



Linux Ubuntu 26.04 Manual Pages on command 'myisampack.1'

\$ man myisampack.1

MYISAMPACK(1) MySQL Database System MYISAMPACK(1)

NAME

myisampack - generate compressed, read-only MyISAM tables

SYNOPSIS

myisampack [options] file_name ...

DESCRIPTION

The myisampack utility compresses MyISAM tables. myisampack works by compressing each column in the table separately. Usually, myisampack packs the data file 40% to 70%.

When the table is used later, the server reads into memory the information needed to decompress columns. This results in much better performance when accessing individual rows, because you only have to uncompress exactly one row.

MySQL uses mmap() when possible to perform memory mapping on compressed tables. If mmap() does not work, MySQL falls back to normal read/write file operations.

Please note the following:

- ? If the mysqld server was invoked with external locking disabled, it is not a good idea to invoke myisampack if the table might be updated by the server during the packing process. It is safest to compress tables with the server stopped.
- ? After packing a table, it becomes read only. This is generally intended (such as when accessing packed tables on a CD).
- ? myisampack does not support partitioned tables.

Invoke myisampack like this:

myisampack [options] file_name ...

Each file name argument should be the name of an index (.MYI) file. If you are not in the

database directory, you should specify the path name to the file. It is permissible to omit the .MYI extension.

After you compress a table with myisampack, use myisamchk -rq to rebuild its indexes.
myisamchk(1).

myisampack supports the following options. It also reads option files and supports the options for processing them described at Section 6.2.2.3, "Command-Line Options that Affect Option-File Handling".

? --help, -?

????????????????????????????????

? Command-Line Format ? --help ?

????????????????????????????????

Display a help message and exit.

? --backup, -b

????????????????????????????????

? Command-Line Format ? --backup ?

????????????????????????????????

Make a backup of each table's data file using the name tbl_name.OLD.

? --character-sets-dir=dir_name

????????????????????????????????

? Command-Line Format ? --character-sets-dir=dir_name ?

????????????????????????????????

? Type ? Directory name ?

????????????????????????????????

The directory where character sets are installed. See Section 12.15, "Character Set Configuration".

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

????????????????????????????????

? Command-Line Format ? --debug[=debug_options] ?

????????????????????????????????

? Type ? String ?

????????????????????????????????

? Default Value ? d:t:o ?

????????????????????????????????

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

This option is available only if MySQL was built using WITH_DEBUG. MySQL release binaries provided by Oracle are not built using this option.

? --force, -f

????????????????????????????????

? Command-Line Format ? --force ?

????????????????????????????????

Produce a packed table even if it becomes larger than the original or if the intermediate file from an earlier invocation of myisampack exists. (myisampack creates an intermediate file named tbl_name.TMD in the database directory while it compresses the table. If you kill myisampack, the .TMD file might not be deleted.) Normally, myisampack exits with an error if it finds that tbl_name.TMD exists. With --force, myisampack packs the table anyway.

? --join=big_tbl_name, -j big_tbl_name

????????????????????????????????

? Command-Line Format ? --join=big_tbl_name ?

????????????????????????????????

? Type ? String ?

????????????????????????????????

Join all tables named on the command line into a single packed table big_tbl_name. All tables that are to be combined must have identical structure (same column names and types, same indexes, and so forth).

big_tbl_name must not exist prior to the join operation. All source tables named on the command line to be merged into big_tbl_name must exist. The source tables are read for the join operation but not modified.

? --silent, -s

????????????????????????????????

? Command-Line Format ? --silent ?

????????????????????????????????

Silent mode. Write output only when errors occur.

? --test, -t

????????????????????????????????

? Command-Line Format ? --test ?

????????????????????????????????

Do not actually pack the table, just test packing it.

? --tmpdir=dir_name, -T dir_name

????????????????????????????????

? Command-Line Format ? --tmpdir=dir_name ?

????????????????????????????????

? Type ? Directory name ?

????????????????????????????????

Use the named directory as the location where myisampack creates temporary files.

? --verbose, -v

????????????????????????????????

? Command-Line Format ? --verbose ?

????????????????????????????????

Verbose mode. Write information about the progress of the packing operation and its result.

? --version, -V

????????????????????????????????

? Command-Line Format ? --version ?

