

COBOL FOR MVS AND CA-IDMS DC

By Jim Moore, Concentrated Logix

I recently was given the opportunity to convert a CA-IDMS DC shop from COBOL 74 to COBOL for MVS (or COBOL/LE - Language Environment COBOL). This article will examine some of the things that were discovered and are still being discovered as the conversion continues.

The CA-IDMS Database and Applications User Association

http://www.iuassn.com

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Installing the CEE Run-Times Into a **CA-IDMS DC Region**

This is the first step in getting the Language Environment active within CA-IDMS DC. At Release 14 levels, the process is simple. Only two things need to be done:

- 1) Add the SCEERUN run-time library to the CDMSLIB concatenation of the CV.
- 2) Ensure that the region has adequate free space in the 31-bit reentrant program pool and the 24-bit reentrant program pool.

Points to note:

- Make certain that the CEE.SCEERUN library is ahead of any other language run-time libraries in the CDMSLIB concatenation.
- No LE programs need to be added to the SYSGEN. However, if the 31 and 24 bit reentrant pools need more room, you will have to increase their size by modifying the system in the SYSGEN compiler.
- I recommend adding 1 meg. (1000K) to the 31-bit reentrant pool and about 250K to the 24-bit reentrant pool. Monitor these pools to make certain that the addition of the LE run-times doesn't cause program reloads.

Pick a DC COBOL Program and Run It

Initially, pick a single DC COBOL program to test with. Determine where in the application thread the program is invoked and then execute it. Here is what I did to see just what happened with the LE run-times in place and no change to the DC COBOL:

1) Enlarged the 31 and 24 bit reentrant pools via SYSGEN, added CEE.SCEERUN to CDMSLIB and then cycled the region.

(continued on page 2)



MESSAGE FROM THE NATIONAL CHAIR

By Jim Rice

CHANGES

"Strange fascination, fascinating me – changes are taking the pace I'm going through."— *David Bowie*

The IUA board of directors spent part of its fall meeting going through a long-range planning process. During these sessions, the board wrestled on where we thought the IUA was and where we wanted the IUA to go. All organizations do this periodically. Looking to the future gives a group a chance to see if they share the same visions. With all of the changes going on in our industry, the board was overdue for this checkup.

I am happy to report that the IUA board was able reach consensus on where we think the IUA is going as an organization. To summarize, the board feels that the IUA should concentrate on the following four areas: education, peer-to-peer networking, vendor relationships, and marketing of CA-IDMS. The board focused on the whats and whys, and now we will be concentrating on the hows. In the future, you will be hearing more about the future of plans the board has for implementing our visions.

With the dawning of the new century, each of us should approach our relationship with CA-IDMS in a similar fashion. Try and get away from the day to day activities and look to the future — two to three years out — and try to visualize where you want to be with CA-IDMS. After doing that, work your way back to come up with the sub-tasks that will help you reach that goal.

I hope that during this process, you will think about ways that the IUA can assist you and your company in reaching those goals. Let us know what we can do. Maybe a Road Show can be held near you. Is there a topic you would really like to see presented at the fall workshop? Or one you could present!

Give some thought to volunteering for the IUA or your local users group. Both organizations are always in need of help and new ideas. Most of all, don't sit back and let the changes that are happening blindside you. Nothing is worse than waking up one morning and thinking, "How did we get to this point." Changes are going to happen. They won't go away. Be pro-active. Take an active role in steering change for the better.

"Pretty soon you're gonna get a little older Time may change me But I can't change time" — David Bowie

I hope the New Year finds all of you at peace and prosperous.

(COBOL for ..., cont. from page 1)

- 2) Issued a DCMT D PRO CEEPLPKA to determine if the main 31-bit LE module was in memory. It was not.
- 3) Executed the COBOL 74 DC COBOL program.
- 4) Issued the DCMT D PRO CEEPLPKA again. The CEEPLPKA module was still not in the program pool.

Why wasn't it loaded? My hunch was that the COBOL code had been compiled with the NORES(ident) compile-time option. Using File-Aid's 3.1 Library utility that allows a CSECT-style load module browse, I corroborated my hunch. Sure enough, all of the ILB-prefixed COBOL 74 run-times was statically link-edited inside the DC COBOL load module.

I recompiled this single DC COBOL program with the *COBOL for MVS* compiler. I issued a DCMT V pgm NC and again executed the application.

Success! Now when I issued the DCMT D PRO CEEPLPKA it was loaded in the 31-bit reentrant pool. By recompiling, I got the COBOL enclave to issue RES-style run-time calls. This is what causes the Pageable LinkPack Area (PLPKA) LE module into the DC region's 31-bit reentrant program pool. And there it will remain for the duration of the region's life.

RES/NORES Compile-Time Option Is Gone from COBOL for MVS

This is a critical change for COBOL when it must execute within "closed" environments like CA-IDMS DC. In the past, particularly with COBOL 74, what many sites did was compile DC COBOL with the NORES option. This causes the COBOL compiler to generate V-CONs for compiler run-time calls and therefore, the V-type ESD constants are resolved at link-edit time.

This makes every COBOL load module self-contained (and larger). That is, the run-time modules are all statically imbedded within the COBOL load module. Running in this manner, no dynamic calls are ever made to the compiler run-time library.

With *COBOL for MVS*, this is no longer possible. The compiler itself determines which run-time modules will be statically imbedded and which will be dynamically called. Put another way, the RES/NORES compile-time option **DOES NOT** exist in *COBOL for MVS*. You must have the LE run-times available within every region that will be running *COBOL for MVS* enclaves.

Other Compile-Time Problems

As I continued to test the single DC COBOL program, I discovered that the site had established QUOTE as a default compile-time option. This COBOL compile-time

(COBOL for..., cont. from page 1)

option determines what value the figurative constant QUOTE will assume. It should be defaulted to APOST. QUOTE indicates the double-quotation mark ("). APOST assumes the value of the single quotation mark (').

This setting is important within DC COBOL. The program that I picked to test was using the figurative constant QUOTE to determine when the user pressed the enter key.

