IMS Newsletter

IMS Customer Profile: Landesbank Baden-Württtenberg

Rob Morris GT Software

LB☰BW

Landesbank Baden-Württemberg (LBBW) is Germany's fifth largest bank, providing commercial banking and trading services under its own brand. LBBW also delivers bank processing and trading services for smaller banks throughout Germany, providing a full array of financial services.

Business Challenges

Like many financial services companies, LBBW had to decide what to do with its existing legacy mainframe assets when the company updated its stock trading systems and interfaces. The company's IMS-based "green screens" could no longer support its own business initiatives; an equal concern was LBBW's growing business of servicing its private-label banks' financial services and trading systems. A number of considerations were proposed to resolve the green-screen dilemma. One thing was certain: It would be far too complicated and time consuming to rewrite the pre-existing business logic.

The Sparkassen-Informatik (SI), whose data center delivers its private label banks' technical operations, sought technology to simplify system access and navigation for traders across all locations. Their objectives included faster training for new employees, as well as improved service level consistency for stock traders. Because the SI uses the LBBW stock trading and brokerage application, LBBW was required to modernize their application.

LBBW, which was running WebSphere, wanted to be able to interweave all of the disparate IMS mainframe applications to provide access to a variety of data with a more modern user interface. Additionally, the ability to reuse the services was critical, as LBBW had other projects in the pipeline using the stock trading and brokerage solution.

This need for a sleeker, more modern user interface brought several challenges to LBBW´s development team. Specifically, this team had to work with an in-house developed system that was written in COBOL and leveraged IMS and DB2. Additionally, the securities order management system alone consisted of several thousand programs developed and extended over many years. The online interface of the securities order system is based on an extensive central system component, which is multi-functional and highly complex. The interface? system component? had to not only serve the customer advisors but also provide services to the back office. It was expected that this traditional environment would be connected to the new interface, along with several newer services as well.

According to Hans-Jürgen Bäuerle, head of LBBW's development team, "One thing was clear right from the start – we did not want to simply convert the existing green screen line mode into a graphical representation, especially for this functionally rich system. We wished to preserve the functionality of our legacy application so as to support the existing business processes." He added, "tools like 'screen-scrapers' were completely out of the question, and we preferred to use standards like Web services." Developers also considered developing something in-house instead of utilizing a real industry standard solution, and although this option could have been feasible, the main issue was the tight implementation deadline.

IMS Customer Profile: Landesbank Baden-Württtenberg, continued
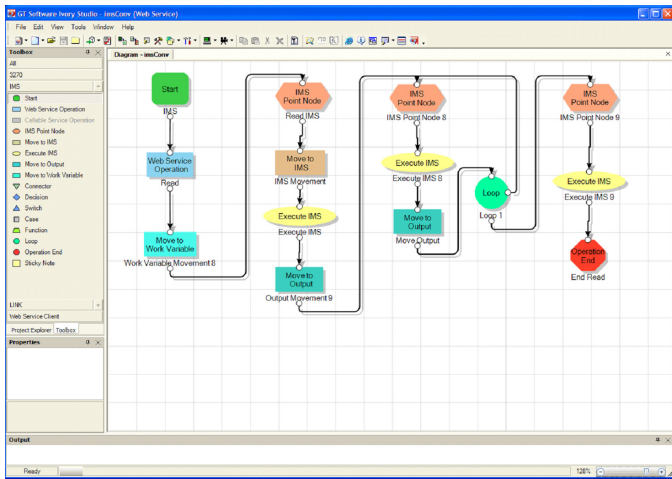
Rob Morris GT Software

The solution: Ivory

Following an extensive evaluation of technology options, LBBW decided to move down the path of a service-oriented architecture (SOA) and Web service-enablement for IMS. The company selected Ivory Service Architect from GT Software, an innovative development solution that enables organizations to rapidly implement an SOA that fully leverages the mainframe as an active participant.

"The decision to use web services turned out to be the right approach," confirmed Bäuerle. "Using Ivory, the functionality for all bank entities can easily be made available as individual services to all authorized users. The product turned out to be by far the most flexible and adaptable solution for the bank's mainframe environment. For the development team, the creation of the graphical user interface became a simple task."

The common method used to implement mainframe Web services is to build numerous small, individual services that would require further assembly to get to the specific data. However, this send-and-reply mechanism produces high traffic on the network. In addition, the application server would need its own business logic to be implemented in order to collect and correlate the application data.

The Ivory solution solved this in a different and simpler way: composite services. The application server sends only one request to the host, which, in turn, ex-

ecutes the series of IMS transactions, packages, and returns the results. The Web services themselves are defined using the Ivory Studio development interface, for which no coding is necessary.

Getting down to work

One of the primary evaluation criteria for this project was ease-of-use of the solution. Following the pilot project, four members of the LBBW team implemented the Ivory solution in just six months. During the preliminary phase, they received support from Machold Systemhaus 21, an official German GT Software distributor. Two LBBW employees developed the graphical front end.

The Ivory solution was deployed in early November 2006, and since implementation, has proven extremely stable. The Web services created by Ivory, working in concert with the WebSphere-based graphical user interface, has garnered much praise from LBBW. The programming team has been quite satisfied from a quality and performance perspective. For the remainder of the project, other locations will be migrated in a phased approach to the new graphical interface.

