. But those little steps back are small and rhythmic and the lunge forward can be a thrill. Most importantly, this is true for any platform or IT culture, not just "ours."

The first step is, as always, understanding. There are some commandments. Sometimes there are ten, sometimes more, depending on the blogger and the methodology. There is even a manifesto (really). But let's start by going back further, to what Agile isn't.

There actually is a difference between Agile practices and cowboy coding. Sure, there is this romantic counter-culture image of a coding cowboy that is appealing. Strong, silent, independent... but snatch the harmonica and pull off that sheepskin jacket and all you have is a sloppy, intractable jerk. In fact, the term "cowboy coding" is often used derogatorily by Agilesters. That is why it is particularly ironic that there is a school of thought — shared by many MultiValue users — that cowboy coding *is* Agile.

Calling someone a coding cowboy is an insult. Referring to one's self as a coding cowboy (outside of a self-help group) is simply arrogant. Nothing good can come from it in either case. What leads to this misconception that MultiValue is somehow intrinsically Cowboy and that Cowboy is intrinsically Agile? In Agile, teams are empowered to make their own decisions — to work independently. And one of the core components of Agile development is the call for rapid delivery of small pieces



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The Cowboy Manifesto



- The speed with which I can hack something together determines my worth.
- If you need (or use) comments in code, you are too dumb to work with me.
- Exploiting a compiler-dependent feature to save a line of code is "elegant."
- My code is perfect, therefore:
 - I don't need to test it thoroughly, if at all.
 - It never needs to be refactored.
 - If the program crashes due to unexpected data, it's the user's fault for entering bad data.
 - If the program fails after a minor machine configuration change, it's the sysadmins fault for changing it.
 - If the program runs too slowly, it's the managements fault for not providing a faster machine.

of working software. So if you scan a page about Agile practices and see the words "rapid" and "independent," you might think of Cowboy Coding. But, of course, you'd be missing the point.

Most of us with any experience in MultiValue proudly point to our ability to rapidly deliver change. And it is true that we have an advantage over some of the stodgier platforms. That doesn't mean that we must continue with this outrider image we've built up for ourselves. The reputation for too much change with too little control could be — and should be — shed. We can afford to apply some practices, some

methodology, some consistency and we will *still* be the fastest. It would be a powerful thing if our environment came to be known as fast and good and cheap. You know, instead of the traditional two out of three.

So Agile isn't cowboy and MultiValue doesn't have to mean cowboy. Then what does it mean to be Agile? It should be confessed that the Cowboy Manifesto was made up for this article. But there really is an Agile Manifesto. A bunch of (smart, important, industry leading) geeks went on a ski holiday and came up with it. It is accepted and referenced with somber formality.

The Agile Manifesto

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more

The key to the whole idea is in that last line. That becomes the mantra, the litmus test. Agile has a common description that you will find in some close incarnation most everywhere you look: Agile development is a methodology (or a group of them) that is based on iterative and incremental development. In this approach, requirements and solutions evolve through collaboration between self-organizing, cross-functional teams. Agile development promotes adaptive planning, evolutionary development and delivery, a time-boxed iterative approach, and encourages rapid and flexible response to change.

We all probably feel the same two biological responses fighting for dominance when we see the word "methodology": The yawn and the groan. At best we think it might be good for us in the same way that fistful of vitamins and supplements we are supposed to take every day is good for us. And just as hard to swallow. Part of our involuntary negative reaction to that word is because it is the harbinger of the next word we know is coming — discipline. Ugh. But we might feel differently about Agile methodologies if we get to know them.

Most methods impose discipline on software development. They do this by developing a detailed process with a strong emphasis on planning inspired by engineering strategies. Contrary to this idea, *Agile methods are adaptive rather than predictive*. Engineering methods tend to try to plan out a large part of the software process in great detail for a long span of time. This works well until things change. So their nature is to resist change. The Agile methods, however, welcome change. The goal is to adapt and to thrive on change, even to the point of changing themselves. So, in that spirit, the first thing that must change is our own attitude. We must start to think in terms of what we can do well in a pre-defined time(box) instead of how much time do we need to complete some pre-defined task. See

