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THE BUSINESS COMPUTER MAGAZINE

SEPTEMBER/OCTOBER 2005 • AN IDBMA, INC. MULTIVALUE PUBLICATION

Business Intelligence

What's Driving Dashboard Technology?

Then… and Now: Mega Successful Companies With MultiValue Roots
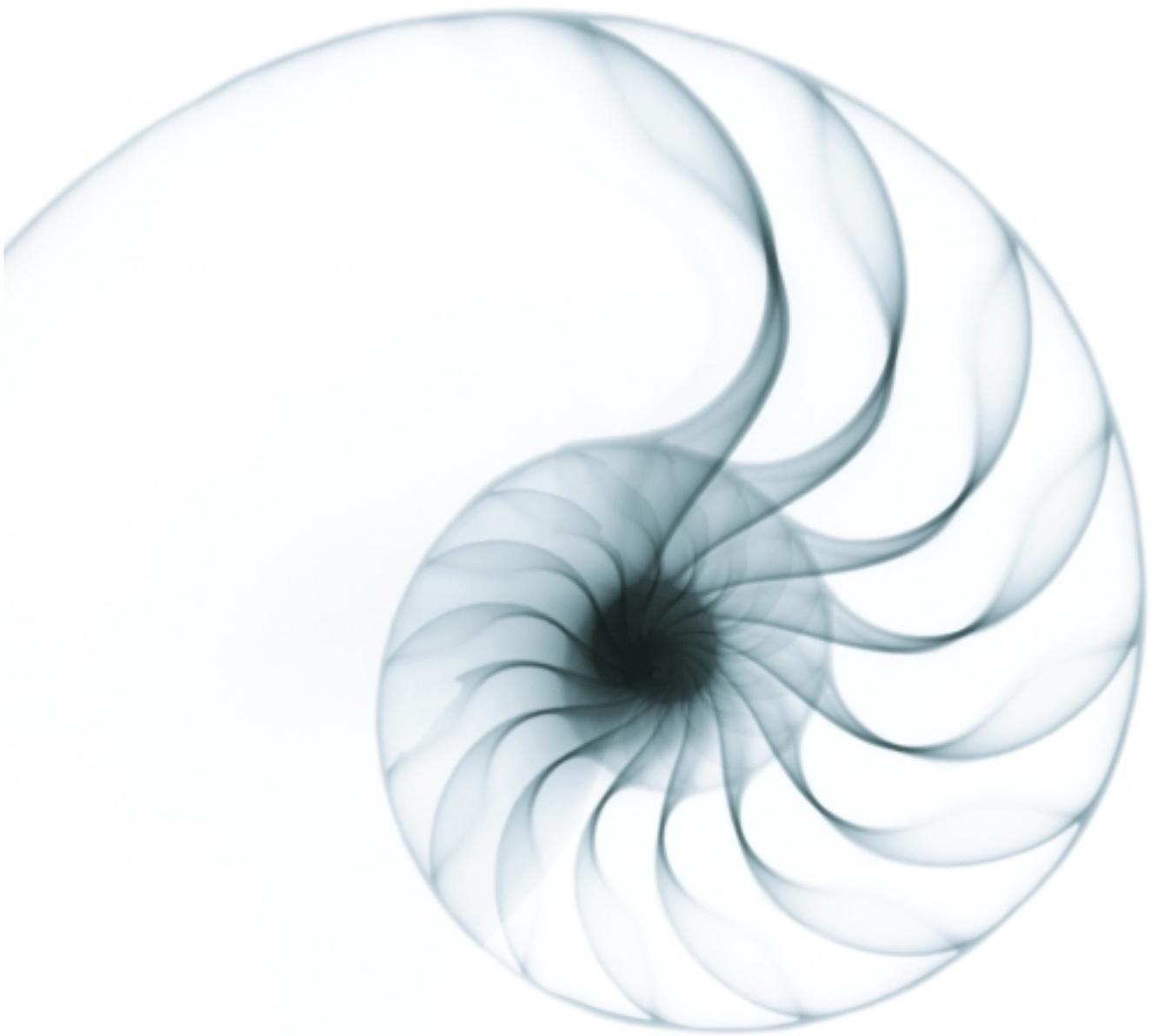
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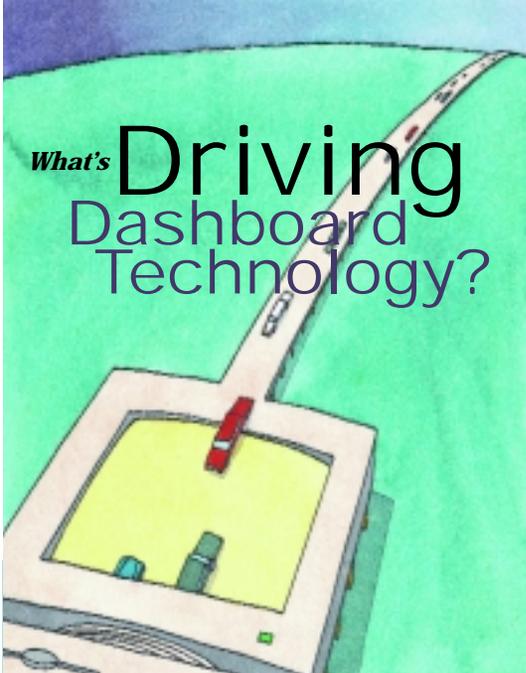
What's **Driving** **Dashboard Technology?**

Dashboards, Analysis Mind Share, and KPIs

We see them everywhere. A powerful metaphor for monitoring business trends, dashboards are another product of the astonishing capabilities of contemporary hardware and software. **BY ROSS MORRISSEY**

PAGE 8

INTERNATIONAL SPECTRUM

DEPARTMENTS

[FROM THE **INSIDE**]

Party Time

The countdown to the 25th anniversary of the Spectrum Show would not be complete if we didn't reminisce about those infamous Spectrum parties of the past; particularly those in the 1980s when money rained down endlessly from the skies. In this issue, we profile the extravagant promotional show happenings of those glory days past when money was no object when it came to market positioning a company in the MultiValue industry.
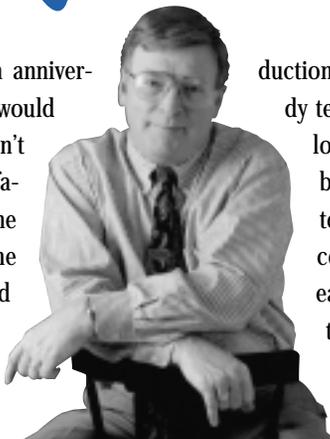
It all started with the second Spectrum Show. The year was 1983, the month was February, and the venue was Caesar's Tahoe in the high Sierras at South Lake Tahoe, Nev. Mother Nature waited until everybody made it to the hotel before unleashing a record 12 feet of snow. The opening evening of the show, Spectrum hosted a welcome party at the indoor pool garden plaza at Caesar's which was surrounded on three sides by floor to ceiling windows, through which spotlights illuminated snowflakes falling through magnificent pines the size of which can only be seen in remote mountain locations. People gazed spellbound at the surrounding living picture postcard as the orchestra played to the occasion.

It was "can you top this" from then on. The 1984 show in Reno, Nev., saw the introduction of the side-splitting comedy team "Williams and Ree." As long as the vendor's pocketbook was open and the urge to impress show delegates continued, Spectrum was eager to oblige. The years that followed saw amazing extravaganzas including everything from converting the MGM Grand ballroom into a Bedouin tent for Arabian Nights to a private performance by Tina Turner at the Sydney Hilton.

Not to be outdone, some Spectrum exhibitors threw their own private parties and hospitality suites at Spectrum shows that rivaled the show's main event. In New Orleans in 1985, The Ultimate Corp. set up a basketball court on the exhibition floor and brought in basketball stars John Havlicek and Jerry West to autograph souvenir basketballs.

Whether it be the Phantom of the Opera party, the Cabaret, Xanadu, the Beach Party, the Mardi Gras party, or one of the many other Spectrum extravaganzas, each Spectrum show veteran has a favorite and will fondly describe the experience to anyone who will listen. Whether you were there or not, we know you'll enjoy this issue's peek into this flamboyant part of MultiValue history.

— GUS GIOBBI, CHAIRMAN, IDBMA, INC. —
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International Spectrum's 2005 Webinar Series

Webinar #3A ········ October 6, 2005

**Advanced Basic Programming Tips & Tricks
For the MultiValue Developer**
Presenter: Lee Burstein, President, Dynamic Systems, Inc.

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Presenter: Nathan Rector, President, Natec Systems

Webinar #4 ········ November 10, 2005

Introduction to XML for the MultiValue Developer
Presenter: Mel Soriano, President, Eagle Rock Information Systems

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RFID
Tag Placement

BY NATHAN RECTOR

If you have been following articles and case studies on RFID, you've likely been looking for the gem that will tell you how to implement RFID without all the problems other people have had. You've probably seen articles talking about "Why IT should not run RFID programs," or articles about "pilot" programs that cost $50,000 to $100,000. When you see that, you probably respond like I do: "Ouch, I can't afford that."

When I started to evaluate these costs so I could justify them to a client, I found that a good "pilot" program really does cost that. Now keep in mind that the numbers do include production labor and supplies, as well as equipment, not just the software development costs. Why am I talking about the cost of a pilot program when the article is "Tag Placement"? Well, tag placement is the biggest cost in research and development in your pilot program. I know you don't believe me, but you will spend close to 70 percent of your total project time, not on software or hardware placement, but on finding the best place to put your tags. Then once you find what works for you, you get to ship your test crates to your customer for them to tell you you've got it wrong.

Tag placement is the biggest cost in research and development in your pilot program.

Like most other things in the production area, RFID tag placement is not a science; it's almost an art. The placement that works on one product won't work on another. You may have to sacrifice pack quantities for tag readability, or pallet sizes for tag readability.

Pallet Tags

Placing tags on a pallet would seem to be the easiest, and the least likely to cause problems. This is not always the case. It depends on the type of product and the kind of wear the pallet gets during shipping and storage.

Q How often do you have to replace pallets?

Many companies do not reuse their pallets because they get beat up really bad during the shipping process. Placing a tag on the edge of a pallet where it can get damaged can cause major problems.

If you place the tag on the least likely to get damaged part, which is an inside corner or the underside of the slats, the tag is not likely to get damaged during shipping or pallet movement.

Q How hard does the forklift or hand truck slam into pallets when moving them?

If you have never watched the people on your warehouse floor move things around, I would recommend doing so. You may be surprised at how hard they are on things--especially when they are trying to load a truck as quickly as possible.

I ran across a study done by Virginia Tech that simulated a warehouse environment and showed that pallets were

Dash Analysis

They need a dashboard and they need it today. Before looking at any underlying technology or specific solutions, a basic understanding of the types of dashboard and what sorts of things they measure will provide a foundation for any dashboard project.

We see them everywhere; dashboards are another product of the astonishing capabilities of contemporary hardware and software — correct? The dashboard is a powerful metaphor for monitoring business process trends, but like many applications apparently enabled by Web technology, it has a long history, almost as long as the automobile dashboard. In France, the tableau de bord is standard on every Citroën and is also the name of a management reporting tool in general use since the mid 1950s.

Tableaux de bord started as manually created graphical (but inert) representations of the state of the enterprise. Web-driven dashboards are dynamic and hyperlinked to sophisticated analytical tools enabling rapid root cause analysis of exceptions.

Dashboards have three well-defined categories with different goals and audiences. Before describing these categories, I will introduce the concept of analysis mind share which helps to explain both the appeal of dashboards and puts the various types of dashboards in context. We will also look at guidelines for selecting key performance indicators to populate dashboards.

