

Persistent statistics are considered local information, because they relate to the server instance. The `innodb_table_stats` and `innodb_index_stats` tables are therefore not replicated when automatic statistics recalculation takes place. If you run `ANALYZE TABLE` to initiate a synchronous recalculation of statistics, the statement is replicated (unless you suppressed logging for it), and recalculation takes place on replicas.

InnoDB Persistent Statistics Tables Example

The `innodb_table_stats` table contains one row for each table. The following example demonstrates the type of data collected.

Table `t1` contains a primary index (columns `a`, `b`) secondary index (columns `c`, `d`), and unique index (columns `e`, `f`):

```
CREATE TABLE t1 (
  a INT, b INT, c INT, d INT, e INT, f INT,
  PRIMARY KEY (a, b), KEY i1 (c, d), UNIQUE KEY i2uniq (e, f)
) ENGINE=INNODB;
```

After inserting five rows of sample data, table `t1` appears as follows:

```
mysql> SELECT * FROM t1;
+-----+-----+-----+-----+-----+-----+
| a | b | c | d | e | f |
+-----+-----+-----+-----+-----+-----+
| 1 | 1 | 10 | 11 | 100 | 101 |
| 1 | 2 | 10 | 11 | 200 | 102 |
| 1 | 3 | 10 | 11 | 100 | 103 |
| 1 | 4 | 10 | 12 | 200 | 104 |
| 1 | 5 | 10 | 12 | 100 | 105 |
+-----+-----+-----+-----+-----+-----+
```

To immediately update statistics, run `ANALYZE TABLE` (if `innodb_stats_auto_recalc` is enabled, statistics are updated automatically within a few seconds assuming that the 10% threshold for changed table rows is reached):

```
mysql> ANALYZE TABLE t1;
+-----+-----+-----+-----+
| Table | Op | Msg_type | Msg_text |
+-----+-----+-----+-----+
| test.t1 | analyze | status | OK |
+-----+-----+-----+-----+
```

Table statistics for table `t1` show the last time InnoDB updated the table statistics (2014-03-14 14:36:34), the number of rows in the table (5), the clustered index size (1 page), and the combined size of the other indexes (2 pages).

```
mysql> SELECT * FROM mysql.innodb_table_stats WHERE table_name like 't1'\G
***** 1. row *****
      database_name: test
      table_name: t1
      last_update: 2014-03-14 14:36:34
      n_rows: 5
      clustered_index_size: 1
      sum_of_other_index_sizes: 2
```

The `innodb_index_stats` table contains multiple rows for each index. Each row in the `innodb_index_stats` table provides data related to a particular index statistic which is named in the `stat_name` column and described in the `stat_description` column. For example:

```
mysql> SELECT index_name, stat_name, stat_value, stat_description
```