Once these few problems were ironed out and I was satisfied that the DC COBOL program functioned exactly the same under either COBOL 74 or COBOL for MVS, I began the process of re-compiling all DC COBOL programs using the COBOL for MVS compiler.

I encountered programs that wouldn't compile due to obsolete or functionally altered syntax. The single biggest problem was the use of the word FUNCTION. This word was chosen as a data name years ago but cannot be used under *COBOL for MVS*.

Another compile-time option that you might want to consider using for DC COBOL is SSRANGE. Using it does slightly increase overhead. However, it provides clear, concise information at run-time when a program overflows a table, either with traditional subscript/index notation or when there is a reference modification overflow.

Eventually, all 150 DC COBOL programs were re-compiled using the *COBOL for MVS* compiler. The conversion continues. I did the initial work in a DBA-only CV and then repeated it in the primary test CV. Production still looms.

Conclusion

To conclude, here is a list of things to consider when converting to *COBOL for MVS*.

- You will probably need to modify your COBOL programs in the SYSGEN. If they have been declared to be QUASIREENTRANT, make them REENTRANT as you convert them. Don't forget to use the RENT compile-time and link-time option when compiling and linking.
- I was amazed that fully 50% of the old COBOL 74-source code compiled perfectly under the *COBOL for MVS* compiler. Then I thought about how restrictive the DC COBOL environment is in general. Further, this site's DC COBOL source is less than 5% of their entire COBOL source inventory. Batch COBOL is an entirely different animal!

- It really helps to have a good version control manager. The site where I am working uses CA-Endevor. New processors were created in CA-Endevor for DC COBOL under *COBOL for MVS*.
- I cannot say for sure but I suspect that more problems will occur if a site's DC COBOL inventory was compiled with the RES option under older compilers. Then the LE run-times is activated in a DC region to replace the older compiler run-times WITHOUT re-compiling the COBOL. Best bet? Re-compile all DC COBOL using the COBOL for MVS compiler when moving to the Language Environment.
- Finally, please get some training for your COBOL programmers in *COBOL for MVS*. It is unfair to them to do anything less. COBOL might be obsolete but someone had better tell IBM! They just keep on enhancing and enhancing it.

CA CORNER

NEW BETA PRODUCTS FOR CA-IDMS®

By Judy Kruntorad, Technology Owner Computer Associates International, Inc.

CA-IDMS 15.0 is close to being a reality! At the time of this writing, it is undergoing thorough Quality Assurance regression and new feature testing in our new CA-Framingham, MA, development center. Development work is also in progress in porting the JDBC driver for CA-IDMS from Windows platforms to the OS/390 platform. Both of these products address the evolving business needs of our clients who wish to exploit the performance and scalability features of the mainframe as their eBusiness platform. Beta testing for both products is anticipated to begin by the end of 1999.

CA-IDMS 15.0

CA-IDMS 15.0 is the next major release of CA-IDMS. It builds on the sysplex exploitation and open architecture enhancements made in previous releases of IDMS. Through exploitation of Coupling Facility structures in a parallel sysplex environment, CA-IDMS Central Versions are now able to share update access to the same database areas. Additional features are also provided for improved 24 x 7 functionality, improved performance and productivity, and enhanced SQL functionality. These features were selected for implementation from the DARs (Demand Analysis Requests) which have been submitted by clients and User Groups for the CA-IDMS product family.

A Data Sharing Group (DSG) is a new concept introduced with IDMS 15.0. There is no syntax required to define a Data Sharing Group. Rather a Data Sharing Group comes

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into existence when two or more CVs are started with identical values for the new SYSIDMS parm of DSGROUP=group-name. Members of a Data Sharing Group enjoy many privileges including the ability to share update access to areas, share access to the queue area, enqueue/dequeue global resources across systems, and broadcast messages and DCMT/DCUF commands to other members of the DSG.

Features introduced in IDMS 15.0 for enhanced 24 x 7 processing include:

- the ability to dynamically add or increase the size of a storage pool or program pool;
- the ability to dynamically specify the external wait time for a task;
- the ability to modify the queue depth field used to tune multitasking performance;
- the use of expanded system counters for a number of system tasks, times at max tasks, and times SOS;
- toleration of database I/O errors during warmstart; and
- the automatic restart of RHDCDEAD (the deadlock detector) if it abends.

For improved performance and productivity, the following features are provided:

- the use of XTIOT for an increased number of datasets that may be allocated to one CA-IDMS job;
- printer formfeed options specifiable in sysgen at the system level as well as at the LTERM level;
- the ability to run Unload, Reload, and Fastload with duplicate record ids defined in the same subschema;
- a runtime message at the time of a stall which includes the program name of who is holding the resource;
- a DCMT command to vary an area permanently to retain its new status across startups;
- easier installation and maintenance procedures for the CICS interface;
- an enhancement to the CA-Endevor/DB archive and compress facility to support modification of dictionary identification information in Confirmation Change Lot entries;
- management of User Attribute Blocks (UABs) for improved storage and CPU utilization; and
- the collection and display of data sharing statistics by the CA-IDMS Performance Monitor Interval Monitor.

For open architecture, SQL enhancements include:

- SQL DDL syntax for CREATE PROCEDURE as well as EXEC SQL CALL PROCEDURE syntax for the runtime invocation of a program written in COBOL, PL/1, or assembler; and
- support for columns to be assigned subqueries on an SQL UPDATE statement.

CA-IDMS SERVER 4.2

CA-IDMS Server is now a veteran product for providing client server access to CA-IDMS data. In 1992, CA-IDMS Server 1.0 implemented an internal Computer Associates database protocol called "SQI" for cross platform database access. When ODBC became a defacto standard for Windows client server access, CA-IDMS Server 2.0 embraced this open architecture standard. Hundreds of client server and Internet applications are using CA-IDMS Server 4.1 today to deliver "live" IDMS data via ODBC. With the advent of Java and JDBC as new emerging standards, CA-IDMS Server has once again responded. In June 1999, CA-IDMS Server 4.2 with support for a native JDBC driver for IDMS (in addition to the ODBC driver) was released for beta testing on the Windows platform.