BY ROSS MORRISSEY

boards
Mind Share, and KPIs

Analysis Mind Share

In a large organization, there is a continuum of responsibility from the line worker responsible for putting widgets in boxes to the CEO. At both ends of this organizational hierarchy, the primary functions do not leave a significant amount of time — mind share — for data analysis. At the bottom of the organization, the focus is on specific production tasks; at the top, the focus is on strategy. Neither of these individuals can afford the time to sift through the enormous amounts of data produced by today's enterprises.
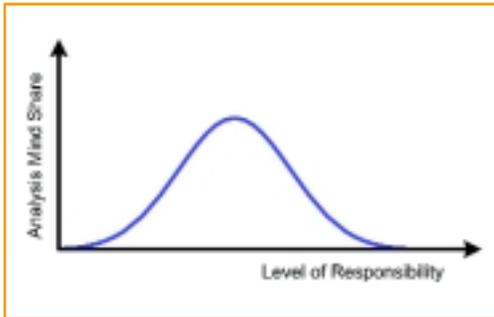
Paradoxically, the best interface for these polar opposite groups is similar — a simple stoplight is typical. If the light is amber or red, it is time to involve the rest of the continuum — those knowledge workers in the middle who have the scope, tools, and time to make detailed analysis not only possible, but frequently a major part of their job. In the middle levels of the organization, knowledge workers rely on data analysis to both manage down and report up the organization.
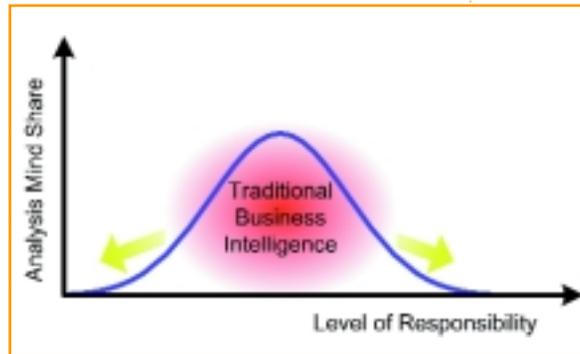
FIGURE 1

In the past the dissemination of results was often performed manually by those with higher analysis mind share (the blue line in Figure 1). The results were delivered in written or verbal reports, or for lucky French managers, in a convenient tableau de bord — dashboard — layout. Business intelligence tools can automate this process, but this power to easily distill and distribute summarized information needs to be carefully approached; we need to understand the different dashboard roles. Dashboards fall into three well-established categories (**FIGURE 2**):

◆ strategic dashboards for organizational alignment

◆ tactical dashboards for measuring progress in projects or initiatives

◆ operational dashboards for monitoring specific business activities

Strategic Dashboards

Strategic dashboards measure progress towards strategic objectives; they help align the organization to strategy in ways that static mission statements cannot. An executive level dashboard might reflect enterprise-wide strategic goals and corresponding key performance indicators or KPIs. A good security model will support enterprise-wide strategic dashboards that "cascade" down to the department level with gradually more restrictive views of
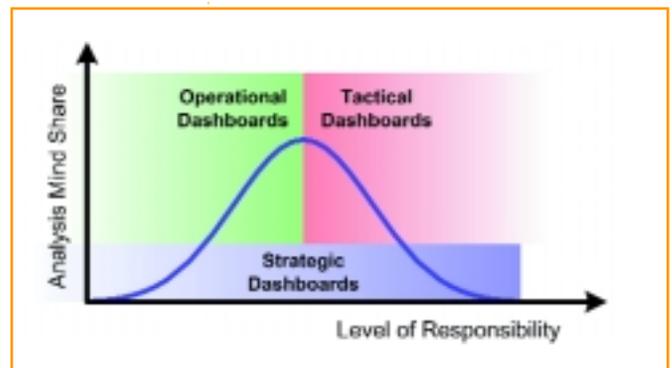
DashBoards

data, while retaining alignment to corporate objectives. Working down from global to departmental helps avoid creating dashboards that pit department against department. Strategic dashboards are typically highly summarized, highly graphical, less frequently updated, and include global, external, trend, and growth measures

Balanced Scorecard Initiative

Strategic dashboards are frequently based on the Balanced Scorecard methodology of David Norton and Robert Kaplan, a widely adopted method for determining and achieving organizational goals. Organizations using this approach are significantly more successful in achieving their goals.

Kaplan and Norton on their main rationale:

"Financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation."

The Balanced Scorecard process gets its name from a balance of financial and non-financial measures, a balance of short-term and long-term indicators, and a balance of leading and lagging indicators.

A Balanced Scorecard usually contains four perspectives:

◆ capacity for growth

◆ product development and operations

◆ customer satisfaction

◆ financial results

Tactical Dashboards

Tactical dashboards measure trends and progress towards strategic initiatives or special projects, frequently against established goals. They may involve just one of the four Balanced Scorecard perspectives. Starting to move away from the stoplight model, tactical dashboards frequently include summary data as well as visual indicators and make full use of hyperlinked OLAP tools allowing drill-down and root cause analysis. The focused nature of tactical dashboards allows more detailed information to be displayed — the context is clear from the outset. Incidentally, many dashboards created without a formal approach are actually tactical dashboards with the aim of maximizing profit or increasing sales.

Operational Dashboards

Operational dashboards are used to monitor business or manufacturing processes in near-real-time with the aim of intervening quickly to resolve issues or take advantage of opportunities. Operational dashboards are usually departmental in scope and absolute values and thresholds based on averages and norms are frequently as important as trends. Like tactical dashboards, the focused nature of operational dashboards allows more detailed information to be displayed. It would be unusual for a top level manager to use an operational dashboard; a traffic light summarizing operational capacity trends would be more appropriate.

Key Performance Indicators

Effective dashboards are composed of key performance indicators. An organization may have many viable trend or performance indicators; with limited dashboard real estate, we must identify the key performance indicators (KPIs). Starting with organizational goals, we evaluate the measures of behavior and events available to ensure they are both key and performance-related.

KPI candidates must be key measures, crucial to business strategy and they must link to performance. There should be a cause-and-effect relationship between actions and indicator. They should clearly distinguish between effective and ineffective performance. Employees must clearly understand and have control over achievement of the KPI. Order fill rate and cycle time are typical KPIs — they neatly summarize a number of measurements, are easy to understand and target, and have a positive impact on customer satisfaction.

A Dashboard Solution

There are a number of dashboard solutions on the market; drawing up requirements based on analysis mind share, dashboard type, and KPIs will help narrow the list. The tolerance for analysis will drive the graphical and numeric content of a dashboard. A clear picture of the types of dashboard your organization requires will help define where your solution lies between displaying cached results for a strategic dashboard and interactive updates for some operational dashboards. The nature of your key performance indicators will help you understand how much pre-aggregation is required before summary data can be displayed. This should launch you on the way with what, by definition, is a high-visibility project. is

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BY MELVIN SORIANO

I Spy *with My* Electronic Eye...

This tsunami of regulations, appealing as they sound from a consumer's privacy point of view, will wreak havoc on many business processes.

J Bond scans the lobby to be sure he isn't being trailed. He checks into the hotel room, makes a cell call, logs on and checks his flight schedule. All secure and all private. Or is it? How private is this simple scene?

He checked in. His hotel has his frequent flyer points and personal information. The hotel chain also has his stay history, his preferences, his credit card information. Linked to untold other bits of information. He used an electronic card key to get into his room. The statistics for when he entered or exited are in the access logs; these records can be viewed and are not even considered snooping in courts of law.

His cell call can be traced to a specific location. All associated information is there too. The flight information, first class and all, is used by data mining software to deliver him custom sales offers, with a full understanding of what type of profile, what type of person J Bond really is.

And you didn't need a spy or camera to do it.

Because there's so much potential for monitoring every movement, every purchase, every decision and every choice made by a person, consumers and legislators are becoming increasingly concerned about the safety of that information. We know that data collection is often necessary and with legitimate intentions, but the mishandling and misappropriate use of that information is what creates so much concern.

Throw on top of all that the problems with identity theft, and you have the makings of a lot of laws. Studies show that many identity theft victims spend 300 to 500 hours dealing with their problems. Is it any wonder some want more laws protecting data about us?

The laws that were enacted in Bellweather, Calif., are only a hint of the next phase. California is discussing more privacy bills including, among other things, bills to regulate RFID (radio frequency identification) and how companies outsource technology. And if a state like California is implementing laws, you know that Congress isn't far behind.

The U.S. Congress is considering bills that mirror California laws about customer notification when a security breach occurs. Several states are beginning to consider bills that restrict outsourcing operations in which the data involved contains personal information.

From coast to coast, companies are starting to examine what it takes to comply with anti-spam and privacy protection laws. But if you're in a small company, you too must follow these requirements, so don't go running away just yet.

The fact is small companies must comply as well. The difficulty is in keeping up with the laws. Did you notice that Michigan enacted an anti-spam child protection law? It sounds so reasonable. In order to protect children from highly opportunists and salacious panderers of filth, Michigan set up a registry similar to the "Do Not Call" registry established by the FTC. If a parent registers a child's email address in Michigan, no company is permitted to send unsolicited email to that child.

From a compliance point of view, however, that's almost impossible for small or even medium-sized businesses to follow. They'll have to monitor that registry and match it against their email lists regularly. Even if you can't imagine how you would ever get a Michigan child's email in your system, you would still be breaking the law if

I Spy with My Electronic Eye...

Continued from page 13

you somehow sent an email to such a restricted address. And if another state sets up its own registry, that means another list with another technical specification will need to be matched up. The work grows exponentially.

That's why companies as large as Toyota are starting to back off on emails to Michigan; it's too difficult to stay on top of the rules.

This tsunami of regulations, appealing as they sound from a consumer's privacy point of view, will wreak havoc on many business processes. The laws might influence whether Web sites can collect personal data and the actual management of databases that store customers' personal information.

They certainly will affect how companies share personal data with third parties and restrict their ability to contact consumers via cell phones and faxes.

State lawmakers are also considering laws that could affect how your company outsources services that handle personal information.

Any company that sells a product or service to a resident of Michigan or California, even if the company is based outside these states, may be affected. A Web site that is used or viewed by a resident of these states may need to comply with these laws.

No company has yet been sued over these laws — yet. You're going to see more lawsuits for security breaches. If identity theft or financial losses are involved, you're already seeing some legal actions taking place.

So what should your business be doing?

Be prepared. You cannot avoid the changes, so start getting ready for them. Reduce your company's exposure to regulatory problems by learning about the legislation. You should be discussing these items with your corporate counsel and executives. Many of the laws allow you to protect yourself by using encrypted data.

You can also improve communications with your customers and business partners on what information you collect. Don't stop there, either; follow up with clear answers to questions from customers in the event of any privacy problems.

In many ways, following these rules can make your company look good to your customers. By complying and showing, talking, and being honest about privacy, your customers are likely to appreciate your efforts and be more reasonable if something bad does happen. The corporate goodwill will come about because the public is increasingly worried about rising reports of identity theft and fraud. There is a noticeable concern, rational

or not, that corporations will use personal information to barrage them with marketing campaigns.

Some estimates suggest that 10 million Americans experienced some sort of identity theft within the past year. Many of these thefts led to credit card and bank fraud. According to some, identity theft losses could reach $2 trillion worldwide by the end of next year. This explosion in identity theft has made consumers skeptical of any efforts to collect personal data. Many Americans believe strengthening privacy laws should be one of the government's main objectives.

Three years ago, California enacted a law that prevents businesses from using California residents' Social Security numbers as unique keys. That law also gave Californians the right to prevent access to their credit reports. This law became a model for many states that have since adopted the same rules. Most companies that deal with

California have stopped using Social Security numbers on badges, identification cards, and sensitive documents.

And if you're thinking these regulations are due to party politics, think again. California Republicans helped sponsor a bill last year that requires companies to remove the Social Security number from pay stubs.

California Governor Arnold Schwarzenegger just vetoed bills that are streaming from the legislature. The bills were introduced again and will probably be brought up repeatedly until the public stops demanding it. The vetoed bills included: making it illegal to outsource personal medical

information to foreign companies without first obtaining permission; requiring employers to notify employees before reviewing e-mail, monitoring Internet use, or electronically tracking location.

