

# About InnoDB

InnoDB is a [storage engine](#) for the databases supported by Tiki: [MariaDB](#), [MySQL](#) and [Percona Server for MySQL](#).

Support for InnoDB was introduced in [Tiki8](#) (2011). InnoDB is the default storage engine since [Tiki18](#) (2017) and MariaDB 10.2 (2017). Starting in 2024 [Tiki28](#), it is also the default for the [Unified Index](#)

InnoDB provides several benefits over the [MyISAM](#) engine. It offers better crash recovery.

Additionally, InnoDB supports (multi-statement) transactions and row-level locking, i.e. updates, inserts and deletes will no longer lock the whole file/table. It also supports referential integrity by the use of foreign keys. But these features are currently not used by vanilla Tiki. Customized Tiki versions could take advantage of these features, e.g. if the `tiki_pages` table is linked from a custom table.

## Installing with InnoDB

When creating the Tiki database, the user can choose to use MyISAM or InnoDB. Once the choice is made, Tiki will remember the selection.

## Migrating existing MyISAM databases

- [Migrate from MyISAM to InnoDB](#)

## Supporting InnoDB

### Installs

Rules

- No FKs are allowed in the `tiki.sql` script.
- Fulltext index definitions are placed in the `tiki_myisam.sql` file. InnoDB specific definitions are placed in the `tiki_innodb.sql` file.
- The word MyISAM must be used (only) in the engine specification, and it is not allowed in attribute names or other definitions.

The Tiki installer translates the engine type, based on the selected database in the installer GUI.

After the main install script (`tiki.sql`), the installer will run `tiki_myisam.sql` or `tiki_innodb.sql` for the respective installation. `tiki_myisam.sql` installs the fulltext indexes.

### Upgrades

When adding an engine-dependent patch, the engine-independent SQL statements must be put in the `YYYYMMDD_description_tiki.sql` file. The engine-dependent parts must be put in an accompanying PHP file, defining a `post_YYYYMMDD_description_tiki` function.

Example: Add a table with a fulltext index

**20110918\_tiki\_test\_tiki.sql**

```
DROP TABLE IF EXISTS `tiki_test`; CREATE TABLE `tiki_test` ( `title` varchar(255) default NULL, KEY `title` ( `title` ) ENGINE=MyISAM;
```

and a PHP file specifying the engine dependent part

**20110918\_tiki\_test\_tiki.php**

```
function post_20110918_tiki_test_tiki( $installer ) { if($installer->isMySQLFulltextSearchSupported()) { $installer->query("CREATE FULLTEXT INDEX ft_test ON tiki_test(`title`);" ); } }
```

More info at [Database Schema Upgrade](#)

## Continuous Integration

The [Tiki CI](#) has sql-engine-conversion section which leverages [doc/devtools/check\\_sql\\_engine\\_conversion.php](#)

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See also:

- [InnoDB](#)
- <https://en.wikipedia.org/wiki/InnoDB>