THE OMNI USER

What's New in DB2
Mark Flora
Tuesday, October 19, 2004
registration 5:00, dinner 6:00, session 6:45

The industry standard SQL interface for the iSeries integrated database, DB2 Universal Database for iSeries, has been available for a long time but many programmers are intimidated by changing their tried and true data access techniques. For beginners, we'll contrast the Read/Write/Chain/Update/Delete access techniques with more modern SQL languages access and show some code snippets to demonstrate the points.

For the more experienced, we'll discuss several enhancements and changes in to DB2 UDB for iSeries in V5R2 and V5R3, such as:

- Multiple Databases
- SQL language Enhancements
- Partitioned Table Support
- Materialized Table Query Support

Mark Flora spent 20 years with IBM as a Systems Engineer and a Services Specialist with a focus on mid-range systems including the AS/400. Mark frequently presents topics of interest to iSeries user groups. He is currently with CIBER as an IBM eServer Certified Principal Consultant, supporting clients with iSeries systems or PeopleSoft EnterpriseOne software (formerly JD Edwards OneWorld).

Please **reserve online** at… http://www.omniuser.org by **Noon on Thursday, October 14th, 2004**
The OMNI web site is our preferred method of reserving for the meetings. If you **must**, you can call **(630) 953-6312** and leave your company name, the names of those attending, and their entrée choices.

This month's menu:
Starter Caesar Salad
Entrées (choose one)
Meat London Broil with a Pepercorn sauce, creamy whipped potatoes
Veggie Pasta Primavera
Dessert 2 Layer Chocolate Cake

Dinner Meeting Cost:
$25 Member or Student, preregistered
$40 Non-Member, preregistered
 $5 surcharge for non-registered, if possible
Late arrival (post-dinner) $5 Member, $20 Non-Member
Cash or Check only at door, Credit Cards online only

If you must cancel your reservation…
If your plans change at the last minute and you can't attend (never happens in our business, right?) please cancel on the web. Click the register button, leave your name, company and for phone number, enter "Cancel." No penalty, no problem. If you must, call 630-953-6312 to cancel. Please help us provide you with the best possible meeting accommodations. Thanks!

Directions to the Embassy Suites Hotel
Our monthly meeting is located in Lombard, on Butterfield Road between Meyers Road and Highland Avenue. An easy on/off at I-88's Highland avenue exit, then turn north on Highland, east on Butterfield to one block east of Yorktown Mall, then south at Technology Drive.

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August / September meeting notes…
Great big OMNI rounds of applause and thanks go out to Jack McAfee of TriaWorks, who presented Single Sign On at our September meeting, and also to Dale O'Leary of sitebuilder.org, who presented Hassle Free ILE in August. Both presentations were well received by enthusiastic crowds. Thanks!
And, check out our upcoming Fall Day of Education for a reprise and followup to Dale's ILE session, sure to get you going on using ILE!

President's letter

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by Paul Nelson, OMNI President

Greetings!

Jack McAfee of TriaWorks did a great job of explaining the ins and outs of Enterprise Identity Mapping and Single Sign On at our September dinner meeting!

Coming up this month, our guest will be Mark Flora of CIBER, Inc. The topic will be "What's New in DB2." Mark spent 20 years with IBM as a systems engineer and services specialist. He will be discussing several enhancements and changes to DB2 UDB that appeared with V5R2 and V5R3.
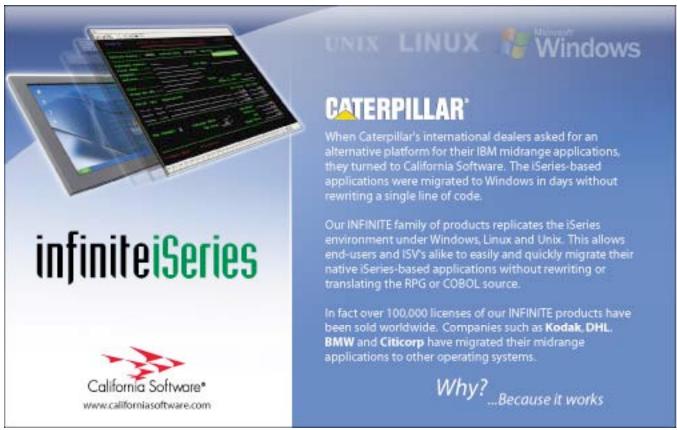
Please join us at the Embassy Suites in Lombard on Tuesday, October 19th.

