



PERCONA  
Performance Consulting Experts

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# CACTI MySQL Templates

## 5 minutes of goodness

Feb 16, 2011

Percona Live

San Francisco, CA

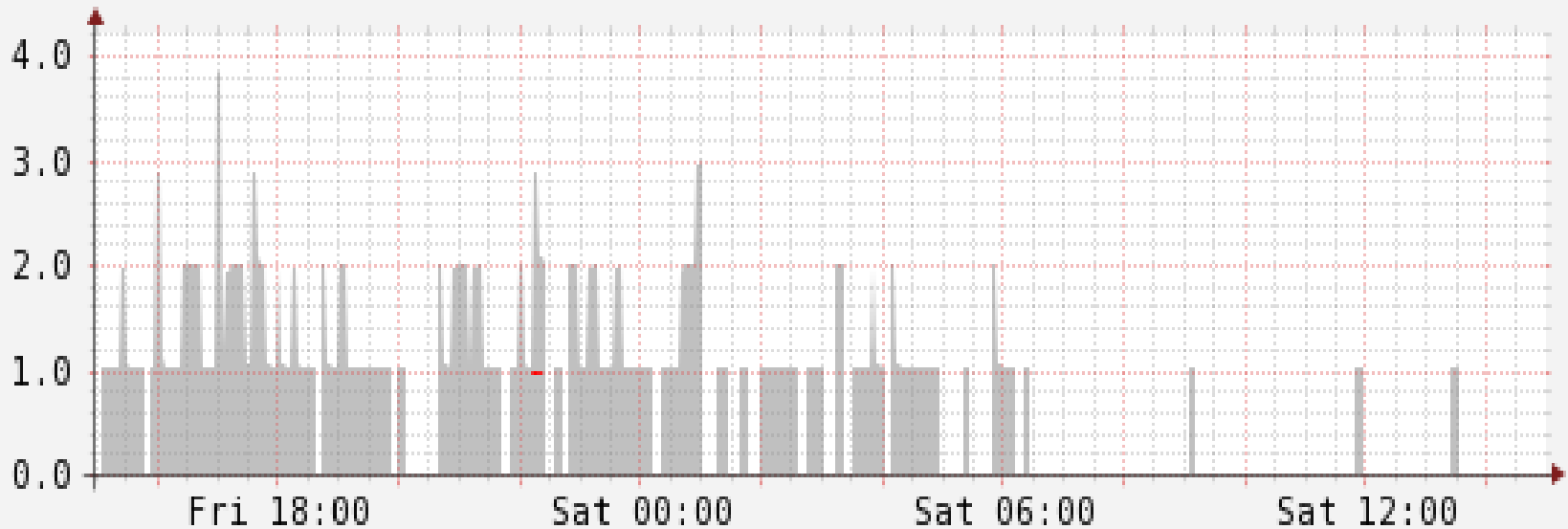
by Peter Zaitsev, Percona Inc

# MySQL Cacti Templates

- Done by Baron Schwartz
  - And Baron's stuff is always Cool
  - <http://code.google.com/p/mysql-cacti-templates/>
  - 100% Open Source, free to use
- Cover
  - General Operating System
  - MySQL (over 40 Graphs !)
  - Apache, Nginx
  - MongoDB, Memcache, Redis
  - OpenVZ and More
- We just look at MySQL Part

# InnoDB Transactions

- InnoDB Active/Locked Transactions

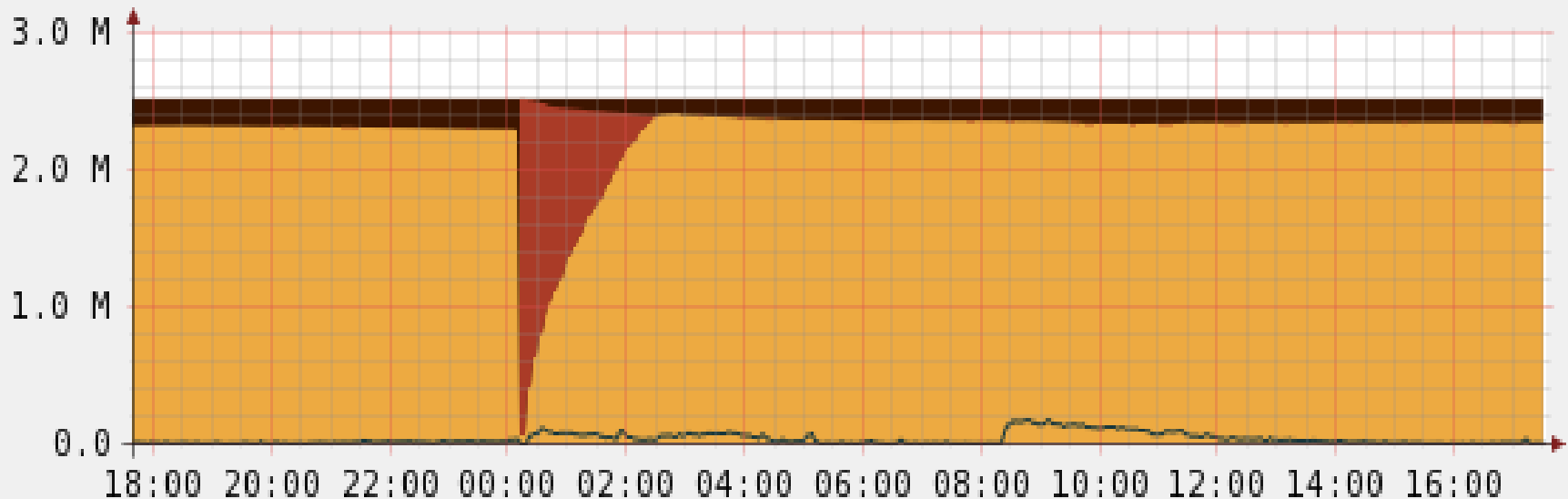


From 2009/11/20 14:55:57 To 2009/11/21 14:55:57

Active Transactions	Cur: 1.0	Avg: 1.3	Max: 3.8
Locked Transactions	Cur: 1.0	Avg: 1.0	Max: 1.0

# Buffer Pool Memory

db11 - InnoDB Buffer Pool

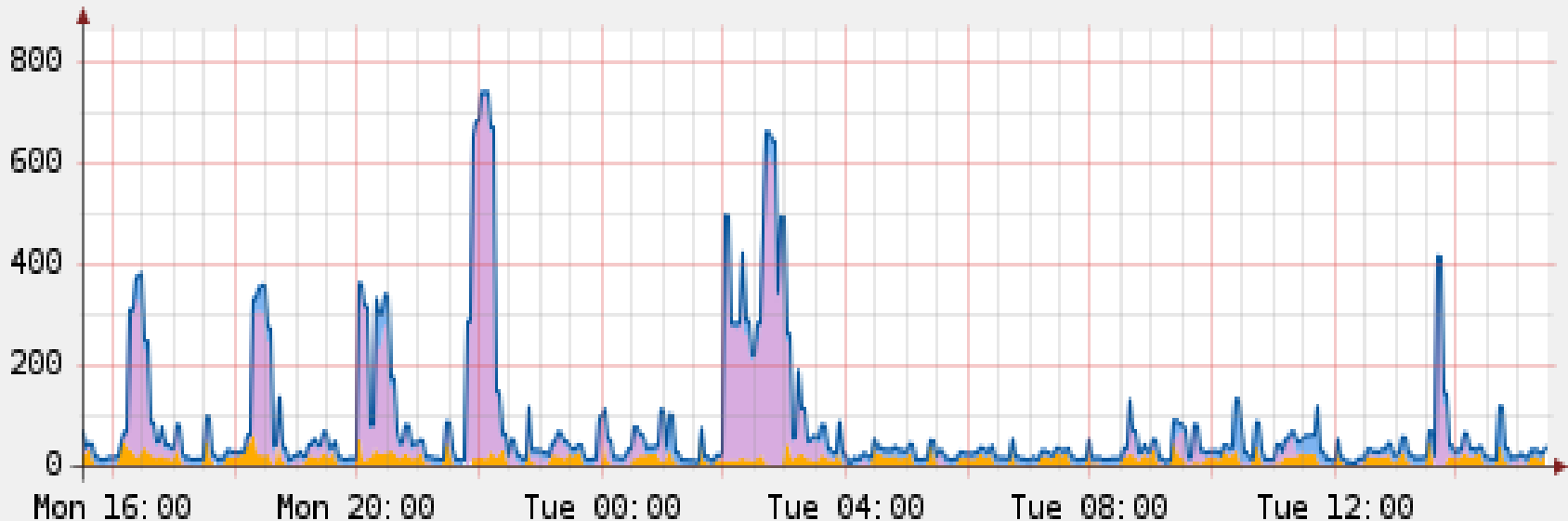


RRDTOOL / TOBI OETIKER

■ Pool Size	Cur:	2.5M				
■ Database Pages	Cur:	2.3M	Avg:	2.2M	Max:	2.4M
■ Free Pages	Cur:	0.0	Avg:	92.7k	Max:	2.4M
■ Modified Pages	Cur:	6.1k	Avg:	38.2k	Max:	176.4k

