
Meepo Documentation

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Welcome to meepo's documentation. Meepo is a event sourcing and broadcasting platform for database.

This documentation consists of two parts:

1. Meepo PubSub (*meepo.pub* & *meepo.sub*). This part is enough if you only needs a simple solution for your database events.
2. Meepo Apps (*meepo.apps*). This part ships with eventsourcing and replicator apps for advanced use. You can refer to examples for demo.

Meepo source code is hosted on Github: <https://github.com/eleme/meepo>

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CHAPTER 1

Features

Meepo can be used to do lots of things, including replication, eventsourcing, cache refresh/invalidate, real-time analytics etc. The limit is all the tasks should be row-based, since meepo only gives `table_action -> pk` style events.

- Row-based database replication.

Meepo can be used to replicate data between databases including postgres, sqlite, etc.

Refer to `examples/repl_db` script for demo.

- Replicate RDBMS to NoSQL and search engine.

Meepo can also be used to replicate data changes from RDBMS to redis, elasticsearch etc.

Refer to `examples/repl_redis` and `examples/repl_elasticsearch` for demo.

- Event Sourcing.

Meepo can log and replay what has happened since some time using a simple event sourcing.

Refer to `examples/event_sourcing` for demo.

Note: Meepo can only replicate row based data, which means it DO NOT replicate schema changes, or bulk operations.

CHAPTER 2

Installation

Requirements Python 2.x >= 2.7 or Python 3.x >= 3.2 or PyPy

To install the latest released version of Meepo:

```
$ pip install meepo
```


CHAPTER 3

Usage

Meepo use blinker signal to hook into the events of mysql binlog and sqlalchemy, the hook is very easy to install.

Hook with MySQL's binlog events:

```
from meepo.pub import mysql_pub
mysql_pub(mysql_dsn)
```

Hook with SQLAlchemy's events:

```
from meepo.pub import sqlalchemy_pub
sqlalchemy_pub(session)
```

Then you can connect to the signal and do tasks based the signal:

```
sg = signal("test_write")

@sg.connect
def print_test_write(pk)
    print("test_write -> %s" % pk)
```

Try out the demo scripts in `example/tutorial` for more about how meepo event works.

CHAPTER 4

Pub Concept

4.1 MySQL Pub

4.2 SQLAlchemy Pub

CHAPTER 5

Meepo Sub

5.1 Dummy Sub

5.2 OMQ Sub

6.1 EventSourcing

6.1.1 Concept

Pub & Sub

6.1.2 EventStore

6.1.3 PrepareCommit

6.2 Replicator