

# PmaControl

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- MARIADB
- MYSQL
- REPLICATION
- MASTER-SLAVE
- MONITORING
- PMACONTROL

### MASTER / SLAVE REPLICATION MONITORING

MariaDB / MySQL replication supervised by PmaControl

**HEALTH STRIP — 24H OVERVIEW**

OK Lag >60s Error

**LAG CHART — LAST 5 DAYS (Chart.js)**

lag spike: ALTER TABLE

**ACTIONS**

- START
- STOP
- SKIP ERR
- PARALLEL: 8 workers
- ETA: 50 min
- GTID delta

## 2026

MariaDB / MySQL

PmaControl

binlog

```
[mysqld]
server-id = 1
log-bin = /var/log/mysql/mysql-bin
binlog-format = ROW
gtid_strict_mode = ON          # MariaDB
# enforce_gtid_consistency = ON # MySQL
# gtid_mode = ON              # MySQL
```

■■■■■■

```
CREATE USER 'repl'@'10.0.1.%' IDENTIFIED BY 'secret_replication_password';
GRANT REPLICATION SLAVE ON *.* TO 'repl'@'10.0.1.%';
```

■■■■■■

server-id ■■■■■■

```
[mysqld]
server-id = 2
relay-log = /var/log/mysql/relay-bin
read-only = ON
log-slave-updates = ON
```

log-slave-updates ■■■■■■■■■■■■■■■ Galera ■■■■■■■■

■■■■

■ **GTID** ■■■■

■ MariaDB ■■

```
CHANGE MASTER TO
  MASTER_HOST = '10.0.1.1',
  MASTER_USER = 'repl',
  MASTER_PASSWORD = 'secret_replication_password',
  MASTER_USE_GTID = slave_pos;

START SLAVE;
```

■ MySQL 8.0+ ■■

```
CHANGE REPLICATION SOURCE TO
  SOURCE_HOST = '10.0.1.1',
  SOURCE_USER = 'repl',
  SOURCE_PASSWORD = 'secret_replication_password',
  SOURCE_AUTO_POSITION = 1;

START REPLICA;
```

## GTID

GTID binlog

```
--  
SHOW MASTER STATUS;  
-- File: mysql-bin.000042, Position: 154  
  
--  
CHANGE MASTER TO  
  MASTER_HOST = '10.0.1.1',  
  MASTER_USER = 'repl',  
  MASTER_PASSWORD = 'secret_replication_password',  
  MASTER_LOG_FILE = 'mysql-bin.000042',  
  MASTER_LOG_POS = 154;  
  
START SLAVE;
```

```
SHOW SLAVE STATUS\G
```

```
Slave_IO_Running: Yes  
Slave_SQL_Running: Yes  
Seconds_Behind_Master: 0
```

```
Slave_IO_Running No Slave_SQL_Running No SQL
```

## PmaControl

### Web

1. ->
2. IP3306 SSH MySQL
3. PmaControl

### REST API

```
# curl -X POST -H "Authorization: Bearer $TOKEN" \
-H "Content-Type: application/json" \
-d '{"ip": "10.0.1.1", "port": 3306, "name": "db-prod-master", "ssh_key_id": 1}' \
https://pmacontrol.example.com/api/v1/servers

# curl -X POST -H "Authorization: Bearer $TOKEN" \
-H "Content-Type: application/json" \
-d '{"ip": "10.0.1.2", "port": 3306, "name": "db-prod-slave-01", "ssh_key_id": 1}' \
https://pmacontrol.example.com/api/v1/servers
```

PmaControl `Slave`

## PmaControl

`/lang/slave/show/{id}/{name}/`

`en/slave/show/42/db-prod-slave-01/`

Slave.php

- `show()`
- `showGraphDay()` `AJAX`

PmaControl `SHOW SLAVE STATUS`

Slave_IO_Running	IO
Slave_SQL_Running	SQL
Seconds_Behind_Master	
Using_Gtid	GTID MariaDB
Auto_Position	GTID MySQL

Last_SQL_Error	SQL 消息
Relay_Log_Space	中继日志空间

MySQL 8.0+ 与 PmaControl 兼容性

	MySQL 8.0+
Slave_IO_Running	Replica_IO_Running
Slave_SQL_Running	Replica_SQL_Running
Seconds_Behind_Master	Seconds_Behind_Source

PmaControl 兼容性

兼容性

Seconds\_Behind\_Master 消息

兼容性

- 默认值 1440
- 通过 AJAX 刷新
- 刷新间隔
- 0.5 秒
- 10 秒
- 30 秒

兼容性

默认值 24 小时

兼容性	
	IO 消息 + SQL 消息 + 消息 < 60
	IO 消息 + SQL 消息 + 消息 > 60
	IO 消息 SQL 消息

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## PmaControl

PmaControl

### START / STOP SLAVE

STOP SLAVE

- ALTER TABLE
- 
- binlog

SQL PmaControl

```
SET GLOBAL sql_slave_skip_counter = 1;  
START SLAVE;
```

PmaControl

PmaControl

- 
- 50 CPU x 2

```
STOP SLAVE;  
SET GLOBAL slave_parallel_workers = 8;  
START SLAVE;
```

LOGICAL\_CLOCK MariaDB WRITESSET MySQL 8.0+

PmaControl ETA

1. 3600
2. 3000 10
3. 60

```

3600 3000 10
= 600 / 10 = 60
ETA = 3000 / 60 = 50

```

ETA PmaControl "ETA: "——

## GTID

PmaControl GTID

- **MariaDB** SHOW SLAVE STATUS Using\_Gtid No Slave\_Pos Current\_Pos
- **MySQL** SHOW SLAVE STATUS Auto\_Position 0

GTID PmaControl

- GTID Slave\_Pos Executed\_Gtid\_Set
- GTID
- 

GTID seconds\_Behind\_Master

### 1. GTID

Binlog + GTID

### 2. read\_only

```

SET GLOBAL read_only = ON;
SET GLOBAL super_read_only = ON; -- MySQL 5.7.8+ / MariaDB 10.3.16+

```

read\_only

### 3.

```
Slave_IO_Running: Yes Slave_SQL_Running: Yes [redacted]"[redacted]"[redacted] 2 [redacted]PmaControl [redacted]
```

#### 4. [redacted]

[redacted] PmaControl [redacted]

- [redacted] 60 [redacted] 5 [redacted]
- [redacted] 300 [redacted] IO/SQL [redacted]

[redacted] Telegram [redacted]

#### 5. [redacted]

```
ALTER TABLE [redacted] online schema change [redacted] gh-ost [redacted] DDL [redacted] PmaControl [redacted]
```

[redacted]

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MariaDB / MySQL [redacted] PmaControl [redacted]"[redacted]"[redacted]"[redacted]"[redacted]

- [redacted] 5 [redacted]
- [redacted]/[redacted]
- [redacted]ETA[redacted]
- [redacted] GTID [redacted]
- [redacted] Telegram [redacted]

[redacted] DBA——[redacted]