# Buffer Pool Activity

Galax - InnoDB Buffer Pool Activity



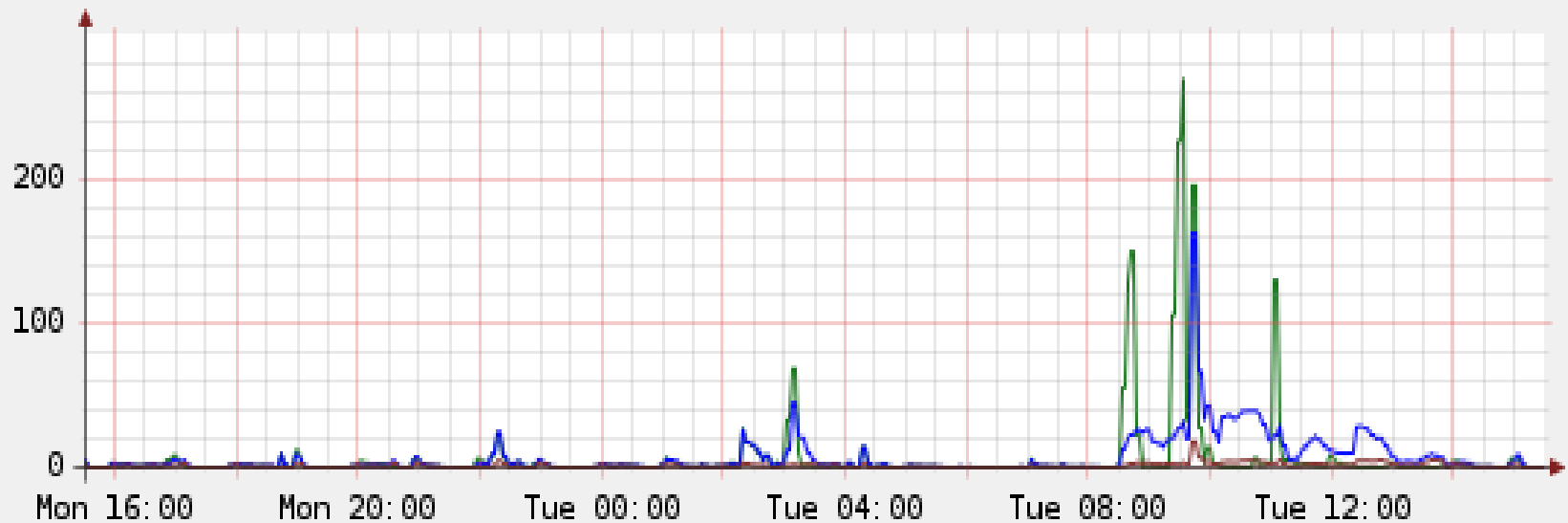
From 2008/05/19 15:29:41 To 2008/05/20 15:29:41

Pages Created	Current:	25.89	Average:	13.11	Max:	60.35
Pages Read	Current:	0.00	Average:	53.37	Max:	720.61
Pages Written	Current:	12.91	Average:	15.87	Max:	102.57

RRDTOOL / TOBI OETIKER

# InnoDB Insert Buffer

Galax - InnoDB Insert Buffer

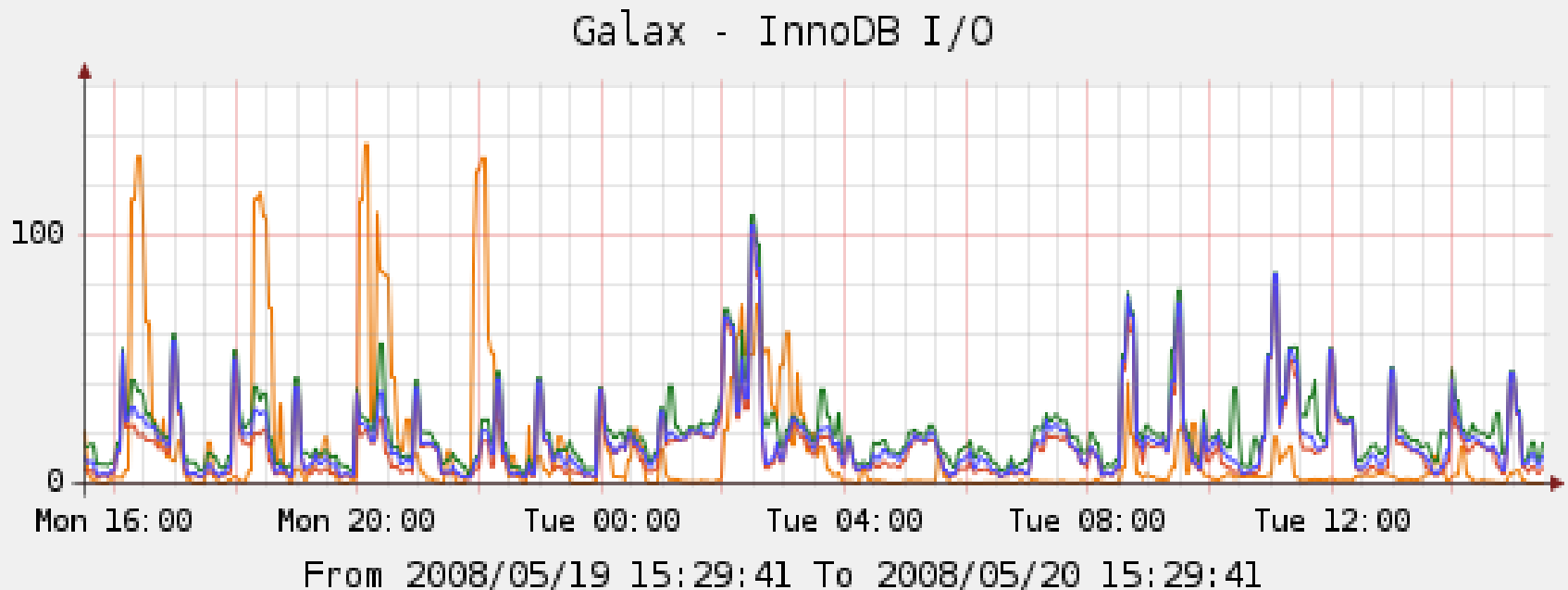


From 2008/05/19 15:29:41 To 2008/05/20 15:29:41

█ Inserts	Current:	0.00	Average:	6.71	Max:	269.60
█ Merged Records	Current:	0.00	Average:	6.72	Max:	162.63
█ Merges	Current:	0.00	Average:	1.20	Max:	18.15

