

Tworzenie Instancji i konfiguracja połączenia:

alias:

```
5 SERVERNUM 33 # Unique id corresponding to a server instance
6 DBSERVERNAME ol_kr # Name of default Dynamic Server
7 DBSERVERALIASES ol_kr2 # List of alternate dbserver names
8 FULL_DISK_INIT 0
9
10 #####
11 # Network Configuration Parameters
12 #####
13 # NETTYPE - The configuration of poll threads
```

onmode -ky

server był wyłączony

starts ol_kr

włącza server

logowanie:

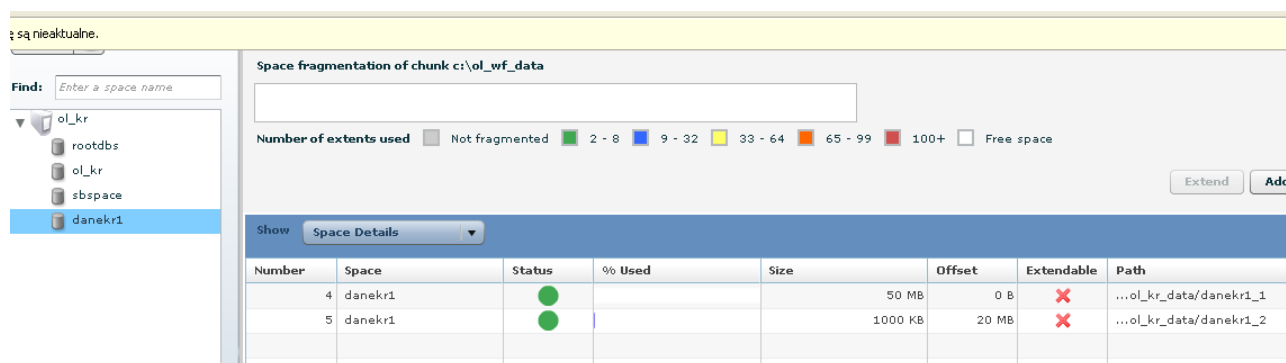
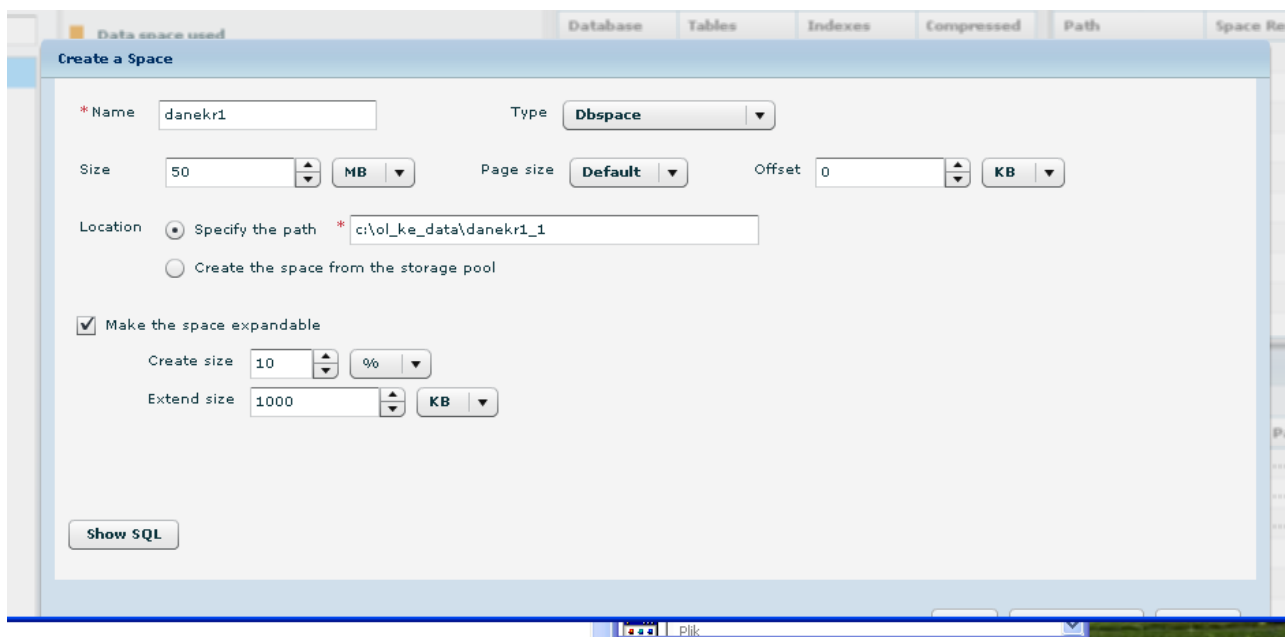
Server Details	
Informix Server	<input type="text" value="ol_kr"/>
Host Name	<input type="text" value="localhost"/>
Port	<input type="text" value="9094"/>
Username	<input type="text" value="informix"/>
Password	<input type="password" value="....."/>
Informix Protocol	<input type="text" value="onsoctcp"/>
<input type="button" value="Login"/>	

