

```

1  set termout off
2
3  -- Cleanup...
4  DROP TABLE sales cascade constraint purge;
5
6  -- Formating...
7  set lines 300 pages 1000
8  col partitioning_type      for a30
9  col partition_name        for a20
10 col partition_count       for a30
11 col high_value            for a30
12 col subpartition_name    for a30
13 col PART_POS              for a30
14 col SUBPART_POS          for a30
15 col TRACEFILE             for a70
16 col object_id             for a35
17 col object_name           for a15
18 col object_type           for a30
19 col index_name            for a20
20 col table_name            for a20
21 col locality              for a20
22 col autolist              for a20
23 col partitioned           for a20
24
25 set echo on
26 set termout on
27 connect joc/joc
28 DROP TABLE t purge;
29 host clear
30 -- *****
31 -- DEMO : ONLINE SPLIT PARTITION
32 -- *****
33 PAUSE
34 -- CREATE TABLE :
35 CREATE TABLE t
36     (a NUMBER, b VARCHAR2(100))
37 PARTITION BY RANGE(a)
38 (
39     PARTITION P1 VALUES LESS THAN (100),
40     PARTITION P2 VALUES LESS THAN (200)
41 );
42
43 CREATE UNIQUE INDEX ind_a ON t (a) LOCAL (PARTITION P1, PARTITION P2);
44 PAUSE
45
46 -- SPLIT PARTITION -> NOT ONLINE
47 ALTER TABLE t SPLIT PARTITION P1 at (50) INTO (PARTITION P1_1, PARTITION P1_2);
48 PAUSE
49
50 -- INDEX ARE UNUSABLE
51 SELECT index_name, partition_name, status FROM user_ind_partitions WHERE index_name
52 IN (SELECT index_name FROM user_indexes WHERE table_name = 'T') order by 1,2,3;
53 PAUSE
54
55 -- RECREATE THE TABLE
56 DROP TABLE t;
57 CREATE TABLE t
58     (a NUMBER, b VARCHAR2(100))
59 PARTITION BY RANGE(a)
60 (
61     PARTITION P1 VALUES LESS THAN (100),
62     PARTITION P2 VALUES LESS THAN (200)
63 );
64
65 CREATE UNIQUE INDEX ind_a ON t (a) LOCAL (PARTITION P1, PARTITION P2);
66 PAUSE
67
68 -- SPLIT PARTITION -> ONLINE
69 ALTER TABLE t SPLIT PARTITION P1 at (50) INTO (PARTITION P1_1, PARTITION P1_2) ONLINE;
70 PAUSE
71
72 -- INDEX ARE USABLE
73 SELECT index_name, partition_name, status FROM user_ind_partitions WHERE index_name

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73  IN (SELECT index_name FROM user_indexes WHERE table_name = 'T') order by 1,2,3;
74  -- *****
75  --          END OF DEMO
76  -- *****
77  PAUSE
78  host clear
79  -- *****
80  --      DEMO : ONLINE CONVERSION
81  -- *****
82  PAUSE
83  connect sys/manager as sysdba
84  CREATE TABLE sales
85  (
86      sales_id NUMBER(5) CONSTRAINT id PRIMARY KEY,
87      sales_name VARCHAR2(30),
88      sales_city VARCHAR2(20) CONSTRAINT city UNIQUE,
89      sales_amount NUMBER(10)
90  );
91
92  CREATE INDEX id_city ON sales(sales_id, sales_city);
93  CREATE INDEX city_id ON sales(sales_city, sales_id);
94  PAUSE
95
96  -- DATA INSERTION :
97  INSERT INTO sales VALUES (1, 'JOHN', 'DELEMONT', 10);
98  INSERT INTO sales VALUES (2, 'JANE', 'BERN', 150);
99  INSERT INTO sales VALUES (3, 'JACK', 'NYON', 20);
100 COMMIT;
101 PAUSE
102
103 -- ENABLE TRACING :
