

Re: Cobol Myth Busters

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Binary (when working with other Binary) may or may not be faster than PD for some cases on zSeries. However, there are even MORE options that impact this than just TRUNC (which has 3 flavors on IBM zSeries). Furthermore, PD is usually (not always) BEST when working with "combined" usages (such as input from a "screen" in the same operation as something stored in a Database).

The following is the information on "comparing data types" for the Enterprise COBOL Performance paper available at:
<http://www-1.ibm.com/support/docview.wss?rs=203&q=7001475&uid=swg27001475>

(You might want to look at the entire paper to see what a COMPREHENSIVE set of performance test covers – in the way of "variations. Also it has some firm statistics on indexes vs subscripts with this compiler.)

Comparing Data Types

When selecting your data types, it is important to understand the performance characteristics of them before you use them. Shown below are some performance considerations of doing several ADDs and SUBTRACTs on the various data types of the specified precision.

Performance considerations for comparing data types (using ARITH(COMPAT)):

Packed decimal (COMP-3) compared to binary (COMP or COMP-4) with TRUNC(STD)
using 1 to 9 digits: packed decimal is 30% to 60% slower than binary
using 10 to 17 digits: packed decimal is 55% to 65% faster than binary
using 18 digits: packed decimal is 74% faster than binary

Packed decimal (COMP-3) compared to binary (COMP or COMP-4) with TRUNC(OPT)
using 1 to 8 digits: packed decimal is 160% to 200% slower than binary
using 9 digits: packed decimal is 60% slower than binary
using 10 to 17 digits: packed decimal is 150% to 180% slower than binary
using 18 digits: packed decimal is 74% faster than binary

Packed decimal (COMP-3) compared to binary (COMP or COMP-4) with TRUNC(BIN) or COMP-5
using 1 to 8 digits: packed decimal is 130% to 200% slower than binary

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using 9 digits: packed decimal is 85% slower than binary

using 10 to 18 digits: packed decimal is 88% faster than binary

DISPLAY compared to packed decimal (COMP-3)

using 1 to 6 digits: DISPLAY is 100% slower than packed decimal

using 7 to 16 digits: DISPLAY is 40% to 70% slo