Continues on page 22

THE ROCK AND THE HARD PLACE: PARALLEL AND AGILE DEVELOPMENT - PART II: AGILE PRACTICES

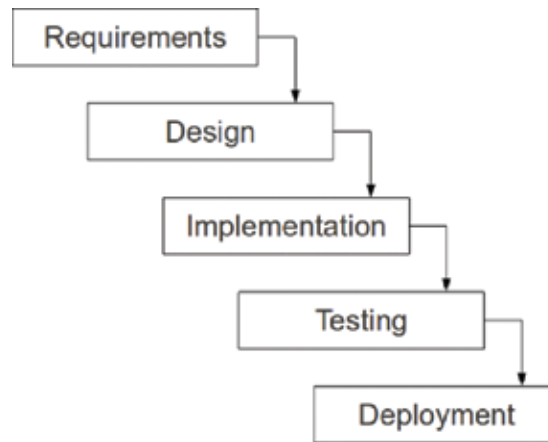
Continued from page 22

the difference? One consultant that we all know and love attempted to implement Agile processes at a MultiValue site once. It was going pretty well, he says. Until the Director demanded a Gantt chart showing the target dates of all of the timeboxes with specific deliverables for the next year and a half. The sleek, glamorous timebox morphed into a square and stodgy task. The key here is that it is not just about delivering smaller completed tasks more frequently — it is about not planning (much) past each of them. The requirements can change. The priority can change. The scope can change. The team can change. That's the whole idea. That's what makes it different and valuable. It's what makes it work. You don't really think about the next thing you are going to do until you see where you are when *this* thing is completed.

In order to think in an Agile way, we have to let go of a lot of planning — a lot of *predictability*. We have to <choke, stutter, gasp> *relinquish control*. How do we cope in such an uncontrolled and unpredictable environment? By focusing on where we are now. We need to know where we *are* at any given moment. Then where we go *next* is a simpler question. So we look for an honest feedback mechanism which can accurately tell us what the situation is at frequent intervals. The key to this feedback is iterative development. This is not a new idea (intl-spectrum/s1046). Iterative development has been around for a while: incremental, evolutionary, staged, spiral... lots of names. The key to Agile iterative development is to frequently produce *working* versions of the

final system that have a subset of the required features.

Iterative development makes sense in predictable processes, but it is essential in adaptive processes because an adaptive process needs to be able to deal with changes in required features. This



leads to a style of planning where long term plans are very fluid, and the only stable plans are short term plans that are made for a single iteration. Iterative development gives you a firm foundation within each iteration that you can base your later plans around. So the dream is to make an iteration as short

as you can. Break things down into the smallest possible deliverable. This provides more frequent feedback, so you know where you are more often.

These short time-periods, timeboxes, are predefined, even arbitrary. They have little to do with the specific project or team at hand. We must fit completed, working deliverables into the time frame — not fit a timeframe around some notion of complete that has anything to do with the software we are building. Along these same lines, we must let go of the notion of requirements to a large degree in order to be Agile. Instead we have user stories, which are less formal and often given in face-to-face communication. Telling the user story can make it easier to define the iteration — what we will fit into the timebox.

It feels very risky to think about taking verbal, flexible requirements into the lab. But that's because we are used to trying to pin people down — limit the scope, fight feature-creep. When you turn the tables and embrace the evolution of the requirement, this isn't risky after all. But it is (sorry for the overused phrase) a paradigm shift. An important part of this is that the 'stakeholders' — the business users who have requested the software change — must be intrinsically involved in the timebox. They should help to define the deliverable and participate *routinely* in the meetings.

