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## January 2009 V-smart: A New Web-based Library Automation System from Infor

## Smart Libraries Newsletter

*Smart Libraries Newsletter* delivers hard data and innovative insights about the world of library technology, every month.

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50 East Huron Street, Chicago, Illinois 60611-2795, USA

# V-smart: A New Web-based Library Automation System from Infor

Infor Library and Information Solutions launched the general release of V-smart in November 2008. V-smart is a new, fully Web-based integrated library system. This product continues the evolution of the Vubis library automation system, advancing the product from the client/server architecture into the realm of Web-based computing, the preferred technology approach in the current technology environment. This release follows the testing and early adoption of the software in two French libraries, Sainte-Geneviève University and La Cité Internationale Universitaire de Paris. Infor indicates that at least ten additional libraries are preparing to move to V-smart.

Although Infor has a relatively small presence in the United States and Canada, it ranks as one of the major library automation providers in other regions. Its products are used most in The Netherlands, Belgium, France, and the United Kingdom. Infor continues the heritage of Geac, one of the major providers of library automation systems in North America, beginning with GLIS in the 1980's and with the PLUS and Advance ILS products in the 1990's. While the company's impact has diminished in the United States and Canada, it has continued as a major international player.

V-smart will take the reigns as the company's premier integrated library system, though support and development of Vubis Smart, which previously served as the company's strategic product, will continue. The company will focus its marketing efforts for new sales on V-smart rather than Vubis Smart. While Infor positions V-smart as its key product for the future, the transition will be gradual. With 360 installations of Vubis Smart worldwide representing over 1,000 individual libraries, the company has a strong interest in maintaining this product as it launches its next-generation ILS. Library automation companies face the important challenge of renewing and updating their products as required by inevitable changes in technology. These companies must keep their products up-to-date without producing a negative impact for the libraries committed to that product. If a company uses product strategies that allow libraries to move to new generation products within their own time frame, it will result in less disruption and produce the highest levels of retention. The Vubis software traces its roots back to the mid 1970's and has managed to reshape itself around several major technology paradigms through its history, steadily adding new features and functionality along the way.

## Advantages of a Web-based ILS

The transition of Infor's library automation product into a Web-based system falls well within the trends of current technology. Using current Web programming techniques it is possible to create fully functional interfaces, eliminating the need to install client software on the workstations. Client/server computing grew out of the need to distribute part of the workload away from overburdened centralized servers. The extraordinary computing power available today as well as the ability to cluster servers into infinitely

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#### Receive Smart Libraries via e-mail

Subscribers that would like an e-mailed version of the newsletter each month should forward one e-mail address and all of the mailing label information printed on page 8 of the newsletter to jfoley@ala.org. Type "e-mail my Smart Libraries" into the subject line. In addition to your monthly printed newsletter, you will receive an electronic copy via e-mail (to one address per paid subscription) at no extra charge each month. scaleable platforms mitigates the need to offload computing onto client software. While client and server modularity may still need to be maintained internally, Webbased systems provide great flexibility and often result in lower operational costs.

Until recently, applications that involve complex, feature-rich interfaces tended to be implemented with full graphical clients created in environments like Microsoft Windows, the Macintosh OS, or with Java. These environments offer very rich and precise user interface controls that are needed in order to create efficient data entry and operational workflows. Web-based interfaces have advanced, especially through techniques such as Ajax, to the point where they can handle complex interfaces. One of the dominant trends in software development involves a preference for Web interfaces rather than graphical clients whenever possible.

One of the major advantages to this approach involves less effort for the support of the system. For products that require the installation of client software, the process of installing and configuring the software and regularly performing updates imposes a significant amount of work for IT personnel. Libraries that use a client/server ILS know that performing even a minor upgrade can require a major effort to coordinate the installation of the new software on all the computers throughout the library that access the system. Web-based systems eliminate this component of support, since it relies on the Web browser already present on any library workstation. This simplified support model especially appeals to libraries with branches or other facilities that might otherwise require IT staff to travel to perform installations or upgrades of client software. The Web-based approach of V-smart makes it much easier for a library to extend its system to additional libraries without a significant effort.

Libraries, like other organizations, allow or even encourage increasing num-

bers of staff to work remotely or telecommute. Installing ILS client software on home computers can not only impose challenges for IT support, but it may also involve the purchase of additional licenses. The use of a web-based ILS significantly simplifies support for remote workers.