CA-IDMS Server is about to make another major step forward to address our clients evolving needs for access to their IDMS data. The OS/390 edition of CA-IDMS Server 4.2 will allow JDBC access to IDMS from Java applications or servlets running in Unix System Services within OS/390. As OS/390 becomes the clear platform winner for scalability and performance for Web Servers, CA-IDMS Server becomes the way to tap directly into the CA-IDMS data from this environment.

For more information

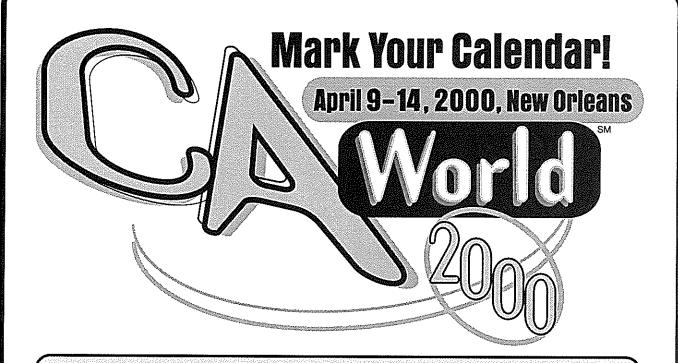
If you are interested in joining the beta test programs for CA-IDMS 15.0 or CA-IDMS Server 4.2, please contact Maureen Gervais at 508-628-8094 or by email at Maureen.Gervais@cai.com.

CA-IDMS STATUS UPDATE OPPORTUNITIES

By Orrin Stevens Jr., OS/390 Product Manager (CA DBMS) Computer Associates International, Inc.

In the past year, Computer Associates sponsored CA-IDMS Roadshows, providing status and plans information for IDMS clients around the globe. Virtually without exception, the reaction of the attendees was extremely positive. The traditional CA-World and local User Groups provided other, more informal, venues for communication between CA and the large community of IDMS users. But CA's Roadshows provided a relatively formal way in which clients could spend some time with senior CA staff.

Now these Roadshows are being supplemented by a similar event, called CA Day, which is held at a client's site. While a Roadshow is a public event, a CA Day is limited to one client and can concentrate on the specific needs of the site. Your local CA representative can arrange for your site to be considered for a CA Day, which is a great opportunity for people who perhaps would not normally attend a Roadshow to be brought up-to-date on IDMS.



Register before February 14, 2000 and receive a \$200 discount off the CA-World™ registration fee.

To register, and for more information, visit www.caworld.com, or call the CA-World Hot Line at 1-877-CAWORLD (229-6753) or 1-631-342-6600.

Register online and receive an additional \$50 discount.



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Take a Look Into The

Tiburon World



Shark Advisor



Monitors Performance

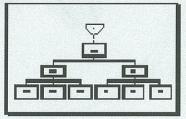
Internet-Based

Browser Independent

Trend Reporting

Predictive Analysis

Shark Advisor is the flagship tool of the Tiburon family of information tools and services that will offer organizations the opportunity to gain a better understanding of their data, to identify potential problems and to track trends that can predict various conditions before they may occur. The tool monitors system's performance using actual statistics captured at specific intervals. It has an alert agent that identifies conditions of various severity levels after they are detected to take proactive measures before a system outage occurs. The product is an integral part of Tiburon's performance and tuning services.



View/IX

Intelligent Analysis Agent

Reduces Time DBAs Spend On Index Rebuilds and Manual Size Calculations

Supports CA-IDMS Release 10.0 Through 14.0

Supports MVS and VSE

"Indexes comprise 20% of the raw data in a system, yet can cause 80% of many performance problems"

Services

Legacy Extension

Web Based Education

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Application Projects

Migrations

Tips

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CA-IDMS

Lotus

DB2

Unicenter

ORACLE

Legacy to Web Tools

CAS

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(CA Corner, cont. from page 4)

One of the most popular topics at CA Days and Roadshows has been the area of Internet Enablement. Although many sites already have incorporated Web access to IDMS into their enterprise environment, there are so many different ways in which this very important technology can be implemented, and this particular session was very useful to users. This particular session also always sparked a good deal of exchange among the attendees as they discussed their approaches and what had worked for them.

CA Days, CA Roadshows, CA-World, local User Groups, IUA — they all are avenues for accurate and timely information about IDMS to be available to IDMS sites. Don't be shy in taking advantage of them!

OCOMPUTER ASSOCIATES GLOBAL PROFESSIONAL SERVICES TAKES CA-IDMS INTO THE MILLENNIUM

By Joe Perkins, Field Services Project Manager, Computer Associates

Managing and maintaining mission-critical databases takes time and resources — commodities that are often in short supply at organizations racing to keep up with the fast-paced demands of everyday business. Yet no enterprise can afford to be without database support and still achieve its business processes and goals.

By leveraging the CA-IDMS product family, you can balance your organization's data center resources. And now, clients can gain assistance from CA's worldwide professional services organization, Global Professional Services (GPS). GPS is committed to ensuring the success of clients that have invested in CA-IDMS.

GPS has experienced phenomenal growth in the last six months — not just in head counts, but in the ability to pro vide a wide range of services. GPS currently has more than 4,000 consultants in 44 countries around the world delivering accelerated results for our clients in the areas of enterprise systems management, application development and integration, knowledge management, eBusiness infrastructure, security, and visualization for "zero-learning" applications. The services range from consulting to implementation, to education, to focused outsourcing.

As a solutions-oriented service provider. GPS has experienced CA-IDMS consultants who are available to assist our clients in the day-to-day and long-term CA-IDMS.

Product/Application Assessments

As business requirements change in your organization, GPS can offer an outside product or application assessment that will provide you with recommendations on the best use of the CA-IDMS product family. Additionally, GPS consultants are available to increase the productivity of your staff via onsite knowledge transfer.

System Software Upgrades/Migrations

GPS offers upgrade and migration services for the CA-IDMS software family (all releases and operating systems). Our clients can benefit from using the latest CA-IDMS 14.1 features including mixed page groups and SQL enhancements.

SQL Implementation

Allow GPS to show your site how to have your cake and eat it too by implementing ANSI SQL against legacy data and implementing relational applications. Once you see the benefits of a SQL implementation, then you can add GUI/Web-enabled applications to the environment.