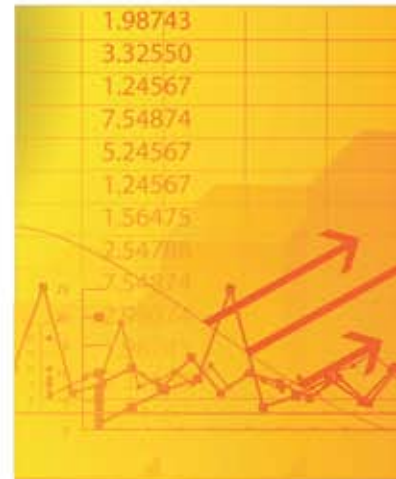
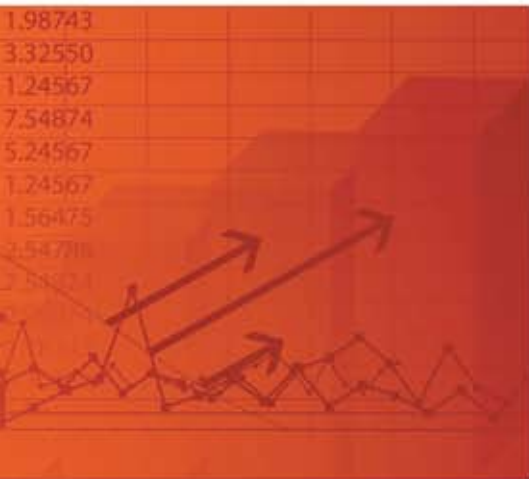
So far we've been talking about "Agile" as a general philosophy of software development. Under this broad umbrella are specific approaches such as Extreme Programming, Scrum, Lean Development, etc. Each of these more particular approaches has its own ideas, communities, and leaders. Each community is a distinct group of its own, but to be cor-

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THE ROCK AND THE HARD PLACE: PARALLEL AND AGILE DEVELOPMENT - PART II: AGILE PRACTICES

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rectly called Agile it should follow the same broad principles. Each community also borrows ideas and techniques from each other. Many practitioners move between different communities spreading different ideas around. All in all it's a complicated but vibrant ecosystem. In truth many organizations create their own hybrid approach. What we want are quickly adoptable practices that provide measurable and sustainable improvements. We want to see these improvements in the quality of our software, in the satisfaction of our customers, and in the productivity and even happiness of our developers. This idea of cherry-picking from various methodologies and finding our own middle ground has come to be referred to as "Real World Agile," and more recently the term SDLC 3 is gaining some

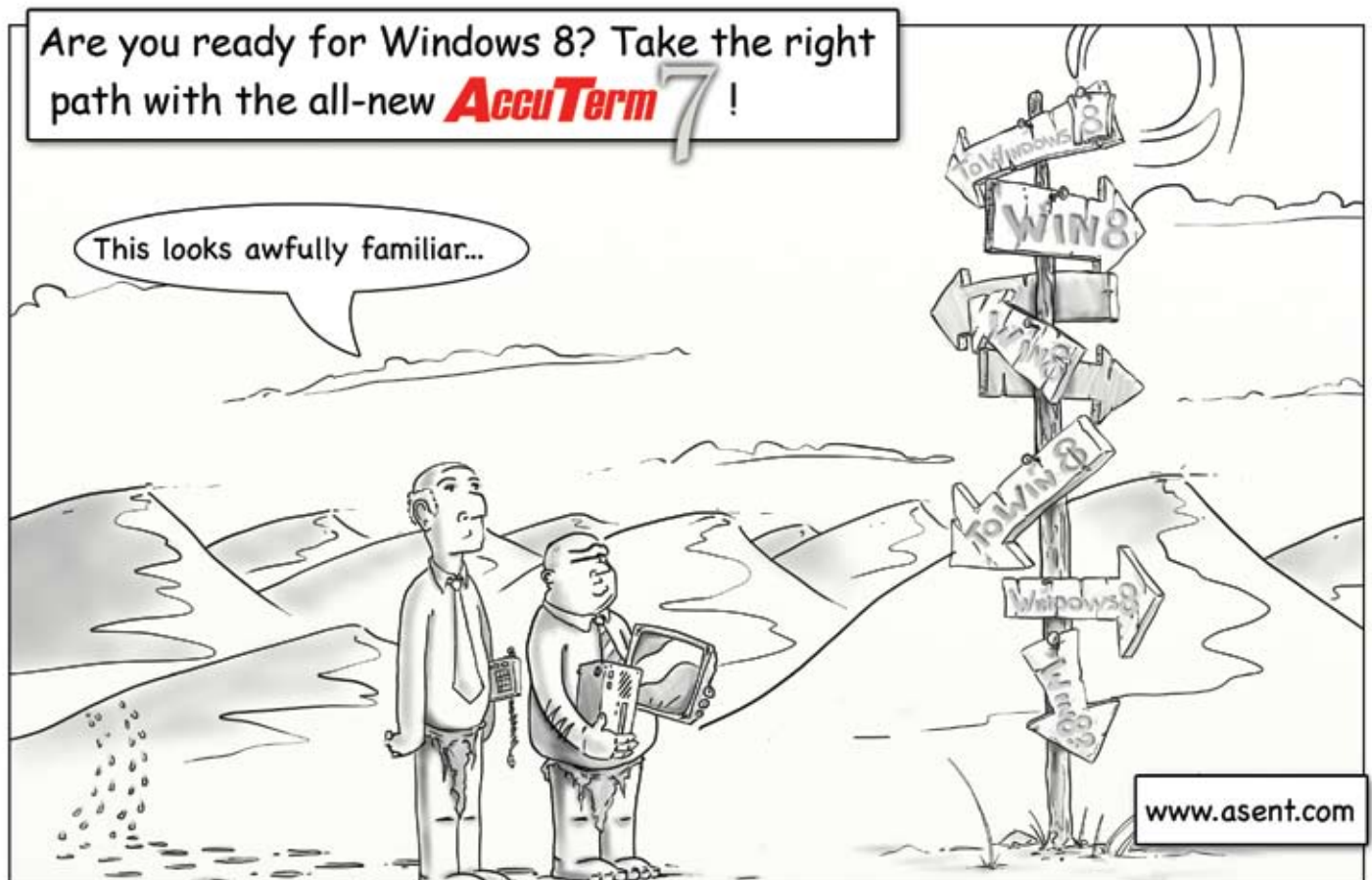
traction. SDLC 3 — the 3rd incarnation of the software development life cycle — is an even broader mixture of both Agile and traditional approaches along with some new ideas.

