SQL Perform Tools 5.10 Release Note

London, UK, February 26 2015

SQL Perform Tools version 5.10 release

Today we are proudly announcing the latest release of our products' family SQL Perform Tools. For clarity, the product portfolio and naming of our products as follows

SQL Perform Tools

Perform-Tools

- Perform-Analysis
- Perform-Tracking
- Perform-Maintenance

Archive-Tools

- Perform-Archiving
- Perform-Compression
- Perform-Dataport

Main drives for version 5.10 release

It has been almost a year from our SQL Perform Tools 5.00 release. Since then companies started adopting SQL Server 2014, NAV 2013 and NAV2015, and that meant changes and improvements were needed to the Perform-Tools product portfolio.

We have had many archiving projects with extra requirements, such as 4-4-5 calendars, or projects where massive Item Ledger Entry table existed and could not be by any means archived and compressed within a reasonable downtime window. This meant changes and improvements were also needed for the Archive-Tools portfolio.

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Archive-Tools version 5.10

We have had many successful implementations of Archive-Tools out in the market. With this release we have made many improvements and introduced new functionality. The main "themes" for this release were support for custom calendars, NAV2013 and above support, and easier deployment.

New functionality overview

- Full support of "Accounting Period" and "Accounting Period GB" calendars. This means companies running 4-4-5 for example can now compress and archive according to those dates.
- Archive-Tools can now work on NAV 2013 and above databases converted to nvarchar columns.
- Archive-Tools have now Get Data Job collecting the setup tables, registers and Jobs' setup.
- All Archive-Tools granules allow now to run some Perform-Tools functionality. There is therefore no longer a need to have a separate license for Perform-Tools when running Archive-Tools. Of course if customers have a valid Perform-Tools license there is no problem at all. The newly licensed functions are : pt_checksqlversion, pt_cmdshell, pt_companysizes, pt_configure, pt_copylog, pt_dbsetup, pt_dbsetupt, pt_dbsize, pt_dbsizet, pt_delay, pt_dop, pt_gennavfields, pt_gennavindexes, pt_gennavindexes2, pt_gennavindexkeys, pt_gennavtables, pt_gensiftindexes, pt_gensiftindexes2, pt_gensiftindexkeys, pt_gensifttables, pt_gensiftviews, pt_help, pt_init, pt_kill, pt_kill2, pt_makedatefilter, pt_makedatefilter2, pt_sifttonavtablename2, pt_siftversion, pt_siftversion2, pt_sqlsetup, pt_sqlversion, pt_sqlversion2, pt_tableinfo, pt_tableinfo2, pt_testalert, pt_version, pt_who

Improved functionality overview

- pt_calculateopenentriesstock has now a new parameter @itemfilter. It is only possible to use this parameter if there is no use of manufacturing functionality used in the database, but this allows us to run compression of Item Ledger Entries in an "Item by Item" mode whilst users are working in the database.
- Archive-Tools would not work on tables where a column exists of type uniqueidentifier.
- Lock timeout period changed in all Archive-Tools functions from 1 second to 60 seconds.
- Archive-Tools templates for tables 21 and 25 have been updated to handle (move) dimensions to the archive database.
- Archive-Tools pt_sqlname function is made a simpler code. The pt_sqlname2 function is now obsolete.
- pt_compress1table and pt_compress2tables could misbehave when @startdate did not match the corresponding calendar start date (for example when running 4-4-5). Now there is a check that makes sure this is no longer the case. Note also that pt_archive1table and pt_archive2tables now check if the @startdate matches any of the possible period starts, using functions pt_year_start, pt_quarter_start, pt_month_start and pt_week_start.
- Fixes for issues, stability improvements

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Perform-Tools version 5.10

With this release we have made many improvements and introduced new functions. The main "themes" for this release were SQL Server 2014 support, NAV 2015 support and lastly but very importantly the tools simplification.

New functionality overview

- Full support for SQL Server 2014
- NAV 2015 support
- New functions for checking and tracking backups
    - pt_checkbackups
    - pt_trackdbbackup
    - pt_tracklogbackup
- Added alerts on backups overtime
    - "Perform-Tools Backup (Full/Diff) Is Missing"
    - "Perform-Tools Backup (Full/Diff) Is Old"
    - "Perform-Tools Backup (Log) Is Expecting FULL/BULK_LOGGED Recovery"
    - "Perform-Tools Backup (Log) Is Missing"
    - "Perform-Tools Backup (Log) Is Old

