



IBM DB2 Buffer Pool Tool

Technical Summary

IBM DB2® Buffer Pool Tool is designed to help performance analysts evaluate tuning alternatives and achieve optimal database performance with minimal effort. While DB2 online performance monitors can tell you when something is wrong, it can often be difficult and time consuming to determine the most appropriate remedy. DB2 Buffer Pool Tool can take the guesswork out of buffer pool tuning and help you avoid costly mistakes.



Accurate tuning of buffer pools is one of the most critical factors in improving DB2 performance. To get the most out of your system resources, DB2 Buffer Pool Tool gives you comprehensive statistical data and easy-to-read reports and graphs for all pools and objects.

DB2 Buffer Pool Tool is the ultimate tuning aid. It provides you the capability to:

- *Shorten problem analysis time*
- *Optimize memory usage*
- *Save CPU cycles*
- *Improve response times*
- *Reduce the cost of DB2 workloads.*

Low overhead

The last thing you want is a performance tool that causes more performance problems than it solves because it uses too much overhead in collecting statistical information.

The advantage of the DB2 Buffer Pool Tool is that it uses the IFI interface and its own data collection facility to avoid the costly overhead associated with other tools. Further, unlike other trace facilities, DB2 Buffer Pool Tool easily and efficiently processes a meaningful data collection interval (greater than thirty minutes).

Detailed statistical analysis

DB2 Buffer Pool Tool provides unique and highly detailed statistical analysis. It shows you exactly how the pool and objects are used. The extensive statistics include:

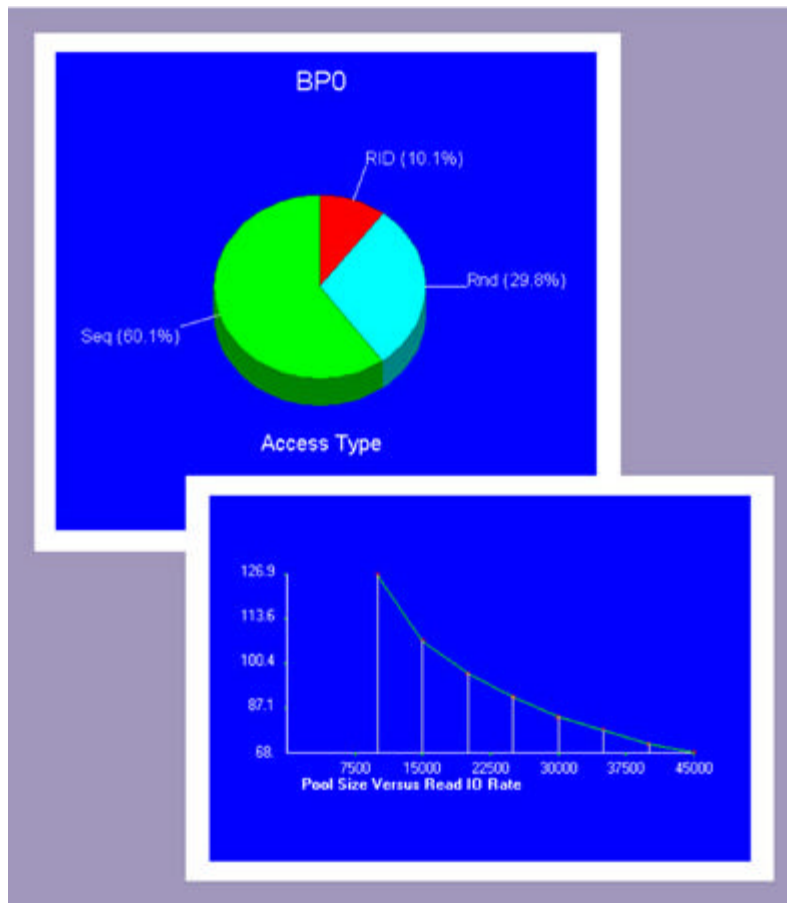
- System and application hit ratios
- Get page activity and I/O rates
- Random access activity
- Prefetch (including dynamic and list) access activity
- Read and write I/O activity
- Average and maximum I/O elapsed times
- Random page hiper-pool retrieval
- Average page residency times
- Average pages/write.

