# **Different Types of Logs Supported**

## MySQL query log settings

SQL DM for MySQL retrieves (completely or partially) the General query log and the Slow query log from the MySQL servers it connects to, and analyzes them. Here, you see how to set up details for the connection, so that log analysis are available with SQL DM for MySQL. You have to set up details for the general query log and the slow query log independently. Enabling slow query log 'log queries not using indexes' instead needs SUPER privilege. Refer to the MySQL Documentation on how to enable and configure logging. MySQL server logs can be written to files on the server machine or to tables in the MySQL database itself.

The MySQL server (since version 5.0) has an option to log (in the slow log) queries that do not use an index. Such queries need not be slow if there are only a few hundred or few thousand records in the table(s) involved. But they are 'potentially slow' and should be identified if they access tables, which continue to grow. You can enable and disable it, as well (SQL DM for MySQL sends the appropriate SET of statements to MySQL).



## Logs written to files

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First, consider the situation where server logs are stored as files on the server machine. This is the most common situation and the only one available with MySQL servers before version 5.1.

If it is the first time you configure a server with this option, click the **Fetch query log details** button. MySQL server detects (it is stored in server variables) what logs are enabled and how logging is configured. Click **Test Path** to verify the path. SQL DM for MySQL connects and verify the existence of the file (but not its content).

The log files can be accessed from the local file system (if SQL DM for MySQL and MySQL is running on the same computer) or by using SFTP (if SQL DM for MySQL and MySQL is running on different computers). Note that you must use the file and path syntax of the machine where the logs are.

If the log files can be accessed from a shared drive, over a network, or from a network enabled file system (like NFS on Linux), then SQL DM for MySQL can access them as if they were local files. No additional SSH/SFTP configuration is required in this case: the operating system takes care of the file transfer transparently.

When Via SFTP option is chosen, then SSH server details as defined in SSH server details settings are used to read the file from the remote system.

The SSH user must have read access to the log files.

If MySQL server version is greater than 5.1.6 then all the fields mentioned in log analyzer would be editable i.e. if a user changes and saves the settings by clicking **Save** a pop up is displayed where a user can set the new value to corresponding MySQL Server.

By default, MONyog(SQL DM for MySQL) service runs under Local System Account. If you have Slow query or General query logs in a Mapped Network Drive, SQL DM for MySQL is not able to reach it. You need to use UNC notation for SQL DM for MySQL to be able to access them. See FAQ 31 for details.

### Logs written to MySQL tables

It is supported by MySQL from version 5.1. Also, SQL DM for MySQL supports when this option is available. Here, click the **Fetch Log Details From MySQL** button. When this option is used there is no file path to configure and no SSH details to consider. SQL DM for MySQL can retrieve the server log by sending simple SELECT statements. Only the MySQL user used by SQL DM for MySQL to connect to MySQL must have SELECT privileges to the tables.

In the Query Analyzer tab select which of the MySQL servers and the type of log (including the 'pseudo log') you want to analyze. Next, click **Analyze** to start the analysis, and after a while it displays an analysis result like, for **Slow Query Log**:

<ul> <li>✓</li> </ul>	QUERY ANALYZER	Master ~	Slow Query Log 🗸 🛞	All ~	ANALYZE				٩
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≁	TOP QUERIES BASE	D ON TOTAL TIME				COUNT	TOTAL TIME	AVERAGE LATENCY	USER@HOST
	select sleep(1000)	;				2	28:54.263	14:27.131	root[root] @ localhost
0	select sleep(200);					1	03:20.000	03:20.000	root[root] @ localhost
€	select sleep(20);					1	20.016	20.016	root[root] @ localhost
∷≡	SELECT COUNT(	1) AS COUNT FROM INFORMATION_SO	CHEMA. TABLES A LEFT JOIN INFO	RMATION_	SCHEMA.TABL	7	16.749	02.393	root[root] @ Sandhya-P
÷!†	SHOW FULL PRO	CESSLIST;				4	10.750	02.688	root[root] @ [192.168.1
	<ul> <li>Others</li> </ul>					4	12.005	03.001	
٩	Queries Containing	✓ Type Here							1 - 9 of 9 🔍 🚿
	QUERY					COUNT	TOTAL TIME	AVERAGE LATENCY $\downarrow$	USER@HOST
	select sleep(1000);					2	28:54.263	14:27.131	root[root] @ localhost
	select sleep(200);					1	03:20.000	03:20.000	root[root] @ localhost
	select sleep(20);					1	20.016	20.016	root[root] @ localhost
	insert into 'zak2'.'batc	hingredientsstockids` (`ID`,`BatchIngredie	ntID`,`StockId`,`UomQuantity`) value	s ('0016022	0-402C-4FDE	1	07.339	07.339	root[root] @ localhost

