

Foreword

Parents never know how their children will turn out. But if they turn out well, then we take credit for it. DB2 for z/OS, which will be 30 years old in 2013, has turned out well, and though I'd like to think it was all because of the parents, the facts are different. First let me assert that DB2 for z/OS is heavily used by enterprises worldwide to perform database functions for core business transactions and analytics—others can provide the statistics to back this assertion. The question is why this is so for a 30-year-old technology, when a few years is a lifetime in our business. I attribute it to six critical factors:

- 1. Great foundation:** IBM Research pioneered the relational data model, and the System R project provided the core technology for DB2 for z/OS. The partnership between research and development was solidified with the development of the Data Base Technology Institute (DBTI) led by Pat Selinger, which linked up research and development personnel to solve tough technology problems.
- 2. Customers:** DB2's success depends on its customers' success. In the 1970s, databases served a single application. Because hardware was so expensive and slow, the database had to be handcrafted for each application. But this led to a proliferation of data, giving rise to the notion of "data independence," which allowed a database to be shared by many applications. The key notion was **anticipating the unanticipated**. The challenge was making the technology perform well and at acceptable costs. DB2 partnered with customers to drive this notion for 30 years.
- 3. Integration with the Z-ecosystem:** DB2 lives within the Z environment and is critically dependent on it for hardware, application development tools, transaction management, storage management, system management, network management, business intelligence tools, and so much more. Integration with all of the parts of that ecosystem and leveraging its capabilities provides a compelling, holistic service.
- 4. Partnership with practitioners and partners:** Customer executives buy DB2, but database administrators make it work. The journey of DB2 has been a close partnership with practitioners led by customer advisory councils, the International DB2 Users Group (IDUG), SHARE/GUIDE, and close personal relationships.
- 5. Evolving DB2 as the world changes:** The mainframe has evolved into a multi-core Sysplex, and DB2 evolved its architecture to support a data sharing environment. DB2 has evolved with distributed database processing, the Internet, SOA, Java, Big Data, and every change that the industry has made. The recent delivery of the zEC12 DB2 Analytics Accelerator, which is a joint effort between System Z, DB2, and Netezza® to serve Big Data with near-real time analysis, continues this leadership in innovation.

6. Technologists: DB2 has been blessed with great innovators. Namik Hrle and Guogen Zhang, who led the innovation of the Analytics Accelerator, join a long list of talented technologists who have made DB2 respond to the next challenge and delight customers.

Happy Birthday!
Don Haderle—Father of DB2

Introduction

We hope you enjoy our new book. This book has been launched to celebrate the 30th anniversary of DB2. Many of you will remember that the first release of DB2 was launched on June 7, 1983—marking the birth of relational database. At the time of launch, there were many skeptics about the relational database. Thirty years later, the relational database market continues to grow stronger and stronger, and according to analysts at IDC, it is expected reach over \$41 billion by 2016 (source: “RDBMS Steamrolls into 2016 on BI, Big Data Expectations,” *Information Management*, August 20, 2012; <http://www.information-management.com/news/rdbms-steamrolls-into-2016-on-bi-big-data-expectations-10023040-1.html>).

The book is divided into three sections. The first section celebrates our anniversary and thanks our customers, business partners, and users for their commitment and loyalty. It begins with a special message from the “Father of DB2”—Donald Haderle. Then DB2 customers, Business Partners, and IBMers discuss important milestones, share memories, tell us what makes DB2 so great, and let us know why they think DB2 is still around and growing three decades later. Finally, IBM’s leaders share their thoughts about the strengths and future of DB2.

The next section begins with a technical DB2 Analytics Accelerator white paper that covers the key design and operational aspects that enable DB2 for IBM z/OS clients to benefit from faster performance, reduced CPU usage, and lower costs.

The heart of the book is packed with business value, such as performance enhancements and cost-saving measures, and is full of rich hints and tips. The objective is to help our customers to upgrade to the latest version of DB2 so that they can start reaping the performance and CPU savings that many of our early adopters are experiencing. An excellent paper by Terry Purcell, an IBM expert, discusses query performance and DB2 Optimizer. Terry understands the key customer pains, such as “reducing total cost of ownership” while maintaining stability and reliability, and his paper discusses how DB2 10 addresses these issues. Next, John Campbell, IBM Distinguished Engineer, has updated his DB2 10 for z/OS upgrade planning paper, adding experiences and lessons learnt that have been gained from customers and covering key secrets to ensure a successful upgrade.

The final section presents a collection of DB2 customer case studies in which customers share their migration experiences and articulate the business benefits they are seeing since upgrading to our latest release.

I would like to thank Don Haderle, John Campbell, Terry Purcell, and Ruiping Li and her coauthors for their contributions to this fantastic book. Without these experts, there would not be a book.

We would also like to thank all our customers, partners, IBMers, and the extended DB2 community for your continued support and loyalty. We invite you to join our virtual communities (see URLs below) so that you can keep in touch with our DB2 experts, developers, and extended IBM community. These communities are available 24x7 with over 7,000 members. They are a great way to meet like-minded individuals, have fun, and at the same time grow and develop your skills.

Throughout 2013, IBM will be hosting several DB2 seminars, conferences, and events around the world to celebrate DB2's 30th anniversary with our fans. Information about these events will be shared via the 30th Anniversary Facebook Fan Page, <http://www.facebook.com/IBMDB2forzOS>.

I hope you enjoy the book. Please do not hesitate to contact me directly if I can be of help to you in any way.

Surekha Parekh
World-Wide Marketing Program Director
IBM DB2 for z/OS
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Useful URLs

The World of DB2 for z/OS

<http://db2forzos.ning.com>

IBM Website

<http://www-01.ibm.com/software/data/db2/zos/family>

DB2 10 for z/OS

<http://www.ibm.com/software/data/db2/db210>

YouTube

<http://www.youtube.com/user/IBMDB2forzOS>

Surekha Parekh's DB2 Blog

<http://surekhaparekh.wordpress.com>

LinkedIn Group

<http://www.linkedin.com/groups?gid=2821100>

Twitter

<http://twitter.com/IBMDB2>

International DB2 Community

<http://www.idug.org>