How do you figure out what will work for your organization? How do you get started? Probably the very first thing that you do in working toward adopting Agile practices is to think about being Agile in that very adoption. Don't think too far down the road. Try something out and then see how it fits and what looks like the next thing to try after that. Here are some specific aspects of Agile that you can usually do right away:

Initial timeboxing: *More frequent releases or less frequent releases.* First, especially in environments where a lot of parallel development occurs, delivering smaller releases more frequently will enable more frequent integration and minimize the amount of merge work being done.

On the other side of that same coin, organizations that tend to hit production with changes on an ongoing basis spend a certain percentage of their time just dealing with the thrash. In this situation moving to scheduled releases can improve many aspects of the process. Create a regular timebox by saying "we release on Thursday," for example. Then deliver to production at the end of each timebox — like clockwork. A one week time box is very short for Agile development in the mainstream — but for an organization that is hitting the production environment with continuous change, it is a step in the right direction.

Next, take a look at a project in the backlog and think about applying a timebox to it. What can I deliver in a month with my resources? Work with the users and developers to define and deliver just that. It is hard to think about delivering unfinished stuff, so the trick is to think in encapsulated chunks of



“finished stuff.” A nice bonus is that users are more likely to get to the testing in a more timely fashion when it is a smaller set of changes that they must test. And defining the test is part of the user story.

User Stories: A user story is a requirement that defines what functionality a user really needs. A story might be a variation on this basic statement: In order to <Business Value> as a <User Role> I want <Functionality>. During release planning, user stories are given a rough size estimate using a relative scale like points. During iteration planning, the story will be broken down into *tasks* and *tests*.

Example:

STORY: In order to make sure my package arrives at my house as a website customer, I want to validate my shipping information.

Tasks:

Write code to validate entries — estimate 8 hours

Call web service to confirm address — estimate 8 hours

Write tests — estimate 4 hours

Points: 5

Test:

Validate 5-digit zip code

Street address, state and zip are all required

10 digit phone number provided

(Virtual) Colocation/ Face to Face communication: One of the tenets of Agile development that may feel contrary is the frequent face-to-face communication. Most companies have outsourced contracts, off-shore teams and members who work at home. This trend is not likely to reverse, but technology can overcome this dilemma. You can have those frequent face to face meetings — over Skype or other similar technology. Begin to let go of long

complicated requirements and email threads and replace them with daily face to face meetings — even if those meetings are virtual.

