

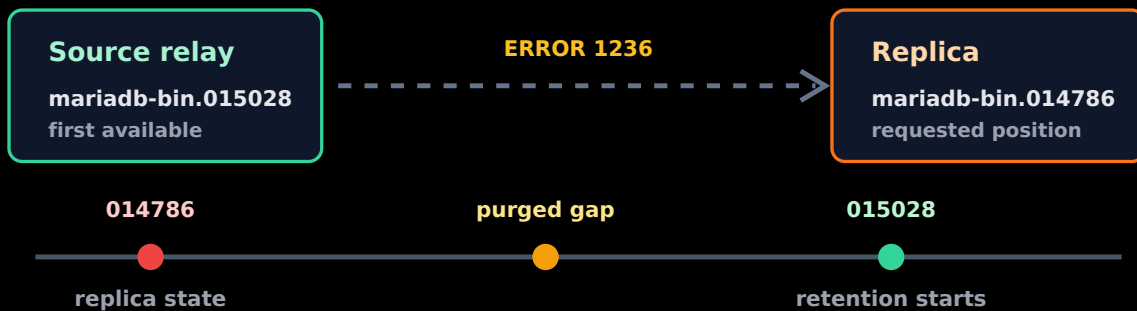
# GTID

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MARIADB MYSQL REPLICATION GTID BINLOG PMACONTROL DBA INCIDENT

## GTID vs file/position

When the requested binlog is outside the retained window



### Lesson

Switching to GTID does not purge source binlogs, but CHANGE MASTER resets local relay logs.



MariaDB file/position GTID IO thread

```
SHOW SLAVE STATUS\G
```

```
Slave_IO_Running: No
Slave_SQL_Running: Yes
Using_Gtid: No
Last_IO_Errno: 1236
Last_IO_Error: Could not find first log file name in binary log index file
```

“GTID relay logs binlogs”

## GTID



STOP SLAVE

Slave\_IO\_Running: No  
Slave\_SQL\_Running: No  
Relay\_Log\_Space: 632576  
relay-bin.000002: 632273 bytes

CHANGE MASTER TO MASTER\_USE\_GTID=slave\_pos;

relay logs

Using\_Gtid: Slave\_Pos  
Read\_Master\_Log\_Pos: 3464  
Exec\_Master\_Log\_Pos: 3464  
Relay\_Log\_Space: 256  
relay-bin.000001: 256 bytes

GTID relay logs

CHANGE MASTER TO MASTER\_USE\_GTID=no;

file/position relay logs

STOP SLAVE relay logs CHANGE MASTER MASTER\_USE\_GTID

file/position

mariadb-bin.014786:35578691

relay source binary log index

first available: mariadb-bin.015028  
last available: mariadb-bin.015130  
retained files: 103  
retained size: about 10 GiB

```
binlog_expire_logs_seconds = 864000
expire_logs_days           = 10
binlog_space_limit         = 0
max_binlog_size            = 104857600
```

10 分钟

## 10 分钟

10 分钟 binlogs

10 分钟

- 10 分钟
- 10 分钟 GTID 10 分钟 file/position 10 分钟
- 10 分钟 purge 10 分钟
- retention 10 分钟
- maintenance 10 分钟 rebuild 10 分钟
- upstream master 10 分钟 relay source 10 分钟

SHOW BINARY LOGS MariaDB 10 分钟

## GTID 10 分钟

MariaDB GTID MASTER\_LOG\_FILE / MASTER\_LOG\_POS 10 分钟

10 分钟 file/position 10 分钟 IO thread 10 分钟

GTID 10 分钟 binlogs 10 分钟 CHANGE MASTER 10 分钟 relay logs 10 分钟 relay logs 10 分钟 binlogs 10 分钟

## CHANGE MASTER 10 分钟

10 分钟

```
STOP SLAVE;
CHANGE MASTER TO
  MASTER_LOG_FILE='mariadb-bin.015130',
  MASTER_LOG_POS=97211185,
  MASTER_USE_GTID=no;
```

```
START SLAVE;
```

```
IO thread [ ] SQL thread [ ]
```

```
Last_SQL_Errno: 1452  
Cannot add or update a child row:  
foreign key constraint fails
```

```
[ ]
```

```
[ ]
```

```
[ ]
```

```
[ ]
```

1. [ ]
2. [ ] source [ ] relay source [ ]
3. [ ]
4. [ ]
5. [ ] GTID [ ] file/position [ ]
6. [ ]
7. [ ]

```
[ ]
```

```
Slave_IO_Running: Yes  
Slave_SQL_Running: Yes  
Seconds_Behind_Master: 0 or decreasing  
Last_IO_Error:  
Last_SQL_Error:
```

```
[ ] slave_skip_counter [ ]
```

```
[ ]
```

```
[ ] GTID [ ] PmaControl [ ]
```

```
SHOW SLAVE STATUS\G
SHOW BINARY LOGS;
SHOW VARIABLES WHERE Variable_name IN (
    'expire_logs_days',
    'binlog_expire_logs_seconds',
    'binlog_space_limit',
    'max_binlog_size'
);
```

||||

- Relay\_Master\_Log\_File |||
- |||
- binlog |||

CHANGE MASTER ||| rebuild

||

GTID ||| binlogs ||| CHANGE MASTER position ||| relay logs

binlog ||| relay logs |||

GTID ||| file/position ||| binlog |||