

D&T II

D05: Hackathon

Performance test suite

Group 20

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Analysis results:	
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Analysis results:	
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Introduction:

To test all use cases for Acme-Motorsports we used Jmeter with the following method:

- Group some requisites to do the testing to be more efficient.
- Exclude the suggested URL patterns by Jmeter to do the header captures.
- Various test with a number between 200 and 300 users and 10 loops to see the maximum users that supports the system without any problem relative to the user experience, in this case we are going to check the time spend to do the actions looking at the 90% line results and the errors encountered during the test, if any.
- More than 3 seconds to complete an action is considered a failed test for than number of users.
- Analyze the most probable reason that made the error happen. Checking the computer performance we will observe the processor, memory, disk and network behavior.
- Not surpass 300 users and 10 loops due to the fact that the computer cannot handle this numbers of users, resulting in blue screens and shutdowns, please note that this is for the safety of the hardware.

All the test were made with the same computer in the pre-production virtual machine, with 4 GB of ram and a 2 core processor.

The computer specifications are:

CPU: Intel core I5 7200u

Mainboard: Medion D15KHNMemory: 8 GB DDR3

Graphics: Nvidia Geforce GTX 950M

245 GB SSD

Performance tests:

Use case 1:

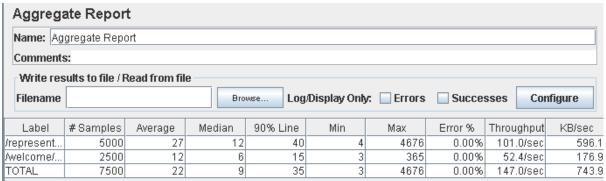
As a not authenticated actor I want to register as a Representative

Number of Threads (users): 250

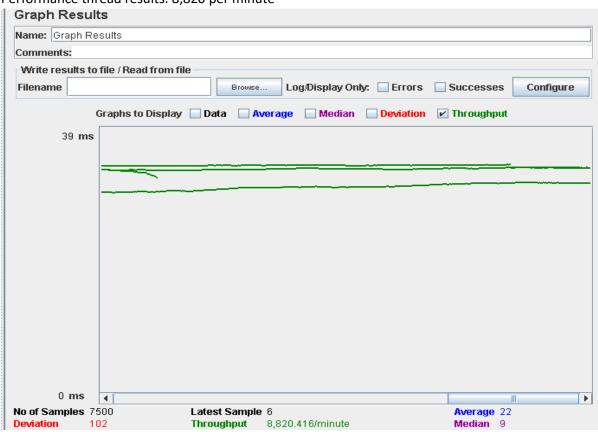
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 55ms.



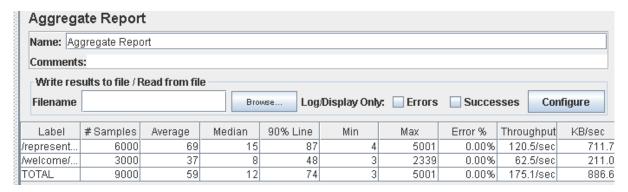
Performance thread results: 8,820 per minute



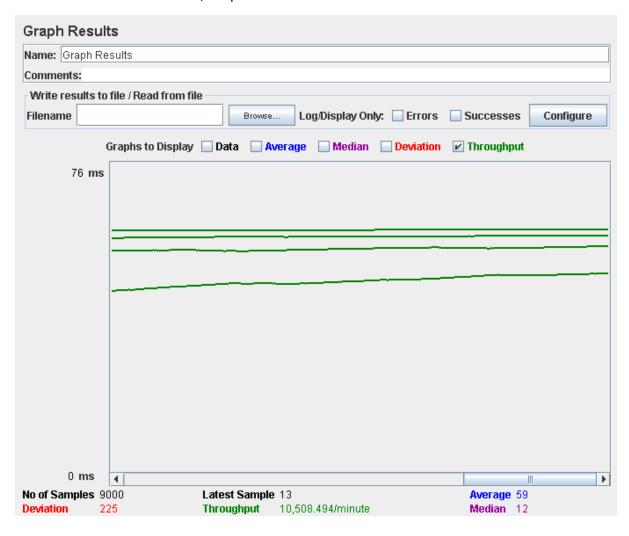
Ramp-Up Period (in seconds): 1

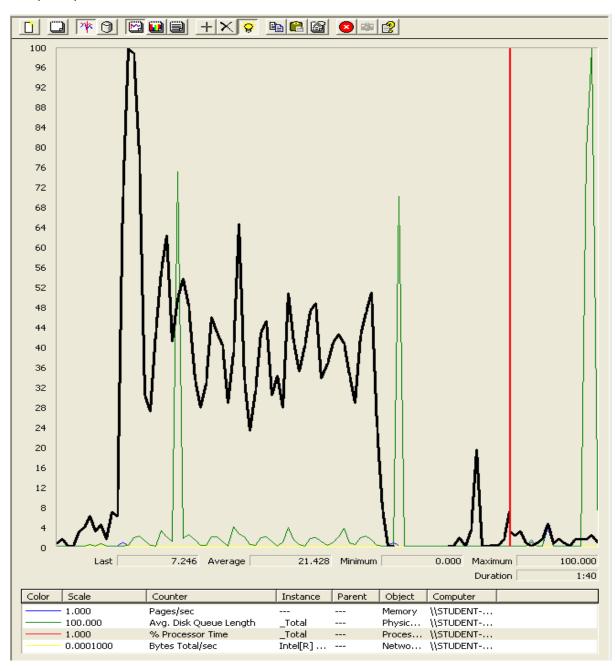
Loop count: 10

Performance test 90% results: Total 135ms.



Performance thread results: 10,508 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

Use case 2:

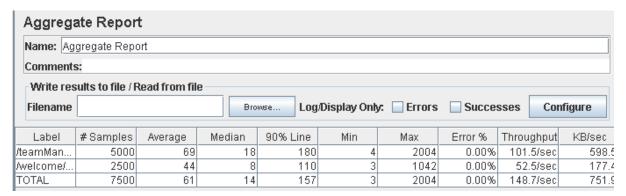
As a not authenticated actor I want to register as a manager.

Number of Threads (users): 250

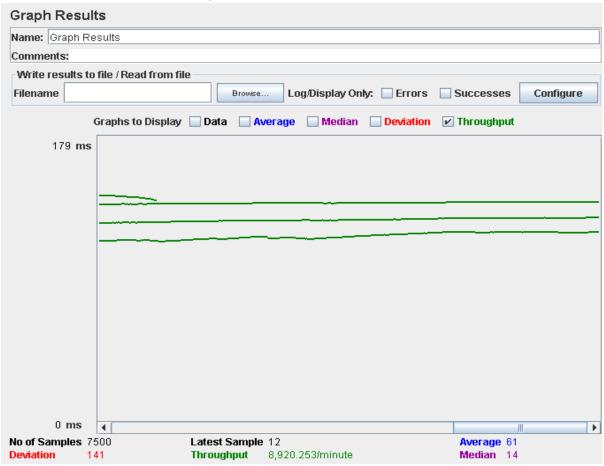
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 290ms.



Performance thread results: 8,920 per minute



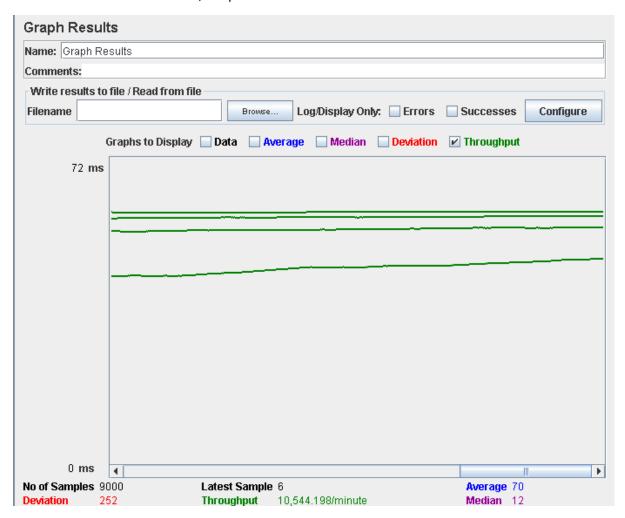
Ramp-Up Period (in seconds): 1

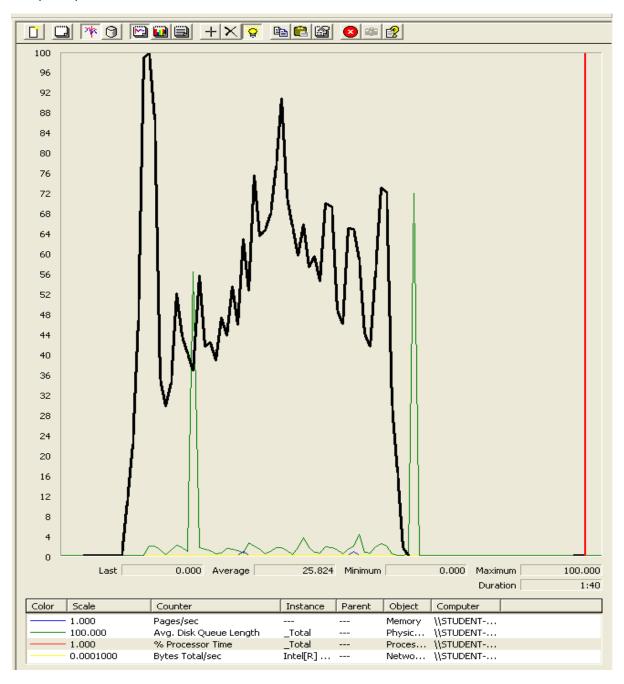
Loop count: 10

Performance test 90% results: Total 146ms.

Name: Ag	Name: Aggregate Report										
Comments	Comments:										
- Write res	ults to file / R	tead from file	Write results to file / Read from file								
Filename Log/Display Only: Errors Successes Configure											
Filename			Bro	wse Log/	Display Only	r. Errors	Succe	sses Con	figure		
Filename Label	# Samples	Average	Brow	nse Log / 90% Line	Display Only Min	Max	Succe	sses Con	figure KB/sec		
Label	#Samples 6000	Average 91						Throughput	KB/sec		
			Median	90% Line		Max	Error %	Throughput 120.8/sec			

Performance thread results: 10,554 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

Use case 3:

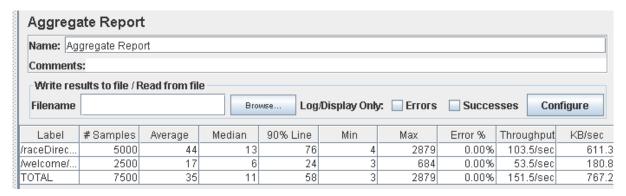
As a not authenticated actor I want to register as a Race Director

Number of Threads (users): 250

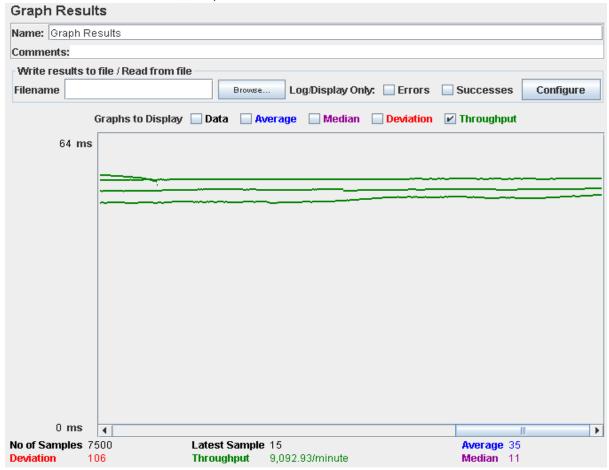
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 100ms.



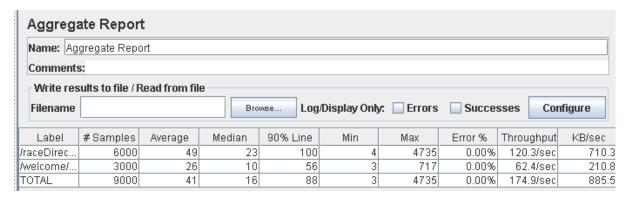
Performance thread results: 9,902 per minute



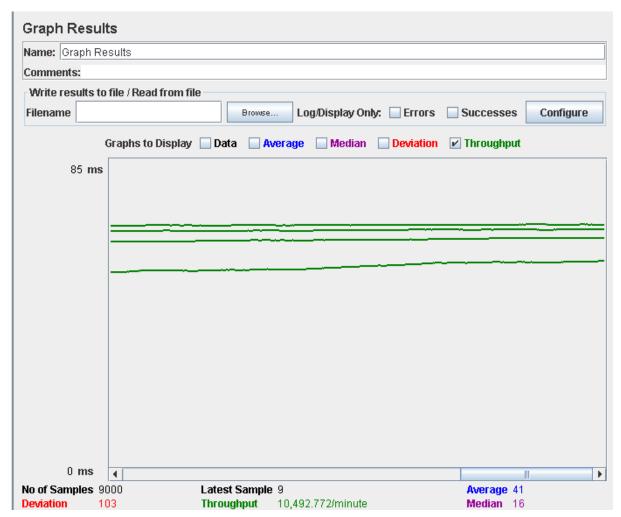
Ramp-Up Period (in seconds): 1

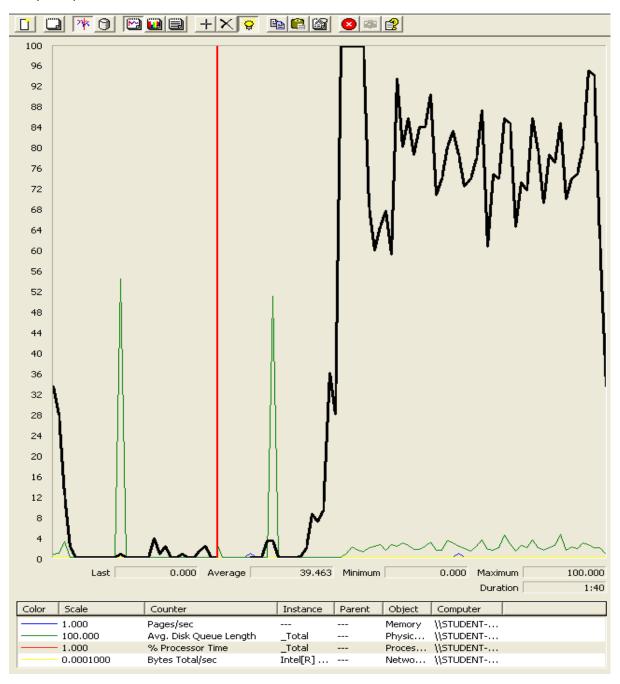
Loop count: 10

Performance test 90% results: Total 156ms.



Performance thread results: 10,492 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

Use case 4:

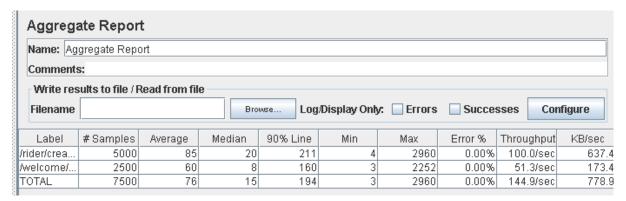
As a not authenticated actor I want to register as a Rider

Number of Threads (users): 250

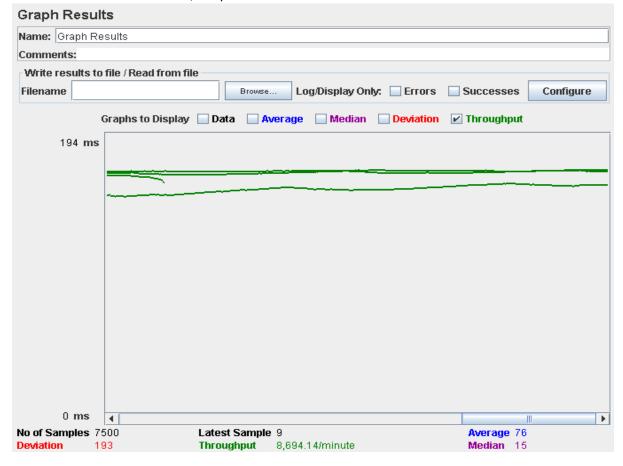
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 371ms.



Performance thread results: 8,694 per minute



Ramp-Up Period (in seconds): 1

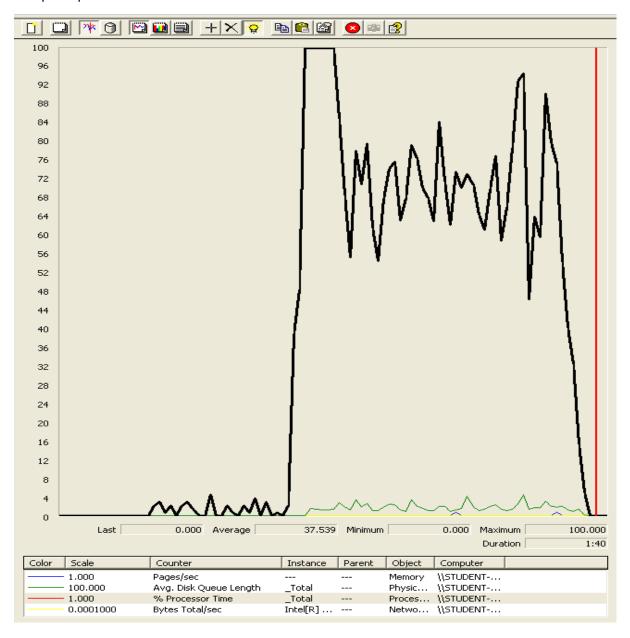
Loop count: 10

Performance test 90% results: Total 180ms

Name: Ag	gregate Repo	ort							
Comments: Write results to file / Read from file									
Filename			Brou	wse Log/	Display Only	r. Errors	Succe	sses Con	figure
Filename Label	#Samples	Average	Brow	wse Log / 90% Line	Display Only Min	Max	Succe:	sses Con	figure KB/se
Label	#Samples	Average 63						Throughput	KB/se
	-		Median	90% Line		Max	Error %	Throughput 119.2/sec	

Performance thread results: 10,458 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

Use case 5:

As a not authenticated actor I want to register as a Sponsor

Number of Threads (users): 250

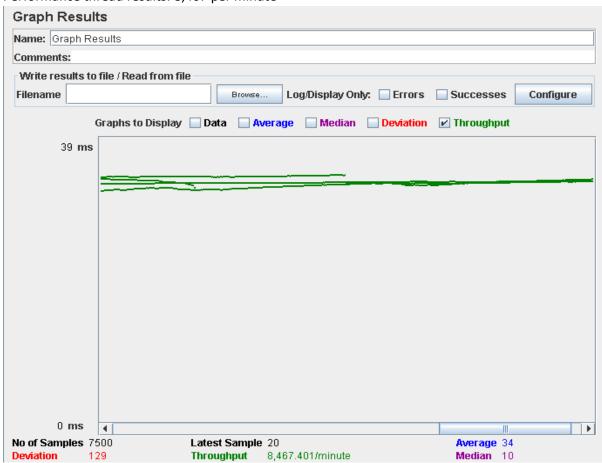
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 59ms.