So it's a whole new world. Just like our mail, which is regulated to prevent us from sharing illegal information, our electronic information is going to be regulated, to prevent us from disclosing personal information intentionally or accidentally. The immense move towards greater privacy certainly begs a question: Which force will win? The desire for privacy or the desire to monitor everything in a fearful post-911 America? is

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SB+ 101
SB+ Basics, Part Ten
By Danny Passig

This article will conclude my discussion of field definitions in System Builder.

Editor's Note: This installment of SB+ Basics follows Part 9, which appeared in the May/June issue, and will conclude the SB+ series.

F3 - Help

If you press the F3 key you will be able to specify whether or not help text will be available for the field you are entering.

• Enter Y to enter a help reminder and any optional additional levels of help.

• Enter N if you will not be entering any help text.

• Enter D to delete a help reminder.

To save the help reminder, press <ENTER> and SB+ will ask if you want to enter second level help. If you are entering second level help, you will have to specify the top left and bottom right corners of the help box in which the text will appear. Press ESC if you don't wish to save the help box information or F2 to save it. If you saved the second level help, you will be taken to the third level or full screen help. You may enter any text for this third level if you desire or press ESC to exit. If you save the third level help, you will be taken to the fourth level menu help which allows you to set up a menu of other help items. You may press F2 to save or ESC to exit from this area.

F6 - Addit

Use this key for additional features such as controlling/dependent, input conversion, justification and a full description.

• Enter C followed by the attribute numbers it controls separated by semi-colons or D followed by a semi colon and the attribute number of the controlling field. Examples:

C;5;7	controls attribute 5 and 7
D;4	dependent, controlled by attribute 1

NOTE: Define both sides of a controlling/dependent relationship correctly, since SB+ cannot do this automatically.

• Input conversion will be used to convert data entered to internal format. It will override any conversion implied by the [I option in conversion already defined. You may enter any valid input conversion such as MD2 or D2/. See Appendix A for a list of Input conversions you may use.

• Justification for the field will be determined by what you enter in this field and will override the default of L for field type A or R for numeric fields such as N,D or M.

• Full Description which will be used in generated manuals and definition listings.

X-REF

• **Define X-Ref fields -** SB+ will maintain the cross reference file each time data in the specified field is updated. Cross referencing works faster and more efficiently when you are searching for data in a file. Any field in the file can be cross referenced to become a secondary key. To reduce system overhead, you should not define too many Btree index fields. Define only commonly used fields.

• **Xfre Fld Names -** The names of the fields for which and index is to be maintained. Keeps these to a minimum to reduce system overhead.

• **Ignore Null Vals -** Enter Y if there is no need to store field values which are null. If it is important to have an entry in the index for every record that exists on the file, Enter N.

• **Index on words -** This will index each word in the cross reference field, but will greatly increase the number of index entries. This is useful in searching for records when you may only know one word or part of a word.

• **Default field to display -** If no fields are specified as Display fields in the selection process, any field names entered here will be displayed. Separate multiple names with spaces.

Create Index File - This option will create the index file from the entries you have made in the previous screens. The file will be named file-name.INDEX. You will be asked for the name of the DATA file containing the records to index and the number of records in the data file.

Regenerate Index - You will need to regenerate the index file if the file already has data in it or you change the index definition. You may also use this option if you feel that your index has been corrupted for any reason.

Delete Index File - Use this if the index is no longer needed and you wish to free up the space it takes on the system and reduce the overhead of maintaining the index.

I hope you have enjoyed these articles on SB+ as much as I have enjoyed writing them. I will be looking at writing on other areas of interest to the Multi-Value marketplace in the future. **is**

DANNY PASSIG is a senior software engineer at Natec Systems. He has 33 years experience in the IT field and is currently on the adjunct faculty at Colorado State University - Pueblo in the computer science department. Danny has done customer software development and system installations for various businesses. He has also worked for IBM as a support engineer for System Builder. Danny holds a Bachelor's degree in Business Administration/Accounting and an MSCIT from Regis University.

BY ROBERT CATALANO, REVELATION SOFTWARE

Converting, *or* Migrating,

Front-ending Applications and Data for Use with OpenInsight

In this installment, the second of three parts, we will explore data dictionary structure within OpenInsight, conversion of data dictionaries from traditional MultiValue systems to OpenInsight, and the relationship of dictionaries and data for use with an OpenInsight application.

OpenInsight Data Dictionaries

Each OpenInsight data table usually has a data dictionary associated with it although this is not a requirement. The data dictionary stores column definitions for the data table. Each column you define is one entry (row) in the data dictionary table. A data dictionary is identified as DICT.TABLE_NAME where TABLE_NAME is the name you give the table. For example, if you name a table CUSTOMER, the associated dictionary is automatically named DICT.CUSTOMER.

Dictionaries are used any time that an OpenInsight tool accesses data, or when you want to access the data by column name; for example, using TCL or Report Builder. If the data in a table is not structured and has no cross-row relationships, you are not required to have a dictionary; for example, a table containing text such as program code. In those cases, if you have a dictionary, there are no column definitions in it.

Once a table has been created, or when working with an existing table, data columns may be created by using the Table Builder tool. When you select a file in the Table Builder, the following window is displayed:
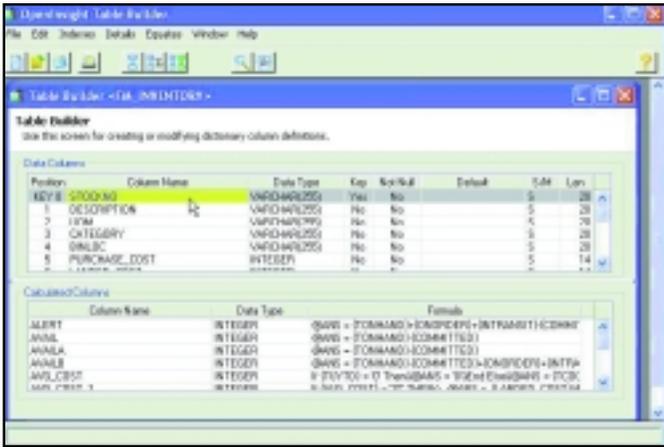
The dictionary components are as follows:

• **Position** is filled in automatically by the system.

• **Column name** is the name of the field. Column names:

- Can have a maximum of 50 characters and must begin with an alpha character;

- Can use the following legal characters: upper case A-Z, 0-9, and _ (underscore);

- Cannot be a system-reserved word, such as SELECT, WITH, SORT, etc.

- Must be unique within the data dictionary.

• **Data Type** is the data type of the column (e.g. BOOLEAN, CHAR, DATE, INTEGER, VARCHAR)

• **Key** is a Boolean Field indicating whether or not the column is the key for the table.

• **Not Null** indicates whether or not data must be entered into this field before the record is saved.

• **Default** is the data that will appear as a default during data entry.

• **S/M** is the value type, where S is single value and M is multivalue.

• **Len** is the display length of the field.

Dictionary Properties

OpenInsight allows you to define calculated (or "symbolic") columns, giving you the full power of Basic+ in your dictionaries. These are used in place of

Converting, *or* Migrating,

Front-ending Applications and Data for Use with OpenInsight

Continued from page 19
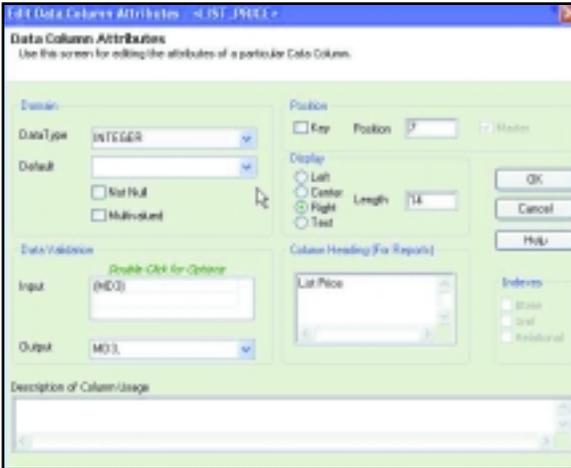
the conversions and correlatives found in traditional multivalue dictionaries. The formulas that define calculated (or symbolic) columns are stored in the data dictionary. When you build a formula, you use the names of existing columns to define the formula from which the calculated column is derived.

For example, T correlatives are replaced using the XLATE function:

• **Name** is the name of the calculated column.

• **Data Type** is the data type for this column.

• **Output** is the Output Conversion or OCONV for this column.

• **Multivalued**, when checked, indicates that multiple data values are to be returned by this column.

• **Left/Right/Text** is a radio button group, which indicates how the data will be displayed when printed on reports.

• **Length** is the default display length. It does not limit the amount of data that can be stored in this column.

• **Column Heading** (For Reports) is the default column heading that will appear in reports, or when this column is added to a data entry form using the Form Designer tool.

• **Edit Formula** is the formula for the calculated column. This formula is used to determine the values for the column. In the illustration above, the result (returned in @ANS) is the product category description.

• The **Test** button is used to check the syntax of the calculated column.

• **Description of Column** Usage is a text field used for documentation purposes

There are many uses for calculated columns. For example, an INVOICE_ TOTAL column might contain a formula that multiplies the value in the QUANTITY column by the value in the PRICE column. The calculated field formula could also be a function to look up values and extract data from a related table, or perform some other processing.

Converting your data dictionaries for use within OpenInsight

OpenInsight includes a "U2 Dictionary Converter" tool to automate the process of converting your existing data dictionaries. In our last article, we discussed the various ways you could import your dictionaries and data into an OpenInsight table. The "U2 Dictionary Converter" tool is designed to convert and move the existing dictionaries to their proper location.

U2 Dictionary Converter Wizard

The conversion program depicted in our previous article could be utilized to save our traditional dictionaries into a table called DICT_INVENTORY. The dictionary conversion wizard will convert and move the data dictionaries from the table DICT_INVENTORY to the table DICT.INVENTORY.
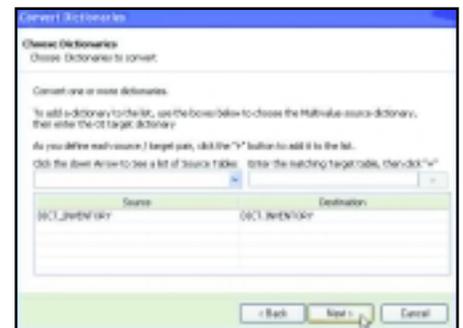
Once the dictionaries are converted they can be edited using the Table Builder tool.
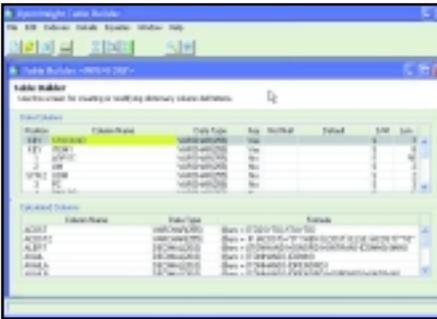
Understanding the relationship of dictionaries and data for use with an OpenInsight application

In traditional MultiValue systems we create an account and then create files (or tables) within that account. The programs, dictionaries and data all exist under that account name (with the exception of Q pointers). In OpenInsight, we create an application and also create tables, specify the location of where the tables exist, and then attach those tables for use within the application. In fact, both the dictionaries and data may exist anywhere on the network.
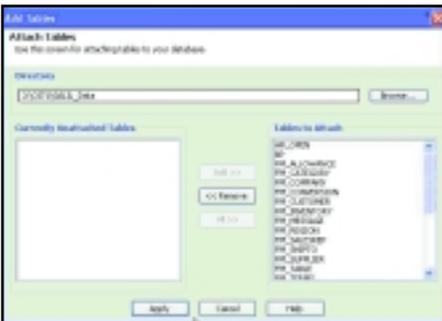
Conclusion

Once your data dictionaries are converted and attached to your application you are now ready to begin the process of creating forms, reports and programs for use with your data. In our next installment, we will explore the migration of reports and business logic for use within OpenInsight as well as a strategy to create graphical forms. **is**

Spectrum Parties—
Nights to Remember

In the '80s and '90s, International Spectrum parties were renowned for being unforgettable events that left an indelible imprint. The end of the Spectrum show signaled the start of a party that pulled out all the stops. Each year, conference delegates and exhibitors could expect to be entertained, dined and wined to the extreme. A themed extravaganza, each year's party seemed to top the previous year. Planned down to the smallest detail, the parties, hosted by Monica and Gus Giobbi and co-sponsored by MultiValue companies, could cost upwards of $75,000.

