

CENTRAL CANADA DB2 USERS GROUP

2009

Technical Conference

The BMO Institute of Learning

Toronto, Ontario

June 8 - 9

Central Canada DB2 Users Group

71 Underhill Drive, Suite 136, Toronto, Ontario, M4A 2J8 - Email: ccdb2@ca.inter.net

See Our Web Site at: <http://pages.ca.inter.net/~ccdb2>

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Monday June 08 – Tuesday June 09, 2009

The BMO Institute for Learning
3550 Pharmacy Avenue, Toronto, Ontario, M1W 3Z3

The Central Canada DB2 User Group presents two exciting days of DB2 for LUW and z/OS education! This is the “must attend” seminar of the year (and it is cheap)!! Highlights include:

- Program.
Renowned speakers such as Roger Miller, Susan Lawson, Craig Mullins, Melanie Stopfer, Joe Burns, Matt Huras, Martin Hubel, Chris Eaton, Suresh Sane and others speaking on many diverse areas of DB2 including distinguished members of the IBM SVL and Markham Labs!
- **“Breaking News!! Cobra (DB2 for LUW 9.7) content added to our meeting agenda!”**
- Early Bird Registration Draw!
Yes, it is back! Register before May 8, 2009 and be eligible for a draw for a FREE IPOD.
- DB2 Certification.
FREE IBM Certification testing [z/OS and LUW] on Tuesday June 9th, 2009.

We will once again be offering IBM certification exams during meeting. However, please note some changes to the IBM policies:

- IBM will cover 1 free exam per attendee
- If the attendee passes the first exam, they may take a second exam for free
- Additional exams, including re-tries, will be offered at 50% discount, or USD \$100 per exam (credit cards only)

Once again there is a sign-up system to Certification testing to improve the process. The allocated time slots will be:

- 10:00 am – 11:30 am
- 11:30 am - 1:00 pm
- 1:00 pm - 2:30 pm
- 2:30 pm - 4:00 pm
- 4:00 pm - 5:30 pm

Sign up on Monday June 9th as early as possible to ensure you get the slot you want!

- Vendor Reception.
Monday evening [4:00 – 6:00] come socialize with your favorite speakers and vendors. Food

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and drinks will be served and we will end the evening with the “Passport to Prizes” draw.

- Passport to Prizes.
Also back for another year. Get your passport stamped at the reception and be eligible for many prizes [attendee must be present].
- PayPal
Yes, we now accept PayPal (and through PayPal, Credit Cards) for payment! Please revisit the “Central Canada DB2 Users Group” website to use these options.

Please see enclosed registration form and seminar information for June 08 – June 09, 2009 meeting. Meeting registration fees cover continental breakfast, coffee breaks, and lunch.

PLEASE NOTE:

- Registration deadline: May 29th, 2009 - sorry but NO WALK-INS permitted
- Registration includes:
 - Entry to sessions for EITHER DB2 for z/OS OR DB2 for LUW
 - Presentation materials on CD.
 - Continental breakfast, coffee breaks, and lunch
 - Admission to a reception on the evening of Monday June 8th
 - Access to IBM Certification testing

All payments should be made by cheque, PayPal, (or Credit Cards through PayPal) and returned to the below address by May 29th.

Please mail to: Central Canada DB2 Users Group
71 Underhill Drive, Suite 136
Toronto, ON M4A 2J8

We look forward to seeing you on Monday June 08 – Tuesday June 09, 2009.

Regards,

Tim Johnson

Central Canada DB2 Users Group

Web: <http://pages.ca.inter.net/~ccdb2>

Email: ccdb2@ca.inter.net

Voicemail: 416 421-6700 x2331

Please revisit the “Central Canada DB2 Users Group” website for updates to the event schedule!

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AGENDA – June 8th

June 8th	Presentation Hall	Classroom #	Classroom #
8:30 - 8:50	badge pickup / breakfast in the "BOW"		
9:00 - 9:10	opening remarks		opening remarks
9:10 - 10:40	Roger Miller - "What's New in DB2 9 for z/OS?"		John Hornibrook - "DB2/LUW Best Practices Series: Writing and Tuning Queries for Optimal Performance"
10:40 - 11:00	COFFEE		
11:00 - 12:00	Joe Burns - "DB2 Application Performance - Interpreting performance statistics!"		Vijay Sitaram - "OMG! It's My BFDD [Big Fat DB2 Database]!"
12:00 - 01:00	LUNCH		
01:00 -01:30	Lunch 'N Learn - Comedy Mike Sniezek - "Geeks History of Technology"		
01:30 - 01:40	Travel Time		
1:40 -2:40	Susan Lawson - "Exploiting V9 Performance Features"		Melanie Stopfer - "DB2 9.5 Partitioned Database (DPF) Enhancements -- Get the Details!"
02:40 - 03:00	COFFEE		
3:00 - 4:00	Roger Miller - "Planning Your Migration to DB2 9"	Susan Lawson - "Using New Explain Tables in V8/V9"	Mike Winer - "Technology Preview: DB2 Concurrency - Currently Committed and so much more!"
4:00 - 6:00	Vendor Exhibit Hall / Reception in the "BOW"		