104 --> old way : alter session set events='10704 trace name context forever, level 3'
105 ALTER SESSION SET events='trace[ksq] disk medium';
106 PAUSE
107
108 -- CONVERT THE TABLE TO A PARTITIONED TABLE -> ONLINE :
109 ALTER TABLE sales MODIFY PARTITION BY LIST (sales_city) AUTOMATIC (PARTITION
p_delemont VALUES ('DELEMONT')) ONLINE;
110 PAUSE
111
112 -- PARTITIONS CREATED :
113 SELECT partition_name, high_value FROM dba_tab_partitions WHERE table_name = 'SALES';
114 PAUSE
115
116 -- OBJECTS AFFECTED BY THE CONVERSION :
117 SELECT TO_CHAR(object_id,'0XXXXXXX'), object_name, object_type FROM all_objects
WHERE owner='SYS' and object_name='SALES' ORDER BY 2;
118 PAUSE
119
120 -- TRACE FILE :
121 col tracefile new_value v_file
122 SELECT tracefile FROM v$sqlprocess WHERE addr=(SELECT paddr FROM v$sqlsession WHERE
sid=sys_context('USERENV','SID'));
123 PAUSE
124
125 -- CHECK LOCKS
126 set echo off
127 set verify off
128 set feedback off
129 set trimspool on
130 set termout off
131
132 col obj1 new_value obj1
133 col obj2 new_value obj2
134 col obj3 new_value obj3
135 col obj4 new_value obj4
136 col obj5 new_value obj5
137
138 SELECT *
139 FROM ( SELECT a.*, ROWNUM rnum
140         FROM ( SELECT TO_CHAR(object_id,'0XXXXXXX') AS obj1 FROM all_objects
WHERE owner='SYS' AND object_name='SALES' ) a

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141         WHERE ROWNUM <= 1 )
142 WHERE rnum >= 1;
143
144 SELECT *
145     FROM ( SELECT a.*, ROWNUM rnum
146             FROM ( SELECT TO_CHAR(object_id,'0XXXXXXX') AS obj2 FROM all_objects
147                   WHERE owner='SYS' AND object_name='SALES' ) a
148             WHERE ROWNUM <= 2 )
149 WHERE rnum >= 2;
150
151 SELECT *
152     FROM ( SELECT a.*, ROWNUM rnum
153             FROM ( SELECT TO_CHAR(object_id,'0XXXXXXX') AS obj3 FROM all_objects
154                   WHERE owner='SYS' AND object_name='SALES' ) a
155             WHERE ROWNUM <= 3 )
156 WHERE rnum >= 3;
157
158 SELECT *
159     FROM ( SELECT a.*, ROWNUM rnum
160             FROM ( SELECT TO_CHAR(object_id,'0XXXXXXX') AS obj4 FROM all_objects
161                   WHERE owner='SYS' AND object_name='SALES' ) a
162             WHERE ROWNUM <= 4 )
163 WHERE rnum >= 4;
164
165 SELECT *
166     FROM ( SELECT a.*, ROWNUM rnum
167             FROM ( SELECT TO_CHAR(object_id,'0XXXXXXX') AS obj5 FROM all_objects
168                   WHERE owner='SYS' AND object_name='SALES' ) a
169             WHERE ROWNUM <= 5 )
170 WHERE rnum >= 5;
171
172 set echo on
173 set termout on
174 host cat &&v_file | grep -e &&obj1 -e &&obj2 -e &&obj3 -e &&obj4
175
176 -----
177
178 -- TM-lock mode=3 ==> Row Exclusive lock on the table (select/insert/update/delete
179 permitted)--> THE OPERATION IS MADE ONLINE =) ! --
180 -----
181
182
183
184 set echo off
185 set verify on
186 set feedback on
187 set termout on
188 set echo on
189 -- *****
190 --
191 --                END OF DEMO
192 --
193 -- *****
194
195
196

```