



Keynote

K00 - “Db2 12 Highlights (Trends and Directions)”

Gareth Jones (Senior IT Specialist - Db2 for z/OS Development SWAT Team)

This presentation discusses the strategies driving Db2 development forward and includes a summary of the exciting new product offering, Db2 AI for z/OS

***Gareth** has worked in IT since 1985, when he worked for an IBM customer in the UK retail sector. His first contact with DB2 was when he took on the job of migrating DB2 from V1.3 to V2.1, and he hasn't looked back since. After joining IBM as a permanent employee in 2000. Gareth worked for several years in IBM's Outsourcing division and in BetaWorks, before joining the DB2 for z/OS SWAT Team, under the leadership of John Campbell. He has worked with many customers around the world with the SWAT Team as a consultant and troubleshooter He has written a number of technical papers as well as presenting at several conferences and many user group meetings.*

Track A: Systems Administration

A01-"BUILT-IN Functions and Global Variables – I didn't know Db2 could do THAT! "

Steve Thomas (Principal Engineering Services Architect at CA Technologies)

Were you aware than Db2 for z/OS now supports well over twice as many SQL BUILT-IN functions and variables as it did 20 years ago? The World has moved on significantly from the basic Functions such as SUM, COUNT and AVG which were all that were available when many of us first learnt SQL. There are now well over 200 Functions supported providing a huge range of powerful features. As well as the basic data manipulation and Mathematical Functions you would expect there are advanced analytical capabilities, sophisticated array management and aggregation features, XML, Security and more, all provided out of the box. You can also use Variables to control many Db2 features such as Archiving. Unfortunately many users have not kept up to date with advances and we find Programmers still coding requirements manually in whatever language they are using when the Database itself could be doing much more of the heavy lifting. This session will review the current capabilities of the native BUILT-IN functions and Variables provided by Db2 for z/OS and will highlight some of the more useful ones. It will be valuable whether you're a new Application Programmer or an experienced DBA looking for an update on SQL capabilities.

***Steve** is a Principal Engineering Services Architect at CA Technologies and works in a team covering EMEA, Asia Pacific and Japan. He has been a DB2 Specialist for 25 years and an IBM Champion for Information Management since 2009. Steve has presented on a wide range of topics at events across Europe. He has been a member of the Conference Planning Committee for IDUG EMEA for the last 10 years and is also involved in organizing the UK DB2 User Group.*

A02 – “DBA in a RESTful world”

Tom Crocker (Rocket Software – Solution Advisor)

Many companies have started using Agile development methods which also requires an Agile infrastructure. The DevOps practice advocates automation and continuous testing. The demand for automation requires DBAs to help create services that can be used by developers. Unfortunately, the preferred interface is not ISPF, but RESTful...Learn how to use the no-charge z/OS Management Facility to easily create REST services for your developers. z/OS MF allow you to build database related REST services, such as: DSNTEP2, Db2 utilities, reverse engineer DDL, deploy database changes, etc. These can be part of a service catalog that your organization can use to build self-service portals or development pipelines

Tom Crocker is a Solution Advisor at Rocket Software working with IBM Db2 for z/OS Tools. Before joining Rocket Software Tom worked for IBM BetaWorks organisation, specialising in Db2 for z/OS and its associated tooling, and recently completed the Db2 12 Early Support Program. Prior to this Tom worked for 14 years in IBM Software Group in the UK, providing pre-sales support for Db2 Engine, Db2 Tooling and Business Analytics. Tom has over 30 years experience in Data Management and has experience in the insurance, banking and retail industries. He has authored several Redbooks covering Db2 Administration and Db2 tooling.

A03-"Measuring Db2 Locks and Latches"

Fabio Massimo Ottaviani (EPV Technologies Technical Director)

One of the most important goals of any DBMS is to provide data concurrency by enabling multiple users to access the same data without compromising data consistency and integrity.

To reach this goal Db2 combines many different serializing mechanisms such as:

- Db2 latches
- IRLM latches
- Locks;
- Global Locks (L-Locks and P-Locks) in data sharing environments.

In this paper, we will discuss the most relevant metrics, provided in Db2 statistics and accounting traces, to be used to control and tune Db2 locks and latches.

We will also suggest how to build metrics and contention indexes to compare with best practices values in order to check if there is a performance problem due to excessive locking and latching.

