

Mono/Master/3.12.1 – SGen GC Fixes – Test Run October 30th 2014

Platform

Hardware: Intel Xeon Processor E5-2670 v2 – Twin CPUs yielding physical 20 cores + 20 HT cores

Memory: 256GB

Details

All performance info is logged from System.Diagnostics.Process, System.GC and a custom STW GC Monitor thread which tracks pauses longer than 2s.

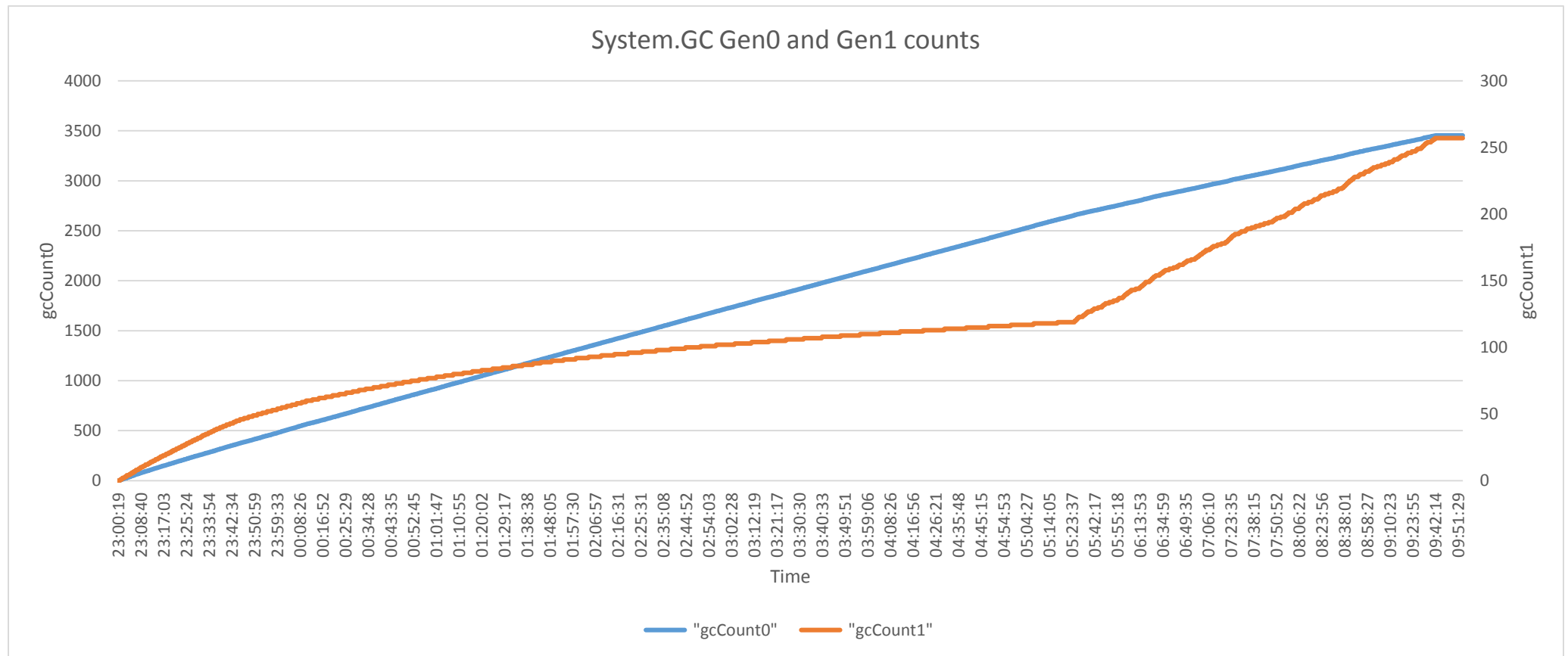


Figure 1- At approx. 5:30 the system state changes and very high load is placed on the GC causing a significant increase in gen1 counts

"virtualMemMB"

