Chart server R2.7.19

1) Database
DB: trading
Table:
chartdata_second
chartdata_minute
chartdata_hour
chartdata_daily
chartdata_market
chartdata_instrument
chartdata_region
instrument (for join day divid chartdata_market , chartdata_instrument)

Installation

Sql (Path: Z:\Installation\Inetpub\ChartServer\pserver\mysql)
chartdata.sql
chartdata_market_instrument_seed.sql

pserver r8.43.8
10.0.16-MariaDB
PHP Version 5.2.9-2

Config:
httpd.conf
<IfModule mpm_winnt.c>
ThreadsPerChild 25
MaxRequestsPerChild 10000
Win32DisableAcceptEx
</IfModule>

my.ini
[mysqld]
max_connections=100

update table
chartdata_second
chartdata_minute
chartdata_hour
chartdata_daily
chartdata_market
chartdata_instrument
chartdata_region
instrument

reference:
TestCase:
Path: Z:\Installation\Inetpub\ChartServer\doc\charserver_testCase.ods

2) Shedule Task

Restart Chartserver At 7:30 am every Saturday of every week (C:\repeater\restart.bat) (restart repeater)
spchart_auto_convert At 6:00 am every day (C:\spauto\spchart_auto_convert.bat)
spchart_auto_delete At 6:30 am every day (C:\spauto\spchart_auto_delete.bat)
spchart_auto_optimize at 12:00 pm every Saturday of every week
(C:\spauto\spchart_auto_optimize.bat)

Data from:
pserver DbAccess::AddChartData
insert into chartdata_second

3) chartdata convert

file:chartdata_convert.php
get 1 day data (log_date = yesterday) data from chartdata_second
insert into chartdata_minute , chartdata_hour , chartdata_daily

4) Delete data

file:delete_data.php
No of Product: 4274 (furture system FPI) real case: 2016-06-20 :2075
No of Product: 30085 (stock system 233)

	Expiry day	total max no of record
chartdata_second:	2day	2075 x 12 x 60 x 24 = 35,856,000 (1day) 35,856,000 x 2 = 71,712,000 (2day)
chartdata_minute	9day	2075 x 60 x 24 = 2,988,000 2,988,000 x 7 = 20,916,000
chartdata_hour	Future: expiry day +7day Stock 7 day	Future: 24 * 2075 x n = 49,800 x n Stock 24 x 30085 x 7 =5054280
chartdata_daily	Future: expiry day +30day	Future: 2075 x n

| | Stock
10 year | Stock
30085 * 365 *10
=109810250 |
|---|---|---|

Real No of record (2015/06/04) (FPI):
chartdata_second:1487551
chartdata_minute:793979
chartdata_hour:997018
chartdata_daily:127115

5)Chart Query
file:chartdata_query.php

GET parameter

Field Name	Specification	Example
prod_code	prod_code request	HSIM5
second	According to this value, get data from different table.	5
day	Time period set to from	1
from_time	request data start time. (unixtime)	1432170840
to_time	request data end time. (unixtime) Default 'Now'	1432257240
data_mode	1 - old format 2 - new format 3 - spmobile 4 - sptraderpro (json format) Default 2	4
prc_mode	PRCMODE_NOPRICE 0 -> 15min delay chart PRCMODE_DELAYED 1 -> 15min delay chart PRCMODE_L1 2 (level 1 realtime) -> realtime chart PRCMODE_L2 3 (level 2 realtime) -> realtime chart PRCMODE_SNAPSHOT 4 -> 15min delay chart	3

	Output day	Setting
7day	(Max) 2day	1day
30 sec	(Max) 2day	1day
1 min	(Max)7day	7day
5 min	(Max)7day	7day
10 min	(Max)7day	7day

15 min	(Max)7day	7day
30 min	(Max)7day	7day
1 hour	expiry day + 30day	expiry day + 30day
chartdata_daily	expiry day + 30day	expiry day + 30day

Chart query output:
header:
checksum:haveData:dec_in_price:tick_size:data(data:open,high,low,close,vol,time,is_day)

Example output:
53432:0:0:0:23627,23628,23595,23595,3,1414976400,1

No data:
19:-1:EMPTY RESULT!