Aggregate Report										
Name: Ag	gregate Repo	ort								
Comments:										
-Write res	Write results to file / Read from file									
Filename Log/Display Only: Errors Successes Configure								_		
Filename			Broo	wse Log.	Display Ong	y: Errors	Succes	sses Con	ngure	
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sed	
Label	#Samples 5000	Average 41						Throughput	KB/se	
	· · ·		Median	90% Line		Max	Error %	Throughput 96.3/sec		

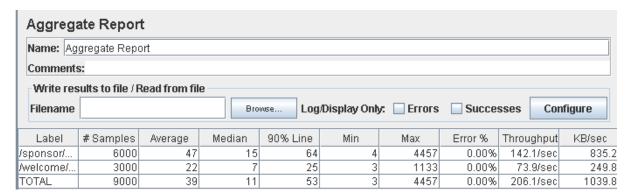
Performance thread results: 8,467 per minute



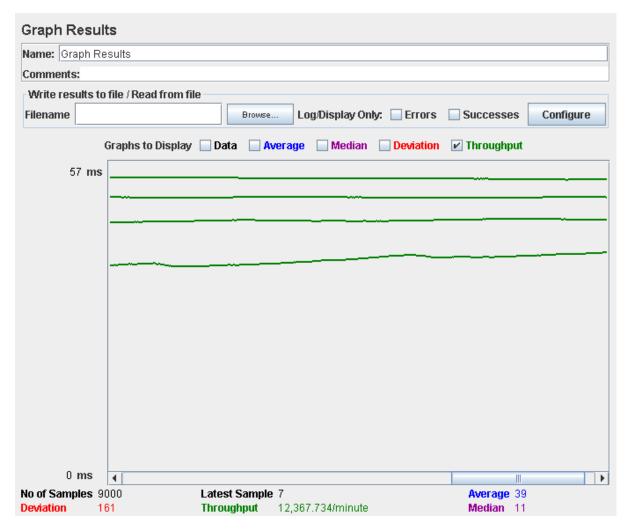
Ramp-Up Period (in seconds): 1

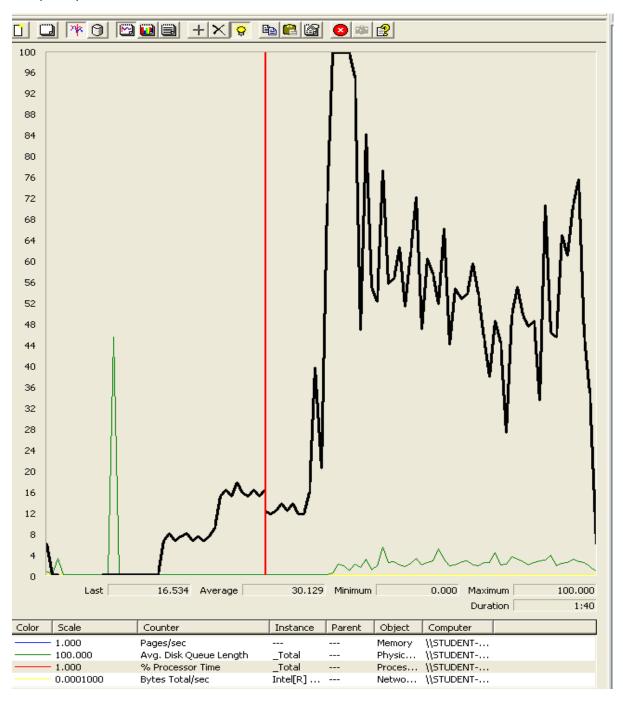
Loop count: 10

Performance test 90% results: Total 89ms



Performance thread results: 12,367 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

Use case 6:

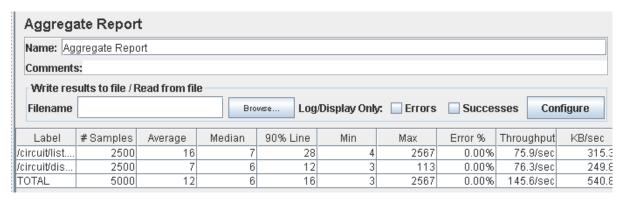
As a not authenticated actor I want to list and display the circuits

Number of Threads (users): 250

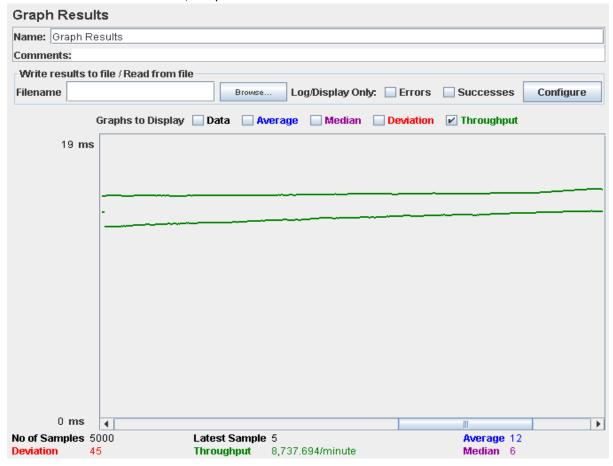
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 40ms.



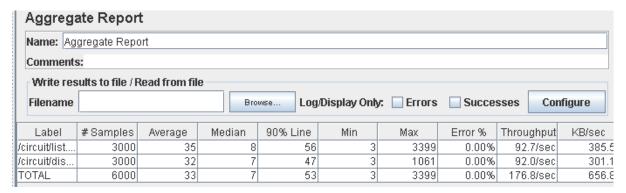
Performance thread results: 8,737 per minute



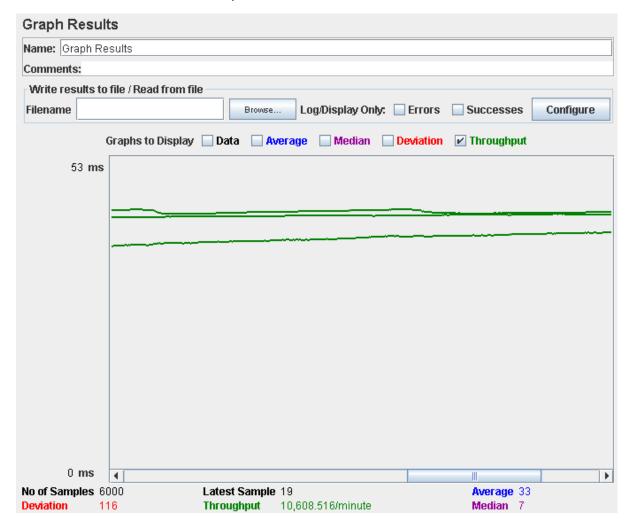
Ramp-Up Period (in seconds): 1

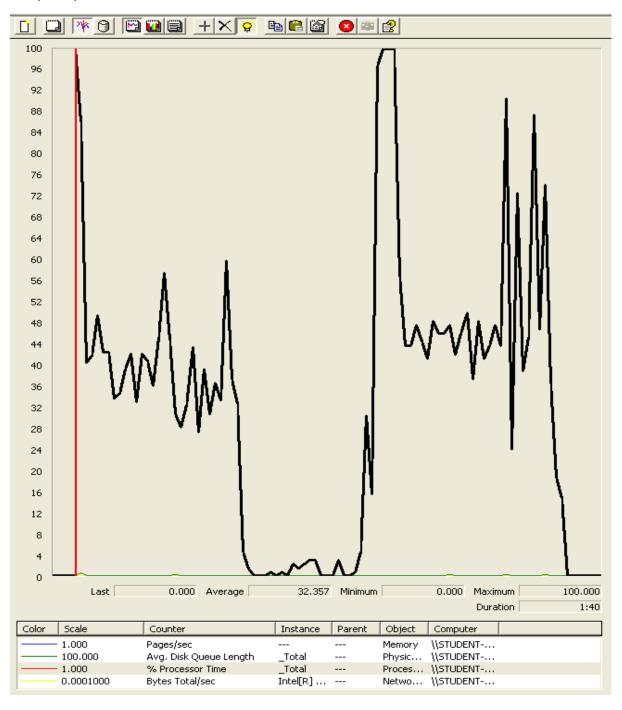
Loop count: 10

Performance test 90% results: Total 103ms



Performance thread results: 10,608 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

Use case 7:

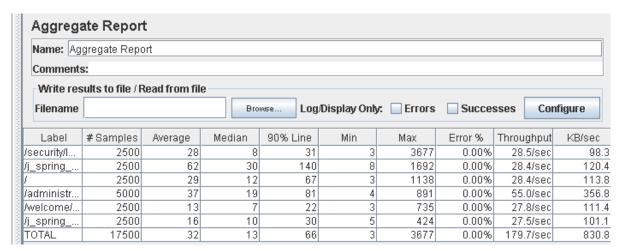
As an administrator I want to create administrators account

Number of Threads (users): 250

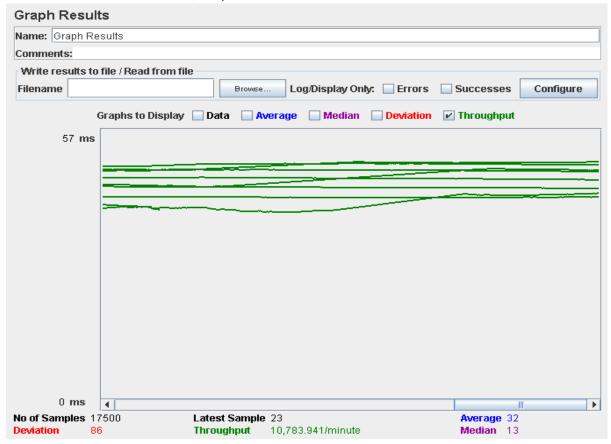
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 371ms.



Performance thread results: 10,783 per minute



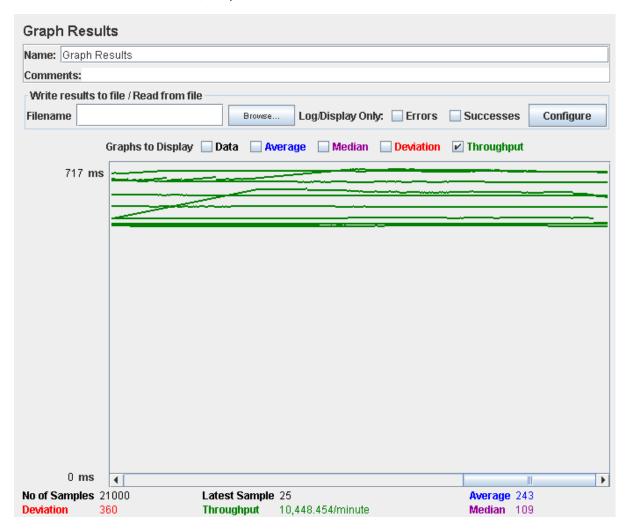
Ramp-Up Period (in seconds): 1

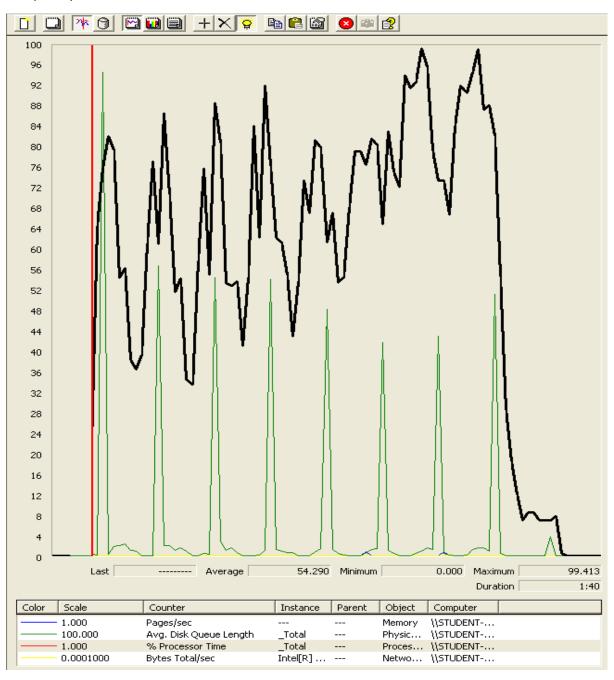
Loop count: 10

Performance test 90% results: Total 3,618ms

Aggrega	Aggregate Report										
Name: Ag	gregate Repo	ort									
Comments	Comments:										
Write res	Write results to file / Read from file										
Filename			Bro	wse Log	/Display Only	y: Errors	Succes	sses Co	nfigure		
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec		
/security/l	3000	48	21	73	4	5461	0.00%	26.3/sec	90.7		
/j_spring	3000	505	326	1203	9	4237	0.00%	26.4/sec	112.1		
ſ	3000	229	118	591	4	2609	0.00%	26.4/sec	106.1		
/administr	6000	250	131	621	5	3163	0.00%	51.6/sec	335.1		
/welcome/	3000	224	108	600	4	2334	0.00%	26.1/sec	104.8		
/j_spring	3000	196	96	530	6	3344	0.00%	26.2/sec	96.2		
TOTAL	21000	243	109	644	4	5461	0.00%	174.1/sec	805.5		

Performance thread results: 10,448 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

Use case 8:

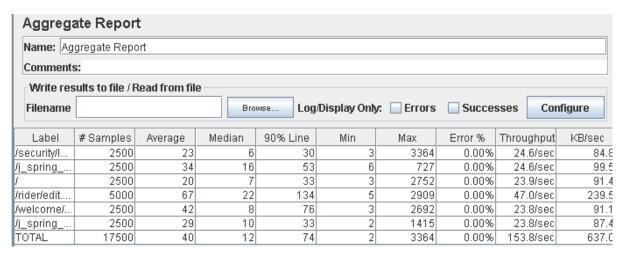
As an authenticated actor I want to edit my personal data

Number of Threads (users): 250

Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 359ms



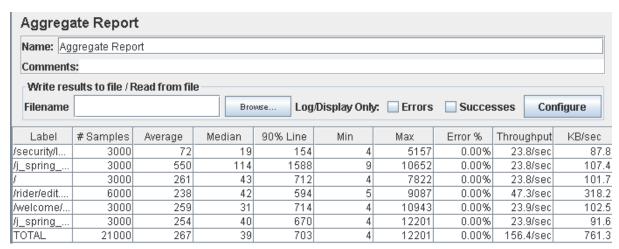
Performance thread results: 9,225 per minute



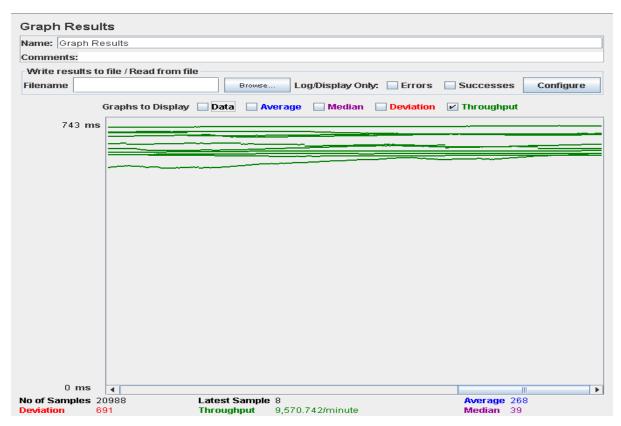
Ramp-Up Period (in seconds): 1

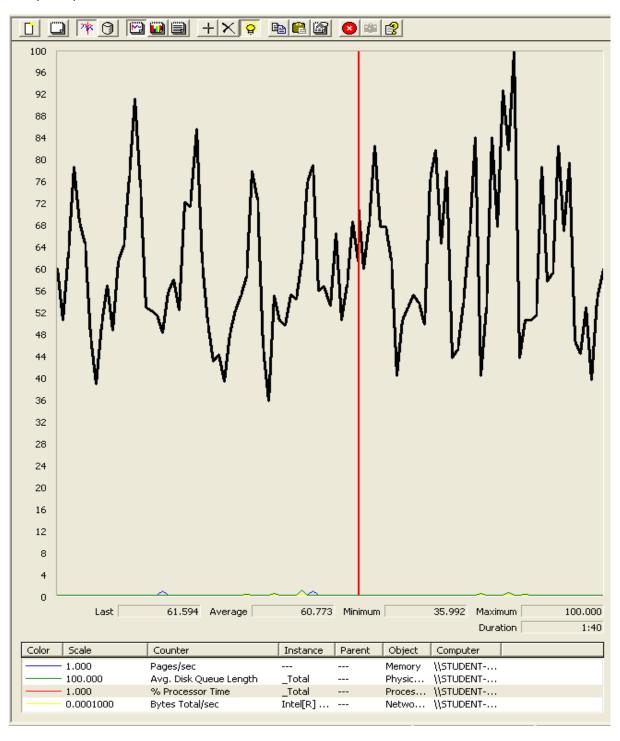
Loop count: 10

Performance test 90% results: Total 4,432.



Performance thread results: 8,310 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

Use case 9:

As an admin I want to display a list of suspicious actors, ban or unban those actors.

Number of Threads (users): 250

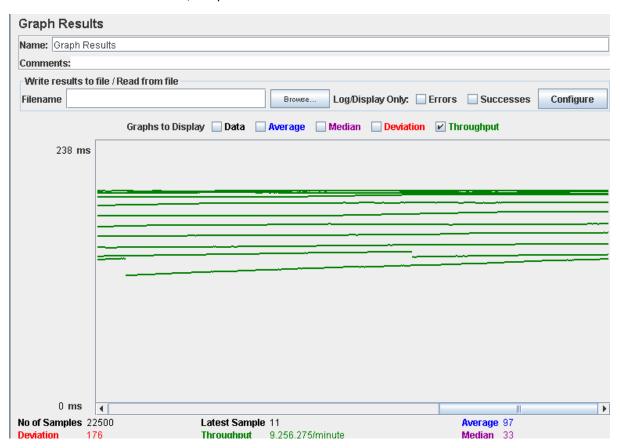
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 1,396ms.