Requirements exchange: When time-boxes are introduced along with the notion that it is okay for requirements to change the user or product owner must remove a comparable amount of work from the project in order to accommodate a change. This actually does a lot to avoid what we call feature creep. It empowers the users. They begin to feel freer to change their mind about what is important, to try out different ideas, but at the same time to take responsibility for the deadline.

Empower your teams. One of the hall marks of Agile development, what makes it work, is that the team members are empowered to make decisions on their own. Rather than monolithic management and monumental meetings, each team is responsible for their

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How to Win with Social Networking

BY CHARLES BAROUCH

#HDWP Toast. LOL! TOAST!

Some minor celebrities could get away with the occasional “LOL! TOAST!” tweet. Some of the major ones could post one of those a week and not lose a lot of followers. For the rest of us, “LOL! TOAST!” is not a social media win. What constitutes a win? Whether your company is publicly or privately held, ask the question: If I spend company time on social media, what sorts of activities could I justify to a stockholder?

For me, the two best answers are brand awareness (part of Marketing) and product availability (part of Sales). Using that metric, let’s talk about social media and your business. Please remember as we explore this topic: winning is bringing in business or retaining business. If I only need three more customers to make my year, using social networking to achieve that goal is a win.

Google+ Stream: This Week’s Fake Holidays

Humor is a great tool. Let’s say your company sells cosmetics and you de-



Digital Version
On-Line

Scan Me!

Besides the sales and marketing reasons for using social media, there’s another important use: battling stereotypes.

cide to build brand awareness by publishing a weekly list of fake holidays, complete with people who are made up in celebration. Being savvy social media people, we post pictures to a Flickr account, we put up YouTube videos, and we pick one or more outlets, like Google+ to tie these things together. Good news: humor is very effective in Marketing. Bad news: the chance of offending an ethnicity or religious group while publishing fake holidays is very high. The chance of being consistently funny is very low. The chance of being “unfollowed” will approach 100%, while the chance of actually damaging the company’s reputation is also high. At least you can fall back on the fact that humor is a very time consuming business, so you will cost your business a lot of otherwise productive time pursuing a humor strategy. If you can find someone who can actually make this work, hold on to them with both hands. They are rare.

While a select few can make this sort of strategy work, the rest of us need another approach

Facebook Group: Occupy Topics

To borrow from Occupy Wall Street and its kindred, you want to be topically in the 99%. In other words, pick a topic and stay with it — most of the time. A good example here is Tim O’Reilly. The vast majority of his posts are on technology and how it connects to society. I don’t drop his stream because he posts the occasional vacation slide show. So long as he stays 99% (okay, 80% will do) on topic, I’ll keep reading him. How does his topic help him win? Well, his company, O’Reilly, publishes tech books. Tim establishes himself as a tech expert who sees tech in a broader perspective. That’s excellent branding. Tim wins.

LinkedIn Poll: 100% of Voters Expect the Expected

We like a certain amount of “exactly what I expected” in our lives. When I follow a celebrity, even a niche celebrity, I expect their on screen personality to translate, at least loosely, into their social media personality. So, when I read what Felicia Day posts, I expect it to wander between gaming, science fiction, fantasy, and horror. Her brand

is her personality. She understands that we expect her to sell us on wanting to see her on Eureka, or her web series: The Guild, or Dr. Horrible's Sing-along Blog, or even to re-watch Buffy just to find her in some of the very crowded scenes in the last season. The place where she fails most is when she actually moves from Marketing (I'm interesting) to the more blatant sales (Watch me Tuesday). The "Guess What Show I Was Just Taping" posts are the ones she just doesn't do a good job presenting. She wins when she showcases her personal interests, not her professional activities.

Why do we let her wander between loosely related topics while expecting people like Tim to stay more focused? It comes down to expecting the expected. You don't follow niche publishers expecting eclectic takes, because we want to believe they are as focused as their product line. We don't follow niche celebrities expecting relentlessly serious discussions. We expect to be entertained. Heddy Lamar may have invented radio-hopping torpedo guidance (look it up:

http://en.wikipedia.org/wiki/Heddy_Lamar#Frequency-hopping_spread-spectrum_invention), but if she were alive and blogging, she would have to swim against expectations to get people to follow her as a technologist.