#### For General Query log,

<b>↔</b>	QUERY ANALYZER	Master	~	General Query Log \vee 🛞	All ~	ANALYZE					٩
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Ĉ											
*	TOP QUERIES BASE	ED ON COUNT					COUNT	QUERY OCCURRENCE	USER@HOST		
	SHOW FULL PRO	DCESSLIST					6К	62.071			
0	SHOW OPEN TA	BLES;					354	3.637			
€	SHOW FULL PRO	DCESSLIST;					354	3.637			
∷≡	SELECT a.`trx_id'	trx_id, a.`trx_state` trx_state, a.`tr	k_started	`trx_start_time, a.`trx_mysql_thread	d_id` trx_m	ysql_thread_id, b.`INFO` trx	353	3.626			
ţţţ	SHOW /*!50002 G	LOBAL*/ STATUS					311	3.195			
♦	Others						2К				
Ø	Queries Containing	g 🗸 Type Here							C 1 - 10 of 300	« »	
	QUERY						COUNT ↓	QUERY OCCURRENCE	USER@HOST		
	SHOW FULL PROCE	SSLIST					6K	62.071			
	SHOW OPEN TABLE	5;					354	3.637			
	SHOW FULL PROCE	SSLIST;					354	3.637			
	SELECT a. `trx_id` trx_	id, a.`trx_state` trx_state, a.`trx_sta	arted` trx	_start_time, a.`trx_mysql_thread_id	trx_mysql_	_thread_id, b.`INFO` trx_quer	353	3.626			

#### For Sniffer

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SQL DM for MySQL Query Sniffer is a functionality that records a pseudo server log and stores it in the SQL DM for MySQL embedded database. With **Qu** ery sniffer enabled, SQL DM for MySQL can populate the pseudo server log in three different ways at the intervals you specify:

- By utilizing Performance Schema tables (events\_statements\_summary\_by\_digest, events\_statements\_history\_long) and collecting snapshots at regular intervals.
- By sending the query SHOW FULL PROCESSLIST to the MySQL server.
- Or, by connecting to a running instance of the MySQL-Proxy program that is used by one or more clients to connect to a MySQL server.

For MySQL 5.6.14 and above you can use Performance schema, Proxy and Processlist for query analysis. If using MySQL version less than 5.6.14 then only Proxy or Processlist can be used in SQL DM for MySQL.

Performance Schema on MySQL contains queries executed on server along with other information:

• Number of rows sent and examined

- Number of temporary tables created on disk
- Number of temporary tables created on memory
- Number of joins performed and the type of join
- Whether sorting happened and the type of sort
- Whether index used
- Whether good index used

SQL DM for MySQL uses performance schema statement digest table(events\_statements\_summary\_by\_digest) to get the above information and is dependent on the statements\_digest in setup\_consumers table. By default, this is enabled. If not, it can be enabled by executing the following:

```
UPDATE performance_schema.setup_consumers
SET enabled = 'YES'
WHERE name = 'statements_digest';
```

Example query is available in events\_statements\_history\_long table and has to be enabled and is dependent on the events\_statements\_hist ory\_long in setup\_consumers table. By default, this is not enabled and should be enabled by executing

```
UPDATE performance_schema.setup_consumers
SET enabled = 'YES'
WHERE name = 'events_statements_history_long';
```

The performance\_schema.events\_statements\_summary\_by\_digest table size is dependent on performance\_schema\_digests\_size global variable. By default, this size is set to 5000 rows. Once it reaches this limit you may lose the queries. SQL DM for MySQL provides an option to truncate the performance schema digest table when it reaches 80% of performance\_schema\_digests\_size.

Performance schema based sniffer comes with different filters like: Queries with errors, Queries with warnings, Queries with missing indexes, and Queries with poor indexes.