Sptrader error message:

wrong checksum:下載圖表錯誤，請檢查輸入的產品是否正確

Delay Price:
System requirement:
sptrader r8.73.1fix
Trader pro HD 10.8.6
ACL

Default prc_mode value:
setting at config.inc.php file

Example Request Parameters:

5 Sec:
http://202.76.92.214/pserver/chartdata_query.php?
&action=spchart&lang=1&ver=1&rel=8.54&time=1434443529&key=68F7DA62D32E90490220C3F
E4010AAA7&user_id=NIGEL&system_id=SPDEV_F&prod_code=6EU5&second=5&data_mode=2
&prc_mode=3

1 Min:
http://202.76.92.214/pserver/chartdata_query.php?
&action=spchart&lang=1&ver=1&rel=8.54&time=1434443529&key=68F7DA62D32E90490220C3F
E4010AAA7&user_id=NIGEL&system_id=SPDEV_F&prod_code=6EU5&second=60&data_mode=2
&prc_mode=3

1 Hour:

http://202.76.92.214/pserver/chartdata_query.php?
&action=spchart&lang=1&ver=1&rel=8.54&time=1434443529&key=68F7DA62D32E90490220C3F
E4010AAA7&user_id=NIGEL&system_id=SPDEV_F&prod_code=6EU5&second=3600&data_mode
=2&prc_mode=3

1 Daily:
http://202.76.92.214/pserver/chartdata_query.php?
&action=spchart&lang=1&ver=1&rel=8.54&time=1434443529&key=68F7DA62D32E90490220C3F
E4010AAA7&user_id=NIGEL&system_id=SPDEV_F&prod_code=6EU5&second=86400&data_mod
e=2&prc_mode=3

6)Chartdata Recover
file:chartdata_recover.php

Description
Recover Data from source server.
Ip whitelist is applied for server protection. Both source and destination server
ip need to be added to whitelist.
File: config.inc.php $ipwhitelist
log:pserver\data\sitelogs\201505_chartdataRecover.php

Field Name	Specification	Example
prod_code	prod_code need to recover, 'FULL' for all prod_code. Default 'FULL'	FULL
from_time	Recover data start time. (unixtime) Default 'Today 00:00:00'	1432170840
to_time	Recover data end time. (unixtime) Default 'Now'	1432257240
data_type	sec, min ,hour ,day specific destination data table Default 'sec'	sec

Example Request Parameters:
All product , from Today 00:00:00 , to current time
chartdata_recover.php

one product , from 2015-05-21 09:00:00 to current time
chartdata_recover.php?prod_code=HSIK5&from_time=1432170000&to_time=0&data_type=sec

All product , **from 2015-05-21 09:00:00 to 2015-05-22 09:00:00**
chartdata_recover.php?
prod_code=FULL&from_time=1432170000&to_time=1432256400&data_type=sec

source
file:chartdata_recoverdata.php

Field Name	Specification	Example
prod_code	prod_code need to recover, 'FULL' for all	FULL

	prod_code.	
from_time	Recover data start time. (unixtime)	1432170840
to_time	Recover data end time. (unixtime)	1432257240
data_type	sec, min ,hour ,day specific destination data table	sec

Example Request Parameters:

http://223.197.52.46/pserver/chartdata_recoverdata.php?
prod_code=FULL&from_time=1433952180&to_time=1433952185&data_type=sec

Chartdata Recover Test case:

Test case	recover dataperiod	recover interval	hour	Take time	each request	record count:	1hour	24hour
1	1800sec (30min)	1sec	16	503sec (8.3 min)	3-5sec	300569	503/16 = 31.4 sec	31.4 x 24 = 753.6sec (12.56 min)
2	900sec (15 min)	1sec	6	127 (2 min 7sec)	5-9sec	117621	127/6 = 22 sec	22 x 24 = 528 sec (8.8 min)
3	5sec	1sec	1	1516 (25.26 min)	2-3sec	23205	1516 = 25.26 min	1516 x 24 = 36384sec 606 sec = 10.1 hr
4	300sec (5min)	1sec	1	38sec	3-4 sec	23205	38	38 x 24 = 912 (15.2min)

Source: 202.76.92.214(FPI)
destination:202.153.106.207

Issue:

print json_encode($rows);
Fatal error: Allowed memory size of 128Mb exhausted

encoding a very large dataset. You could encode each row, one row at a time instead of encoding it in one big operation.

reference:
http://stackoverflow.com/questions/4816270/getting-data-from-mysql-into-json-using-php

Conclusion:

Setting:
recover dataperiod : 300sec (5min)

7)Chart Source

reference:
http://eoddata.com/products/historicaldata.aspx
http://eoddata.com/products/default.aspx