NAME

mysqlcheck - a table maintenance program

SYNOPSIS

mysqlcheck [*options*] [*db_name* [*tbl_name* **...**]]

DESCRIPTION

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:

shell> **mysqlcheck test t**
test.t
note : The storage engine for the table doesnt support check

If **mysqlcheck** is unable to repair a table, see Section 2.11.3, "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**:

shell> **mysqlcheck** [*options*] *db_name* [*tbl_name* **...**]
shell> **mysqlcheck** [*options*] **--databases** *db_name* **...**
shell> **mysqlcheck** [*options*] **--all-databases**

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".

- **--help**, **-?**

  Display a help message and exit.

- **--all-databases**, **-A**

  Check all tables in all databases. This is the same as using the **--databases** option and naming all the databases on the command line, except that the INFORMATION_SCHEMA and performace_schema databases are not checked. They can be checked by explicitly naming them with the **--databases** option.

- **--all-in-1**, **-1**

  Instead of issuing a statement for each table, execute a single statement for each database that names all the tables from that database to be processed.

- **--analyze**, **-a**

  Analyze the tables.

- **--auto-repair**

  If a checked table is corrupted, automatically fix it. Any necessary repairs are done after all tables have been checked.

- **--bind-address=**$ip\_address$

  On a computer having multiple network interfaces, use this option to select which interface to use for connecting to the MySQL server.

  This option is supported only in the version of **mysqlcheck** that is supplied with NDB Cluster. It is not available in standard MySQL Server 5.5 releases.

- **--character-sets-dir=**dir_name

  The directory where character sets are installed. See Section 10.14, "Character Set Configuration".

- **--check**, **-c**

  Check the tables for errors. This is the default operation.

- **--check-only-changed**, **-C**

  Check only tables that have changed since the last check or that have not been closed properly.

- **--check-upgrade**, **-g**

  Invoke CHECK TABLE with the FOR UPGRADE option to check tables for incompatibilities with the current version of the server. This option automatically enables the **--fix-db-names** and **--fix-table-names** options.

- **--compress**

  Compress all information sent between the client and the server if both support compression.

- **--databases**, **-B**

  Process all tables in the named databases. Normally, **mysqlcheck** treats the first name argument on the command line as a database name and any following names as table names. With this option, it treats all name arguments as database names.

- **--debug**[=*debug_options*], **-#** [*debug_options*]

  Write a debugging log. A typical *debug_options* string is d:t:o,*file_name*. The default is d:t:o.

- **--debug-check**

  Print some debugging information when the program exits.

- **--debug-info**

  Print debugging information and memory and CPU usage statistics when the program exits.

- **--default-character-set**=*charset_name*

  Use *charset_name* as the default character set. See Section 10.14, "Character Set Configuration".

- **--defaults-extra-file**=*file_name*

  Read this option file after the global option file but (on Unix) before the user option file. If the file does not exist or is otherwise inaccessible, an error occurs. Before MySQL 5.5.8, *file_name* must be the full path name to the file. As of MySQL 5.5.8, the name is interpreted relative to the current directory if given as a relative path name.

- **--defaults-file**=*file_name*

  Use only the given option file. If the file does not exist or is otherwise inaccessible, an error occurs. Before MySQL 5.5.8, *file_name* must be the full path name to the file. As of MySQL 5.5.8, the name is interpreted relative to the current directory if given as a relative path name.

- **--defaults-group-suffix**=*str*

  Read not only the usual option groups, but also groups with the usual names and a suffix of *str*. For example, **mysqlcheck** normally reads the [client] and [mysqlcheck] groups. If the **--defaults-group-suffix=_other** option is given, **mysqlcheck** also reads the [client_other] and [mysqlcheck_other] groups.

- **--extended**, **-e**

  If you are using this option to check tables, it ensures that they are 100% consistent but takes a long time.

  If you are using this option to repair tables, it runs an extended repair that may not only take a long time to execute, but may produce a lot of garbage rows also!

- **--default-auth**=*plugin*

  A hint about the client-side authentication plugin to use. See Section 6.3.6, "Pluggable Authentication".

  This option was added in MySQL 5.5.10.

- **--enable-cleartext-plugin**

  Enable the mysql_clear_password cleartext authentication plugin. (See Section 6.5.1.3, "Client-Side Cleartext Pluggable Authentication".)

