(July 22nd, 2013)

If you know someone who you think would benefit from being an Insider, feel free to forward this PDF to them so they can sign up here.

Quick Tips for our Insider friends!

Hey Insiders!

This newsletter is coming to you from Kona, HI where we've just started our summer vacation with the kids, and it also happens to be my birthday today! We've had quite a crazy couple of months of teaching and we've all been looking forward to getting some diving in before throwing ourselves into content generation for Pluralsight and the Fall conferences when we get back.

Don't forget to check out the three brand-new classes that we're debuting in September (details at the end of the newsletter), our new IE1 class in Chicago, and our Fall SQLintersection conference in Las Vegas at the end of October (details here). There are lots of opportunities for learning this Fall and we hope to see you!

The most recent book I've read is Lawrence and Nancy Goldstone's *Used and Rare*. This is a really cool (and charming) book about the Goldstones getting into book collecting (mostly first editions of modern classics) in New England, Boston, and New York. For a bibliophile like me, books about books and book collecting are really interesting, and this one has a ton of insightful information about books, book binding, book auctions, and other book-centric information contained in the narrative. It was especially interesting to read about what *really* counts as a publisher's first edition. Recommended for anyone who likes books and reading.

Please let us know if you liked what you read/saw here and/or have any suggestions for future Quick Tips.

Note: you can get all the prior Insider newsletters here.

Paul's Ponderings

One of the questions I saw being asked this week was around benign wait types in SQL Server 2012 when using wait statistics for performance monitoring or investigating performance problems.

There are 490 different wait types in SQL Server 2008 R2 and 649 different wait types in SQL Server 2012. Quite a few of these are what I call benign – they are very, very rarely linked to a performance problem, but can occur very commonly. These common wait types can 'pollute'

your analysis of the output of *sys.dm_os_wait_stats*, depending on how you're doing that analysis.

An example of a benign wait is *LAZYWRITER_SLEEP*, which is the lazywriter background task in the buffer pool sleeping between sweeps of the buffers in the buffer pool. It just always happens.

Many people use either Glenn's script (select your version then search for 'Top Wait' in the script) or my script (based on Glenn's) to programmatically analyze the output of *sys.dm_os_wait_stats* and show what the most common waits are that are causing most of the waiting by threads on the server. In each of those scripts, you can see that we filter out a set of wait types as being generally benign.

Back to the question I saw asked: what are the new wait types in SQL Server 2012 that are considered benign?

There are three wait types in SQL Server 2012 that you can safely filter out of your analysis:

- *DIRTY_PAGE_POLL*
- *SP_SERVER_DIAGNOSTICS_SLEEP*
- *HADR_FILESTREAM_IOMGR_IOCOMPLETION*

These are all background tasks waiting a set amount of time as part of:

- The buffer pool mechanism that implements indirect checkpoints, whether you have them enabled or not (see here for more info)
- The mechanism that gathers data for sp_server_diagnostics (see here for more info)
- The mechanism that deals with migrating FILESTREAM changes when using availability groups (see here for more info)

Call to action: When you're analyzing wait statistics, for whatever reason, make sure that you're filtering out wait types that you don't need to see. Also remember that waits always occur as part of SQL Server's thread scheduling mechanism and so the waits you're seeing may not be a problem. Look for particular wait types becoming more prevalent, and wait times increasing. You can read lots more information about using wait statistics in my blog and in my Pluralsight course.

I'm curious to hear your thoughts on using wait statistics, so please feel free to drop me a line, treated confidentially of course.

<u>Video Demo</u>

From Jonathan:

In this video, I demonstrate some little-known features of SQL Server Management Studio and Object Explorer, including how to Filter the object list, add column names to a script with drag and drop, and how to use the Object Explorer Details to find more information about the objects in your databases.

The video is just under 6 minutes long and you can get it:

- In WMV format here
- In MOV format here

Enjoy!

SQLskills Offerings

As I mentioned above, we have three brand-new classes running in Bellevue, WA this September/October 2013. They're sure to sell out fast, so don't delay!

Please know that these classes are final as the hotel contracts are signed, and the classes will not be cancelled or moved for any reason, nor will the dates change.

- September 16-20, 2013: Internals and Performance (**IE1**) in Bellevue **(SOLD OUT!)**
- September 18-19, 2013: Hardware (**IEHW**) in Bellevue, WA – USA
- September 23-27, 2013: Performance Tuning (**IE2**) in Bellevue, WA – USA
- September 30-October 2, 2013: Accidental DBA (**IE0**) in Bellevue, WA – USA
- September 30-October 3, 2013: Advanced T-SQL (**IETS**) in Bellevue, WA – USA
- **NEW: November 11-15, 2013: Internals and Performance (IE1) in Chicago, IL** – USA

See here for the main Immersion Event Calendar page that allows you to drill through to each class for more details and registration links.

Summary

We hope you've enjoyed this issue - we really enjoy putting these together.

If there is anything else you're interested in, we'd love to hear from you - drop us a line.

Thanks,
Paul and Kimberly

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