iua CONNECTIONS

● BROADENING THE VIEW OF A FAMILIAR SCENE

USA Group, now part of Sallie Mae, finds a new way to use an existing product

Processing loan applications, disbursing funds, and providing other loan services is no easy task, but Sallie Mae, the nation's leading provider of funding for education loans, makes these responsibilities look simple. Renowned for its reliability, excellent customer service, and valuable deliverance, Sallie Mae wanted to implement the convenience of Web self-service opportunities to students and schools on top of its already premium offerings.

To complement loan queries via phone, Sallie Mae imagined a call center for lenders to have the accessibility to view their loan activities and services online. The deterrent was this: "Can we find a bridge that will bring these new systems and our core loan management application, EAGLE II, together?"

A bridge is exactly what Sallie Mae needed — specifically the IBM CICS Transaction Server 3270 bridge.

"An object-oriented approach was used to implement the system. The development team designed object and method programs to drive the existing CICS-IDMS application programs," said Mark Smith, Sallie Mae Business Technology Advisor. "Each method represented a business process that is performed by one or more screens. Each object used a similar interface, so the objects and methods could be reused by both the external Web application as well as the internal call center application."

Sallie Mae has used IDMS for more than 20 years and did not realize CICS could help them use IDMS in a new way until now. CICS was never marketed as a product to help Web-enable IDMS applications. To Sallie Mae, CICS was the gateway between open systems and mainframes that saved time, money, and human resources.

"We were able to leave primary technical people to their normal duties while bringing in less experienced people, who didn't need to know the business, to make the updates on IDMS," said Smith.

Smith attended a conference that provided the original idea (of bridging the systems), performed some research, took a risk, and made the concept work for Sallie Mae.

"Many database administrators (DBAs) think they know all there is to know about IDMS and its capabilities," said

INSIDE THIS ISSUE

MESSAGE FROM THE NATIONAL CHAIR

By Jim Rice
Southern Company
Services, Inc.

Ah, early spring. Time to shake off the doldrums of winter and to get ready for outdoor activities in the months ahead. I think everyone looks forward to this time of year, including the IUA board. Here are some highlights of what we have planned.

In a few weeks, the first IUA Road Show of 2001 will be held in Herndon, VA. If you live in the Washington D.C. area, this is a great chance to increase your knowledge of CA-IDMS. An IUA board meeting will follow the Road Show. These meetings are open to all, so please stop by and share your ideas with the board members. In 2001, meetings will be held:

March 30-April 1 in Herndon, Virginia
June 15-17 in Ottawa, Canada
October 12-13 in St. Louis, Missouri

Contact IUA Headquarters at iua@sba.com for more details on these meetings.

In May, IUA will present some sessions at the German IDMS User Association (AID) annual conference in Lahnstein, Germany.

June also will be a busy month for IUA. We will host the first Canadian Road Show in Ottawa. The IUA board of directors will hold its summer board meeting in Ottawa as well. Again, I urge you to attend both events if feasible.

In July, IUA will hold the second annual IUA Event Night at CA-World in Orlando. If you attended last year's party, you know what a great opportunity this is to network with your peers and have fun.

Finally, IUA will present our annual fall workshop in October in St. Louis. IUA's 2001 Workshop: A S.P.A.C.E. Odyssey (Super Practical And Cost-effective Education) will be three days of informative CA-IDMS-centered presentations.

I guess the board has our work cut out for us! I hope that all of you will be able to attend at least one of these events. I look forward to talking with all you sometime during the year. Let us know if you have ideas for future events. And stay tuned to this and future issues of IUA Connections for details on all of these events and more.

Smith, "but little do they (DBAs) know, there is something new and exciting that CICS can help IDMS do."

So instead of accumulating high costs in developments of a new system, the bridge allowed Sallie Mae to save money. Using appropriate human resources and research was an easy way to convert a current product to something newer and better.

End results of installing the bridge: Sallie Mae had approximately $10 billion in new education loans last year, almost an 11% increase from the previous year.