zalogowano:

Server:	<input type="text" value="ol_kr@localhost"/>	<input type="button" value="↩"/>	<input type="button" value="?"/>
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Zarządzanie przestrzenią dyskową:

Tworzenie 1 przestrzeni:



analogicznie postępujemy dla przestrzeni 2

Dodajemy mirrory do przestrzeni1

```
onspaces -m danekr2 -p "C:\ol_kr_data\danekr2_1" -o 0 -m
"C:\ol_kr_mirror\danekr2_1.mir" 0 -p "C:\ol_kr_data\danekr2_2" -o
0 -m "C:\ol_kr_mirror\danekr2_2.mir" 0
```

Dla logów analogicznie, mirrory:

```
onspaces -m logkr -p "C:\ol_kr_log\logkr" -o 0 -m
"C:\ol_kr_mirror\logkr.mir" 0
```

wyniki:

```

IBM Informix Dynamic Server Version 11.70.TC2DE -- On-Line -- Up 02:07:54 -- 78208 Kbytes
Dbspaces
address number flags fchunk nchunks pgsz owner name
0EE0C820 1 0x60001 1 1 4096 N BA informix rootdbs
0EE0C1988 2 0x60002 2 1 4096 M BA informix ol_kr
0EE0C1A98 3 0x60002 3 1 4096 M SBA informix sbspace
0FB67BB8 4 0x60001 4 2 4096 N BA informix danekr1
0FA70B28 5 0x60002 6 2 4096 M BA informix danekr2
0FA70C98 6 0x60002 8 1 4096 M BA informix logkr
0FA68668 7 0x60001 9 1 4096 N BA informix tmp1_kr
0F9BF3C8 8 0x60001 10 1 4096 N BA informix tmp2_kr
8 active, 2047 maximum

Chunks
address chunk/dbs offset size free bpages flags pathname
0EE0C990 1 1 0 51200 18236 0 PO-B-D C:\IFMXDATA\ol_kr\rootdbs_dat.000
0EE0C1C68 2 2 0 51200 51147 0 PO-B-D C:\IFMXDATA\ol_kr\ol_kr_dat.000
0F3C21F8 2 2 0 51200 0 0 MO-B-D C:\IFMXDATA\ol_kr\ol_kr_mirr.000
0F3C2018 3 3 0 51200 47745 47745 POSB-D C:\IFMXDATA\ol_kr\sbspace_dat.000
Metadata 3402 2194 0
0F3C23D8 3 3 0 51200 0 0 MOSB-D C:\IFMXDATA\ol_kr\sbspace_mirr.000
0F6CC018 4 4 0 12800 11729 0 PO-B-D c:\ol_kr_data\danekr1_1
0FA71CF0 5 4 5120 250 247 0 PO-B-D c:\ol_kr_data\danekr1_2
0FA673C8 6 5 0 10240 9169 0 PO-B-D C:\ol_kr_data\danekr2_1
0FA67B38 6 5 0 10240 0 0 MO-B-D C:\ol_kr_mirror\danekr2_1.mir
0FA67958 7 5 0 7680 7677 0 PO-B-D C:\ol_kr_data\danekr2_2
0FA67D18 7 5 0 7680 0 0 MO-B-D C:\ol_kr_mirror\danekr2_2.mir
0FA67EF8 8 6 0 7680 7627 0 PO-B-D C:\ol_kr_log\logkr
0FA68408 8 6 0 7680 0 0 MO-B-D C:\ol_kr_mirror\logkr.mir
0FA687D8 9 7 0 7680 7627 0 PO-B-D c:\ol_kr_tmp\tmp1_wf
0F9BF538 10 8 0 7680 7627 0 PO-B-D c:\ol_kr_tmp\tmp2_kr
10 active, 32766 maximum

NOTE: The values in the "size" and "free" columns for DBspace chunks are
displayed in terms of "pgsz" of the DBspace to which they belong.

Expanded chunk capacity mode: always