Name: Aggregate Report									
Comments:									
Write results to file / Read from file									
Filename	Browse	Log/Display	y Only: 🔲 Er	rors 🔲 S	Successes	s Configure			
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/s
/security/login.do	2500	28	8	38	3	3353	0.00%	19.2/sec	
j_spring_security_check	2500	69	22	151	7	2504	0.00%	19.3/sec	
(2500	61	17	182	3	1165	0.00%	19.3/sec	-
/administrator/flagSpam.do	2500	228	135	538	13	2056	0.00%	19.3/sec	11
/administrator/bannableList.do	7500	73	24	187	4	2062	0.00%	54.6/sec	2
/administrator/ban.do	5000	131	72	300	14	2184	0.00%	37.3/sec	3
TOTAL	22500	97	33	253	0	3353	0.0000	154.3/s	9

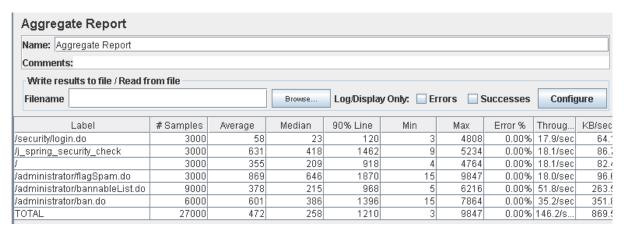
Performance thread results: 9,256 per minute



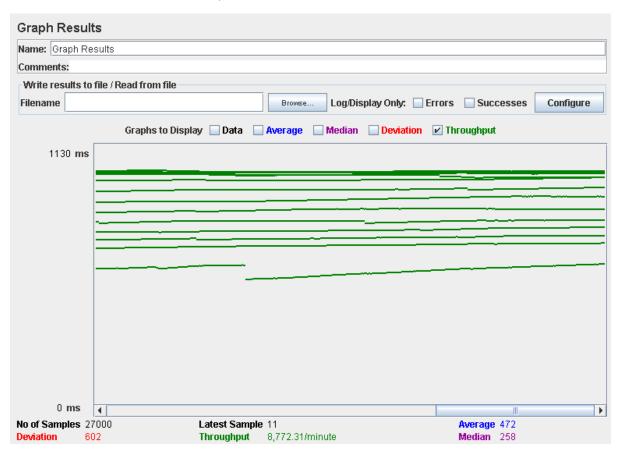
Ramp-Up Period (in seconds): 1

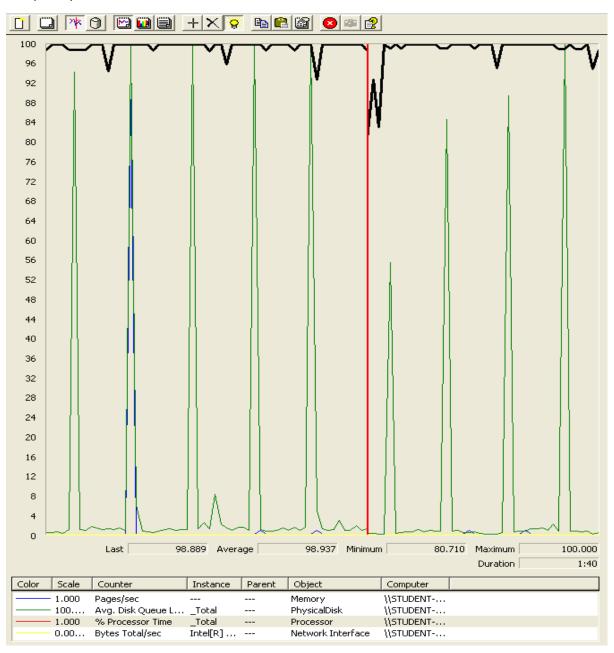
Loop count: 10

Performance test 90% results: Total 6,734ms



Performance thread results: 8,772 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

Use case 10:

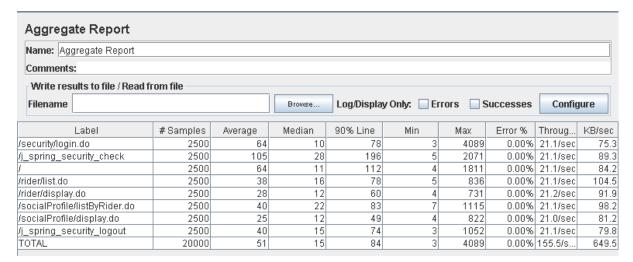
As an authenticated user I want to list and display the riders and also list and display their social profiles

Number of Threads (users): 250

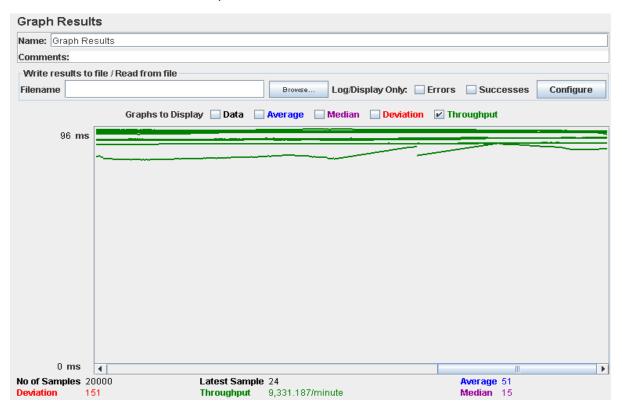
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 730ms.



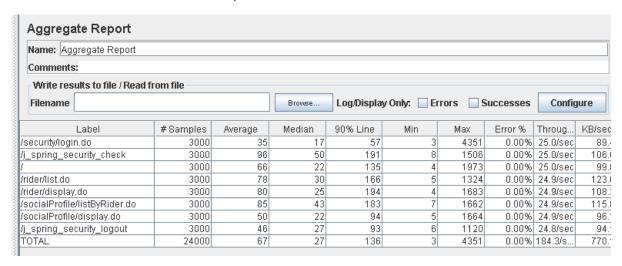
Performance thread results: 9,331 per minute



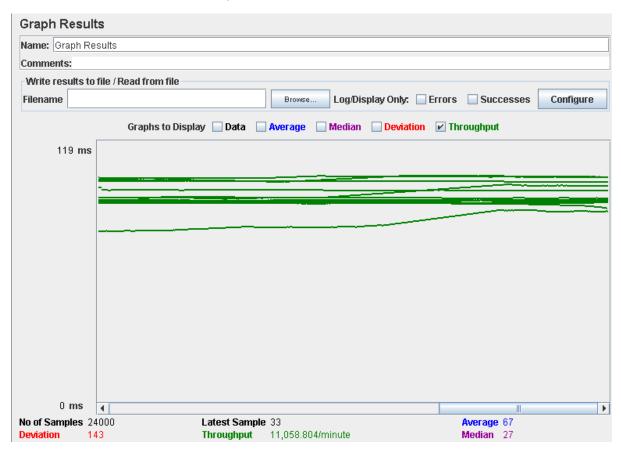
Ramp-Up Period (in seconds): 1

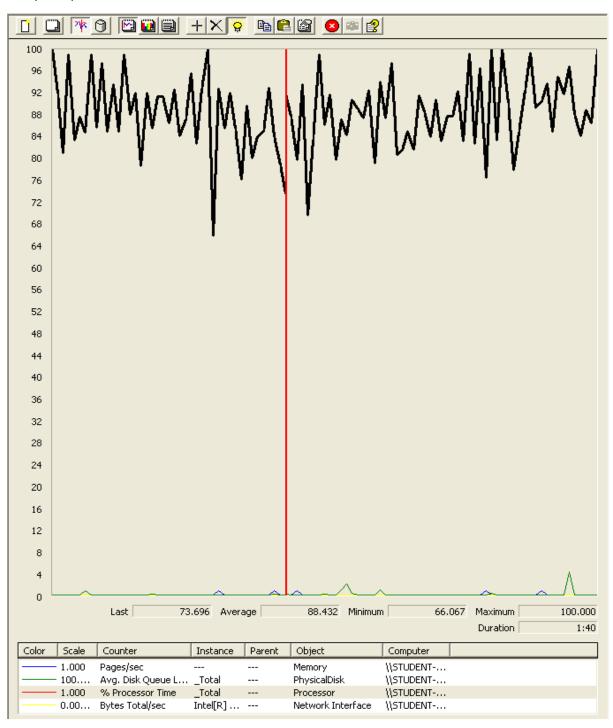
Loop count: 10

Performance test 90% results: Total 1,113ms



Performance thread results: 11,058 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

Use case 11:

As an authenticated actor I want to send a message to others actors of the system.

Number of Threads (users): 200

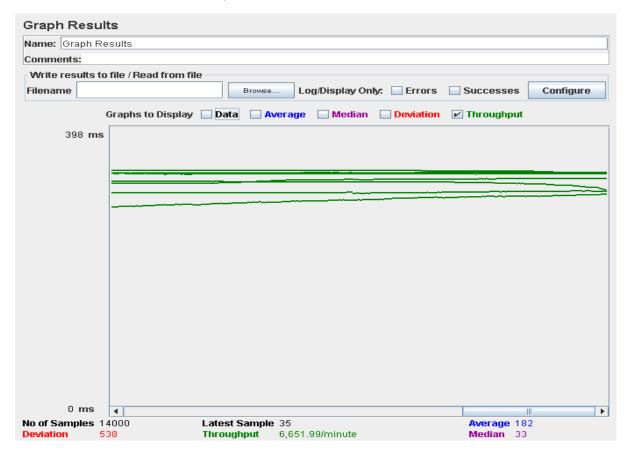
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 2,221ms

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Rea	d from file —	Browse	Log/D	isplay Only	Error	s Suc	cesses	Config	јиге
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/sec
/security/login.do	2000	25	9	39	4	3035	0.00%	17.1/sec	61.9
/j_spring_security_check	2000	188	27	412	8	8557	0.00%	17.0/sec	70.0
J.	2000	156	19	402	4	6752	0.00%	17.0/sec	66.1
/message/create.do	4000	288	98	645	15	8908	0.00%	33.6/sec	194.2
/box/list.do	2000	217	34	506	7	7356	0.00%	17.1/sec	86.7
/j_spring_security_logout	2000	109	16	217	2	6008	0.00%	17.2/sec	64.7
TOTAL	14000	182	33	423	2	8908	0.00%	110.9/	507.0

Performance thread results: 6,651 per minute



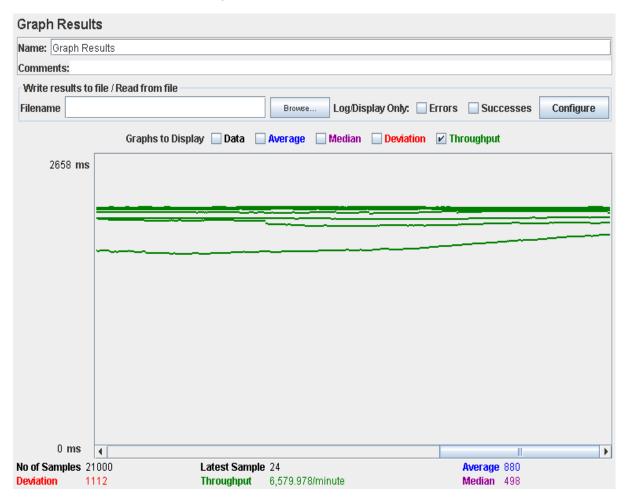
Ramp-Up Period (in seconds): 1

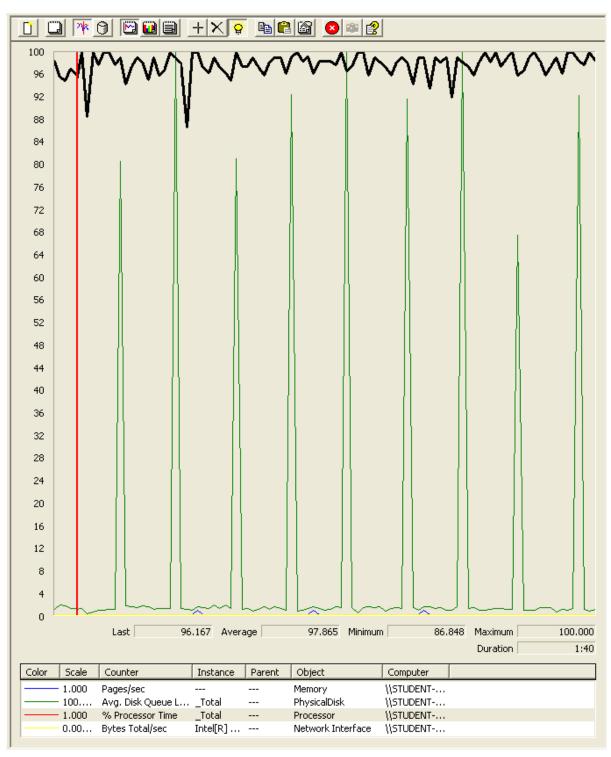
Loop count: 10

Performance test 90% results: Total 11,324ms.

Name: Aggregate Report									
Comments:									
Write results to file / Rea	d from file								
Filename			Browse	Log/Display	y Only: 🔲 Er	rors 🔲 S	uccesses	Config	јиге
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/se
security/login.do	3000	72	22	117	3	4620	0.00%	16.5/sec	59.
j_spring_security_check	3000	1282	953	2871	9	10863	0.00%	16.5/sec	69
	3000	730	428	1782	4	12782	0.00%	16.5/sec	65.
	6000	1318	915	3010	15	17854	0.00%	32.7/sec	179.
message/create.do						40400	0.000	16.5/sec	83.
	3000	757	474	1840	6	12103	0.00%	16.5/560	05.
/message/create.do /box/list.do /j_spring_security_logout		757 683	474 420	1840 1704	5 5	7167	0.00%		62.

Performance thread results: 6,579 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application runs without errors but the time spend creating the message is a bit high. We believe it is a processor bottleneck problem, also the disk is pretty busy.

Use case 12:

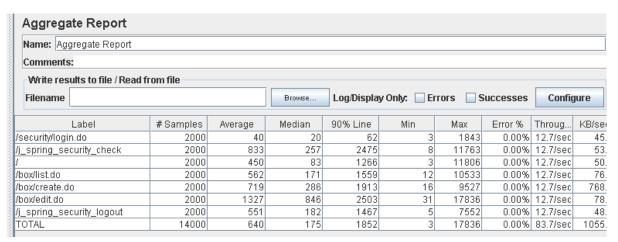
As an authenticated user I want create new message boxes.

Number of Threads (users): 200

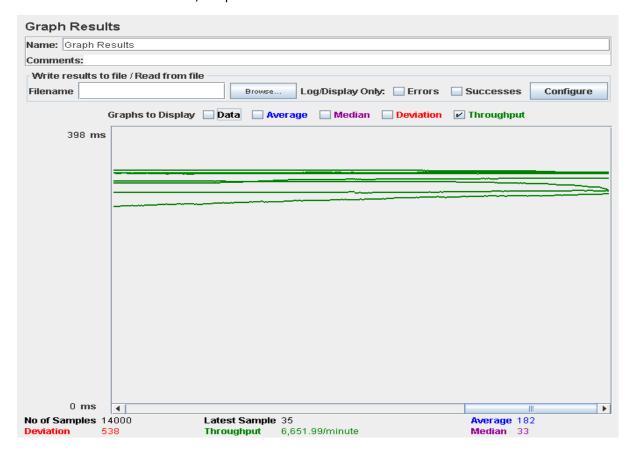
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 11,245ms



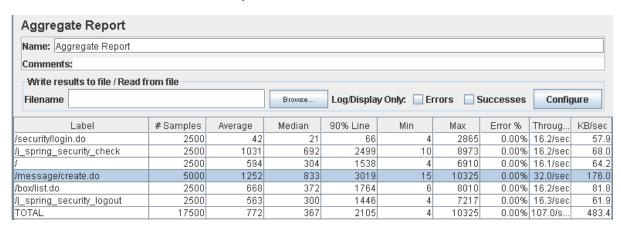
Performance thread results: 6,651 per minute



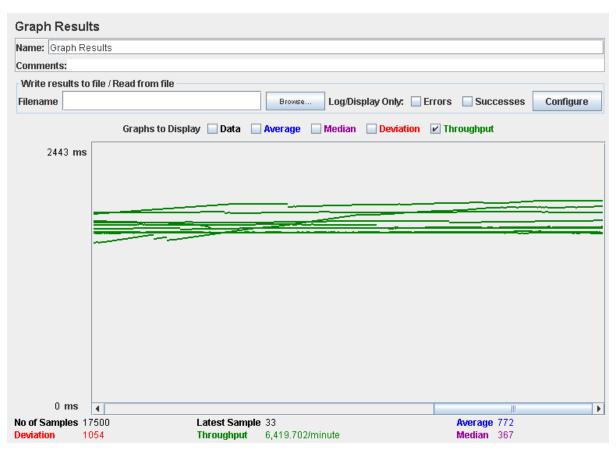
Ramp-Up Period (in seconds): 1

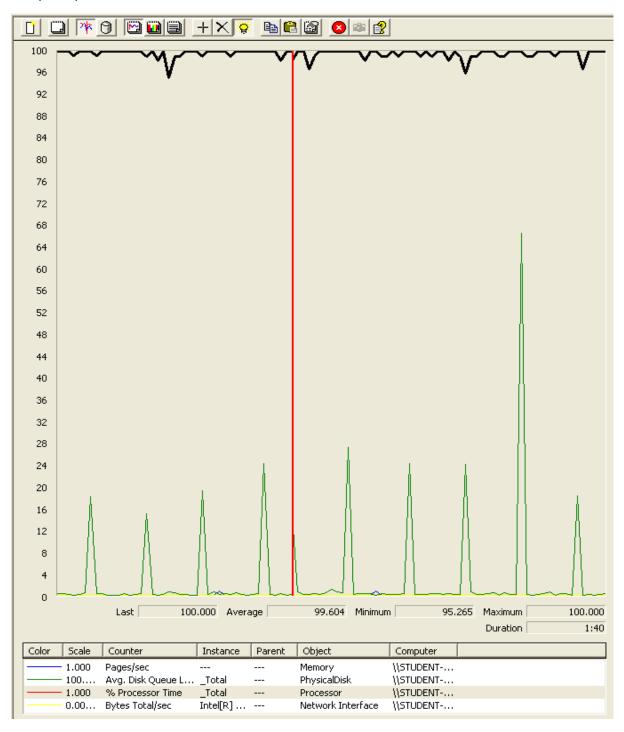
Loop count: 10

Performance test 90% results: Total 12,257ms.



Performance thread results: 6,419 per minute





Analysis results:

200 users and 10 loops: the application runs perfectly

250 users and 10 loops: the application runs without errors but the time spending the action creating the box is high. We believe is a processor bottleneck problem.

Use case 13:

As an administrator I want to manage the categories of the system.

