

STORAGE STRUCTURE
(SEGMENTS AND DATABASE BLOCKS)
 (Capitol 9)

1) Informatii despre parametrii si starea unui tablespace

SQL> desc dba_tablespaces;

Name	Null?	Type
TABLESPACE_NAME	NOT NULL	VARCHAR2(30)
BLOCK_SIZE	NOT NULL	NUMBER
INITIAL_EXTENT		NUMBER
NEXT_EXTENT		NUMBER
MIN_EXTENTS	NOT NULL	NUMBER
MAX_EXTENTS		NUMBER
PCT_INCREASE		NUMBER
MIN_EXTLEN		NUMBER
STATUS		VARCHAR2(9)
CONTENTS		VARCHAR2(9)
LOGGING		VARCHAR2(9)
FORCE_LOGGING		VARCHAR2(3)
EXTENT_MANAGEMENT		VARCHAR2(10)
ALLOCATION_TYPE		VARCHAR2(9)
PLUGGED_IN		VARCHAR2(3)
SEGMENT_SPACE_MANAGEMENT		VARCHAR2(6)

SQL> select tablespace_name,block_size,initial_extent,min_extents, max_extents, status
 from dba_tablespaces where tablespace_name='PBD_DATA';

TABLESPACE_NAME	BLOCK_SIZE	INITIAL_EXTENT	MIN_EXTENTS	MAX_EXTENTS	STATUS
PBD_DATA	8192	65536	1	2,147E+09	ONLINE

2) Informatii despre segmentele (obiectele) unui tablespace

SQL> select owner,segment_name,segment_type, tablespace_name, blocks, extents
 from dba_segments where owner='SCOTT'and segment_type='TABLE'

OWNER	SEGMENT_NAME	SEGMENT_TYPE
TABLESPACE_NAME	BLOCKS EXTENTS	
SCOTT SYSTEM	DEPT 8 1	TABLE
SCOTT SYSTEM	EMP 8 1	TABLE
SCOTT SYSTEM	BONUS 8 1	TABLE
SCOTT SYSTEM	SALGRADE 8 1	TABLE

3) Informatii despre extensiile segmentelor

SQL> desc dba_extents

Name	Null?	Type
OWNER		VARCHAR2(30)
SEGMENT_NAME		VARCHAR2(81)
PARTITION_NAME		VARCHAR2(30)
SEGMENT_TYPE		VARCHAR2(18)
TABLESPACE_NAME		VARCHAR2(30)
EXTENT_ID		NUMBER
FILE_ID		NUMBER
BLOCK_ID		NUMBER
BYTES		NUMBER
BLOCKS		NUMBER
RELATIVE_FNO		NUMBER

SQL> select owner, segment_name, segment_type, tablespace_name, bytes from dba_extents
where owner='SCOTT' and segment_name='EMP';

OWNER	SEGMENT_NAME	SEGMENT_TYPE	TABLESPACE_NAME	BYTES
SCOTT	EMP	TABLE	SYSTEM	65536

SQL>select segment_name, extent_id, file_id,block_id from dba_extents
where owner='SCOTT' and segment_name='EMP' ;

SEGMENT_NAME	EXTENT_ID	FILE_ID	BLOCK_ID
EMP	0	1	50465

4) Informatii despre blocurile libere dintr-un tablespace

SQL> desc dba_free_space

Name	Null?	Type
TABLESPACE_NAME		VARCHAR2(30)
FILE_ID		NUMBER
BLOCK_ID		NUMBER
BYTES		NUMBER
BLOCKS		NUMBER
RELATIVE_FNO		NUMBER

SQL> select tablespace_name, count(*), max(blocks), sum(blocks) from dba_free_space
group by tablespace_name;

TABLESPACE_NAME	COUNT(*)	MAX(BLOCKS)	SUM(BLOCKS)
CWMLITE	2	1328	1360
DRSYS	1	1320	1320
EXAMPLE	1	19032	19032
INDX	1	3192	3192

PBD_DATA	2	166648	166664
ODM	1	1368	1368
SYSTEM	2	12536	12568
TOOLS	1	504	504
UNDOTBS1	10	19960	24264
USERS	1	2736	2736

5) Unificarea spatiilor contigue dintr-un tablespace

SQL> ALTER TABLESPACE PBD COALESCE ;

SQL> select tablespace_name,total_extents,percent_extents_coalesced from dba_free_space_coalesced;

TABLESPACE_NAME	TOTAL_EXTENTS	PERCENT_EXTENTS_COALESCED
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SYSTEM	2	100
UNDOTBS1	10	100
CWMLITE	2	100
DRSYS	1	100
EXAMPLE	1	100
INDX	1	100
ODM	1	100
TOOLS	1	100
USERS	1	100
XDB	1	100
PBD_DATA	2	100