As a Web-based system, V-smart will also be offered in a software-as-a-service (SaaS) model. This approach may especially appeal to smaller libraries that may not have the personnel needed to manage the server side of an ILS implementation. SaaS continues to grow as a trend in the library automation industry among smaller libraries.

Web-based systems are inherently platform independent, as opposed to client/server systems, which require the developer to produce separate versions for every type of computer supported. The client software for Vubis Smart was offered only for computers using the Microsoft Windows operating system. Library staff can operate V-smart using any type of computer that will support either Microsoft Internet Explorer or Mozilla Firefox. This allows, for example, the use of Macintosh or Linux computers.

Customizability is another advantage that Infor attributes to the Webbased approach of V-smart. The product relies on CSS (cascading style sheets) to control the presentation of the application to the user. The library can customize many aspects of the system through modification of the CSS files.

## V-smart vs. Vubis Smart

As Infor introduces V-smart, it's important to see it as a continuation of a well-established library automation system. This new version preserves the conceptual and functional approach of the product while making a transition from the software used by library personnel from graphical Window-based clients to operating the system through Web browsers. The server software for V-smart runs on Microsoft Windows Server, Linux, or most flavors of Unix. All major modules and functionality of Vubis Smart are supported in V-smart, including circulation, cataloging, acquisitions and serials management. The Web OPAC for V-smart builds on what was created for Vubis Smart. User services available in the V-smart Web OPAC include placing reservations, setting alerts, and the ability to rate items in the library's collection.

V-smart includes a reporting module called SSP, or Select, Sort and Publish. This module includes standard reports typical of ILS products as well as the ability to produce customized reports that access any data managed within the system. SSP provides detailed access to data and statistics related to patrons, collections, and financial transactions.

Libraries can expect the same basic functionality between the new V-smart ILS and the well-established Vubis Smart, albeit with some inevitable differences. The initial release of V-smart has some new functionality that is not found in Vubis Smart. Most of these enhancements can be seen in the circulation module and the availability of a module to perform requests from closed stacks. Going forward, most new functionality will appear first in V-smart with later deployment in Vubis Smart. Infor intends to maintain fairly consistent functionality between the two products, though differences in architecture may dictate some limitations of the client/server version.

Due to the more advanced Web-based architecture, some new features planned for V-smart will not be possible to implement in Vubis Smart. Infor's role-based user management and the implementation of Web services, for instance, can not be implemented in Vubis Smart.

## Web Services

Many libraries require access to the data within their automation environment

beyond the interfaces provided as part of the system. Access to the internal databases allows the library more flexibility in generating reports about each aspect of the system and is needed to connect with other software applications employed by the library. Web services are the key technology for this programmatic access to internal data, providing a degree of openness that libraries increasingly demand.

Infor indicates that Web services and the service-oriented architecture are an important part of its technology strategy and have been implemented across its suite of library automation products.

Infor plans to deliver an additional set of Web services beginning with version 2.0 of V-smart, expected for release by summer 2009. The existing Web services already present in the initial 1.0 release of V-smart and already present in Vubis Smart provide programmatic access to the internal functionality. This new set of Web services will allow direct access to the system's core data to supplement the existing Web services and will be implemented only in V-smart. Access to the internal databases is also possible through the ODBC, or Open Database Connectivity, a standard approach for communicating with SQL compliant databases.

## Historical Development of Vubis

V-smart continues the long evolution of this family of integrated library systems. What began as a host/terminal system has prospered through several cycles of technology changes, with new versions of the product created for the era of graphical user interfaces, client/server architectures, and now Web-based computing.

The VUBIS automation system involves a technology evolution spanning over 30 years. Early versions of the product developed through a collaboration between the Brussels Free University and Eindhoven Technical University. The University of Brussels began its initial development of VUBIS as early as 1974. In 1983 the Technical University of Eiendhoven joined the development of VUBIS. In 1987 the two universities initiated a relationship with ODIS for development, support, and marketing of VUBIS.

(See: http://w3.tue.nl/nl/diensten/ bib/over/bibliotheek/bibliotheekgeschiedenis/vubis/ for more details regarding the history of VUBIS).

The original VUBIS system was a host/terminal based system created with the MUMPS programming language, a popular development environment during that period, later called "M". A company called InterSystems eventually became the dominant provider of this technology, eventually redeveloping it into Caché, often termed a post-relational database. Caché supports three different storage and access methods: object, relational, and direct. V-smart continues to rely on Caché as its internal database platform.