RRDTOOL / TOBI OETIKER

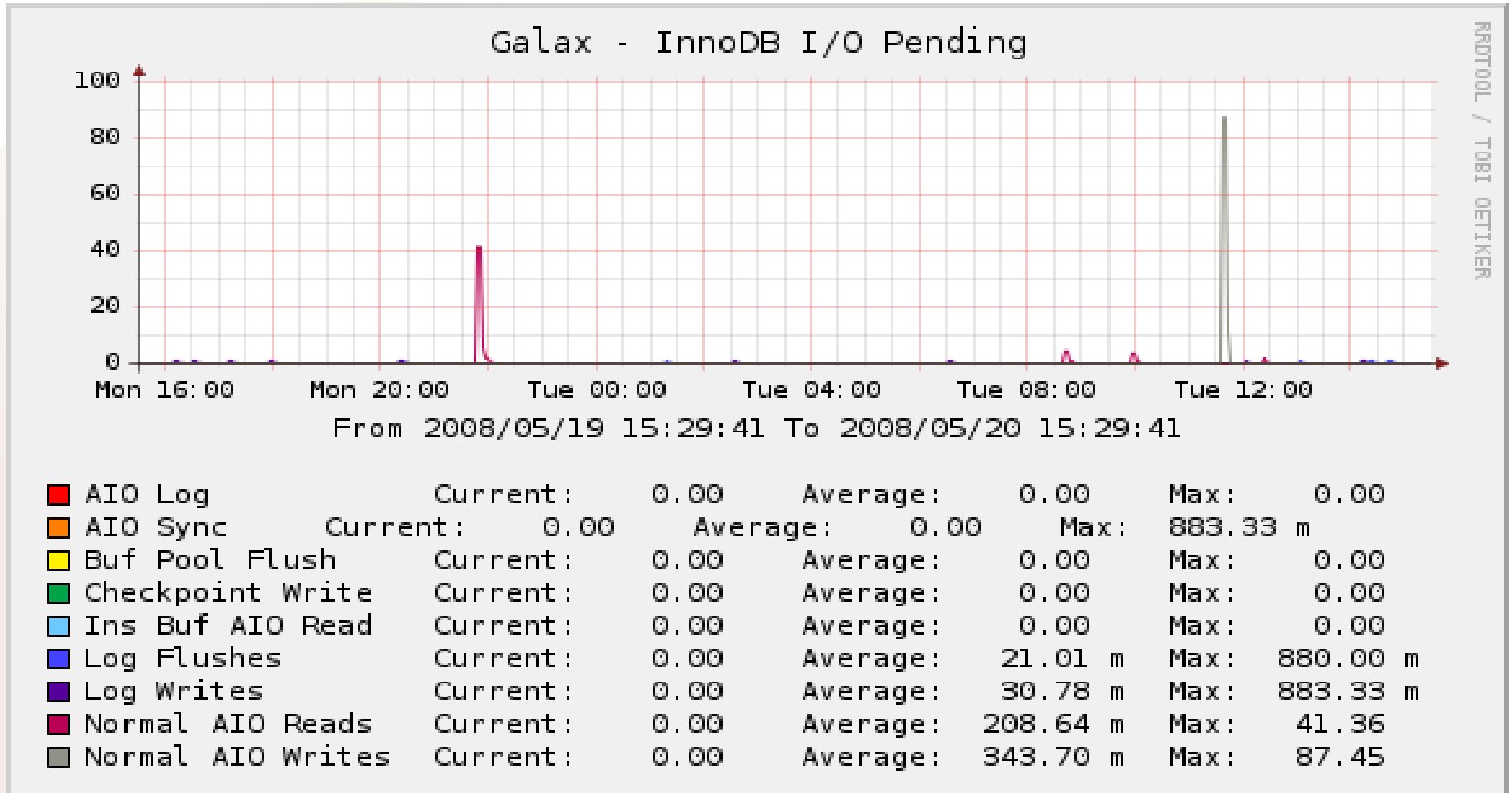
# InnoDB File IO



RRDTOOL / TOBI OETIKER

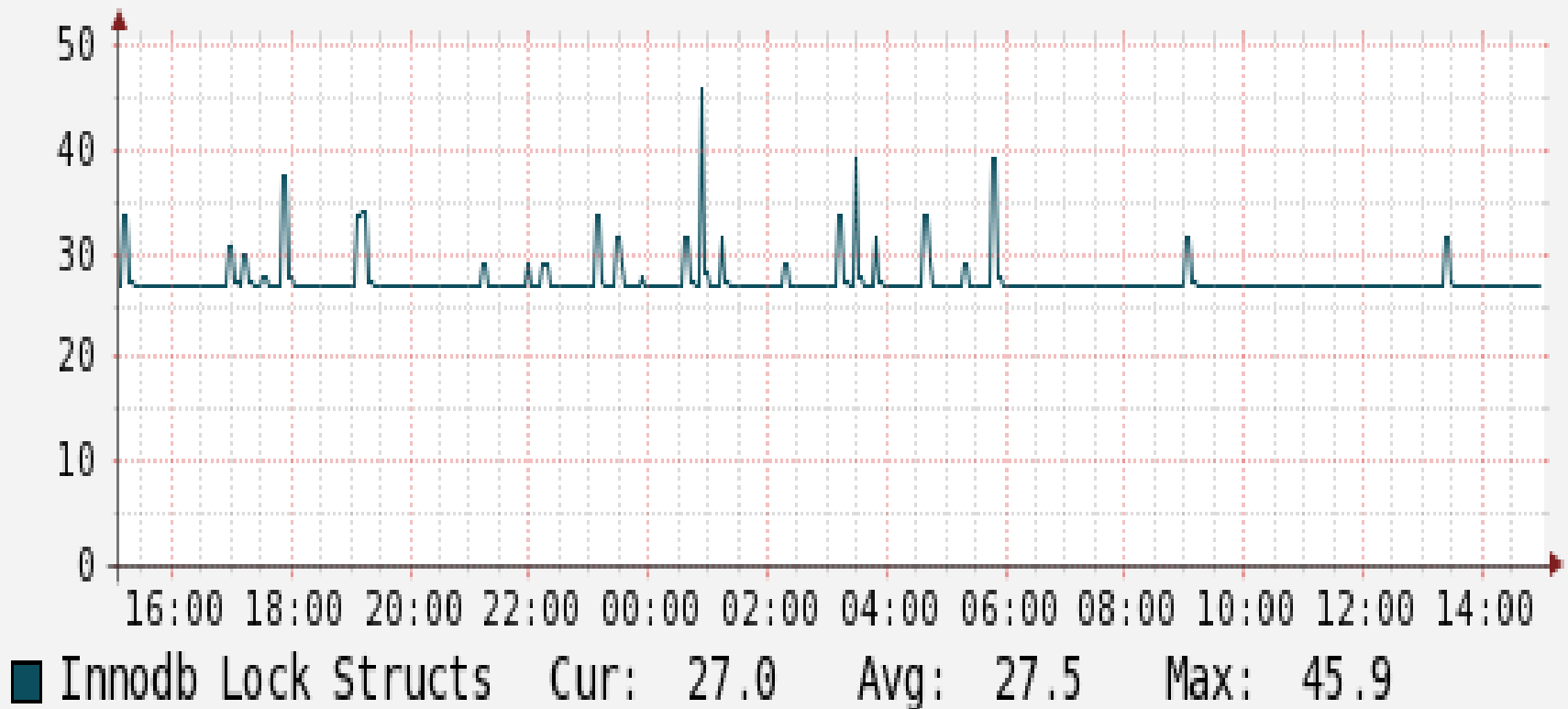
File Reads	Current:	0.00	Average:	13.10	Max:	136.56
File Writes	Current:	16.11	Average:	21.59	Max:	108.08
Log Writes	Current:	6.38	Average:	15.04	Max:	102.04
File Syncs	Current:	11.22	Average:	17.43	Max:	104.10

