

(August 27th, 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 Redmond, where we're basking in the summer sun and working on Pluralsight content.

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 have two more in-person classes this year, in Chicago in October:

- IEPTO1: Performance Tuning and Optimization – Part 1 – October 7-11
- **SOLD OUT:** IEAzure: Azure SQL Database, Azure VMs, Azure Managed Instance – October 7-10

These will be our only, in-person Immersion Events running this Fall and you can get all the details and registration information through the class schedule page [here](#).

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 books I've finished recently is Jon Gertner's [The Idea Factory: Bell Labs and the Great Age of Innovation](#). Amazon's précis says everything I'd say:

"From its beginnings in the 1920s until its demise in the 1980s, Bell Labs-officially, the research and development wing of AT&T-was the biggest, and arguably the best, laboratory for new ideas in the world. From the transistor to the laser, from digital communications to cellular telephony, it's hard to find an aspect of modern life that hasn't been touched by Bell Labs. In The Idea Factory, Jon Gertner traces the origins of some of the twentieth century's most important inventions and delivers a riveting and heretofore untold chapter of American history. At its heart this is a story about the life and work of a small group of brilliant and eccentric men – Mervin Kelly, Bill Shockley, Claude Shannon, John Pierce, and Bill Baker-who spent their careers at Bell Labs. Today, when the drive to invent has become a mantra, Bell Labs offers us a way to enrich our understanding of the challenges and solutions to technological innovation. Here, after all, was where the foundational ideas on the management of innovation were born."

I love books about the history of technology so this is 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 last week about how batch-mode operations work under the covers – is it really all done at the same time? So I updated a previous blog post I'd written about reconciling set-based operations with one-at-a-time CPU operations.

Read the explanation in my blog post: [Reconciling set-based operations with row-by-row iterative processing](#).

Ponderings...

(It's my turn for the editorial this week and I procrastinated all last week about it, and now it's the day before the newsletter runs. So I thought, why not write about that? And then I saw that I'd written about it five years ago, so I'm basing this editorial on that. Enjoy!)

Kimberly makes a point of posting water-based photos on Twitter/Facebook almost every day and occasionally someone will comment that we certainly *carpe diem*. And yes, when we are somewhere far-flung that we don't come to very often, we try to make as much use of our time as possible to go sightseeing.

Carpe diem translates as 'seize the day'. I think a good Latin motto for DBAs, especially around any holiday period like the upcoming Labor Day weekend, should be *noli pro cras tenere quae hodie facere potes*, which translates as 'do not hold for tomorrow those things which you can do today', although it doesn't roll off the tongue quite so easily!

My point here is that there are a lot of tasks (sometimes considered tedious or onerous) that are very easy for a DBA to always push off until 'tomorrow', which are really better done sooner than later. Here are some examples that spring to mind:

- Performing a test restore from scratch of your backups
- Performing a failover test to your high-availability secondary system
- Adding documentation around things like SSIS packages or code rollout procedures (no one likes doing documentation...)
- Do some index cleanup on a few of your large tables
 - Check for duplicate indexes
 - Check for left-based redundancies and consider their usefulness
 - Check for unused (or, minimally used) indexes
- Do some statistics cleanup
 - Check for statistics that are left-based subsets of your indexes (possibly because of newly created indexes)
- Check your maintenance routines – have you wanted to make them tied to data change (rather than sledgehammer maintenance where you just execute whether you need to or not)?
- Are you outgrowing your resources?
 - CPU / memory / disk space – have you checked on your capacities lately?
- Or not using resources you're paying for?
 - If on Azure, are you using a tier that's way too high for the workload?
- Implement capturing of I/O latencies to help identify problems
- Implement capturing of wait statistics to help identify problems
- Look at your buffer pool to see whether you've got lots of wasted disk/memory space

There are all kinds of little projects you can do that will give you more peace of mind, increase performance, or help you with performance troubleshooting.

Call to action: Procrastination has often been the cause of problems that I've had to help deal with, where a little earlier time investment could have forestalled a performance problem or disaster situation. Do yourself a favor – make a list of the tasks you've been putting off and cross some of them off your list before your holiday break or even during your holiday (if you're one of those folks that works through it because the office is a ghost-town and you get more done) – you'll be happy that you did.

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:

- SQL Server 2019 Release Candidate build released
- August 2019 release of Azure Data Studio

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.

The theme for the TBT this time is query plan analysis:

- Erin's Pluralsight course: [SQL Server: Analyzing Query Performance for Developers](#)
- Joe's Pluralsight course: [SQL Server: Query Plan Analysis](#)
- Erin's Pluralsight course: [SQL Server: Introduction to Query Store](#)
- Joe's Pluralsight course: [SQL Server: Troubleshooting Query Plan Quality Issues](#)
- My blog post: [Query plan analysis first steps](#)
- Joe's whitepaper: [Optimizing Your Query Plans with the SQL Server 2014 Cardinality Estimator](#)

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

- Glenn: [Some Comparative CPU-Z Benchmark Scores](#)
- Paul: [SQLIntersection Fall 2019](#)

I hope you find these useful and interesting!

Video Demo

In this Insider video, Tim shows how you can perform a migration of SQL Server Reporting Services. Many DBAs are unaware that the ReportServer database is encrypted and that in order to properly recover or migrate the database, you need to be able to restore the encryption key for sensitive data such as connection strings and stored credentials. Tim walks you through the process of migrating the databases and encryption key to a new instance and upgrading from a SSRS2012 to Power BI Report Server.

The video is about 12 minutes long and you can get it [here](#).

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

Enjoy!

Upcoming SQLskills Events

Our set of 2019 live, in-person classes for Chicago in October are filling up fast and we've announced our Fall live, online events too.

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, October 2019

- **IEPTO1:** Immersion Event on Performance Tuning and Optimization – Part 1
 - October 7-11
- **IEAzure:** Immersion Event on Azure SQL Database, Azure VMs, and Azure Managed Instance

- October 7-10 **SOLD OUT!!**

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

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