

Database Performance Management

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Accuracy Versus Speed

by Craig S. Mullins

Brevity is the enemy of accuracy. I could stop writing right there, but then that would be too brief, and I would much rather be accurate. Most of us strive to keep our days moving along. Making things faster is usually looked upon as beneficial. We have fast food, quick copy centers, rapid delivery, and speed dialing, just to name a few of the fast features of daily life. And most of us would not want to be without them. But all too often we sacrifice accuracy at the expense of speed. So what if it isn't exactly right, it is "good enough" and we did it very quickly, didn't we? Doesn't that sound familiar? I'm sure it does for most of us in the technology field. The computer industry is one of the worst offenders when it comes to favoring expedience over accuracy.

For the purposes of this article, I'm not talking about software quality and bugs. I could, because I think they are a symptom of our "faster, quicker" mindset. But there are many more complex issues surrounding software quality. That is a topic for future columns.

In this article I'm simply talking about the inconsistent and inaccurate ways in which IT professionals use terminology. Let's look at a couple of examples.

## **Database Versus DBMS**

What is a database? I bet most people reading this article believe they know the answer to

that question. But many of them would be wrong. Oracle is not a database, it is a DBMS, or Database Management System. You can use Oracle to create a database, but Oracle, in and of itself, is not a database.

So what is a database? A database is an organized store of data wherein the data is accessible by named data elements (for example, fields, records, and files).

A DBMS is software that enables end users or application programmers to share data. It provides a systematic method of creating, updating, retrieving and storing information in a database. DBMSs also are generally responsible for data integrity, data access control, and automated rollback, restart and recovery.

In layman's terms, you can think of a database as a filing system. You can think of the filing cabinet itself along with the file folders and labels as the DBMS. A DBMS manages databases. You implement and access database instances using the capabilities of the DBMS.

So, DB2 and Oracle8i and SQL Server are database management systems. Your payroll application uses the payroll database, which may be implemented using DB2 or Oracle8i or SQL Server.

Why is that important? If we do not use precise terms when we write, speak, and work confusion can result. And confusion leads to over budget projects, improperly developed systems, and lost productivity. So precision must be important to us.

Do you want another example?

## You There, What Century is This?

Maybe you are sick of hearing about this one, but many people still do not know the current century. Even worse, they think they know, but they are dead wrong. And as the old saying goes, "It ain't what folks don't know that hurts them as much as what they think they know, but don't."

For those of you still wondering, it is the 20<sup>th</sup> century, not the 21<sup>st</sup>. Think it through. When you count to one hundred, you start with one, not zero. So the first one hundred numbers you count end with 100. The next one hundred numbers starts with 101. A century consists of 100 years. And there was no such thing as a year 0. So, the first century ended at the end of year 100. Count on your fingers if you have to... 1, 2, 3, ... 99, 100. Add 100 years and the second century ends at the end of the year 200, and on and on. Do the math. The 20<sup>th</sup> century ends at the end of the year 2000. The 21<sup>st</sup> century begins with the year 2001.

There are a lot of details to be investigated if you desire. For example, the calendar used by most of the world is the Gregorian calendar, named after Pope Gregory XIII. The Gregorian calendar was first put into use in 1582. But the bottom line is that 1,999 years have elapsed since January 1, 0001. And we have to wait for January 1, 2001 for the dawn of the new millennium.

## Synopsis

There are plenty of other examples, too. When was the last time you heard or read an acronym and had no idea what it meant? What about industry buzzwords like knowledge management or storage area network? They are used all the time, but rarely defined.

As skilled IT professionals, we need to be more precise in our day to day language. Doing so preserves knowledge and minimizes confusion. And it is laudable to pursue both of those goals. Furthermore, it is cost effective in terms of clarity and productivity. And isn't that the reason we go to work everyday?

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