

mysqlcheck: A Table Maintenance Program

The [mysqlcheck](#) client performs table maintenance: It checks, repairs, optimizes, or analyzes tables.

Each table is locked and therefore unavailable to other sessions while it is being processed, although for check operations, the table is locked with a READ lock only (see [Section 13.3.5, «LOCK TABLES and UNLOCK TABLES Syntax»](#), for more information about READ and WRITE locks). Table maintenance operations can be time-consuming, particularly for large tables. If you use the [--databases](#) or [--all-databases](#) option to process all tables in one or more databases, an invocation of [mysqlcheck](#) might take a long time. (This is also true for [mysql_upgrade](#) because that program invokes [mysqlcheck](#) to check all tables and repair them if necessary.)

[mysqlcheck](#) is similar in function to [myisamchk](#), but works differently. The main operational difference is that [mysqlcheck](#) must be used when the [mysqld](#) server is running, whereas [myisamchk](#) should be used when it is not. The benefit of using [mysqlcheck](#) is that you do not have to stop the server to perform table maintenance.

[mysqlcheck](#) uses the SQL statements [CHECK TABLE](#), [REPAIR TABLE](#), [ANALYZE TABLE](#), and [OPTIMIZE TABLE](#) in a convenient way for the user. It determines which statements to use for the operation you want to perform, and then sends the statements to the server to be executed. For details about which storage engines each statement works with, see the descriptions for those statements in [Section 13.7.2, «Table Maintenance Statements»](#).

The MyISAM storage engine supports all four maintenance operations, so [mysqlcheck](#) can be used to perform any of them on MyISAM tables. Other storage engines do not necessarily

support all operations. In such cases, an error message is displayed. For example, if test.t is a MEMORY table, an attempt to check it produces this result:

```
[crayon-6a9d5059bcf10903052652/]
```

If [mysqlcheck](#) is unable to repair a table, see [Section 2.19.4, «Rebuilding or Repairing Tables or Indexes»](#) for manual table repair strategies. This will be the case, for example, for InnoDB tables, which can be checked with [CHECK TABLE](#), but not repaired with [REPAIR TABLE](#).

Caution

It is best to make a backup of a table before performing a table repair operation; under some circumstances the operation might cause data loss. Possible causes include but are not limited to file system errors.

There are three general ways to invoke [mysqlcheck](#):

```
[crayon-6a9d5059bcf15651403103/]
```

If you do not name any tables following *db_name* or if you use the [--databases](#) or [--all-databases](#) option, entire databases are checked.

[mysqlcheck](#) has a special feature compared to other client programs. The default behavior of checking tables ([--check](#)) can be changed by renaming the binary. If you want to have a tool that repairs tables by default, you should just make a copy of [mysqlcheck](#) named [mysqlrepair](#), or make a symbolic link to [mysqlcheck](#) named [mysqlrepair](#). If you invoke [mysqlrepair](#), it repairs tables.

The names shown in the following table can be used to change [mysqlcheck](#) default behavior.

Command	Meaning
mysqlrepair	The default option is --repair
mysqlanalyze	The default option is --analyze
mysqloptimize	The default option is --optimize

[mysqlcheck](#) supports the following options, which can be specified on the command line or in the [mysqlcheck] and [client] groups of an option file. For information about option files used by MySQL programs, see [Section 4.2.6, «Using Option Files»](#).

Table 4.4 mysqlcheck Options

Format	Description	Introduced
-all-databases	Check all tables in all databases	
-all-in-1	Execute a single statement for each database that names all the tables from that database	
-analyze	Analyze the tables	
-auto-repair	If a checked table is corrupted, automatically fix it	
-character-sets-dir=path	Directory where character sets are installed	
-check	Check the tables for errors	

Format	Description	Introduced
<u>-check-only-changed</u>	Check only tables that have changed since the last check	
<u>-check-upgrade</u>	Invoke CHECK TABLE with the FOR UPGRADE option	5.0.19
<u>-compress</u>	Compress all information sent between client and server	
<u>-databases</u>	Process all tables in the named databases	
<u>-debug[=debug_options]</u>	Write a debugging log	
<u>-default-character-set=charset_name</u>	Specify default character set	
<u>-defaults-extra-file=file_name</u>	Read option file in addition to usual option files	
<u>-defaults-file=file_name</u>	Read only named option file	
<u>-defaults-group-suffix=str</u>	Option group suffix value	5.0.10

Format	Description	Introduced
<u>-extended</u>	Check and repair tables	
<u>-fast</u>	Check only tables that have not been closed properly	
<u>-force</u>	Continue even if an SQL error occurs	
<u>-help</u>	Display help message and exit	
<u>-host=host_name</u>	Connect to MySQL server on given host	
<u>-medium-check</u>	Do a check that is faster than an -extended operation	
<u>-no-defaults</u>	Read no option files	
<u>-optimize</u>	Optimize the tables	
<u>-password[=password]</u>	Password to use when connecting to server	
<u>-pipe</u>	On Windows, connect to server using named pipe	

Format	Description	Introduced
<code>-port=port_num</code>	TCP/IP port number to use for connection	
<code>-print-defaults</code>	Print defaults	
<code>-protocol=type</code>	Connection protocol to use	
<code>-quick</code>	The fastest method of checking	
<code>-repair</code>	Perform a repair that can fix almost anything except unique keys that are not unique	
<code>-shared-memory-base-name=name</code>	The name of shared memory to use for shared-memory connections	
<code>-silent</code>	Silent mode	
<code>-socket=path</code>	For connections to localhost, the Unix socket file to use	
<code>-ssl</code>	Enable SSL for connection	

Format	Description	Introduced
<code>-ssl-ca=file_name</code>	Path of file that contains list of trusted SSL CAs	
<code>-ssl-capath=dir_name</code>	Path of directory that contains trusted SSL CA certificates in PEM format	
<code>-ssl-cert=file_name</code>	Path of file that contains X509 certificate in PEM format	
<code>-ssl-cipher=cipher_list</code>	List of permitted ciphers to use for SSL encryption	
<code>-ssl-key=file_name</code>	Path of file that contains X509 key in PEM format	
<code>-ssl-verify-server-cert</code>	Verify server Common Name value in its certificate against host name used when connecting to server	5.0.23

Format	Description	Introduced
<u>-tables</u>	Overrides the -databases or -B option	
<u>-use-frm</u>	For repair operations on MyISAM tables	
<u>-user=user_name,</u>	MySQL user name to use when connecting to server	
<u>-verbose</u>	Verbose mode	
<u>-version</u>	Display version information and exit	