(March 9th, 2011)

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!

We're still planning a newsletter but every couple of weeks we'll send you out a Quick Tips email with a link to a video demo and a short column - exclusively for SQLskills Insiders.

Paul's Ponderings

One of the misconceptions I'm starting to hear more and more is that storing SQL Server data files on Solid State Drives (SSDs) means you don't have to be concerned about index fragmentation. Right? Wrong!

SSDs speed up access to the data/index pages for sure, but that's where the misconception begins. Index fragmentation mostly affects range scans and the read-ahead mechanism for range scans will do more, smaller I/Os when index fragmentation is present. So even though you have an SSD, SQL Server is still doing more round-trips down and up the I/O stack. Also think about how index fragmentation occurs - page splits. SSDs do nothing to prevent page splits so you're still dealing with all the extra work and logging required for a page split to occur.

Lastly, the other side-effect of index fragmentation is low page density - wasted space on the data/index pages. If many of your pages have around 50% empty space on them, is that a cost-effective use of your ultra-expensive enterprise-class SSDs?

SSDs are fabulous, but they're not a cure-all. You have to make sure you're making the most out of their capabilities.

Video Demo

Paul also recorded a short (6 mins) video showing you the RESTART option for RESTORE, how backup checkpoint files work, and how to look at what's going on under the covers of restore operations and zero initialization using undocumented trace flags.

A little know feature of RESTORE is that you can “resume” where you left off if there’s a failure. For example, imagine that you’re an hour into restoring a 2TB database when the power fails. Instead of completely restarting the restore you can execute the SAME restore command with the RESTART option. Don’t get me wrong, I think this is horribly named as what you're doing with the RESTART option is effectively a RESUME not a RESTART. But it's an awesome feature!

Check out the WMV here and the SQL code here.

Classes

To round up, we just wanted to let you know about our upcoming classes in Chicago in May and London in June (with the $300 'UKInsider' discount code).

Summary

Please let us know if you liked what you read/saw here.

If there is anything else you're interested in, we'd love to hear from you - drop us a line.

Thanks - Paul and Kimberly

(Please let us know if you'd like to be removed from this low-volume list.)