QUERY ANALYZER	RDS	~	Sniffer ~	All ~	ANALYZE						2	5
	-											
TOP QUERIES BASI	ED ON TOTAL TIME						COUNT	TOTAL TI	ИE	AVERAGE	LATENCY	
SELECT * FROM	( SELECT `digest` AS `Dig	gest`, SCHEMA_I	NAME AS `Db` , `digest_tex	t` AS `Query	`,`count_star` AS `Count`	, `IFNULL` ( `s	2M	73:18:50	.423	00.134		
SELECT COUNT	(*) FROM `mysql` . `rds_	history` WHERE A	ACTION = ? GROUP BY `ac	tion_timesta	mp`,`called_by_user`, A0	CTION , `mysql	345K	11:27:22	.752	00.119		
SELECT ?							7M	06:22:21.890		00.003		
SHOW OPEN TAI	BLES ;						5M	03:52:11	.675	0		
SELECT `perform	ance_schema`.`events_v	vaits_summary_gl	obal_by_event_name` . `EV	ENT_NAME	AS `events` , `performan	ce_schema`.`	149K	03:24:45.506		00.082		
Others							67M	12:27:12	.296	0		
All Queries V Cor	ntaining v Type Here								☞ □	1 - 10 of 1	1257 « »	
All Queries					COUNT	TOTAL TIME	AVERAGE LATEN	CY ↓	FIRST SEEN		LAST SEEN	
Queries with errors	100				12	03:51.032	19.253		Jul 14, 17 13:	00:10	Feb 22, 18 12:37:54	
Queries with missin	ng indexes				1	13.000	13.000		Aug 30, 17 17	:05:12	Aug 30, 17 17:05:12	
Queries with poor in	ndexes ROM ( SELE	CT * FROM `perfo	rmance_schema` . `events_	statements_	summa 1	07.405	07.405		Aug 30, 17 15	:09:57	Aug 30, 17 15:09:57	
SELECT * FROM `per	formance_schema`.`ever	nts_statements_st	ummary_by_digest`		2	05.566	02.783		Oct 13, 17 22	:56:51	Oct 13, 17 22:56:58	
	QUERY ANALYZER TOP QUERIES BASI SELECT * FROM SELECT COUNT SELECT ? SHOW OPEN TAI SELECT 'perform Others All Queries ~ Cor All Queries ~ Cor All Queries with errors Queries with errors Queries with poor in Queries with poor in SELECT * FROM 'perform	QUERY ANALYZER     RDS       TOP QUERIES BASED ON TOTAL TIME     TOP QUERIES BASED ON TOTAL TIME       SELECT * FROM (SELECT 'digest' AS 'Dig SELECT COUNT (*) FROM 'mysql'. 'rds_l' SELECT ?       SHOW OPEN TABLES ;       SHOW OPEN TABLES ;       SELECT 'performance_schema'. 'events_v' Others       All Queries × Containing × All Queries with errors Queries with missing indexes Queries with poor indexes Queries with poor indexes     Type Here ANM (SELEC SELECT * FROM 'performance_schema'. 'events_v'	QUERY ANALYZER     RDS     ~       TOP QUERIES BASED ON TOTAL TIME     .       • SELECT * FROM (SELECT 'digest' AS 'Digest', SCHEMA_I)       • SELECT COUNT (*) FROM 'mysql'. 'rds_history' WHERE A       • SELECT ?       • SELECT ?       • SELECT 'performance_schema'. 'events_waits_summary_gl       • Others       All Queries ~ Containing ~       All Queries       Queries with errors       Queries with missing indexes       Queries with poor indexes	QUERY ANALYZER       RDS       Sniffer          TOP QUERIES BASED ON TOTAL TIME	QUERY ANALYZER       RDS       Suffer       All ~         TOP QUERIES BASED ON TOTAL TIME       Image: Containing of the state of the	QUERY ANALYZER       RDS       ×       Sniffer       ×       All ×       ANALYZE         TOP QUERIES BASED ON TOTAL TIME         SELECT * FROM (SELECT 'digest' AS 'Digest', SCHEMA_NAME AS 'Db', 'digest_text' AS 'Query', 'count_star' AS 'Count'         O QUERIES BASED ON TOTAL TIME         SELECT * FROM (SELECT 'digest' AS 'Digest', SCHEMA_NAME AS 'Db', 'digest_text' AS 'Query', 'count_star' AS 'Count'         SELECT COUNT (*) FROM 'mysql', 'rds_history' WHERE ACTION = ? GROUP BY 'action_timestamp', 'called_by_user', AC         SELECT ?         SHOW OPEN TABLES ;         SELECT 'performance_schema'. 'events_waits_summary_global_by_event_name', 'EVENT_NAME' AS 'events', 'performanc'         Others         All Queries with errors         Queries with errors         Queries with missing indexes         QUERY WHERE         QUeries with poor indexes         AOM (SELECT * FROM 'performance_schema'. 'events_statements_summa         QUERY ANALYZE	QUERY ANALYZER       DS       ×       Sniffer       All ×       ANALYZE         INTERPORT         TOP QUERIES BASED ON TOTAL TIME         SELECT * FROM (SELECT 'digest' AS 'Digest', SCHEMA_NAME AS 'Db', 'digest_text' AS 'Query', 'count_star' AS 'Count', 'IFNULL' ('s)         SELECT COUNT (*) FROM 'mysql', 'rds_history' WHERE ACTION = ? GROUP BY 'action_timestamp', 'called_by_user', ACTION, 'mysql'         SELECT ?         