Performance Tuning

Do you have an application or overall CA-IDMS performance concerns? Or do you need to know about CA-IDMS performance-related features, such as Sysplex exploitation? GPS can provide the monitoring and tuning suggestions and/or implementation assistance. GPS can also show you how the CA-IDMS Agent, installed along side OS/390. Framework for Unicenter TNG, allows Unicenter to track potential scarce resources, thus saving a likely system outage.

Troubleshooting/Production Turnover Assistance

To help your staffs focus on business initiatives, GPS can provide day-to-day operational support through our troubleshooting and production turnover assistance for your CA-IDMS product suite. We can provide assistance for maintenance concerns and testing outages, or aid in the protection of your recent investment by upgrading CA-IDMS. Additionally, GPS provides technical liaison support and assistance during the first critical days of production implementation.

Web-Enabled Implementation Assistance

GPS can help you gain Internet access to your Legacy IDMS databases. GPS will assist in implementation using a combination of CA products, such as, CA-IDMS-SQL Option, EDBC IDMS Option, and/or CA-IDMS Server 4.2.

Project Management

GPS has experienced project managers to keep your CA-IDMS projects implemented on time. No project is too large or too small for GPS.

Remote Support

While eliminating travel and living expenses, GPS enables remote access to your CA-IDMS system to provide timely support when you need it most!

Application Support

GPS can re-engineer your IDMS applications. GPS will provide long-or short-term CA-IDMS Application programmers or analysts to meet your business needs.

To find out how GPS can help your IT organization look even better, contact your Computer Associates Manager today or visit GPS' Web site at www.cai.com/gps/.

THE EURO AND ITS IMPLICATIONS

On the 1st of January 1999, the Euro came into existence. 12 of the 15 European Union countries initially joined but all have at least some obligations to support the currency. There will not be actual money – coins and notes – until January 2002, but all transactions must be done in Euros in the 12 countries, (the Euro group), and may be requested in Euros in the other three countries.

For the next three years then, transactions in the Euro group will be conducted with both the old and new currency present. This means that screens and reports, as well as program logic, databases, files, etc. will likely have to be modified at least once, to handle both. Since the old currency is held at a fixed exchange rate to the Euro, this may, in many cases, be possible by a simple calculation. However, if applications are changed now to display two monetary values, then they may later need to have the old currency "go away" (after 1/1/02). Therefore, many companies, especially those with "customer facing" facilities such as e-commerce, are looking at either two separate conversions, or doing a "smarter" conversion now to have program logic drop the old value automatically at some future date.

The problems for the three non-Euro countries are different but significant. An invoice may be requested in Euros at any time from 1/1/99 but the exchange rate of local currency to Euro is not fixed. Hence, the EU regulation is interpreted to mean that an invoice issued after 1/1/99, may be requested in Euros and is likely to be required at least at the exchange rate of the date of the invoice. This would mean access to a file of daily exchange rates, kept for such a purpose, or all databases to contain appropriate stored daily exchange rate data. Current plans in the UK, the largest of the three non-Euro countries, assume that such requests will be a rare enough occurrence that it will be possible for most companies to handle them manually — but demand could be much higher than assumed. Only time will tell.

All but the smallest non-Euro country businesses will have to do some conversion anyway, since they will have branches or partners in the Euro group, and forward looking companies will be planning for conversion eventually. Therefore, the difference in impact to applications is in most cases going to be negligible.

The logic associated with money amounts is generally much more variable than that for dates, so the next three years are likely to be busy for system conversion. Estimates put the effort at between 6 and 10 times the effort for Y2K.

O IUA WANTS YOU

IUA is looking for a few good people to run for the IUA executive board in the Spring of 2000. It's a great opportunity to network, gain technical knowledge and get advance information regarding CA products. If you are interested in running, please contact Marsha Rogers at 314-569-4557 or email to: marsha.rogers@alcocontrols.com.

CA AND THE IUA ARE COOKING UP NEW IDMS EDUCATION CURRICULUM

CA has listened to the IUA and local user groups and is revamping its IDMS education curriculum. In the C.A.R.E. meeting with Charles Wang at CA-World 1999, members of the IUA and LUGs discussed the status of IDMS education. Mr. Wang directed Mark Combs to assemble a project team to review the IDMS curriculum.

Later, at a meeting held in the café in front of the WRC, members from CA and the IUA discussed how to proceed and started what is known as the "Café Project."

The IUA Education Committee has been working with CA to initially develop new curriculum guidelines for three types of IDMS personnel: applications programmers, new DBAs, and advanced DBAs. However, due to the magnitude of information, the Café Project team has narrowed its scope to new DBAs.

Over several conference calls, the team has decided upon five categories for new DBAs. The following is a brief overview of each category:

- *IDMS Overview* contains information from concept & facilities, glossary of terms, database types and host methods, and batch and online interfaces.
- Day to Day Maintenance offers review of startup and shutdown procedures, operations of journalizing and logging, and an overview of several utility commands.
- Typical Changes covers maintaining IDD entities, program registration, terminal and printer maintenance, and maintenance of users, groups, and profiles.
- Long Range Database Maintenance is an overview of database changes, capacity management, and software maintenance.
- Reference and Other Resources discusses how to find information such as StarTCC, manuals, IUA, local user groups, and IDMS-L.

Curriculum for application programmers and advanced DBAs will be looked at in the future.

IUA ROAD SHOW REPORT

In an effort to bring CA-IDMS education closer to our membership, the IUA has sponsored a series of educational "Road Shows." The IUA Road Shows are one and a half-day events featuring classes for both the DBA and application programmer. Classes taught have been selected based on surveys of members in local CA-IDMS users groups and local IUA members.

The first IUA Road Show was held in Dallas, September 15-16. We had excellent attendance, with 20 people attending the DBA classes and 27 people attending the applications classes. The classes covered topics ranging from CA-IDMS Database Navigation and Locking to CA-IDMS Performance and Tuning. Based on positive feedback from attendees, we consider the first Road Show a big success.

