

Efficient SQL Tuning of Big Workloads



SQLQC is designed to help DBAs and developers alike to analyze SQL statements. It is the tool of choice when it comes to managing workloads. Not only does SQLQC check various criteria such as run time, CPU or lock wait time, it also offers helpful features like an index advisor or an impact analysis.

Whereas the index advisor analyzes the workload and suggests enhancements for the index setup including existing and new indexes, the impact analysis even goes one step further: Everybody working with SQL tuning knows the problem that a new index can speed up one or the other query but nobody can predict the impact on the whole SQL workload. It gets even more complex if one analyzes the deletion of possible unnecessary indexes. Considering today's workloads, such analysis can't be done manually anymore.

SQLQC is a tuning tool that does not only support the DBA with his daily work but also the developer to achieve best quality of their SQL statements. Additionally, SQLQC's index simulation guarantees ease of use and smooth operations every day.

The index simulation provides the option to create virtual indexes which means that you can check SQL statements and simultaneously run "WHAT IF" analyses. These analyses can be done for individual SQL statements as well as for entire workloads (all SQL in a given time frame).

Benefits of SQLQC:

- Compilation of all executed SQL statements in any given time frame
- History of SQL statements over time (CPU, run time, IO, etc.)
- Recognition of access path changes even if there are months between two executions
- Breakdown of SQL statements by their class 3 wait times
- Cost efficient data pooling: No expensive traces required
- Includes index advisor, index simulation and impact analysis
- Ad hoc simulations of index advisor recommendations: Impacts on statements can be checked without actually creating indexes
- With the impact analysis get answers to questions like: What happens to the workload if a new index or several indexes re created or dropped? How will the CPU consumption of the workload change?
- Classification of SQL groups with comparable patterns which makes it possible to also consider short, fast SQL during the tuning process
- Zoom functions in the graphical user interface allow to build relations like: What statements are executed on which table? Or: Which user has executed which statements yesterday? The graphical user interface clearly prepares all information. The user could do simulations at hoc without disturbing the production.
- SQLQC involves Optimizer information. So it is possible to find wrong optimizer estimations.
- Access path monitoring: Changes of the access path of a statement could be recognized easily with the history function.
- SQLQC supports static and dynamic SQL.