Number of Threads (users): 250

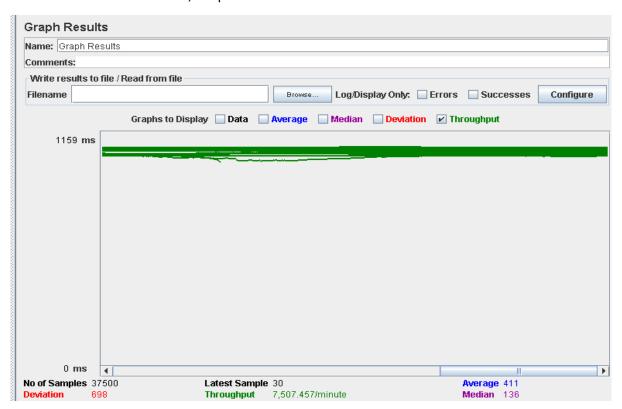
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 7,736ms.

Aggregate Report									
Name: Aggregate Report									
Comments:									
- Write results to file / Read fr	om file								
Filename			Browse	Log/Displa	y Only: 🔲 Er	rors 🔲 S	Successes	Config	gure
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/sei
/security/login.do	2500	37	13	58	4	2469	0.00%	9.0/sec	32.
/j_spring_security_check	2500	375	81	1023	8	5894	0.00%	9.0/sec	43.
/	2500	229	28	658	4	8545	0.00%	9.0/sec	41.
/category/administrator/list.do	15000	378	120	1079	6	7080	0.00%	51.1/sec	374.
/category/administrator/create	2500	409	119	1213	5	5692	0.00%	9.0/sec	60.
/category/administrator/edit.do	7500	729	385	1821	9	8581	0.00%	26.4/sec	161.
/category/administrator/delete	2500	493	212	1393	8	6546	0.00%	9.0/sec	43.
/j_spring_security_logout	2500	172	34	491	3	6971	0.00%	9.0/sec	34.
TOTAL	37500	411	136	1174	3	8581	0.00%	125.1/s	756.

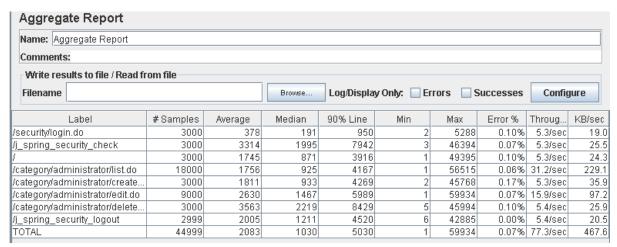
Performance thread results: 7,507 per minute



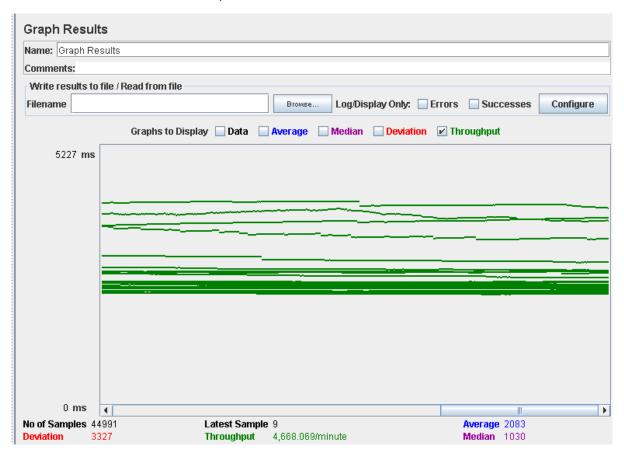
Ramp-Up Period (in seconds): 1

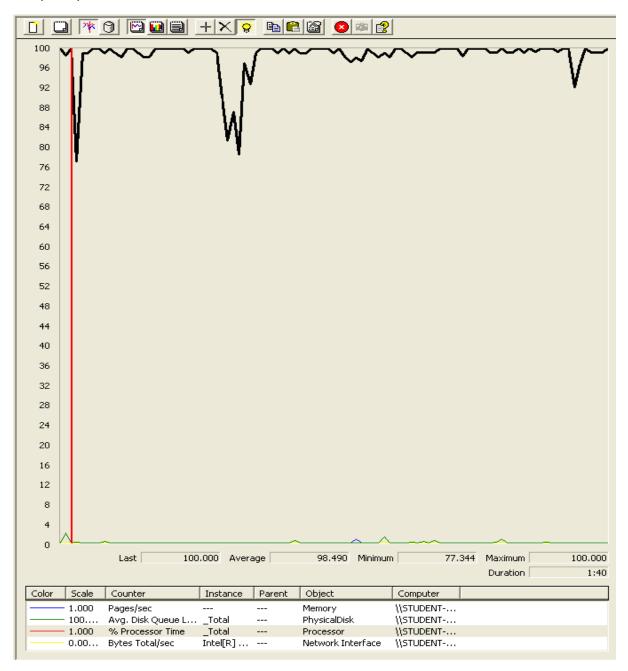
Loop count: 10

Performance test 90% results: Total 40,182



Performance thread results: 4,668 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly

300 users and 10 loops: the application have errors and the times are really high (8429ms). We believe is a processor bottleneck problem.

Use case 14:

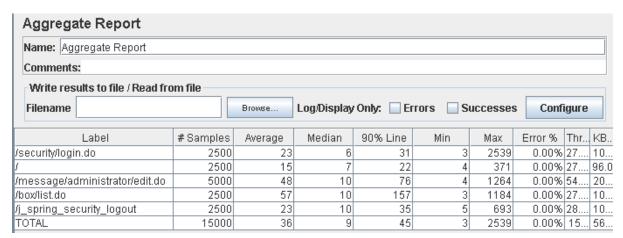
As an admin I want to broadcast a message to all of the actors of the system

Number of Threads (users): 250

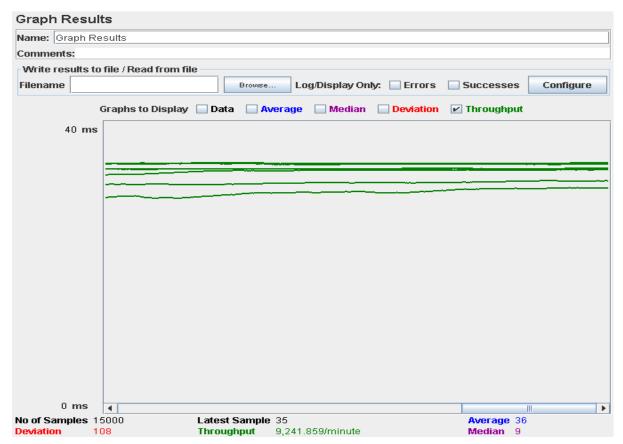
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 321ms.



Performance thread results: 9,241 per minute



Ramp-Up Period (in seconds): 1

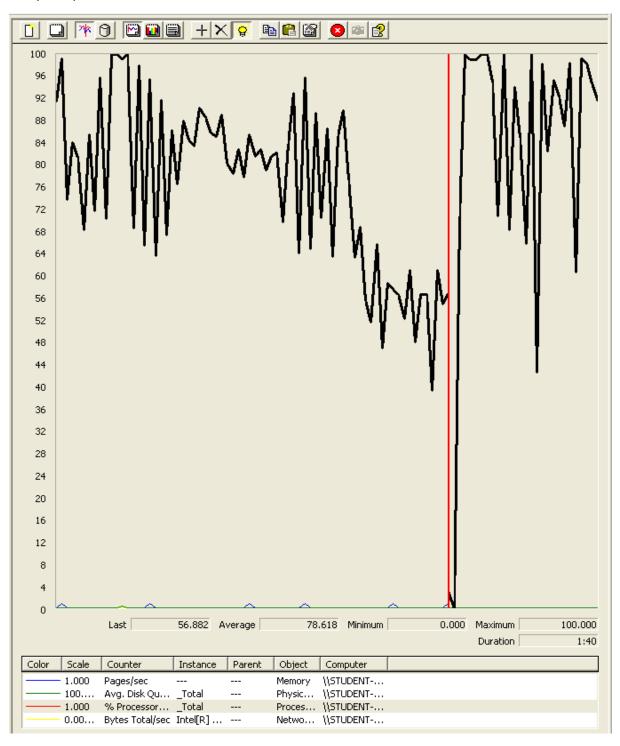
Loop count: 10

Performance test 90% results: Total 2,228ms

Aggregate Report							
Name: Aggregate Report							
Comments:							
Write results to file / Read fro	m file						
Filename		Browse	Log/Display	Only: E	rors 🔲 S	uccesses	Configure
Label	#Samples	Average	Median	90% Line	Min	Max	Error % Thr KB
/security/login.do	3000	168	23	505	2	5565	0.03% 27 10
l .	3000	93	17	277	4	2726	0.00% 27 96.2
/message/administrator/edit.do	6000	161	27	479	4	4442	0.02% 55 20
/box/list.do	3000	187	31	573	1	4236	0.07% 27 10
/j_spring_security_logout	3000	136	24	394	3	3443	0.07% 28 10
TOTAL	18000	151	24	462	1	5565	0.03% 15 58

Performance thread results: 9,511 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application have errors and the times are really high. We believe is a processor bottleneck problem.

Use case 15:

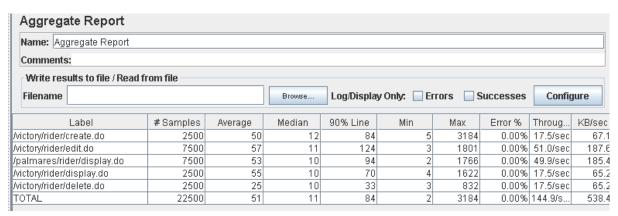
As a rider I want to manage my victories on my palmares.

Number of Threads (users): 250

Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 405ms.



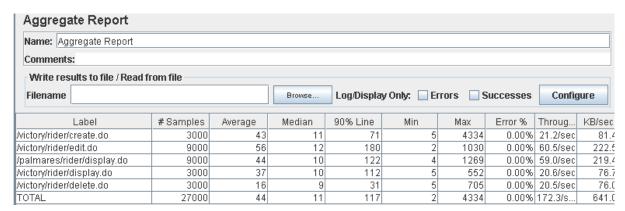
Performance thread results: 8,692 per minute



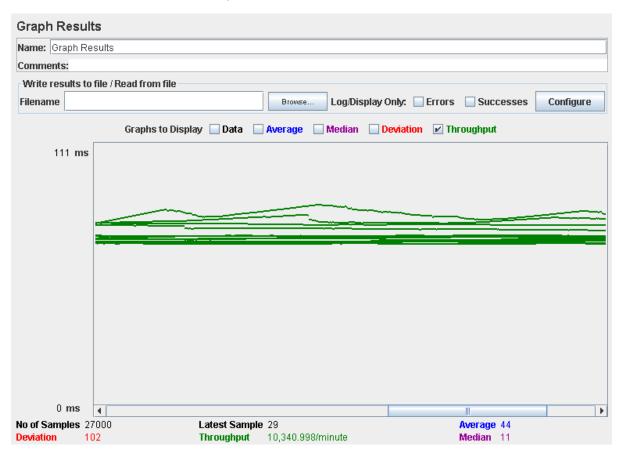
Ramp-Up Period (in seconds): 1

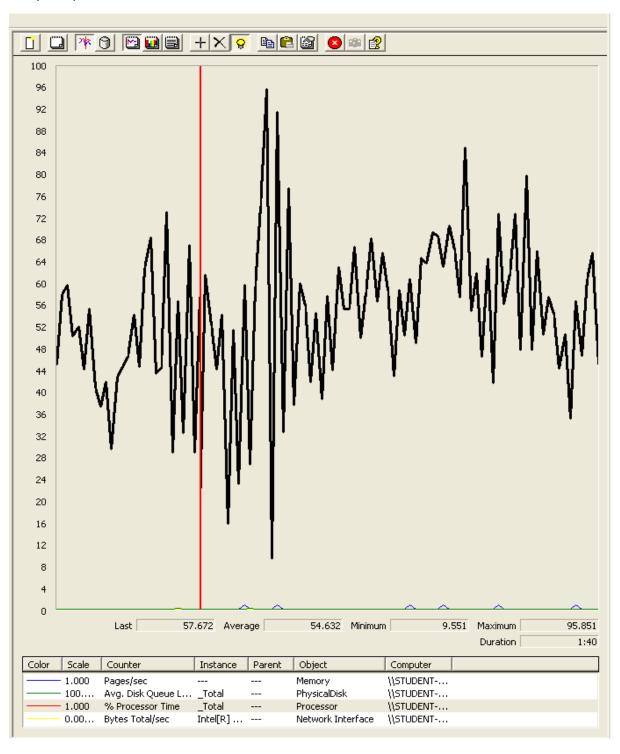
Loop count: 10

Performance test 90% results: Total 516ms



Performance thread results: 10,340 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application runs perfectly.

Use case 16:

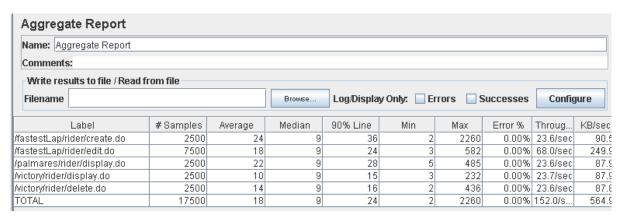
As a rider I want to manage my laps on my palmares.

Number of Threads (users): 250

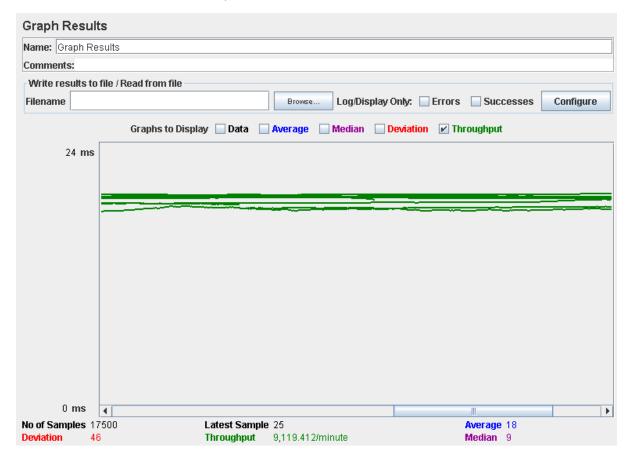
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 119ms.



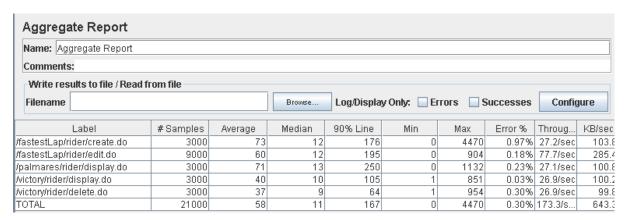
Performance thread results: 9,119 per minute



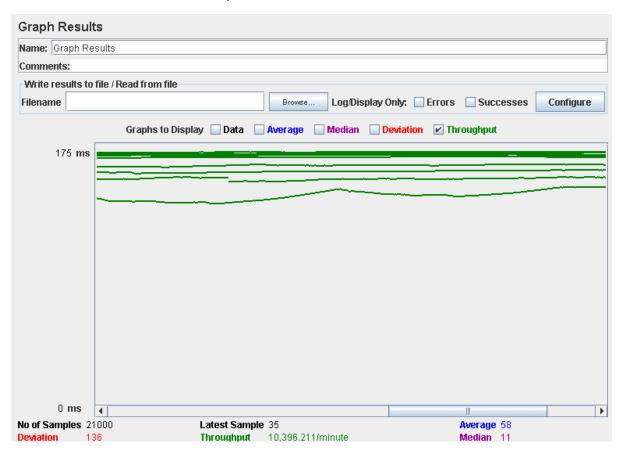
Ramp-Up Period (in seconds): 1

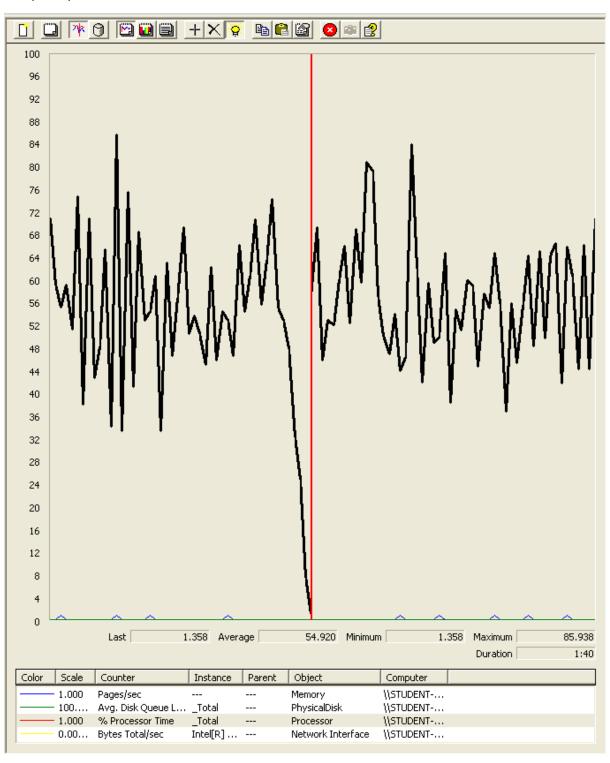
Loop count: 10

Performance test 90% results: Total 790ms



Performance thread results: 10,396 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application begins to have errors. It doesn't seem like a computer problem since the computer performance doesn't show any signs of error, but we believe that it could be the processor.

Use case 17:

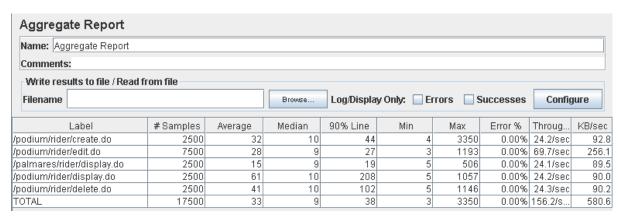
As a rider I want to manage my podiums on my palmares.

Number of Threads (users): 250

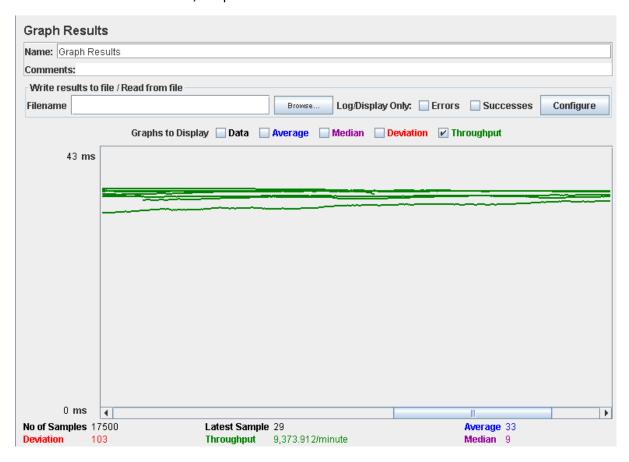
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 400ms.