Long-time industry veterans can recall years later the mood and feelings that a Spectrum party evoked. From a performance from Tina Turner to an exotic Arabian Nights party replete with dancers and Middle Eastern cuisine, the Spectrum parties were often events you had to experience to fully appreciate.

Larry Christensen, vice president of Management Information Tools Inc. (MITI) and a veteran of many Spectrum shows, remembers: "Gus and Monica always worked very hard every year to make sure there would be something special about each of the events. Both my wife Shirley and I especially enjoyed the black-tie events. The absolute best for us was the classy feeling associated with the entire venue as you walked into the room for the Phantom of the Opera dinner—dim lights, candelabras, the works. The dinner and entertainment were just amazing! These are good memories."
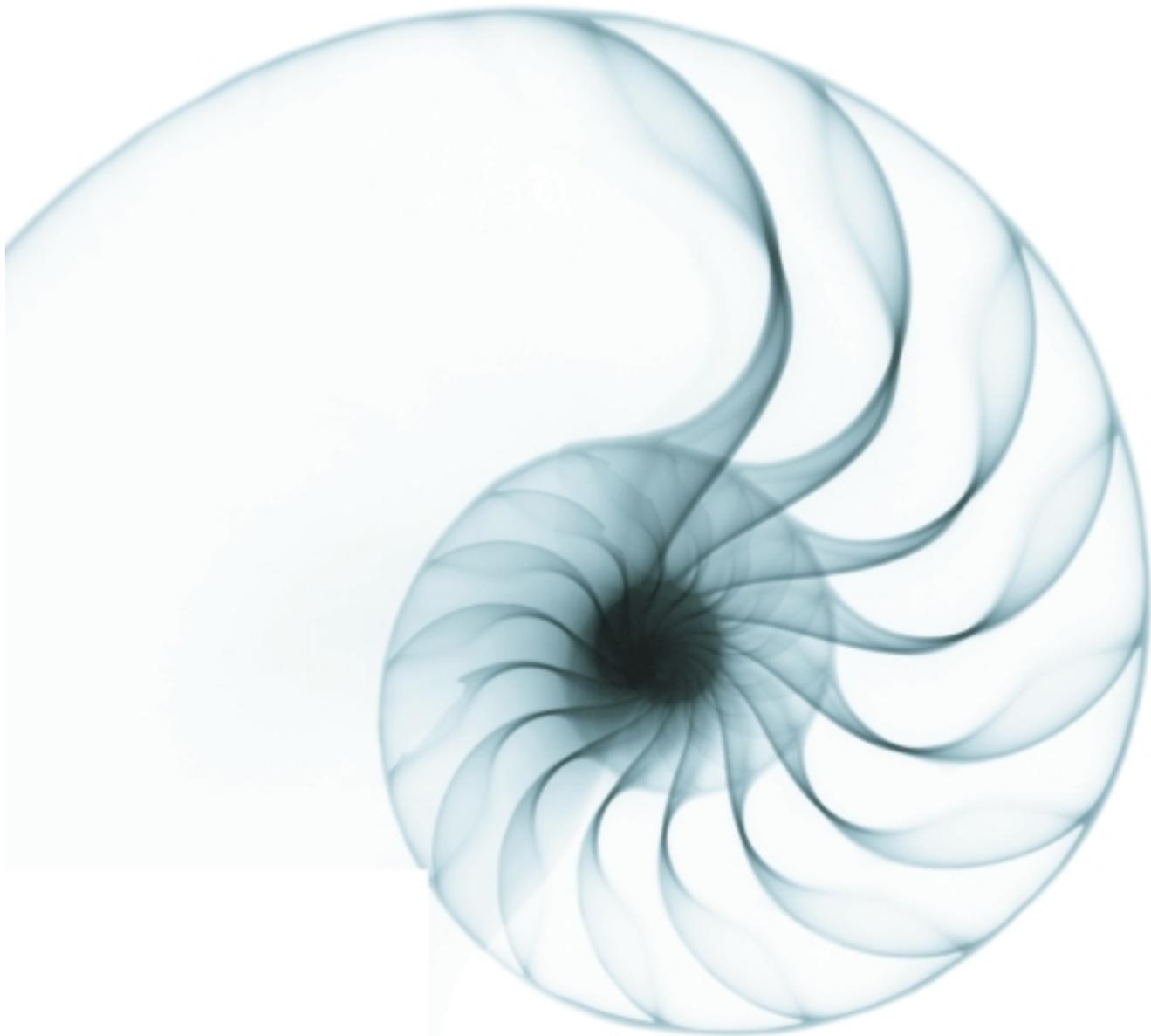
YES

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"DesignBais provides Evolve 360 with an ability to modernise the user interface of our distribution, supply chain and warehouse management application without significant costs. It is very intuitive so we will be able to secure our investment in existing technologies and leverage the knowledge of our development and consulting skills immediately."

Alan Godby - Product Director - Evolve 360 Pty Ltd

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Spectrum Parties—
Nights to
Remember

"Between the time we booked it and the time the show came, she made a comeback with 'What's Love Got to Do With It?' It was No. 1 on the charts. The Hilton came back to us and said, 'You can't have the performance night; we want it back.' We said, 'No way.' They said 'Fine, but we want the $25,000 upfront.' So we ponied up the $25K, and the Hilton was begging for tickets from us."

The Top Three

1 For the producers of the events, the most memorable party was the Arabian Nights party at the MGM Grand in Las Vegas. Gus Giobbi, producer of the Spectrum show and chairman of IDBMA Inc., recalls: "The MGM's huge ballroom was essentially transformed into a Bedouin tent. The ceiling looked like the sky, there were eight food stations with cuisine from the Middle East, and roving entertainment. All the guests reclined on silk pillows while they dined. Then we had this climatic act—the Garza Brothers—who I think are still active with Cirque Du Soleil. They did an amazing feat of strength demonstration to music, which had everybody kind of awestruck. That would have to be the top event in my mind."

2 A close second would be lucking into having Tina Turner perform at Spectrum in Australia when she was at the top of her game. "Anybody who was at that show still can't get over this one," Giobbi

Spectrum attendees unanimously agree that the "Arabian Nights" party at the MGM Grand Las Vegas wins the award for Best Spectrum Party of the Past.

continues. "The history there was that she was in Australia filming Mad Max and her career was kind of in a lull at that point in time. The Sydney Hilton had reserved five nights of her performances but didn't really know who Tina Turner was. So a year out from the show, they asked us if we wanted to buy a night of Tina Turner and a sit down dinner for 500 people, which we did for $25,000.

3 Coming in third in the eyes of show producers is the Phantom of the Opera, which also has an interesting backstory. "We did that party at the Marriott in Anaheim," Giobbi recounts. "Monica and I went to Anaheim about a month before Spectrum to get a sneak preview of the show, which was performed by the actual understudies from the L.A. production. We saw it and basically thought they sucked. So the entertainment director at the Marriott said he had this other husband-and-wife team and they wanted to interview for us. Now, they just knocked our socks off. They were as good if not better than the star performers. People really remembered that party."

Tina Turner following her performance at Spectrum at the Sydney Hilton.

The Great PICK Famine

On the flip side, a party that was memorable for unpleasantness was held at an early Spectrum show in Lake Tahoe. Giobbi explains, "My wife Monica had the flu and was deathly ill. We had scheduled a buffet at 7 in the evening. It was supposed to be a

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R E G I S T E R   T O D A Y !   **www.intl-spectrum.com**

Spectrum Parties—
Nights to Remember

finger food reception. But people didn't eat all day and they came in ravenous, so the first wave of people depleted the buffet, and there was no food for the rest of the people. That was the worst.

"The good side of the story was that the MGM made up for it the next night. Because we had our theme party the next day, they really put on the dog, and comedy duo Williams and Ree made fun of it. It was hilarious. It all turned out

well, but we had some people that were pretty vicious about the whole thing. That's one we wouldn't want to relive."

Money Pouring From the Sky

While it was never hard to come with a party theme—the hotel's entertainment staff has lots of ideas on tap—it was a bit more difficult to come up

Normal Spectrum people turn into "Tacky Tourists" at the Spectrum party of the same name.

with the amount of money these events required. A sign of the prosperous times, the parties spared no expense, and sponsorships shouldered the bulk of the cost. Giobbi says the Arabian Nights party was the most expensive, costing in the $80,000 range. "This was back in the days when money was pouring out of the sky [in the '80s]. The major manufacturers of the time, like Digital, Fujitsu and the list goes on, were also selling the MultiValue database directly with their own sales force. Data General, Prime, and lots of major companies had the budget to sponsor events of this magnitude."

That's not the case anymore, as the closing of these major companies spelled the end of this period of excess. "They all disappeared, one by one," Giobbi says. "Digital had their $2 billion in a single quarter loss. Prime went toes up; Fujitsu pulled out of the market. The main thing that happened was the minicomputer crash. Those companies that continued to try to sell computers in the $100,000 range and up, and didn't see the PC revolution coming, died out."

The Giveaways Give Headaches

Memorable for show producers in another way were the giveaways. They always seemed to give more headaches than surprises, so the big prizes eventually gave way. "One year we decided to give away a Spectrum car---get it, a Spectrum at the Spectrum show," Giobbi remembers. "This was in Las Vegas with our Paris cabaret theme party. The idea was that there were 10 keys but only one of the keys from the dealer would start the car."

A drawing was held, and 10 people came up on the stage. One by one, with drum rolls and an MC announcing each attempt, the chosen people

tried their keys. "One didn't fit, two didn't fit, three didn't fit," he says. "We got all the way up to No. 10, who was a lady. In retrospect, everybody said, 'She should have just said, "Obviously, the car is mine.'" But she tried her key and it didn't work. Then everybody thought Spectrum was trying to pull some sort of scam," he says with a laugh.

"So we're under the hood, looking because the starter was hooked into the overhead filled with confetti and balloons that were going to fall from the ceiling into the ballroom. In the end, it turns out that this was the first year that Chevy had required the brake be pressed all the way to the floor in order to start the car."

All the contestants went through another round of trying each key. The fifth key triggered the balloons, confetti and music. However, that wasn't the end of the drama. "The winner turned out to be from Hawaii, and he didn't want the car," Giobbi says. "So we said, 'We've made an arrangement with the dealer where they'll give you cash for it.' The dealer ended up giving him $2,000 less than what the car was worth. Well, the guy came back and was complaining to us because he's losing $2,000. Then he realized he was going to have to pay taxes on it. The dealer had even made arrangements for him to pick up the car in Hawaii. Anyway, in the end, he took the cash—back then, something like $6,000."

Undeterred by the Spectrum car fiasco, another great prize was planned for the first Spectrum Australia show-a roundtrip ticket to Australia. Thinking ahead, Giobbi says, they made a stipulation that the roundtrip ticket had to depart from Los Angeles. Unfortunately, the winner actually lived in Switzerland. "He was busting our chops because he wanted to know how he was going to get to L.A.," he says. "So that was it with the giveaways." is

News from MultiValue DBMS Core

Raining Data Announces Pick Data

Raining Data has announced the general availability of Pick Data Provider for .NET version 3.0. Pick Data Provider for .NET leverages native data access to Pick D3, IBM UniVerse and UniData databases through Microsoft Visual Studio .NET technology. This combined strength offers developers a comprehensive integrated development environment in which to build scalable and high performance Microsoft .NET Framework-based applications leveraging the intrinsic capabilities of the Pick data model without explicit normalization requirements.