Geac Computer Corporation became involved with the VUBIS library automation system through its January 1995 acquisition of ODIS, which had divisions in The Netherlands, Belgium, and France. At the time of its acquisition VUBIS was installed in about 100 libraries.

Infor continues the legacy of Geac, one of the pioneers of the library automation industry. Geac entered the library automation industry offering the GLIS product that ran on the company's own proprietary hardware and operating system. The original GLIS 8000 was superseded by the GLIS 9000. As proprietary systems became less common, the company moved into the open systems arena through the acquisition of the Unixbased Advance automation system and later the LIBS100PLUS it acquired from CLSI, which it renamed PLUS. Both PLUS and Advance are now considered legacy systems with an ever-diminishing number of libraries. Today, Infor Library and Information Systems focus their ILS strategy exclusively on library automation products surrounding Vubis. The company also offers a full suite of other library automation products including the V-spaces federated search, V-sources for electronic resource management, V-Link for OpenURL link resolution, and V-insight for statistical analysis.

Geac continued the development of VUBIS, advancing the product from the host/terminal model to the client/server architecture. Geac released Vubis 4 Windows in the late 1990's. The product offered a Windows-based graphical user interface instead of the text-based terminal menus. In 2001, the company introduced Vubis Smart, moving the product into the client/server arena.

In November 2006 Geac was acquired by Golden Gate Capital, a large private equity firm. The company was originally placed within a subsidiary called Extensity, but within a few months became part of Infor, another company in the Golden Gate portfolio. Under Infor, the Library and Information Solutions division has prospered, even though it represents a very small business unit relative to the size of the overall company.

In recent years Vubis Smart has seen reasonably strong sales, even in difficult markets such as the United Kingdom where the number of opportunities is very limited. The development of V-smart enables Infor to take its strategic product line through this current technology cycle where Web-based computing is dominant.

-Marshall Breeding

# Librarians of all Ages Want to Learn About Virtual Worlds

Virtual world librarianship is a hot-button issue. If you mention the prospect of libraries or librarians becoming active in a virtual world, library professionals will probably have strong opinions for or against them. It seems like our professional community is polarized on this issue. People who respond negatively often feel that virtual world librarianship is a wasteful use of resources like time and talent, or that virtual world usage is premature or unnecessary. People who respond positively often mention that virtual worlds are great immersive environments for learning and experiencing information. They feel that virtual worlds can be good for professional networking, workshops, small conferences, exhibits and other events.

To better determine if librarians and library staff members would be interested in continuing education events on the broad topic of virtual world librari-

anship, in late November I worked with Lori Bell, the Director of Innovation at the Alliance Library System, to design a simple, nine-question web-based survey. We wanted to find out whether or not respondents were interested in attending CE events on virtual world librarianship, the number of virtual worlds the respondent had explored, which virtual worlds they would like to explore and what they felt was the ideal length of a continuing education event on this topic. We also asked respondents what they felt were good times to attend a CE event (weekday mornings, afternoons, evenings, or weekends), their favorite CE venue (in a virtual world, in a webconferencing online room, in a course management system, or in person), the number of years the respondent had worked in a library and their country and state of residence.

Thirty-six people responded to the web-based survey. Thirty-three respon-



dents indicated that they were in the United States, one was from Canada, one was from the UK, and one did not indicate a country of residence. Eighteen states were represented, with many respondents hailing from Florida (six), Illinois (five), North Carolina (three), and Kansas (three). Interestingly, only one respondent was from California, the state often considered the hotbed of virtual world development and use.

The number of years the respondents had worked in libraries ranged from none to twenty years or more. One respondent (3 percent of the overall respondents) reported no years of library work experience, one (3 percent) reported less than one year of experience, and three respondents (8 percent) reported one to five years of library work experience. Eight respondents (22 percent) reported six to ten years of library work experience, three (8 percent) reported eleven to fifteen years of experience, seven (19 percent) had sixteen to twenty years of library work experience, and a whopping fourteen respondents (39 percent) had twenty or more years of library work experience.

If we define newbies as having five or fewer years of library work experience, and veterans as having 16 or more years, the veteran respondents (21, or 58 percent) far outnumbered the newbies (5, or 14 percent). It was encouraging to see so many veterans express an interest in attending continuing education events about librarianship in virtual worlds. Regardless of whether you love or loathe the concept, virtual worlds are definitely a new frontier in librarianship.