# InnoDB Pending IO

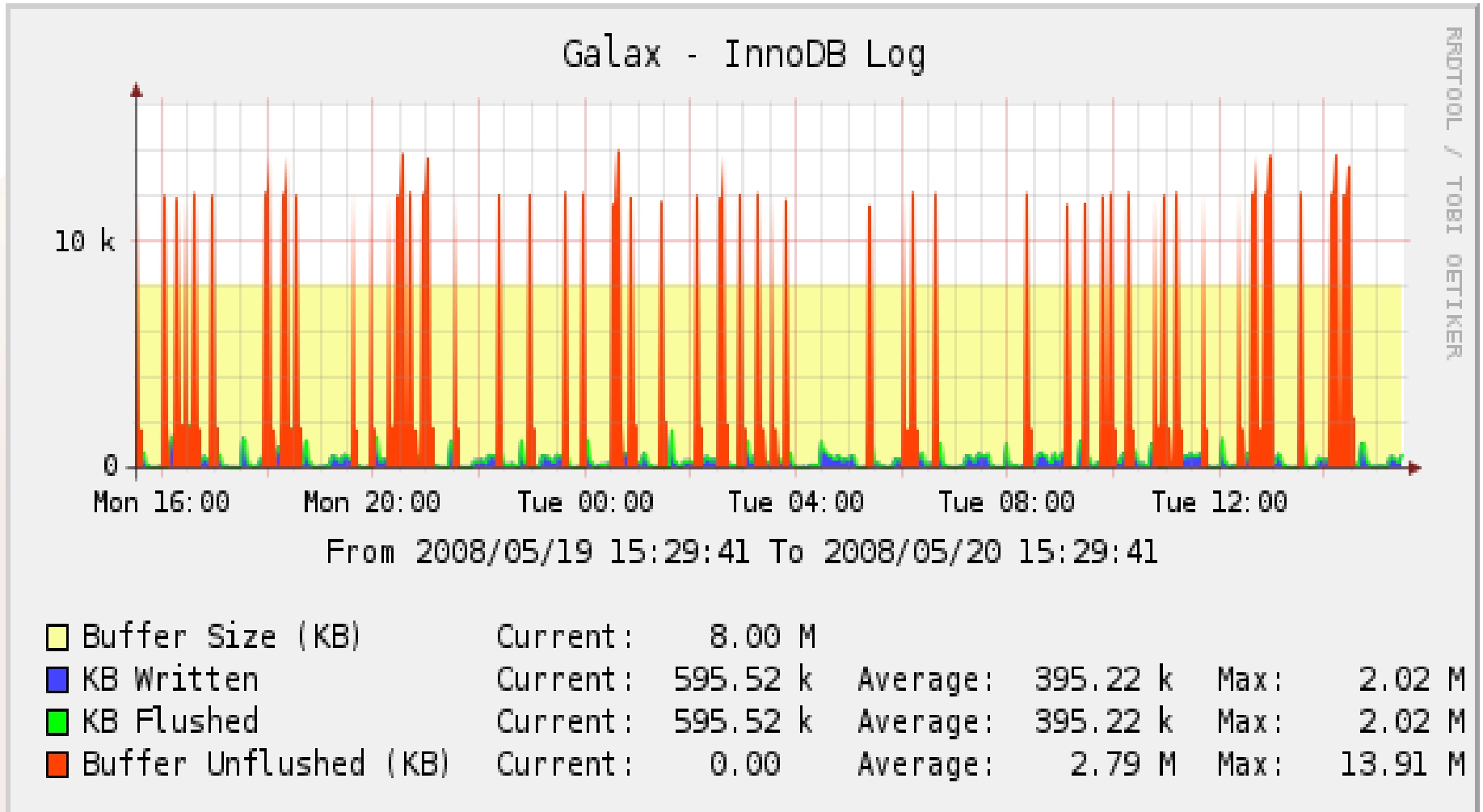


# InnoDB Lock Structures

## - InnoDB Lock Structures

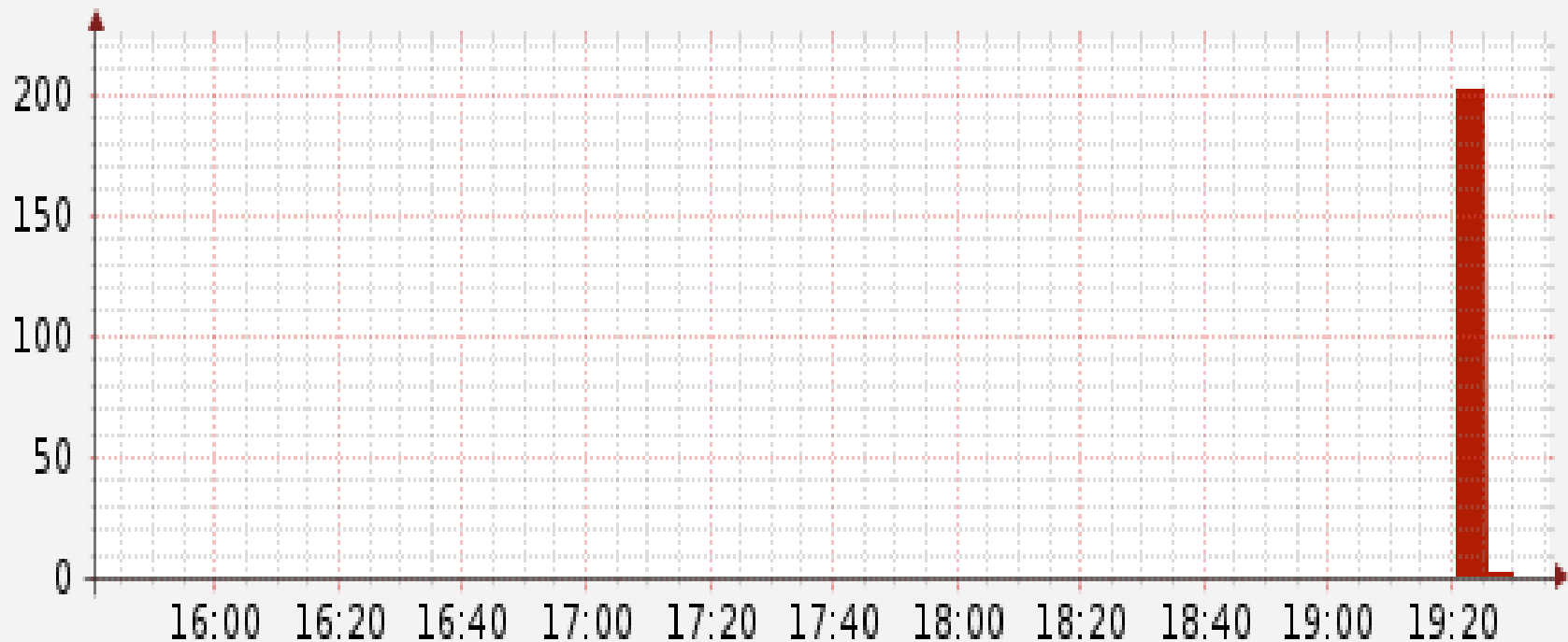


# InnoDB Log Activity



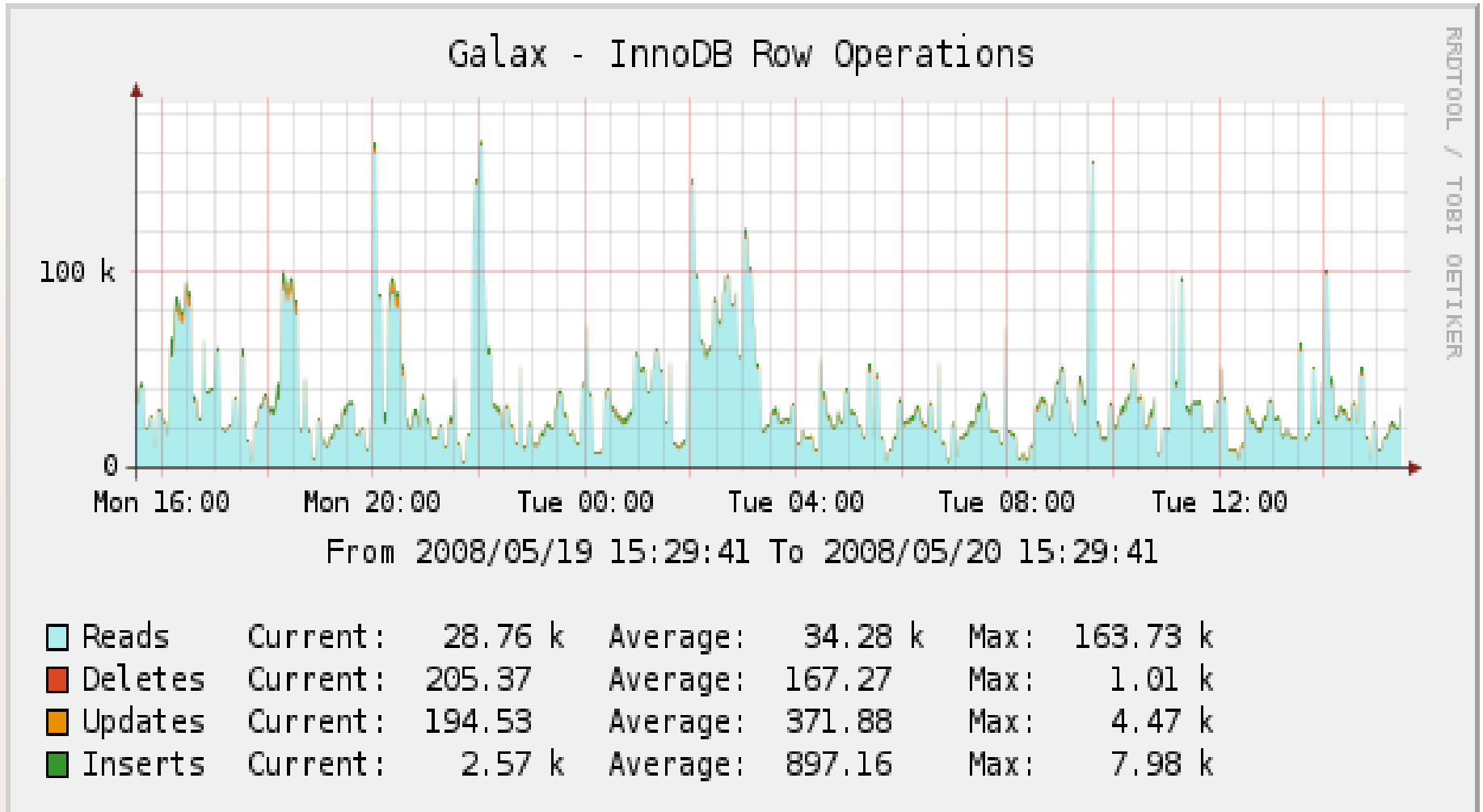
# InnoDB Row Lock Time

## Localhost - InnoDB Row Lock Time



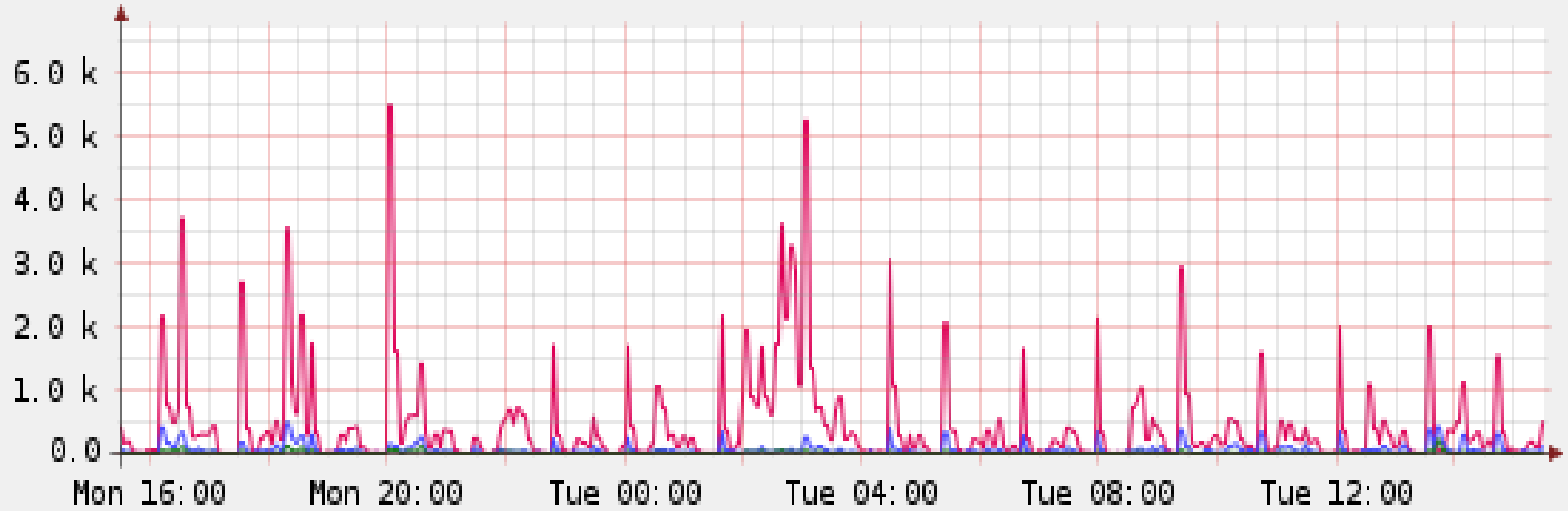
■ InnoDB Row Lock Time Cur: 0.0 Avg: 40.6 Max: 201.6