```

Wolne miejsce:

Danekr1	11729 + 247
Danekr1	9169 + 7677
logkr	7627
tmp1_kr	7627
tmp2_kr	7627

Zarządzanie logami:

Przysuwamy logi:

```
onparams -p -s 14000 -d logkr
```

dodajemy logi logiczne

```
onparams -a -l -d logkr
```

usuwamy logi z rootdbspace

```
onparams -d -l 1
```

```
onparams -d -l 2
```

```

C:\Program Files\IBM\Informix\11.70>onparams -p -s 14000 -d logkr
Do you really want to change the physical log? (y/n)y
Log operation started. To monitor progress, use the onstat -l command.
** WARNING ** Because the physical log has been modified, a level 0 archive
must be taken of the following spaces before an incremental archive will be
permitted for them: logkr
(see Dynamic Server Administrator's manual)

```

```
C:\Program Files\IBM\Informix\11.70>onparams -a -d logkr
Log operation started. To monitor progress, use the onstat -l command.
Logical log successfully added.

C:\Program Files\IBM\Informix\11.70>onstat -l

IBM Informix Dynamic Server Version 11.70.TC2DE -- On-Line -- Up 00:07:25 -- 78208

Physical Logging
Buffer bufused bufsize numpages numwrits pages/io
P-2 0 32 95 24 3.96
phybegin physize phypos phyused %used
8:53 3500 121 0 0.00

Logical Logging
Buffer bufused bufsize numrecs numpages numwrits recs/pages pages/io
L-1 0 16 491 105 102 4.7 1.0
Subsystem numrecs Log Space used
OLDRSAM 472 59988
HA 19 836

address number flags uniqid begin size used %used
0F634810 7 U---C-L 7 8:3553 2500 28 1.12
0F660BC8 11 A----- 0 11:7503 2500 0 0.00
0F660B80 12 A----- 0 11:10003 2500 0 0.00
0EE0CFA8 1 A----- 0 11:3 2500 0 0.00
4 active, 4 total
```

Zarządzanie przestrzenią dyskową 2

Tworzenie tabeli tab1_kr

```
create table db1_kr:tab1_kr(
    id int,
    nazwa char(1200)
)
```

```
alter table db1_kr:tab1_kr ADD CONSTRAINT PRIMARY KEY (id);
```

wypełnianie:

```

CREATE PROCEDURE sampleData()
  DEFINE i INTEGER;
  FOR i = 1 TO 30000
    INSERT INTO db1_kr:tab1_kr VALUES(i, "ala ma psa");
  END FOR;
END PROCEDURE;
call sampleData();

log logiczny:

```

```

C:\Program Files\IBM\Informix\11.70>onstat -R
IBM Informix Dynamic Server Version 11.70.TC2DE -- On-Line -- Up 00:19:27 -- ?
Buffer pool page size: 4096
8 buffer LRU queue pairs
# f/m pair total % of length priority levels
0 f 1250 98.6% 1233 1093 140
1 m 1.4% 17 15 2
2 f 1250 98.8% 1235 1096 139
3 m 1.3% 16 15 1
4 f 1250 98.6% 1233 1094 139
5 m 1.4% 17 16 1
6 F 1250 98.6% 1233 1093 140
7 m 1.4% 17 18 0
8 f 1250 98.6% 1233 1093 140
9 m 1.4% 17 16 1
10 f 1250 98.5% 1231 1091 140
11 m 1.5% 19 15 4
12 f 1250 98.5% 1231 1091 140
13 m 1.5% 19 17 2
14 f 1250 98.3% 1229 1089 140
15 m 1.7% 21 20 1
143 dirty, 10001 queued, 10000 total, 16384 hash buckets, 4096 buffer size
start clean at 60.000% <of pair total> dirty, or 750 buffs dirty, stop at
50.000%

```

Wykorzystanie dysku:

```
IBM Informix Dynamic Server Version 11.70.FC2DE -- On-Line -- Up 08:28:12 -- 76208 Kbytes

Dbspaces
address  number  flags      fchunk    nchunks   pgsize    flags      owner    name
-----  -
0EE0C820 1      0x60001   1          1         4096      N BA      informix rootdbs
0EE0C1988 2      0x60002   2          1         4096      M BA      informix ol_kr
0EE0C1AF8 3      0x68002   3          1         4096      M SBA     informix shspace
0EE0C1C68 4      0x60001   4          2         4096      N BA      informix danekr1
0EE0C1DD8 5      0x60002   6          2         4096      M BA      informix danekr2
0F3C2018 6      0x60002   8          2         4096      M BA      informix logkr
0F3C2188 7      0x60001   9          1         4096      N BA      informix tmp1_kr
0F3C22F8 8      0x60001  10         1         4096      N BA      informix tmp2_kr
8 active, 2047 maximum

Chunks
address  chunk/dbs  offset    size      free      bpages    flags  pathname
-----  -
0EE0C990 1          0         51200    35368     0          PO-B-D C:\IFMXDATA\ol_kr\rootdbs_dat.000
0F3C2468 2          0         51200    51147     0          PO-B-D C:\IFMXDATA\ol_kr\ol_kr_dat.000
0F3C35B8 2          0         51200     0          0          MO-B-D C:\IFMXDATA\ol_kr\ol_kr_mirr.000
0F3C2648 3          0         51200    47745     47745     POSB-D C:\IFMXDATA\ol_kr\shspace_dat.000
                                Metadata 3402      2194      0
0F3C3798 3          0         51200     0          0          MOSB-D C:\IFMXDATA\ol_kr\shspace_mirr.000
0F3C2828 4          0         12800    11729     0          PO-B-D c:\ol_kr_data\danekr1_1
0F3C2A08 5          5120     250      247       0          PO-B-D c:\ol_kr_data\danekr1_2
0F3C2BE8 6          0         10240    9169      0          PO-B-D C:\ol_kr_data\danekr2_1
0F3C3978 6          0         10240     0          0          MO-B-D C:\ol_kr_mirror\danekr2_1.mir
0F3C2DC8 7          0         7680     7677      0          PO-B-D C:\ol_kr_data\danekr2_2
0F3C3B58 7          0         7680     0          0          MO-B-D C:\ol_kr_mirror\danekr2_2.mir
0F3C3018 8          0         7680     1627      0          PO-B-D C:\ol_kr_log\logkr
0F3C3D38 8          0         7680     0          0          MO-B-D C:\ol_kr_mirror\logkr.mir
0F3C31F8 9          0         7680     7627      0          PO-B-D c:\ol_kr_tmp\tmp1_wf
0F3C33D8 10         0         7680     7627      0          PO-B-D c:\ol_kr_tmp\tmp2_kr
0F9007E0 11         0         12800    5297      0          PO-B-D c:\ol_kr_data\ol_kr_logkr_p_1
0F9009C0 11         0         12800     0          0          MO-B-D c:\ol_wf_data
11 active, 32766 maximum

NOTE: The values in the "size" and "free" columns for DBspace chunks are
displayed in terms of "pgsize" of the DBspace to which they belong.
```