For further information, the "Web Enable a CICS/IDMS Application via CICS 3270 Bridge" presentation can be found at: **www.caworld.com/ proceedings/2000/data-bases/di305pn.**

IUA IS TAKING YOU ON A RIDE THROUGH A S.P.A.C.E. ODYSSEY

Do you feel lost in space in the IDMS information galaxy? Is gravity pulling you away from the skills and techniques you need to become the IDMS pioneer you want to be?

Hop on the shuttle and attend the **IUA 2001 Workshop: A S.P.A.C.E. Odyssey** (Super Practical And Cost Effective Education), October 14-16, 2001.

Similar to previous workshops, A S.P.A.C.E. Odyssey will offer cost effective, in-depth CA-IDMS education in application development, database administration, and Web-based technologies. And at only $299 per registration ($349 if you register on site), you may never find a better educational value for your dollars.

Watch your mailboxes this summer for the S.P.A.C.E. Odyssey advance program, which will outline session content and networking opportunities, as well as provide hotel and transportation details. Visit the IUA Web site (**iuassn.com**) for a countdown to takeoff of the S.P.A.C.E. Odyssey, including online registration and course offerings. Or call IUA Headquarters at (312) 321-6827 or send an e-mail to iua@sba.com for more information.

CALLING ALL IDMS PIONEERS

IUA offers you the unique opportunity to help your peers solve problems you've worked through for yourself and your organization at the **IUA 2001 Workshop: A S.P.A.C.E. Odyssey** (Super Practical And Cost-effective Education). If you have uncovered tips and techniques, solutions, or organizational or personal best practices, don't keep them to yourself any longer!

Your peers will learn from the successes and challenges you have overcome along the way—and you will learn by sharing with them. An employee who is a leader in his or her field is more promotable, and IUA Workshop presenters are, without a doubt, leaders in their field. And as a speaker, you will benefit from the educational and networking opportunities that are unique to the IUA Workshops—FOR FREE! Speakers will receive a complimentary S.P.A.C.E. Odyssey registration (a $299 value, $349 if you register on site).

Please submit your abstract by April 30 online at **iuassn.com** or via e-mail to Bob Lentz, IUA Education Committee Chairperson, at lentz@tiburontech.com. Or you can contact him at (770) 971-9715 for more information.

GET THE RECOGNITION YOU DESERVE

Take part in IUA's annual Val Morgan Impact Award Competition!

You've worked for your company with dedication and you have made an impact on the way your company does business. After months of hard work, you've delivered the ultimate product to your organization's bottom line-success. Well, IUA wants to hear about it.

Your achievements using the CA-IDMS database have a significant impact on your business. They serve as an educational benefit to all IUA members by providing a road map for other applications users to follow. Through this, you help to establish best practices for fellow IDMS users around the world.

The 2001 IUA Impact Award recognizes an IUA member company that has achieved significant business results due to a CA-IDMS project, of which you were a part. We invite member company representatives to submit one entry describing their methodology and accomplishments.

Entries are judged based on the following criteria:

- **Return on Investment**
  What benefits have your company or department experienced as a result of your IDMS skills?

- **Innovation**
  What innovative methods have you employed to reach each of your established goals?

- **Best Practices**
  How is your approach applicable to other IDMS users? How can others utilize lessons you learned?

- **Improved Service**
  How has your approach improved the service level to internal and/or external customers?

You've enjoyed the challenge and learned from months of dedicated work, so why not tell us about it? To ensure that your submission will be eligible for consideration, please send all materials, adhering to the below criteria, to IUA Headquarters by June 1, 2001:

- A completed application, including contact information, for a representative of the project team

- A paper describing your accomplishments and IDMS practices

- A letter from a member of your management attesting to the value resulting from the described approach

- If available, any documented recognition from within your company applauding your efforts

To apply, please print the application form from the IUA Web site **iuassn.com** and mail all materials to:

IUA Headquarters
Attn: 2001 Impact Award
401 N. Michigan Avenue
Chicago, IL 60611-4267
Or iua@sba.com

The winner will be notified by July 16, 2001. The winner will receive one free registration to the **IUA 2001 Workshop: A S.P.A.C.E. Odyssey** (Super Practical And Cost-effective Education) and $500 toward expenses incurred while attending the conference. The entry will be recognized by IUA on the IUA Web site and on the IDMS-L. The winner also will be formally recognized at the **IUA 2001 Workshop: A S.P.A.C.E. Odyssey** and receive a display award to take back to his or her organization. As an option, a representative of the project can give a presentation regarding their accomplishments.