For LBBW, the introduction of an SOA solution specifically for an IMS mainframe environment represents an investment in the future. "My vision is that the other functions of our legacy applications, for example those of the back office, will also be migrated to a service-oriented architecture," said Bäuerle.

The reasons that persuaded the LBBW decision-makers to choose these innovation solutions are concrete and tangible: Up to 80% of the functions that were introduced can be reused for other services, both for the customers and for the cus-

tomer advisors, which translated into a significant cost reduction.

There was also another positive side effect with respect to Bäuerle's development team: a huge increase in staff motivation triggered by the Ivory project. "So far, COBOL programmers have always been considered as somewhat old-fashioned. Suddenly, thanks to Ivory and SOA, they are up-to-date and in demand. Our expectations of Ivory from GT Software have been well exceeded, as our initial requirements for this project were met early and the GT Software team continues to help our development team reach new heights when it comes to transforming our SOA initiatives."

Summary

Implementing Ivory Service Architect with WebSphere at LBBW proved to be notably successful; all project expectations for the Web service-enablement and SOA initiatives were exceeded. Using GT Software solutions, LBBW achieved its performance objectives by simplifying the execution of its IMS transactions, with fewer individual services. The end result – LBBW now has a more efficient, reliable end-to-end solution to benefit from the proven power of IMSand take advantage of the flexibility of SOA. LBBW has established a strong SOA foundation that will support future projects as LBBW's business continues to grow. IBM
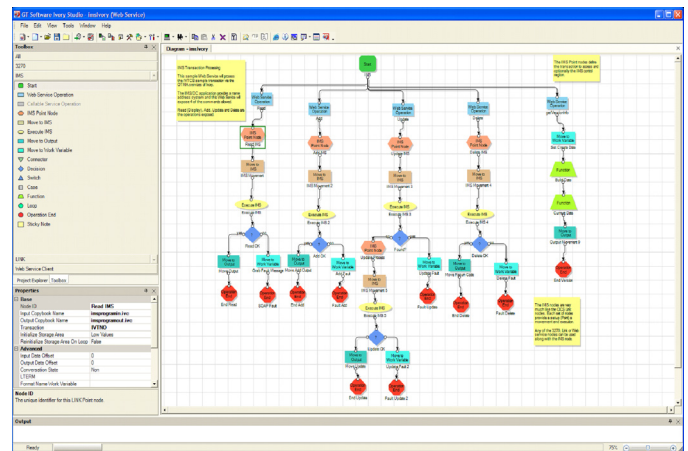
An Interview with Dan Wardman

On October 5, 2007, we caught up with Dan Wardman, former IMS Director and now Director of the Silicon Valley Lab. Despite his various travels, Dan took some time out of his busy schedule to sit down with us and discuss the future of IMS.

IMS Newsletter: Thanks for giving us a few minutes today, Dan.

Dan Wardman: My pleasure. I look forward to these informal chats.

IMS NL: Likewise! To begin, what needs to happen for IMS to continue its growth beyond V10?

DW: First off, we've cleared one hurdle already. The addition of Dynamic Resource Definition (DRD) in the Version 10 release affords continuous availability that is paramount to eliminating outages in an on-demand era.

Second, we must continue focusing on simplification at every level. As first generation IMS developers retire, administration tasks, mainframe tasks, and locating data in IMS must be simplified. We need to ensure that customers can take advantage of the inherent advantages of IMS, high performance and high availability, without worrying about what's happening under the hood. Customers want transparency without the added hassle of recoding their mainframe applications.

Altering the way that customers interface with IMS is something to consider as well. We need to accommodate what people's experience is and not require them to bend to our paradigm. Maybe the next release of IMS replaces the ISPF panels with a gaming controller! With that idea in mind, we need to translate the way that people interact with their computers on a daily basis and adapt that interaction to mainframe technology.

IMS NL: With more new college hires coming into IBM and into our customer shops, simplicity and familiar tooling will go a long way! As the former IMS Director, what are the key points that IMS customers should know about IMS?

DW: There is no end in sight for IMS. We are shipping Version 10, testing Version 11, and planning Version 12. More importantly we are making fundamental investments in simplifying IMS interaction to address the lack of mainframe skills in customer shops.

We are also investing in SOA to ensure that customers can make IMS a part of their business solution, regardless of their future application environment. Nothing is faster or more efficient than IMS, and we need to advance those intrinsic traits while allowing customers to leverage that speed today and in the future. Significant improvements were included in Version 10, and subsequent releases will continue building on those improvements.

IMS NL: You mentioned SOA, and there's been a lot of discussion about it. What is your view of how an integrated IMS + SOA solution can help our customers?

DW: The introduction of SOA is a massive overarching strategy for IBM and the computer industry in general. Over the years, a huge collective capability has been developed on the back of millions of programmers and customers around the world. We need to take the basic values of computer automation that make IMS great and share those operations with a multitude of applications through SOA. If we can find a way to leverage that investment, we can save the world and every customer considerable effort.