The big exception to the "on topic" rule, for the famous and non-famous, are the socially responsible posts. When I follow someone and they go off topic to talk about relief efforts in Haiti or raising money for cancer research, they gain points for going off message. We want to feel a connection in social media. We want to connect to people we admire. When you veer away from the thing which makes me read your tweets/ posts / streams / what-have-you, it should be for something that reinforces believing that you deserved to be followed.

The rest of us should take note: Just because you aren't making the talk show circuit, doesn't mean you aren't a celeb-

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ity. People who use Delphi will perk up if the name "David I" is mentioned. In that circle, he is a celebrity. We have our own, of course. For those familiar with Tim Holland, who passed away recently, his name would certainly attract a certain crowd. Every industry has minor celebrities that have a brand built into their name. These folks aren't amongst the universally recognized, but that's not the point. Business wins at social media if it attracts the right attention. You might be a big enough star in your niche to attract those whom your company needs to attract. You may already be a winner.

Blogosphere News: Dual Keyboards for Stereo Typing

Besides the sales and marketing reasons for using social media, there's another important use: battling stereotypes. Even lawyers make lawyer jokes. Even insurance people admit to being bored by insurance talk. When breaking those sorts of expectations is impor-

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BY CLIFTON OLIVER

Browser-based Output

Most people in the MultiValue community agree that green-screens are our death. But you might be caught in the transition from past millennium to current millennium re-work. Your users are still stuck with antiquated green-screens but desperately want newer ways of viewing things. Now there are many fine, modern, MultiValue reporting options out there. But maybe, for reasons outside of your control, you are not able to purchase them just yet. Well, take heart, for there is a dirt-simple technique that can provide your users with at least a smidgeon of what they really want.

Take the old SORT report that goes to the green-screen. First, if you hit one too many [Enter] keys, you can't scroll back. If the report exceeds the width of 80 characters, you either flip to (unusable) columnar format or get lines wrapping past the right side of the screen, making the report somewhat unreadable.

All your users want to do is see the entire report, or maybe just the totals lines, without having to print the thing to paper.

The solution to this is surprisingly easy. Turn the ENGLISH/INFORM/REVTREIVE (whatever) into HTML and either email the report to the user as an attachment or send them a link to view it.

The technique is surprisingly simple. Simply capture the report to a HOLD file, wrap it with four lines (or two) of HTML tags, and write an .html suffixed version to a shared directory, or email it to the user. Voila! A report that can be viewed in a browser with scroll up, down, left, right, zoom in, zoom out, print, forward as an email, etc.

On platforms that implement the SETPTR verb with the BANNER option, this is easy. Just print to a &HOLD& or _HOLD_ file. Programmatically read the report record (or use READSEQ and WRITESEQ if it is too big to fit in memory) and add the HTML tags <html><pre> to the front and </pre></html> to the back. To make it a little nicer, use EREPLACE to change all occurrences of CHAR(12) to the HTML tag <hr>, which displays a separator line across the screen to show a page break.

If your platform uses the PICK spooler you need to do a little more work to get it from the SP-ASSIGN HS hold file to a single record. SP-EDIT's F option will let you send it to a file, but it breaks it into chunks and links them together at display time using RUNOFF and the .CHAIN instruction. A code example of how to do this is available on the International Spectrum website (intl-spectrum.com/s1048). IS

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

THE ROCK AND THE HARD PLACE: PARALLEL AND AGILE DEVELOPMENT - PART II: AGILE PRACTICES

Continued from page 25

contribution. Project Management in an Agile environment relies more on the project manager's skills in communication, facilitation, coordination, and less on planning and control.

Involve the user community. The users must be stakeholders in the development effort, included in every phase. They must help develop the specs for each timebox, stand ready to test and accept bite-sized projects as they are completed, and provide continuous feedback in the form of daily meetings.