# InnoDB Row Operations



# Innodb Semaphores

Galax - InnoDB Semaphores



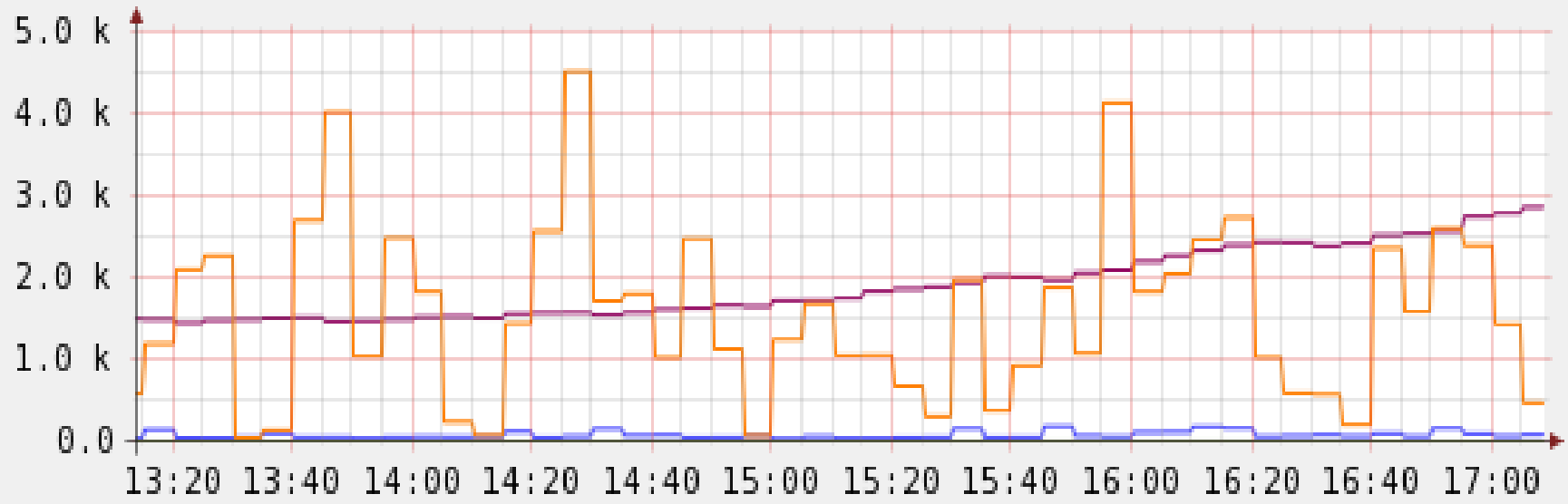
RRDTOOL / TOBI OETIKER

From 2008/05/19 15:29:41 To 2008/05/20 15:29:41

Spin Rounds	Current: 497.79	Average: 462.35	Max: 5.49 k
Spin Waits	Current: 104.92	Average: 56.20	Max: 485.98
OS Waits	Current: 8.08	Average: 9.80	Max: 198.54