The coexistence of IMS applications with other applications must continue growing so that those programs can interact with one another on a global scale while still retaining the stability and speed that IMS offers. IMS transactions follow a very well defined path and are tightly embedded with security and integrity, but coding such a path requires overhead, XML skills, tons of processing power, and various other resources. We can simplify IMS by facilitating the ability to write a Java application to say, "get me this, hand it over to IMS, and get it back to the user." SOA's promise is a very important one: an IMS system that requires fewer instructions, uses less CPU power, and interfaces with millions of applications. Enabling IMS for SOA allows us to tap into that promise.

IMS NL: SOA it is! It's a very exciting direction. For our last question: in your opinion, what is it that separates IMS from any other mainframe product?

DW: The thing that separates IMS from other organizations is that this community of developers, service folks, testers, and customers is the most tightly knit and self-supporting group of people you could ever work with. Here's an anecdote for you: I go to conferences all the time, and they're all pretty much the same; there's a bunch of people, you know some, most you don't, you attend presentations, scribble some notes, and go home. With IMS events though, it's like attending a family reunion. You attend these IMS conferences and see this community of people – vendors, business partners, customers, developers – and you realize that we're all in it together, sharing the same experience. That sense of community has tremendous value for our team and for the customers as well. Everyone involved with IMS knows that there will always be someone there for them.

IMS NL: Truer words were never spoken. Thank you so much for your time, Dan.

DW: Thank you for giving me the opportunity to get the word out that IMS is alive and well. I would love to sit and chat some more but I'm off for travel.

IMS NL: Where are you headed?

DW: (Dan laughs) It would be easier to tell you where I'm not headed.

Thanks to Dan Wardman for letting us know where IMS is headed, even if we're not quite sure what country he is heading to next. IBM
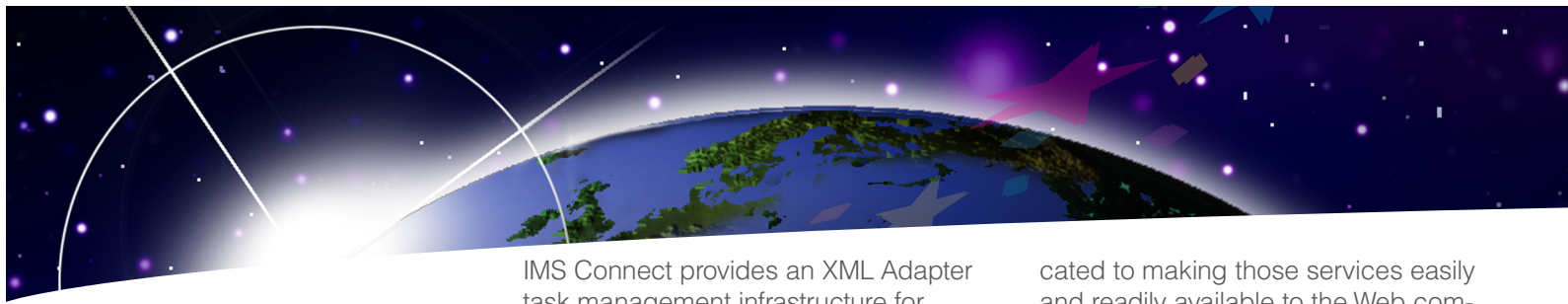
SOA at work today

In today's on demand business environment, there is enormous demand from IMS customers to "Web-enable" their applications. Simple Object Access Protocol (SOAP) is the industry standard protocol that was created in response to that demand. Web services extend SOAP's basic capabilities with additional QoS, and enable SOAP to be the foundation of Service Oriented Architecture (SOA) implementations.

Since the delivery of IMS Version 8, IMS On Demand teams at the Silicon Valley Lab have provided SOA solutions to modernize IMS assets. IMS SOA solutions are designed to support open integration technologies for collaboration among IMS and other components, both within and beyond enterprise boundaries. IMS SOA solutions are fully integrated with IBM enterprise tools, such as Rational Application Developer (RAD), Rational Developer for System Z (RDz), and WebSphere Integration Developer (WID), to establish an SOA-based common programming model. Similarly, IMS provides Web-enabled capabilities using WebSphere, IMS Resource Adapter and IMS SOAP Gateway.

IMS Connect provides an XML Adapter task management infrastructure for handling XML requests. IMS Connect clients, that is, IMS SOAP Gateway, can invoke IMS Connect with XML messages. When an IMS Connect client sends an XML message to IMS Connect, the XML payload data is parsed and translated by the XML adapter into IMS transaction message data structures that the target IMS application understands (see Figure 3). The response message from the IMS application is converted to XML and sent back to the IMS Connect client. IMS SOAP Gateway then builds an output SOAP response message that contains the XML payload and returns the message to the SOAP application using HTTP. IMS Version 10 provides function that allows an IMS application to call out to external servers by reusing the XML transformation support that is provided through IMS Connect's XML Adapter task.