In November, we'll be doing something a little different from the past. We'll be holding the fall version of our popular "Spring Day of Education." Once again, we'll have several topics being discussed by some of the most prominent names in the industry. We'll have Greg Hintermeister talking about iSeries Navigator, Fant Steele on Linux, Jon Paris and Susan Gantner on RPG, Kent Milligan on DB2, Joe Pluta on Java and David Money on Websphere. Mark down November 18th on your calendars, and remember to register by November 1st to take advantage of the early bird discount.

In case you're wondering what happened to the Tech Conference, we've moved it to January 25th. We're planning to make it bigger and better than it's been in the past. We know that this is a tall order, but we think we can do it. Watch for announcements about this event in future newsletters.

Remember, OMNI is your user group. We want everyone to have a voice in what we do and where we're going. All you have to do is let us know.

Thanks, and we'll see you at the meetings.

COMMON and iSeries Have Grown Up Together

Celebrating COMMON'S 44th Year with Reflections on iSeries and COMMON

By Wayne O. Evans

The Fall 2004 COMMON Conference, October 17-21 in Toronto, will mark COMMON's 44th year. During the past 44 years, computers have changed from the single-user IBM 1620 to a multipartition and multi-user IBM iSeries with up to 64 processors. The largest IBM 1620 had less computer power than the typical PC on today's desktop. (Single level storage on the 1620 meant that you had one punched card that is on a level surface.) Today, the iSeries can provide better response time to thousands of users simultaneously than the dedicated 1620 could for a single user. The growth and development of COMMON in the past 44 years is an offshoot of the phenomenal growth and development of the computer industry. This article explores how the COMMON organization has grown, much like iSeries itself.

COMMON is an international association of professionals who share an interest in IBM midrange platforms and related systems. COMMON provides training and education in the effective use of information systems and enhances professional growth of its members. COMMON promotes communication in an environment that encourages information exchange through knowledge sharing and hands-on experiences.

iSeries (and AS/400) has been recognized as the world's number-one midrange platform for running core business applications. Following are some of the iSeries hallmarks and how these same hallmarks relate to the COMMON organization.

Reliability and Customer Satisfaction
Organizations select an iSeries to run their mission critical applications because the iSeries leads the industry in reliability. A single iSeries system delivers an average of 99.99+% availability. According to data collected by IBM over the last two years, iSeries customers have experienced on average less than nine hours of unplanned downtime per year. "The iSeries just keeps on running," is the happy story shared by happy iSeries Information System managers. The iSeries is ranked number one in customer satisfaction of all computer platforms.
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COMMON and iSeries Have Grown Up Together (continued…)

In a similar manner, COMMON has been a stable and reliable organization, offering educational sessions on current system topics. Over the past 44 years, COMMON has retained its focus to provide quality training to its members on current topics. COMMON members like attending COMMON conferences and events almost as much as they like their iSeries. COMMON is the number one source of education for iSeries and AS/400.

Non-Disruptive Introduction of New Hardware
The iSeries is recognized for its capability for adapting to a changing environment. During the short life of iSeries, the hardware has evolved many times (the current iSeries Power5 is in its ninth generation of 64-bit RISC technology since 1992) but customer applications are not affected by these hardware changes. With more than nine different hardware implementations, iSeries (AS/400) architecture uses a high-level system interface, which isolates customer applications from disruptive changes and allows IBM to introduce hardware improvements at a rate unmatched by any other platform.

In a similar manner, COMMON has adapted to a changing system environment. COMMON has provided its members with technical training and the latest information for the computer platforms of the time. The hardware has changed from IBM 1620, 1130, System/3, System/32, System/34, System/36, System/38, PC, AS/400, and now iSeries, including the new i5 models. Over the years, the hardware platforms have changed, but COMMON has adapted to by providing the most up-to-date instruction without sacrificing quality.

Historical Side Note
Do you know the origin of the COMMON name? In FORTRAN (Formula Translation) – one of the first high level languages – information was stored in a fixed COMMON storage area. Programs could communicate information between the different programs using COMMON.