Legend:

	Cross Platform
	z/OS
	Linux, Unix, Windows
	DB2 Certification Testing
	Lunch 'n Learn

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AGENDA – June 9th

June 9th	Presentation Hall	Classroom #	Classroom #
9:00 - 10:00	Craig Mullins - "Counting Down the Performance Top Forty"	Chris Eaton - "New to DB2 LUW, but for Experienced DBAs"	Melanie Stopfer - "Materialized Query Tables - Deep Dive"
10:00 - 5:30	DB2 Certification testing - PC lab - classroom # 203		
10:00 - 10:15	COFFEE		
10:15 - 11:15	Suresh Sane - "Real-world strategies for managing undesirable access paths"	Chris Eaton - "Top Tips From The DB2 Experts BLOG"	Bill Minor - "The Lurking Cobra - DB2 LUW Storage is Charmed"
11:15 - 11:30	COFFEE		
11:30 - 12:30	Ulf Heinrich - "Real-Time Statistics - How to arm your DB2 for 24x7"	Melanie Stopfer - "Help Me, Help You - Remote DRDA connections to DB2 z/OS"	Martin Hubel - "Effective Buffer Pool Strategies"
12:30 - 01:30	LUNCH		
1:30 - 2:30	Joe Burns - "Tuning Access Paths through Index Selection"	Craig Mullins - "Data Breach Protection: From a Database Perspective"	Vijay Sitaram - "Diet DB2 with Twist!"
02:30 - 02:45	COFFEE		
2:45 - 4:00	Suresh Sane - "DB2 9 SQL Features - Richer and Faster!"	Bill Wong/Beth Hamel - "InfoSphere Warehouse Update"	Matt Huras - "An Insider's Look at the Next Release of DB2: New Kernel Features"
04:00 - 04:15	Closing remarks + hand in surveys [+ prize draw] in the Presentation Hall		

Legend:

	Cross Platform
	z/OS
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PRESENTATION ABSTRACTS

This is the current set on abstracts. It may be subject to change so please excuse the proverbial "last minute changes..."

LUNCH-N-LEARN

" Geeks History of Technology"

Mike Sniezek, BMC Software, Inc.

Platform: All

Mike's lunch time presentation will look at technology (mostly computer technology) in a humorous light.

CROSS PLATFORM

"Data Breach Protection: From a Database Perspective"

Craig S. Mullins, NEON Enterprise Software, Inc.

Platform: All

Anyone who has been paying attention lately knows at least something about the large number of data breaches that have been in the news. Data breaches and the threat of lost or stolen data will continue to plague organizations until comprehensive plans are enacted to combat them.

Although many of these breaches have not been at the database level, some have, and more will be unless better data protection policies and procedures are enacted on operational databases.

This presentation will provide an overview of the problem, providing examples of data breaches, their associated cost, and series of best practices for protecting your valuable production data.

Attend Craig's presentation and avoid having your company's name splashed on the front page because you did not adequately protect your databases.

Outline:

- 1) Introduction
- 2) Data Breach Overview
- 3) Legislation and Compliance Issues
- 4) Examples and Resources
- 5) The Cost of a Data Breach
- 6) Best Practices for Data Protection
- 7) Data Masking
- 8) Database Security & Encryption
- 9) Data Access Auditing

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- 10) Database Archiving
- 11) Metadata Management
- 12) Synopsis

Objectives:

- 1) Understand the various laws that have been enacted to combat data breaches and the trends toward increasing legislation
- 2) Learn how to calculate the cost of a data breach based on industry best practices and research from leading analysts
- 3) Gain knowledge of several best practices for managing data with the goal of protecting the data from surreptitious or nefarious access (and/or modification)
- 4) Learn about the available techniques for securing, encrypting, and masking data to minimize exposure of critical data
- 5) Uncover new data best practices for auditing access to database data and for protecting data stored for long-term retention

"Help Me, Help You - remote DRDA connections to DB2 z/OS"

Melanie Stopfer, IBM Software Group
Platform: All

Do you want to better understand and tune your remote DRDA connections to DB2 z/OS? Are you looking for tips to make your life easier? Melanie will present analogies and insider advice to help improve performance, availability, reliability, and usability. The goal is to provide you with an arsenal of tips you can use in various remote DRDA distributed to DB2 z/OS situations. Come learn new DB2 Connect and JDBC Universal Driver tips and tricks that you need to know.