Our second Road Show was held in Denver, November 3-4. Again, we had excellent attendance, with 19 people attending

the DBA classes and 32 people attending the applications classes. The classes covered topics such as CA-IDMS and the Internet, CA-IDMS SQL Programming, and IDMS and the OS/390 Language Environment. As in Dallas, the feedback from attendees was very positive.

Due to the success of our first two Road Shows, the IUA has decided to continue this CA-IDMS educational opportunity through the 2000 calendar year. Our first show of the new millennium will be in February in Atlanta. In addition, we are planning on holding a Road Show in the Northeast in June. A special thanks goes out to Chris Hoelscher, Bob Currie, Carol Harris, Cathy Garrison, Bob Lentz, and the IUA staff for helping to make the IUA Road Shows a reality.



COMMITTEE REPORTS

Applications Advisory Committee (AAC) Update

The AAC has had a few changes this past quarter.

- AAC Chair Bill Bryson, has resigned from his position and Teresa Gentry will replace Bill on the board as chair. The IUA wishes to convey its sincere thanks for all of Bill's hard work in this committee and the board of directors.
- 2) The AAC has decided to evolve and include, under its scope, products and tools that application programmers use in writing and implementing applications that interface with CA-IDMS. The committee will be working with the Technical Advisory Committee (TAC) chair to identify the products that committee was responsible for and transfer those products to the AAC. We will list those products that will be transferred to the AAC in the next *IUA Connections*. All CA user applications that use CA-IDMS are still the AAC's responsibility and we will still support these as before.

With these changes in place, the committee would like to make joining the AAC committee meetings more accessible to IUA members. We are going to make conference call participation available to all interested members so they need not be physically at the committee meetings. AAC meetings occur three times a year and normally last about two hours.

Being on an IUA committee means your voice is heard by the people in direct contact with CA. We also have a CA representative as a member of our TAC and AAC committees. Six hours a year of your time is cheap compared to the benefits you receive. If you wish to participate as a committee member, please contact IUA headquarters or check the IUA Web site at www.iuassn.com for AAC meeting dates, times, and conference call information.

BYLAW AND POLICY CHANGES

The IUA Board of Directors would like to thank the membership for their responses and concerns regarding the proposed changes listed in the spring issue of *IUA Connections*.

Article I.1

The proposed name change from the "Information User Association" to the "IDMS User Association." MOTION FAILED.

Article II

This amendment was expanded to include what products and services would be supported by the IUA. MOTION PASSED.

Article III

The intent was to combine the "User Technical Members" and the "User Application Members" are combined into one status under Organization Membership.

MOTION FAILED.

Article VI

This motion was to replace wording regarding the voting status of standing committees.

MOTION FAILED.

Article IX

The amendment was intended to clarify what an "Advisory Committee" stands for.
MOTION FAILED.

There were also several board policies dropped due to their lack of relevance.



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And when you can predict the future, you can not only change the future, you can change the world.

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NEUGENTS". Software That Can Think:



THE TAC REPORT

The IUA Technical Advisory Committee (TAC) and Chris Hoelscher, chair, have selected the following individuals to fill offices within TAC:

Steve Nason, Tiburon Technologies — Vice-chair **Brock Shaw**, Daimler-Benz — Enhancement Request Process Administrators

Edward Timm, USA Group — Enhancement Request Process Administrators

James Winn, (Williams International) — *IUA Connections* correspondent

John Fisher, UCL (User Contributed Library) — Administrator

TAC is currently processing a backlog of Enhancement requests (otherwise known as DARs) submitted from the user community, and expects to present a ballot to the user community in early 2000.

To facilitate the submission of DARs, the IUA Web site will soon provide an online DAR submission page, as well as the existing screen to view ballot-ready DARs.

Additionally, the UCL is being updated to reflect IDMS releases 12.0 and 14.0, and to accept new utilities for inclusion in the library. For more information, please contact IUA@sba.com.

The TAC also plans on making its meetings more accessible to IUA members by establishing teleconferencing capabilities. Once the details have been completed information will be made available through the IUA Web site at http://www.iuassn.com, future issues of *IUA Connections*, and possibly direct mailings to the membership.



CA-IDMS NEWS BRIEF

New versions of CA-IDMS and CA-IDMS Server are moving toward general availability. CA-IDMS 15.0 is currently in QA. It is expected to go BETA by the end of the year. The 4.2 release of CA-IDMS Server, which brings JAVA accessibility to CA-IDMS with its JDBC driver, is in BETA.

The current tapes for CA-IDMS and the tools are:

Premium Support	PS9808
CA-IDMS 12.01	9809
Tools Tape for 12.01	9712
CA-IDMS 14.0	9810
Tools Tape for 14.0	9901
CA-Endevor-DB 14.0	9911
CA-IDMS 14.1	9811
CA-IDMS Server	Rel 4.1
CA-Culprit Y2K	9704
CA-Visual DBA CA-Quick Bridge	14.1 requires CA-IDMS SQL Option
CA-IDMS Agent CA-IDMS/PC	Rel 14.1 functional stable product with support concluding 12/31/99
	0 , ,

REGIONAL USER GROUPS

As the 20th century draws to a close, the action in regional users groups reflects the conservative nature of the IT world at large — kind of a "batten down the hatches and not introduce anything new into our software environments" attitude. User concerns are focused on the century rollover. New software and enhancements must necessarily take a back seat to the reality of successful database survival as the clock strikes midnight on January 1, 2000.

The Ohio Valley User Group (OVUG) took this as an opportunity to elect new officers at their most recent meeting. Dave Darnell of USA Group was elected President, replacing Dan Hall of General Electric. Sue Robinson of EDS takes over the Treasurer position replacing Brian Swett. Finally, Marco Espinoza of American Greetings was voted in as Secretary, replacing Hal Govan.

Dan Hall, outgoing President of OVUG sends out his personal thanks to everyone that helped him during his years as President of OVUG and wishes the new officers all the best.