Performance thread results: 9,373 per minute



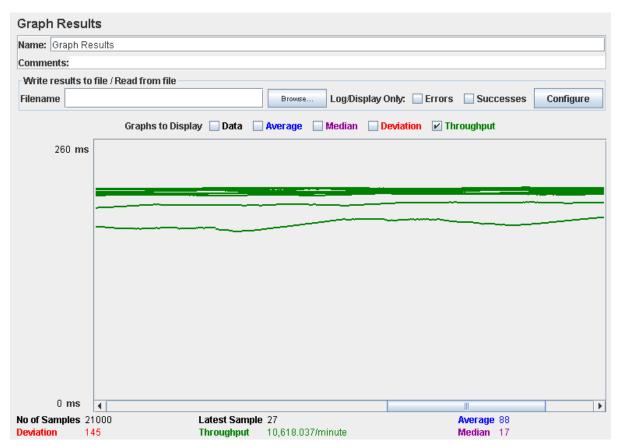
Ramp-Up Period (in seconds): 1

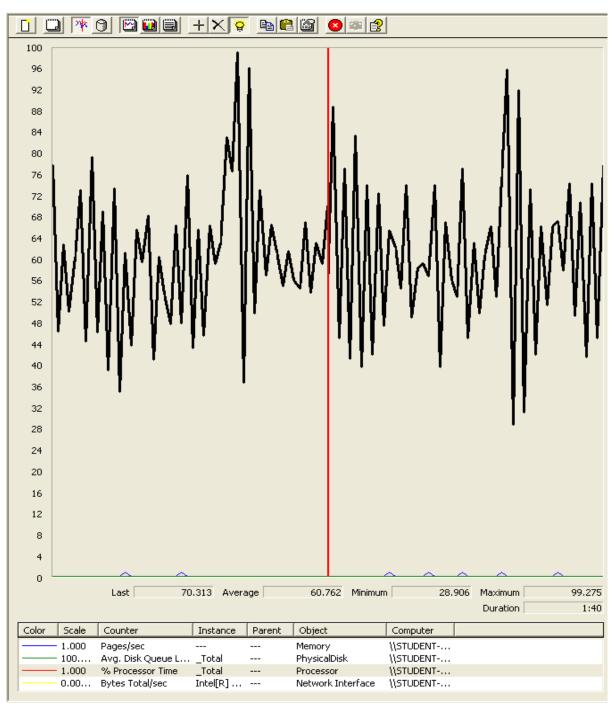
Loop count: 10

Performance test 90% results: Total 1,386ms

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read	from file ——								
Filename			Browse	Log/Displa	y Only: 🔲 Er	rors 🔲 S	Successes	Config	јиге
Label	#Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/sec
/podium/rider/create.do	3000	88	20	258	2	4664	0.00%	27.4/sec	105.3
/podium/rider/edit.do	9000	89	18	280	3	1176	0.01%	79.0/sec	290.6
/palmares/rider/display.do	3000	87	17	285	3	1428	0.00%	27.4/sec	101.8
/podium/rider/display.do	3000	92	16	298	1	1166	0.07%	27.4/sec	101.9
/podium/rider/delete.do	3000	83	13	265	1	1604	0.03%	27.4/sec	101.8
TOTAL	21000	88	17	278	1	4664	0.02%	177.0/s	658.1

Performance thread results: 10,618 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application begins to have errors. We believe that it could be the processor.

Use case 18:

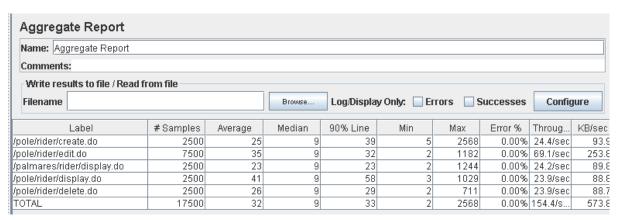
As a rider I want to manage my poles on my palmares

Number of Threads (users): 250

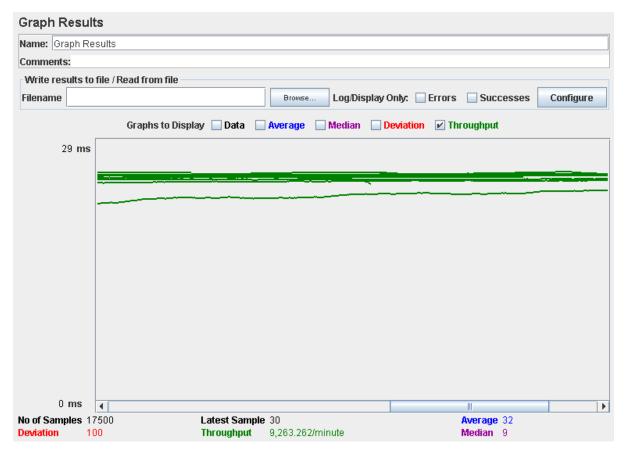
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 181ms.



Performance thread results: 9,263 per minute



Ramp-Up Period (in seconds): 1

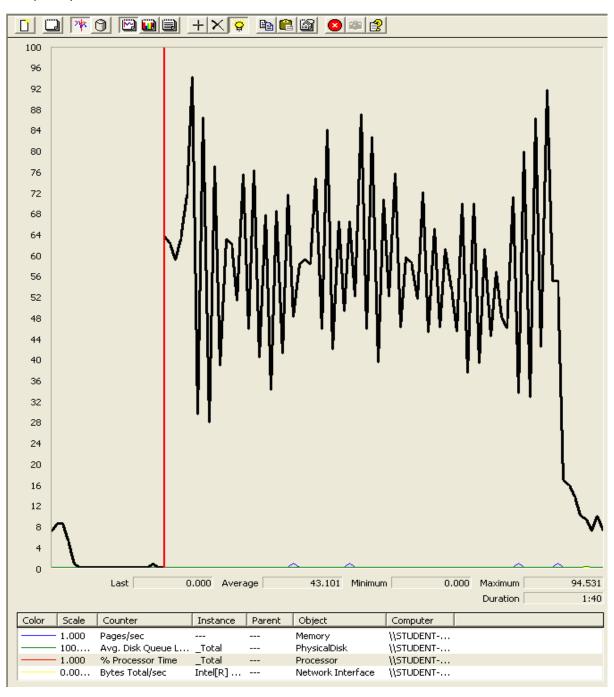
Loop count: 10

Performance test 90% results: Total 1,340ms

Name: Aggregate Report									
Comments:									
Write results to file / Re	ad from file								
Filename			Browse	Log/Display	y Only: 🔲 Er	rors 🔲 S	Successes	Config	јиге
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/s
	#Samples 3000	Average 106	Median 16	90% Line 315	Min 3	Max 3503	Error % 0.00%		
oole/rider/create.do				315	Min 3			28.1/sec	10
pole/rider/create.do pole/rider/edit.do	3000	106	16	315 267	Min 3 3 2	3503	0.00% 0.00%	28.1/sec	10° 29:
pole/rider/create.do pole/rider/edit.do palmares/rider/display.do	3000 9000	106 78	16 13	315 267	Min 3 3 2 4	3503 800	0.00% 0.00% 0.00%	28.1/sec 80.4/sec	10 29 10
Label pole/rider/create.do pole/rider/edit.do palmares/rider/display.do pole/rider/display.do pole/rider/delete.do	3000 9000 3000	106 78 92	16 13 15	315 267 304	Min 3 3 2 4 2 2	3503 800 933	0.00% 0.00% 0.00% 0.00%	28.1/sec 80.4/sec 28.0/sec	10 29 10 10

Performance thread results: 10,835 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application runs perfectly.

Use case 19:

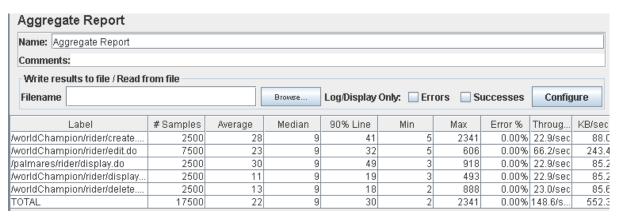
As a rider I want to manage my podiums on my palmares

Number of Threads (users): 250

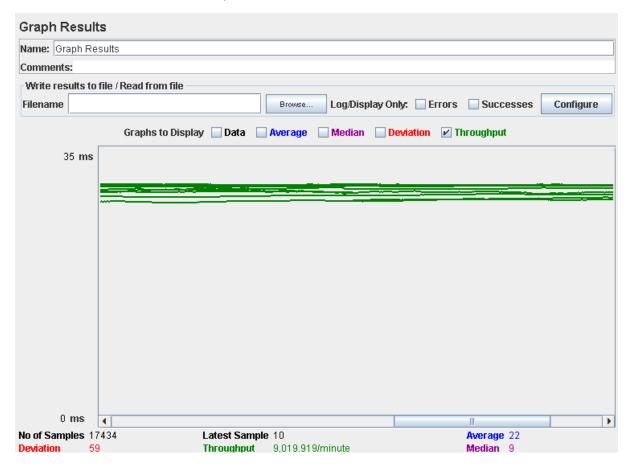
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 159ms.



Performance thread results: 9,019 per minute



Ramp-Up Period (in seconds): 1

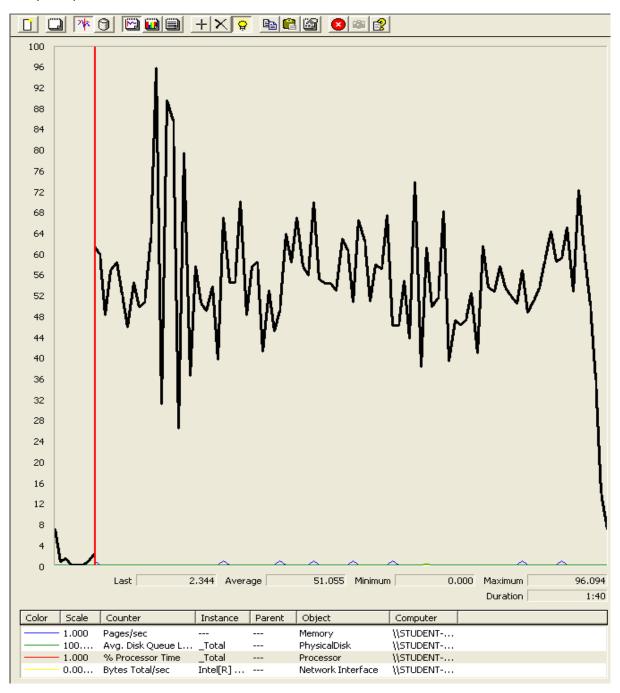
Loop count: 10

Performance test 90% results: Total 544ms

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read fi	om file ——								
Filename			Browse	Log/Display	Only: 🔲 Err	ors 🔲 Si	uccesses	Config	иге
Label	#Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/sec
worldChampion/rider/create	3000	85	11	143	1	3888	0.30%	27.1/sec	104.
/worldChampion/rider/edit.do	9000	55	11	134	2	1583	0.06%	77.9/sec	286.4
/palmares/rider/display.do	3000	69	12	184	1	1503	0.07%	27.2/sec	101.0
/worldChampion/rider/display	3000	24	10	48	5	668	0.00%	27.0/sec	100.3
/worldChampion/rider/delete	3000	28	9	35	1	1432	0.03%	27.0/sec	100.5
TOTAL	21000	53	11	103	1	3888	0.08%	174.3/s	648.1

Performance thread results: 10,459 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application begins to have errors. It doesn't seem like a computer problem since the computer performance doesn't show any signs of error, but we believe that it could be the processor.

Use case 20:

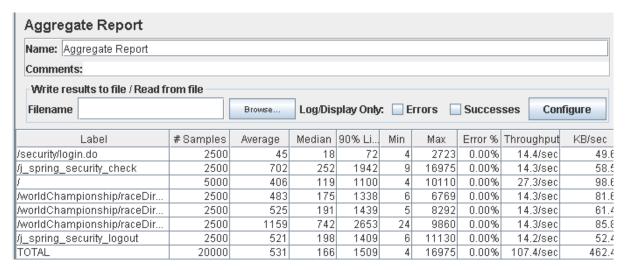
As a Race Director I want to manage my world championships

Number of Threads (users): 250

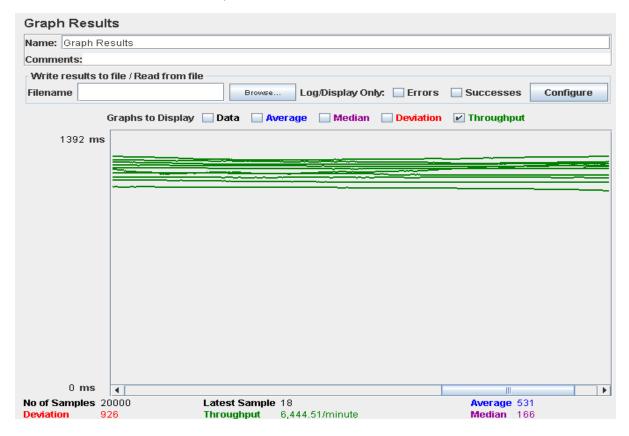
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 9,953ms.



Performance thread results: 6,444 per minute



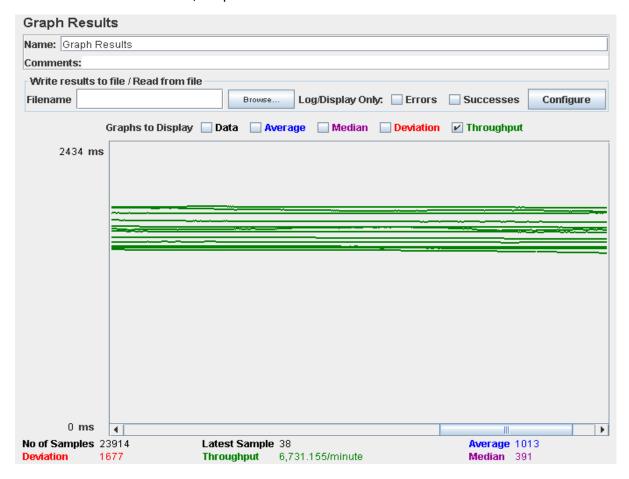
Ramp-Up Period (in seconds): 1

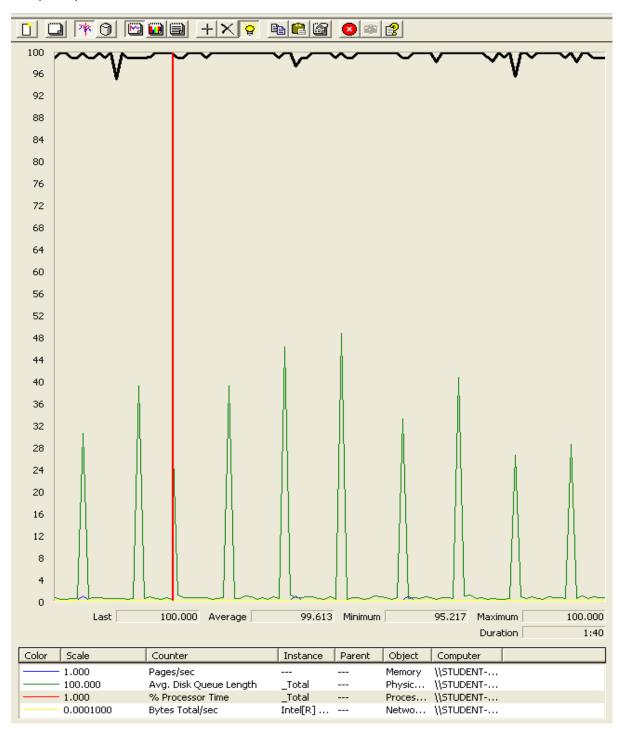
Loop count: 10

Performance test 90% results: Total 18,171ms

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read from file Filename	Browse	Log/Display	Only:	Errors	Suc	cesses	Coi	nfigure	е
Label	# Samples	Average	Median	90% Li	Min	Max	Error	Thr	KB/
/security/login.do	3000	64	27	138	3	5361	0.00%	14	48.9
/j_spring_security_check	3000	1674	904	4262	9	25643	0.00%	14	57.8
I .	6000	856	352	2223	4	15853	0.00%	27	98.8
/worldChampionship/raceDirector/list.do	3000	969	408	2414	10	16925	0.00%	14	81.2
/worldChampionship/raceDirector/create.do	3000	921	357	2389	6	16995	0.00%	14	60.7
/worldChampionship/raceDirector/edit.do	3000	1859	1190	4267	49	26397	0.00%	14	85.1
/j_spring_security_logout	3000	878	378	2278	6	23113	0.00%	14	52.1
TOTAL	24000	1010	389	2705	3	26397	0.00%	107	465.5

Performance thread results: 6,731 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application doesn't have errors but the time spend doing the actions is very high. We believe that it could be a processor bottleneck problem.

Use case 21:

As a Race Director I want to manage my announcements

Number of Threads (users): 250

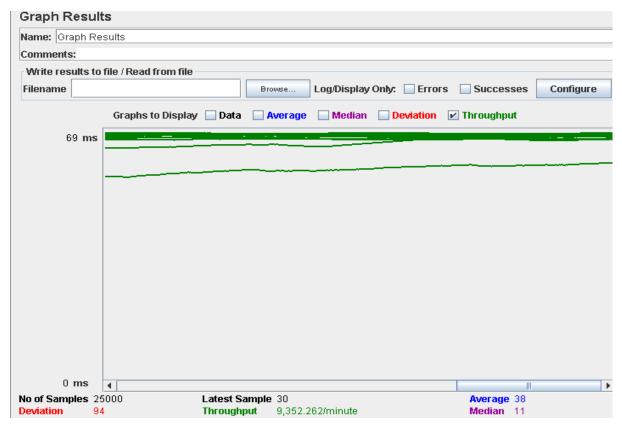
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 351ms.