SELECT 'performance_schema', 'events_waits_summary_global_by_event_name', 'EVENT_NAME' AS 'events', 'performance_schema', '         Others         All Queries & Containing ×         Type Here         All Queries with errors       1       03:51.032         Queries with missing indexes       0M (SELECT 'FROM 'performance_schema', 'events_statements_summany_by_digest'       2       05:566	QUERY ANALYZER       RDS       Sniffer       All ×       ANALYZE         TOP OUERIES BASED ON TOTAL TIME       COUNT         © SELECT * FROM (SELECT 'digest' AS'Digest', SCHEMA_NAME AS'Db', 'digest_text' AS 'Query', 'count_star' AS 'Count', 'IFNULL' ('s       2M         • SELECT COUNT (*) FROM 'mysqi', 'rds_history' WHERE ACTION = ? GROUP BY 'action_timestamp', 'called_by_user', ACTION, 'mysqi       345K         • SELECT ?       7M         • SELECT ?       5M         • SELECT ?       5M         • SELECT 'performance_schema'. 'events_waits_summary_global_by_event_name'. 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SMOW OPEN TABLES;       5M       03:52:11         SELECT 'performance_schema', 'events_waits_summary_global_by_event_name'. 'EVENT_NAME' AS 'events', 'performance_schema', '       149K       03:24:45         Others       67/M       12:27:12       03:51:032       12:27:12         All Queries Containing ~       Type Here       12       03:51:032       12:27:12         All Queries with moring B       Queries with moring B       13:000       13:000       14:000         Queries with poor indexes       POM (SELECT * FROM 'performance_schema', 'events_statements_summan       1       07:405       7:405         SELECT * FROM 'performance_schema', 'events_statements_summan       2       05:566       02:783       1	QUERY ANALYZER       RDS       Sniffer       AI       ANALYZE         COURY IN ALYZE         COURY IN ALYZE         COURT IN E         COURT IN E         COURT IN E         COURT IN E         SELECT ' FROM (SELECT ' digest', SCHEMA_NAME AS 'Db', 'digest_text' AS 'Query', 'count_star' AS 'Count', 'IFNULL' ('s       2M       73:18:50.423         SELECT COUNT (') FROM 'mysql', 'rds_history' WHERE ACTION = ? GROUP BY 'action_timestamp', 'called_by_user', ACTION, 'mysql       345K       11:27:22.752         SELECT ?       7M       06:22:21.880         SELECT ?       7M       06:22:21.880         SELECT ' performance_schema', 'events_waits_summary_global_by_event_name'. 'EVENT_NAME' AS 'events', 'performance_schema', '       149K       03:52:11.675         SELECT ' performance_schema', 'events_waits_summary_global_by_event_name'. 'EVENT_NAME' AS 'events', 'performance_schema', '       149K       03:52:11.286         COUNT       TOTAL TIME       AVERAGE LATENCY ↓       PRST SEEME         All Queries       Counties with minsing indoxes       Gueries with minsing indoxes       Jul 14, 171 33         Queries with minsing indoxes       ROM (SELECT * FROM 'performance_schema', 'events_statements_summa	QUERY ANALYZER       DS       Seller       All       ANALYZE         COURT       TOTAL TIME       COUNT       TOTAL TIME       AVERAGE         SELECT ' FROM (SELECT ' diges', AS 'Diges', SCHEMA_NAME AS 'Db', 'digest_text' AS 'Query', 'count_star' AS 'Count', 'IFNULL' ('s       2M       73:18:50.423       00.194         SELECT COUNT (') FROM 'mysqi', 'rds_history WHERE ACTION = ? GROUP BY 'action_timestamp', 'called_by_user', ACTION, 'mysqi       345K       11:27:27.52       00.194         SELECT ?       7M       06:22:18:90       00.033         SELECT ?       7M       02:27:12:296       00         SELECT ?       7M       12:27:12:296       00         SELECT ?       7M       12:27:12:296       00	QUERY MANAZOR       PIDS       Sintler       AI ×       MAXAZOR       ANALYZE       ANALYZE