The CA-IDMS Midwest User Group (CMUG) meeting was held at Computer Associates Lisle IL offices on November 3, 1999. President Anita Koziol of CSC/Heller and vice-president Kirk Miller of DCI/United Air Lines orchestrated an open forum on CA-IDMS and the Year 2000. (continued on page 13)

(Regional User Groups, cont. from page 12)

Due to the *hunker-down* mode of most CMUG member companies, the agenda focused mainly on Y2K-readiness and what will follow in the months after the fateful century rollover.

Member companies that sent representatives included Case Corporation, Acxiom, Abbott Labs, U.S. Railroad Retirement Board, GE Capital/AFSO, Comdisco, and Wickes Lumber.

Although there were no speakers on the agenda, **Dennis Warren** of Computer Associates dropped in for an informal briefing on CA-IDMS Release 15.0 and a new product from CA named EDBC.

According to Dennis, R15 is just about ready for beta release. However, because of Y2K concerns, serious beta testing will be deferred until first quarter 2000. Dennis also mentioned that CA is seeking interested beta sites. R15's big-ticket feature? Sharing databases in update between multiple CVs.

EDBC, which was first mentioned by Bob Ridell from Case Corporation during the forum, was explained by Dennis as Enterprise DataBase Connectivity — a 21st century open database server that sounds like it may eventually replace existing servers.

Several CMUG attendees inquired about the IUA Road Shows. Most people in attendance used the services of IDMS-L and have noticed discussions of the Road Shows on the list. The question most asked was, "Could CMUG host a Road Show?"

The Rocky Mountain User Group (RMUG) held an organizing meeting in August 1999. The meeting was held at the Denver area Computer Associates facility. The RMUG is being organized (actually reorganized) to represent the concerns of CA-IDMS users in the greater Denver area.

The RMUG's 15 initial attendees showed a great deal of interest in the IUA ROAD Show concept. Surveys were passed out to help determine which educational topics are of the most interest for IUA Road Shows. Based on the input from the RMUG attendees, an IUA Road Show was scheduled.

RMUG then met on November 3 to elect officers and kicked off the IUA Denver Road Show. This meeting was held at IHS. The meeting featured a presentation on coding and debugging ADS/IDMS applications on a PC using XITEC.

RMUG elected **Cheryl Collins** of the University of Wyoming as Chairperson. **Dedie Combs** of AMS Operations was elected DBA Track Leader and

Bob Currie of IHS was voted in as Application Track Leader. RMUG has also decided to hold quarterly meetings.

Following their November meeting, the IUA Road Show was held at HIS.

Attention all User Group Presidents

Would you like to have issues of *IUA Connections* to hand out at your meetings? Word on the street is that *IUA Connections* usually ends up in the hands of DBAs and is rarely passed on to applications and operations folks. The IUA Board wants ALL CA-IDMS technicians to benefit from the information contained in *IUA Connections*. Do your user group a great service by distributing *IUA Connections* newsletter at your regional meetings. To request copies of IUA Connections, please contact *IUA Connections* editor, Dawn Zastrow at dzastrow@sba.com

And, don't forget that the IUA will pay a \$100 writing bonus to any contributor whose article appears in *IUA Connections*. Remember the old *Boxes and Arrows* periodical? This is the kind of content that the IUA needs — quick technical tips that can be freely shared with CA-IDMS peers around the world. Do you use a technique or a piece of software to help make your job easier? Want to share it? Write it up and pocket an easy \$100. To submit an article please contact *IUA Connections* editor, Dawn Zastrow at dzastrow@sba.com.

COMING SOON — A WHOLE NEWEPISODE OF CHICAGO H.O.P.E.!

Grab those appointment books now and schedule time to attend the IUA's Fall 2000 Workshop September 17-19, 2000, in Chicago at the DoubleTree Hotel, O'Hare-Rosemont. Based on the success of previous workshops in providing cost effective, in-depth DBA and applications training, the upcoming workshop has been dubbed "Chicago H.O.P.E." (Huge Opportunity for Practical Education).

Take the pulse of your current IDMS staff. Perhaps you have some application "interns" in training who need basic-level courses to "nurse" them along. Or you may have some DBA pros whose skills need to be "doctored" up a bit.

Please make plans to join us as we "make the rounds" through two and a half days of focused training delivered with "intensive care." "Admissions applications" will be mailed to you shortly. Meanwhile, please have "patients" as we prepare for this exciting event.

P.S. We promise we won't serve hospital food!

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Order Desk 1-800-841-8743

LMP Support 1-800-338-6720

Mt. Laurel

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For IDMS/DC, DDS/Perform, UCF 856-273-3410

For IDMS/DB, Compilers, Install, SQL 856-273-3411

For IDMS/Culprit, OLQ, IDMS Server 856-273-3412

For CA-ADS, Mapping 856-273-3414

For call back on opened issues 856-273-3415

Boston 508-628-8000

(actually Framington, used to be Westwood)

TECHNICAL TIPS

1) Ran into a situation today — my client informed me that COBOL II programs that were being compiled for the first time as 12.01 (although they had been running in 12.01 for a year) were getting DMLC errors. It turns out that for release 12.01+, and TRANSFER pgmid USING parms MUST end in a period or semicolon. Any words (verbs, element names, or identifiers) after the USING but before a period or semicolon, will be treated as additional parms to the TRANSFER USING parmlist (in our case, when it found a parameter it couldn't parse, DMLC flagged it as an error). This would most often, but not exclusively, occur in IF statements where one would normally have multiple statements without a period.

It turns out that the same rules applied in 10.2, however, it did not detect the error and built the statement listing ALL post-USING words as USING parameters, and NOT flag as an error. The result is the programs NEVER pre-compiled (and therefore executed) as they should have; at least 12.01 knew something was afoot and flagged the error!

2) My shop is 24 x 7 with heavy batch and CICS. We utilize hot backups with a hard quiesce. This process has been in place since before I started in 1990. The key to this process is a folded, spindled, and mutilated version of the #UCFBTCH macro, which issue it's own DCMT commands and reacts to the results. In a nutshell... The first step issues a DCMT DIS AC TA to determine what programs are running. Any batch UPD programs are cancelled via a DCMT VARY TASK task-id TERMINATE. The batch programs and JCL contain restart-ability to allow the program to restart itself, without operator intervention, in the event of a timeout, cancel, deadlock, or area unavailable. We also enforce the use of frequent commits to ensure the rollback does not take long.