Objectives:

- 1) Conquering JDBC Universal Drivers
- 2) Monitoring remote DRDA to DB2 z/OS connections
- 3) Performance Considerations
- 4) Connection Concentrator vs. Connection Pooling
- 5) Tuning Considerations

"Infosphere Warehouse Update"

Beth Hamel and Bill Wong, IBM Toronto Lab
Platform: All

This session examines the key market trends that driving customers to leverage their System z investments for data warehousing workloads. As companies implement dynamic warehousing or operational business intelligence workloads, System z is becoming an increasing more important

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platform for modern data warehouse architectures. This session looks at the data warehousing solution components available on System z, recent InfoSphere Warehouse for System z announcements, the IBM data warehousing strategy on all platforms, and near term futures.

DB2 FOR z/OS

"DB2 Application Performance -Interpreting performance statistics!"

Joe Burns, Highmark, Inc. [BlueCross/Blue Shield]

Platform: z/OS

Application programmers and DBAs both have an interest in ensuring good application performance. However, performance issues will inevitably arise and it can be difficult to decide where the problem is. In this presentation we will look at some key performance metrics and how they can indicate what type of performance problem is occurring. We will also discuss solutions to some common performance issues. The emphasis will be on interpreting what the monitor numbers mean, rather than on any specific performance monitoring tool.

"Tuning Access Paths through Index Selection"

Joe Burns, Highmark, Inc. [BlueCross/Blue Shield]

Platform: z/OS

One of the key factors in determining a good access path is the index that is selected by the optimizer. This presentation will review some of the key statistics that the optimizer uses in selecting an index to be used. We will go through a number of examples and show how the optimizer's index choice has a direct impact on the performance of the SQL. We will also cover methods for giving the optimizer the information it needs to make the correct choice.

"Real-Time Statistics – How to arm your DB2 for 24x7"

Ulf Heinrich, Software Engineering GmbH, Segus Inc.

Platform: z/OS

To know what's going on in your DB2 systems is very helpful to be proactive in administration. The condition of your DB2 objects is a matter of their characteristics, like TOTAL ROWS, UPDATE PAGES, INDREF, and so on. It has always been an expensive and time consuming effort to gather this information by STATS utilities, but IBM has introduced Realtime Statistics (RTS). Realtime Statistics is not just one of those "nice to have" features that you may need one day or not, they are a must! Join this presentation to see how you can exploit RTS and learn about all the opportunities they open up for you. Benefit from best practices and be ready-to-go to know all about your DB2 objects, whenever you like, while saving costs.

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Bullet Points:

- 1) Realtime Statistics at a glance
 - You know what they cover
 - You know how to activate them
 - You know how to handle them
- 2) See the possibilities
 - Learn how you can improve YOUR business processes
 - Learn what they save YOUR business
 - Learn how they affect YOUR daily work

"Exploiting V9 Performance Features"

Susan Lawson
YL&A, Platform: z/OS

This presentation will look at the features of DB2 9 that we can use achieve maximum performance. We will look at new SQL features, database features as well as a few new enhancements our overall subsystem performance.

"Using New Explain Tables in V8/V9"

Susan Lawson, YL&A
Platform: z/OS

DB2 z/OS V8 and 9 have introduced us to many new EXPLAIN tables. This session will introduce users some of the new EXPLAIN tables to be used for advanced query analysis, and demonstrate how SQL queries can be used to gather and analyze this information. The session will also include information about using the DSN_STATEMENT_CACHE_TABLE to perform analysis on the dynamic SQL cache.

"Planning Your Migration to DB2 9"

Roger Miller, IBM Silicon Valley Lab
Platform: z/OS

This presentation discusses migrating to DB2 9, preparing to use the new functions. Process, recommendations from many other customers, and pointers to more information are included. This session will focus on the tasks of the person who installs DB2. Systems programmers and database administrators generally perform this task. The speaker has worked in DB2 development for the past 30 years, and continues working with the team building the install & migration process. This session will help you get ready to migrate to the new version and to be

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ready for the next one. Whether you are ready to migrate now or are still years away, the planning step should start now, so that you can use your time more effectively.

"What's New in DB2 9 for z/OS?"