performance\_schema truncates queries after 1024 characters and always replaces literals with a wildcard (in other words: P\_S contains a summary/an aggregation only). So query listing not replacing literals is not possible with this option. And finally also observe that no other tool (or user) should be writing (including deleting or truncating) to events\_statements\_summary\_by\_digest and events\_statements\_hist ory\_long tables if this option is used as there is only one of each table for all users (it is not a temporary table or a materialized view or similar private for the user). This is a design limitation with the tables in P\_S as such and not a Monyog issue.

If using MySQL version less than 5.6.14 then only Proxy or Processlist can be used in SQL DM for MySQL. Although, configuring a Proxy instance is a little more complicated, the PROXY-based sniffer has several advantages over the PROCESSLIST-based, including the following:

- 1. All queries that was handled by the Proxy are recorded by SQL DM for MySQL sniffer when PROXY option is used. When PROCESSLIST option is used very fast queries may execute completely between two SHOW FULL PROCESSLIST queries and is not recorded.
- 2. You can choose to analyze queries from specific client(s)/application(s) only. Simply let (only) the clients that you want to focus on at the moment connect through the Proxy.

3. When using the PROXY option you can distribute part of the load generated by the sniffer on the machine that fits best in your deployment scenario (like on the one that has most free resources available) by deciding where to have the PROXY: The MySQL machine, the SQL DM for MySQL machine (if not the same), or quite another machine. The machine running MySQL have no additional load due to the sniffer if the Proxy is not running on that machine.

Also, if more SQL DM for MySQL instances use the same PROXY they use the same data collected, when the Proxy Sniffing is enabled by the first SQL DM for MySQL instance. To work with SQL DM for MySQL sniffer the MySQL Proxy instance must be started with the name of a LUA script called **MONyo g.LUA** (LUA is a scripting/programming language) as argument and is distributed with SQL DM for MySQL. You find it in the Monyog program folder after installing (Windows and Linux RPM) or unpacking (Linux .tar.gz) the SQL DM for MySQL program package as downloaded from the IDERA website. The MySQL Proxy program however you need to download from MySQL website (we cannot include it for license reasons). SQL DM for MySQL works with Proxy versions from 0.61 to 0.81(latest currently) with the exception of 0.7x versions for windows and Mac due to a bug in those specific builds. For more information on Proxy MySQL Proxy.

To start a Proxy instance for use with SQL DM for MySQL use the command:

#### • For Older version:

Proxy installation folder>mysql-proxy --proxy-backend-addresses=192.168.x.x:3305 --proxy-address=192.168.y.y: 4045 --proxy-lua-script=SQL DM for MySQL.lua

#### • For v0.81 and later:

```
Proxy installation folder>mysql-proxy --proxy-backend-addresses=192.168.x.x:3305 --proxy-address=192.168.y.y:
4045 --admin-username=root --admin-password=root --admin-lua-script=MONyog.lua --proxy-lua-script=MONyog.lua
```

(It is assumed that the 'MONyog.LUA' was copied to the folder where the PROXY binary is). Also, if no port is specified the PROXY it listens on port 4040. Now, you can connect to the Proxy from one or more clients/applications. The Proxy sends queries to MySQL and results back to the client. But when started with the LUA script for SQL DM for MySQL sniffer it also send information to SQL DM for MySQL that SQL DM for MySQL uses to populate the sniffer 'pseudo log'.

Once this 'pseudo log' has been recorded (in either of the two ways described: PROCESSLIST or PROXY-based) the SQL DM for MySQL log analysis functionalities can operate on the 'pseudo log' as well as the 'real logs'. The data recorded in the pseudo log is purged automatically based on the 'data retention timeframe' option set by you.

Further some filtering options are provided. This filtering happens before storing to the SQL DM for MySQL database. It prevents the sniffer database to grow out of control. The filtering options are as follows:

- User and host: You can choose to store queries executed only by a specific combination of users and/or hosts.
- Minimum time taken: For every PROCESSLIST returned to SQL DM for MySQL, the queries are recorded in the embedded database only if they have been executing for a time greater than the specified minimum execution time. Furthermore, if a query with the same structure and details (like process ID) as one already recorded is encountered, the embedded database is UPDATED, and the statement is recorded only once. This setting should be somewhat larger than the sample interval (and also consider the latency of the connection).
- Queries starting with: Enter any string and only queries starting with that string is recorded. Examples: SELECT \*, UPDATE Customer\_Base.