Finally, we will try to indicate possible reasons of excessive values and the actions you could do to reduce them.

A04-“ The Impact of Inefficient, Ineffective and unsecure Test Data ”

Tyler Allman (Enablement at COMPUWARE)

Speeding up software delivery cycles while maintaining and even improving software quality requires simple access to high quality test data.

Production data is the best source of test data. But with it come several obstacles:

- Data relationships between all the files and databases used by a particular application need to be taken into consideration
- Elimination of any sensitive data: PII (Personally Identifiable Information), financial account numbers, etc. is required
- Some sensitive fields need logical data transformation as they impact application processing (first four numbers of a credit card, for example)
- Sub setting of production data is needed, as test environments don't need production volumes

This session will cover the high level concepts needed to build a repeatable and automatable strategy to ensuring development teams have consistent easy access to high quality test data.

Tyler began his IT career in 1981 in New York City starting as an assembler and Cobol programmer on IBM mainframes. In 1990 he joined Compuware after happily using their excellent developer productivity products on numerous development assignments. He has held a variety of roles supporting the Compuware global sales organization and in product management and is a frequent speaker on current mainframe development topics.

A05- “You never know enough about indexes”

Randy Bright (Solutions Architect for DB2 tools at BMC)

What does a Db2 index look like from the inside? It begins with a very short, elementary description of Db2 objects in general, then move on to the various kinds of pages found in a Db2 index. From there it explores the contents of the primary pages found in all DB2 indexes and what that content is used for.

Randy is BMC Software’s Solutions Architect for the BMC Db2 Utilities, both Classic (REORG PLUS, LOAD PLUS, UNLOAD PLUS and CHECK PLUS) and Next Generation Technology (NGT Reorg, NGT Load, NGT Unload and NGT Check). He currently holds six U.S. patents in the Db2 technology area. Randy started working with IMS in 1979 for a large electric utility company in Texas and Louisiana. In 1985 he became a Systems Programmer installing and maintaining DB2 Version 1.3 and continued to work in that capacity through DB2 Version 2.3. In 1992 Randy moved to BMC Software in Austin, Texas as a Customer Support Representative for the Db2 Utilities. Within two years he moved into R&D as a Developer on the Utilities and has worked with BMC’s Db2 Utilities since 1992.

Track B: Application Development

B01-“Incrementa el valor en los datos almacenados en el Mainframe”

Dima Etkin (Attunity)

Muchas de las compañías más grandes del mundo continúan ejecutando sus aplicaciones de misión crítica en los sistemas Mainframe. Sin embargo, analizar estos datos directamente en la plataforma de mainframe puede ser complejo y costoso, aumentando la facturación basada en MIPS (millones de instrucciones por segundo). Para satisfacer las necesidades de negocio las empresas están buscando nuevas formas de integrar los datos de mainframe en las aplicaciones Cloud modernas y plataformas analíticas BigData.

Es un nuevo día para el mainframe: con Attunity Replicate puede incrementar el valor de sus datos sin incurrir en la complejidad y los gastos que conlleva la continua manipulación de datos directamente en el Mainframe. Attunity puede replicar esos datos en tiempo real a los entornos analíticos más exigentes y a la vez garantizando el funcionamiento estable requerido por las grandes empresas.

Únase a los expertos de Attunity y aprenda cómo lo hacemos hoy y las lecciones aprendidas de clientes como Zurich, Swiss Life y otros clientes de Fortune 500.

El software de replicación de datos puede proporcionar una manera simple y económica de enviar datos de mainframe a cualquier entorno de Cloud, Kafka y Big Data, incluyendo todas las distribuciones principales de Data Lakes de Hadoop.

B02-"Please Release Me - Db2 for z/OS Locking for Application Developers"

Garreth Jones (Senior IT Specialist - Db2 for z/OS Development SWAT Team)

Understanding Db2 locking is essential to ensure data integrity. This presentation explains Db2 locking semantics and the controls over it, including isolation levels, current data settings and other BIND options. It exposes the perils of coding your application without taking Db2 locking behaviour into account. It discusses the concepts of optimistic locking and how to code update applications safely. It explains Db2 lock avoidance, and how applications can be coded to benefit from it, including in a data sharing environment.

B03- "Divide et Impera"

Jose María Yohn Junquera (Loans IT L3 Team. GFT IT Consulting, S.L.)