Improved functionality overview

- Functions showing T-SQL string, such as "command", "statement", etc can now be shown as XML, nvarchar(max) or short text (or none in some functions)
- All historic tables that stored commands in long format are now normalized. Additionally, a new parameter @command_style was added to the utilities like pt_getblocks, pt_getlocks, etc so that if exported using sqlcmd utility the text could be limited to 3600 characters, or by default shown as long text, or by option as an XML text. This applies to:
    - pt_trackblocks
    - pt_trackblocks2
    - pt_getblocks
    - pt_getblocks2
    - pt_tracklocks
    - pt_tracklocks2
    - pt_getlocks
    - pt_getlocks2
    - pt_trackquerystats
    - pt_trackquerystats_cnt
    - pt_trackquerystats_cpu
    - pt_trackquerystats_reads
    - pt_trackquerystats_time
    - pt_trackquerystats_writes
    - pt_getquerystats

- o pt_getquerystats_cnt
- o pt_getquerystats_cpu
- o pt_getquerystats_reads
- o pt_getquerystats_time
- o pt_getquerystats_writes
- pt_reindex, pt_reindex2 now also record table schema. Additionally a new parameter @maxdop was added to control the Maximum Degree of Parallelism (MDOP) to be used when rebuilding indexes. This can be now used to control MDOP during the maintenance process without a need to change the global MDOP setting of the SQL Server.
- On databases with large number of companies it would take a long time to generate the mappings between Perform-Tools and the NAV database, and run (preparation phase) of the rebuild indexes functions. This has now been addressed.
- When blocks are caused by code in "foreign" databases the tools now show the correct object name
- The pt_tracklogsize has the following changes:
  - o The individual log file sizes utilization is now calculated by analyzing the number of used VLFs in the log file. Therefore if you have say 16 VLFs in a log file of 8GB size, the utilization will be rising step by step - from 500MB to 1GB, 1.5GB, 2GB, etc up to 8GB total used.
  - o The pt_tracklogsize now has a summary TOTAL log size
  - o The summary TOTAL log file size utilization will be calculated from the percentage used reported by SQL Server, therefore linear kind of behaviour, compared to values rising step by step.
  - o The log utilization alert will be made based on TOTAL log utilization, rather than alert on individual log files. That means that if you have multiple logs, the total size will be calculated and only raise alerts on condition when a percentage of the total log size is below the threshold.
  - o There is a new table pt_alertlogsize in which we now setup alert on log size utilization, defaults to 20% free threshold.
- New function pt_jobname (@program_name) can be used to for example show what Job Name is executed in the program_name column in sysprocesses table. Functions pt_blocks, pt_kill, pt_tracksessions, pt_who are now using the new pt_jobname function showing the Job Name in a readable format rather than the default SQL Server hex number.
- Tools simplification
  - o pt_trackblocks2 and pt_tracklocks2 were removed and the functionality of pt_trackblocks and pt_tracklocks is now the same as the removed functions (storing the commands of the sessions in question). Note that pt_getblocks2 and pt_getlocks2 still exist, in case somebody needs to inspect the data in the pt_blockhistory2 and pt_lockhistory2 tables.
  - o pt_querystats2 was removed and the functionality of pt_querystats is now the same as the removed function pt_querystats2.

- o pt_indexanalysis2, pt_siftanalysis2 and pt_tableanalysis2 became obsolete, users should use pt_indexanalysis, pt_siftanalysis and pt_tableanalysis only.
- o pt_reindex2 was removed and a new parameter was added (@online) to enable online rebuild indexes (rather than using pt_reindex2).
- pt_who now shows a session that was killed (in the [status] column) immediately after killing the session happened.
- On systems where somebody "played" with [convertidentifiers] and [invalididentifierchars] columns in [dbo].[ndodbproperty] table the mapping between Perform-Tools and SQL Server could go wrong.
- pt_sqlsetup now shows HADR enabled (SQL2012 and above), BPE enabled (SQL 2014), and it uses a better mechanism to detect LPIM on SQL Server 2008 and above (versus reading errorlog on SQL2005)
- Perform-Maintenance jobs are now clearing the log folder of files that are older than 30 days
- Perform-Maintenance jobs' steps are now showing the steps where there is commented out code with step name that starts with "--", for example "----Terminate users" instead of "Terminate users"
- The GetData job now includes pt_getwaitstats and pt_getwaitstatssum
- Fixes for issues, stability improvements

SQLShield 7.0.6.0
Part of this release is also releasing the latest available version of the encryption tool.

Documentation
There are products manuals that document features and functionalities. Users can also use pt_help function to show short description of the commands available.

SQL Perform Tools 5.10 Release Note

SQL Perform Release Strategy

We are aiming to release a new version of the tools on a yearly basis. This will be driven either by new features, or new product releases of SQL Server or Dynamics NAV for example.

After each release (RTM = Release to Manufacturing), we will be releasing Cumulative Update (CU) releases. This will be either immediately after some significant changes have been made, or after the number of individual small fixes makes the CU release justifiable.

Hence on the product download page (http://sqlperform.com/downloads/) you will find RTM download as well the latest CU download. You will see there is already Perform-Tools 5.10 Cumulative Update 1 download available (fixing all the known issues we found after internal release of the tools).

Downloading the product and documentation

Partners can download the product from the download area on www.sqlperform.com.