Submissions will be reviewed and judged by IUA board members. IUA board members are not eligible to submit an application, but their companies are welcome to participate. Please be advised that the review process may require a telephone interview between the candidate and members of the committee.

FREE CA-IDMS TELECONFERENCE TRAINING

By Mike Albus, Computer Associates

This year, Computer Associates (CA) will again sponsor teleconference-training sessions every other month. These teleconferences are part of CA's on-going effort to provide education support to CA-IDMS users. Please note that CA is also offering Web-enabled, instructor-led learning classes and will introduce a new four-day class for database administrators who are new to the CA-IDMS product. The new class will be scheduled in CA learning centers starting in March 2001.

The teleconference sessions were introduced in March of 2000 to address various topics of interest and provide free training for CA clients. The teleconferences will be presented on the days below at 11:00 a.m. Eastern time (8:00 a.m. Pacific, 9:00 a.m. Mountain, 10:00 a.m. Central), then re-presented at 5:00 p.m. Eastern time (2:00 p.m. Pacific, 3:00 p.m. Mountain, 4:00 p.m. Central):

- February 20   Neophyte DBA Class Overview—DC/UCF System
- April 24   SQL Processing Part II
- June 19   Advanced DBA Topic—To Be Announced
- August 21   Topic To Be Announced
- October 23   Topic To Be Announced
- December 18   Topic To Be Announced

CA, along with IUA, will send an announcement two weeks prior to each session.

If you have suggestions for future topics or questions, you may contact Mike Albus by email at michael.albus@ca.com. For more information on CA Education and class offerings, please check http://www.cai.com/education/ or call (800) 237-9273 for the latest schedule.

WOULD YOU LIKE TO GET YOUR COMPANY MESSAGE OUT TO NEARLY 3,000 CA-IDMS USERS?

You can by placing your advertisement in an upcoming issue of *IUA Connections*. We have advertising packages available to suit every budget. Please contact Lisa Krejcik at IUA Headquarters at lisa_krejcik@sba.com or (312) 673-5718 for information about rates and upcoming deadlines.

NOMINATE YOUR COLLEAGUE FOR THE IUA HALL OF FAME

Do you know someone who has made a significant contribution to the IDMS community? Well, don't let their efforts go unrecognized! Now is your opportunity to nominate one of your colleagues for the distinguished IUA Hall of Fame Award.

Your colleague can join the ranks of James Bradshaw and Terry Wright. Bradshaw was given a Hall of Fame award in 2000 for his long-time commitment to IUA as a board member, chair of the *Connections* committee, and the founder and first administrator of IDMS-L. Wright also won an award in 2000 for his service to IUA as a board member and as the board chair (1992-1995) during the period when IUA forged its alliance with Computer Associates, the success of which was due in great measure to Wright's tireless efforts.

Please take a moment to identify someone who truly deserves to be honored by the IDMS community. Send your nomination, along with a brief description of the nominee's professional achievements to iua@sba.com. All entries must be received by June 15, 2001.

IUA TO HOST ROAD SHOWS IN WASHINGTON D.C. AND CANADA

IUA will host its first Road Show of 2001, March 28-29 at the CA offices in Herndon, VA. Discounted hotel rooms are available at the Hilton Washington Dulles Airport in Herndon. You can reach the Hilton at (703) 478-2900. Be sure to mention IUA for the special rate of $117 single/$127 double. A shuttle will transport hotel guests to the CA offices and back. If you are in the DC area, you don't want to miss this unique opportunity for CA-IDMS education.

IUA will host a second Road Show, June 14-17 in Ottawa, Canada. Stay tuned to **iuassn.com** for updated information.

IUA tries to tailor the content of the Road Shows to members' needs. If you have a subject that you would like to see covered at an IUA Road Show, please contact Terry Schwartz at terry.schwartz@ps.net or Bob Lentz at lentz@tiburontech.com.