Abstract. Partiendo de la base de que el disco es nuestro mayor problema, iremos explicando buenas prácticas en la codificación de SQL para desarrolladores orientados a simplificar al optimizador a la hora de obtener el plan de ejecución.

José M^a de define como un especialista en rendimiento de bases de datos. Anteriormente también trabajó como SME en DB2 para EMEA en IBM. Sin olvidarnos de su enorme experiencia en programación en cualquier lenguaje que se os ocurra, desde C++ hasta Shell. José María cuenta con numerosas certificaciones en DB2 y SQLServer.

B04-"Db2 y dockers "

Ana Rivera/Raquel Cadierno (IBM – DB2 LUW Client Technical Professional)

Docker proporciona una plataforma software de contenedores que permite el desarrollo de nuevas aplicaciones de forma ágil, segura y listas para desplegarse en la nube. Gracias a la alianza entre IBM y Docker, esta capacidad se extiende al mundo empresarial facilitando a las empresas el camino de transformación digital.

La familia IBM Db2 integra esta tecnología convirtiéndose en el gestor de datos de próxima generación para operaciones transaccionales y analíticas. Proporciona disponibilidad continua de datos para mantener las cargas de trabajo transaccionales y las cargas analíticas operando con la máxima eficiencia ya sea en la nube o en entornos híbridos

Ana es licenciada en Ciencias Físicas por la Universidad Autónoma de Madrid. Trabaja en IBM desde el año 1996, siempre en áreas relacionadas con DB2, tanto desde el punto de administración cómo de rendimiento. LLeva los últimos seis años trabajando en el área de preventa técnica de DB2 LUW y herramientas de DB2. Es co-autora del redbook: "Capacity Planning for Business Intelligence".

B05-"Work Load Management Histograms"

Carlos Alejandro Ang (Novalia)

DB2 muestra y guarda estadísticas a nivel de service subclass y/o work class, mediante el uso de técnicas de histogramas. Indagaremos sobre qué aspecto tienen estos histogramas, cómo se crean, los distintos tipos que pueden definirse, sobre qué indicadores de rendimiento se pueden establecer, etc. Es una recopilación de casi todo lo que tienes que saber sobre histogramas del WLM.

Carlos trabajó años atrás en IBM como líder técnico del grupo de soporte de ITS DB2. También fue integrante del grupo europeo de soporte, EMEA DB2 Swat team. En la actualidad, ejerce la actividad profesional en su propia empresa, Novalia Software Services, desde la que ha desarrollado importantes proyectos para clientes, y en concreto s que consisten en:

- Diseño y puesta en marcha de entornos informacionales y soporte a decisiones en DB2 LUW.
- Incorporación del particionamiento y paralelización de procesos en bases de datos DB2 LUW.
- Proyectos de implantación con alta disponibilidad, federación, replicación, historificación y purgado de datos, etc.
- Migración de bases de datos Oracle, SQLServer y familia DB2 (zSeries > y iSeries) a DB2 LUW.

Workshops

SM1 - SQL Performance Workshop

Garreth Jones (Senior IT Specialist - Db2 for z/OS Development SWAT Team)

This workshop is aimed at Db2 Developers, DBAs and Systems Programmers who are interested in collecting performance data for SQL statements, and understanding and tuning access plans chosen by the Db2 for z/OS Optimizer.

Topics include: The Dynamic Statement Cache; EXPLAIN basics; Optimization Hints; Statement Level hints and The Access Path Repository; Catalog Statistics and The Db2 Optimizer; Walkthrough of Typical Access Path Problems.

The workshop also looks at the access path management enhancements introduced by Db2 12.

SM2 - DevOps: Connecting the DBA and the Application Developer

Jørn Thyssen (Rocket Software – Db2 Tools Product Specialist)

In this hands-on lab, we'll look at the latest technology to help application development and IT collaborate. We'll cover the DBA side of setting up teams, enforcing rules and setting space boundaries, as well as application discovery. The app dev side will be able to provision, make changes, submit and have them reviewed and approved for submission to the DBA.

***Jørn Thyssen** has worked more than 15 years on the mainframe platform as a developer, application DBA, application architect, technical field specialist, and more recently as a Db2 tools product specialist for Rocket Software. He is also an 2018 IBM Champion*