The process then issues DCMT DIS AREA, tables the ones in UPD and issues a DCMT VARY AREA RET for each one. If we encounter an AREA QUIESING, the DCMT DIS AC TA is issued again, and this time we cancel all UPD programs. Once the VARY retrieval process is complete, we issue a DCMT VARY JOURNAL and then VARY the areas back to UPDATE. This process is done at the START and END of the backup process to ensure that we have a solid begin and end point. The journal created at the end is referred to as the quiesce journal and is used for the recovery of the hot backups.

Our recovery procedure involves the restore of the backups, a SEQUENTIAL ROLLFORWARD of the quiesce journal followed by a SORT EXIT ROLLFORWARD of the journals created after the backups up to the point of failure. We also use the COMPLETED option on the SORT EXIT recovery to recover any in-flight at the end of the tape. This process has been tested in numerous D/R tests and has been used for individual area/file recoveries for the testing of unload/reloads and recoveries due to ID-10-T errors.

Since the batch is fully restartable, the only drawback is the occasional online abend. Typically, the only error is a 0966. To minimize online abends, we are investigating code changes to allow programs to retry in the event of certain abends, such as the 0966.

3) Speaking of Hot Backups, in order to roll back successfully in 12.0 and above, you roll forward sequentially (cannot be sorted) first, then roll back. That was the only way to cause IDMS to roll back aborted run units. This was all discussed on the list six months or so ago. However, new SYSIDMS option HOTROLLBACK (see IDMS problem 2086) will cause ROLLBACK to roll back aborted run units.

Archive of IDMS-L

QUESTIONS AND ANSWERS

Question: I know that this is a difficult question, but I want to know what the people working with IDMS think about the future with IDMS. A more specific question is how to respond to managers who think that IDMS is dying? What are people doing — migrating, keeping IDMS like a database server, and using client/server solution combining different environments? Are companies happy with IDMS?

Answers:

1. IDMS is cost effective. I am working for a company that deals with parts. They have structures like A part, its replacements, alternates with many to many relationships. Something like a bill of materials structure. IDMS gives good responses in such cases and is not as hard to write as IMS (which is still the best for these sort of structures). It has good administrative tools.

Recently we also did an EDI project. This could be modeled beautifully on IDMS. We had records with occurs varying clause. Try this in any SQL — and it will ask you to go in for Binary objects. Many places — I didn't even access to the records — could just look up the index for values and process the record that satisfies a condition. Yes, all relational databases allow you the luxury of declarative programming. All you have say is "what needs to be done," not "how." We are currently trying to provide Webaccess through table-procedures etc. But then, we are still using DOS/VSE — IBM after all has a sensible policy on its software support unlike the "biggest mainframe software" company.

2. Looking at it from the perspective of an outsourcer, what I see is mostly clients who have decided to get off the mainframe and go to client-server. That of course means leaving IDMS for some other type of database. Companies decide to outsource the data center and once that decision is made, it stays outsourced until all the mainframe systems are replaced, so I am, for the most part, in a "don't break it" mode. It is very interesting to note that throughout everyone's responses, not once is it said that a company is leaving IDMS because it is not doing the job, or that some other product MIGHT even be better. I often have "discussions" with a friend who argues that IDMS is antiquated and doesn't give the flexibility that the PC-based databases do — in his case, it is SQL Server.

He often asks me how I do recovery for IDMS, and how I handle problems with journalizing or with data corruption. I often have a hard time explaining how this is done, simply because these types of things don't happen with IDMS. I don't believe I've ever had to worry about data corruption because of the system software or needed to "fix" journals. I only had one time in 15 years that the CV failed to warmstart correctly. If I had to manually recover a CV, I'd have to read about it in the manual. On an interview once years ago, I was asked about what certain error codes meant — codes such as 1474. My response was that if you know what these codes mean by heart, you're doing something really wrong. Same thing about fixing data corruption if you're an expert at fixing data corruption, you've got a real problem.

3. I am sorry, but so far nobody has stated the obvious REAL answer about the future of IDMS... What is the cost of something else? Spare me a moment to add my views on the subject (although not a technical list issue!).

I started out as a DBA on a Honeywell with IDS/2 (similar to IDMS) and then went to IDMS in 1984. We built many mission critical systems in IDMS in the late 80s and IDMS was the "official" mainframe DBMS. The company I worked for, and now consult for, also branched out into the client-server market in 1990. We now support IDMS, CICS, DB2, ORACLE, Huron/Objectstar and SAP. The client no longer develops new systems in IDMS but is extending the existing IDMS system's functionality via the SQL option (you can even access two of our databases via the internet (retrieval only)!).

The company has twenty production IDMS systems, each costing at least a million dollars or more to build and implement (all ADS, COBOL, and DC/COBOL). We re-platformed one system to another leading SQL based RDBMS and it cost well in excess of ten million dollars plus considerably more maintenance costs.

I am tired about hearing all of the bad press on this list about CA. Licensing is expensive for anything. What have you compared it too? Have you actually compared licensing costs of IDMS to other leading SQL-based options? I have been heavily involved in licensing costs for another RDBMS and finally figured out how it worked... the license cost equals the cost of the hardware! It is not unusual to pay HUNDREDS of thousands of dollars for a single license on a single box plus twenty percent maintenance! It becomes truly offensive when they start talking about "seat" license costs and named/concurrent user ratios. Their arguments as

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to whom a user of the system is purely mind boggling, and VERY expensive. What? You want to add 10 more users to your application? Then you better pay up! In IDMS' case, you only pay for the box and capacity you are on. Adding more applications and users are free! If the cost of IDMS is an issue, then why don't the list members publish their actual costs and replacement costs so that it can be fair?

Yes, IDMS could use some beefing up (although there is a lot of maintenance going on based on the number of PTFs and releases). The Visual DBA add-on is a good start and the ODBC interface does work well for our desktop applications.