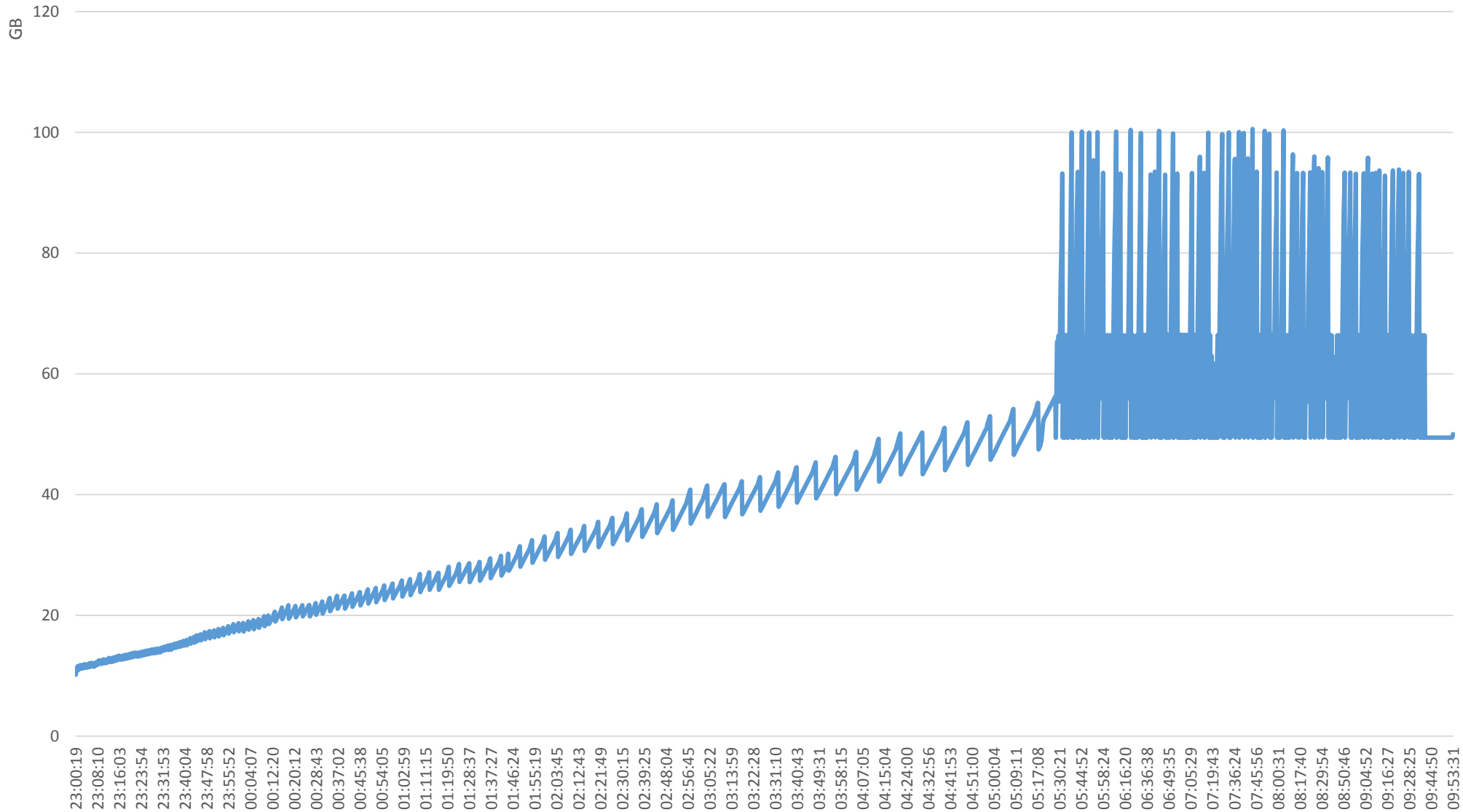


Figure 2- Virtual memory veers wildly from 5:30am onwards

gcMonTotalDelta

Seconds

90
80
70
60
50
40
30
20
10
0

23:00:19
23:08:10
23:16:03
23:23:54
23:31:53
23:40:04
23:47:58
23:55:52
00:04:07
00:12:20
00:20:12
00:28:43
00:37:02
00:45:38
00:54:05
01:02:59
01:11:15
01:19:50
01:28:37
01:37:27
01:46:24
01:55:19
02:03:45
02:12:43
02:21:49
02:30:15
02:39:25
02:48:04
02:56:45
03:05:22
03:13:59
03:22:28
03:31:10
03:40:43
03:49:31
03:58:15
04:07:05
04:15:04
04:24:00
04:32:56
04:41:53
04:51:00
05:00:04
05:09:11
05:17:08
05:30:21
05:44:52
05:58:24
06:16:20
06:36:38
06:49:35
07:05:29
07:19:43
07:36:24
07:45:56
08:00:31
08:17:40
08:29:54
08:50:46
09:04:52
09:16:27
09:28:25
09:44:50
09:53:31

Figure 3- Monitored STW pauses >2s, time per pause.

