Large standard IDMS buffers in XA, huge sequential pre-fetch buffers in XA or ESA dataspaces. Efficient EXCP I/O's to read/write CYL's, TRK's or individual pages.

DB-MEGABUF

Utilize efficient EXCP I/O's and allocate up to two gigabytes of standard IDMS buffer pools in XA above the 16 meg line.

DB-SEQUENTIAL

Utilize efficient TRKs/CYLs EXCP I/Os and allocate huge sequential pre-fetch buffers in XA or ESA dataspaces. Automatically detect sequential processing in both forward and backward direction.

Software Solutions for the 90's and Beyond

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DB-MEGABUF

Utilize efficient EXCP I/O's and allocate up to two (2) gigabytes of standard IDMS buffer pools in XA above the 16 meg line.

AT RUN-TIME...

First, DB-MEGABUF intercepts the buffer pool allocation and proceeds to allocate large standard IDMS buffer pools in XA above the 16 meg line, as per your specification

▼

When a Page is requested, IDMS first searches the IDMS buffer pools. ***If the Page is found in these large buffer pools, an I/O is saved***

▼

If the Page is not found, IDMS issues a Read

▼

DB-MEGABUF intercepts the Read and issues an EXCP Read directly into the larger standard IDMS buffer pools now residing in XA above the 16 meg line

DB-SEQUENTIAL

DB-SEQUENTIAL enables unlimited sequential pre-fetch buffers in XA or ESA. These sequential buffers are populated by forward or backward Reads/Writes of TRK's/CYL's.

DB-SEQUENTIAL utilizes separate sequential buffers, thus eliminating the potential for buffer pool "thrashing."

DB-SEQUENTIAL greatly speeds up your Unload/Reloads, index re-builds, re-structures, CV and Local mode area/index sweeps.

DB-SEQUENTIAL's unique Database-In-Memory feature enables you to define areas or files to be maintained fully in memory. Data is only read once from disk.

With DB-SEQUENTIAL, you may allocate the VB50's (currently below-the-line storage) in XA storage above the 16 meg line.

AT RUN-TIME...

When a Page is requested, IDMS first searches the IDMS buffer pools.Only if the Page is not found, IDMS issues a Read.

▼

DB-SEQUENTIAL intercepts the Read and searches for the Page in the sequential pre-fetch buffers. These buffers are filled utilizing Track and Cylinder Reads. DB-SEQUENTIAL moves the Page to the IDMS buffers, thus saving an I/O.

The status of the sequential pre-fetch buffers can be active (ACTV) or quiesced (QSCE). The QSCE status is due to lack of recent sequential activity.

```
DB-MEGABUF+ R4.1                                                    V0040  08:17:54 95.235
                    *** SEQUENTIAL PRE-FETCH BUFFER STATISTICS   ***
 COXS Name: COXASEQ   Hiccup    256 Chap   0   0 MaxCache      0 HWM     856
 DMCL Name: DMGLBUT                         InUseCache    792 Qintvl     1

File-Name                  SeqIO    PFB#    PFB  Read-IO  Read-IO  PFB     Excps
                                   Pages Size-k Requests    EXCPs Hit%     Saved
-----------------------------------------------------------------------------------
DLOGDB                      ACTV       10     89     1281      231  82%      1050
DRUNDB                      QSCE        0      0     2505      501  80%      2004
DF0001A                     QSCE        0      0  1615464   242319  85%   1373145
DF0002A                     QSCE        0      0   810764    81076  90%    729688
DF0003A                     ACTV       46    115   676547    13531  98%    663016
DF0004A                     ACTV       69    223  1237543    24750  98%   1212793
DF0005A                     ACTV       86    245  1326890    17249  99%   1309641
DF1001B                     QSCE        0      0   743587   133845  82%    609742
DF1002B                     ACTV       24    120   616548   160302  74%    456246
-----------------------------------------------------------------------------------
TOTALS                                235    792  7031129   673804  90%   6357325

<CLEAR> EXIT   <PF7> UP   <PF8> DOWN   <PF09> SWITCH
ENTER COMMAND BELOW>
```

This is the sequential pre-fetch buffers pay-back. It indicates how efficient the buffers are and how many I/O's have been saved.

Shutdown statistics for sequential pre-fetch buffers

```
20 SEP 95  9:53                DB-MEGABUF SEQUENTIAL PROCESSING
                    JOB: IDMSD2   DMCL: DMGLBD2  COXASEQ: COXASEQ
                              I/O STATISTICS AT FILE CLOSE
FILE        BLOCKS SEQ-BUFFER-ALLOCATION  I/O   IDMS I/O   SEQ I/O HIT%    EXCPS  QSCE  DB IN  MNTR  UPD
NAME     ALLOCATED C/T SZ  #    MAX SIZE TYPE   REQUESTS     EXCPS          SAVES        MEM   Y/N TYPE
DB2256A01     2790 CYL  1  4       2631K READ    3186491     27085  99%  3159406    Y     N     Y   REF
DB2256A02     2790 CYL  1  4       2631K READ    2614796    261480  99%  2926795    Y     N     Y   REF
DB2256A03     2790 CYL  1  4       2631K READ    3001461     36018  99%  2965443    Y     N     Y   REF
DB2256A04     2790 CYL  1  4       2631K READ    2147932     21050  99%  2126882    Y     N     Y   REF
DB2256A05     2880 CYL  1  4       2715K READ    2961372     32576  99%  2928795    Y     N     Y   REF
DF001A01      3420 TRK  2  5       1034K READ     331698    132016  60%   199682    Y     N     N   REF
DF002A01      3008 TRK  2  2        560K READ    1047927     83834  92%   964093    Y     N     N   REF
DF003A01      3940 TRK  1  6       1090K READ    3941270    114297  97%  3826973    Y     N     N   REF
TOTALS                                     READ  19232949    708356  96% 18524593

IDMSD2    STARTUP  20 SEP 95  5:[illegible]    SHUTDOWN  20 SEP 95  9:51
```

CYL/TRK EXCP's and max size of buffers. Buffers are allocated only when needed.

Payback and efficiency for the job

Monitor="Y" means that DB-SEQUENTIAL will determine when and how to utilize sequential I/O's

Dare to compare! DB-SEQUENTIAL will beat IDMS 12.x sequential processing feature hands-down. Seeing is believing-try it with an Unload/Reload.

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