Tworzenie tab2_kr

```
create table db1_kr:tab2_kr(
    id int,
    nazwa char(2400)
)

alter table db1_kr:tab2_kr ADD CONSTRAINT PRIMARY KEY (id);
```

wypełnianie (tab2_kr, tab1_kr)

```
CREATE PROCEDURE sampleData21()  
  DEFINE i INTEGER;  
  FOR i = 1 TO 10  
    INSERT INTO db1_kr:tab2_kr VALUES(i, "ala ma psa");  
  END FOR;  
END PROCEDURE;
```

```
call sampleData21();
```

```
CREATE PROCEDURE sampleData122()  
  DEFINE i INTEGER;  
  FOR i = 1 TO 5000  
    INSERT INTO db1_kr:tab1_kr VALUES(i + 30000, "ala ma psa");  
  END FOR;  
END PROCEDURE;
```

```
call sampleData122();
```

Analiza tab1_kr

```
C:\Program Files\IBM\Informix\11.70>
C:\Program Files\IBM\Informix\11.70>oncheck -pT db1_kr:tab1_kr
♀

TBLspace Report for db1_kr:informix.tab1_kr

Physical Address          4:526
Creation date             06/11/2013 02:58:10
TBLspace Flags            801          Page Locking
                                TBLspace use 4 bit bit-maps

Maximum row size          1204
Number of special columns 0
Number of keys             0
Number of extents         5
Current serial value       1
Current SERIAL8 value      1
Current BIGSERIAL value    1
Current REPID value        1
Pagesize (k)              4
First extent size         8
Next extent size          1024
Number of pages allocated  7168
Number of pages used       6253
Number of data pages       6252
Number of rows             18755
Partition partnum          4194371
Partition lockid           4194371

Extents
  Logical Page    Physical Page    Size    Physical Pages
        0          4:1075         256         256
       256          4:1335         384         384
       640          4:1727         896         896
      1536          4:2639        2048        2048
      3584          4:4719        3584        3584
```

adres 1 extendu tabeli:

oncheck -pT db1_kr:tab1_kr

4:1075

Na 1 stronie nie ma daych

strona ma rozmiar = 4096B

$8192 > 4 * (4B (id) + 1200B (char)) > 4096$

dlatego szukamy 2 strony od pocz'tku (1075 + 2)

szukany wiersz bedzie 2 na stronie

oncheck -pP 4 1077


```

C:\Program Files\IBM\Informix\11.70>oncheck -p 4 1077
addr      stamp      chksum  nslots  flag  type      frpctr  frcnt  next      prev
4:1077    433959    9b10    3        801  DATA    3636    444    0         0

      slot  ptr      len  flg
      1      24      1204  0
      2      1228    1204  0
      3      2432    1204  0

slot 1:
0: 0 0 0 0 4 61 6c 61 20 6d 61 20 70 73 61 20 20 ....ala ma psa
16: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
32: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
48: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
64: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
80: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
96: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
112: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
128: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
144: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
160: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
176: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
192: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
208: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
224: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
240: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
256: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20