Key Feature

In this new release, Pick Data Provider for .NET 3.0 includes ADO.NET fully embedded in the development and deployment options. This implementation is consistent with the specifications delineated by Microsoft's ADO.NET interface. As a result, the ability to build transactional-based applications reliant on effective Pick data management event handling can be easily achieved through Visual Studio .NET. Developers unfamiliar with the Pick database can utilize consistent queries, data retrieval and transactional update of Pick data files via standard Microsoft ADO.NET data access.

A full list of enhancements and resolutions appears in the files supplied with the release, or view the product documentation at **http://www.rainingdata.com/support/documentation/pdp/index.html** posted on Raining Data's Web site.

Product Availability

Pick Data Provider for .NET 3.0 has been certified on the following database platforms. Product activation is available on the Raining Data Web site.

Database Product, Version Number, Operating System

◆ D3 NT 7.4.5 or later

◆ Windows 2K Pro/XP Pro/2003 with latest service packs

◆ D3 Linux 7.4.2 or later; Red Hat Linux Enterprise 3.0 or later

◆ D3 AIX 7.4.2 or later; AIX 5.2.0 or later; UniVerse 9.6 or later; Windows 2K/XP Pro/2003 with latest service packs/AIX/Linux

Providers

Provider for .NET 3.0

◆ UniData 5.2 or later; Windows 2K/XP Pro/2003 with latest service packs/AIX/Linux

Note: Pick Data Provider for .NET SDKs require the purchase of at least one deployment license activated on the target database server. Purchases of additional D3 database licenses and support are available at the then prevailing prices. Prices and terms are subject to change without notice.

Upgrade Requirements

The Pick Data Provider for .NET 3.0 upgrade is available at no charge to existing Pick Data Provider for .NET licenses under an active Software Maintenance Agreement (SMA). A credit for the unused portion of the existing SMA will be applied toward the purchase of a new annual SMA for the Pick Data Provider for .NET 3.0 license.

For more information about Pick Data Provider for .NET or any of Raining Data's products and services, please contact your Raining Data sales representative at 949-442-4400 or e-mail sales@rainingdata.com for further assistance.

IBM News
DB2 Magazine Coverage

I n the current issue of *DB2 Magazine*, you will see U2 included in the following article: "The Power of Insight" and in the sidebar, "Behind the Scenes: Embeddable Databases."

Businesses need more than data—even more than information—to figure out their best moves. In this pivotal issue of *DB2 Magazine*, IBM's Janet Perna reveals the first infrastructure to put the power of insight within reach. Other articles in the issue explain how the most advanced infrastructure elements, which IBM calls information services, are helping businesses get the most value from their information, no matter what format it's in or where it resides.

You can find "The Power of Insight," by Janet Perna and Andrew Warzecha at http://news.db2mag.com/cgi-bin4/DM/y/epnU0F8ySx0FLd0DcU40AE

New Web Pages
IBM has announced that U2 Web pages for Linux are now available at http://www.ibm.com/software/data/u2/linux.

It has also added a U2 Technical Resource Center page to the developerWorks site at http://www.ibm.com/developerworks/db2/products/u2. Get technical information about the IBM UniData, UniVerse and associated tools products.

Check out the feature article: **IBM U2: The big picture** http://www.ibm.com/developerworks/db2/library/techarticle/dm-0508oswald/

Gain a basic understanding of the IBM U2 product line, and gather information about the extended relational data model, architecture, benefits, and associated tools products.

New Collateral
The new wIntegrate data sheet is now available for download by clicking "Data Sheet" in the right hand navigation area under the Highlights section at http://www.ibm.com/software/data/u2/wintegrate.

IBM U2 Team Moves to the IBM Facility at the Denver Tech Center
The IBM U2 Team will be moving to the Denver Tech Center on September 24, 2005, joining other IBM employees currently residing at this location.

The new address as of September 24 will be:
IBM Corporation, 4700 S. Syracuse Street, Denver, CO 80237

All of the U2 employees at the new location will have new phone numbers assigned. Individual contact information, including phone numbers, will be posted in the e-mail signature line of each U2 employee moving to the new location beginning in late August.

The current phone system will not allow call forwarding and the old phone numbers will cease to work on September 24. E-mail addresses will remain the same following the move. As always, you can contact IBM at U2AskUs@us.ibm.com.

Technical Update

Reality V12.0
Available from Northgate Information Solutions in December 2005

New features coming in Reality V12.0:

Reality Web Services

Users will be able to offer secure access to DataBasic routines over the Internet to non-Reality applications without having to modify code. Reality leverages Northgate's Web Services Framework to expose and publish existing DataBasic subroutines as standard Web Services providing benefits, which include:

◆ Greater efficiency: one standard, one set of tools

◆ Greater interoperability: can interact with any consumer worldwide or locally

◆ Reduced integration costs: service all consumers on any platform

◆ Reduced training requirements: only need one technology

◆ Simplified business communications: one service can be offered to everyone

◆ Responsiveness: organizations can respond quicker to market demands

◆ Reduced maintenance: Web Services promotes the use of clean interfaces

◆ Component re-use: Deploy your services to many applications

◆ Externalize business assets: integrate with customers, partners and suppliers

◆ Reduced costs: Uses standard Web communication technologies

◆ Service consumers: can use any environment which supports Web Services

XML Parser/Generator

Simplify working with XML documents. Easily extract information from XML documents with simple to define queries. The Reality high performance XML parser is written in C and accessed from dataBasic for superior performance, faster than any solely DataBasic-based XML solution. XML documents are parsed into memory as a DOM tree—they can then be queried many times without having to reparse.

Incorporate MultiValue data into XML documents using simple templates.

Fast Backup/Restore

Need to reduce your system backup and restore times?

Reality V12.0 introduces a new backup method, which can reduce your current backup and restore times by up to 30 times and back up running systems without affecting your active users.

DataBasic Profiler

Tune your application; see where time and system resources are spent within a DataBasic application.

Capture a profile of any DataBasic application and see the call path taken

though the application with timings of how long each subroutine is taking. Profiles can be presented in a graphical format for simple interpretation.

DataBasic Stack Trace

View the DataBasic call stack as it changes, with details of the time taken to make each subroutine call. Simplify the diagnosis of problems with particular ports.

CSV File Integration

Seamlessly read and update CSV and tab-separated files, as if they were native Reality files within the Database. No need for code, no intermediate data.

GDI Printer Support

Drive lower specification windows printers and Pseudo printer drivers, such as PDF generators, directly from Reality.

Set up Reality despoolers on Windows hosts to print using the Windows GDI (Graphical Device Interface). This is a high-level printer-independent interface that translates the print data into a graphical format that can be printed without further processing by the printer.

Reality DR (Disaster Recovery)

Offer greater protection by maintaining a copy of your database on a remote machine via a possibly slow or intermittent communications link.

System & Application Alerts

Provides a mechanism to report a range of significant events in real time to users over a choice of transmission mediums, such as email, SMS text messages and HTML pages.

Striped Partition Filing System

New higher performance file system for Windows and AIX, Striped Partition Filing System allows you to tune system and disk caching to optimize performance.

Database Isolation

Run completely independent Reality databases on a single system, separate logs, license keys.

Compatibility Enhancements

Numerous compatibility enhancements to further simplify your migration to Reality:

New Functionality - Verbs

> **ISELECT, ICOUNT**

New Functionality - DataBasic

> **BREAK, EXIT, CONTINUE (in loops), SENTENCE(n), READNEXT KEY, READPREV KEY**

Enhanced Functionality to

> **EXECUTE (full Syntax)**

Enhanced Account restore for mvEnterprise and jBASE tapes.

mvEnterprise and jBASE tape image compatibility

Number of Proc file and select buffers increased to 47

New Platforms

Linux ES 4, Linux ES 3 (64 Bit)

Some of the above functionality is available as chargeable options on Reality V11.0. For pricing, contact your nearest Northgate Sales office, visit www.northgate-is.com/reality, email realityusa@northgate-is.com or reality@northgate-is.com.

newsmakers

Reynolds & Reynolds Abandons MultiValue Replacement Software

In its most recent quarterly earnings report, automobile dealer software manufacturer Reynolds & Reynolds announced they were no longer selling their Reynolds Generation Series (RGS) product, a replacement of its UniVerse-based product written using .NET and SQL Server. The company said that after almost two years, less than one percent of their customer base switched over to the new system, and they wrote off the development effort for $67 million dollars. The company is currently evaluating any other potential impacts of this decision and may recognize additional costs in the fourth fiscal quarter.

Naval Air Warfare Center Awarded First Prize in InterSystems 2005 CACHE Innovator Awards

InterSystems Corp. announced that the Naval Air Warfare Center Aircraft Division (NAWCAD) won top honors in the 2005 CACHÉ Innovator Awards competition. The award was presented to George Hurlburt and Joseph Jameson at the sixth annual Innovator Awards event, held at InterSystems' DEVCON 2005 conference in Palm Springs, Calif. Hurlburt is manager, Joint Interoperability for Systems Technology, Test and Training (JIST3). Jameson is a system developer for Diverse Technologies Corporation, a high technology professional services firm.

InterSystems develops and markets the CACHÉ post-relational database and Ensemble universal integration platform worldwide. InterSystems offers a broad set of MultiValue extensions for Caché, which were introduced at the International Spectrum 2005 trade show. These extensions enable the migration of MultiValue applications to Caché and bring the full range of Caché object and SQL development technologies to MultiValue developers.

The first place Innovator Award recognized the Information Management Department (IMD) of NAWCAD for a CACHÉ-based application that permits generation of dynamic warfighting scenarios to build Global Information Grid architectures. This capability is known as the Warfighting Architecture Requirements (WAR) tool. The WAR development

SJ+ Unveils PRC Release 6

The leading software development life-cycle management tool for MultiValue developers just got better. Release 6 of PRC is a sturdy and clean re-factoring of 14+ years of know-how and dozens of Sarbanes-Oxley audits.

PRC Release 6 puts a complete compliance framework into place and provides immediate clarity to the software development life-cycle. From user-requests, approvals, project management and source control right through deployment with security controls, rollbacks and provisions for the reality of emergency data and software fixes, PRC 6 provides a complete, mature solution for MultiValue / U2-based companies.

PRC was designed from the beginning for high levels of scalability, allowing customers to start small and grow their own processes into "best practices" for addressing metadata issues. "SJ+ knows their customers — small, flexible IT shops that tend to run faster and more efficiently than what is probably average," says Susan Joslyn, president and chief architect of PRC. "We are used to the freedom, the flexibility, the rapid response that we get from our MultiValue software. And so are our business users. PRC 6 brings the control and compliance while minimizing the interference."

For more information, contact http://sjplus.com or info@sjplus.com, phone: 954-796-9868.

effort was supported by the Naval Air Systems Command and the National Institute for Systems Test and Productivity.

"We fully leveraged CACHÉ object capabilities to achieve application benchmark performance on average ten times that of conventional large-scale relational DBMS benchmark sets," Hurlburt said. "The CACHÉ object technology enables simultaneous reconciliation of various viewpoints ranging from acquisition, to warfighting to capability orientations and more," he continued.

Carl Olofson, Program Director for IDC, a leading global intelligence and market advisory firm for the IT and telecom industries, independently reviewed the award submissions and named the winners. "It's always a privilege and always a challenge to identify the best of the best among the developers in this competition," he said.

"It's exciting to see the innovative thinking that goes into the CACHÉ-based applications submitted for the Innovator's Award each year," said Paul Grabscheid, InterSystems vice president of Strategic Planning. "The creativity and advanced technology approach that underlie the WAR application exemplify the high level of innovation that we're privileged to witness each year."