WOA--leading the way to the future

IMS SOA solutions lay the foundation that paves the way for a Web Oriented Architecture (WOA). WOA is an instance of SOA that uses concepts from the Web as the primary service architecture, whereas the Web is the platform for SOA. Therefore, WOA is a simplified implementation of SOA, and has evolved to become the preferred choice of Web-facing systems. While the traditional SOA encompasses transforming reusable business tasks like IMS assets into services, WOA is a constrained subset of SOA that is dedi-

cated to making those services easily and readily available to the Web community. An IMS WOA solution builds upon the existing IMS SOA infrastructure to leverage IMS Connect's Adapter Task Manager to unlock IMS assets for the Web community.
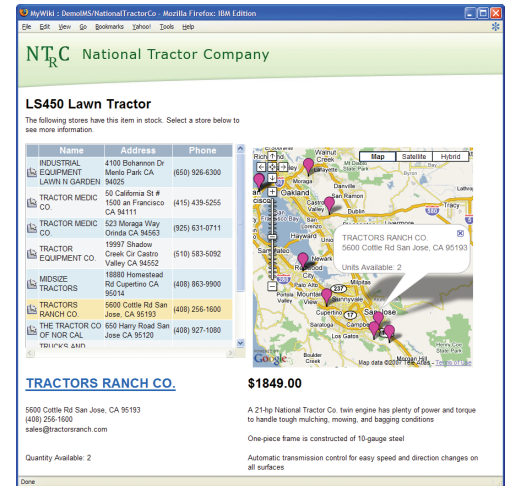

Figure 2

Web 2.0, based on WOA, is a major implementation that is emerging for Web-based applications. Many people who access the Web want to customize their blogs, websites, or both, with content and feeds from elsewhere on the Web. Web 2.0 empowers Web users to be both consumers and producers by manipulating data and combining various sources into a single Web experience. With Web 2.0, a massive population of Web users is enabled to develop Web mashups and to contribute to the ever-evolving internet like never before. In a business setting, Web 2.0 allows companies and corporations to gain a competitive edge by leveraging the content that they own to open up new business uses and opportunities.
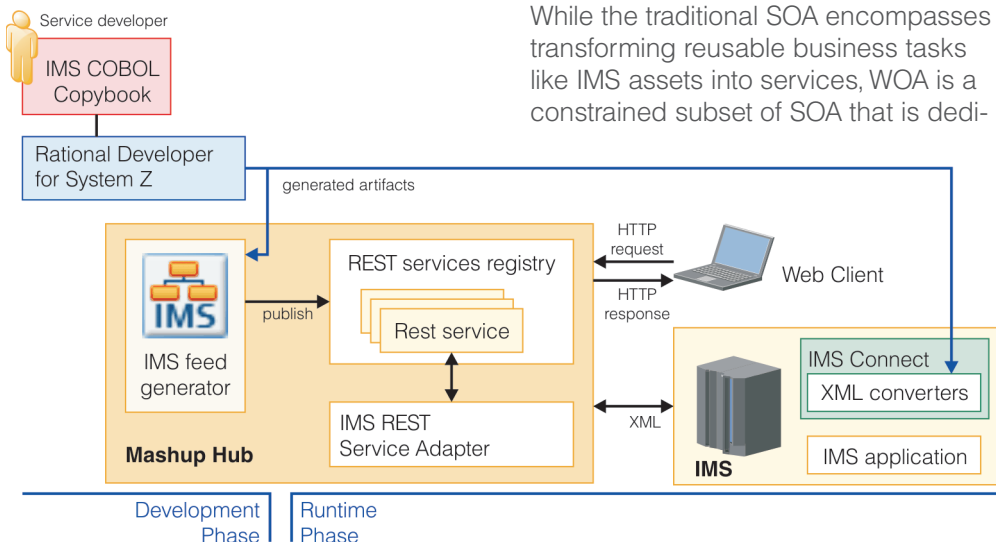
IMS Info 2.0 offering

IMS is working diligently to embrace and extend Web 2.0 by enabling collaboration among customers and partners. The IMS Web 2.0 strategy is to unleash enterprise assets that run crucial business processes. As part of Info 2.0, IBM's Web 2.0 initiative, IMS Info 2.0 enables Web 2.0 to

Figure 1

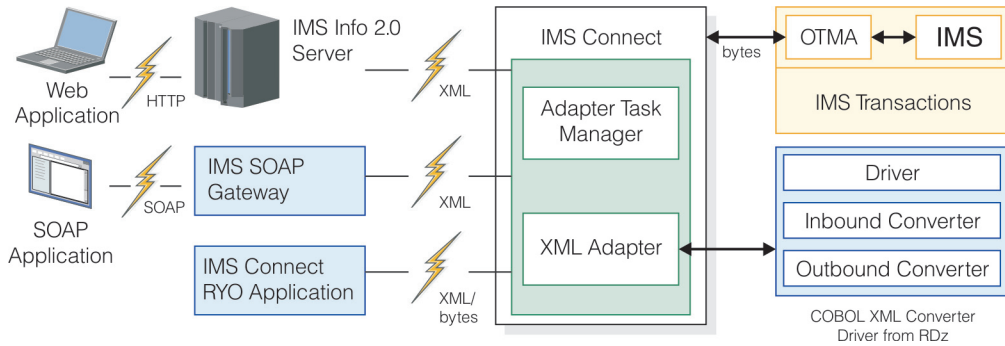# IMS Web 2.0: Transforming SOA to WOA

Jenny Hung IMS Development

Figure 3

simplify the integration of IMS data and content, allowing for shorter deployment cycles. IMS Info 2.0 extends the usability of IMS assets by adding the ability to remix and mashup data. IMS Info 2.0 also provides the ability to compose and build services and widgets into composed services and user interfaces. Countless everyday activities such as checking the status of an order, looking up inventory, and filling in forms are running enterprise IMS transactions behind the scenes. Using IMS Info 2.0, IMS customers can bring existing IMS transactions onto the Web more effectively and often at a lesser cost.

