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What's New in MySQL 5.7.5?



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Agenda

- 1 InnoDB
- 2 Optimizer
- 3 Strict mode
- 4 GIS
- 5 Tools and OS support

InnoDB

- Online buffer pool resizing
- Bulk data load improvements (faster CREATE INDEX)
- The executor can use InnoDB temporary tables (configurable)
- R-trees
- Truncation of undo logs

Optimizer

- New cost model
 - Work in progress, so far mostly refactoring
- ONLY_FULL_GROUP_BY mode recognizes functional dependencies
 - Less strict (still standard compliant)
 - SELECT name, ANY_VALUE(address), MAX(age) FROM t GROUP BY name;
- Refactoring
 - Better split between parsing, resolving, planning/optimization and execution phases
 - True bottom-up parser

Strict Mode

- Strict mode is now default
- Deprecate SQL modes `ERROR_FOR_DIVISION_BY_ZERO`, `NO_ZERO_DATE` and `NO_ZERO_IN_DATE`
 - Now part of strict mode

Strict mode is good for you! :-)

GIS

- InnoDB R-trees
- Use Boost::Geometry for many GIS functions
 - Replace old, homegrown algorithms
- Geohash input/output
- GeoJSON input/output

Tools and OS support

- mysql_upgrade and mysql_install_db are now C/C++ programs
- Remove obsolete scripts
 - mysqlbug
 - mysql_zap
 - mysql_waitpid
 - mysqlhotcopy
- Native syslog support
 - Replaces a shell script wrapper

... and many, many more

<http://mysqlservertteam.com/>

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