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read from file									
Filename		Browse	Log/Displ	ay Only:	Errors	Succ	esses	Config	иге
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/sec
/announcement/raceDirector/list.do	10000	40	11	81	2	3389	0.00%	62.3/sec	233.7
/announcement/raceDirector/create.do	2500	34	11	92	5	552	0.00%	17.0/sec	63.2
/announcement/raceDirector/edit.do	7500	34	11	60	4	1173	0.00%	49.1/sec	180.4
/announcement/display.do	2500	36	11	51	5	1539	0.00%	17.1/sec	63.4
/announcement/raceDirector/delete.do	2500	43	10	67	2	1218	0.00%	17.1/sec	63.7
TOTAL	25000	38	11	70	2	3389	0.00%	155.9/	579.3

Performance thread results: 9,352 per minute



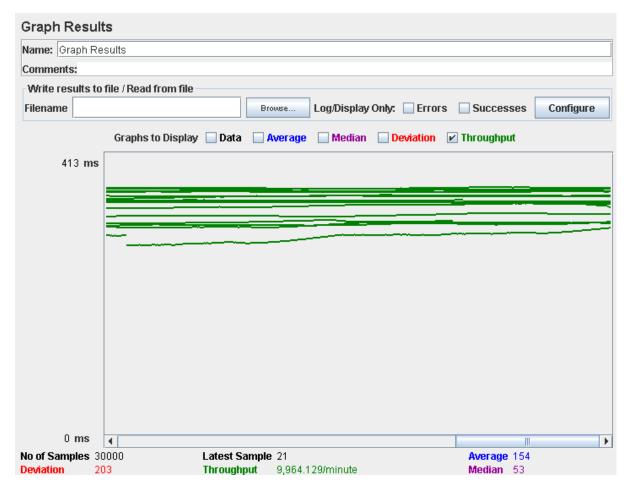
Ramp-Up Period (in seconds): 1

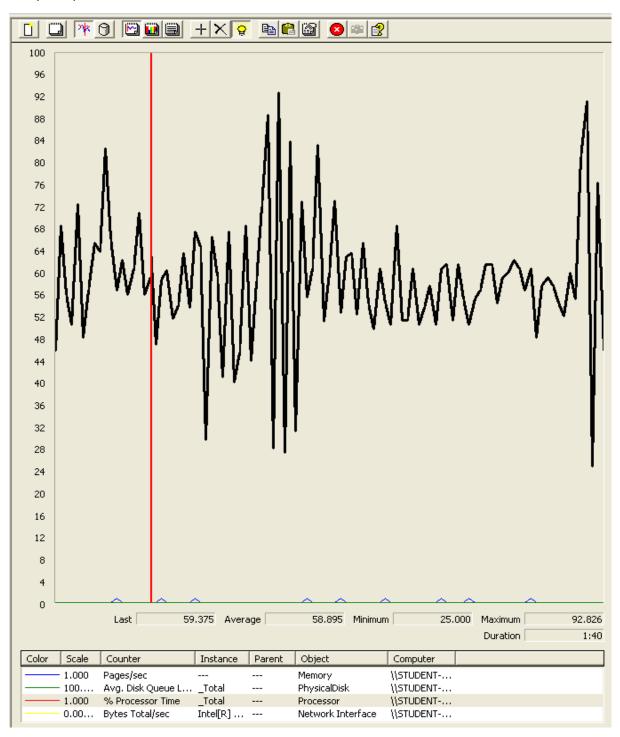
Loop count: 10

Performance test 90% results: Total 2,118ms

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read from file									
Filename		Browse	Log/Displ	ay Only:	Errors	Succe	esses	Config	иге
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/se
/announcement/raceDirector/list.do	12000	152	48	416	1	4640	0.08%	66.4/sec	249.
/announcement/raceDirector/create.do	3000	171	70	460	1	1790	0.30%	17.9/sec	66.
/announcement/raceDirector/edit.do	9000	156	60	426	1	1900	0.08%	51.8/sec	190.
/announcement/display.do	3000	165	66	433	5	1731	0.00%	18.0/sec	66.
/announcement/raceDirector/delete.do	3000	129	32	383	5	1561	0.00%	18.1/sec	67.
TOTAL	30000	154	53	423	1	4640	0.08%	166.1/	617.

Performance thread results: 9,964 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application begins to have errors. We believe that it could be the processor.

Use case 22:

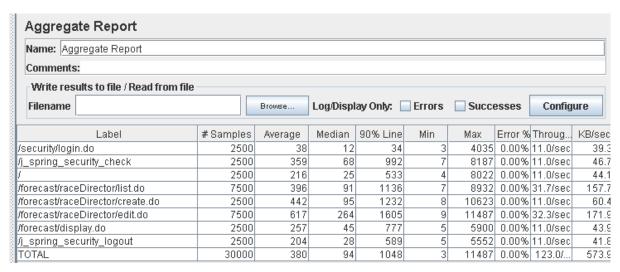
As a Race Director I want to manage the forecast of a grand prix

Number of Threads (users): 250

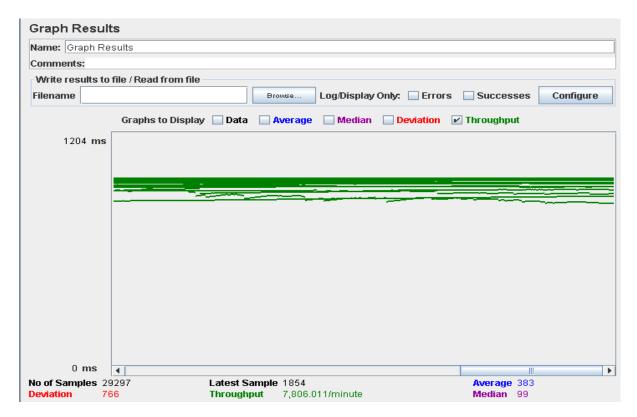
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 6,898ms.



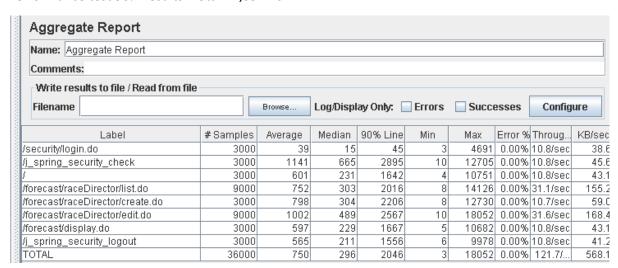
Performance thread results: 15,273 per minute



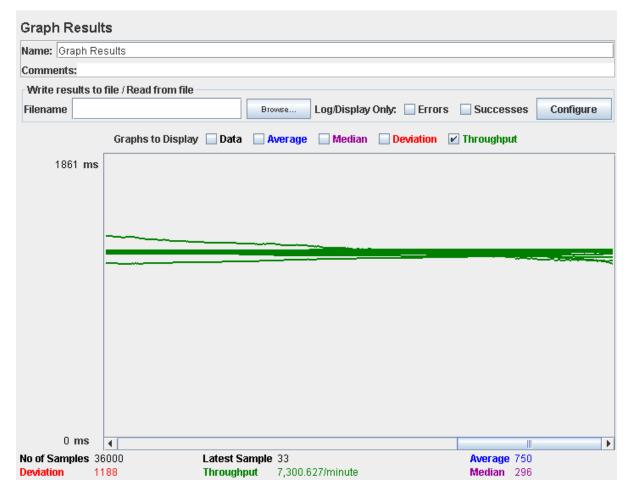
Ramp-Up Period (in seconds): 1

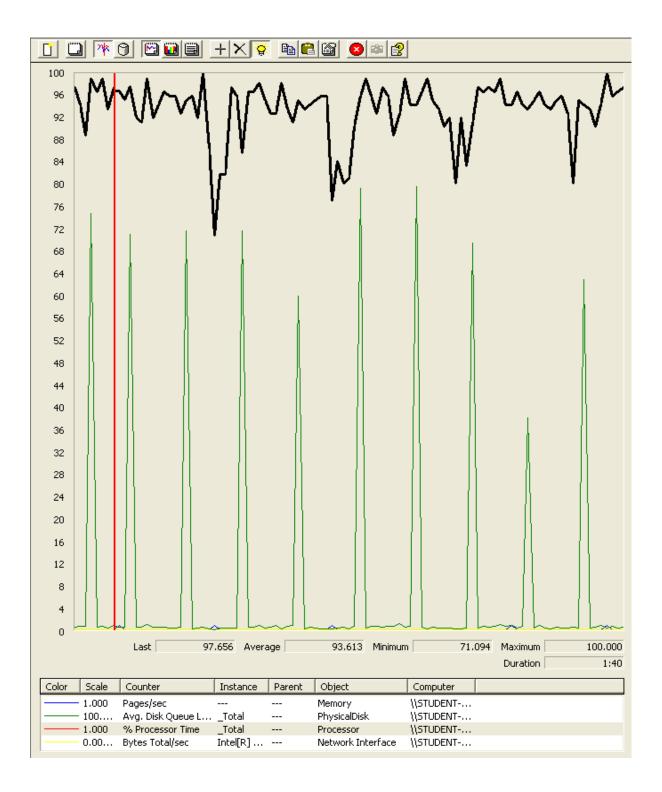
Loop count: 10

Performance test 90% results: Total 14,594ms



Performance thread results: 7,300 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application runs perfectly, the creation of the announcement is in the limits which we consider that an action could last.

Use case 23:

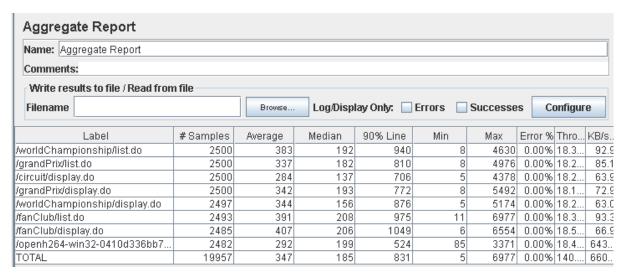
As a not authenticated actor I want to navigate to the world championship and their circuits and also navigate to the fan clubs of the riders.

Number of Threads (users): 250

Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 6,652ms.



Performance thread results: 8,506 per minute



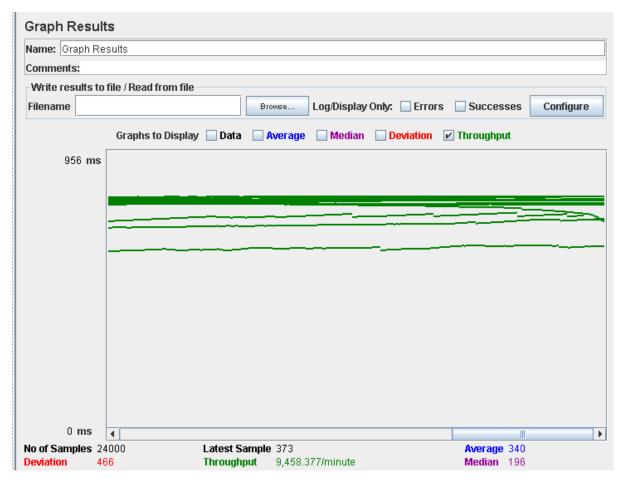
Ramp-Up Period (in seconds): 1

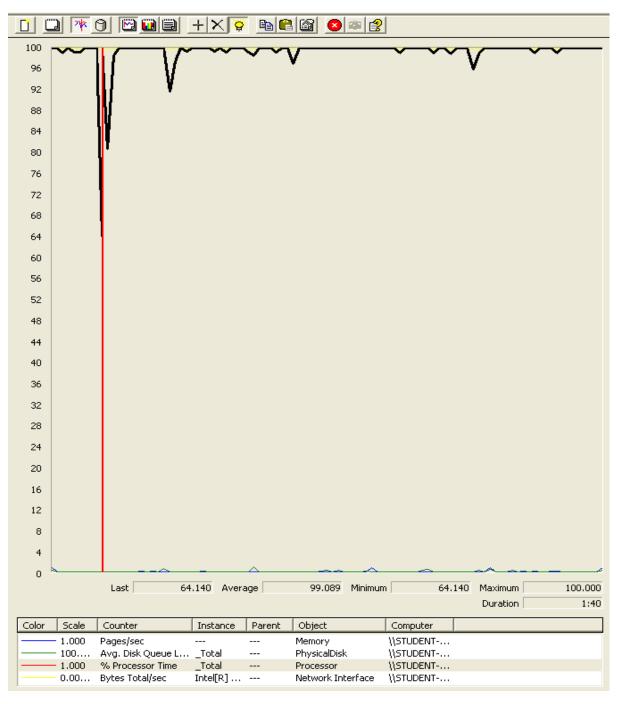
Loop count: 10

Performance test 90% results: Total 6,507ms

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read fron	n file								
Filename		Browse	Log/Displ	lay Only: 🔲	Errors 🗌	Successe	s C	onfigur	е
Label	#Samples	Average	Median	90% Line	Min	Max	Error %	Thro	KB/s.
/worldChampionship/list.do	3000	326	204	822	6	3837	0.00%	21.1	107.2
/grandPrix/list.do	3000	316	189	789	7	3927	0.00%	21.0	98.3
/circuit/display.do	3000	266	129	708	4	3568	0.00%	21.1	74.4
/grandPrix/display.do	3000	295	167	722	7	6292	0.00%	21.1	84.9
/worldChampionship/display.do	3000	278	147	729	4	5044	0.00%	21.1	72.8
/fanClub/list.do	3000	348	204	833	8	3897	0.00%	21.2	107.8
/fanClub/display.do	3000	359	209	884	5	4459	0.00%	21.2	76.8
/openh264-win32-0410d336bb7	3000	532	321	1020	97	14928	0.00%	21.2	738
TOTAL	24000	340	196	813	4	14928	0.00%	157	745

Performance thread results: 9,458 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application runs perfectly.

Use case 24:

As a Race Director I want to create and edit my grand prixes.

Number of Threads (users): 200

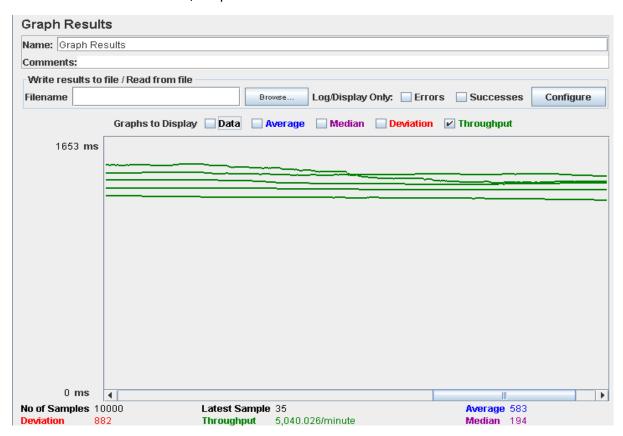
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 7,277ms.

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read from fi	le								
Filename		Browse	Log/Display	Only: Er	rors 🗌	Succes	sses	Configu	ге
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throu	KB/se
/security/login.do	2000	43	16	50	4	1863	0.00%	17.7/	64.0
/j_spring_security_check	2000	796	424	2078	9	6660	0.00%	17.7/	73.4
/grandPrix/raceDirector/create.do	2000	457	165	1304	9	4983	0.00%	17.7/	150.0
/grandPrix/raceDirector/edit.do	2000	1207	863	2722	31	7628	0.00%	17.7/	88.1
/j_spring_security_logout	2000	414	156	1123	3	9647	0.00%	17.7/	66.5
TOTAL	10000	583	194	1767	3	9647	0.00%	84.0/	420.1

Performance thread results: 5,040 per minute



Ramp-Up Period (in seconds): 1

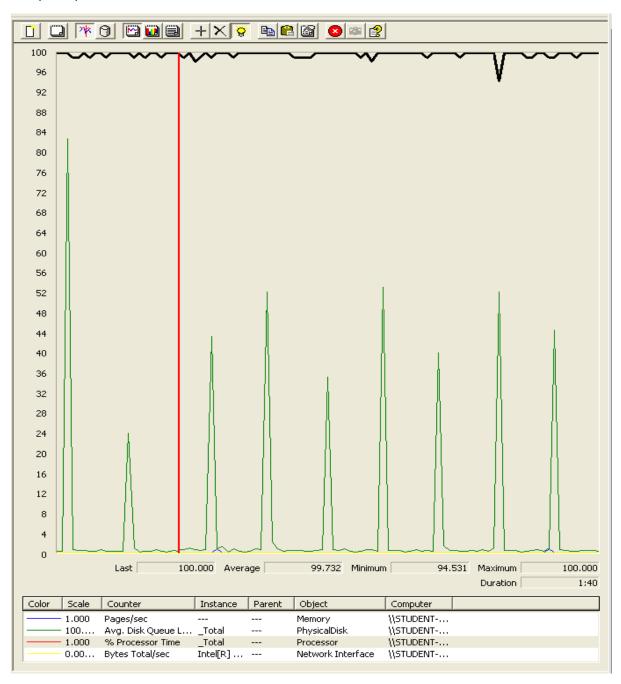
Loop count: 10

Performance test 90% results: Total 26,841ms

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read from fi	e								
Filename		Browse	Log/Display	Only: Er	rors 🗌	Succes	sses	Configu	ıre
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throu	KB/se
/security/login.do	2269	105	49	248	6	3211	0.00%	13.8/	50.
/j_spring_security_check	2198	3449	2152	8241	10	34827	0.00%	13.5/	56.
/grandPrix/raceDirector/create.do	2166	1845	806	4800	14	29420	0.00%	13.4/	113.
/grandPrix/raceDirector/edit.do	2091	3832	2396	8796	143	35459	0.00%	13.1/	65.
/j_spring_security_logout	2061	1887	908	4756	10	30238	0.00%	13.0/	49.3
TOTAL	10785	2199	946	5893	6	35459	0.00%	65.5/	328.

Performance thread results: 3,932 per minute





Analysis results:

200 users and 10 loops: the application runs perfectly

250 users and 10 loops: the application doesn't have errors but the time spend doing the actions is really high (8 secs for example). We believe is a processors bottleneck problem.

Use case 25:

As a Race Director I want to list, display and delete my grand prixes.

Number of Threads (users): 250

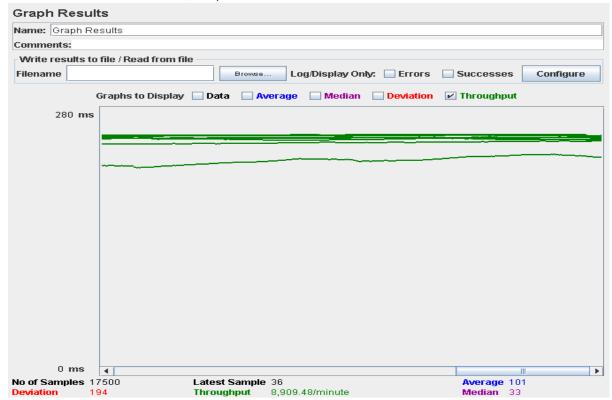
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 1,835ms.