IMS Info 2.0 is offered as part of the IBM Mashup Hub in the IBM Mashup Starter Kit, which is available through the alphaWorks Web site (http://www.alphaworks.ibm.com/tech/ibmmsk). IBM Mashup Hub allows you to easily integrate existing IMS assets into mashup and application solutions by transforming IMS transactions into Web 2.0 RESTful (Representational State Transfer) services and feeds, without the need to write a single line of code! After IMS transactions are transformed into RESTful services, they can become RSS feeds, ATOM feeds, or XML feeds that are available to a Web client. In addition, the IBM Mashup Starter Kit also contains QEDWiki, the graphical mashup maker tooling that allows users to integrate a variety of feeds onto a Web page.

Figure 2 depicts a sample mashup composed of IMS data and a Google map. Using the IBM Mashup Hub and QEDWiki, National Tractor Company extends its IMS investment (the tractor branch and inventory transaction data) and customizes the user Web experience by "mashing" in Google maps and other Web services.

Furthermore, National Tractor Company can publish this IMS feed to the Web community to allow any other Web consumer to access their IMS asset. A third party company, Local Supply Hardware, can now access information from National Tractor Company to better serve the tractor branch and inventory information from a search query on "Tractor" (see Figure 4). Though Local Supply Hardware does not own the search query, they are able to take advantage of that function through IMS Info 2.0.

IMS Info 2.0 Technology

Figure 3 depicts the architecture of IMS Connect and IMS Connect clients (that is, IMS Info 2.0 RESTful service), IMS SOAP Gateway, and IMS Connect Roll-Your-Own (RYO) applications.

During the development phase (see Figure 1) of creating an IMS RESTful service and feed using the IBM Mashup Hub, the service developer must supply RDz-generated artifacts that are created by importing IMS Cobol copybook or a PLI source file. The field parameters extracted from the RDz-generated artifact are registered as input parameters of the IMS RESTful service.

During the runtime phase, the Web server receives an HTTP GET request from a Web client, and passes the request to the IBM Mashup Hub. The Mashup Hub finds the RESTful services registry and invokes the IMS RESTful service adapter, which processes the parameters, establishes a connection with IMS Connect, and generates an XML request to send to IMS Connect based on the name-value pairs. Reusing existing IMS Connect Adapter infrastructure and RDz-generated XML converters, the XML request is converted into an input byte array that the target IMS application understands. When the IMS application returns the output byte array, the IMS Connect XML Adapter converts the response back into XML. The resulting XML is returned to the IMS RESTful service, which returns the XML output to the Web client.
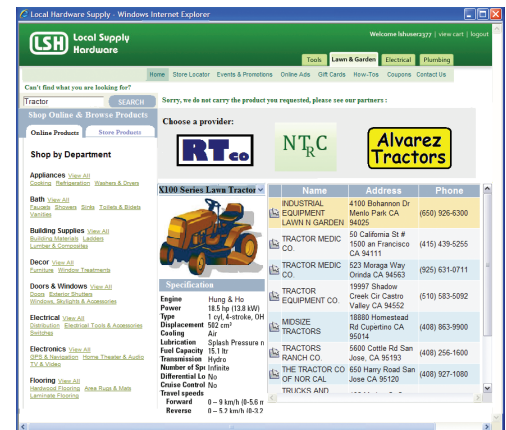

Figure 4

In Summary

The goal of SOA is to provide access to the reusable tasks and services that a business provides. SOA allows customers to build composite applications that draw upon the function of many other applications to enhance their products and product interaction. A WOA simply builds upon an SOA to make those services readily available to the Web community while simplifying interaction with several applications. Because SOA uses the Web as its palette, WOA has a multitude of implications for merging different customer applications in an entirely new way. By transforming SOA to WOA, IMS content can be simplified, reusable, scaleable for performance, and conducive to enhancing the user experience. IBM

IMS Problem Resolution Through Log Analysis

Alan Smith IMS Development **Dario D'Angelo** IMS Development

The following article is the first in a series discussing innovations in IMS Serviceability and Information Management tools and utilities. This article describes how IMS log records can be analyzed using Knowledge Based Log Analysis (KBLA).

Data integrity in IMS is driven by thorough and accurate logging of all terminal and transaction-initiated system events. IMS records this information in the online log data set (OLDS), which can be archived into a secondary log data set (SLDS) or a recovery log data set (RLDS). If you have ever interpreted the information from the OLDS, SLDS, or RLDS, you know that such a task can be overwhelming. That task becomes even more daunting, not only because the data is presented in hexadecimal format (not very user-friendly), but also because of the considerable quantity of records. Each log record represents an event related to one of many resources that are active in the system at any given time. To unleash the intrinsic value of the information in the log, volume-related obstacles and restrictions need to be minimized.

