Responsive Systems Technical Bulletin

DB2 Vertical Deferred Write Threshold - VDWQT

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At the current date, DB2 versions 7, 8, and 9 have an error setting this threshold to zero.

Documentation in the DB2 manuals clearly states that setting VDWQT=0 sets an internal threshold of 40 pages per object for triggering asynchronous writes. Setting VDWQT=0 should be the same as setting VDWQT=(0,40). However, DB2 currently has a error, and setting VDWQT=0 sets the threshold to (0,0) instead of (0,40). This often causes the volume of write IOs to increase.

When should this threshold be set to (0,x) instead of a standard percentage or the default 10%?

Whenever the average pages/write is a low single digit number such as 1.6, 2.3, 7.1, etc, etc, this threshold should be lowered to keep an asynchronous write process running. This will avoid huge bursts of write activity when DB2 takes a checkpoint.

In perspective, 1% of 10,000 buffers is 100 buffers, or 100 updated pages.

Note: You do **NOT** want the threshold values set to (0,0) on your system, since this may impact both system and application performance.