

(October 8th, 2019)

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!

Hey Insiders,

This newsletter is coming to you from Chicago where we're running our last two in-person classes of the year, with Kimberly and me teaching IEPTO1 and Tim teaching IEAzure. Our last classes for 2019 are the two online classes below...

SQLskills News

Live, ONLINE classes: we have a few classes coming up in the remainder of the year:

- IEVLT: Very Large Tables: Performance/Manageability through Partitioning – October 29-31
- IECS: Columnstore Indexes – November 12-14

The classes are US\$495 each and you can get all the details and registration information through the class schedule page [here](#).

Live, IN-PERSON classes: we'll announce our Spring 2020 schedule in the next few weeks.

Fall SQLintersection: If you're looking for a great place to learn best practices in migration, troubleshooting, and performance, join us in Las Vegas in the week of November 18 for our [SQLintersection](#) conference where we're going to focus on these incredibly important processes. SQLintersection will not only help you migrate to a newer version of SQL Server but it will teach you the best new features to leverage once you're there! We've got an incredible line-up this Fall and ALL of our sessions have been posted; check out our website to view our spectacular line-up including Bob Ward, Pedro Lopes, Pam Lahoud, Brent Ozar, and most of our SQLskills team! We hope you can join us in November! Check out all out in my blog post [here](#).

PASS workshops: if you're planning to go to the PASS Summit in November, Erin and Jonathan both have pre-conference workshops:

- Erin: Performance Tuning with Query Store in SQL Server – see [here](#)
- Jonathan: Bigger Hardware or Better Code and Design? – see [here](#)

Finally, even if you can't join us in person, I've put out a call for **remote user group sessions** for the remainder of 2019! If you'd like one of us to present for your user group, check out my blog post [here](#).

Book Review

One of the recent books I've read is Benn Stiel's [The Marshall Plan: Dawn of the Cold War](#). Continuing my loose 'Cold War' year of reading, this book does an excellent job of detailing the events leading up to the creation and implementation of the famous Marshall Plan. It helped with the reconstruction of post-war Western Europe as a barrier against the expansion of communism from the East, and was an extraordinary undertaking by the US to reintegrate Germany into society after the horrors it inflicted during WWII. Stiel also makes a convincing case that it precipitated the Cold War, as Stalin's instructions to countries under the Soviet thumb to refuse US aid effectively created the Iron Curtain and the division of Soviet vs. US spheres of influence in Europe. The book is quite the page turner and gives the complete history in a really engaging and interesting way, and now I'm looking forward to reading Steil's The Battle of Breton Woods. Highly recommended!

The Curious Case of...

This section of the newsletter explains recent problems we've helped with on client systems; they might be something you're experiencing too.

I had a question in email last week on why a minimally-logged operation doesn't make a log backup a lot smaller because the operation generates a lot less transaction log. The answer is to do with durability and restorability...

Read the explanation in my blog post [here](#).

Ponderings...

(It's Jonathan's turn this time – enjoy!)

Repairing the Symptoms vs. Replacing the Problem

I recently had a recurring set of problems with my zero-turn lawnmower where each time I fixed what I believed to be the problem another symptom would occur, yet they were spaced out just far enough that I never considered them to be related in any way. It turned out that the head gasket on one of the cylinders finally gave way completely and the engine could only fire on one of the two cylinders due to the catastrophic blow-by of compression that was happening with the other cylinders head.

At that point I decided to seek professional evaluation of things and took the mower to the small engine mechanic down the road, who confirmed that it was a blown head gasket, and suggested replacing the mower over trying to fix it. There are over 4,000 hours on the mower and a newer model would be much better suited to the size of property I have and would be much more efficient.

I decided I would take a crack at fixing it since a new mower is a huge cost and not something I had planned for or budgeted this year. I also thought it would be a good father/son project that I could use to teach my kids some life skills. Little did I know it was also going to teach me an important lesson!

I ordered a new gasket set for the engine, and also shopped around for potential replacement mowers just to get an idea what it might cost. Deciding that a full replacement was too expensive for right now, I searched online and got the service manual and began the disassembly of the motor with my son. This was where I started to realize that the mechanic might have been wise in his suggestion to replace the mower entirely, but I decided to fix it since the parts were only about \$50 and it is just a few weeks of time spent making it work.

