

SELECT Hint

PARALLEL

Specifies parallel factor for parallel query execution.

```
SELECT /*+ PARALLEL(table_name, parallel_factor) */ ...
```

```
Mach> EXPLAIN SELECT /*+ PARALLEL(test, 8) */ sensor, frequency, avg(value)
FROM test
WHERE ts >= TO_DATE('2007-07-01', 'YYYY-MM-DD') and ts <= TO_DATE('2007-07-
31', 'YYYY-MM-DD')
GROUP BY sensor,frequency;
```

PLAN

QPX_NODE_TYPE_PROJ

QPX_NODE_TYPE_GRAG

PARALLEL INDEX

SCAN

*BITMAP RANGE (t:92, c:2, i:

94)

[4] row(s) selected.

Index

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ARD,
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WARD

NOPARALLEL

Does not perform in parallel.

```
SELECT /*+ NOPARALLEL(table_name) */ ...
```

```
Mach> EXPLAIN SELECT /*+ NOPARALLEL(test) */ sensor, frequency, avg(value)
FROM test
WHERE ts >= TO_DATE('2007-07-01', 'YYYY-MM-DD') and ts <= TO_DATE('2007-07-31', 'YYYY-MM-DD')
GROUP BY sensor,frequency;
```

PLAN

```
-----
QPX_NODE_TYPE_PROJ
QPX_NODE_TYPE_GRAG
INDEX SCAN
  *BITMAP RANGE (t:92, c:2, i:94)
[4] row(s) selected.
```

FULL

Does not use INDEX SCAN.

```
SELECT /*+ FULL(table_name) */ ...
```

```
Mach> EXPLAIN SELECT * FROM TEST WHERE I1 = 1;
PLAN
```

```
-----
PROJECT
INDEX SCAN
  *BITMAP RANGE (t:7, c:1, i:8) with BLOOMFILTER
[3] row(s) selected.
Elapsed time: 0.001
```

```
Mach> EXPLAIN SELECT /*+ FULL(TEST) */ * FROM TEST WHERE I1 = 1;
PLAN
```

```
-----
PROJECT
FULL SCAN
[2] row(s) selected.
```

NO_INDEX

Does not use the corresponding INDEX.

```
SELECT /*+ NO_INDEX(table_name,index_name) */ ...
```

```
Mach> EXPLAIN SELECT * FROM TEST WHERE I1 = 1;
PLAN
```

```
-----
PROJECT
  INDEX SCAN
    *BITMAP RANGE (t:7, c:1, i:8) with BLOOMFILTER
[3] row(s) selected.
Elapsed time: 0.001
```

```
Mach> EXPLAIN SELECT /*+ NO_INDEX(TEST,TEST_IDX) */ * FROM TEST WHERE I1 = 1;
PLAN
```

```
-----
PROJECT
  FULL SCAN
[2] row(s) selected.
```

RID_RANGE

Runs within RID range.

```
SELECT /*+ RID_RANGE(table_name,number,number) */ ...
```

```
Mach> SELECT /*+ RID_RANGE(TEST,45,50) */ _RID, * FROM TEST;
_RID      I1
-----
49         1
48         1
47         1
46         1
45         1
[5] row(s) selected.
```

ROLLUP

It is possible to inquire statistical data in hours, minutes and seconds.

```
SELECT /*+ ROLLUP(table_name,(HOUR | MIN | SEC) [, aggr_func]) */ ...
```

```
Mach> EXPLAIN SELECT T_TIME, T_VALUE FROM TAG;  
PLAN
```

```
-----  
PROJECT  
TAG READ (RAW)  
KEYVALUE FULL SCAN  
[3] row(s) selected.
```

```
Mach> EXPLAIN SELECT /*+ ROLLUP(TAG, SEC) */ T_TIME, T_VALUE FROM TAG;  
PLAN
```

```
-----  
PROJECT  
GROUP AGGREGATE  
TAG READ (SEC, AVG)  
KEYVALUE FULL SCAN  
[4] row(s) selected.
```

```
Mach> EXPLAIN SELECT /*+ ROLLUP(TAG, SEC, MAX) */ T_TIME, T_VALUE FROM TAG;  
PLAN
```

```
-----  
PROJECT  
GROUP AGGREGATE  
TAG READ (SEC, MAX)  
KEYVALUE FULL SCAN  
[4] row(s) selected.
```

SCAN_FORWARD, SCAN_BACKWARD

Specifies the direction of scanning for TAGDATA table. With SCAN_FORWARD, the oldest record input is retrieved first, whereas with SCAN_BACKWARD, the newest record input is retrieved first.

These hints have no effect on LOG tables.

```
SELECT /*+ SCAN_FORWARD(table_name) */ ...  
SELECT /*+ SCAN_BACKWARD(table_name) */ ...
```

```
Mach> SELECT /*+ SCAN_FORWARD(tag) */ * FROM tag WHERE t_name='TAG_99' LIMIT 10;
```

```
T_NAME          T_TIME          T_VALUE
```

```
-----  
TAG_99          2017-01-01 00:00:49 500:000:000 0  
TAG_99          2017-01-01 00:01:39 500:000:000 1  
TAG_99          2017-01-01 00:02:29 500:000:000 2  
TAG_99          2017-01-01 00:03:19 500:000:000 3  
TAG_99          2017-01-01 00:04:09 500:000:000 4  
TAG_99          2017-01-01 00:04:59 500:000:000 5  
TAG_99          2017-01-01 00:05:49 500:000:000 6  
TAG_99          2017-01-01 00:06:39 500:000:000 7  
TAG_99          2017-01-01 00:07:29 500:000:000 8  
TAG_99          2017-01-01 00:08:19 500:000:000 9
```

```
[10] row(s) selected.
```

```
Mach> SELECT /*+ SCAN_BACKWARD(tag) */ * FROM tag WHERE t_name='TAG_99' LIMIT 10;
```

```
T_NAME          T_TIME          T_VALUE
```

```
-----  
TAG_99          2017-02-27 20:53:19 500:000:000 9  
TAG_99          2017-02-27 20:52:29 500:000:000 8  
TAG_99          2017-02-27 20:51:39 500:000:000 7  
TAG_99          2017-02-27 20:50:49 500:000:000 6  
TAG_99          2017-02-27 20:49:59 500:000:000 5  
TAG_99          2017-02-27 20:49:09 500:000:000 4  
TAG_99          2017-02-27 20:48:19 500:000:000 3  
TAG_99          2017-02-27 20:47:29 500:000:000 2  
TAG_99          2017-02-27 20:46:39 500:000:000 1  
TAG_99          2017-02-27 20:45:49 500:000:000 0
```

```
[10] row(s) selected.
```

```
Mach>
```