Today COMMON – A Users Group shares information among individuals just like the programs shared common information (data) using the FORTRAN language. It is interesting that my first introduction to computers was FORTRAN on a 1620 in 1962 and probably my last system will be an iSeries. When I went to college, you could recognize the engineering students by the slide rules on their belts. Today's students probably don't know how to work a slide rule. I learned data processing by wiring a board for the IBM 702/704 tabulator. I have sorted cards using the 80 column sorter. Gone are the key punches and big deck of cards. When I show new users of OS/400 applications an 80 or 96 column card, I explain that the punch card

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COMMON and iSeries Have Grown Up Together (continued…)

represents the first **single level store**. The cards were **objects**. **Security of your objects** (card deck) was as important then as today. If you ever dropped a deck you hoped that your **backup plan** included sequence numbers (**access path**) so the cards could be sorted back into the correct order. The low-cost alternative to sequence was to use a Magic Marker to draw a line diagonally across the top and sides of the deck. Some individuals used both techniques with colored Magic Markers. (The value of **backup and more backup** was easy to demonstrate with a card deck. This was just a form of **dual journal receivers** in the punch card era.) For those who come to the COMMON conference in Toronto, stop me and say hello and ask to see a walking museum. I will show you my round (17+ inch) slide rule, and both an 80 and 96 column card. Taped to the back of the 96 column card is the latest Power5 processor chip. So in one stop, you can see the start (S/3) and the latest (i5) in midrange technology.
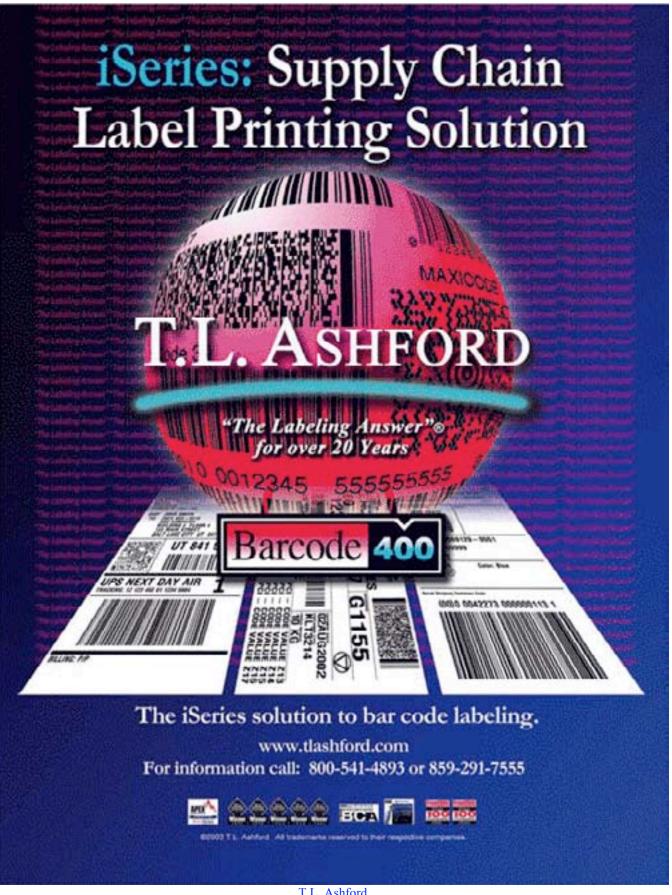
Growth

Recently, IBM announced a new line of iSeries eServers powered by microchips made of silicon-on-insulator (SOI) transistors and copper wiring. The new i5 model 570 is several times faster than the comparable models of the previous generation of iSeries servers, with a CPW rating of up to 11700; and the venerable iSeries model 890 tops the performance list with a CPW of 37400! By contrast, the largest AS/400 announced on June 21, 1988, was the B60, which had a CPW rating of 15. Since its introduction, the processing power of the iSeries (AS/400) has grown almost 2,500 times.

The IBM iSeries is the world's most popular multi-user commercial business computer, with millions of systems shipped to more than 150 countries. It is a powerful, flexible transaction server capable of managing and connecting a company's core business applications to suppliers, distributors, and customers over the Web. iSeries systems now scale from a single processor to a 64-way processor.

The DASD capacity of the iSeries has grown at an even faster rate than its processing power. In 1988, the AS/400 B60 supported six racks of 9309s. Each 9309 rack has four drives of 855 MB per drive, giving it a total storage capacity of (6x855x4) 20.52 GB. Today's largest iSeries (model 890) can be configured with 144 TB (or 144,000 GB), which is 7,000

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times the maximum storage capacity of the largest original AS/400! (These are IBM figures – I have not counted the bytes.) And later this year, rumor has it that IBM will announce the i5 model 590 which will blow all of these figures out of the water…

The COMMON organization has also grown significantly since its inception in 1960. COMMON's growth rate is not as dramatic as the growth rate in iSeries processor growth or DASD storage capacity, but 44 years ago there were two people at the first COMMON "conference," sitting at a kitchen table discussing a 1620 common code problem. Fast-forward to earlier this year, when thousands of attendees attended the COMMON conference in San Antonio, representing a significant increase from the first to the most recent conference.