Nebula R&D Joins jBASE International's Distribution Network

jBASE International announces a new relationship with Nebula Research and Development for distribution of the jBASE DBMS. Nebula R&D is strategically expanding its scope to include more quality products with high marketability potential. "We have a number of reasons for forging this relationship," explains Tony Gravagno, president of Nebula R&D, "but for me there are two primary goals. First, jBASE is great software with a strong company behind it, but I think it's largely misunderstood by our MV developer community. As a value-add distributor we plan to help more people to become familiar with this platform. This includes VARs who use the Pick data model, and also people who have never heard of this market. Second, we want to help jBASE VARs expand their market, perhaps by enhancing their apps with modern interfaces."

Pete Loveless, CEO of jBASE International, welcomes the new partnership. "Many International and domestic application solution providers in numerous industry verticals are already experiencing the significant and unique benefits of the jBASE MultiValue solution," Loveless states. "However, it is through the involvement of experienced partners, such as Nebula R&D, that jBASE is continuing to expand its user base in helping organizations take their software solutions to the next level of functionality, performance and flexibility. jBASE International are delighted to welcome Nebula R&D as a jBASE partner."

In addition to the jBASE DBMS and related components, Nebula R&D will offer clients industry-standard third-party products (to be announced) to add even more value to their applications, along with related support, development services, and marketing assistance. "A distributor can play an important role in the sales channel," Tony says candidly, "it's not a position we take lightly. A distributor helps to keep resellers up on technical and industry changes they need to know about, helps to bring prospects to resellers, and helps to act as an interface to the supplier. This is the sort of value-add relationship that we hope will attract VARs and end users to Nebula Research and Development."

Contact Nebula R&D in the USA at (949) 380-1668 or jbase@Nebula-RnD.com.

About jBASE International
jBASE International is a leading supplier of database management software and Web enabling tools for developing, deploying, and maintaining business applications solutions. The flagship product, jBASE, was designed from the ground up to be an open database product that would bring the strengths of MultiValue technology into the mainstream computing market. With exclusive worldwide distribution rights, jBASE International offers technologies and assistance that allow businesses to thrive into the future. Visit www.jbase.com for more information.

About Nebula R&D
Based in Southern California, Nebula R&D (http://Nebula-RnD.com) provides VARs and end users with products and specialty services to enhance business applications for modern commerce. Specific areas of focus include .NET development and consultation, Web enablement, B2B EDI, and integration of existing systems with external devices and systems. Strategic partnerships now being forged allow the company to work even closer with more VARs, to help satisfy the needs of their end users, and to open Pick/MultiValue products to new audiences.

newsmakers

A comprehensive review of the Department of Defense Architectural Framework (DODAF) inspired the WAR system design, according to Hurlburt. Requirements included the ability to encompass and characterize a full spectrum of related warfighting resources, the ability to effectively relate warfighting resources to tasks and the ability to correlate DODAF operational and systems views.

The WAR tool incorporates Web, object and scalar vector graphics to drive architectures through applied data and is currently being documented for a government-sponsored patent.

About InterSystems

Headquartered in Cambridge, Mass., InterSystems Corporation (www.InterSystems.com) has served the needs of IT organizations and independent software vendors for more than two decades. InterSystems' showcase products, the CACHÉ post-relational database and the Ensemble universal integration platform, enable the rapid creation and fast integration of high-performance applications. Over four million people use mission-critical applications based on InterSystems' software. Twenty-five regional offices serve application developers and integrators around the world, and 24 x 7 support is provided for all InterSystems products.

Nebula R&D is Distributor for mv.NET

Nebula Research and Development announced that it has signed an agreement with Bluefinity International as a distributor for mv.NET. This agreement allows Nebula R&D to market the mv.NET development library to VARs and end-user developers globally, but Nebula will especially focus on the North American market.

"We're building a base of products and service offerings to make Nebula R&D a key resource for developers around the world who want to modernize their applications and make them more marketable," says Tony Gravagno, president of Nebula R&D. "To meet our goals, we've selected specific products based on quality, marketability, and other factors. We also want to do business with companies that are dedicated to their products and responsive to their user/developer base. I was impressed with mv.NET from the first time I saw it, and I've been equally impressed with Bluefinity ever since. We're very happy to have forged this relationship with Bluefinity."

"The exceedingly strong market demand for mv.NET globally has resulted in BlueFinity moving quickly to appoint and train best of breed partners for the product in markets around the world," states Pete Loveless, CEO of BlueFinity International. "We are delighted to have added Nebula R&D to this growing list and look forward to a long and highly beneficial relationship with them."

Working with Bluefinity, the Nebula R&D offering includes assisting clients with their own development strategies, and providing fundamental through professional .NET training, quality develop-

Peter Rogers Joins Via Systems from Parent Company EDP

Peter Rogers from Via Systems' parent company (EDP) in Milton Keyes, U.K., has come stateside to Colorado Springs, Colo., to fill the position of senior support specialist II. Peter has been with EDP since 1995, and brings with him a broad technical skill set not only in MultiValue but also in Linux, UNIX and Windows platforms. With Peter's skill set and commitment to customer satisfaction, Via Systems said it will continue to bring to its customers expert technical service on all of its product suites, including the newest products—Quantum VS myViewpoint and Quantum VS XML Highway.

ment services, and of course support for mv.NET. Gravagno adds, "We're going to provide tips and tutorials to our client base, and really create community around this product. We want to provide VARs with resources they need to make their new prospects and existing end users happy."

Contact Nebula R&D in the USA at (949) 380-1668 or mv.net@Nebula-RnD.com.

About BlueFinity International

BlueFinity International supplies leading-edge software development tools and consultancy services to the MultiValue database and Microsoft developer communities. The flagship product, mv.NET, is a comprehensive solution for developers wishing to access MultiValue databases from within Microsoft's .NET environment. mv.NET provides a 100 percent native .NET interface to all MultiValue database platforms, allowing .NET developers to access all aspects of MultiValue systems — both data and program code — from within their .NET application. Visit www.bluefinity.com for more information.

Ashwood Participates in OATHA

Ashwood Computer Company announced its membership and participation in OATHA (Organization for the Advancement of Technology in Housing Authorities).

Kerry Shlaes Joins Modular Information Systems

Modular Information Systems, a full service Information Technology Consulting firm, announced the hiring of Kerry Shlaes as Multivalue Practice Manager. He will be responsible for MultiValue consulting projects and coordination of new projects for MultiValue accounts.

Kerry brings more than 25 years experience in the information technology industry to Modular Information Systems. He has worked on a wide variety of projects including: the planning and development of project management and accounting products for the professional services industries, and supervised a team supervision in the design, development, and implementation of changes to a package import system, which interfaced with the U.S. Customs/Census Automated Export System.

Modular Information Systems is a full service information technology consulting company offering a wide range of professional services and products for businesses using MultiValue, Microsoft, UNIX, and Linux computing solutions. Modular Information Systems is a Microsoft Certified Partner, an IBM Business Partner, and authorized resellers of many quality hardware and software solutions, including Cisco and Hewlett-Packard. Modular's services include MultiValue application development, application support, custom programming, technical documentation, MultiValue Help Desk, outsourcing, and project management. Visit its Website at www.miscorp.com for more information.

Heather Guilfoyle, Ashwood's company representative to OATHA, is looking forward to offering Ashwood's MultiValue expertise as a tremendous resource for this market. "Ashwood has worked with several area housing authorities over the years and having their application knowledge, MV database expertise and hardware partnerships, can offer housing authorities a resource for Professional Services, Sales and Support where needed. We are also a strong resource for Web and reporting tool projects such as WADE, DesignBais, RedBack, MITS, etc."

"We plan to participate in the annual conference and

penetrate the market with much enthusiasm. Please contact OATHA for membership details at www.oatha.org or myself for information on Ashwood's resources at heatherg@ashwoodcomputer.com."

Nebula R&D Named Distributor for OSMOSiS Development Tools

Nebula Research and Development announced that it has signed with SC Systems as a distributor for OSMOSiS, the 4GL Rapid Application Development toolkit. The bi-mode software produces both Character User Interfaces (CUI) and Graphical User Inter-

faces (GUI), and applications can themselves be maintained from CUI or GUI screens. The OSMOSiS family of tools includes cross-platform DBMS management tools, plus components for fax, email, SMS, print management, and more.

As a key feature, OSMOSiS includes a high-quality conversion component for System Builder and SB+, which even converts paragraphs into usable BASIC code. Tony Gravagno, president of Nebula R&D, describes the product enthusiastically. "We know there are sites out there who are looking for something 'like SB+', but 'not SB+', and other sites look-

newsmakers

ing to convert out of SB+, but they don't know where to go. OSMOSiS allows an application to be easily ported without changing DBMS platforms and without losing valued functionality."

"None of the currently available RAD tools allow creation of Visual Basic forms, with total Windows application integration, and none provide the openness of an OSMOSiS and MultiValue system," comments Neil Charrington, director, SC Systems. "The design principle of the OSMOSiS-SB Converter is to create a tool set, which is capable of taking other MultiValue RAD applications and translating them into the OSMOSiS product's parameters and conventions. OSMOSiS removes the isolated environment, which has limited MultiValue database developers for a long time. They now have the tools to achieve this transformation quickly and effectively."

The Integrated Development Environment (IDE) for OSMOSiS is professional, attractive, and familiar to anyone who uses GUI development tools. It is equally familiar to developers who have experience with System Builder, SB+, and other tools in the MultiValue market, and is well-suited as a first GUI RAD IDE for traditional MV developers. The IDE includes color-coded BASIC syntax and on-line help for all BASIC instructions. This is ideal for MV developers writing cross-platform code, or even for new developers who are not yet familiar with the Pick data model. OSMOSiS also supports features that people ask about frequently, including data exports, menus, grids, security, and a query builder.

> None of the currently available RAD tools allow creation of Visual Basic forms, with total Windows application integration, and none provide the openness of an OSMOSiS and MultiValue system.

In collaboration with SC Systems, Nebula Research and Development will provide conversion services from SB+, development assistance for OSMOSiS users, product support, and marketing assistance. Gravagno explains the relationship of OSMOSiS to the new Nebula R&D line of supported products and services. "I've seen a lot of GUI development tools, there are few that I like, and even fewer that I support. Products in our new lineup must meet standards of quality and marketability, and we want to add special value to products like this which will help VARs to sell their applications. As a distributor for OSMOSiS, I'm sure we'll be able to do that."

Contact Nebula R&D in the USA at (949) 380-1668 or osmosis@Nebula-RnD.com.

About SC Systems
SC Systems offers a full line of Rapid Application Development tools to the MultiValue community. Its OSMOSiS software suite is a complete environment for creating and managing comprehensive and user-friendly applications. OSMOSiS provides the tools to transfer applications from older and less functional environments to modern, flexible and user-focused solutions. For more information, visit www.sc-sys.com.

Changing of the Guard: After 30 Years New President Takes the Helm at Keystone

Keystone Information Systems Inc.'s founder, Judson B. Van Dervort, Sr., announced his retirement as president. His son, Judson Jr., will succeed him in that role effective immediately. Van Dervort Jr. has been employed with Keystone for over 18 years, holding various positions in sales, sales management and business administration.

In a letter to Keystone shareholders, Van Dervort

Sr. stated: "I started the company just over 30 years ago when I was 35. I am now 65 and the time is right for me to retire. I have enjoyed leading Keystone through the many different phases of its existence, but I am looking forward to retirement.

"My son, Judd Jr., will now take the responsibility and have the authority to lead Keystone into the future. I have a great deal of confidence in his ability to take Keystone to the next level.

"I will assume the role of Chairman of the Board, which will entail my meeting with Judd and the management team to help guide the course of

Keystone. I will not be involved in the day-to-day operations of Keystone. I will, however, take on any task that Judd Jr. and the management team ask of me. I continue to be completely dedicated to the success of Keystone."

Van Dervort Jr. commented about the transition, "I am looking forward to the challenges ahead with the capable team we have assembled. Keystone will continue to work with our clients to become the premier provider in each of our select market segments and geographies."