Also note that in PROCESSLIST Sniffer we have an option 'Long Running Query Options' where you can monitor the long running queries by notifying or killing a query which takes more than a time specified by you. You can also specify users whose queries are ignored (i.e. queries by such user are not killed by SQL DM for MySQL and never raise an alert even if they take a longer time to execute than the alert/kill setting time you specified.

Clicking the monitor only locked queries would only monitor those long queries that are locked.

Note that the query sniffer is never a complete General Log. Very fast statements may or may not be recorded as they may or may not finish executing between two PROCESSLIST's generated. The time interval between subsequent data collections for the 'pseudo log' depends on the connection to the MySQL server.

<ul> <li>✓</li> </ul>	QUERY ANALYZER	Master - New	<ul> <li>✓ Snit</li> </ul>	fer 🗸	All ~	ANALYZE						٩
8												
Ū	TOP QUERIES BAS	SED ON TOTAL TIME						COUNT	TOTAL TIME	AVERAGE	ELATENCY	
≁	SHOW OPEN TA	ABLES ;						24K	26.061	0		
	SELECT * FROM	/ ( SELECT `digest` AS `Digest` , So	HEMA_NAME	AS `Db` , `digest_tex	t` AS `Query	/`,`count_star`AS`Cou	nt`,`IFNULL`(`s	4K	14.868	00.004	00.004	
©	SELECT `t` . `TA	156	11.500	00.074								
Q	SHOW GLOBAL	STATUS						зк	06.331	00.003		
∷≡	SELECT `TABLE	_SCHEMA` AS `Database` , SUM (	(`data_length`	+ `index_length` ) / (	?*?))AS`	Database_Size` FROM `	information_sche	27	00.156	00.156		
¦!	Others							14K	19.176	00.001		
\$	All Queries 🗸 Co	ontaining ~ Type Here							Ċ	11 - 20	of 35   🚿	
Ø	QUERY					COUNT	TOTAL TIME	AVERAGE LATEN	NCY ↓ FIRST SE	EN	LAST SEEN	
	SELECT @@`versio	n_comment` LIMIT ?				1	00.003	00.003	Mar 8, 1	8 12:35:23	Mar 8, 18 12:35:23	3
	SELECT COUNT (*	) FROM `information_schema` . `PL	UGINS' WHER	E `Plugin_Name` IN (	) AND `Plu	ıgin_stat 1	00.002	00.002	Mar 7, 1	8 12:31:53	Mar 7, 18 12:31:53	3
	SET SESSION `wait,	_timeout` = ?				307	00.595	00.002	Mar 8, 1	8 16:05:26	Mar 8, 18 16:10:52	2
	SELECT * FROM `in	formation_schema` . `plugins` WHE	RE `PLUGIN_N	AME` = ? OR `PLUG	IN_NAME` =	? 6	00.009	00.001	Mar 6, 1	8 18:31:05	Mar 8, 18 12:34:25	.5
	SELECT COUNT (*	) AS `count` FROM `performance_s	chema`.`event	s_statements_summ	ary_by_diges	st` 4K	02.530	00.001	Mar 8, 1	8 16:05:02	Mar 8, 18 16:11:24	4

The identical queries are only listed once and the Count column tells how many times this query was executed.

With the General Query Log there are a few specific problems:

- 1. With multi-line queries only record the first line of the statement. The reason is that, as the log does not record the statement DELIMITERs, there really is no way to tell where a multi-line statement ends. Even the option to 'Show full' is not displayed more than one line as SQL DM for MySQL has only stored one line. Refer to FAQ 23.
- 2. It is not always possible to tell what user executed a specific query. When this is the case the User column displays empty in the Query Analyzer output. It is not a bug in SQL DM for MySQL but a limitation with the general log itself.

You can sort the display by clicking on the column header. Note that statement grouping/counting and sorting is case insensitive.

When analyzing the slow server log (but not general log and not sniffer data) you can further click on a query and detailed information displays as follows:

Query Details Query Explain											
Normalized Query SELECT COUNT ( * ) FROM `new2` . `school` LIMIT ?,											
Example query is not available. Make sure you have enabled 'events_statements_history_long' in Performance Schema. To enable this, execute UPDATE `performance_schema`.`setup_consumers` SET ENABLED='YES' WHERE NAME LIKE 'events_statements_history_long'											
Database new2											
Time Span											
FIRST SEEN	LAST SEEN										
Oct 28, 17 16:21:32	Oct 28, 17 16:21:32										
Query Execution Time											
TOTAL TIME	AVERAGE LATENCY	MAX TIME									
17.835	17.835	17.835									
ROWS SENT	ROWS EXAMINED										
1	48M										
DISK TEMP TABLES	MEMORY TEMP TABLES										
0	0										
SELECT FULL JOIN	SELECT FULL RANGE JOIN	SELECT RANGE	SELECT RANGE CHECK	SELECT SCAN							
0	0	0	0	1							
SORT MERGE PASSES	SORT RANGE	SORT ROWS	SORT SCAN								

Explain plan is available in Query analyzer for Slow\_log table based logging, Processlist based sniffer and performance schema based sniffer.