Roger Miller, IBM Silicon Valley Lab
Platform: z/OS

Roger Miller will quickly discuss the latest news about DB2 for z/OS V8, which has been generally available for over five years now. We will discuss the new IBM System z10 and z9 Integrated Information Processor or zIIP and new z10 processors. Then the discussion will move DB2 9 for z/OS. Data definition on demand extends the theme of online schema revolution from V8. Additional Unicode enhancements continue the work from V7 and V8. XML work across the DB2 family is a much larger step than in V7 or V8. SQL Procedures become more consistent across the family. While V7 and V8 removed many differences from DB2 for Linux, UNIX & Windows, DB2 9 for z/OS takes the next big step to improved consistency. Utility enhancements help with new function, more LOB and XML support, better performance and improved availability, removing the BUILD2 step from online reorg. The vision for DB2 9 is to enhance DB2's ability to handle new and enterprise applications. DB2 9 improves the ability to handle new applications with XML, large objects, and many SQL and security improvements. DB2 9 builds upon and extends DB2 traditional strengths and the ground-breaking V8 in many areas: online schema evolution, Unicode, XML, DB2 family SQL, utilities, security and 64-bit virtual storage.

We'll finish with a discussion of what comes next in DB2, trends and directions.

"Counting Down the Performance Top Forty"

Craig S. Mullins, NEON Enterprise Software, Inc.
Platform: z/OS

Assuring optimal performance for database applications is the most time-consuming task for most DBAs. Planning and implementing databases and systems with performance in mind is the best approach to help minimize the overarching burden of constant performance tuning and tweaking. This presentation will count down 40 of the more important facets of performance-focused DB2 tips and techniques so you will be better armed to battle the DB2 performance beast.

Objectives:

- 1) Experience the countdown from number 40 to number 1
- 2) Learn about performance-oriented DB2 design F24
- 3) Review performance best practices for DB2 applications and databases

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- 4) Build efficient SQL and applications
- 5) Discuss both things to do and to avoid doing

"DB2 9 SQL Features – Richer and Faster!"

Suresh Sane, DST Systems Inc.

Platform: z/OS

This presentation provides an in-depth look at the top DB2 9 SQL features. We present a clear and detailed explanation of each feature showing how you can use this feature in your shop and explain how you will benefit from these enhancements. We will not just scratch the surface but take a deep dive into features most important to you as a developer and a DBA.

Bullet Points:

- 1) Usability enhancements
- 2) OLAP functions
- 3) Locking enhancements
- 4) Indexing enhancements
- 5) Performance enhancements

"Real-world strategies for managing undesirable access paths "

Suresh Sane, DST Systems Inc.

Platform: z/OS

In a DB2 production environment, almost all software changes are typically tightly controlled, but the impact of production binds and rebinds is not. This can result in unpredictable performance since it must be dealt with in a reactive mode. In this session, we focus on strategies to minimize the surprises and to fallback gracefully if hit with an undesirable change. This includes a discussion of the Access Path Stability feature available in DB2 9. The focus here is not on having the right tools but on the strategic planning.

Bullet Points:

- 1) VERSION(AUTO)
- 2) Try-out collection
- 3) Hints/stats/tricks
- 4) Package stability
- 5) Best practices

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DB2 FOR LINUX, UNIX and WINDOWS

“New to DB2 LUW, but for Experienced DBAs“

Chris Eaton, IBM Toronto Lab

Platform: LUW

Are you an experienced DBA but you are new to DB2 for LUW? If so this session is for you. Often at a conference you will find a lot of great sessions on advanced performance tuning, monitoring, backup/recovery but sometimes we forget about people that are new to DB2 and need some level setting first. In this session Chris will take you through some of the basics of DB2 from storage management, to backup and recovery manage to the processes model for DB2 and some simple diagnostics. Then you will be able to spend the rest of the week diving deeper with a sound footing.

Outline:

This course will not be for non-DBAs but rather for DBAs from either z/OS, Oracle or some other RDBMS but for those new to DB2 for LUW. Focused squarely at giving you a running start on the weeks program, this session will start of with some DB2 for LUW basics. Including Storage Management, process management (starting and stopping "stuff"), backup and recovery and some simple diagnostics and performance tuning (nothing too deep though). If you are new to DB2 LUW start here.

“Top Tips From The DB2 Experts BLOG “

Chris Eaton, IBM Toronto Lab

Platform: LUW

Chris Eaton writes what may be the most popular DB2 blog on the internet. With over 20,000 page views per month and over 400 unique visitors to his blog daily, "An Experts Guide to DB2 Technology" is helping people get their job done. Unlike typical blogs where the authors talk about what they ate for breakfast, Chris' blog is all about providing DB2 users with technical tips and sneak previews of upcoming technology. In this session, Chris will share his top 20 most popular DB2 tips from the postings on his blog over the last year. To get a preview, check it out at <http://blogs.ittoolbox.com/database/technology/>.