The Knowledge Based Log Analysis (KBLA) feature, introduced with IMS Version 9, assists in reducing the time and effort required to analyze log records. KBLA simplifies JCL job creation and minimizes JCL and control statement errors through the use of an ISPF interface, which provides informative help panels that allow the user to quickly obtain reference information about the error in question. KBLA consolidates access to a set of IMS log formatting routines and various IMS log processing utilities to analyze the OLDS, SLDS, or RLDS.

Knowledge-based log record analysis
KBLA implements the concept of "knowledge-based" log record analysis. The knowledge-based log analysis routines select only relevant records which match specific filtering criteria that you have supplied. Some of the filtering criteria that you can select are: AREA, DBD, LTERM, NODE Program name/PSB, PST, RBA, Recovery token, TRAN, USER, and UOW.

Another feature of the KBLA ISPF interface is enhanced guidance information for log utilities that pre-date KBLA. JCL is generated for running these utilities, and help panels assist in their use. These utilities are described as part of KBLA Primary Option 1.

KBLA introduces additional utilities to analyze log data that is related to various IMS areas and sub-components such as: RSR, MSC, DBCTL, IRLM, OTMA/RRS, DEADLOCK analysis, and others. These utilities are discussed as part of KBLA Primary Option 4.

Enhanced log record formatting routines
KBLA provides enhanced log record formatting routines that present a simplified English description of the previously unreadable hexadecimal log record data (for the most common IMS log records). These enhanced exits can generate:

- Summarized presentations of the log record flow.
- Versions of the log records with field names translated into English, as opposed to the field names used by the DSECTS, thus reducing the need to research the meaning of many flags or fields.
- Enhanced presentations similar to the format generated by DFSERA30.

In addition, KBLA presents only those fields that have been determined critical by subject matter experts. Log records that are selected for formatting can be filtered by time range, LSN range, and other selection algorithms. These formatting routines can be invoked from many of the KBLA panels.

Identify log records easily
KBLA provides an interface to simplify the identification of a correct and complete set of log data sets before record analysis. To be an effective tool for problem determination and tracing, a set of log records must be complete for the time period under investigation. Although the archived logs are created at one physical location, they must often be sent to another location (such as a service center) for processing. Therefore, it is imperative that all of the log data sets for a given time period and for a given set of IMS subsystems be available for processing. The KBLA interface can be used to verify that a complete set of logs are identified. KBLA provides a simple, quick, and automated solution for sorting through a set of log data sets with no external naming convention. If KBLA is being used on a system that has access to the Database Recovery Control (DBRC) where the log data set names are stored, DBRC can be invoked from KBLA to generate a list of the log data set names.

With the KBLA interface, you can verify:

- Completeness of the list of logs
- Whether you created the list manually or not
- Whether you used DBRC to ensure that the logs:
  - Pertain to the IMS image in question
  - Correspond to the desired time period
  - Do not have any time gaps within this period
  - Are separated by the IMS subsystem

You can also use the KBLA interface to sort the log data sets by the IMS subsystem and into the proper sequence. After the data sets are in sequence, you can determine the number and time range of missing records to help identify the exact sets that are missing within the sequence.

These functions are invoked through KBLA Primary Option 5.

Log data set summary
KBLA also provides a log data set summary and IMS system configuration information. The summary contains the contents of the log data set, characteristics of the IMS system that produced the log (for example, when statistical log records X'45xx' are present), and some statistical information related to occurrences of transaction, programs, and databases. This utility is invoked as KBLA Primary Option 3.

The following information is also summarized by the KBLA Log Summary function: `

- Input IMS logs used for the utility run
- IMS ID
- Subsystems that interface with IMS
- First and last LSN in the log
- GMT time stamp and local time stamp of the first and last log record
- Difference between UTC and local time (HHMM format)
- Elapsed time on selected logs
- Total number of log records in the log data set
- Indications of gaps in the log or out-of-sequence situations
- Presence of internal trace records, system restarts, dump log records, and system checkpoints
- Application program abends that have occurred
- Number of log records present for each record ID

KBLA ISPF Panel Layout

There are seven KBLA ISPF options:

Primary Option 0: KBLA Environment Maintenance

This option allows you to individually customize your KBLA environment. You can tailor values that are used by KBLA in the generation of JCL, such as IMS data set names, space allocations, and JOB statements. Use this option to list and perform maintenance on work data sets that were created during KBLA batch processing.

Primary Option 1: IMS Log Utilities

This option allows you to generate JCL for running log-related utilities that existed prior to KBLA. These utilities include:

- IMS Log Transaction Analysis (DFSILTA0)
- IMS Fast Path Log Analysis (DBFULTA0)
- IMS Statistical Analysis (DFSISTS0)
- IMS Log Merge Utility (DFSLTMG0)
- IMS Log Recovery Utility (DFSULTR0)
- Program Isolation Trace Report (DFSPIRP0)

The IMS Records User Data Scrub utility (DFSKSCR0), introduced with KBLA, is also accessed from Primary Option 1. DFSKSCR0 is used to remove user-related data from log records so that the log data sets can be sent to service centers

without including any sensitive data in the records.