# InnoDB Transactions

db01 - InnoDB Transactions

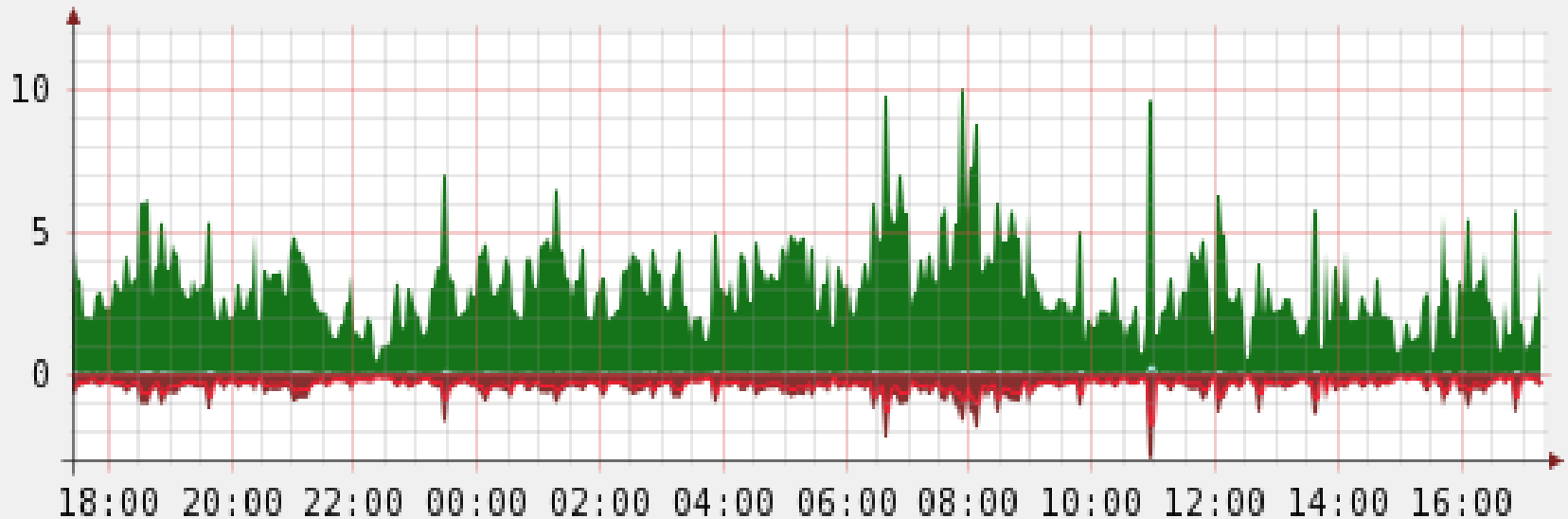


■ InnoDB Transactions	Cur: 2.9k	Avg: 1.9k	Max: 2.9k
■ Current Transactions	Cur: 75.7	Avg: 73.3	Max: 179.8
■ History List	Cur: 465.0	Avg: 1.5k	Max: 4.5k
■ Read Views	Cur: 1.0	Avg: 1.1	Max: 4.0

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# MyISAM Indexes

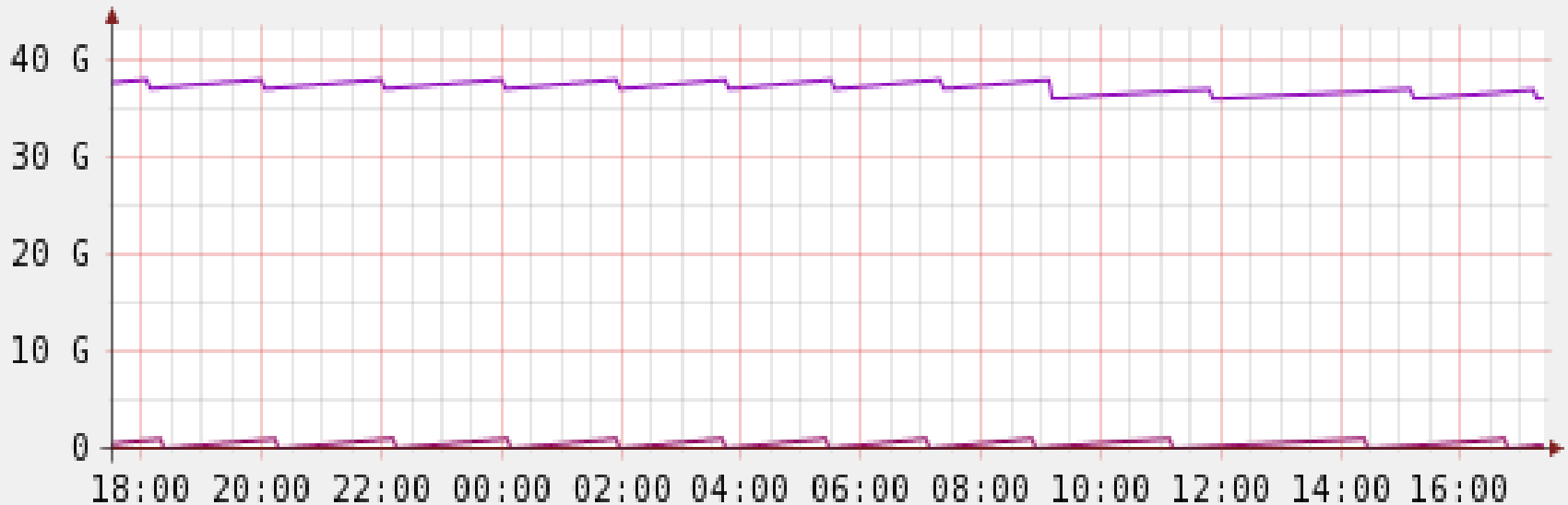
db10 - MyISAM Indexes



■ Key Read Requests	Cur: 3.6	Avg: 3.1	Max: 9.9
■ Key Reads	Cur: 23.4m	Avg: 40.1m	Max: 277.4m
■ Key Write Requests	Cur: 523.6m	Avg: 547.2m	Max: 2.9
■ Key Writes	Cur: 281.9m	Avg: 323.3m	Max: 1.7

# Binary Logs/Relay Logs

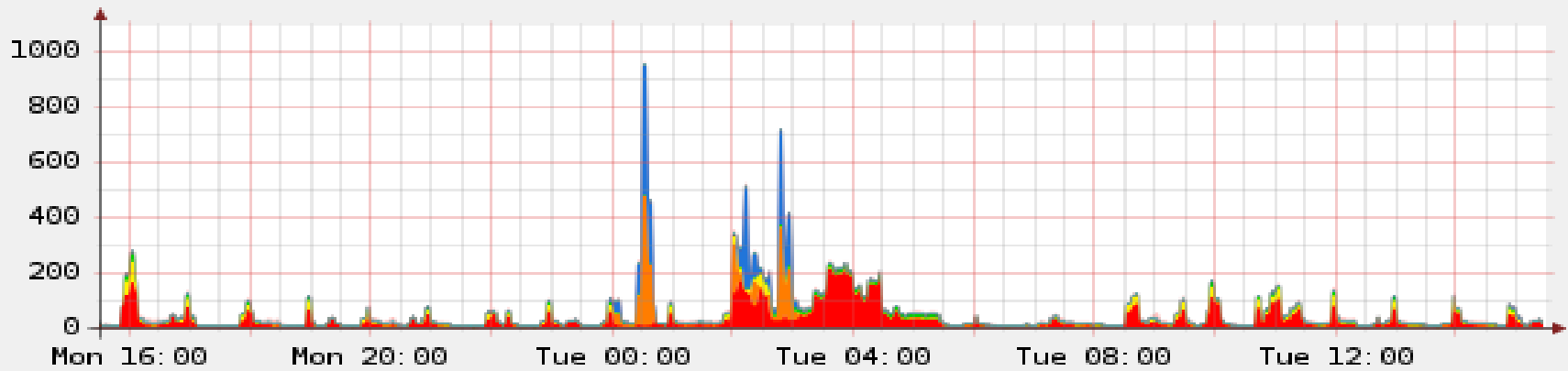
db06 - MySQL Binary/Relay Logs



■ Binlog Cache Use	Cur: 461.1	Avg: 375.7	Max: 512.6
■ Binlog Cache Disk Use	Cur: 0.0	Avg: 0.0	Max: 0.0
■ Binary Log Space	Cur: 36.1G	Avg: 37.2G	Max: 38.0G
■ Relay Log Space	Cur: 371.6M	Avg: 504.9M	Max: 1021.0M