The management team will include: Michael DePerro, senior vice president, Product Development and Technology-

Line of Business and Product Manager for Keystone on-line Public Safety Systems; Stephen Juliana, vice president, Financial and Revenue Applications-Line of Business Manager for Keystone's "SKools," LOGIC and Southeast (PASS) Lines of Business; and Linda Anthony, controller, Facilities and Personnel Administration.

Van Dervort Jr. will also continue to have Keystone's sales and marketing staff as direct reports while a vice president of Sales is sought.

Founded in 1975, Keystone Information Systems Inc. is a provider of specialized, integrated application software for the administration of public school

districts and local governments, using IBM's U2 relational database products and ONgroup's Blacksmith Development tools. Keystone serves public sector organizations in 19 states with standard software, custom fit solutions and ongoing services.

DesignBais Welcomes Prism to the DesignBais Community

DesignBais International has appointed Prism as a distributor of the Design-Bais product. DesignBais is a functionally rich toolset that allows Multi-Value developers to design and create enter-

Then...
and Now

Datatel: From Original Microdata Dealer to Today's Top-Notch Provider of Solutions for Higher Education

Datatel has evolved from a Microdata dealer into a formidable competitor in the higher education information solutions market.

Then...

As one of the original Microdata dealerships which signed on in 1973, Datatel Inc. is one of the oldest companies in the MultiValue industry. It was founded by Tom Davidson in 1968 as an office products provider and was about a $4 million company before becoming a dealer for Microdata. In 1971, Datatel merged with another company owned by Ken Kendrick. Davidson ran the Microdata side of the business and Kendrick ran the bank processing side. Since then, Datatel has grown to be hugely successful, focusing on providing information management solutions to colleges and universities.

Now...

In 2004, Datatel's revenues were close to $100 million, making it the most profitable company in the software industry. Headquartered in Fairfax, Va., the company has more than 650 client institutions, of which 261 are four-year private institutions, throughout North

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Then… and Now

America. The company states proudly that its first client, Willamette University, is still a Datatel client today.

Originally built on PICK, Colleague—Datatel's signature software application—has evolved to continue meeting the unique demands of the higher education vertical market while keeping abreast of new technologies. Datatel is a prime example of a company that has taken a proven, functional business software application developed in PICK and transformed it—retaining all its advantages yet incorporating state-of-the-art innovations.

Datatel's strategic architecture framework serves as the backbone of Colleague. Through the use of standards such as XML and Java, Datatel's single-source solution and strategic architecture framework provide a flexible and scalable environment for higher education institutions. Today's Colleague integrates every business function, improving departmental workflows, business processes, productivity, and efficiency across the educational institution. It is designed to improve productivity levels by simplifying day-to-day tasks such as data entry, regulatory updates, employee benefits management, analytical reports, student and faculty self-service and much more.

Keeping up with the times, Colleague also serves colleges and universities that need to offer online services to their constituents. Online services

> Datatel has grown to be hugely successful, focusing on providing information management solutions to colleges and universities.

require that back-end, disparate systems be integrated into a seamless user experience. Datatel's advanced technology manages the intricate balance of integrating disparate systems as well as prepares the institution for emerging technologies.

Colleague Self-service enables institutions to fully extend integrated self-services to constituents via the Web. Students are empowered to complete many tasks online, such as registering and paying for classes, checking their calendars, viewing grades and getting copies of transcripts at any time of day or night. Colleague Self-service can be deployed on an existing Web site, operate as a self-service intranet, or integrate seamlessly within a community portal.

Datatel's "open" portal solutions offer institutions an approach to dynamically integrate Colleague with the most appropriate higher education and e-learning vendor partners. This integration is made possible by its standards- based data exchange tool—Envision Data Exchange. Unlike other administrative system vendors that have an exclusive portal strategy, Datatel's strategy is to provide the

flexibility to choose a portal solution that best meets a client's business needs and delivers a unified solution to the campus community.

With 25 years of building information solutions for colleges and universities behind it, Datatel has a wealth of experience that clients can draw from. Its Professional Services Team does just that—putting expertise developed through many years of focusing exclusively on higher education to work for its clients. More than 60 percent of Datatel's Professional Services Consultants have held positions in higher education, bringing a keen perspective on sound business practices.

Attributes that set Datatel apart are its values and culture. Integrity, commitment, service and performance excellence are the tenets that the company was built around and are still reinforced to this day. The company asserts that these values in particular put Datatel right in line with the values of higher education.   Source: Datatel Inc.

At the Head of the Class
Datatel Releases Industry's First Comprehensive Higher Education e-Advising Solution

Datatel recently released Datatel Colleague Student e-Advising, the first comprehensive online advising solution for institutions of higher education. Datatel is the only higher education enterprise resource planning vendor to provide this solution, which is now available for general delivery, the company said.

Colleague Student e-Advising enables institutions of higher education to offer their students and advisors Web-based tools to complement the institutions' advising policies and procedures. A "smart" registration workflow powers Colleague Student e-Advising, guiding students through the education planning process for the next term and/or through the student's entire career with the institution. Colleague Student-e-Advising also gives students and advisors the ability to create "what-if" analyses together, or separately, to explore alternative degree options and determine if appropriate progress is being made toward degree/program completion. Institutions can also build an educational plan spanning the student's entire academic career, assisting the institution with forecasting and strategic planning. Decisions by the student and advisor are clearly documented and easily retrieved and updated.

"Datatel's e-Advising solution, the first of its kind, doesn't replace a school's advising program but enhances it," explained Graham Tracey, Datatel product manager for Colleague Student e-Advising. "Its tremendous flexibility can meet the unique requirements of different advising programs, whether it is a traditional one-on-one format, impromptu advising sessions, complete online self-advising, or a combination of any or all three techniques. Essentially, it is the online map for students and advisors to meet students' goals." **is**

New Products

A New Tool to Combat Spyware
We Know It's Out There, Now What Do We Do About It?

(ARA) - For each new PC happily humming along in a home office, dorm room or lab, there are hundreds of pests waiting to take advantage of that pristine drive space. While more and more PCs come with a built in anti-virus protection system, many ignore a potentially more destructive threat — the threat of spyware.

Spyware is at best a nuisance that can inundate users with popups, rendering them extremely unproductive, and at its worst, can even engineer the theft of personal data like names, addresses and credit card numbers. Thankfully, many companies have come to the rescue, with a multitude of programs available to fight this threat, and with over 78,000 spyware/adware programs floating around the Internet, this protection is in high demand. When you consider that over their lifetime, 9 out of 10 PCs will become infected with some sort of adware or spyware application, you begin to see why such protection is essential.

Any consumer can go online and find numerous free anti-spyware applications, as well as applications that come with a minimal fee. Everyone likes free, but the adage, "you get what you pay for" certainly can apply. Most, if not all, of the free applications out there do not come with professional tech support, so a user can become distressed when a problem arises because there is no one standing by to give aid. Also, because these free programs operate on the whim of their developers, software updates can be few and far between. This can result in the latest spyware/adware programs going untested until the developer has the time or resources to find solutions for the new infections. Then there are many anti-spyware/anti-adware programs that cost the user a small fee up front.

Some, like TrekBlue's Spywarenuker.com application, are very reliable and have bi-weekly updates as well as 24-hour tech support. However, being a paid application is no guarantee of quality. In fact, many of the paid products are just re-branded versions of the same software, and the majority may not do what their Web site's home page tells you they do — or worse, may even install spyware of their own!

Remember, you should always read the End User License Agreement (EULA) that you are shown before installing any software — that's often where tricky companies will hide malicious intent deep in the legalese of their text. Many experts agree that the best course is a combination of a free resource and a quality paid-anti-spyware application like that found at SpywareNuker.com, because users can be assured of quality service and help should any questions arise as well as continuous updates to fight the newest infections.

Although the temptation is to save the money and opt for free protection only, when it comes to an expensive PC or laptop, you may want to spend the $30 or so to protect your $800 to $3,000+ investment and all of the valuable data that is on the hard drive, such as pictures and other various documents that you never want to lose. For more information about how to protect your computer from destructive adware and spyware, visit www.spywarenuker.com or www.nuker.com.

Courtesy of ARA Content

Monolith Corp. Launches Centrino Laptops

Monolith is offering the new Centrino mobile laptops which include the next generation Intel Pentium M processors with a 533MHz front-side bus, the Mobile Intel 915 chipset and the Intel PRO/Wireless A/B/G Network Connection wireless LAN component.

Monolith Corporation, a subsidiary of Brunswick Corp. (NYSE:BC), has announced a major computing milestone with the launch of the new generation of Intel Centrino Mobile Technology Laptops. Monolith has been a longtime supplier of quality products for implementing technology solutions, including servers, operating system, database and user applications, to the MultiValue industry.

Monolith, an Intel Premiere Provider, earned the Centrino designation after successfully completing

the certification program. The Centrino designation enables Monolith to add wireless laptops to its Total System Solution for the MultiValue community.

The new laptops include the next generation Intel Pentium M processors with a 533MHz front-side bus, the Mobile Intel 915 chipset and the Intel PRO/Wireless A/B/G Network Connection wireless LAN component.

New enhancements to the processor, chipset and integrated LAN capability takes mobile computing to the next generation. Equipped with superior battery life providing continuous operation for up to 6.5 hours; users receive the ultimate level of performance. The 15.4-inch UXGA widescreen display provides a crystal clear view of information and files. The integrated wireless LAN capability eliminates the hassle of cables, cards and antennas. The Centrino Laptops are an ideal business solution for any environment.

Monolith also offers pre-testing, preloading, and configuration of systems, enabling VARs to concentrate on their applications. Monolith's on-site system installation, professional services and technical support services further benefit VARs and end users.

About Monolith Corp.

Monolith Corporation, a wholly owned subsidiary of Brunswick New Technologies, is based in Raleigh, N.C., with offices in Canada and Florida. Since its incorporation in 1986, Monolith has committed itself to developing, implementing, and supporting solutions that improve the business processes of its clients, specializing in Infrastructure and Computing Architecture solutions. Monolith has cultivated alliances with technology leaders to ensure that its staff is qualified to provide superior service. Through partner programs with Microsoft, IBM, Intel, and Cisco, Monolith is able to take advantage of advance product notification, product training and recognition as a preferred source for delivering solutions based upon the variety of products offered by these companies. For more information, contact sales@monolith.com.

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1. What is your job function/title?

☐ Principal/Owner   ☐ Sales/Marketing

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☐ MIS/DP Manager   ☐ Purchasing

☐ Controller/Financial   ☐ Consultant

☐ VP/Department Head   ☐ 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

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

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☐ Over $1 million - $5 million   ☐ Over $5 million - $10 million

☐ Over $10 million - $25 million   ☐ Over $25 million - $100 million

☐ Over $100 million - $500 million   ☐ Over $500 million

IS 9/05

RFID
Continued from page 6

subject to impacts that reached 5,000 to 7,000 pounds per square inch. This would routinely demolish the tag encased in a 4-by-4-inch molded polypropylene casing. Kind of scary!

As you can see, placing a tag on the end where the forklift or hand truck slides under the pallet would not be a good idea. Depending on the pallet design, you should have at least two sides that are free from this kind of damage.

Q Do the pallets rub together during shipping?

I have not found this to be a common problem, but it is one that we don't think of often. If you place the tags on the side like I suggested above, will they rub against other pallets, causing the tags to become damaged?

Embedding the tag into the pallet so when the pallets bang together, the tag is protected, or placing the tag on the inside of the pallet may be good solutions.

Q How much metal or liquid does the content of the pallet have?

The contents of the cartons can be a major problem. If the items have large amounts of metal or liquids, it will cause a problem with the RF signal. For example, if you place a tag on the bottom of the pallet, and your cartons have metal or liquid, then you may not get a read.

Placing the tag on the edge of the pallet would be a good place to lower the amount of interference of this kind.

Q Will the forklifts or hand truck's metal forks interfere?