Take baby steps. Massive detailed specs, long lists of upfront requirements, and long term commitments can cost you dearly. Large projects that are difficult to manage ultimately result in software no one wants. So the word of the day is "incremental." Make small changes to the way work is done. Just like the resulting software, the change to our process can be incremental. We learn more with each iteration so that we arrive at a finished picture with a finer grain, a smaller pixel. **IS**

SUSAN JOSLYN is the President of SJ+ Systems Associates, Inc. and is the author of PRC?, a complete, integrated software development life-cycle management / IT Governance tool for U2. She has worked with U2 (nee Pick/Multivalue) and SB+ software the beginning (both hers and its) and has specialized in IT Governance, including quality, compliance and life-cycle productivity issues since the early 1990's.

BUSINESS TECH: HOW TO WIN WITH SOCIAL NETWORKING

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tant, you may have to take that rough swim upstream and use the Internet to break the assumptions. The stereotype for "headhunters" is bad, bad, bad. I've met a few that reinforce that sour reputation, but mostly, I've met people who are doing a tough and necessary job. I'll dare to say it publicly: I like a lot of the recruiters I have met.

So, how does a person transform their business presence away from the presumed negative? Let's look at Elkie Holland, a recruiter, for an example. Prospectus, her company, has done industry interviews and pushed them out to the community for free, they twitter on topics beyond "this job is now open, call us" as a way to produce outreach. Elkie has defined herself as a person who has ties to the community. It helps her defeat the stereotype. She wins.

Sometimes, the goal isn't to beat a bad rap. Sometimes it is about having "no rap" at all. Social networking is a tool for rising above the status of non-entity. Let me tell you a pre-www story about me and networking. I worked at <company deleted> which used systems from <vendor name deleted> whose tech guy, <name deleted>, had promised to write something for the IPUA Journal. He didn't want to, and I wanted to break into writing about technol-

ogy, so I offered to do him a favor and write an article. That allowed him to back out while still offering something to fill out the magazine. A win-win.

Shortly afterwards, I went on a job interview at <company deleted> and was asked: "How do we know that you wrote these code samples? How do we know you are really technical?" I looked over at the interviewer's desk and spotted the IPUA Journal. "Turn to page 17," I said. "That's my article." And, wouldn't you know it? I got the job. The single worst job I ever got, but still, a good example of networking.

Taking the longer view, writing for Monica Giobbi at IPUA led to speaking at Spectrum (and OSDA and IOD and others) which led to writing for Database Trends which led to writing for Spectrum and other magazines. I used social networking to identify myself to you. Doing that has connected me to all of you. That sounds like a win to me. **IS**



CHARLES BAROUCH is the CTO of HDWP, Inc. You can see him in person at the International Spectrum Conference in Florida.

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CLIF NOTES: WE ARE NOT IN CONTROL (BUT WE CAN BE IN CHARGE)

Continued from page 31

any time. And they want it now. If your applications do not meet their expectations, they will simply throw yours out and get one that will.

Also, the modern user is not going to wait for the Information Systems department to do a three-month requirements analysis and application design, followed by six months or more of application development. By the time you deliver that, there is a very good chance that the situation has changed and they have found another solution on their own.

In other words, the Users are in control, not us.

So where does this leave us? Out in the cold? I don't think so. Just because the users are in control does not mean that they are independent. With the exception of spreadsheets — and in a few

cases Access or FileMaker databases — most users are still not able to develop their own applications, even when they know exactly what it is they want. And most of them don't want to. After all, if somebody wanted to spend their life developing applications, then "they" would be "us." But our role has definitely changed. And while we are not in control, we do need to take charge. So how do we go about this?

First and foremost, we need to make communication with users one of our primary responsibilities. I know this goes against the grain of a lot of computer people, but think about it. If you are not talking to the users, how do you know what their expectations are? And we've already talked about what's likely to happen if you do not meet their expectations.

