```
                      Session Process
                      --------------
          INSERT / SELECT / UPDATE row in table sql_table_01
    -----------------------------------------------------------
          |
    ses.0 |(Decide to update a row in table sql_table_01).
          |
    ses.1 |  SELECT currval('sql_sequence_01');
    ses.2 |  $save_seq1 = (value of sequence obtained in ses.1);
          |
    ses.3 |  SAVEPOINT session_savepoint;
          |
    ses.4 |  SELECT ... FROM  sql_table_01 FOR UPDATE;
          |
    ses.5 |  UPDATE sql_table_01 ...;
          |
    ses.6 |  SELECT currval('sql_sequence_01');
    ses.7 |  $save_seq2 = (value of seq obtained in ses.6);
          |
          |  /*
          |     IS IT SAFE TO COMMIT THE UNIT OF WORK ?
          |      (i.e. is operational state of table
          |        sql_table_01 unchanged?)
          |  */
    ses.8 |  if ($save_seq1 == $save_seq2)
          |  /*
          |     YES -- SAFE TO COMMIT
          |      ( sequence sql_sequence_01 is unchanged).
          |  */
          |  {
    ses.9 |     RELEASE SAVEPOINT session_savepoint;
          |  }
          |  else
          |  /*
          |     NO -- NOT SAFE TO COMMIT
          |        (sequence sql_sequence_01 has changed
          |          abandon unit of work and retry).
          |  */
          |  {
   ses.10|     ROLLBACK TO SAVEPOINT session_savepoint;
          |  }
          |
          |  /* DONE */
          |
    -----------------------------------------------------------
```

```
                        Supervisory Process
                        -------------------
          Change operatinal state of table sql_table_01
      ----------------------------------------------------------------
            |
    sup.0 | (Decide to change operational state of table
            |     sql_table_01).
            |
    sup.1 | BEGIN TRANSACTION;
            |
            | /*
            |     Block all other access to table sql_table_01.
            | */
    sup.2 | LOCK TABLE sql_table_01 IN ACCESS EXCLUSIVE MODE;
            | ...
            | ... (change operational state of table sql_table_01
            | ...
            | ...   e.g. TRUNCATE ONLY TABLE sql_table_01;)
            | ...
            |
            | /*
            |    Advance sequence
            |       sql_sequence_01
            |     to indicate that the operational state of table
            |       sql_table_01
            |      has changed.
            | */
            |
    sup.3 | SELECT nextval('sql_sequence_01');
            |
            | /*
            |     Release the EXCLUSIVE MODE lock on table
            |       sql_table_01.
            | */
    sup.4 | COMMIT TRANSACTION;
            |
            | /* DONE */
            |
      ----------------------------------------------------------------
```