Two of the respondents (6 percent) indicated that they were not interested in

attending CE events on topics related to librarianship in virtual worlds. Ten (28 percent) expressed some interest in attending CE events, and 24 respondents (67 percent) said they were very interested in CE events on virtual world topics.

Three of the respondents (8 percent) reported that they had never explored a virtual world. Twelve of the respondents (33 percent) indicated that they had explored one virtual world. Nineteen respondents (53 percent) chose the "two to four" response option, and none chose the "5 or more" response.

Twenty-nine of the respondents (81 percent) selected one or more items from a list of virtual worlds they would like to explore. Some of the more frequently chosen virtual worlds included: Active Worlds (13), Second Life (13), Teen Second Life (13), Whyville (12), Open Life (10), Open Croquet (9), Forterra (7), and Qwag (7).

The overwhelming majority of respondents indicated that they would like a short, concise CE event. Twenty-eight of the respondents (78 percent) chose the "2 hours or less" option. Five respondents (14 percent) chose a 4-week course, two (six percent) chose the half-day option, one (3 percent) selected the full-day option, and none chose the 8-week course option.

Respondents could select multiple times during all seven days of the week to indicate which ones would be best for a CE

event. Weekday mornings were chosen 18 times, weekday afternoons were selected 19 times, weekday evenings 8 times, Saturdays 10 times, and Sundays 8 times. Based on this wide range of responses, any CE effort focused on librarianship in virtual worlds should mix up the times of the day and the days of the week that they choose to hold the event.

When asked to indicate their favorite of four possible venues, 16 respondents (44 percent) chose the virtual world itself, 14 respondents (39 percent) selected a webconferencing online room, two respondents (6 percent) chose a course management system, and one (3 percent) chose an in-person venue.

This quick and dirty survey generated a small set of responses, and a low response rate, when one considers the hundreds of librarians and library staff members who had an opportunity to read and respond to the emailed notification about this survey. Nevertheless, this survey indicates that there may be strong interest throughout the profession in attending continuing education events on the topic of virtual world librarianship. Furthermore, the interest is widespread across the United States (from New York to Hawaii, and from Minnesota to Florida), as well as across the number of years of experience the respondents have had working in real-world libraries.

—Tom Peters

# **Cloud Burst: Cloud Computing with Xpack**

When I entered the library profession in the mid-Eighties, dumb terminals had diffused throughout libraries, especially in public access areas of the library. All of the online catalog terminals at the academic library where I first worked were dumb terminals. For those of you that don't remember, a dumb terminal is a terminal that contains no (or very minimal) local processing capabilities. When standalone CD workstations came onto the scene (InfoTrac was the first such workstation at my library), they required a regular personal computer. When we finally convinced the library administration to deploy an OCLC terminal at the main reference desk, I was shocked to learn that it was basically an IBM computer, so, rather than use it for searching OCLC (at considerable cost), I often used it for wordprocessing.

This was back in the old days, just prior to the entrance (or invasion) of email into my life. It seemed then that the days of the lowly dumb terminal were numbered. Soon "full-blown" PCs would be cropping up in public access areas, at public service points, and in computer labs in libraries all over

the country. Now, low and behold, we seem to be witnessing a return to serious



and significant use of dumb terminals in libraries. What's next, a return of LP records? Oh right...that's happening too.

Several factors seem to be drawing us back into the past and reviving our interest in dumb terminals. Of course, we cannot call them dumb terminals this time around--that would be too last century. And the phrase "ninny terminal" is silly. So, let's soar into the empyrean and call a network of dumb terminals cloud computing. Where's Aristophanes when you need him?

Cloud computing basically uses the Internet or another network to host most or all of the operating systems, software, documents, and data needed for most computing tasks. Moderro Technologies has been up in cloud computing for some time. They recently released Xpack terminal (neither dumb nor a ninny), which makes it easy for libraries, businesses, and even individuals to aspire to cloud computing. The cost of the Xpack starts at \$395.

Cloud computing has several attractive aspects. First, these born-again dumb terminals use considerably less energy than full-blown computers. Although all aspects of energy consumption within a cloud computing network need to be analyzed, it seems that cloud computing is more green (i.e., eco-friendly) than the more traditional type of PC-based networked environment. Second, the overall life-cycle costs of computing in a cloud environment may be lower than the life-cycle costs of computing in a traditional local area network of personal computers. Third, a cloud computing environment seems to be more difficult to infect with software viruses and malware. Fourth, the Xpack is a solid state piece of computing hardware with no moving parts. Whether you are talking about a portable MP3 player, a handheld computing device or a cloud computing terminal, the devices that contain no moving parts tend to be more durable and reliable than their whirling dervish counterparts.