Aggrega	ate Repor	t							
Name: Ag	gregate Repo	ort							
Comments	s:								
- Write res	ults to file / F	Read from file	e						
Filename			Bro	wse Log	Display Only	r. Errors	Succes	sses Cor	nfigure
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/l	2500	116	22	282	4	3426	0.00%	23.1/sec	84.1
/j_spring	2500	169	69	442	10	2393	0.00%	23.1/sec	95.0
j .	2500	81	27	229	4	1602	0.00%	23.4/sec	91.5
/grandPrix	2500	83	42	191	6	1742	0.00%	23.2/sec	129.2
/grandPrix	2500	129	51	357	8	2082	0.00%	23.2/sec	96.6
/grandPrix	2500	62	21	156	5	1012	0.00%	23.2/sec	241.3
/j_spring	2500	68	25	178	5	1821	0.00%	23.2/sec	87.4
TOTAL	17500	101	33	262	4	3426	0.00%	148.5/sec	754.8

Performance thread results: 8,909 per minute



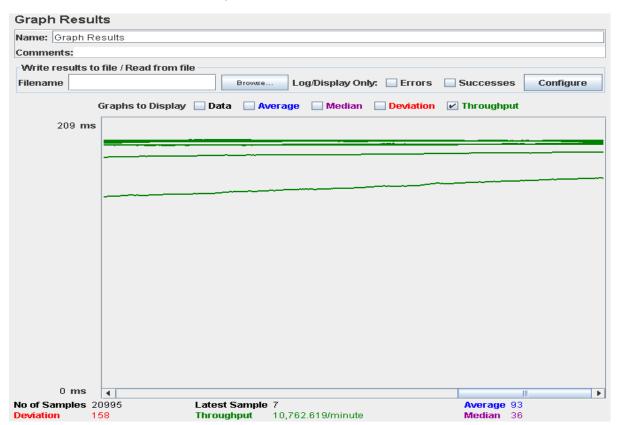
Ramp-Up Period (in seconds): 1

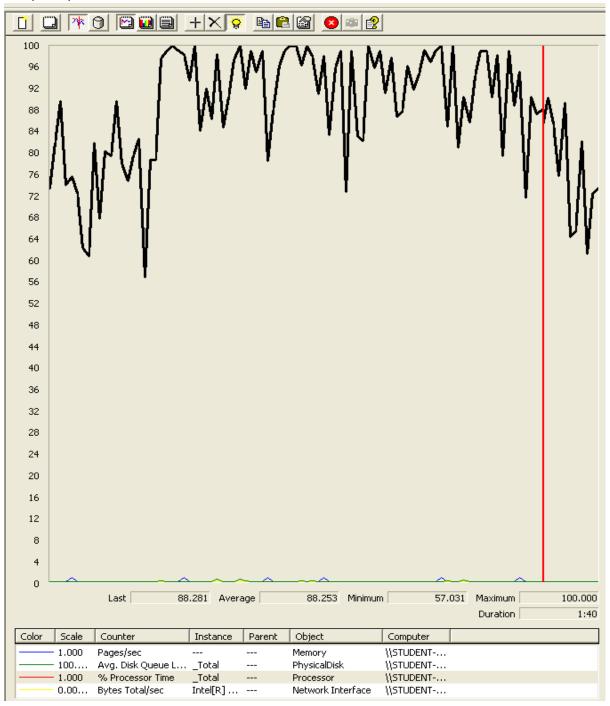
Loop count: 10

Performance test 90% results: Total 3,554ms

Aggrega	ate Repor	t							
Name: Ag	gregate Repo	ort							
Comments	s:								
-Write res	ults to file / F	Read from file	e						
Filename			Bro	wse Log	/Display Only	r. Errors	Succes	sses Cor	nfigure
Label	#Samples	Average	Median	90% Line	Min	Max	Error %	Throughput	KB/sec
/security/l	3000	67	20	120	3	3834	0.00%	27.5/sec	99.
/j_spring	3000	147	72	363	9	1559	0.00%	27.4/sec	113.
J.	3000	84	33	215	4	1816	0.00%	27.4/sec	107.
/grandPrix	3000	97	51	232	7	1208	0.00%	27.4/sec	152.
/grandPrix	3000	134	61	348	7	1490	0.00%	27.4/sec	114.
/grandPrix	3000	58	25	136	5	1282	0.00%	27.6/sec	287.
/j_spring	3000	60	27	140	3	1286	0.00%	27.6/sec	103.
TOTAL	21000	92	36	239	3	3834	0.00%	177.1/sec	900.

Performance thread results: 10,762 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application runs perfectly.

Use case 26:

As a team manager I want to manage my answers to the announcements

Number of Threads (users): 250

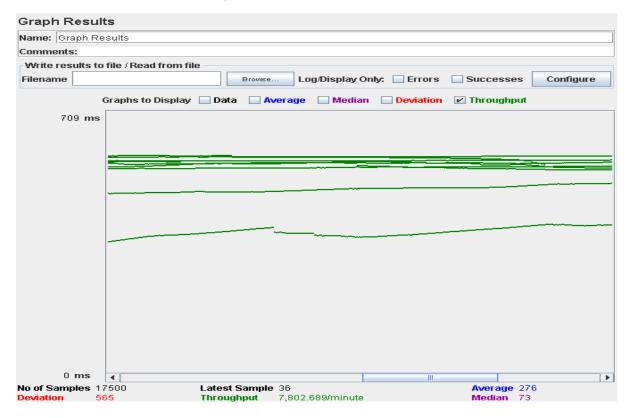
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 4756ms.

Aggregate Report								
Name: Aggregate Report								
Comments:								
Write results to file / Read from		owse Lo	g/Display O	nly: 🔲 Erro	ors S	ıccesses	Cor	nfigure
Label	# Samples	Average	Median	90% Line	Min	Max	Error	Thr KB.
/security/login.do	2500	135	17	317	3	3028	0.00%	20 74
/j_spring_security_check	2500	362	105	958	8	4823	0.00%	20 86
/answer/teamManager/list.do	2500	246	63	581	7	4491	0.00%	20 97
/answer/teamManager/create.do	2500	309	83	698	8	4460	0.00%	20 105
/answer/teamManager/edit.do	2500	339	132	734	13	4610	0.00%	20 105
/answer/display.do	2500	385	140	1044	8	4430	0.00%	20 87
/j_spring_security_logout	2500	154	34	424	5	3785	0.00%	20 78
TOTAL	17500	276	73	705	3	4823	0.00%	130 586

Performance thread results: 7,802 per minute



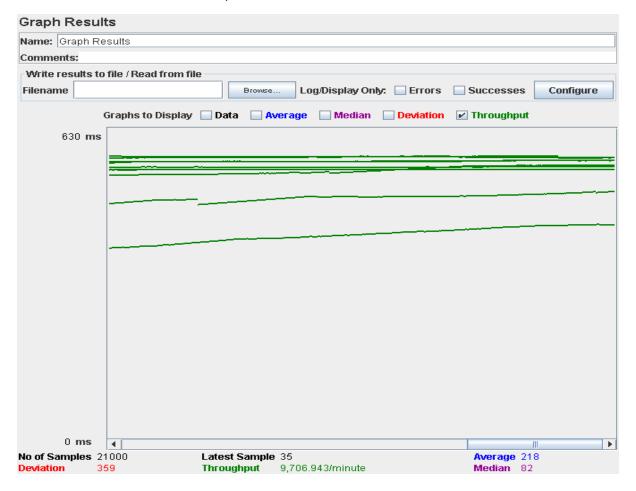
Ramp-Up Period (in seconds): 1

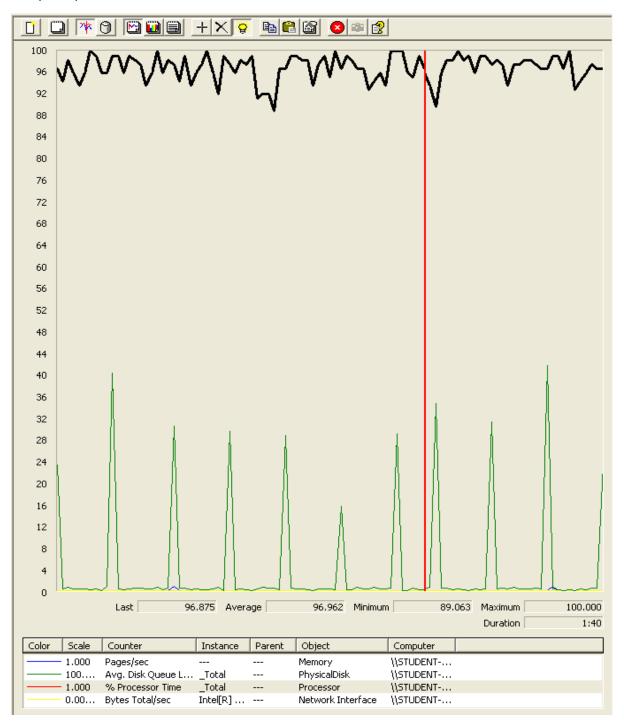
Loop count: 10

Performance test 90% results: Total 3,874ms.

Aggregate Report								
Name: Aggregate Report								
Comments:								
- Write results to file / Read from t	file							
Filename	Bre	owse Lo	g/Display O	nly: 🔲 Erro	ors 🔲 Si	uccesses	Cor	nfigure
Label	# Samples	Average	Median	90% Line	Min	Max	Error	Thr KB/
/security/login.do	3000	65	16	82	0	6251	0.40%	25 92.1
/j_spring_security_check	3000	340	144	915	0	5008	0.43%	25 108
/answer/teamManager/list.do	3000	212	85	554	0	4767	0.27%	25 121
/answer/teamManager/create.do	3000	231	94	610	1	3586	0.17%	25 130
/answer/teamManager/edit.do	3000	235	129	545	0	3121	0.23%	25 132
/answer/display.do	3000	304	164	786	0	3846	0.47%	25 109
/j_spring_security_logout	3000	139	50	382	0	2701	0.63%	25 96.2
TOTAL	21000	218	82	583	0	6251	0.37%	161 727

Performance thread results: 9,706 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application begins to have errors. We believe that it could be the processor.

Use case 27:

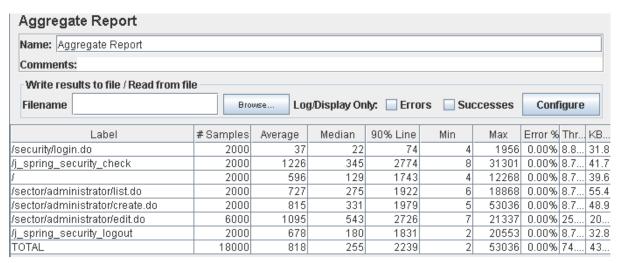
As an admin I want to manage the sectors of the circuits

Number of Threads (users): 200

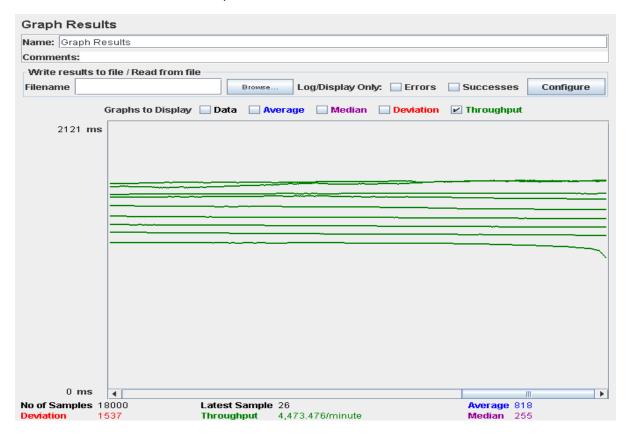
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 13,009ms.



Performance thread results: 4,473 per minute



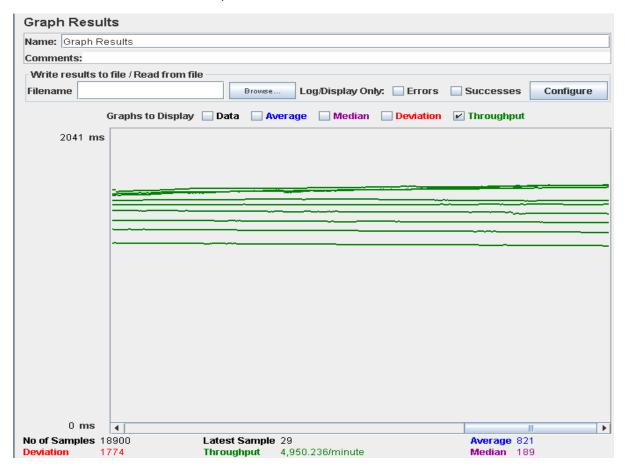
Ramp-Up Period (in seconds): 1

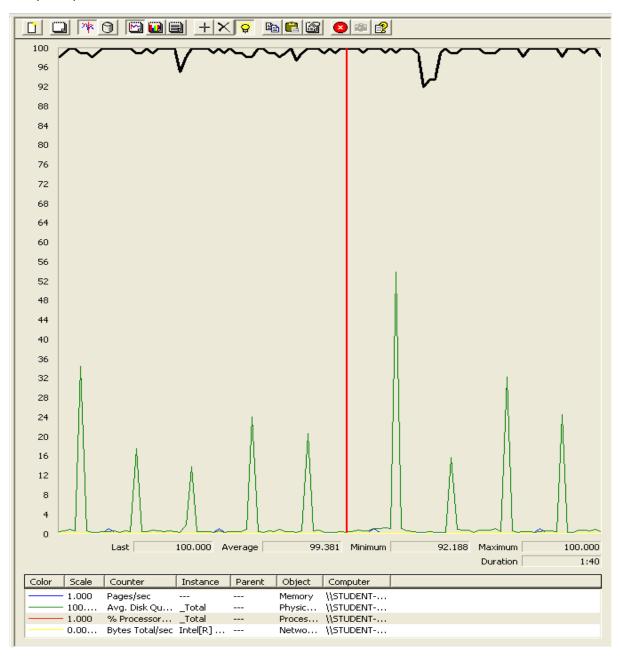
Loop count: 10

Performance test 90% results: Total 13,475ms

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read from		wse Log	J/Display On	ıly: 🔲 Erro	rs 🔲 Sud	ccesses	Confi	gure	
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Thr	KB.
/security/login.do	2100	44	16	69	4	2329	0.00%	9.7	35.3
/j_spring_security_check	2100	1258	349	3349	9	24346	0.00%	9.7	46.4
J.	2100	651	112	1653	4	21200	0.00%	9.7	44.1
/sector/administrator/list.do	2100	816	220	2102	5	23438	0.00%	9.7	61.5
/sector/administrator/create.do	2100	791	193	2095	5	15231	0.00%	9.7	54.4
/sector/administrator/edit.do	6300	1076	409	2771	8	24557	0.00%	28	22
/j_spring_security_logout	2100	603	113	1436	3	22355	0.00%	9.7	36.5
TOTAL	18900	821	189	2202	3	24557	0.00%	82	47

Performance thread results: 4,950 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly

300 users and 10 loops: the application doesn't have errors, but the time completing the login surpass the 3 seconds limit.

Use case 28:

As a representative I want to manage my fan clubs

Number of Threads (users): 250

Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 9,889ms

Aggregate Report									
Name: Aggregate Report									
Comments:									
- Write results to file / Read from fil	e								
Filename	Bro	wse	Log/Displa	y Only:	Errors	Suc	cesses	Config	јиге
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/sec
/security/login.do	2500	28	11	35	3	4102	0.00%	11.0/sec	40.0
/j_spring_security_check	2500	351	51	913	8	10005	0.00%	11.0/sec	44.7
J.	5000	191	20	454	3	9016	0.00%	20.7/sec	75.8
/fanClub/representative/list.do	2500	400	98	1097	8	8358	0.00%	11.0/sec	54.8
/fanClub/representative/create.do	2500	555	177	1620	9	11894	0.00%	11.0/sec	63.3
/fanClub/representative/edit.do	7500	617	273	1609	8	8639	0.00%	32.3/sec	166.6
/fanClub/display.do	2500	1025	586	2613	7	7812	0.00%	11.0/sec	44.9
/fanClub/representative/delete.do	2500	380	113	1145	8	8342	0.00%	11.1/sec	45.2
/j_spring_security_logout	2500	145	24	403	5	5007	0.00%	11.1/sec	41.9
TOTAL	30000	426	105	1230	3	11894	0.00%	122.7/s	543.5

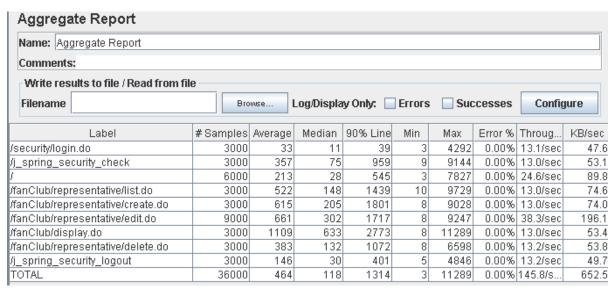
Performance thread results: 7,362 per minute



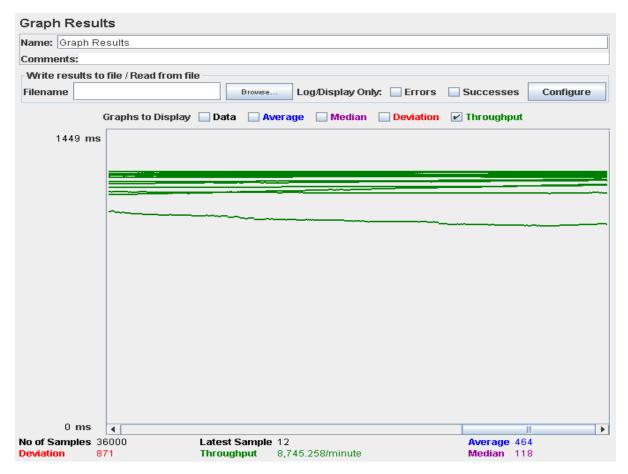
Ramp-Up Period (in seconds): 1

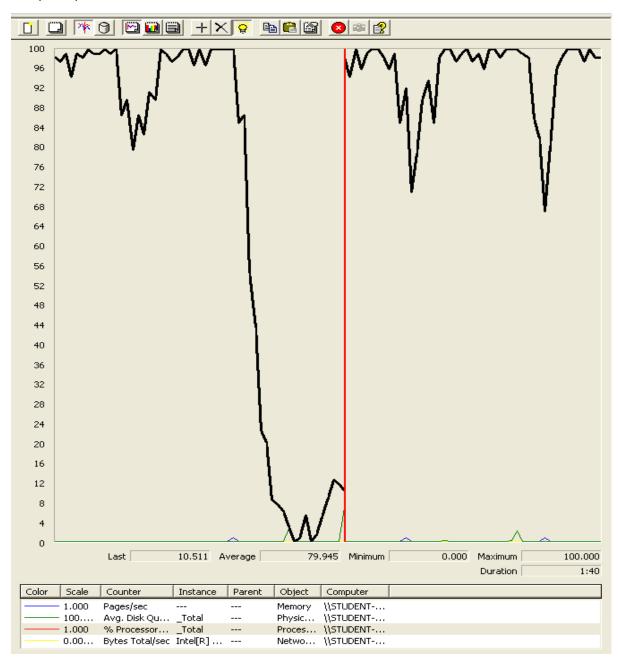
Loop count: 10

Performance test 90% results: Total 10,738ms



Performance thread results: 8,745 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly.