????????????????????????????????

Display version information and exit.

? --wait, -w

????????????????????????????????

? Command-Line Format ? --wait ?

????????????????????????????????

Wait and retry if the table is in use. If the mysqld server was invoked with external locking disabled, it is not a good idea to invoke myisampack if the table might be updated by the server during the packing process.

The following sequence of commands illustrates a typical table compression session:

\$> ls -l station.*

-rw-rw-r-- 1 jones my 994128 Apr 17 19:00 station.MYD

-rw-rw-r-- 1 jones my 53248 Apr 17 19:00 station.MYI

\$> myisamchk -dvv station

MyISAM file: station

Isam-version: 2

Creation time: 1996-03-13 10:08:58

Recover time: 1997-02-02 3:06:43

Data records: 1192 Deleted blocks: 0

Datafile parts: 1192 Deleted data: 0

Datafile pointer (bytes): 2 Keyfile pointer (bytes): 2

Max datafile length: 54657023 Max keyfile length: 33554431

Recordlength: 834

Record format: Fixed length

table description:

Key	Start	Len	Index	Type	Root	Blocksize	Rec/key
1	2	4	unique	unsigned long	1024	1024	1
2	32	30	multip.	text	10240	1024	1

Field Start Length Type

1 1 1

2 2 4

3 6 4

4 10 1

5 11 20

6 31 1

7 32 30

8 62 35

9 97 35

10 132 35

11 167 4

12 171 16

13 187 35

14 222 4

15 226 16

16 242 20

17 262 20

18 282 20

19 302 30
20 332 4
21 336 4
22 340 1
23 341 8
24 349 8
25 357 8
26 365 2
27 367 2
28 369 4
29 373 4
30 377 1
31 378 2
32 380 8
33 388 4
34 392 4
35 396 4
36 400 4
37 404 1
38 405 4
39 409 4
40 413 4
41 417 4
42 421 4
43 425 4
44 429 20
45 449 30
46 479 1
47 480 1
48 481 79
49 560 79
50 639 79
51 718 79

52 797 8

53 805 1

54 806 1

55 807 20

56 827 4

57 831 4

\$> myisampack station.MYI

Compressing station.MYI: (1192 records)

- Calculating statistics

normal: 20 empty-space: 16 empty-zero: 12 empty-fill: 11

pre-space: 0 end-space: 12 table-lookups: 5 zero: 7

Original trees: 57 After join: 17

- Compressing file

87.14%

Remember to run myisamchk -rq on compressed tables

\$> myisamchk -rq station

- check record delete-chain

- recovering (with sort) MyISAM-table 'station'

Data records: 1192

- Fixing index 1

- Fixing index 2

\$> mysqladmin -uroot flush-tables

\$> ls -l station.*

-rw-rw-r-- 1 jones my 127874 Apr 17 19:00 station.MYD

-rw-rw-r-- 1 jones my 55296 Apr 17 19:04 station.MYI

\$> myisamchk -dvv station

MyISAM file: station

Isam-version: 2

Creation time: 1996-03-13 10:08:58

Recover time: 1997-04-17 19:04:26

Data records: 1192 Deleted blocks: 0

Datafile parts: 1192 Deleted data: 0

Datafile pointer (bytes): 3 Keyfile pointer (bytes): 1

Max datafile length: 16777215 Max keyfile length: 131071

Recordlength: 834

Record format: Compressed

table description:

Key	Start	Len	Index	Type	Root	Blocksize	Rec/key
1	2	4	unique	unsigned long	10240	1024	1
2	32	30	multip.	text	54272	1024	1
Field	Start	Length	Type	Huff tree	Bits		
1	1	1	constant	1	0		
2	2	4	zerofill(1)	2	9		
3	6	4	no zeros, zerofill(1)	2	9		
4	10	1		3	9		
5	11	20	table-lookup	4	0		
6	31	1		3	9		
7	32	30	no endspace, not_always		5	9	
8	62	35	no endspace, not_always, no empty		6	9	
9	97	35	no empty		7	9	
10	132	35	no endspace, not_always, no empty		6	9	
11	167	4	zerofill(1)	2	9		
12	171	16	no endspace, not_always, no empty		5	9	
13	187	35	no endspace, not_always, no empty		6	9	
14	222	4	zerofill(1)	2	9		
15	226	16	no endspace, not_always, no empty		5	9	
16	242	20	no endspace, not_always		8	9	
17	262	20	no endspace, no empty		8	9	
18	282	20	no endspace, no empty		5	9	
19	302	30	no endspace, no empty		6	9	
20	332	4	always zero		2	9	
21	336	4	always zero		2	9	
22	340	1		3	9		
23	341	8	table-lookup		9	0	
24	349	8	table-lookup		10	0	
25	357	8	always zero		2	9	