```

[illegible]

```

slot ptr len flg
1 24 1204 0
2 1228 1204 0
3 2432 1204 0
slot 1:
0: 0 0 0 4 61 6c 61 20 6d 61 20 70 73 61 20 20 ....ala ma psa
16: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
32: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
48: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
64: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
80: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
96: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
112: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
128: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
144: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
160: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
176: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
192: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
208: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
224: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
240: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
256: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
```

```
slot 1:
0: 0 0 0 0 4 61 6c 61 20 20 6d 61 20 20 70 73 61 20 20 ....ala ma psa
16: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
32: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
48: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
64: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
80: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
96: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
112: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
128: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
144: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
160: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
176: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
192: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
208: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
224: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
240: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
256: 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
```

Dla 7 wiersza w tab2 ->

4:8307

rozmiar to $4 + 2400$ (strona 4096) zatem idziemy od 7 strony

oncheck -pP 4 1084

wynik analogiczny

Usuwanie

delete from db1_kr:tab1_kr where id>100 and id < 20000;

Wynik:

```
IBM Informix Dynamic Server Version 11.70.FC2DE -- On Line -- Up 03-21-10 -- 76200 Kbytes

Dbspaces
address number flags fchunk nchunks pgsz flags owner name
0EE0C820 1 0x60001 1 1 4096 N BA informix rootdbs
0EE0C198 2 0x60002 2 1 4096 M BA informix ol_kr
0EE0C1A8 3 0x60002 3 1 4096 M SBA informix sbspace
0EE0C1C8 4 0x60001 4 2 4096 N BA informix danekr1
0EE0C1D8 5 0x60002 6 2 4096 M BA informix danekr2
0F3C2018 6 0x60002 8 2 4096 M BA informix logkr
0F3C2188 7 0x60001 9 1 4096 N BA informix tmp1_kr
0F3C22F8 8 0x60001 10 1 4096 N BA informix tmp2_kr
8 active, 2047 maximum

Chunks
address chunk/dbs offset size free bpages flags pathname
0EE0C990 1 1 0 51200 35368 PO-B-D C:\IFMXDATA\ol_kr\rootdbs_dat.000
0F3C2468 2 2 0 51200 51147 PO-B-D C:\IFMXDATA\ol_kr\ol_kr_dat.000
0F3C35B8 2 2 0 51200 0 MO-B-D C:\IFMXDATA\ol_kr\ol_kr_mirr.000
0F3C2648 3 3 0 51200 47745 POSB-D C:\IFMXDATA\ol_kr\sbspace_dat.000
Metadata 3402 2194 0
0F3C3798 3 3 0 51200 0 MOSB-D C:\IFMXDATA\ol_kr\sbspace_mirr.000
0F3C2828 4 4 0 12800 3389 PO-B-D c:\ol_kr_data\danekr1_1
0F3C2A08 5 4 5120 250 247 PO-B-D c:\ol_kr_data\danekr1_2
0F3C2BE8 6 5 0 10240 9169 PO-B-D C:\ol_kr_data\danekr2_1
0F3C2978 6 5 0 10240 0 MO-B-D C:\ol_kr_mirror\danekr2_1.mir
0F3C2DC8 7 5 0 7680 7677 PO-B-D C:\ol_kr_data\danekr2_2
0F3C3B58 7 5 0 7680 0 MO-B-D C:\ol_kr_mirror\danekr2_2.mir
0F3C3018 8 6 0 7680 1627 PO-B-D C:\ol_kr_log\logkr
0F3C3D38 8 6 0 7680 0 MO-B-D C:\ol_kr_mirror\logkr.mir
0F3C31F8 9 7 0 7680 7627 PO-B-D c:\ol_kr_tmp\tmp1_wf
0F3C33D8 10 8 0 7680 7627 PO-B-D c:\ol_kr_tmp\tmp2_kr
0F9007E0 11 6 0 12800 2797 PO-B-D c:\ol_kr_data\ol_kr_logkr_p_1
0F9009C0 11 6 0 12800 0 MO-B-D c:\ol_of_data
11 active, 32766 maximum
```

```
ol_kr

TBLspace Flags 801 Page Locking
TBLspace use 4 bit bit-maps

Maximum row size 1204
Number of special columns 0
Number of keys 1
Number of extents 6
Current serial value 1
Current SERIAL8 value 1
Current BIGSERIAL value 1
Current REFID value 1
Pagesize (k) 4
First extent size 4
Next extent size 128
Number of pages allocated 128
Number of pages used 79
Number of data pages 0
Number of rows 0
Partition partnum 4194372
Partition lockid 4194371

Extents
Logical Page Physical Page Size Physical Pages
0 4:1071 4 4
4 4:1331 4 4
8 4:1719 8 8
16 4:2623 16 16
32 4:4687 32 32
64 4:8323 64 64

TBLspace Usage Report for db1_kr:informix.tab1_kr

Type Pages Empty Semi-Full Full Very-Full
-----
Free 108
Bit-Map 1
Index 19
Data <Home> 0
Total Pages 128
```