# MySQL Command Counters

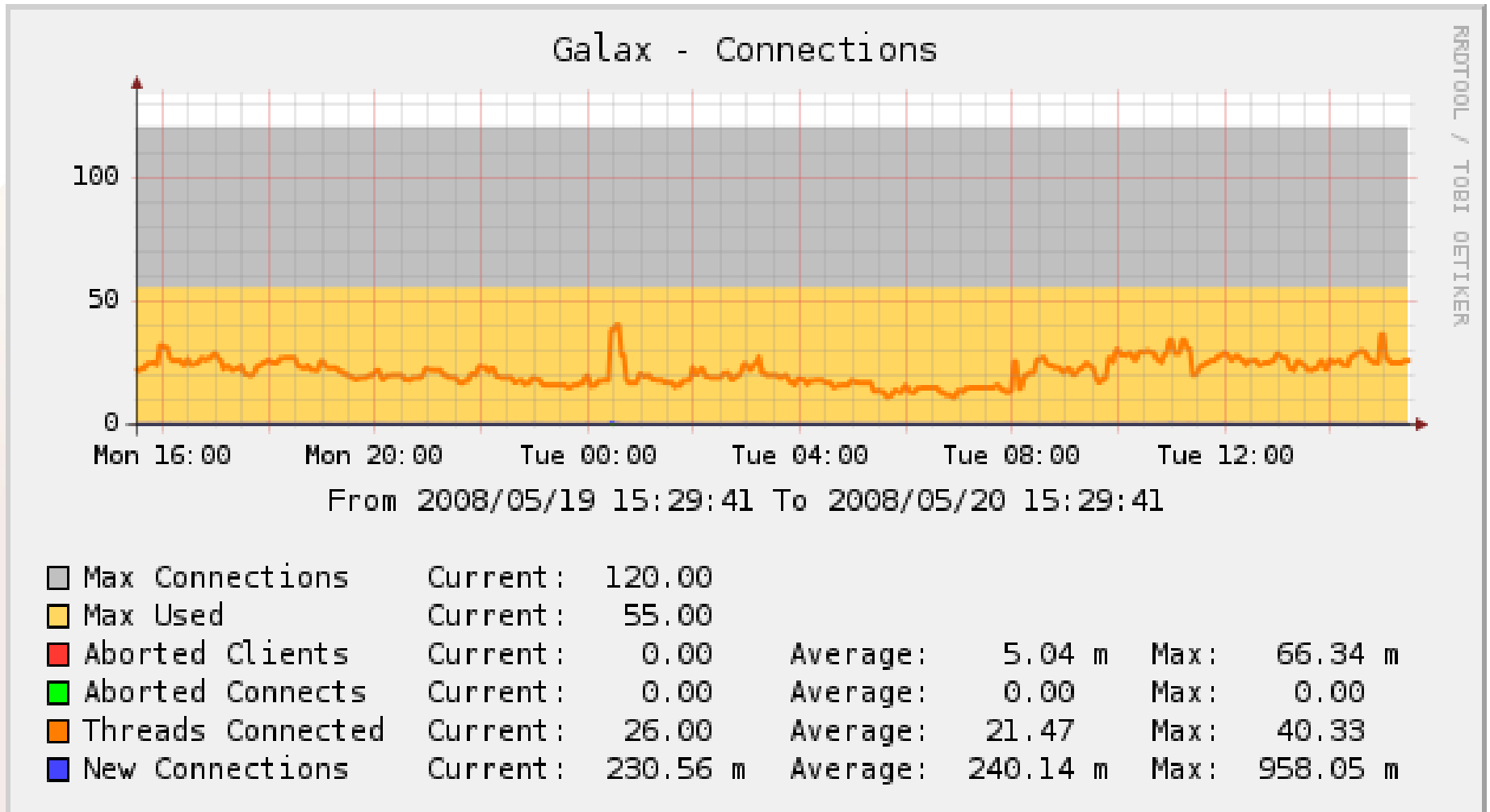
Galax - Command Counters



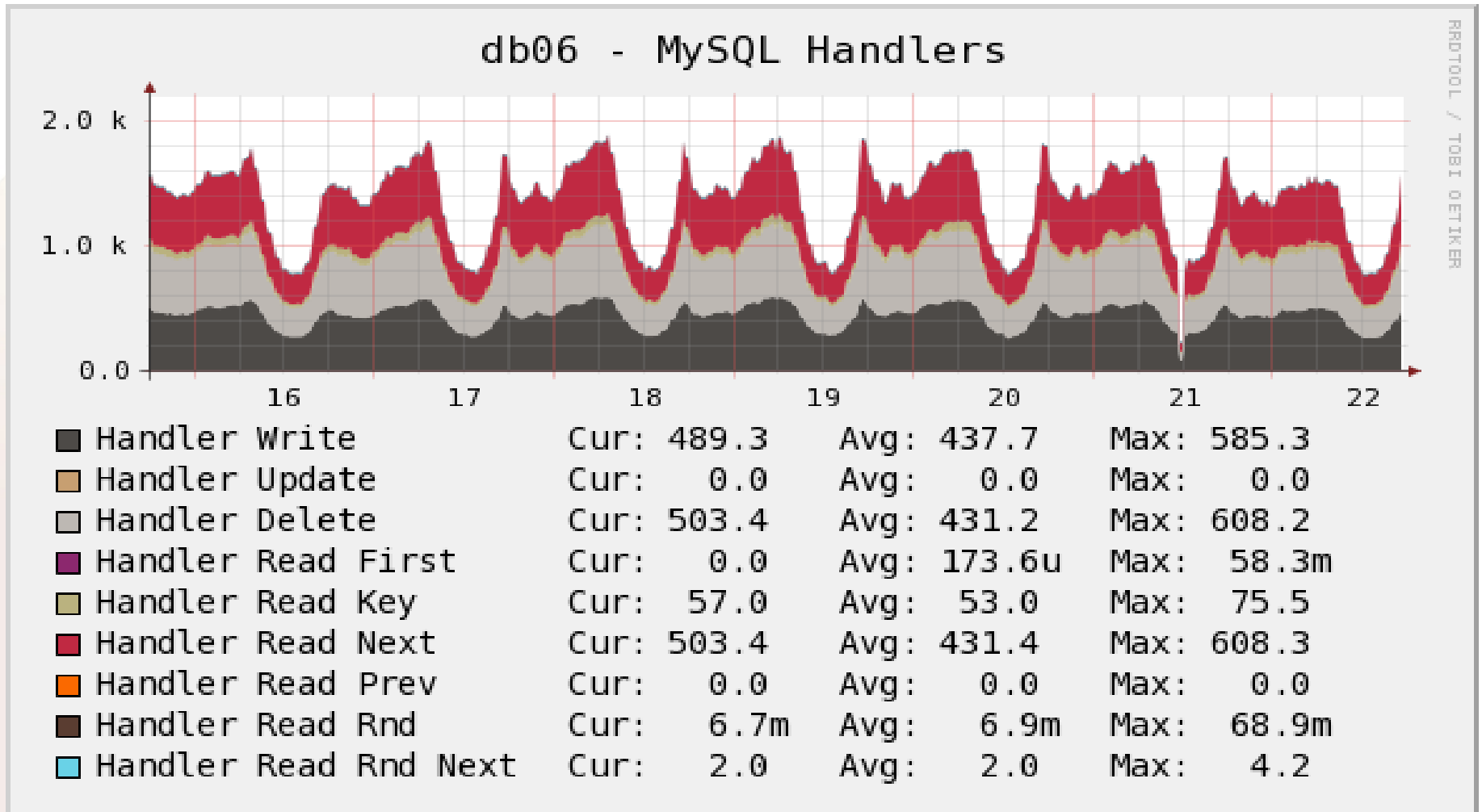
From 2008/05/19 15:29:41 To 2008/05/20 15:29:41