Also, we are always looking for instructors and new material to present. If you are interested in presenting at a Road Show, please get in touch with Terry Schwartz or Bob Lentz at the above e-mail addresses.

CQUI UPDATE

By Laura Rochon
IUA RUG Co-Chair
Compuware Corporation of Canada

The Quebec IDMS user group (CQUI) held their winter/spring meeting in Quebec City on February 16. The theme for the day was MQSeries. IBM gave a presentation on MQSeries that was followed by a presentation by InnerAccess on their product OCA-MQSeries. Finally, Laura Rochon of Compuware Corporation of Canada presented her experiences with IDMS and MQSeries. If you are interested in joining this group for future meetings, please contact Laura Rochon at laura.rochon@cloxt.com.

DECUF UPDATE

By Terry Schwartz
IUA National Vice Chair
Perot Systems

The Dallas CA-IDMS User Forum (DECUF) held their winter meeting in Dallas on January 24. The event drew 15 attendees, who participated in a IDMS Server for UNIX presentation and an IDMS Internals Overview taught by Joe Perkins from CA. Then, the group appointed Wes Atkinson from Perot Systems as the new DCUF president, replacing Terry Schwart from Perot Systems, who, due to his IUA responsibilities, was unable to fulfill the role.

NEW RUG UPDATE

By Dan Hall
IUA RUG Co-Chair
GE

The Regional User Group (RUG) committee has been working hard on starting new user groups for IDMS users. The committee is working with Gary Cherlet from Australia to restart the Australian IDMS User Group, and with Sergio Medeiros of Brazil to possibly start a Latin American IDMS User Group. The committee also is working with CA to create a New Jersey, New York, and Pennsylvania IDMS User Group. Stay tuned to IUA Connections as more becomes available about these pending groups. If you have any interest in joining these newly planned IDMS RUGs, or forming one of your own, please contact Dan Hall at dan.hall@corporate.ge.com or Laura Rochon at laura.rochon@cloxt.com.

RUG FAQS

By Dan Hall
IUA RUG Co-Chair
GE

The RUG committee receives many similar questions about IUA Regional User Groups, and we are happy to answer them. To the right is a list of frequently asked questions about RUGs:

Why try to resurrect the old IDMS User Groups now?
For the last few years, many IDMS users were adopting the attitude that "there's no point in keeping up-to-date with IDMS since it will be gone in a few years time." Companies and users are now extending their commitments to IDMS, and they are realizing that they are doing themselves a disservice by not keeping up-to-date with the features and functionality of the current product.

What topics are covered in the RUGs?
Here's is just a small list of topics that are commonly covered:
- effective use of ADS trace in debugging
- application tuning
- system tuning
- creative tuning techniques for applications
- debugging IDMS-DC Cobol programs
- Web-enabling IDMS applications
- creating HTML documents from IDD templates and e-mailing from the mainframe
- vendor presentations (CA and non-CA)
- DBA training for the novice

What sort of help is available from IUA for the leaders of a RUG?
Both IUA and CA provide substantial assistance to RUGs with mailings, organizing venues, and providing CA staff for training sessions and presentations.

Why should I join a user group?
User groups provide their members with a forum to exchange information, ideas, experience, and knowledge with other users, resulting in the effective use of their company's CA software. From DBA to manager to developer to end-user, your company can't afford to miss this exciting opportunity. In addition to developing new approaches and solutions on your own, user groups allow you tap into the experience of your peers who have experienced the same new software challenges.

● DO YOU HAVE A SUCCESS STORY WITH CA-IDMS THAT YOU WOULD LIKE TO SHARE WITH OTHER IUA MEMBERS?

If so, submit your story idea or 300-350 word article to *IUA Connections* Editor, Laura Nocera at laura_nocera@sba.com.

