

*** create a table, populate it with some rows and create PK with a default Unique index to police it

```
SQL> CREATE TABLE ziggy (id NUMBER, name VARCHAR2(30));
```

Table created.

```
SQL> INSERT into ziggy SELECT rownum, 'Bowie' FROM dual CONNECT BY level <=1000;
```

1000 rows created.

```
SQL> COMMIT;
```

Commit complete.

```
SQL> ALTER TABLE ziggy ADD PRIMARY KEY (id);
```

Table altered.

```
SQL> exec dbms_stats.gather_table_stats(ownname=>NULL, tabname=>'ZIGGY', estimate_percent=> NULL, method_opt=> 'FOR ALL COLUMNS SIZE 1');
```

PL/SQL procedure successfully completed.

*** In one session, run the following a couple of times to ensure no recursive SQL:

```
SQL> select * from ziggy where id = 10;
```

ID	NAME
10	Bowie

*** In other session, run the following (where SID = the sid of the other session) before and after an execution of the select statement in the other session.

```
SQL> select n.name, s.value from v$sesstat s, v$statname n where s.statistic# = n.statistic# and s.sid = 123 and n.name like 'consistent%';
```

NAME	VALUE
consistent gets	17703
consistent gets from cache	17703
consistent gets - examination	10536
consistent gets direct	0
consistent changes	99

NAME	VALUE
-	-

```
consistent gets
17706
consistent gets from cache
17706
consistent gets - examination
10539
consistent gets direct
0
consistent changes
99
```

*** Note that consistent gets increases by 3, consistent gets from cache increases by 3, consistent gets - examination increases by 3 (1 for the index root block, 1 for the index leaf block and 1 for the table block).
*** That's a total of 3 CRs and 3 latches (as all CRs are examinations which only require 1 latch)

*** Now the same thing but with a non-unique index

```
SQL> ALTER TABLE ziggy DROP PRIMARY KEY;
```

Table altered.

```
SQL> ALTER TABLE ziggy ADD PRIMARY KEY (id) USING INDEX
  2 (CREATE INDEX ziggy_id_i ON ziggy(id));
```

Table altered.

```
SQL> exec dbms_stats.gather_table_stats(ownname=>NULL, tabname=>'ZIGGY',
estimate_percent=> NULL, method_opt=> 'FOR ALL COLUMNS SIZE 1');
```

PL/SQL procedure successfully completed.

*** In one session, run the following a couple of times to ensure no recursive SQL:

```
SQL> select * from ziggy where id = 10;
```

```
      ID NAME
-----
      10 Bowie
```

*** In other session, run the following (where SID = the sid of the other session) before and after an execution of the select statement in the other session.

```
SQL> select n.name, s.value from v$sesstat s, v$statname n where
s.statistic# = n.statistic# and s.sid = 123 and n.name like 'consistent%';
```

```
NAME
VALUE
-----
```

```
-
consistent gets
18504
consistent gets from cache
18504
consistent gets - examination
10949
```

consistent gets direct
0
consistent changes
113

NAME
VALUE

-
consistent gets
18508
consistent gets from cache
18508
consistent gets - examination
10950
consistent gets direct
0
consistent changes
113

*** Note that consistent gets increases by 4 (not 3), consistent gets from cache increases by 4 (not) 3, consistent gets - examination increases by only 1 (not 3).

*** In summary, only the root block is acquired via a 1 latch examination CR, the other 3 CRs are "full" 2 latch gets which is a total of 7 latch hits

*** That's 3 latches for the Unique Index and 7 latches for the Non-Unique Index