Fast forward two weeks later: the new gaskets arrived in the mail and I decided to go about getting things in place to complete the reassembly with my son over the weekend. This is when I realized that there was actually a much bigger underlying issue that led to all of the other problems that I had been having...

As I was rethreading one of the head bolts back into the block, actually the exact bolt where the gasket had blown away, all of the threads from the inside of the block uncoiled and pulled out inside of the grooves of the head bolt. So the whole problem rooted in the fact that the block threads had sheared off under the load and the head gasket failed because there was no torque left for that bolt. Could I fix this problem? Yes, but then what is going to be the next item that shows up?

This episode actually made me laugh out loud when it happened because it is something I have seen all too often over my career working in software development and SQL Server. When faced with a serious problem do you replace the system or continue applying fixes to it that let it limp along further?

In a lot of situations at first it makes sense to fix the smaller items as they pop up, but over time it can become clear to someone less invested in the situation that it has become throwing good resources after bad. Replacement can be a hard proposition for a business, especially if there are thousands of hours invested in an application that was developed internally.

However, technology and solutions to problems change over time, and what was a good design a few years ago might not be ideal for where things are today. In my case, I could buy a new motor for my zero-turn mower and it would cost about half the price of replacing the mower entirely, but what would be the next item that wears out or breaks, and where do you draw the line?

Call to action: Have you seen situations where it might be best to stop repairing the symptoms and replace the problem entirely? Are you comfortable making that choice or recommendation to the business? There's a lot to be considered when making that choice, but it's definitely something you *should* consider if you realize you're constantly repairing a broken system.

Glenn's Tech Insights

Recent news and views from the hardware and Windows worlds that we think will be interesting to SQL Server community members.

In Glenn's regular roundup of tech news this time he talks about the following:

- Updates to some useful utility/benchmark applications
- Intel's announcement of second-generation Optane DC SSDs coming in 2020

Check it all out in his post [here](#)!

#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.

Extended Events are the theme for #TBT this time. Here are some Extended Events resources for you:

- Jon's two Pluralsight courses: [SQL Server: Introduction to Extended Events](#) and [SQL Server: Advanced Extended Events](#)
- Erin's Pluralsight course: [SQL Server: Replacing Profiler with Extended Events](#)
- Jon's [An-XEvent-a-Day blog post series](#)
- Jon's [Extended Events blog category](#)
- Jon's [article on sqlperformance.com](#) comparing the overhead of trace vs. XEvents
- Erin's [Extended Events blog category](#)
- Erin's [Stairway Series](#) on SQL Server Central
- My [Extended Events blog category](#) which shows how to capture SQL Server call stacks

Here are the blog posts we've published since the last newsletter:

- Glenn: [SQL Server Diagnostic Information Queries for October 2019](#)
- Glenn: [SQL Server 2016 SP2 CU9 Released](#)
- Erin: [Query Store Questions: 24HOP follow up](#)
- Paul: [A month till our next live, online classes!](#)

I hope you find these useful and interesting!

Video Demo

In the video this time, Jonathan shows how Storage Spaces simple storage pools can be extended for more storage in the cloud to optimize throughput while also maintaining flexibility. (Here's a [link](#) to the top-level of the Microsoft Storage Spaces docs.)

The video is just over 7 minutes long and you can get it [here](#).

Enjoy!

Upcoming SQLskills Events

We have two live, online events coming up in October and November and we'll be publishing our Spring 2020 class schedule sometime in the next few weeks.

You have multiple learning opportunities as every event has a different focus as well as different benefits – from deep-technical training in our Immersion Events to wide-ranging topics at SQLintersection where you can learn more effectively how to keep moving forward in both your environment and your career! And, of course, one benefit you'll always get from in-person events is networking; we hope to meet/see you at an event soon!

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](#)
- [So why do you want to come to our training? And the winners are...](#)
- [Community blog posts about our classes](#)
- [Immersion Event FAQ](#)

LIVE, IN-PERSON Immersion Events:

Chicago, IL, Spring 2020

- Details coming soon!

LIVE, ONLINE Immersion Events:

- **IEVLT:** Immersion Event on Very Large Tables: Performance/Manageability through Partitioning
 - October 29-31
- **IECS:** Immersion Event on Columnstore Indexes
 - November 12-14

Click [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

Paul@SQLskills.com and Kimberly@SQLskills.com