IUA is taking you on a ride through "A S.P.A.C.E. Odyssey"

Do you feel lost in space in the **IDMS** information galaxy?
Is gravity pulling you away from the skills and techniques you need
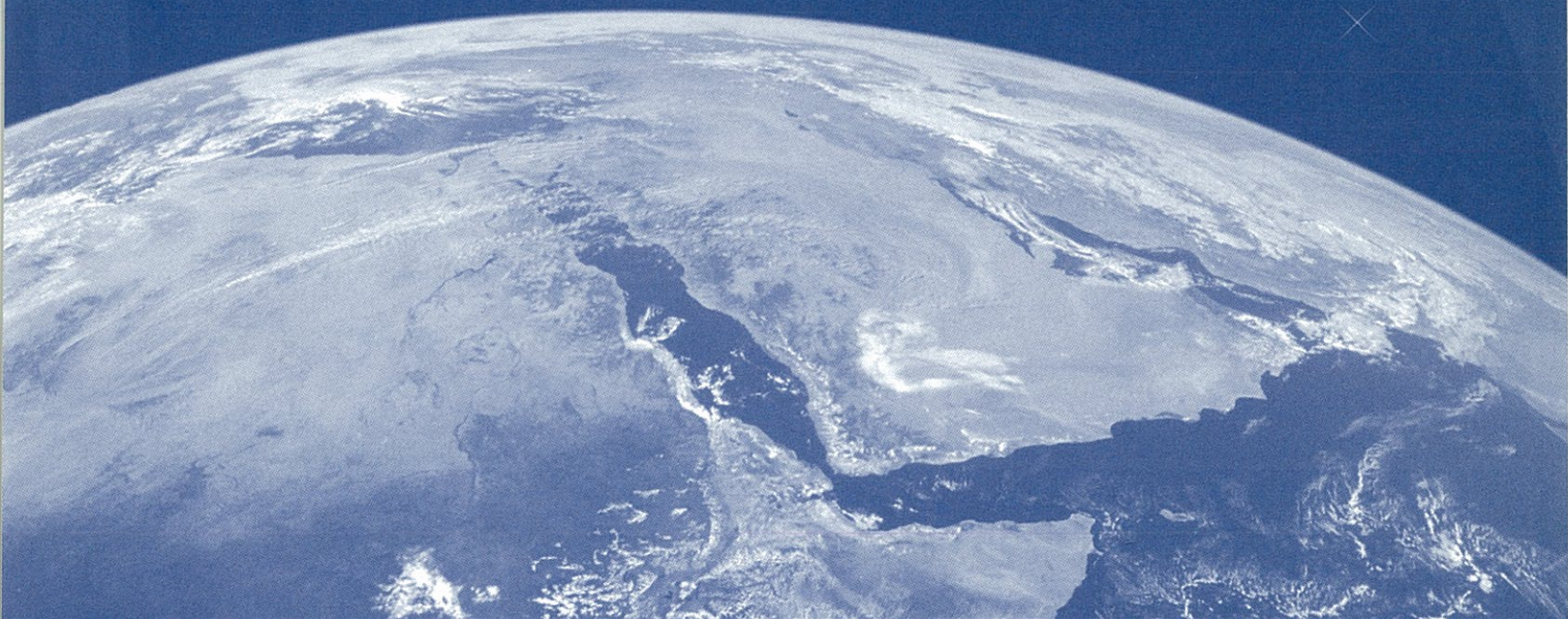to become the **IDMS** pioneer you want to be?

IUA invites you to hop on the shuttle…

IUA 2001 WORKSHOP:
A S.P.A.C.E. ODYSSEY

SUPER PRACTICAL AND COST-EFFECTIVE EDUCATION

October 14-16, 2001

St. Louis, Missouri
Hyatt Regency

Visit the IUA Web site at iuassn.com for up-to-date launch times and information.

APPLICATIONS ADVISORY COMMITTEE UPDATE

By Teresa Gentry
IUA Applications Advisory Committee Chair
Leggett & Platt, Inc.

The Applications Advisory Committee (AAC) will host a committee meeting on March 31, 2001 following the IUA Road Show in Washington DC. All IUA members are invited to attend. If you are unable to attend the meeting in person, you may conference call into the meeting. Topics for discussion will include DARS and the possibility of starting an applications listserv for IDMS users. Please contact IUA Headquarters at (312) 321-6827 or e-mail iua@sba.com for more information.