"gcMonTotal"

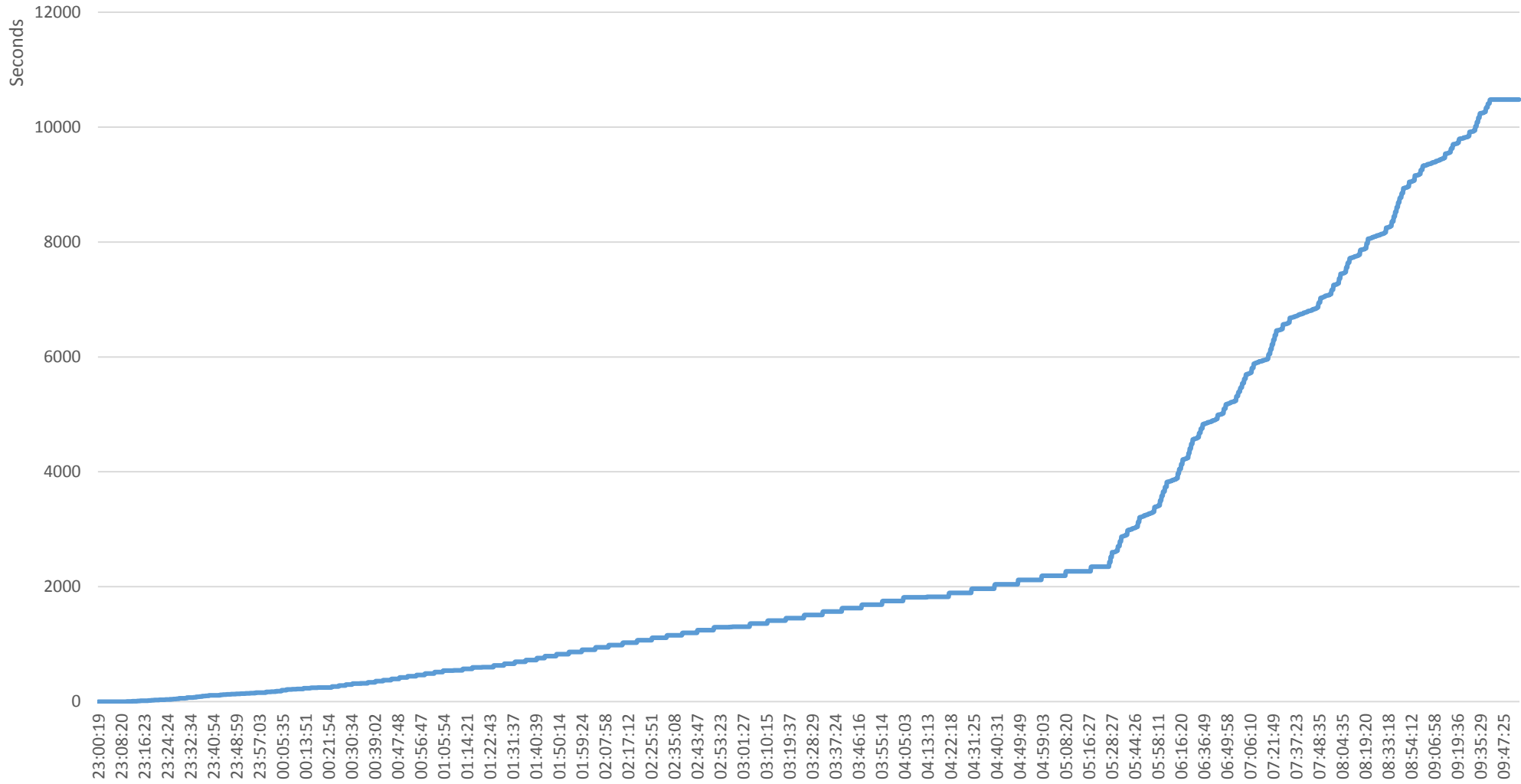


Figure 4- Cumulative monitored time in GC