

(June 12<sup>th</sup>, 2023)

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



Note: As an Insider, you can read all prior Insider newsletters [here](#).

### **Quick Tips for our Insider friends!**

This newsletter comes to you from Camp Savage, where the good weather let us open up camp early and I've been up here since May 12. It looks like it's going to be the hottest and driest summer here for a long time.

See below for a new self-service way to engage us for a health check, no more waiting, easy credit-card purchasing and a huge sale on them!

PS On Thursday and Friday, July 6-7 we'll be doing a flash sale of our signature Blackbelt bundle for \$1,999, and \$3,499 for lifetime access – plenty of time for you to plan!

As always, take care and be safe!

### **SQLskills Health Check SALE!**

We've added the ability to purchase a self-service health check using a credit card, so you don't have to wait until we've done a scoping call, wait for budget approval, get agreements signed – you can just click and go!

Once you purchase the health check, you get access to our health check package (tailored for whichever version you select) that you can immediately run and then securely upload the data for us to analyze and give you a report on the results.

To celebrate this, we're running a special offer where a **health check for a single-instance is only US\$2,495**, compared to the usual price of US\$3,495, when purchased via credit card.

See [here](#) for details and [let me know](#) if you have any questions.

We look forward to helping you make sure your SQL Server environment is running well and configured correctly!

## **Book Review**

The latest book I've read is Matthew Miller's [\*Fishing Through the Apocalypse: An Angler's Adventures in the 21st Century\*](#). Kimberly bought me this last year and it's excellent! From another reviewer: "What's to become of the ancient art of angling in the dystopian world of 21st-century America? Author Matt Miller goes off in search of an answer, casting his line into trash-strewn agricultural canals, wastewater drainage ditches, pay ponds, as well as near-pristine lakes and rivers, chasing a wide range of species, from beautiful native trout and salmon to dime-sized micro-fish and suckers rarely pursued by anglers. Although Miller doesn't spare any punches, he is optimistic about the future of angling. Fishing through the Apocalypse is an entertaining and enlightening account for anglers and non-anglers alike." I devoured the book once I started it – highly recommended! It's certainly got me amped up for salmon fishing later this summer up here at Camp Savage!

## **The Curious Case of...**

*This section of the newsletter explains recent problems we've helped with on client systems or been asked about over email or #sqlhelp; they might be something you're experiencing too.*

I was sitting down to write a Curious Case blog post and realized I already had it! Someone emailed me yesterday, very confused because they moved to a faster I/O subsystem and started seeing waaaay more *WRITELOG* waits than before. That's totally expected! You can read through my explanation [here](#)...

## **Ponderings...**

What are some of the things that come to mind when you think about performance monitoring? Here are some examples: transaction logs running out of space, queries taking too long or timing out, I/Os taking too long, low memory, 100% CPU, blocking.

What do you do when monitoring flags that one of these has occurred on your production system?

React.

You have to dig in with whatever instrumentation you've built, or using any 3<sup>rd</sup>-party tool you've bought, to try to figure out what went wrong so you can take corrective action to stop it happening (under a lot of pressure) or prevent it happening again in the future (under not quite so much pressure).

It's a reactive process: problems have to occur before they're noticed, so you don't get a chance to prevent bad things happening to your workload.

A similar thing happens in the stock market: if a stock becomes very strong and the price increases, people buy it. If a stock tanks and the price decreases sharply, people sell it. Hence the phrase "buy high, sell low" to describe reactive behavior that can stop people making money on stocks.

In the stock market, the big wins come from noticing the signs that a stock is going to take off, and buying it as early as possible to maximize gains, and, of course, knowing when it's going to go down again to sell while the price is at or near its peak.

### **Pro-activity beats reactivity.**

I think we should be aiming for the same behavior with our SQL Server performance monitoring.

Instead of building monitoring that alerts us when a problem has occurred, we should build monitoring that can tell when a problem is starting to occur so we can deal with it before it detrimentally affects the workload.

Using I/O latencies as an example, the typical alerts fire when I/O latency crosses a threshold, say 20ms. I think it would be better for the monitoring to know what the I/O pattern is (including variations in the workload based on time/day/position in the business cycle) and then fire an alert when the I/O latency starts to deviate from the norm for a sustained period. This way the problem can be investigated far sooner than waiting until the I/O latency has hit a critical point where the workload is already suffering badly.

This is where I think performance monitoring should go in future, and it isn't a trivial thing to do, especially considering all the facets of performance monitoring. But think of the possibilities: knowing a performance problem is going to happen before it actually does!

**Call to action:** The next time you're implementing some monitoring, consider if there's a way to easily change what you're implementing so you get advance notice of a problem, rather than notice that a problem has occurred.

Another thing you can do is take a holistic look at your overall SQL Server instances, and a great way to do that is with something like our [comprehensive health check](#)!

One last thing – keeping your team knowledgeable and capable of addressing issues, whether proactively or reactively is a key to keeping your data estate in great shape. To help with that, on Thursday and Friday, July 6-7 we'll be doing a flash sale of our signature Blackbelt bundle for \$1,999, and \$3,499 for lifetime access! Details in the next newsletter on 6/26/2023!

### **#TBT**

*(Turn Back Time...) Blog posts we've published since the previous newsletter plus some older resources we've referred to recently that you may find useful.*

The theme for the TBT this time is backups:

- My Pluralsight course: [\*SQL Server: Understanding and Performing Backups\*](#)
- My TechNet Magazine article from 2009: [\*Understanding SQL Server Backups\*](#)
- My SQL Server Magazine article from 2011: [\*Advanced Backup and Restore Options\*](#)
- My TechNet Magazine article from 2009: [\*Recovering from Disasters Using Backups\*](#)
- [\*Backup blog posts\*](#) from our accidental DBA series
- Blog post: [\*New script: How much of the database has changed since the last full backup?\*](#)
- Blog post: [\*Importance of having the right backups\*](#)
- Blog post: [\*Importance of validating backups\*](#)
- My blog post category on [\*Backup/Restore\*](#)

I hope you find these useful and interesting!

### **Video Demo**

In this demo video, Jon continues the series on the Server Audit feature and explains how the filtering of events is performed for the Server Audit and how to minimize the amount of data being collected and reduce the performance overhead of an Audit being enabled.

The video is 10 minutes long and you can get it in WMV format [here](#).

The demo code is available [here](#).

Enjoy!

### **Upcoming SQLskills Events**

We've decided to record SQL Server 2022 updates relevant to our class material rather than running full classes, as, to be honest, not much has changed in our space and 2022 focused a lot on Azure extensions.

With our new streaming system, you can now choose to attend a live, online event or purchase a recording to watch at your leisure, either individually or as part of a bundle. And all attendees of live events get lifetime access to the class recordings too!

To help your boss understand the importance of focused, technical training, we've also added a few 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\*](#)
- [\*Immersion Event FAQ\*](#)

You can get all the details on our [training options page](#) or just go directly to our [shop](#).

### **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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