Cloud computing also involves some risks. If a major server or network node goes down, you may be left staring at your terminal. Many things can create problems for computer networks, including storms, seismic events, solar events, human error, human malice, and even vermin. Because data is stored on far-flung servers, issues about data privacy may arise. With the Moderro Xpack, data may be stored on Moderro's integrated cloud computing network, or on a USB storage device you can carry with you as you flit from cloud to cloud.

Cloud computing seems like it's on the verge of a period of rapid growth and deployment, fueled in part by the current global economic downturn. When done well, cloud computing can be less expensive, easier, faster, lower maintenance, safer, and more productive that other types of networks.

—Tom Peters

### More Info. @: Moderro Technologies: http://www.moderro.com/

# Karuna AIDS Island Opens in Second Life

On December 1st, Karuna Island in Second Life conducted its grand opening. In and of itself, the grand opening of any 16-acre island in the virtual world Second Life is not particularly newsworthy, but this one had a different feel and urgency about it. Karuna Island is dedicated to AIDS awareness, information, and support. It was created with grantfunded support from the Greater Midwest Region of the National Library of Medicine, which is administered by the Alliance Library System in Illinois. Carol Perryman, a doctoral student in library and information science at the University of North Carolina at Chapel Hill, leads the development and management team. Karuna opened on December 1<sup>st</sup>, which is World AIDS Day.

Well over 400 people participated in the opening day events. By all indications the participants were a very diverse group of people. Attendees, gathering on the virtual island of Karuna, were from many different corners of the globe. Attendees were AIDS/HIV patients, caregivers, healthcare professionals, librarians, writers, artists, and journalists, among other professions.

The island contains an outdoor auditorium (with a moat between the seating and the speakers' platform – oddly comforting), a classroom, a resource center, and a welcome center. Along with these traditional and expected types of institutional resources come areas where personal stories and memories can be shared, as can works of art and scenic wonders. This space also serves as a quiet area for contemplation and discussion. There is a flame of hope that was lit near the conclusion of opening day, a memorial wall, a garden of experience, a treehouse for meditation, and an impressive waterfall.

To get a better sense of how traffic patterns on Karuna developed in the days before, during, and after the grand opening, I deployed ten proximity sensors around the island (full disclosure: I am serving as the evaluator of this project).



Proximity sensors gather data about how often avatars come within the sensation range of the sensor. The report sensors only numbers, with no identifying information. The brand of proximity sensors I was using gathered hourly data, which were not deduped. In other words, every time an avatar came with the range of the sensor during

the hour, the tally increased by one, even if it was the same avatar coming within range multiple times. The sensor also collects daily statistics, which are deduped. Examining the hourly data reinforces the idea that virtual worlds are 24/7 places. Avatars pass within range of these sensors at all hours of the day and night.

From the daily data we can tell that at least 462 people attended the opening day ceremonies, because that is how many unique avatars passed within the sensation range of the sensor near the auditorium, the highest daily total of the ten sensors for opening day. Most of the opening day talks occurred at the auditorium, but tours and other events were held throughout the island. The daily data for the days immediately following the opening day are impressive, too. For example, while 78 avatars visited the Karuna Community Center on opening day, 36 visited it on the day after.

Providing information about AIDS has particular challenges. The designers and creators of Karuna Island in Second Life have done a very good job of balancing and interweaving straightforward factual information with stories, artwork, posters, and other things that move the emotions and the human spirit and mind. It is well-conceived, well-designed, and even well-documented. For instance, the audio recording of the opening day talks, broadcast by Radio Riel, were available through the Internet Archive shortly after they occurred live in-world. Karuna Island provides a glimpse of how library resources can blend into a natural looking virtual environment and a worldwide virtual community of interested individuals and organizations to create something very rich, moving and useful.

—Tom Peters

### More Info. @:

Karuna Website: http://www.karunasl.info

Karuna Facebook Page:

http://www.facebook.com/pages/Second-Life/Karuna-AIDS-Information-and-Outreach-in-the-Virtual-Worldof-Second

-Life/48759824312

Radio Riel Internet Archive Recordings: http://www. archive.org/details/SecondLifeWorldAidsDay