The largest COMMON conference was in 1988 shortly after IBM first introduced the AS/400, when over 5,000 members gathered in Toronto. The Fall 2004 COMMON conference is returning to the same city. The Fall 1988 COMMON conference in Toronto may have been the largest COMMON conference, but only 96 of the 633 sessions focused on AS/400 topics. The San Antonio conference had over three times the number of iSeries-specific sessions. Like the iSeries, COMMON keeps growing and getting better each year. Some of the sessions remain a favorite of attendees. The iSeries Sound-off (now part of the iSeries Nation Town Hall Meeting) and before that the AS/400, S/36, and S/38 sound-offs were some of the most exciting sessions at COMMON conferences. What makes these sessions so popular is the sometimes heated but always frank sharing of customer problems directly with IBM technical experts and upper management. COMMON members always have one or more hot buttons to discuss with IBM. Over the years the concerns have changed from disk drive failures, terminal keyboards, the Magic Box, and "Is IBM correctly marketing the wonderful system known as the AS/400?"

Combination of Best of S/36 and S/38

When the AS/400 was introduced, its focus was to combine the computing needs of S/36 and S/38 users into a single platform. The iSeries currently supports both the S/36 and S/38 environments for application compatibility. Most applications have been upgraded to run native on the iSeries.

Just as today's iSeries has adapted to the needs of its customers, so has COMMON responded to its members. Before AS/400 was introduced, COMMON had two major tracks: S/36 and S/38. Individual members were either an S/36 or S/38 advocate (or bigots if they were not in your track). COMMON struggled to be sure that each system was fairly represented. I recall presenting at the COMMON conference in Toronto when AS/400 was announced. It was the most enthusiastic reception I have ever received for a presentation. As I mentioned the features that were part of AS/400 from each platform, the S/36 and S/38 advocates cheered each individual item when it came from their system. (It may have helped that the session was held in the evening after the bar at CUDS had opened.)

COMMON has fully integrated the S/38 and S/36 system tracks into Courses of Study (COSs) based on educational topics. Gone are the friendly rivalries between the S/38 and S/36 advocates. Now all COMMON members work together on the same iSeries. But look what has happened to the OS/400 operating system that IBM announced in 1988. At the San Antonio conference, IBM announced that the name OS/400 was being replaced with the "new name" i5/0S. I have worked on S/3, S/32, S/36, CPF, and OS/400 for all of my years. I am not as easily replaced – for as long as I live it will be OS/400. Some have criticized IBM for poorly marketing the iSeries. But in spite of this, it has grown, and it will weather this latest attempt. I say OS/400 forever!

Adding New Content

There are new models and new software features announced with each iSeries release. One of the iSeries' strengths is that new hardware and features can be added that increase the usefulness of the system. New features are integrated into the iSeries in a manner that allows existing applications to run without change. With all of the new features being added, traditional commercial data processing still makes up the bulk of work done on the iSeries.

At every COMMON conference, nearly 30 percent of the attendees have never attended a COMMON conference before. These first-time attendees are welcomed into the membership and often volunteer to help at their first conference. There is a tradition of volunteers running

COMMON. COMMON does have a small paid staff, but volunteers do the bulk of the work at conferences. In addition to enhancing their curriculum, COMMON made a significant improvement in 1992, when they introduced the COMMON Expo, a companion event that allows midrange vendors to showcase their products and services, offering hands-on demonstrations with the latest technologies. The number of exhibitors at the COMMON Expo has grown fivefold from the first Expo to the most recent in San Antonio. The upcoming COMMON Conference & Expo in October will showcase approximately 100 exhibits.

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COMMON and iSeries Have Grown Up Together (continued…)

Adapting to Current Trends

As the needs of customers changed, the iSeries adapted to take on new challenges. When AS/400 was introduced, the terms Internet, TCP/IP, HTTP, and Windows were not in the vocabulary of the midrange professional. The AS/400 application focus was commercial data processing and none of these types of applications existed. The main focus of today's iSeries is commercial data processing that includes Internet and Intranet access. The TCP/IP protocol has replaced SNA (System Network Architecture) as the iSeries primary communication protocol.

