



QuickSelect for DB2

QuickSelect for Db2 is a software appliance that caches frequently requested Db2 data in memory above the bar. QuickSelect improves online performance, reduces batch job run times and saves CPU. Non-invasive installation. No changes to application code, JCL or Db2.

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The Db2 Performance Optimization Challenge

You've reached the point of diminishing returns in your efforts to optimize Db2 applications and databases. What can you do now to improve online Db2 application performance? How can you continue to reduce Db2 batch job execution time? Where are additional performance gains to come from?

Performance gains x3-5 VS Buffer Pools

Dramatic CPU Savings

Plug-and-Play Software Appliance

No Changes to Code, JCS or Db2

No Dependencies - Turn On or Off in Production

QuickSelect for Db2 Performance Gains and CPU Savings

With these challenges in mind, QuickSelect for Db2 performance was developed to provide immediate and risk-free Db2 application and batch job performance improvements and cost savings. It operates transparently, concentrating exclusively on HOW the data is used, rather than on what the application does. Best of all, it installs dynamically and requires zero changes to existing systems.

Excessive CPU and execution time are consumed by SQL retrieving the same result sets over and over from reference/code/lookup and other slow-to-change tables. When the result sets are stored in and served from high performance cache outside Db2, online and batch performance gains are dramatic and mainframe CPU resource is saved. In comparison, a round trip to Db2 is slow and expensive, even when the requested data is already in a Db2 buffer pool!

QuickSelect for Db2 is a plug-and-play 'software appliance' that benefits both Batch and Online environments (CICS and IMS/TM). It determines when a given static SQL statement is repetitively requesting the same result set, caches that result set in high-performance, above-the-bar main memory, and each time the statement executes, returns the same answer from Cache as would Db2, but much faster and at a much lower cost. As a result, online performance improves and batch jobs run faster. Db2, CICS and IMS/TM resource is freed up for other work. SQL requests serviced from QuickSelect Cache see performance gains of 3-5x when compared to the same data retrieved from Db2 buffer pools!

QuickSelect always returns the same answer and/or behaves exactly as DB2 would – it is transparent to the rest of the system. It can be switched on or off, is not embedded in your systems, is completely transparent to applications, and ensures complete data integrity of cached result sets with respect to the contents of the underlying Db2 tables.

Benefits and Savings

- Saves CPU and database I/O for programs that access the same table data very frequently – up to 85% CPU and I/O savings. Frees Db2 to service other requests.
- Improves online response times and reduces batch job elapsed times. QuickSelect returns results fast.
- All Benefit. No Work. QuickSelect delivers ‘Plug-and-Play’ performance gains and CPU savings without risky, time-consuming modification of code, JCL and/or database design. No upfront and tedious application analysis and modification.
- A great way to improve the performance of old, inherited or packaged applications where code and database changes may be all but impossible.
- Immediate ROI. See dramatic performance gains immediately after QuickSelect goes online. No learning curve, no wait for development, no wait for database tuning, no project.
- QuickSelect does not interfere with other data management processes. It incurs zero overhead on Db2. In fact, it saves Db2 substantial work.
- Pays for itself by driving down CPU utilization and associated hardware and software costs.

Features and Capabilities

- Identifies and caches frequently requested SQL result sets in memory above the bar. Each cached result set saves multiple expensive round trips to Db2.
- Interfaces between the application and Db2 but is totally transparent to both. No application, JCL or database changes are required.
- Ensures data integrity by immediately invalidating cached result sets when the corresponding table data in Db2 is modified. No dirty reads!
- Built-in SURVEY Mode – automatically identifies those SQL that repetitively request the same result sets and identifies the tables that need to be ‘enabled’ to QuickSelect for SQL caching. No need for manual analysis.
- Non-intrusive installation. installs via SMP/E and includes an Installation Verification Program for Batch, CICS and IMS/TM. No compile or re-link is required. QuickSelect has a dynamic hook for all environments. Can be rolled out in a staggered fashion (e.g. Job, Jobstep, CICS Transaction(s), PSB’s, Programs and Tables).
- Full support for data sharing across Db2Plex. An instance of QuickSelect is installed on each of the servers in the Db2Plex and these instances communicate with each other through a standard XCF facility.
- Quantify the gains. Run the job or workload with and without QuickSelect and compare the results!