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“DB2/LUW Best Practices Series: Writing and Tuning Queries for Optimal Performance “

John Hornbrook, IBM Toronto Lab
Platform: LUW

Query performance is not a one-time consideration. It should be considered throughout the design, development, and production phases of the application development life cycle. SQL is a very flexible language, which means that there are many ways to get the same correct result. This flexibility also means that some queries are better than others in taking advantage of the DB2 data server optimizer's strengths.

This presentation covers the best practices for writing and tuning queries to best leverage the DB2 data server's strengths. It will provide guidance for writing efficient SQL statements as well as configuring DB2 to ensure the optimizer is running at peak performance. It will also provide tips on using the explain facility to monitor and react to access plan problems.

“Effective Buffer Pool Strategies“

Martin Hubel, Martin Hubel Consulting Inc.
Platform: LUW

As applications grow, buffer pools play an increasingly important part in reducing physical I/O, elapsed time and CPU time. Many organizations have not spent the time to optimize this valuable resource. The presenter will talk of his experiences in tuning buffer pools for large applications including PeopleSoft, production applications, and data warehouses at client sites. Measurements and guidelines will be given.

Bullet Points:

- 1) The benefits of buffer pool tuning
- 2) Types of I/O
- 3) Block-based buffer pools
- 4) Number of buffer pools and object placement
- 5) Measuring buffer pool performance

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“An Insider's Look at the Next Release of DB2 : New Kernel Features“

Matt Huras, IBM Toronto Lab

Platform: LUW

This presentation provides a technical look at the improvements under development for an upcoming release(s) of DB2 on Linux Unix and Windows. It provides details that will allow the audience to understand the new capabilities, the value they bring to the table, and how to best prepare for their use. Topics covered include: a new concurrency control model, advancements in compression, significant improvements in storage and table space management, new and improved mechanisms to reclaim space, enhancements in online reorganization, and new capabilities with HADR.

"The Lurking Cobra - DB2 LUW Storage is Charmed"

Bill Minor, IBM Toronto Lab

Platform: LUW

This presentation will dive into storage management and administration in DB2 LUW. A detailed, holistic look into storage will be provided and contrasted with a host of new exciting features and capabilities in DB2's next release, code named "Cobra". Topics and themes of discussion will include: Compression to the max - Deep compression gets deeper with index, temp, xml and lob compression along with replication support; Swimming in shallow water - life without the High Water Mark and space reclamation made easy; Line dancing with LOB and XML data; Itty Bitty Reorg - one range partition at a time; Mean and lean MDC. Note: no Cobras were hurt in developing this release.

Objectives:

- 1) To provide a detailed, holistic understanding of Storage Management and Administration in DB2 LUW
- 2) Introduce new storage features and capabilities in DB2 LUW's next release, code named 'Cobra'
- 3) Demonstrate methodologies for ease of implementation of Cobra features
- 4) Demonstrate improvements in availability and performance of DBA tasks
- 5) Gain an understanding of how DB2's storage strategy can reduce your Total Cost of Ownership

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“DB2 9.5 Partitioned Database (DPF) Enhancements -- Get the Details!”

Melanie Stopfer, IBM Software Group

Platform: LUW

Are you familiar with the DB2 9.5 enhancements for DPF Databases? Learn the details about new processing options for the REDISTRIBUTE utility provided by DB2 9.5 FixPak 1. These changes allow tables in partitioned databases to be redistributed in a much more efficient manner than previous DB2 releases. Learn how DB2 Advanced Copy Services support in DB2 9.5 can simplify high performance database backup and recovery operations exploiting hardware based flashcopy functions. Single System View approach to backup and recovery of DPF partitioned DB2 databases and changes to UPDATE DATABASE CFG that simplifies administration for partitioned databases will be covered.

Objectives:

- 1) Implement DB2 9.5 REDISTRIBUTE to efficiently redistribute data to new partitions or remove partitions, reduce need to reorganize tables after redistribution, explain impact on recoverability
- 2) Utilize STOP AT and TABLE options to better manage large data redistribution operations for partitioned databases
- 3) Plan and implement DB2 Advanced Copy Services for high performance database backup and restore
- 4) Utilize Single System View in DB2 9.5 to simplify backup and recovery of DPF databases
- 5) Implement new features of DB2 LUW Data Partitioning Feature (DPF)

“Materialized Query Tables - Deep Dive”

Melanie Stopfer, IBM Software Group

Platform: LUW

Materialized Query Tables (MQTs) are widely used to significantly speed up the response time of decision support queries. A MQT is a table whose definition is based on the result of a query and whose data is in the form of precomputed results. Learn how to deploy MQTs. Through examples, learn steps necessary to create, maintain and use MQTs. MQT maintenance and trade-offs associated with various approaches will be analyzed. Learn about MQT matching, which is the process DB2 uses to transparently answer queries against base tables using precomputed query results stored in MQTs. Advanced uses and the benefits of MQTs with advanced query optimization techniques using scalar aggregates, MQTs on cubes and group sets will be discussed.