Primary Option 2: IMS Log Formatting

This option drives DFSERA10 processing and identifies the main KBLA drivers for log record formatting. Log records can be selected based on: association with a specified IMS resource, IMS sub-component, or specified trace table, specification of log record IDs, or snap/pseudo-abend.

Primary Option 3: IMS Log Data Set Summary

This option invokes the log data set summary utility that provides a log data set summary and IMS system configuration information. The summary contains the contents of the log data set, characteristics of the IMS system that produced the log (for example, when statistical log records X'45xx' are present), and some statistical information related to occurrences of transaction, programs, and databases..

Primary Option 4: IMS Knowledge-Based Analysis

This option helps you generate JCL to run log-related utilities that were introduced with KBLA. These utilities include:

IMS Knowledge-Based Analysis: This selection produces a summary and statistical analysis of the contents of log data sets, as well as reports that provide detailed analysis and extracts of log records based on specified search criteria.

MSC Link Performance Analysis: This selection uses IMS MSC trace log records to help determine where time is being spent and what resources could be tuned to affect the performance of each link that is defined in the system.

Statistics Log Record Analysis: This selection provides enhanced formatting of the X'45'-type log records, which provide information on IMS buffer pools, latches, and many other internal resources.

Trace Entry Analysis: This selection guides your analysis of problems that are recorded in specific trace tables. A trace filtering capability allows you to extract specific entries from the large IMS trace

log records.

IRLM Lock Trace Analysis: This selection reads the lock trace data that is generated when a /TRA SET ON TABLE LOCK OPTION LOG command is issued on the IMS system at the beginning of the time period being sampled. You can use this utility to find database or application issues that impact transaction response times and cause frequent and long lock waits. Summary and detailed information is accumulated for each lock request that resulted in a wait.

DBCTL Transaction Analysis: This selection sorts and combines the DBFULTA0 and DFSILTA0 functions. This utility is used primarily in a DBCTL environment because it relies on both a X'08' (scheduling) and X'07' (termination) pair as well as a X'5937' or X'5938' record to gather statistics.

Log Processing Rate Analysis: This selection calculates the rate at which log records are generated and the average length of each type of log record. The log record generation rates are expressed in records per second and bytes per second for individual log record types, and for subtypes, if such granularity is requested.

Database Error Pointer Analysis: This selection analyzes large amounts of log and trace data for common database pointer errors. Application abends and utility and pointer checker reports can provide diagnostic information such as the affected DBD and RBAs. You can provide that information as input to this panel, which then processes X'50', X'5950' and X'67FA' log records.

PSB Database Update Analysis: This selection produces a statistical summary of database updates performed by PSB. Database update log records (X'50' and X'59) are counted and summed for each PSB occurrence that has issued such calls. You can sort the analysis information using options that are provided on this panel.

OTMA/RRS Wait Trace Analysis: This selection helps you extract the information that is necessary for the problem determination

KBLA continued

Jack Paddington IMS Development **Sarah N. Dipity** IMS Marketing

of IMS OTMA/RRS unsatisfied waits. This selection uses OTMA and RRST table traces that originated from either or both the IMS back end system and the IMS front end system.

Primary Option 5: Log Selection
This option allows you to select and manipulate logs and records.

Select Log from RECON: If you are using KBLA in an environment in which the DBRC RECON data sets are accessible, or you have the output from a LIST.LOG DBRC query, you can use this option to extract the log data set names for processing. You can also filter the logs by time stamp.

Input List of Logs: This option creates a member in your SDFSKJCL PDS that contains a list of log data sets to be processed by KBLA options. The data set names can either be concatenated in the order in which they were entered on the panel, or separated by IMSID and sorted by creation time.

Sort Records Within Logs: This option sorts log records by up to 4 sets of sort criteria, by log sequence number (LSN), or by store clock time (STCK). Additionally, the sort can remove records with duplicate sort criteria values.

Primary Option 6: User-Supplied Utilities
This option allows you to tailor and invoke other ISPF-driven utilities or execs. The statements used to invoke these utilities are preserved on the KBLA panel for subsequent use. Using KBLA to drive these utilities alleviates your having to remember or 'cut and paste' the syntax for invocation. It also does not cycle out like commands stored on the ISPF Option 6 panel eventually do.

What KBLA can do for you:

Save time:
KBLA can reduce the time required for problem resolution between customers and service support by reducing the number and size of relevant log data sets that are shipped. An interface that ensures the correct, complete selection of log data sets before record analysis

contribues to the reduction of IMS log analysis time.

Simplify analysis:
Log record interpretation is presented in a simplified format that increases readability through enhanced log formatting routines. In addition, the introduction of knowledge-based analysis of IMS logs selects only the relevant records, allowing you to see only the information that you need.

