

(June 24th, 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 London where we've just finished our IE3 on HA/DR, the seventh week of teaching classes out of the last eight – phew! Last weekend I headed to the [Old Royal Naval College, Greenwich](#) (which I would have attended had I followed my initial career goal of joining the Royal Navy as a Weapons Electronics Officer) and the [National Maritime Museum](#) with Jonathan and his family – very cool! Over the next week we're touring around London with our kids and Kimberly's Mom and Aunt, winding down from our crazy teaching schedule.

Our two latest Pluralsight courses have been published:

- [SQL Server: Virtualization](#) by Jonathan
- [SQL Server: Transactional Replication Fundamentals](#) by Joe

Our remaining IE1 class in Bellevue has just sold out at 36 students so we've added another IE1 class in Chicago during the week of November 11th – [see here for details!](#)

And don't forget to check out our three brand-new classes that we're debuting in September (details at the end of the newsletter) and our Fall SQLintersection conference in Las Vegas at the end of October (details [here](#)).

The most recent book I've read is Monaldi & Sorti's [Secretum](#), the sequel to [Imprimatur](#). The book is set in Rome in 1700, with the protagonists heavily involved in intrigue, subterfuge, and adventure with many of the cardinals present for the upcoming Papal conclave, and the underground cerretani – guilds of beggars and thieves inhabiting the Roman underworld. Intermingling meticulously-researched history and real characters from the time, the book deals with the wrangling over the Spanish Succession between France and the Hapsburgs, leading up to the death of Charles II of Spain. It's deep, complex, and I highly recommend it.

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

This month we're doing a [post-a-day series for the Accidental DBA](#). My main section was on backups, in the following posts:

- [\(Day 6 of 30\): Backups: Understanding RTO and RPO](#)
- [\(Day 7 of 30\): Backups: Recovery Models and Backup Types](#)
- [\(Day 8 of 30\): Backups: Planning a Recovery Strategy](#)
- [\(Day 9 of 30\): Backups: Essential BACKUP Options](#)
- [\(Day 10 of 30\): Backups: Backup Testing for Validation](#)
- [\(Day 11 of 30\): Backups: Backup Storage and Retention](#)

These provide a really good grounding for understanding backups, with lots of links for further reading.

One of the things around backups that I think is really not well known at all is the ability to restart an interrupted restore.

A restore operation has a series of stages that it goes through, including:

- Creating and initializing new files
- Copying data and log from the backup files
- REDO recovery during each restore in the sequence
- UNDO recovery at the end of the restore sequence

After each stage, a checkpoint file (not to be confused with database checkpoints) is created in the *BACKUP* directory in the SQL Server instance install path (look in the same place where the *\DATA* and *\LOG* directories are). If the restore operation is interrupted, you can issue the same *RESTORE* command again, and use the *WITH RESTART* option, which will look for a checkpoint file and allow earlier steps in the operation to be skipped. Pretty cool, eh?

For the [very first Insider Newsletter](#) I recorded a short demo on restarting an interrupted restore – check it out!

There are other ways to speed up restore operations:

- Ensure that instant file initialization is enabled on the SQL Server instance performing the restore operation, to avoid spending time zero-initializing any data files that must be created. This can save hours of downtime for very large data files.
- Consider backup compression, which can speed up both backup and restore operations, and of course save disk space and storage costs.
- Consider using multiple backup files, each on volumes on separate drive letters/mount points. SQL Server will recognize this situation and use parallel write threads (one per drive letter/mount point) to write to the files during the backup, and to read from them

during the restore – speeding things up. If you have multiple database data files, a similar I/O parallelism will occur – providing even more of a speed boost.

Call to action: Restoring from backups should be as fast as possible, to reduce your downtime in the event of a disaster. Make sure that you're doing everything you can to allow that to happen – you might be amazed at how much downtime you can save.

I'm curious to hear your thoughts on tricks for speeding up restore operations, so please feel free to [drop me a line](#), treated confidentially of course.

Video Demo

From Glenn:

Following on from the last two Insider newsletters where Paul discussed SQL Server Data Compression, in this video I'm going to describe and demonstrate compression's behavior with some queries against real data, showing the effects of ROW and PAGE data compression on query elapsed time, I/O usage and buffer pool usage.

The video is just over 8 minutes long and you can get it:

- In WMV format [here](#)
- In MOV format [here](#)

You can get the demo code [here](#).

Enjoy!

SQLskills Offerings

As I mentioned above, we have three brand-new classes that we've created, and they're available for registration for deliveries in Bellevue, WA in 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 - 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

Paul@SQLskills.com and Kimberly@SQLskills.com