In addition, the statistical analysis is ranked for each object within each pool. Statistical object usage analysis is provided for Plan and AUTHID.

Expert knowledge

DB2 Buffer Pool Tool provides the most comprehensive set of data related to DB2 activity available today. It synthesizes, summarizes and analyzes this information so you won't suffer from an information overload, nor will you have "analysis paralysis," which is common with other types of tuning aids. In addition, you can optionally adjust a threshold to bypass reporting for objects having very low usage rates.

DB2 Buffer Pool Tool makes it easy to see clearly which objects perform the poorest or the best and the impact each has on its current pool. DB2 Buffer Pool Tool output helps determine which objects will benefit the most from changes.



Not only does DB2 Buffer Pool Tool provide easy-to-read reports and graphs, it also offers general tuning advice based on information gathered from your environment. For example, recommendations can range from separating indexes from tablespaces to moving Sort Work objects into their own pool or lowering the virtual write threshold.

Additionally, as you move to a data sharing environment, DB2 Buffer Pool Tool can be invaluable in providing initial sizing specifications for the coupling facility structures. Proper tuning and sizing of the existing pools and the proper grouping of objects into pools are critical factors for the success of your Data Sharing Sysplex.

Powerful simulation

DB2 Buffer Pool Tool gives you powerful simulation capabilities to determine how best to optimize memory usage, eliminate I/O and improve response times. It allows you to predict effectively what the impact of moving objects within an existing or new pool will be. DB2 Buffer Pool Tool turns tuning into a scientific process by allowing you to perform "what if" analyses to evaluate various scenarios.

DB2 Buffer Pool Tool has advantages over online monitors and other DB2 subsystem analysis aids since it can:

- Predict system performance levels at varying pool sizes
- Predict improved object performance within each pool

- Model threshold adjustments in VPSEQT or HPSEQT.

Further, DB2 Buffer Pool Tool is more effective and accurate than pool isolation tuning techniques because it shows the interaction between multiple objects within a pool.

DB2 Buffer Pool Tool gives you the advantage to completely model the effects that proposed changes may have without impacting the operating DB2 system. Up to eight simulation sizes for a pool can be done with one pass of the data.

Obtaining DB2 Buffer Pool Tool

DB2 Buffer Pool Tool is one of several features and tools offered with DB2 Universal Database™ Server for OS/390® Version 6:

- [DB2 Administration Tool](#)
- DB2 Buffer Pool Tool
- [DB2 DataPropagator™](#)
- [DB2 Extenders™](#)
- DB2 Management Tools Package
 - [DB2 Control Center](#)
 - [DB2 Estimator](#)
 - [DB2 Installer](#)
 - [DB2 Visual Explain](#)
- [DB2 Performance Monitor](#)
- [DB2 Utilities](#)
- [Net.Data®](#)
- [QMF Family](#)
- [QMF for Windows](#)
- [QMF High Performance Option](#)

Connecting to DB2

[IBM DB2 Connect™](#) enables remote access to data stored in DB2 Universal Database for OS/390 from UNIX®, Windows and OS/2 applications.

How to order

When ordering DB2 Buffer Pool Tool, DB2 Universal Database Version 5 and earlier customers should specify program number 5697-D16. For DB2 Universal Database Version 6 customers, DB2 Buffer Pool Tool is a priced optional feature. DB2 Universal Database Version 6 customers should specify program number 5645-DB2.

Try-and-buy program

You will receive DB2 Buffer Pool Tool Version 6 when you order DB2 Universal Database for OS/390 Version 6. Test it, free of charge, for a trial period of 90 days. If you decide to keep DB2 Buffer Pool Tool, you can order it any time during the trial period. If you do not acquire a license before the trial program ends, DB2 Buffer Pool Tool will be deactivated on your system. You can reactivate it, however, with a module that can be ordered separately. It is not necessary to reinstall DB2.

To find out more

If you'd like to learn more about DB2 Buffer Pool Tool, contact your IBM marketing representative or visit our Web site at www.ibm.com/software/db2os390/.



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*IBM Corporation
Santa Teresa Laboratory
555 Bailey Avenue
San Jose, CA 95141*

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