IMC COMMITTEE UPDATE

By Steve Nason
IMC Committee Vice-Chair
Tiburon Technologies

The IUA IMC Committee is busy planning for CA-World 2001, which will take place July 8-12 in Orlando, Florida. The committee is working with CA to establish a specific hotel recommended for IDMS users. Plans are also underway for the second-annual IUA Event Night at CA World. Visit **iuassn.com** to view the hotel information and Event Night details as soon as they become available. You won't want to miss it! If you have any suggestions for the CA World event as it relates to IDMS users, please contact Bob Currie at bob.currie@his.com or Steve Nason at nason@tiburon-tech.com. We hope to see you in July!

BOARD PROFILE

Name: Richard S. Kenney
Profession: Software Consultant
Company: Artemis Enterprises

Biography: Richard began his software career at Public Service Indiana (PSI) in 1978. At this time, PSI was the seventh IDMS customer in the world, and Bob Goldman did the initial vendor installation. While at PSI, Richard was active in the Ohio Valley User Group. In 1984, he was recruited by John Kidman and joined Cullinet, where he worked out of the Indianapolis office as a CSR doing installs, performance reviews, teaching, and account management. In 1990, he became an independent consultant working in such places as Milwaukee, Lexington, Indianapolis, and Ft. Wayne. He is now on assignment in Portland, Maine, where he met and married a brilliant and beautiful woman, Dr. Jaime B. Hylton. They are both empty nesters who are making the most of their freedom, which includes traveling to Tahiti, Moorea, and Bora Bora.

IUA Experience: Richard was elected to the IUA Board of Directors in 1999. He currently serves as co-Web master with Bob Currie under Steve Nason. The highlight of his IUA experience thus far has been attendance at the IUA 2000 Workshop: Chicago H.O.P.E. The vast amount of useful information and the atmosphere of the event reminded him of the Cullinet User Week events: IDMS folks talking about IDMS, Judy Kruntorad giving a great presentation on Release 15, renewing friendships, and coming back to work with a heightened level of energy and excitement. He is looking forward to the **IUA 2001 Workshop: A S.P.A.C.E. Odyssey** this October.
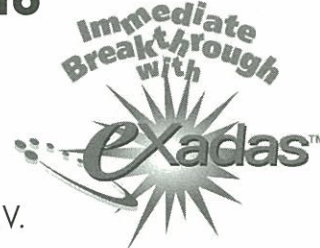
QUESTIONS AND ANSWERS

Question: Our two largest areas occupy over half a pack each and are both filling up fast. The user is reluctant, to put it mildly, to offload any data. I'm in the process of splitting these areas into multiple files on different packs; each pack with it's own buffer. I've read the manual to figure out how to do it, but does anyone have any "rules of thumb", caveats, or gotchas on this subject?

Answer 1: Besides the obvious solution of changing all of your DMCL load modules to now referencing two files instead of one, and all start-up and locally running JCL, the only gotcha I can think of is to remember to now include the new dataset in any backup and recovery JCL or procedure you might have.

Answer 2:

1) What is the dominant LOCATION MODE of records within the areas? CALC or VIA? If CALC, you will probably want to split your areas up by using an unload/reload. If VIA, you could use the EXTEND FILE. Actually, you could use EXTEND FILE in either case; however the original CALC page range will be maintained.

2) Have you looked closely at the current page size of the areas? What kind of volume do they reside on? 3380 or 3390? Is the page size "device optimal" for the device upon which it resides? Also, look to see if there are any logically full pages currently present in the areas. Why? Maybe a simple EXPAND PAGE will buy you some time to reconfigure the files/areas.

3) Having an area in multiple files offers only a small performance advantage in the course of normal processing, where some speed advantage can be had is in utility processing. For example, backups, FORMAT FILE, and PRINT SPACE. Basically, any utility that can be run under BCF at the file level can now run in parallel (multiple jobs, each processing a file instead of an areas).

4) Breaking an area up into multiple files can be done with the BCF BACKUP utility alone. Here's how:
a) Backup the area with the "Old" view - one file, one area.
b) Restore the area with the "New" view - Multi-file, one area.