Objectives:

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- 1) Create and populate a MQT
- 2) Explain MQT routing
- 3) Implement MQT maintenance modes of deferred, immediated and refresh deferred with a staging table
- 4) Perform incremental maintenance of MQT after load append
- 5) Analyze the benefits of advanced uses of MQTs in DB2 using scalar aggregates, MQTs on cubes and group sets

“Diet DB2 with Twist!”

Vijay Sitaram, McKesson Corporation
Platform: LUW

Diet DB2: (60 minutes - DBA talk on Memory, CPU and Storage optimization). When everyone around the world is talking carbs and calories, why not DB2? Let's take a look at layers of trimming down the extra CPU usage, reclaiming wasted memory and save on disk space. DB2 V9 offers some excellent features to control resource consumption across the board. Over the course of presentation, we will talk about different ways of getting our DB2 database system in shape. What we will discuss and share our findings in areas related to OS tuning related to memory, storage optimization and performance bottlenecks that can cause systems to run hot. We will also talk about what not do & best practices to maintain a healthy system. Finally, we wrap up this session with some tid-bits of information that makes DBA's smile ;) At the end of 60 minutes, you will have one lean mean database machine!

Objectives:

- 1) Foundation for getting DB2 on DIET! The Nutrition Facts, what it takes to get DB2 Data Warehouse running efficiently with the resources available on the system. Practices such as BCU is discussed here to set the foundation for the next 60 minutes.
- 2) Where did my memory go? Optimizing on memory usage and allocation is the most important part of tuning the system. We look at different ways to gather metrics on memory usage and allocation to validate the current system and it's usage.
- 3) How can I maximize my storage? We discuss efficient storage layout, optimization and utilization. We discuss best ways to lay the database for DPF, pick part the features such as HASH/RANGE/MDC keys with compression.
- 4) Do I need more horsepower? In this section, we will identify ways to burn the CPU and how to avoid them by using simple tuning efforts on DB2 and application side. What are the top CPU consumers and how to go after them?
- 5) Lesson's learned & Tid-Bits...This section is a compilation of some interesting facts/PMR resolutions/tried and tested and proven methods of running a successful data warehouse.

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“OMG! It's My BFDD (Big Fat DB2 Database)

Vijay Sitaram, McKesson Corporation

Platform: LUW

OMG! It's my Big FAT DB2 Database! Oh yes, This is what I said when my warehouse was fragmented, had page overflows, page splits, index leaf scans and more. All of this relates to Storage Management. This reflects directly on overall performance of our EDW. We will look at issues seen in our DB2 V9 EDW and how they were addressed. How do we keep up with maintaining large tables and indexes and ensure I/O is optimal. Optimal storage layout and management is the foundation for a successful EDW. Before tuning the configuration parameters, let's take a step back and make sure our database layout and hardware configuration are up to standards. We will discuss standards, best practices, issues and fixes related to storage management and optimization in V9 and V9.5

Objectives:

- 1) Storage - Foundation for performance. Establish the importance of having a solid backend storage optimized to drive the needs of business. It's all about achieving I/O - Impossible Outcome!
- 2) Best practices to storage layout. Discuss topics related to BCU, hardware configuration/layout and optimal design for DB2 tablespace, tables and indexes.
- 3) Time to get dirty - Let's find the pieces and fix them! We will discuss fragmentation, how to analyze large database tables, health check on indexes. This should result in better performance and overall healthy system.
- 4) Best Practices for storage management and optimization. We will discuss on how to fix issues related to ongoing storage maintenance from DB2, best ways to reduce maintenance on large tables and indexes.
- 5) New Hope, V9.5. With V9.5 we have new storage related features in DB2 that can be used to improve performance and keep the maintenance to minimum. Compare V9.5 to V9 wrt storage. Wrap up the session with utilities in DB2.

"Technology Preview: DB2 Concurrency - Currently Committed and so much more!"

Mike Winer, IBM Toronto Lab

Platform: LUW

Major advancements in locking and concurrency are planned for the next release of DB2 for LUW. This session will focus on the new and default Currently Committed semantics for Cursor Stability, intended to avoid locking, lock waits, and deadlocks. Additional lock avoidance techniques planned for both Cursor Stability and Read Stability isolation levels will be covered, which not only result in reduced locking, but provide additional query performance. Planned

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enhancements to the Repeatable Read isolation level can avoid some lock conflicts and lock waits. To help ensure awareness of other features and improvements provided in prior releases of DB2 for LUW, a summary and discussion of existing capabilities will be provided, with an understanding of how the features work together, when applicable. Also discussed will be improvements planned for DB2's next release that improve concurrency during table schema evolution.

