

the default. It can only be specified explicitly in a `CREATE TABLE` or `ALTER TABLE` statement. Attempting to set the `innodb_default_row_format` variable to `COMPRESSED` returns an error:

```
mysql> SET GLOBAL innodb_default_row_format=COMPRESSED;
ERROR 1231 (42000): Variable 'innodb_default_row_format'
can't be set to the value of 'COMPRESSED'
```

Newly created tables use the row format defined by the `innodb_default_row_format` variable when a `ROW_FORMAT` option is not specified explicitly, or when `ROW_FORMAT=DEFAULT` is used. For example, the following `CREATE TABLE` statements use the row format defined by the `innodb_default_row_format` variable.

```
CREATE TABLE t1 (c1 INT);
```

```
CREATE TABLE t2 (c1 INT) ROW_FORMAT=DEFAULT;
```

When a `ROW_FORMAT` option is not specified explicitly, or when `ROW_FORMAT=DEFAULT` is used, an operation that rebuilds a table silently changes the row format of the table to the format defined by the `innodb_default_row_format` variable.

Table-rebuilding operations include `ALTER TABLE` operations that use `ALGORITHM=COPY` or `ALGORITHM=INPLACE` where table rebuilding is required. See [Section 15.12.1, “Online DDL Operations”](#) for more information. `OPTIMIZE TABLE` is also a table-rebuilding operation.

The following example demonstrates a table-rebuilding operation that silently changes the row format of a table created without an explicitly defined row format.

```
mysql> SELECT @@innodb_default_row_format;
+-----+
| @@innodb_default_row_format |
+-----+
| dynamic                     |
+-----+

mysql> CREATE TABLE t1 (c1 INT);

mysql> SELECT * FROM INFORMATION_SCHEMA.INNODB_TABLES WHERE NAME LIKE 'test/t1' \G
***** 1. row *****
      TABLE_ID: 54
        NAME: test/t1
         FLAG: 33
        N_COLS: 4
         SPACE: 35
    ROW_FORMAT: Dynamic
ZIP_PAGE_SIZE: 0
   SPACE_TYPE: Single

mysql> SET GLOBAL innodb_default_row_format=COMPACT;

mysql> ALTER TABLE t1 ADD COLUMN (c2 INT);

mysql> SELECT * FROM INFORMATION_SCHEMA.INNODB_TABLES WHERE NAME LIKE 'test/t1' \G
***** 1. row *****
      TABLE_ID: 55
        NAME: test/t1
         FLAG: 1
        N_COLS: 5
         SPACE: 36
    ROW_FORMAT: Compact
ZIP_PAGE_SIZE: 0
   SPACE_TYPE: Single
```

Consider the following potential issues before changing the row format of existing tables from `REDUNDANT` or `COMPACT` to `DYNAMIC`.