5) As another poster mentioned, if your site is using dynamic allocation, the change should be transparent. If you are not using it, JCL will probably have to be changed. Also, ensure that your site backup/restore will include the new files.

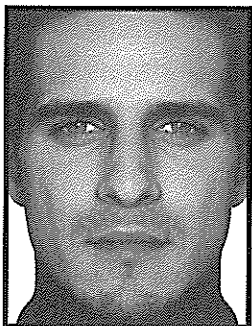***

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GOOD MORNING

Once again, today has arrived. And it brings with it the same meetings, the same problems, and, in many cases, the same solutions. Unfortunately, many of those same solutions aren't working. Because business has been transformed by the little letter e. And the technology that was once the domain of twentysomethings with a website and a warehouse in their garage is now an integral part of every business. Fortunately, however, the same principles that made for good management before still make good eBusiness sense. Of course, that's a lot more difficult now that your business isn't contained by four walls and needs to be accessible anywhere, anytime, for anyone. That's why it's more important than ever to have the very best software. Software that manages your business processes – integrating all parts of your company, including suppliers and partners, to make sure that they're working together seamlessly. Software that manages information – storing, accessing, and utilizing the vast wealth of knowledge that you continually gather about yourself and your customers. Software that manages your infrastructure – maintaining and securing your assets while letting you see the big picture to ensure that everything keeps running smoothly. There's no doubt about it. Things have changed. But that just means there will be new solutions to the old problems. And we think that's a change for the better.

HELLO TOMORROW

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Question: I have a question regarding "Found in Buffer" hits. For six days, I tracked my buffer hits. I then averaged the DCMT command results for the six days and it is 84.5%. I have 13 buffers defined to IDMS of varying page sizes and number of pages. I do not use pre-fetch and these stats are mostly from on-line activity although some batch is included (08:00 - 17:00). The formula I used was (Found-in-buffer)/(Found-in-buffer + Phy-reads). My question is basically "How good is 84.5%?" Are other shops higher or lower than this percentage? I know that I will be reducing the number of buffers and increasing the number of pages but I'm trying to get a feel of just how good/bad KSU is at this point in time. Anyone have some information that could shed some light on this question?

Answer: I cannot begin to tell you where I learned/heard this "rule-of-thumb", but I have it stuck in my brain that an 11:1 ratio (or a corresponding 11/12 fraction = .916667) is the "ideal" mix of logical and physical database reads.

Question: I have several IDMS systems running on one LPAR. One of the systems is receiving a warning that the LMP codes are going to expire, but this only happens once in a while. The systems are all running on the same LPAR and I have not seen this on any other system. The last time it showed up was Nov. 4; we cycle this system once a week and it has not showed up again since then. Any ideas would be appreciated.

Answer: Typically the LMP Key warning will only appear when the product code is being used. For example: If OLQ has expired, then the warning will appear when someone attempts to utilize the function. The warnings will also appear at the system startup for those product codes being used by the startup routine. For your problem: discuss this with your systems staff. They may not have the current copy of your LMP Keys in their CAI libraries. Since the warnings are intermittent, I would suspect a key for a product not used very often, or the systems staff is accomplishing IPL's with different CAI libraries.

Question: We have just completed our upgrade from 12.01 to 14.1. We would like to use DBNAMES with mixed page group segments. Does anyone have experience with rununits that have mixed page group areas?

Answer: We installed 14.1 late last year and started using mixed page group support in production earlier this year. With the exception of a few problems, which have been corrected by APARs, we have been very satisfied with this feature. Make sure that you have ALL mixed page group support APARs applied to your system, including LO69345, LO72698, and LO82089. Our first step in implementing mixed page group support was to identify programs that issue an unqualified db-key request. We requested a 12.01 version of LO44807. CA wrote a test APAR, which is published as LS52053. Programs identified were reviewed and updated per the 14.1 features guide.