# Filter settings

There is an option to **Replace literals from the query.** The purpose of this option is to eliminate small differences between almost identical queries. Currently, quoted strings and numbers are replaced with the dummy string '?' only. The filtering settings are stored for that particular session which is not permanent.

For example:

```
SELECT * FROM customer_master
WHERE cust_id = 23 AND address = 'r;#23 fleet street';
```

becomes,

```
SELECT * FROM customer_master
WHERE cust_id = ? AND address = ?;
```

Settings - Slow Query Log											
Replace literals in queries with '?'											
FILTER USERS											
Include ~											
		Supports regex character *									
FILTER HOSTS											
Include ~											
		Supports regex character *									
Include Use	rs executing the que	ries with Host names									
C Read All											
READING LIMIT F	ROM FILE										
1	MB ~										
APPLY											

The reading limit **All** is selected it considers the whole file for analyzing but if the option is **Last**, it reads the last specified chunk in KB, MB, or bytes out of the whole log file. Also, you can define a timeframe to be analyzed and the size of the 'log chunk' (in KB, MB and Bytes for file based logs and in rows for table-based logs) to be transferred to SQL DM for MySQL.

If **All** is selected in the list, is not considering any timeframe and just displays all queries within the specified size/chunk. Also note, it is the smallest of those two settings that have effect for the analysis. For analyzing the sniffer pseudo log there is no chunk size to be defined as the complete pseudo log as stored in the SQL DM for MySQL database that is considered. The selected log chunk needs to have statements for the selected period. If not, then SQL DM for MySQL of course only display data from the first log record available.

Include User and Host Information: If this option is selected it displays the User and Host of that particular query and it groups the query analyzer table based on user@host and query.

If SQL DM for MySQL is already installed in the machine and Sniffer is enabled, it only displays the User info in Query Analyzer table because old SQL DM for MySQL never used to store the Host information in sniffer.data table. Also note, that this option is not supported by MySQL Proxy. In General query log, if connect string is not included in the specified chunk, it is not display the user@host information which is just left as an empty space.

⚠

The option to define the field delimiter is provided because some localized Windows programs for LOCALEs where comma ", " is used as a decimal sign and requires a semicolon "; " as field separator. This includes Microsoft Office programs (Excel and Access) and Microsoft text-ODBC driver on such localized Windows. On Linux, the situation is more non-uniform but also such localized OpenOffice Calc (spreadsheet) requires semicolon "; " as field separator.