KBLA is used widely by customers and internally by IMS analysts to dramatically reduce the amount of information required for problem determination. In some cases, the time spent analyzing problems has been reduced from hundreds of hours to just a few hours. **IBM**

IMS Profiles

Mark Ziebarth

Mindy Weng

Kevin Hite

Mark Ziebarth is truly an IMS veteran--he has been working on IMS for 30+ years, and has been with IBM since 1967. He came to Silicon Valley Lab in 1977, looking for a job in the database area; instead, he took a job in the Multiple Systems Coupling (MSC) area and never looked back. "I've always liked IMS and have never been bored with it," Mark says. "There is always an infinite amount of things you can do, whether it's implementing an idea, fixing a problem, answering a question, or helping a co-worker or customer. The diversity of people and knowledge is amazing, too." Mark recalled a visit by IBM's former chairman, Lou Gerstner, who said what he liked most about IMS was that they always did what they said they were going to do. When Mark is not working on MSC, he enjoys the great outdoors, especially everything California has to offer: mountains, forests, dessert, lakes, ocean, and canopies of stars— he loves astronomy. If he ever does get bored with MSC, he can teach his two sons and their families, including two granddaughters, to appreciate nature's gifts as much as he does. **IBM**

Mindy Weng joined IBM in 1995 as an IMS Fast Path tester. Mindy immediately recognized that she was surrounded by a great team, so she stayed with Fast Path until 2006, when she moved to IMS Database as that team's Test Lead. "This was a good move for me," says Mindy. "It broadened my skill beyond Fast Path." Mindy was the overall Test Coordinator for the Version 10 release, which expanded her leadership role even more. She recently took over the lead responsibilities for the IMS Test Steering Committee. "There are so many areas you can learn about, explore, and make a contribution. I never feel bored!" Mindy enjoys leadership roles and encourages new testers not to limit themselves, but instead to always look for new challenges. Outside of IBM, Mindy encouraged her daughter to excel in traditional Chinese dance and modern western dance. She's looking forward to more reading, music, and gardening now that her daughter is off to college. **IBM**
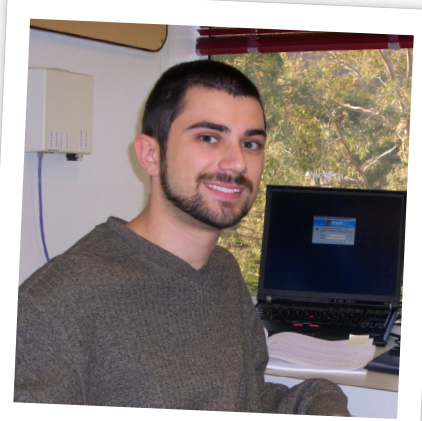
Kevin Hite recently started his second year working in IMS as a software tester. Last Spring, Kevin graduated from the Rochester Institute of Technology in New York state. After a 5-month internship working on WebSphere in his native state of NY, Kevin came west to join the IMS Test organization. "Right now I'm working on DRD [dynamic resource definition] and Open Database. For Open DB, I'm the focus team lead for iterative development." Many development teams in IBM are moving from a traditional "waterfall" model to an iterative model that breaks up longer cycles into smaller chunks. "Getting people to adopt a whole new process was difficult at first," Kevin says, "but people are now seeing the value in it." Kevin also devotes some of his time helping to develop the infrastructure that supports Testers within IMS, including working on career development, test standards, and education. "I've only been here 14 months, but I've been getting pretty good opportunities at growing my career. I've always been interested in mainframe. Now with the Open DB project, I can also utilize my Java skills. It's interesting watching those develop." Outside of IBM and IMS, Kevin is a big fan of the NBA, and in particular, Shaquille O'Neal. If Shaq ever needs to learn about Assembler, Java, or software testing, we can definitely put him in touch with Kevin. **IBM**

IMS Newsletter

IMS Newsletter

Editorial

Glenn Galler IBM SW IT Specialist - IMS - Advanced Technical Support

As the outgoing Editor-In-Chief for the IMS Newsletter, I thoroughly enjoyed every aspect of this assignment. The IMS Newsletter covered many elements of IMS, including articles on Development, Marketing, Education, and the ITSO Redbooks. I recently took on a new assignment in the Advanced Technical Support (ATS) group, formerly known as the Dallas Systems Center, and left the IMS Newsletter in capable hands.

The IMS Newsletter has always maintained a high standard of excellence. Over the last seven years, our team has received two awards from the external Northern California Technical Communication Competition (Touchstone) for producing a quality newsletter. The current IMS Newsletter team has a great deal of experience and will continue to produce a quality newsletter.

One of the highlights for me as Editor-in-Chief was hiding my children's photographs in each issue. When we started, my daughter was 12 months old. She is now eight and in third grade; my son started hiding in the Newsletter when he was an infant. He is now six and in first grade. I appreciate the kind feedback you sent regarding the ongoing contest. I know for many of you that searching for the pictures came before reading the articles!

With my move to the ATS group, my family and I moved from San Jose, California, to Ann Arbor, Michigan. I work wherever there is an internet connection, which includes many coffee houses and libraries at the University of Michigan!

Although it is difficult to leave the IMS Newsletter, I am sure I will have the opportunity, as a member of the ATS IMS team, to see many of you at SHARE, the Information On Demand (IOD) conference, and other IBM events that feature the IMS product. I am looking forward to that! IBM