

BMC® APPTUNE for DB2



Benefits

- > Prevents problems in SQL statements and poorly tuned DB2 objects
- > Collects detailed and extensive DB2 performance and usage data without impacting system resources
- > Provides ability to view information for all subsystems in the sysplex from a single point of control
- > Increases DBA and application programmer productivity and efficiency
- > Exploits the functions and features of DB2 version 8.1

BUSINESS CHALLENGE

The demand for improved application time continues to increase, as does pressure for IT departments to accomplish more with fewer resources. Consequently, fewer technical experts are being asked to solve increasingly complex problems with immediate ROI and smaller budgets.

BMC SOFTWARE SOLUTION

APPTUNE for DB2 alleviates problems caused by inefficient or runaway SQL statements. It provides the most accurate information on SQL statement performance and DB2® Universal Database for z/OS and OS/390 object performance characteristics while minimizing resources consumed in gathering information. This data can then be used to maximize SQL statement and DB2 object efficiency, thus improving application and overall system performance.

EFFICIENT SQL TUNING

APPTUNE quickly identifies the largest resource-consuming, performance-constrained, or error-prone SQL statement. It helps with tuning SQL statements in all phases of the application life cycle:

- > During the analysis phase, APPTUNE provides tuning information about the potential performance problems of SQL statements. This information can be used to determine expected performance and user response time.
- > During the test phase, APPTUNE can be used to determine the potential impact of SQL statements on the workload dynamics of the target DB2 subsystem.
- > During the production phase, APPTUNE can help with the regular monitoring of SQL statements to evaluate the resource consumption of individual statements and to determine whether the degree of consumption changes as data volumes increase.

WHY EXPLAIN IS NOT ENOUGH

Without EXPLAIN-generated information, all levels of tuning except system-level tuning would be impractical. However, EXPLAIN processing only provides information about how DB2 will resolve an SQL statement; it does not provide information about the cost of resolving a statement in terms of actual resource consumption and elapsed time. Although other similar products can provide estimates of resource usage based on extracted data such as TIMERONS, the TIMERON value by itself does not provide the information needed to determine the actual performance of an SQL statement.

BMC Software developed an exclusive processing measurement technology called *IN-SQL* that identifies actual SQL performance characteristics by excluding DB2 overhead in its calculation. Consequently, IN-SQL is a much more precise measurement of actual SQL processing time than TIMERONS, for example. IN-SQL enables a DBA or application developer to more accurately isolate the exact way that an SQL statement is executing. It lets them focus on those statements for which changes will positively affect performance. APPTUNE collects DB2 usage and performance data at the level of unique SQL text, enabling users to pinpoint those statements that affect response time. This function offers flexible granularity by identifying SQL for plans and programs that execute different queries from a single plan, program, or section number combination.

MINIMIZES DB2 OVERHEAD

DB2 performance monitors offer detailed SQL performance data and require a very high overhead DB2 SQL trace to execute—as high as 50%. Consequently, application programmers and DBAs tend to avoid using SQL traces. APPTUNE reduces the overhead significantly for most applications. You can run APPTUNE continuously to capture accounting statistics for every static and dynamic SQL statement, enabling you to monitor SQL more frequently to ensure optimized system and application performance.

DB2 SUBSYSTEM VIEW

APPTUNE quickly identifies resource-consuming DB2 objects while allowing you to view the SQL statements accessing the object. This feature enables you to prioritize SQL statements for tuning, concentrating on the most problematic ones. APPTUNE also provides the ability to collect data from all DB2 subsystems on all of the MVS images in the sysplex. This allows you to analyze collected data by individual DB2 subsystem, or to analyze data aggregated from multiple DB2 subsystems to yield the most complete picture of all.

EASY TO LEARN AND USE

To complement its functionality, APPTUNE provides a user interface and analysis capabilities that have been designed for completeness and ease of use. To aid in analysis, APPTUNE offers reports in two formats: a traditional, numeric format and an easy-to-understand graphical format. Users can choose the format of the data displayed and can change their

choice during reporting sessions. Both report formats allow you to expand to multiple levels of performance data to get to the data that you need to see. In addition, you can view all reports online or run them in batch.

SQL PERFORMANCE FOR DB2 SOLUTION

APPTUNE for DB2 is available as a stand-alone product or as a component in the SQL Performance for DB2 solution. The SQL Performance for DB2 solution provides assistance throughout the entire application life cycle. Not only does the solution provide all the capabilities found in APPTUNE for DB2, it also provides online analysis of SQL statements extracted from any source where SQL is exposed, such as stored procedures.

Helping you maintain advantage

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