(May 27th, 2014)

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 <u>here</u>.



Quick Tips for our Insider friends!

Hey Insiders!

This newsletter is coming to you from Redmond where we're rejuvenating at home for a few weeks before teaching some more classes in Bellevue, WA. Speaking of which, there are still a few seats available in the IE1 and IE2 classes in June, and we've just opened up new IE0 and IEHW classes for registration in Chicago in October – see <u>here</u> for details.

Glenn's latest Pluralsight course has been published – <u>SQL Server 2014 DMV Diagnostic</u> <u>Queries: Part 1</u> – from which you can see a video excerpt below.

We've also published most of the sessions and all of the pre/post-conference workshops for SQLintersection in Las Vegas this November and the show is open for registration – see <u>here</u> for details.

The most recent book I've read is Robert Gates' *Duty: Memoirs of a Secretary at War*. This memoir describes Gates' time as the Secretary of Defense under Presidents Bush (43) and Obama. Gates comes across as someone who really cares about the service men and women under his command (as second in the chain under the president). This is reiterated many times through the book when he describes budget battles to get more equipment, better equipment, the right equipment, unwanted/unneeded equipment cancelled, and more against parochial members of Congress and inexperienced White House staffers. He seems to have been a very, very different SecDef than his predecessor Rumsfeld, whose autobiography I now look back on with a much more negative view.

Different how? Nicer is probably the easiest way to say it, just a nicer, more caring person. He looks back several times and wishes he'd handled a situation better and done things differently for the benefit of the troops. He takes personal responsibility for everything that happened on his watch, rather than blaming others (a failing of Rumsfeld). The book also gives a lot of insight into the workings of the Department of Defense, the largest organization on the planet, with 3 million 'staff', and a budget of more than \$700 billion in 2011.

Altogether a very interesting book and well worth reading. I'm looking forward to reading the memoirs of the presidents and other cabinet members from the last 10-15 years too. Highly recommended.

Please <u>let us know</u> 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

A short Ponderings this time as it's a holiday weekend... I hope you enjoyed yours!

It's pretty much common knowledge now that it's possible to see latch contention in tempdb and that alleviating it means enabling trace flag 1118 and adding more tempdb files. There are plenty of discussions about how many tempdb files to have, and of course the answer depends on how much contention you have and how many logical processor cores you have. You can read my latest article on the subject <u>here</u>.

One thing I don't see discussed very often is how to add more data files to tempdb so that you don't fall foul of the idiosyncratic (i.e. broken) way in which data file autogrowth occurs in tempdb, where if the files are unequal sizes, only the largest file will grow.

Some people advocate using trace flag 1117, which causes all data files to grow at the same time. I don't advise using that trace flag as it affects all databases on the server. This means that when any file in a filegroup needs to autogrow, all files in that filegroup will autogrow. (Note that some people erroneously state that it means all data files in the database will grow at the same time – this is only true in the special case where the database only has one filegroup.) I would much rather address the specific tempdb problem than use the 1117 sledgehammer.

So the problem is this: you want to add more files to tempdb, but the existing data files are growing, or are different sizes, and it's hard to get the file sizes to exactly match.

The solution is not to try to create the new files to be the same size as the existing ones.

The solution is to create the new files to be a bit larger than the existing files and the resize the existing files to be the same size as the new ones.

For instance, if your tempdb has four files (3GB, 2.4GB, 4GB, 6GB) and you want to add four more files, here's what you do:

- Add the four new files at, say, 8GB each
- ALTER DATABASE <name> MODIFY FILE <filename> (SIZE = 8GB) for the existing four files

Now there's no need for the 1117 trace flag and autogrowth will work correctly.

Call to action: The next time you're dealing with tempdb contention issues, make sure you take the appropriate steps without having to resort to sledgehammer options. Oh, and you don't need to restart the instance when adding tempdb data files, as I saw mentioned on #sqlhelp last week.

I'm curious to hear your thoughts on tempdb file sizes, so please feel free to <u>drop me a line</u>, always treated confidentially, of course.

Video Demo

In this newsletter I'm sharing with you a demo video from Glenn's newest beginner-level Pluralsight course on <u>SQL Server 2014 DMV Diagnostic Queries</u>: Part 1. Glenn's three-part course showcases all his popular DMV diagnostic queries, and in this demo he shows how to examine instance configuration values and explains how some of them should be set.

The video is just under three minutes long and you can get it in WMV format here.

You can get the demo code <u>here</u>.

Enjoy!

SQLskills Offerings

Please know that all of our classes will run and their dates will not change. Additionally, most of our public training courses will be held in the first half of this year. We will add a few more classes in the second half of the year, but not all that many (specifically, one each of IE1 and IE2 in Chicago and two IE1 deliveries in Australia). Please plan accordingly. And, if you're in Australia and want direct notice when our classes are added, please email training@SQLskills.com.

Finally, to help your boss understand the importance of focused, technical training, we've added a few new items to help you justify spending your training dollars with us:

- Letter to your boss explaining why SQLskills training is worthwhile
- Community blog posts about our classes
- <u>Immersion Event FAQ</u>

2014 Immersion Events

Bellevue, WA

- June 9-13, 2014: **IE1**: Immersion Event on Internals and Performance
- June 16-20, 2014: **IE2**: Immersion Event on Performance Tuning

Chicago, IL

- October 6-8, 2014: IEO: Immersion Event for the Accidental/Junior DBA
- October 9-10, 2014: **IEHW**: Immersion Event on SQL Server Hardware

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

Fall SQLintersection

As mentioned above, we've released the bulk of our line-up for our Fall SQLintersection event and it's open for registration. This year our Fall SQLintersection conference will be the week of November 10th in Las Vegas. See <u>here</u> for details. We hope to see you there!

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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