

Enhancements

This section provides an overview of the enhancements for Adabas Fastpath Version 8.1.

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Efficiency Enhancements

Adabas Fastpath Version 8.1 has been evolved to provide better internal management of direct access cache memory. The goal for these changes is to provide a combination of more optimization for client sessions, less overheads in Adabas and less overheads in the Buffer Manager. These benefits will normally only be noticed in high-volume situations where the cache is completely filled and also from the internal processing of achieving cache coherence, where database transactions are reflected accurately, and immediately in the cache. In laboratory tests of 8.1 Software AG made the following observations:

- Adabas cpu reduced:

This is a reflection of more efficiently processing modification (update, insert, delete). The amount of saving is related to the amount of modification made to cached data.

- Buffer Manager cpu consumption:

Consumption remained the same as in Version 7.4. However, in a 24*7 high-volume production situation it is expected to improve.

- Client job cpu reduced:

This cpu reduction was observed as a direct result of managing the cache content better, rather than by new optimization command types. For example, Version 8.1 will reduce "set resets" in many situations, as a result data remains in the cache longer providing more optimization opportunities.

In gaining these benefits you may see the following:

- Fewer set resets

Improved internal efficiencies has meant exclusive locking is reduced which in turn means less need to complete refresh sets

- More collisions in sets

With less set resets there is more productive data in the cache and consequently more collisions can be expected, these are harmless

- More RLU in sets

With more productive data in the cache and improved techniques for processing modifications there is more accurate cache coherence, RLU reflects this state, which in turn should provide more opportunity to improve optimization

There may be some slow-down in the way the content of the cache builds up with Version 8.1. This is inevitable with the efficiency changes that have been made but this is generally not noticeable in production systems.

Enhanced Optimization Levels

Direct access optimization can now be achieved on descending binary and alpha sets.

Alternate Configuration File

Many sites consider the configuration file to be a critical point in operations. Consequently, availability is critical. Fastpath now works with the Adabas System Coordinator to provide an alternate file facility so that if one or the other becomes unavailable the other is used automatically and dynamically. The switching to alternate is done on a session by session basis, dynamically. This means that at any point in time some sessions may be using a different file to others. This is as intended. If you wish to force all sessions to use the same file you can make the other unavailable for a long period and all session will move to it over time

Note:

It is your responsibility to make sure the contents of both configuration files are identical. See the *Adabas System Coordinator* documentation for more details.

Autorestart at a Specific Time

A buffer parameter allows the time of autorestarts to be chosen to coincide with a system quiet time.

Buffer Parameter to Support Synchronous Remote Updates

Multi-systems environment with distributed caching can now control the distributed cache coherence to be either synchronous or asynchronous.

Improved Accuracy of AFLOOK Predictions

The potential benefits of using Fastpath are now more accurately reported when using AFLOOK.

Support for Caching Secured Files

Data for secure Adabas files is now allowed into the direct-access cache if the DBA specifies it is allowed using a new file parameter. This is not usually recommended but some sites are configured in a way that makes this possible.