Wolne miejsce:

Danekr1	$3389 + 247$
Danekr1	$9169 + 7677$
logkr	7627
tmp1_kr	7627
tmp2_kr	7627

```
truncate db1_kr:tab1_kr;
```

```
ol_kr
Number of special columns      0
Number of keys                 1
Number of extents             1
Current serial value          1
Current SERIAL8 value         1
Current BIGSERIAL value       1
Current REFID value          1
Pagesize (k)                  4
First extent size             4
Next extent size             128
Number of pages allocated     4
Number of pages used          2
Number of data pages          0
Number of rows                0
Partition partnum             4194372
Partition lockid              4194371

Extents
  Logical Page      Physical Page      Size Physical Pages
    0              4:1071              4          4
```

```

BLspace Usage Report for db1_kr:informix.tab1_kr

Type          Pages      Empty  Semi-Full      Full  Very-Full
-----
Free          2
Bit-Map       1
Index         1
Data <Home>   0
-----
Total Pages   4

Unused Space Summary

  Unused data slots          0
  Unused bytes per data page 444
  Total unused bytes in data pages 0

Home Data Page Version Summary

```

Wolne miejsce:

Danekr1	11449 + 247
Danekr1	9169 + 7677
logkr	7627
tmp1_kr	7627
tmp2_kr	7627

Fragmentacja:

Tworzymy i dodajemy dane do tabeli tab1_frag_kr

```
create table tab1_frag_kr(  
id int,  
nazwa char(200),  
kod char(1))  
FRAGMENT BY EXPRESSION  
kod = "C" IN danekr2,  
REMAINDER in danekr1
```

```
alter table tab1_frag_kr( ADD CONSTRAINT PRIMARY KEY (id);
```

```
CREATE PROCEDURE insert_tab1_frag4()  
  DEFINE i INTEGER;  
  FOR i = 1 TO 10000  
    INSERT INTO tab1_frag_kr VALUES(i, "ala ma kod A", "A");  
  END FOR;  
  FOR i = 10001 TO 60001  
    INSERT INTO tab1_frag_kr VALUES(i, "ala ma kod B", "B");  
  END FOR;  
  FOR i = 60002 TO 67002  
    INSERT INTO tab1_frag_kr VALUES(i, "ala ma kod C", "C");  
  END FOR;  
END PROCEDURE;  
CALL insert_tab1_frag4();
```

Dane w danekr2

```
Table fragment partition danekr2 in DBspace danekr2

Physical Address      6:526
Creation date         06/11/2013 08:01:57
TBLspace Flags       801      Page Locking
                        TBLspace use 4 bit hit-maps

Maximum row size      205
Number of special columns 0
Number of keys         0
Number of extents      1
Current serial value   1
Current SERIAL8 value  1
Current BIGSERIAL value 1
Current REFID value    1
Pagesize (k)          4
First extent size      8
Next extent size      128
Number of pages allocated 384
Number of pages used    370
Number of data pages    369
Number of rows         7001
Partition partnum      5242947
Partition lockid       5242947

Extents
  Logical Page      Physical Page      Size Physical Pages
           0              6:1071         384          384

Please use Report for db1 to identify table space for
```