You have the same problem with the forklift or hand truck forks. They are made of metal, so the RF signal will get reflected and may not get read correctly.

Placing the tag on the sides away from where the forks slide into the pallet, would likely be the best place.

There are more environment questions that can come into play, but these are the most common.

An interesting little fact: According to the mandates, a pallet tag is required, but they don't say where to place it. This means you can even place the pallet tag on one of the cartons, or on the outside of the shrink-wrap. You don't have to have the tag attached directly to the pallet.

Carton Tags

At this time, most of the research into tag placement concerns carton tags. Finding the correct placement on your cartons will be the most time consuming.

The problem with tag placement is not reading the individual carton as it speeds through your plant by itself, but when you get a group of cartons on your pallet and try to read all the cartons on that pallet.

Q Contents of the carton and the number of cartons on the pallet?

Just like with the pallet tags, what's in the carton is a big deal. Not for the cartons on the outside of your pallet, but for the cartons in the middle. Remember, RFID tags usually don't have their own power source, so they transform the RF signal they receive into power to retransmit their IDs.

This means that the weaker the signal they receive, the weaker the signal they can transmit. As the RF signal travels through packaging, the signal gets weaker and weaker. Then it has to take the weak signal and transmit it back through the same packaging, causing the signal to be even weaker.

I'm sure you can see where I'm going with this. The carton in the middle bot-

Siemens Moves Forward With RFID System in the UHF Band for Logistics and Distribution

© SIEMENS

The Simatic RF 600 utilizes UHF technology to allow longer distances between readers and RFID tags attached to products or items, at low costs.

Although Radio Frequency Identification (RFID) is currently a hot topic for the supply chain, this technology has been successfully employed in industrial applications for quite a while. As one of the leading providers with more than 20 years of experience, Siemens offers a comprehensive range of RFID systems to make logistics processes more transparent, reduce warehousing costs and enable the tracking of the supply chain. Through RFID, meaningful data is tied to a product or object from the very beginning. RFID thus becomes the key technology for significantly adding value across the entire supply chain — from delivery and production to distribution.

Representing the company's expansion into the UHF range, the recently introduced Simatic RF 600 is aimed at avoiding faults in the production and delivery processes and improving the quality of logistics sequence while saving costs at the same time. RFID permits interruption-free tracking and documentation of all delivered, stocked and shipped goods in the incoming goods, warehouse, production logistics and distribution departments. UHF technology allows large distances between readers and RFID tags attached to the product or item, at relatively low costs.

A small data medium referred to as a SmartLabel or tag is adhered to every item, package or palette and contains all important information. The data medium receives the power it requires via an antenna which is also used for data transmission. The Simatic RF 660R read/write devices automatically record every movement of goods and signal these to the host systems. The data is filtered and compressed there by data management software in order to generate the receiving department transaction for the ERP system. At the same time, the delivery can be automatically checked for accuracy and completeness before storage by means of the electronic delivery announcement. The data media (tags) are insensitive to contamination, and many of them can be written and read simultaneously, corresponding to ECglobal specification.

The storage capacity of the tags—up to 2048 bits depending on the application—is significantly greater than with barcode labels. The range is up to 5 meters, depending on the UHF used. Data media according to the EPCglobal or ISO 18000-6 standards can be used.

The main component of the system is the stationary Simatic RF 660R read/write device. A rugged housing with high IP65 degree of protection means that the device is a universal and reliable partner in harsh production environments, on conveyor systems in warehouses, or directly at the loading gate.

Siemens Moves Forward

Simatic RF 660R sets integration standards with three communication ports (Ethernet, RS 422 and RS 232), which transmit the data to IT, ERP and SCM systems, to Simatic PLCs or to PCs (which are also used for configuration and diagnostics). Simple process controls can be directly implemented using the read/write device via three digital inputs and outputs.

The Simatic RF 660A antenna is also designed for IP65 and can be mounted on walls, frames or plants. Depending on the application, up to four antennae can be connected to the read/write device. This guarantees exceptionally high read rates—even of numerous tags simultaneously or under difficult ambient conditions.

Since different directives exist in the U.S. and Europe for RFID technology in the UHF band, the antennae are available in two optimized versions for 862-865MHz (Europe) or 902-928MHz (U.S.).

First RFID System with UHF Technology Successfully in Operation

Cinram, leading vendor of pre-recorded CDs and DVDs, and Siemens Automation and Drives (A&D) have jointly implemented an RFID solution in the UHF (ultra high frequency) range. To optimize supply logistics, two loading doors at the incoming goods area of Cinram's central materials warehouse in Alsdorf near Aachen, Germany, have been equipped with the new Simatic RF 600 RFID system from Siemens.

Selected Cinram suppliers equip their supply units with data carriers known as RFID tags. The supplied goods are recorded and analyzed automatically. The RFID gate reader, enclosed in a rugged housing, has been field-proven to withstand the harsh environmental conditions prevailing at the loading gate: Almost 100 percent of the data carriers were correctly recorded. After successful completion of the pilot phase, the system is now in normal operation. Cinram intends gradually convincing its top suppliers to introduce RFID technology. Since the data carrier is still attached to the packaging after the goods have been placed in storage, the intention is to use RFID to optimize further steps in the logistics chain beyond inbound logistics.

In the current RFID solution, the data stored on the tag at delivery are compared with an electronic delivery notice transmitted in advance. If the delivery agrees with the advice, the system automatically enters the incoming goods into the SAP system. Previously, the incoming goods were recorded manually and then entered in SAP — a time-consuming process. The quality of the logistics chain has also been significantly improved using RFID because a mistaken delivery can be reliably detected before the goods are stored in the warehouse. Previously, there was no comparison of the delivered goods with the delivery advice, so a mistaken delivery was only detected further down the process. The SAP connection is based on a software module from Siemens and has been implemented jointly with Cinram.

About Cinram International

Cinram International Inc. is the world's largest independent provider of pre-recorded multimedia products and logistics services. With facilities in North America and Europe, Cinram manufactures and distributes pre-recorded DVDs, VHS video cassettes, audio CDs, audio cassettes and CD-ROMs for motion picture studios, music labels, publishers and computer software companies around the world. **is**

RFID

tom, may not read because it can't receive the RF signal to start with, or may not have enough power to send the signal back to the reader.

What's the solution? Decrease the number of cartons per pallet, or decrease the number of items in each carton to reduce the interference.

I know that one company found they could keep the same pallet quantity, but if they reduced their carton quantity from 24 to 18, they got better reads on the bottom-middle carton.

Please keep in mind, these suggestions for tag placements are only recommendations and/or starting points. You will need to experiment to find the best place for your tags. Each environment is different, which requires different tag placements.

It wouldn't hurt to talk with others in your industry that have implemented RFID or are in the process of doing so to see where they are placing their tags. **is**

NATHAN RECTOR, *a regular contributor to* Spectrum, *is owner of* Natec Systems, a consulting firm specializing in D3, AP and R83 environments and custom programming. He can be reached at nrector@natecsystems.com or http://www.natecsystems.com.

newsmakers

prise-wide Web-based applications without the need for learning new technologies. It was specifically designed to be compatible with MultiValue and multi-dimensional databases. DesignBais is the rapid development environment for the creation of robust commercial grade applications.

"Partnering with Prism is very strategic for Design-Bais," states Dave Bryant, the company's president. "Prism's strength in our market is key to increasing our distribution of DesignBais. It certainly fills a large gap in the U2 development space. Prism, being one of the two major U2 distributors in Australia, will give us much better visibility into the market and hopefully with distributors in the U2 space throughout the world."

"We are very glad to be able to add DesignBais to our product portfolio," comments Brian Morris, Prism's managing director, "It allows developers to provide robust browser-based applications rapidly — a requirement in today's business environment."

Prism is an IBM Master VAR for the U2 post relational database environment. Based in Sydney, Australia, PRISM provides products and services to a national network of application developers and resellers, covering market sectors such as wholesale distribution, manufacturing, travel and tourism, point of sale, mercantile, warehousing, medical, financial and advertising. PRISM has a simple philosophy of "value add" — to provide complementary products and services, as well as providing responsive support for all products.

About DesignBais

DesignBais applications are deployed at many sites throughout the world. DesignBais is compatible with all of the major MultiValue database implementations. DesignBais International has offices in North America and Australia. The product is sold and supported by a global network of value-added resellers and distributors. For more information, visit www.DesignBais.com.

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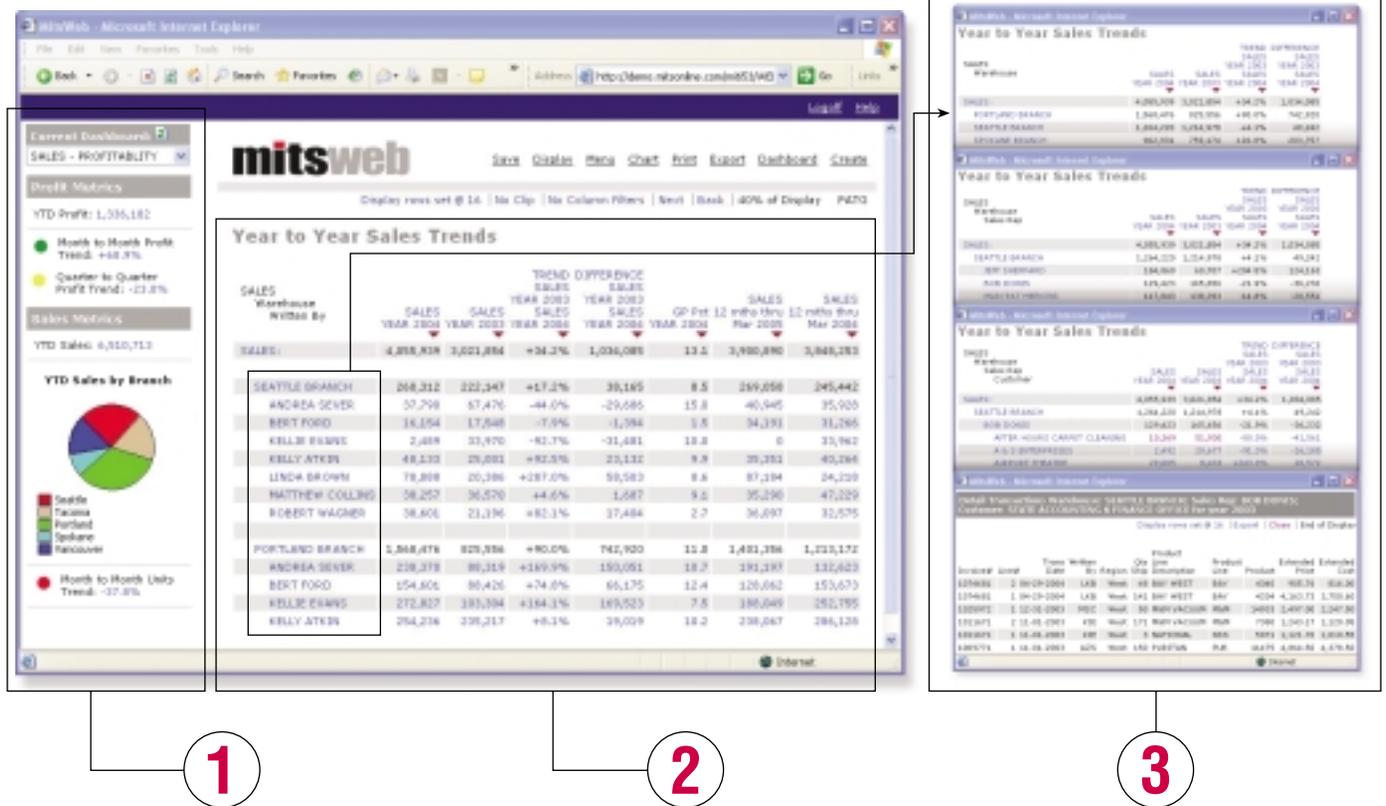
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