fx	Total													
	A	в	с	D	E	F	G	н	1	J	к	L	м	N
1	Total	Avg	Max	locktime	count	success	Query Occurren	errcount	warningcount	firstseen	lastseen	query	orgquery	db
2	28.035	28.035	28.035	28.035	1	0	0	1		0 Jan 14, 17 20:2	Jan 14, 17 20:	2 SELECT 'sleep'	select sleep(3)	information
3	01:10.660	5.435	12	2	13	11	0	2		0 Jan 06, 17 20:0	Jan 16, 17 20:	0 SELECT 'sleep'	select sleep(3)	
4	7.251	0.196	3.046	0.009	37	37	0	0	1	0 Jan 04, 17 17:0	Jan 16, 17 22:	1 SELECT 'SCHE	SELECT SCHE	MATA.SCHEI
5	2:41:27	0.146	01:00.109	0.001	66201	66201	0.676	0	1	0 Jan 04, 17 14:1	Jan 16, 17 22:	4 SELECT * FRO	SELECT * FRO	M (SEL
6	40.198	0.137	18.479	0.001	294	294	0.003	0	1	0 Jan 04, 17 15:5	j Jan 16, 17 22:	3 SELECT COUN	SELECT COUN	T(*) FROM ir
7	03:05.078	0.072	15.857	0.001	2568	2568	0.026	0	1	0 Jan 04, 17 14:1	Jan 14, 17 16:	SELECT EVEN	SELECT EVEN	T_NAME, MA
8	0.602	0.067	0.223	0.006	9	9	0	0	1	0 Jan 06, 17 17:2	Jan 11, 17 17:	1 SET GLOBAL g	e SET GLOBAL g	eneral_log_fi
9	0.113	0.057	0.113	0	2	2	0	0	1	0 Jan 06, 17 17:3	Jan 06, 17 17:	3 UPDATE 'perfor	UPDATE 'perfor	mance_sche
10	0.213	0.053	0.207	0.002	4	4	0	0	1	0 Jan 12, 17 21:3	Jan 14, 17 20:	0 SHOW FULL TA	show full tables	from 'axon_r
11	12.341	0.047	1.903	0	262	0	0.003	262		0 Jan 04, 17 16:0	Jan 11, 17 17:	2 SHOW ALL	show all slaves	status
12	0.057	0.029	0.057	0	2	2	0	0	1	0 Jan 12, 17 21:3	Jan 14, 17 20:	SHOW CREATE	show create pro	cedure 'sakil
13	0.098	0.024	0.095	0.001	4	4	0	0	1	0 Jan 12, 17 21:3	Jan 14, 17 20:	0 SHOW FULL TA	show full tables	from 'sakila'
14	0.02	0.02	0.02	0.02	: 1	1	0	0		0 Jan 11, 17 18:1	Jan 11, 17 18:	1 EXPLAIN EXTE	EXPLAIN /*!401	00 EXTENDE
15	0.018	0.018	0.018	0.018	1	1	0	0	1	0 Jan 12, 17 21:3	Jan 12, 17 21:	3 SELECT 'versio	r select version()	
16	0.34	0.015	0.057	0	23	3	0	20		3 Jan 05, 17 17:1	Jan 16, 17 21:	2 EXPLAIN EXTE	EXPLAIN /*!401	00 EXTENDE
17	0.412	0.015	0.046	0.001	27	26	0	1	2	6 Jan 06, 17 20:3	Jan 16, 17 20:	2 EXPLAIN EXTE	EXPLAIN /*!401	00 EXTEND
18	0.03	0.015	0.028	0.002	2	2	0	0	1	0 Jan 06, 17 17:2	Jan 15, 17 18:	SHOW TABLE S	show table statu	is from 'axon
19	34.996	0.014	6.429	0	2487	2487	0.025	0	1	0 Jan 04, 17 14:1	Jan 16, 17 22:	4 SELECT 'ENGI	SELECT 'ENGI	NES'.'SUPP
20	0.052	0.013	0.05	0.001	4	4	0	0	1	0 Jan 12, 17 21:3	Jan 14, 17 20:	SHOW FULL TA	show full tables	from 'mysql'
21	0.013	0.013	0.013	0.013	1	0	0	1		0 Jan 14, 17 20:0	Jan 14, 17 20:	0 USE `new_trail_	use `new_trail_r	new'
22	44.445	0.013	8.745	0	3446	3446	0.035	0	1	0 Jan 04, 17 14:1	Jan 16, 17 22:	4 SHOW GLOBA	SHOW /*150002	GLOBAL*/ S
23	45.201	0.012	10.494	0	3854	3854	0.039	0	1	0 Jan 04, 17 16:0	Jan 11, 17 17:	2 SHOW ENGINE	SHOW ENGINE	INNODB ST
24	0.023	0.012	0.012	0.011	2	2	0	0	1	0 Jan 05, 17 14:1	Jan 05, 17 14:	2 SELECT SUM (	DATA_LENGTH	`) `Data_lenç
25	0.112	0.012	0.027	0.001	9	9	0	0	1	0 Jan 06, 17 17:2	Jan 11, 17 17:	1 SET GLOBAL s	SET GLOBAL s	low_query_lo
26	01:35.594	0.011	7.645	0	9090	9090	0.093	0	1	0 Jan 04, 17 14:1	Jan 16, 17 22:	4 SET SESSION	SET SESSION	wait_timeout=
27	0.136	0.011	0.136	0	12	12	0	0	1	0 Jan 06, 17 17:2	Jan 11, 17 17:	1 SET GLOBAL s	SET GLOBAL S	low_query_lo
28	15:16.269	0.011	16.393	0.001	80445	80445	0.822	0		0 Jan 04, 17 14:1	Jan 16, 17 22:	4 SHOW GLOBAL	SHOW /*150002	GLOBAL*/ S
	+ E Pro	duction_Sniffer.cs	W ~											<ul> <li>Explore</li> </ul>

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