  This option was added in MySQL 5.5.47.

- **--fast**, **-F**

  Check only tables that have not been closed properly.

- **--fix-db-names**

  Convert database names to 5.1 format. Only database names that contain special characters are affected.

- **--fix-table-names**

  Convert table names to 5.1 format. Only table names that contain special characters are affected. This option also applies to views.

- **--force**, **-f**

  Continue even if an SQL error occurs.
- **--host=**_host_name_, **-h** _host_name_

  Connect to the MySQL server on the given host.
- **--medium-check**, **-m**

  Do a check that is faster than an **--extended** operation. This finds only 99.99% of all errors, which should be good enough in most cases.
- **--no-defaults**

  Do not read any option files. If program startup fails due to reading unknown options from an option file, **--no-defaults** can be used to prevent them from being read.
- **--optimize**, **-o**

  Optimize the tables.
- **--password**[=_password_], **-p**[_password_]

  The password to use when connecting to the server. If you use the short option form (**-p**), you _cannot_ have a space between the option and the password. If you omit the _password_ value following the **--password** or **-p** option on the command line, **mysqlcheck** prompts for one.

  Specifying a password on the command line should be considered insecure. See Section 6.1.2.1, "End-User Guidelines for Password Security". You can use an option file to avoid giving the password on the command line.
- **--pipe**, **-W**

  On Windows, connect to the server using a named pipe. This option applies only if the server supports named-pipe connections.
- **--plugin-dir=**_dir_name_

  The directory in which to look for plugins. Specify this option if the **--default-auth** option is used to specify an authentication plugin but **mysqlcheck** does not find it. See Section 6.3.6, "Pluggable Authentication".

  This option was added in MySQL 5.5.10.
- **--port=**_port_num_, **-P** _port_num_

  The TCP/IP port number to use for the connection.
- **--print-defaults**

  Print the program name and all options that it gets from option files.
- **--protocol={TCP|SOCKET|PIPE|MEMORY}**

  The connection protocol to use for connecting to the server. It is useful when the other connection parameters normally would cause a protocol to be used other than the one you want. For details on the permissible values, see Section 4.2.2, "Connecting to the MySQL Server".
- **--quick**, **-q**

  If you are using this option to check tables, it prevents the check from scanning the rows to check for incorrect links. This is the fastest check method.

  If you are using this option to repair tables, it tries to repair only the index tree. This is the fastest repair method.
- **--repair**, **-r**

  Perform a repair that can fix almost anything except unique keys that are not unique.
- **--shared-memory-base-name=**_name_

  On Windows, the shared-memory name to use, for connections made using shared memory to a local server. The default value is MYSQL. The shared-memory name is case-sensitive.

The server must be started with the **--shared-memory** option to enable shared-memory connections.

- **--silent**, **-s**

  Silent mode. Print only error messages.

- **--socket=**path, **-S** path

  For connections to localhost, the Unix socket file to use, or, on Windows, the name of the named pipe to use.

- **--ssl***

  Options that begin with **--ssl** specify whether to connect to the server using SSL and indicate where to find SSL keys and certificates. See Section 6.4.2, "Command Options for Encrypted Connections".

- **--tables**

  Override the **--databases** or **-B** option. All name arguments following the option are regarded as table names.

- **--use-frm**

  For repair operations on MyISAM tables, get the table structure from the .frm file so that the table can be repaired even if the .MYI header is corrupted.

- **--user=**user_name, **-u** user_name

  The MySQL user name to use when connecting to the server.

- **--verbose**, **-v**

  Verbose mode. Print information about the various stages of program operation.

- **--version**, **-V**

  Display version information and exit.

- **--write-binlog**

  This option is enabled by default, so that ANALYZE TABLE, OPTIMIZE TABLE, and REPAIR TABLE statements generated by **mysqlcheck** are written to the binary log. Use **--skip-write-binlog** to cause NO_WRITE_TO_BINLOG to be added to the statements so that they are not logged. Use the **--skip-write-binlog** when these statements should not be sent to replication slaves or run when using the binary logs for recovery from backup.

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SEE ALSO

For more information, please refer to the MySQL Reference Manual, which may already be installed locally and which is also available online at http://dev.mysql.com/doc/.

AUTHOR

Oracle Corporation (http://dev.mysql.com/).