Like the iSeries, COMMON has adapted to change. Scanning the agenda of the Spring 2004 COMMON conference, there were sessions on the traditional iSeries functions, but more sessions focusing on new technology such as Linux, TCP/IP, Internet, HTTP, Lotus Notes, and Windows Integration with the iSeries.

The trend in speakers has also changed. In the early days of AS/400, IBM speakers taught most of the technical sessions. Today the number of non-IBM speakers has increased dramatically as the basic skills of the COMMON membership have grown. COMMON members present more of the basic iSeries topics while IBM speakers present topics on the newest features of the iSeries and i5.

It is also interesting to note how the focus changes. Some of my favorite topics such as job accounting and group jobs have been dropped. However, I'm confident that there will always be a need for COMMON sessions like "Where Has my Spool File Gone?", "Work Management for Dummies," and "Security Fundamentals."

Growth from the Personal Side

Up to now I have been contrasting the technical issues that are similar between iSeries and COMMON. No article about COMMON history would be complete without mentioning the personal side.

Just as iSeries has changed, so have the COMMON members. Former COMMON President **Bob Cozzi** best illustrates this. I first knew Bob when he was an S/38 and AS/400 technical expert. If you had a technical question on OS/400, RPG or ILE, Bob often had the answer. Bob was the classic technical guru dressed in a shirt (no tie) and blue jeans. What a shock as Bob adorned the stage as president of COMMON in a suit and tie! Bob broadened his focus from being an RPG programmer to heading up the largest organization of iSeries technical experts in the world.

The current COMMON President is **Bob Boyson**, who I knew from our IBM days. I knew Bob Boyson as crack communication programmer that loved fun. Now I must refer to him as Mr. President. He has done a good job leading COMMON into the 44th year. I am impressed with how well Bob and the rest of the COMMON Board have responded to the changing environment. The Board continues to look at ways to revitalize the COMMON organization.

Conclusion

Many of the readers of this article have spent the majority of their careers working on iSeries and its ancestors. Others expect to spend the remainder of their careers working on i5 and its descendents. All of us have benefited from the COMMON training sessions. More important for me than the technical is the friendships and knowledge sharing I have with COMMON members. While this article has focused on the changes to iSeries and COMMON, the one fundamental that has not changed over time is that COMMON members are special people willing to help one another. You may be a first-timer or a veteran, and we'll all be at Toronto to learn and share ideas. If you have an idea and I have an idea, and we share our ideas, then we both leave with two ideas.

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About the Author

Wayne O. Evans is a well-known speaker and author on OS/400 security. He has been a COMMON member for over 27 years and has won numerous COMMON speaking awards. He worked at the IBM Rochester (Minnesota) development laboratory for 27 years, where he designed and implemented features found in the IBM OS/400 and CPF (S/38 operating system). He took early retirement from IBM in 1991 to follow a second career of speaking and teaching about (OS/400) security. He is an authority on OS/400 security and has a detailed knowledge of the OS/400 operating system. Wayne can be reached at WOEvans@AOL.com. For information about the (OS/400) security sessions he teaches and articles he has published, visit his Web site at www.WOEvans.com.

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Join COMMON! Spring 2005 IT Education Conference & Expo, March 13-17 at the Hyatt Regency Chicago
http://www.common.org/chicago.html

OMNI Midrange Event List

October 19 5:00 pm
OMNI Monthly Dinner Meeting
What's New in DB2 with Mark Flora of CIBER, Inc.
Embassy Suites, 707 E. Butterfield Rd, Lombard, IL

October 25 6:30 pm
OMNI Board of Directors Meeting
all are welcome, hosted by IBM
Two Lincoln Center, Oak Brook Terrace, IL

November 18 7:45 am
OMNI Fall Day of Education
IBM Training Facility
Two Lincoln Center, Oak Brook Terrace, IL

January 25 7:30 am
18th OMNI Technical Conference
Watch for upcoming information!

Join the OMNI board!

With the upcoming end of the year comes selection of next year's OMNI board. We really need your help to present the education you depend on receiving at OMNI's various events. Participating in the OMNI board is fun and rewarding, and it lets you develop and exercise skill sets which may prove valuable in your career.

Please consider helping out by volunteering to serve as an OMNI board member in 2005. Talk to any board member about the sort of work we collaborate to accomplish, and to get an idea of what needs to be done, check out the "By-Laws" page on the OMNI web site. We'll be holding elections at the Fall Day of Education, so please let a board member know you'd like to get involved and we'll get your name on the ballot.

The OMNI User 2004 Board of Directors Contact Information

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