We started off slow by first moving related areas to a new segment and moving the entire segment to a new page group without making any page range changes and making the appropriate changes to the DBNAME table. Programs accessed the two or more page groups without incident. Next, we performed unload/reloads to reconfigure the areas in the new page group, which resulted in overlapping page ranges. This has also worked without any problems. A year ago at this time, we spanned approximately 803,390 volumes and had less than 200,000 contiguous free pages in page group zero. Today, we have grown to over 1,603,390 volumes with plans to add 50 in the first quarter of 2001 for growth. Page group zero has over seven million pages free with the largest over 800,000. Without the mixed page group feature, this would not have been possible.

Question: I need to expand an index area with several indexes that are defined as DUPLICATES LAST. To the user, the order is important and the index works properly because chronologically the latest duplicate ends up at the bottom of the list on a read. When I expand the area and the index is rebuilt, the duplicates are stored back in index order by what appears to be DBKEY and the chronological storing of "last" that the users saw previously is lost. The data looks out of order to them but by definition it is correct. Is there a way to expand the area and keep the duplicates in the initial order of duplicates last, as they were originally stored (without writing special programs to offload the data)?

Answer: Excellent question. Be aware that it is the rebuild of the index, not the expand of the area (if it was an X-Page) that reordered your duplicate keys. Was it an X-Page or are you using the word "expand" generically? One way to ensure duplicate order in an index is to:

1) Do a REBUILD FROM INDEX

2) Add the $ORTPARM (or DFSORT equivalent) to the IDMSBCF step. As the sole in-stream parameter code: EQUALS.

For example:

```
/$ORTPARM DD *
EQUALS
```

The "EQUALS" parameter will preserve the input sequence of duplicated "key" values. The EQUALS /NOEQUALS default can be varied by installation. EQUALS might be the default setting at your site.

Question: I can't get the system to recognize the first file assignment. I copied the syntax out of the manual (first mistake). Can somebody tell me what I'm doing wrong? I get the 1 through 100000 not assigned, under the second file, no matter how I describe the file assignments.

```
CREATE PHYSICAL AREA DOCSEG.OMMEDSP-AREA
     PRIMARY SPACE 200000 PAGES FROM
PAGE 5100001
     MAXIMUM SPACE 200000 PAGES
     PAGE SIZE 13680 CHARACTERS
     WITHIN FILE FILE-OMMEDSP1
       FROM 1 THRU 100000
     WITHIN FILE FILE-OMMEDSP2
       FROM 100001 THRU 200000;
*+ Status = 1     SQLSTATE = 01607
Messages follow: *+ DB004071
T3841 C1M6016: FILE DOCSEG.FILE-OMMEDSP2
blocks 1 THRU 100000 not
*+ assigned any thoughts?
```

Answer: Syntax must be:

```
CREATE PHYSICAL AREA DOCSEG.OMMEDSP-AREA
     PRIMARY SPACE 200000 PAGES FROM
PAGE 5100001
     MAXIMUM SPACE 200000 PAGES
     PAGE SIZE 13680 CHARACTERS
     WITHIN FILE FILE-OMMEDSP1
       FROM 1 THRU 100000
     WITHIN FILE FILE-OMMEDSP2
       FROM 1 THRU 200000;
```

Assignment is for the file for a number of blocks. This is to allow for multiple areas assigned to the same file.

Question: I have a question regarding the syntax for sending messages in batch. We tried sending using this syntax: SEND A 'AT 3:00 P.M. E.S.T. YOU WILL BE LOGGED OFF ' IMM. The IMM is for immediate, however it didn't seem to send it right away. Am I using the correct syntax? We do have the: SET OPTIONS INPUT 1 THRU 72 in front.

Answer 1: Put the IMM before the message:

SEND A IMM 'AT 3:00 P.M. E.S.T. YOU WILL BE LOGGED OFF'

Answer 2: Here are a couple of other related comments regarding sending mass messages to terminal users via Ucfbatch:

- Make sure your online task definitions use the "SAVE" option. This will preserve the user's work that they were doing when interrupted by the blast message, and return their screen to them uninterrupted after they've read the message.

- The Lterm has a "Break/Nobreak" parameter. If the Lterm's are set to "nobreak", then the user's work will not be interrupted immediately with the blast message. The message will be queued to their terminal and will wait for the next opportunity to be sent to that user, without interfering with the current work.

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