The DBMS industry, in my opinion, is going full circle like the PC market (3,270 dumb terminals to powerful PCs back to Internet PCs (dumb terminals with guts) ...users want to be able to just plug in their PC and have it work which is why Apple is doing so well again). The mainframe-based RDBMS' still play a major role in many organizations and I believe this role will once again expand after the true cost and support of the client-server "pick of the day" is accurately accounted for. Yes, mainframes are expensive, but so is client-server (when you add in licensing costs, network costs, hardware costs, and the various maintenance contracts costs, not to mention bags of customized codes to control everything from scheduling to file transfers). I was asked in 1990 how long IDMS would remain around and I stated, in my opinion that the client would have IDMS for at least 10 more years (until the applications were replaced). Well, 10 years have almost passed and NOTHING has changed! The bottom-line cost to re-platform FAR exceeds IDMS licensing costs and increases (in our case). We could NEVER build a business case based only on licensing...the collective we have is to sell and promote IDMS for what it is — a very solid, reliable, flexible, and efficient RDBMS!

4. The saving grace of IDMS (or DB2 or IMS) is that the vital component of replacing IDMS-based applications is brainpower. Companies can spend money, they can hire labor, but brainpower is not merely the some as money and labor, as many conversion managers have found out. Due to downsizing and various strategic initiatives, many companies no longer have the personnel to understand the applications and business processes that are the nucleus of IDMS applications. For that reason alone, there may be a will, but there will be no way unless a company is willing to reengineer their business process from the ground up. That means end users have to analyze and communicate what they do— a cognitive process. I am not

- holding my breath until that happens, especially since many consulting companies consulting pools consists of newly minted graduates with plenty of energy and knowledge, but little business experience. Great analysts have always been worth their weight in gold, but reengineering requires tons of them, and they just aren't available.
- 5. A point I would add is that a business that I worked for wanted to drop IDMS as it was paying licensing fees for ORACLE, DB2, and IDMS. IDMS is probably no more expensive than any other DBMS, but it was cheaper to expand ORACLE and DB2 licenses and drop IDMS. Looks good on paper until you consider the other costs associated with moving to another architecture.
- 6. I agree that IDMS would have a new and better life if, and when, CA delivers the SQL-option as an integrated part of CA-IDMS/DB. I would also like to see CA's marketing staff do what we are trying to do in this list convince managers that there IS an alternative for ORACLE and DB2, and with this alternative, CODASYL-compliant network databases are once again state-of-the-art because they meet "the world's" demand to use SQL as a DML. This would make life easier for everyone involved:
 - Project teams would have a choice between the best of breeds in network AND relations DBMS', which in fact, is the same and single one.
 - Application developers and DBA's would be able to keep putting their existing knowledge into practice and to expand that knowledge (goes for both the network and the SQL people).
 - Managers would have their return-of-investment without the necessity of making new investments.
 - End-users would keep their existing applications.
- 7. Don't laugh at our site, we always publicly refer to IDMS/SQL as "CA-Relational," and to IDMS Server as "CA-Server." We have many happy users who don't have a clue that they are using IDMS. Some of them would have refused to use the products otherwise, on the basis that they didn't want to use "old technology."
- 8. To me a "business issue/decision" implies that the decision is rational, well considered, and based on observable reality that will benefit the business in the long term. In my 18 years of working with IDMS for at least a dozen companies in five states, I have seen maybe two real "business decisions" where IDMS is concerned. The rest of the "business decisions" were based on greed, prejudice, "looking good," wishful thinking, technical ignorance, and plain old arrogance.

(Archive of IDMS-L, cont. from page 16)

This isn't really about what's good for the business. It isn't even about politics. It's about being willing to do anything, ill considered or not, to save 50 cents NOW. The ENTIRE focus of business has become money, money, money, now, now, and NOW! There is little perspective, little long-term experience, and very little healthy skepticism brought to bear on technological decisions. The emperor is alive and well, and by golly, he's dressed to the nines.

As for CA, I can't honestly say that the argument against them is invalid, but it is incomplete. Yes, CA is most likely greedy. Are there any people out there who remember the days when IBM was the primary topic of this same conversation? As for ORACLE, they have the best marketing people in the industry, but they aren't exactly up for sainthood or renowned for truth in advertising. None of the larger purveyors of technology today are in it for humanitarian reasons. Business is about making money and only about making money anymore. Ethically, this is unfortunate, but I've been whacked upside the head enough times, that I get it. The companies complaining about CA are the same ones who contributed to creating this climate. Well, what goes around, comes around, and CA is just target du jour. If CA left the industry tomorrow, price gouging wouldn't stop because it didn't start with them.



O IUA PAYS TRIBUTE TO OUTSTANDING VOLUNTEER JAMES WINN

Due to IUA's Board term limits, James Winn, who has given 10-plus years of service to the IUA and local user groups, will step down as an IUA Board member in April 2000. James' passion for user advocacy and his willingness to be a volunteer has contributed



to the growth of the IUA and the IDMS community.

"Within the past 10 years, the IUA has gone through many changes, and James has led the IUA through many of those transitions," explains IUA National Chair, Jim Rice. "He has helped to enhance IUA's relationship with CA and has been a stabilizing force for the IUA."

James user group involvement includes a 10-plus year association with the national organization plus a few years at the local level. Specifically, he was one of the initial members of the VAX/UNIX Technical Advisory Committee, where he provided a voice for this often overlooked group of CA clients. James has also been a speaker at several CA and IUA events.

In terms of the IUA, James is currently serving as co-chair of the IMC Committee and is a member of the TAC committee. He has also served on several IUA committees and is a past Vice and National Chair of the IUA. James attributes much of the gains he has made in both his personal and professional life to his association with the IUA. At the conclusion of his board term, James says that he plans to continue helping the IUA as a volunteer.

Professionally, James has more than 20 years of data processing experience, with the last 16 years as a CA-IDMS DBA. This has included stints as a CA-DB/VAX and UNIX DBA. James is currently Manager Systems Developments and Data Administration for Williams International where he is responsible for loading the development of Web and Windows-based client/server applications supported by a CA-IDMS database.

The IUA Board of Directors would like to extend a sincere thank you to James Winn for all of his years of service to the IUA and the IDMS community in general. His involvement has made a positive difference for the IUA and its members at the local, national, and international level.

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