Dane w dane1kr

Table fragment partition danekr1 in DBspace danekr1

```

Physical Address      4:530
Creation date         06/11/2013 08:01:57
TBLspace Flags       801      Page Locking
                        TBLspace use 4 bit bit-maps

Maximum row size      205
Number of special columns 0
Number of keys        0
Number of extents     7
Current serial value   1
Current SERIAL8 value  1
Current BIGSERIAL value 1
Current REFID value    1
Pagesize (k)          4
First extent size     8
Next extent size      512
Number of pages allocated 3584
Number of pages used   3159
Number of data pages   3158
Number of rows         60001
Partition partnum      4194375
Partition lockid       5242947
    
```

```

Extents
  Logical Page    Physical Page    Size    Physical Pages
        0         4:1335           32          32
       32         4:1371           96          96
      128         4:1475          128         128
      256         4:1619          128         128
      384         4:1779          512         512
      896         4:2355          896         896
     1792         4:3379         1792         1792
    
```


Zmiana fragmentacji:

```
ALTER FRAGMENT ON TABLE tab_frag1_kr INIT
    FRAGMENT BY EXPRESSION
        kod != „A” IN danekr2,
        kod = „A” IN danekr;
```

Wyniki:

Table fragment partition danekr1 in DBspace danekr1				
Physical Address	4:530			
Creation date	06/11/2013 08:01:57			
TBLspace Flags	801	Page Locking		
		TBLspace use 4 bit bit-maps		
Maximum row size	205			
Number of special columns	0			
Number of keys	0			
Number of extents	7			
Current serial value	1			
Current SERIAL8 value	1			
Current BIGSERIAL value	1			
Current REFID value	1			
Pagesize (k)	4			
First extent size	8			
Next extent size	512			
Number of pages allocated	3584			
Number of pages used	3159			
Number of data pages	3158			
Number of rows	60001			
Partition partnum	4194375			
Partition lockid	5242947			
Extents				
Logical Page	Physical Page	Size	Physical Pages	
0	4:1335	32	32	
32	4:1371	96	96	
128	4:1475	128	128	
256	4:1619	128	128	
384	4:1779	512	512	
896	4:2355	896	896	
1792	4:3379	1792	1792	

Table fragment partition danekr2 in DBspace danekr2				
Physical Address	6:526			
Creation date	06/11/2013 08:01:57			
TBLspace Flags	801	Page Locking		
		TBLspace use 4 bit bit-maps		
Maximum row size	205			
Number of special columns	0			
Number of keys	0			
Number of extents	1			
Current serial value	1			
Current SERIAL8 value	1			
Current BIGSERIAL value	1			
Current REFID value	1			
Pagesize (k)	4			
First extent size	8			
Next extent size	128			
Number of pages allocated	384			
Number of pages used	370			
Number of data pages	369			
Number of rows	7001			
Partition partnum	5242947			
Partition lockid	5242947			
Extents				
Logical Page	Physical Page	Size	Physical Pages	
0	6:1071	384	384	

Backup

```
C:\Program Files\IBM\Informix\11.70>
C:\Program Files\IBM\Informix\11.70>ontape -s -L 0

Please mount tape 1 on C:\logdump and press Return to continue ...
Archive failed - function open tape device C:\logdump failed code -1 errno 2

Program over.

C:\Program Files\IBM\Informix\11.70>ontape -s -L 0
10 percent done.
20 percent done.
100 percent done.
File created: C:\logdump\akademia-3ef320_33_L0

Please label this tape as number 1 in the arc tape sequence.
This tape contains the following logical logs:

58

Program over.

C:\Program Files\IBM\Informix\11.70>
```