Then, we need to become better at producing accurate, high quality solutions quickly. Agile methodologies is a good place to start. While the modern user will not sit still for nine to ten months until a complete application is put in front of them, they will stick with you for a few weeks until a partial solution that relieves their biggest pain point is delivered. Then another few weeks un-

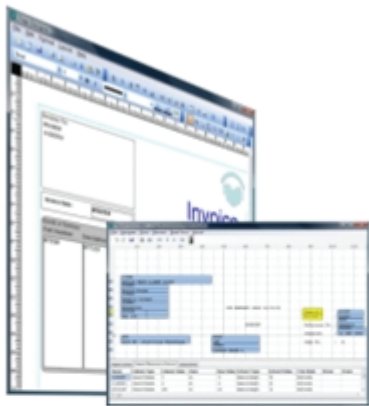
til the next piece is delivered, and so forth. That is especially true if they are the ones setting the priorities of what gets done first, then next, then next. It might still take ten months before the solution is complete. Of course, there is always the possibility that after six or eight months they might say, "You know, this is good enough for now. Another pressing problem has come up that we would like your help with. Let's work on that instead."

And finally, let's stop reacting to change. Let's start driving the change. If we start making communication with users one of our main objectives, given our backgrounds and our MultiValue tools, we are certain to spot opportunities to use technology to improve a process, increase productivity, or create another competitive advantage.

So recognize that your users are actually your customers, and take charge of finding out what they want as well as need. And quickly deliver, deliver, deliver.

Besides, being in charge of a successful solution is a lot more fun than being in control of an unused solution that failed. IS

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We Are Not In Control (But We Can Be In Charge)

B Y C L I F T O N O L I V E R

When it comes to application development, we are no longer in control. Frankly, we never really were. But today it is almost impossible to continue the illusion. It used to be that we — the information services professionals — did everything for the users. (Some would say “to” rather than “for.”) After all, the way we saw it was that users were ignorant. Not only did they not know what they wanted, but they were not versed enough in the mysteries of Data Processing to even know what they needed. But we, the priests, knew what they needed and how best to deliver it. And if the applications we delivered did not match the way they worked or the procedures they used, well, they were doing it wrong. (Sounds a bit like Steve Jobs initial reaction to the antenna problems on the iPhone 4 doesn't it?) Forget the fact that few of us in Data Processing had ever been a shipping clerk, an accountant, or a warehouse manager; somehow we thought that we could design applications that would bring order to the chaos. Just a little bit of hubris, don't you think?

To be fair, not all computer professionals had such a delusion. Over the years there have been attempts to involve the users in the definition and design of software applications. One of the most notable of these was the Prototyping movement. The fundamental idea was that the stereotypical user would say, “I don't know what I want,

but I will know it when I see it.” So the application programmer would cobble together some minimally functional code to present a screen layout or a report mockup for the users to look at. After several rounds of, “Yes, but...,” we (the application developers) would have a good definition of what the users thought they needed and how they wanted it to work. At that point it was SMOP — Small Matter Of Programming.

It sounded good, and it was definitely an improvement over designing and developing applications totally in a vacuum. But it still fell short. For one thing, at that time users were not fully aware of what computers could do or how they did it. They didn't really know enough to state how they wanted something to work; they tended to simply concentrate on screen and report layouts. On top of that, programmers and managers had a tendency to consider the time taken cobbling together minimal code during prototyping as “wasted” unless that actual code became the base of the finished solution. So what you ended up with was a software application grown from junk code that kind-of sort-of, not-quite did what the users thought they wanted, but didn't understand.

And then our world changed.

Enter the Apple II, the IBM PC, and the personal computer revolution that followed. It used to be that the shipping clerk had no idea how computers

worked or what they could do. Now he goes home at night and probably spends at least part of the evening on the family computer surfing the Internet, ordering things from retail websites, or using accounting software to pay his bills and prepare his income taxes. Today, he knows very well what a computer can do and wonders why that obsolete piece of junk he's forced to use at work doesn't do the same thing.

It used to be that users didn't even know the terminology. Try to explain to somebody what a megabyte was and they would stare at you like you had two heads, wondering why the computer guy had suddenly developed such an interest in dentistry. Start talking about relational databases, and they would politely mutter something about not really being interested in genealogy and walk off. Today, maybe only by osmosis from their computer-literate children, such terminology no longer causes their eyes to glaze over. (For that, we had to invent new terminology like “object-oriented programming” and “polymorphism.”)

So now our users know exactly what they want. They know how they want it to work. They are not easily cowed by elaborate terminology. And their expectation of the applications you provide are determined, in large part, by their experiences with other providers applications. They want access to information (not just data) anywhere

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