26	365	2		2	9
27	367	2	no zeros, zerofill(1)	2	9
28	369	4	no zeros, zerofill(1)	2	9
29	373	4	table-lookup	11	0
30	377	1		3	9
31	378	2	no zeros, zerofill(1)	2	9
32	380	8	no zeros	2	9
33	388	4	always zero	2	9
34	392	4	table-lookup	12	0
35	396	4	no zeros, zerofill(1)	13	9
36	400	4	no zeros, zerofill(1)	2	9
37	404	1		2	9
38	405	4	no zeros	2	9
39	409	4	always zero	2	9
40	413	4	no zeros	2	9
41	417	4	always zero	2	9
42	421	4	no zeros	2	9
43	425	4	always zero	2	9
44	429	20	no empty	3	9
45	449	30	no empty	3	9
46	479	1		14	4
47	480	1		14	4
48	481	79	no endspace, no empty	15	9
49	560	79	no empty	2	9
50	639	79	no empty	2	9
51	718	79	no endspace	16	9
52	797	8	no empty	2	9
53	805	1		17	1
54	806	1		3	9
55	807	20	no empty	3	9
56	827	4	no zeros, zerofill(2)	2	9
57	831	4	no zeros, zerofill(1)	2	9

? normal

The number of columns for which no extra packing is used.

? empty-space

The number of columns containing values that are only spaces. These occupy one bit.

? empty-zero

The number of columns containing values that are only binary zeros. These occupy one bit.

? empty-fill

The number of integer columns that do not occupy the full byte range of their type.

These are changed to a smaller type. For example, a BIGINT column (eight bytes) can be stored as a TINYINT column (one byte) if all its values are in the range from -128 to 127.

? pre-space

The number of decimal columns that are stored with leading spaces. In this case, each value contains a count for the number of leading spaces.

? end-space

The number of columns that have a lot of trailing spaces. In this case, each value contains a count for the number of trailing spaces.

? table-lookup

The column had only a small number of different values, which were converted to an ENUM before Huffman compression.

? zero

The number of columns for which all values are zero.

? Original trees

The initial number of Huffman trees.

? After join

The number of distinct Huffman trees left after joining trees to save some header space.

After a table has been compressed, the Field lines displayed by `mysamchk -dv` include additional information about each column:

? Type

The data type. The value may contain any of the following descriptors:

? constant

All rows have the same value.

? no endspace

Do not store endspace.

? no endspace, not_always

Do not store endspace and do not do endspace compression for all values.

? no endspace, no empty

Do not store endspace. Do not store empty values.

? table-lookup

The column was converted to an ENUM.

? zerofill(N)

The most significant N bytes in the value are always 0 and are not stored.

? no zeros

Do not store zeros.

? always zero

Zero values are stored using one bit.

? Huff tree

The number of the Huffman tree associated with the column.

? Bits

The number of bits used in the Huffman tree.

After you run `myisampack`, use `myisamchk` to re-create any indexes. At this time, you can also sort the index blocks and create statistics needed for the MySQL optimizer to work more efficiently:

```
myisamchk -rq --sort-index --analyze tbl_name.MYI
```

After you have installed the packed table into the MySQL database directory, you should execute `mysqladmin flush-tables` to force `mysqld` to start using the new table.

To unpack a packed table, use the `--unpack` option to `myisamchk`.

COPYRIGHT

Copyright ? 1997, 2026, Oracle and/or its affiliates.

This documentation is free software; you can redistribute it and/or modify it only under the terms of the GNU General Public License as published by the Free Software Foundation; version 2 of the License.

This documentation is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with the program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA or see <http://www.gnu.org/licenses/>.

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/>).

MySQL 8.4

03/23/2026

MYISAMPACK(1)