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SPEAKERS' BIOGRAPHIES

(alphabetical, with apologies to Bill Wong)

Joe Burns

Highmark, Inc. [BlueCross/Blue Shield]

Top 10 IDUG speaker

Joe Burns is a senior member of the DBA staff for Highmark Blue Cross/Blue Shield of Pennsylvania. Joe has spoken on DB2 related topics in several public forums including IDUG North America, IDUG Europe, the Pittsburgh DB2 Users Group and the Central PA Users Group. As an IDUG North America presenter he was awarded Runner-up Best User speaker in 2001 and received top ten selection in 1999 and 2002. As an IDUG Europe speaker he was awarded Best User speaker in 2001. He has also had the privilege to serve on the IDUG North America Conference Planning Committee for 4 years and was the Chair for the 2006 conference.

Chris Eaton

IBM Toronto Lab

Top 10 IDUG speaker

Chris Eaton is Senior Product Manager for DB2 primarily focused on planning and strategy for DB2. Chris has been working with DB2 on the Linux, UNIX, Windows platform for over 14 years. From customer support to development manager, to Externals Architect and now as Product Manager for DB2, Chris has spent his career listening to customers and working to make DB2 a better product. Chris is the author of "IBM DB2 9 New Features" and "The High Availability Guide for DB2" and has one of the most popular blogs about DB2 on IT Toolbox at <http://blogs.ittoolbox.com/database/technology>.

Beth Hamel

IBM Silicon Valley Lab

Beth Hamel is currently the Product Manager for Data Warehouse and Business Intelligence on System z, and manages a swat team dedicated to this initiative. Beth is an IBM Senior Technical Staff Member and has worked for IBM for over 20 years, most of these years in database related technologies. Beth is recognized internationally as a subject matter expert in IMS and DB2 replication technology, a field in which she jointly holds six patents. She is a regular speaker at IBM, IDUG, and customer events.

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Ulf Heinrich Software Engineering Gmbh, Segus Inc

Ulf Heinrich is the Director of Solutions Delivery at SOFTWARE ENGINEERING GmbH. He specializes in DB2 recovery issues and database maintenance, focusing on the growing requirement for 24x7 operations and cost reduction. As a consultant at large customer sites, he has implemented database maintenance procedures and recovery strategies, and also experienced the pitfalls of recovery scenarios under real-world recovery pressure. His activities cover EMEA, as well as North America through SE's U.S. subsidiary, SEGUS Inc. He's involved in the development of SE's maintenance and recovery solutions.

John Hornibrook IBM Toronto Lab

John is a senior developer and the development manager for the DB2 for Linux, UNIX and Windows query optimizer, statistics collection including RUNSTATS and automatic statistics, explain facility and the design advisor in the IBM Toronto Lab. He has been a DB2 developer for over 18 years working on the relational data services and SQL compiler components of the DB2 for LUW engine.

Martin Hubel Martin Hubel Consulting Inc.

Martin Hubel is an independent consultant and has worked extensively with DB2 since 1985. Martin develops and teaches advanced DB2 courses and is recognized as a leading authority in the field. He has been using DB2 Universal Database on Linux, Unix, and Windows since 1993 and has participated in several beta test programs for these platforms. He is a member of the IBM Gold Consultants Program, is a member of IDUG Board of Directors, and is the Executive Editor of the IDUG Solutions Journal.

Martin has an extensive background in computer systems, including software design and development, project management, disaster recovery planning, data security, systems programming, capacity planning and performance, operations support, charge back systems, end user support, and data and data base administration.

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Matt Huras
IBM Toronto Lab
Top 10 IDUG speaker

Matt Huras is a lead architect and development manager of the data management group in UDB development at the IBM Toronto Laboratory. His focus is on the DB2 UDB storage engine, including indexing, data management, buffering, OS services, utilities and high availability. Matt joined IBM in 1984 and has been a lead designer with the UDB development team since 1991. He holds a BSc in Computer Engineering from the University of Waterloo ('84) and an M.Eng, also in Computer Engineering, from the University of Toronto ('92). Matt is an IBM Distinguished Engineer.

