# 2.11. 记录/监控

可以使用pymongo.monitoring来监视驱动程序事件（例如：查询、连接等）。如果您想监视 MongoEngine 向驱动程序发出的查询，这会很方便。

*要将pymongo.monitoring*与 MongoEngine 一起使用，您需要确保 在建立数据库连接（即调用 *connect* ）**之前**注册监听器：

以下片段提供了所有命令事件的基本日志记录：

```python
import logging
from pymongo import monitoring
from mongoengine import *

log = logging.getLogger()
log.setLevel(logging.DEBUG)
logging.basicConfig(level=logging.DEBUG)


class CommandLogger(monitoring.CommandListener):

    def started(self, event):
        log.debug("Command {0.command_name} with request id "
                  "{0.request_id} started on server "
                  "{0.connection_id}".format(event))

    def succeeded(self, event):
        log.debug("Command {0.command_name} with request id "
                  "{0.request_id} on server {0.connection_id} "
                  "succeeded in {0.duration_micros} "
                  "microseconds".format(event))

    def failed(self, event):
        log.debug("Command {0.command_name} with request id "
                  "{0.request_id} on server {0.connection_id} "
                  "failed in {0.duration_micros} "
                  "microseconds".format(event))

monitoring.register(CommandLogger())


class Jedi(Document):
    name = StringField()


connect()


log.info('GO!')

log.info('Saving an item through MongoEngine...')
Jedi(name='Obi-Wan Kenobii').save()

log.info('Querying through MongoEngine...')
obiwan = Jedi.objects.first()

log.info('Updating through MongoEngine...')
obiwan.name = 'Obi-Wan Kenobi'
obiwan.save()
```

执行此打印以下输出:

```
INFO:root:GO!
INFO:root:Saving an item through MongoEngine...
DEBUG:root:Command insert with request id 1681692777 started on server ('localhost',
27017)
DEBUG:root:Command insert with request id 1681692777 on server ('localhost', 27017)
succeeded in 562 microseconds
INFO:root:Querying through MongoEngine...
DEBUG:root:Command find with request id 1714636915 started on server ('localhost',
27017)
DEBUG:root:Command find with request id 1714636915 on server ('localhost', 27017)
succeeded in 341 microseconds
INFO:root:Updating through MongoEngine...
DEBUG:root:Command update with request id 1957747793 started on server ('localhost',
27017)
DEBUG:root:Command update with request id 1957747793 on server ('localhost', 27017)
succeeded in 455 microseconds
```

更多细节当然可以通过检查*CommandListener*的*事件*参数来获得。