Questions	Current:	17.56	Average:	58.99	Max:	954.95
Select	Current:	10.19	Average:	28.38	Max:	215.34
Delete	Current:	139.53 m	Average:	7.62	Max:	468.96
Insert	Current:	373.02 m	Average:	5.14	Max:	74.79
Update	Current:	1.03	Average:	3.83	Max:	32.30
Replace	Current:	520.40 m	Average:	8.16	Max:	467.99
Load Data	Current:	22.46 m	Average:	35.45 m	Max:	493.60 m
Delete Multi	Current:	0.00	Average:	9.32 m	Max:	423.66 m
Insert Select	Current:	751.36 m	Average:	889.55 m	Max:	3.10
Update Multi	Current:	136.61 m	Average:	194.15 m	Max:	2.10
Replace Select	Current:	0.00	Average:	21.88 m	Max:	635.49 m

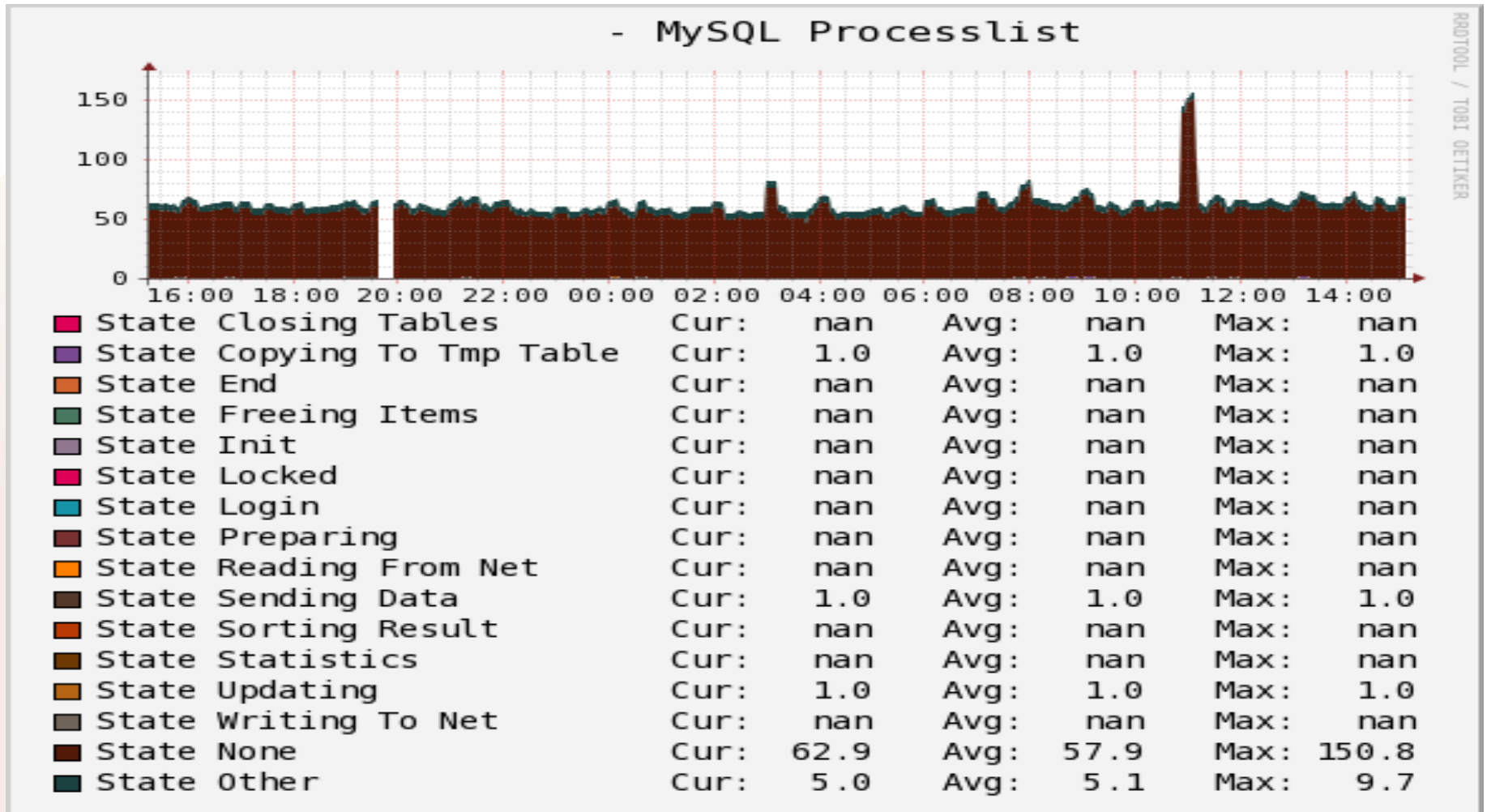
# MySQL Connections



# MySQL Handlers



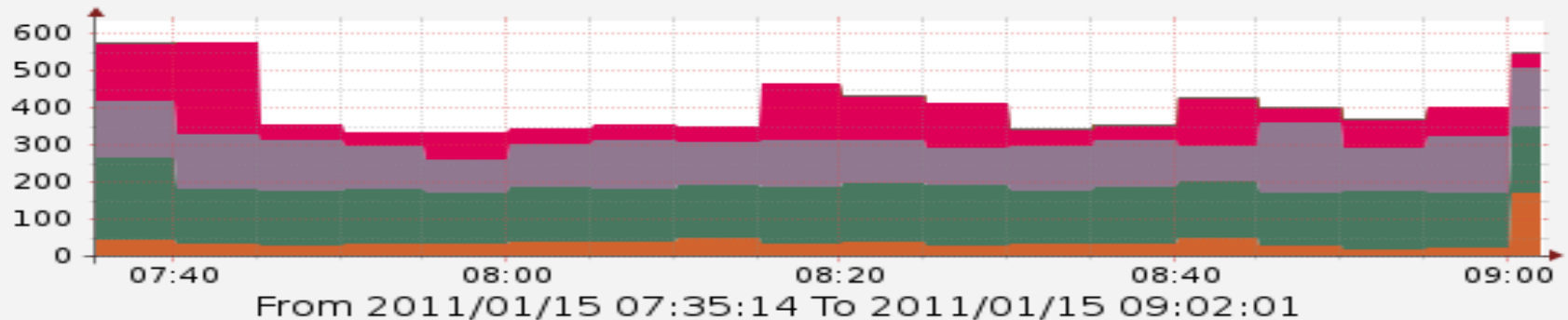
# MySQL Processlist



ROOT@PERCONA.COM

# Query time Histogram

Localhost - MySQL Query Response Time (Microseconds)



RDT/OOL / TOBI OETIKER

Query Time Total 00	Cur: 0.0	Avg: 0.0	Max: 0.0	Min: 0.0
Query Time Total 01	Cur: 202.9m	Avg: 168.9m	Max: 210.3m	Min: 123.1
Query Time Total 02	Cur: 170.5	Avg: 40.9	Max: 170.5	Min: 18.7
Query Time Total 03	Cur: 175.8	Avg: 154.8	Max: 220.5	Min: 139.1
Query Time Total 04	Cur: 159.7	Avg: 127.8	Max: 186.0	Min: 86.2
Query Time Total 05	Cur: 38.7	Avg: 83.8	Max: 248.1	Min: 37.1
Query Time Total 06	Cur: 0.0	Avg: 0.0	Max: 0.0	Min: 0.0
Query Time Total 07	Cur: 0.0	Avg: 0.0	Max: 0.0	Min: 0.0
Query Time Total 08	Cur: 0.0	Avg: 0.0	Max: 0.0	Min: 0.0
Query Time Total 09	Cur: 0.0	Avg: 0.0	Max: 0.0	Min: 0.0
Query Time Total 10	Cur: 0.0	Avg: 0.0	Max: 0.0	Min: 0.0
Query Time Total 11	Cur: 0.0	Avg: 0.0	Max: 0.0	Min: 0.0
Query Time Total 12	Cur: 0.0	Avg: 0.0	Max: 0.0	Min: 0.0
Query Time Total 13	Cur: -0.0	Avg: 0.0	Max: -0.0	Min: -0.0