IBM DB2 for i: Tips

Reusing deleted records

Are there any drawbacks to reusing deleted records?

Q: We are considering using the REUSEDLT(*YES) option on the CRTPF command. The physical file has a fairly consistent pattern of adding blocks of records and then deleting them. It seems like this option would keep the file at a more reasonable size.

Are there any drawbacks to using this option? Is it ok that the file is journaled and under commitment control? Why isn't *YES the default on this option?

A: There are some things to keep in mind when using REUSEDLT(*YES). Which is why *YES is not the default. If you always want to to reuse deleted records you can do a Change Command Default (CHGCMDDFT) to change the default parameter to *YES. The command to do this is as follows: CHGCMDDFT CMD(CRTPF) NEWDFT('REUSEDLT(*YES)')

Arrival order will no longer have any meaning. Records might not be added to the end to the file.

End-of-file delay does not work

Relative record number processing should no longer be used

Files used as queues should not reuse deleted record space

There are special considerations when using logical files that use LIFO or FIFO ordering.

For full detail please reference the AS/400 Database Guide (SC41-9659-02) page 5-3. There is also some information on page 2-3 & 2-4.

Journaling does work differently when *YES is specified in the REUSEDLT parameter instead of *NO, but journaling works fine in either case. When a database record is written to a journaled file that specifies REUSEDLT(*NO), a PT "Record written to member" entry is generated in the journal. When a database record is written to a journaled file that specifies REUSEDLT(*YES) and the write operation did not find a deleted entry to use, a PT entry is still generated in the journal.

The difference comes when a record is written to a journaled file that specifies REUSEDLT(*YES) and the write operation actually reuses a deleted record position in the file. When a deleted record position is actually reused, a PX "Record added directly to member" entry is written to the journal. APYJRNCHG and RMVJRNCHG properly handle both the PT and PX entries, and always applies or removes the correct record image to the correct record position in the file.