Susan Lawson
YL&A
Top 10 IDUG speaker

Susan Lawson is an internationally recognized consultant and lecturer with a strong background in system and database administration. She currently works with several large clients to help development, implement and tune some of the world's largest and most complex DB2 databases and applications. She also performs Performance Audits for many clients to help reduce costs through proper performance tuning. Her other activities have included authoring articles, presenting at user group meetings, and authoring white papers. She is an IBM GOLD Consultant for DB2 and z/Series, and has authored the IBM 'DB2 for z/OS V8 DBA Certification Guide', 'DB2 for z/OS V7 Application Programming Certification Guide' and 'DB2 for z/OS V9 DBA Certification Guide' - 2007. She is also the co-author of several DB2 books including IBM 'DB2 for z/OS V9 DBA Certification Guide', 'DB2 High Performance Design and Tuning' and 'DB2 Answers'.

Roger Miller
IBM Silicon Valley Lab
Top 10 IDUG speaker

Roger Miller is a DB2 for z/OS technical evangelist, strategist, architect, designer, developer, writer, service, and factotum (jack of all DB2 trades, master of several) who has worked on many facets of DB2, ranging from overall design issues to SQL, languages, install, security, audit, standards, performance, concurrency, and availability. He has worked 30 years on DB2 development, product design and strategy. He often helps customers to use the product, answers many questions and presents frequently to user groups. His favorite response is, "It depends." followed by an explanation of what it depends upon.

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Bill Minor IBM Toronto Lab

Technical Development Manager, DB2 LUW, Data Management Services (Current), Advanced DB2 Customer Support

Craig S. Mullins NEON Enterprise Software, Inc. Top 10 IDUG speaker

Craig S. Mullins is a data management strategist for NEON Enterprise Software, Inc. Craig has extensive experience in the field of database management having worked as an application developer, a DBA, and an instructor with multiple database management systems, including working with with DB2 for z/OS since Version 1. Craig is also an IBM gold consultant and is the author of two books: "DB2 Developer's Guide" and "Database Administration: The Complete Guide to Practices and Procedures."

Mike Sniezek BMC Software

Mike Sniezek, other than his duties as a Product Manger for BMC Software, is also an amateur stand up comedian. He has appeared at comedy clubs such as "Yuk Yuks", "Jeff Healy's" and the "Rivloi".

Melanie Stopfer IBM Software Group Best Overall Speaker IDUG-North America 2008

Melanie Stopfer is a Consulting Learning Specialist and Developer for IBM Software Group. As a Certified DB2 9 Database Administrator, DB2 Certified Advanced Technical Expert and Certified Learning Facilitation Specialist, she has provided hands-on in-depth technical support to customers specializing in both data warehouse and transaction systems. She has worked with development labs and worldwide customers to provide DB2 solutions since 1988. Melanie was selected as Top Speaker at IDUG NA 2009 and a Top Ten Speaker at IDUG NA 2007 and IDUG Europe 2007. She has received numerous awards for development of DB2 recovery, administration, performance and migration solutions.

Suresh Sane DST Systems Inc. IDUG Speakers Hall of Fame – Best User Speaker Dallas 2008, Warsaw 2008

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Suresh is the co-author of 4 IBM Redbooks (Dynamic SQL, Stored Procedures, Data Integrity and DB2 Packages), and a speaker with consistently high rankings. He has presented technical sessions and seminars worldwide. He has served on the DB2 Expert Users Panel and authored an article in the IDUG Solutions Journal. He served on the IDUG NA CPC for 5 years and was the Conference Chair in 2008.

Vijay Sitaram **McKesson Corporation**

Vijay has worked with DB2 for LUW for 10 years. Currently, he works on EDW running on DB2 9/9.5 for Business Intelligence platform . Previously, he has experience working on very large systems and helping customers convert from Sybase to UDB. He enjoys evaluating and applying new features available in DB2 for LUW. Special interest include storage management and optimizer techniques. He currently serves in the IDUG NA 2009 Conference Planning Committee - Presentations Team.

Mike Winer **IBM Toronto Lab**

Mike Winer has an Honors degree in Computer Science from the University of Western Ontario, and has worked on DB2 for LUW at the Toronto Software Lab since 1992. Mike has worked in and owned various components within DB2, and has managed several development teams. He has led and contributed toward numerous features and capabilities over the years. Mike's experience in performance, development, and database architecture, along with a deep understanding of locking, logging, concurrency, and recovery, has propelled him into his current role as one of the lead architects within the database kernel group.

Bill Wong **IBM Toronto Lab**

Bill Wong is Program Director for IBM's Data Warehousing Solutions for all environments (System z, Informix, and InfoSphere) and responsible for strategy and analyst relations. Bill has worked with database technology for over 20 years, and with DB2 z/OS since V1 and distributed DB2 since V1. Bill is a subject matter expert in data warehousing and often found speaking at conferences and customer events. He has written numerous articles and books on database technology, and his last book was: Driving Business Optimization with Trusted Information.

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