300 users and 10 loops: the application runs perfectly, the time spending displaying the fan clubs is near the limit.

Use case 29:

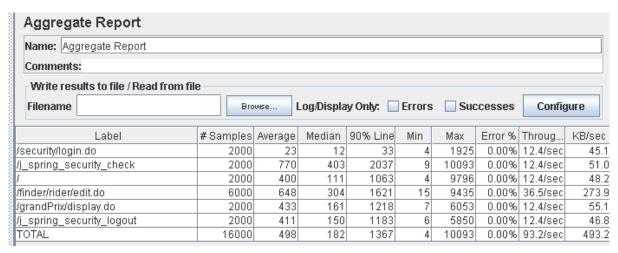
As a Rider I want to use a finder to filter the grand-prixes and navigate to them.

Number of Threads (users): 200

Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 7,155ms.



Performance thread results: 5,814 per minute



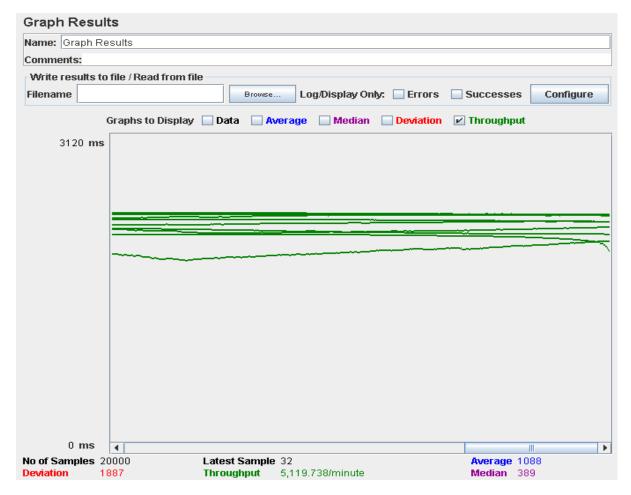
Ramp-Up Period (in seconds): 1

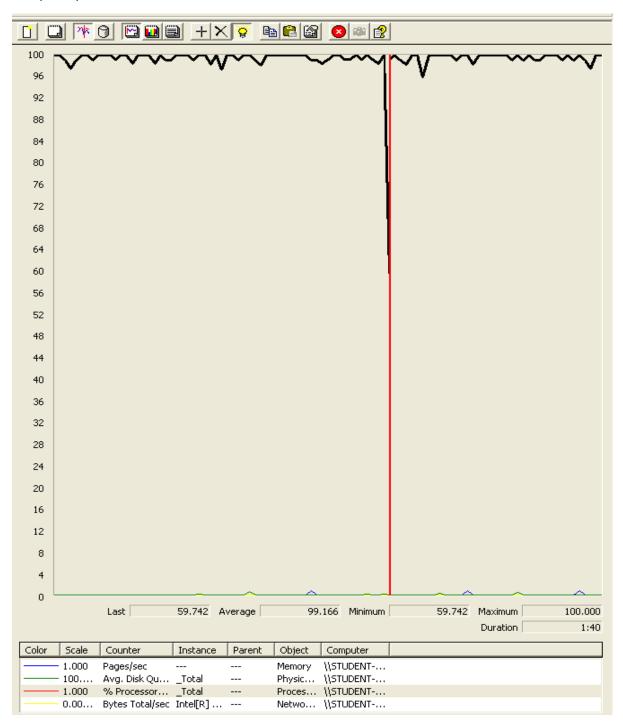
Loop count: 10

Performance test 90% results: Total 16,324ms

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read fr	om file								
Filename	Bro	wse	Log/Displa	y Only:	Errors	Suc	cesses	Config	jure
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Throug	KB/sec
security/login.do	2500	92	14	114	4	3775	0.00%	11.2/sec	40.
j_spring_security_check	2500	1958	1032	4831	10	26491	0.00%	11.2/sec	46.
	2500	994	336	2709	4	24287	0.00%	11.2/sec	43.
finder/rider/edit.do	7500	1232	537	3302	14	27167	0.00%	33.1/sec	248.
grandPrix/display.do	2500	965	359	2717	8	15260	0.00%	11.2/sec	49.
j_spring_security_logout	2500	997	359	2651	5	21578	0.00%	11.2/sec	42.
ΓΟΤΑL	20000	1088	389	2988	4	27167	0.000	85.3/sec	451.

Performance thread results: 5,119 per minute





Analysis results:

200 users and 10 loops: the application runs perfectly

250 users and 10 loops: the application doesn't have errors but the time spend doing the actions is really high (near 5 secs for example). We believe is a processors bottleneck problem.

Use case 30:

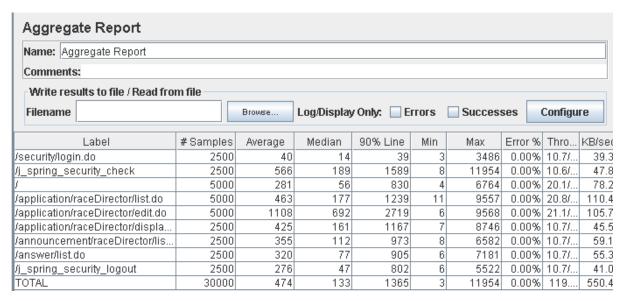
As a race director I want to manage my applications and announcements

Number of Threads (users): 250

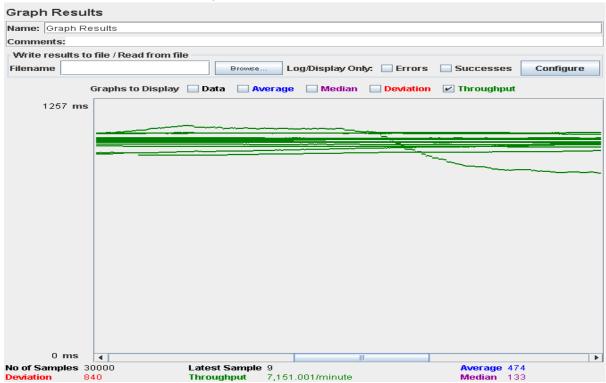
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 10,263.



Performance thread results: 7,151 per minute



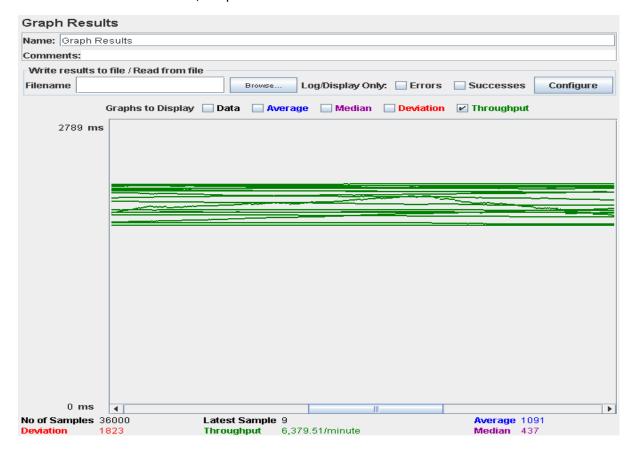
Ramp-Up Period (in seconds): 1

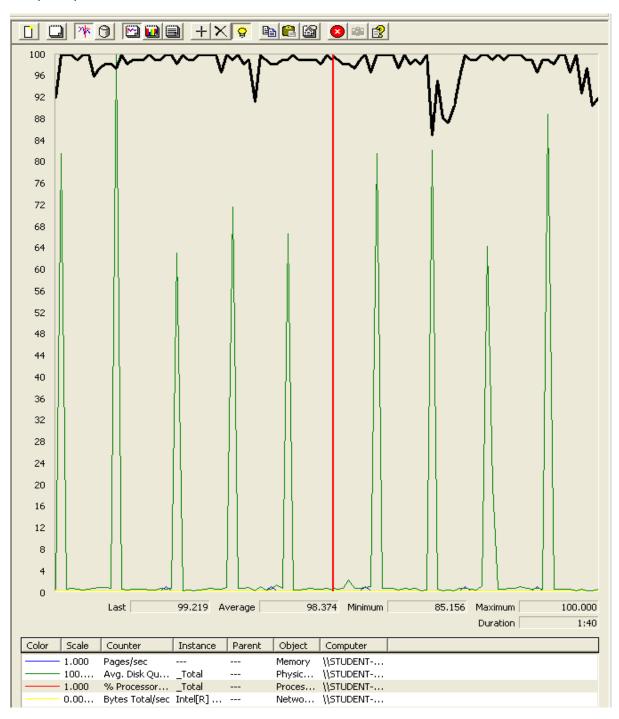
Loop count: 10

Performance test 90% results: Total 26,405ms

Name: Aggregate Report									
Comments:									
Write results to file / Read fro	m file								
Filename		Browse	Log/Display	Only: E	ггогѕ	Succes	ses	Configu	ге
Label	#Samples	Average	Median	90% Line	Min	Max	Error %	Thro	KB/se
security/login.do	3000	100	20	362	4	4847	0.00%	9.2/s	34.
j_spring_security_check	3000	1586	792	4066	9	26425	0.00%	9.2/s	41.
	6000	847	300	2157	4	32440	0.00%	17.9/	69
application/raceDirector/list.do	6000	979	434	2466	11	18935	0.00%	18.2/	96.
application/raceDirector/edit.do	6000	2107	1351	4822	10	28754	0.00%	18.4/	92.
application/raceDirector/displa	3000	944	404	2335	7	18340	0.00%	9.3/s	39.
announcement/raceDirector/lis	3000	953	383	2394	8	22749	0.00%	9.3/s	51.
answer/list.do	3000	796	300	1992	6	21971	0.00%	9.3/s	48.
j_spring_security_logout	3000	844	280	2211	6	16270	0.00%	9.4/s	36
TOTAL	36000	1091	437	2874	4	32440	0.00%	106	491.

Performance thread results: 6,379 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly

300 users and 10 loops: the application doesn't have errors but the time spend doing the actions is really high (near 5 secs for example). We believe is a processors bottleneck problem, the disk could be too.

Use case 31:

As a Race Director I want to create my circuits.

Number of Threads (users): 200

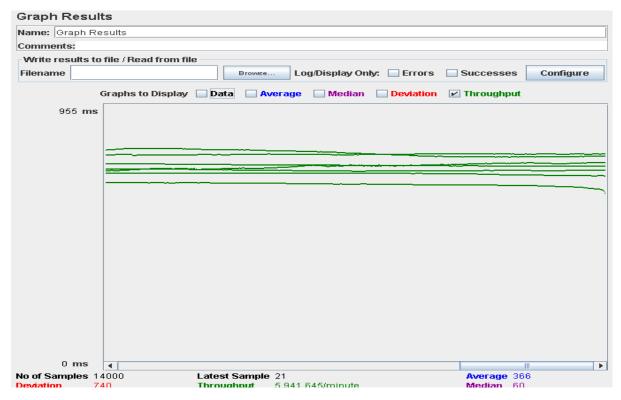
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 7,283ms.

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read fr	om file								
Filename		Browse	Log/Displ	ay Only: 🔲	Errors 🗌	Successe	es Co	onfigur	е
Label	#Samples	Average	Median	90% Line	Min	Max	Error %	Thro	KB/
/security/login.do	2000	28	13	56	4	2005	0.00%	15.1	55.6
/j_spring_security_check	2000	437	77	1384	10	6370	0.00%	15.1	67.8
/	4000	259	30	705	4	10188	0.00%	29.0	113.1
/circuit/raceDirector/create.do	2000	298	56	834	4	6869	0.00%	15.1	83.2
/circuit/raceDirector/edit.do	2000	908	527	2214	16	9071	0.00%	15.2	108.9
/j_spring_security_logout	2000	376	114	1003	6	7739	0.00%	15.2	58.0
TOTAL	14000	366	60	1087	4	10188	0.00%	99.0	459.0

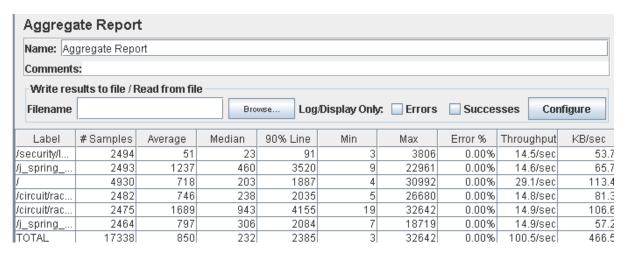
Performance thread results: 5,941 per minute



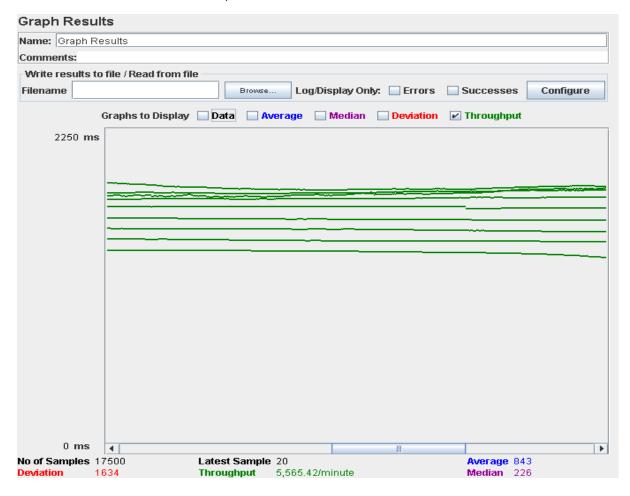
Ramp-Up Period (in seconds): 1

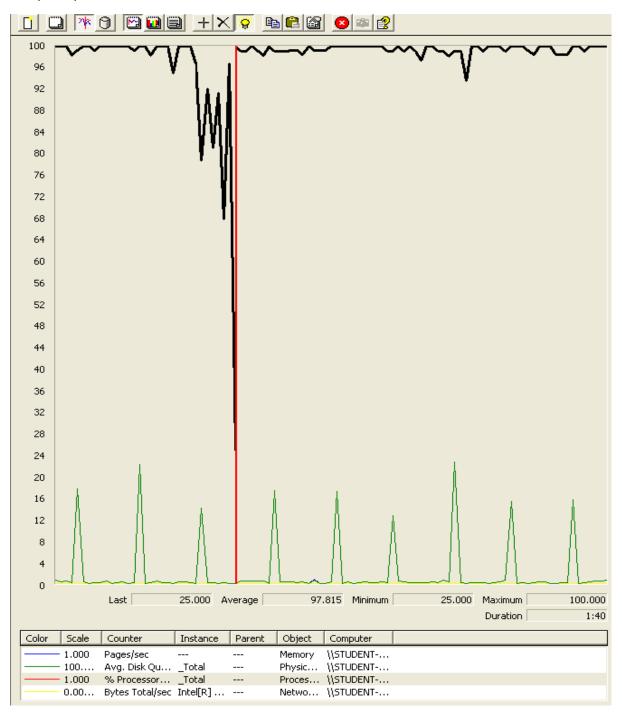
Loop count: 10

Performance test 90% results: Total 20,847ms.



Performance thread results: 5,565 per minute





Analysis results:

200 users and 10 loops: the application runs perfectly

250 users and 10 loops: the application doesn't have errors but the time spend doing the actions is really high (near 5 secs for example). We believe is a processors bottleneck problem.

Use case 32:

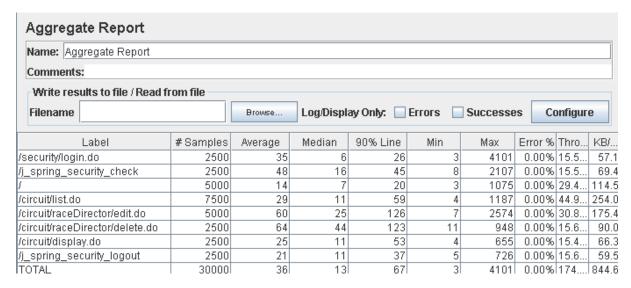
As a Race Director I want to list, display and delete my circuits

Number of Threads (users): 250

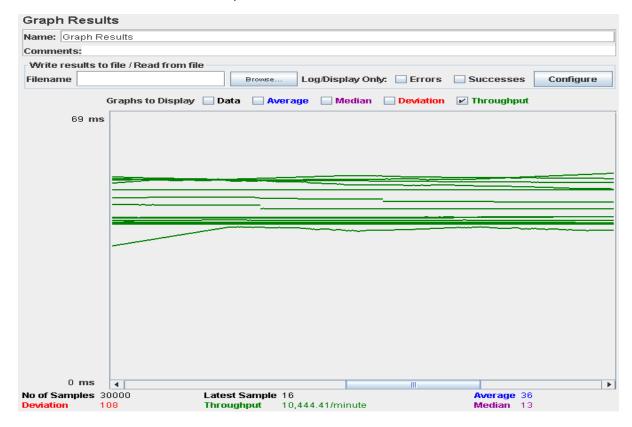
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 489ms.



Performance thread results: 10,441 per minute



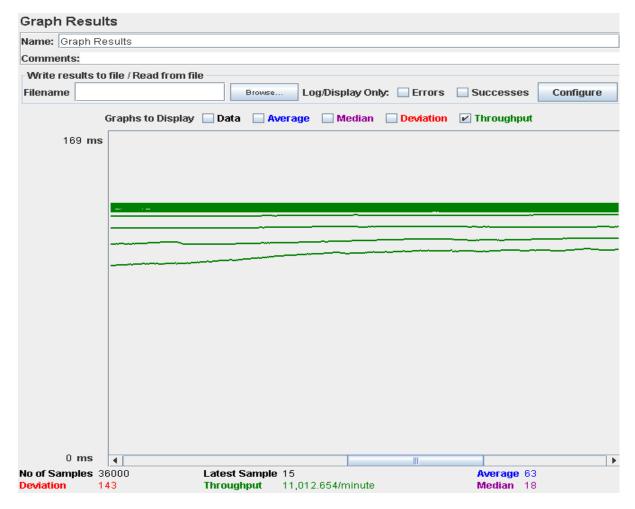
Ramp-Up Period (in seconds): 1

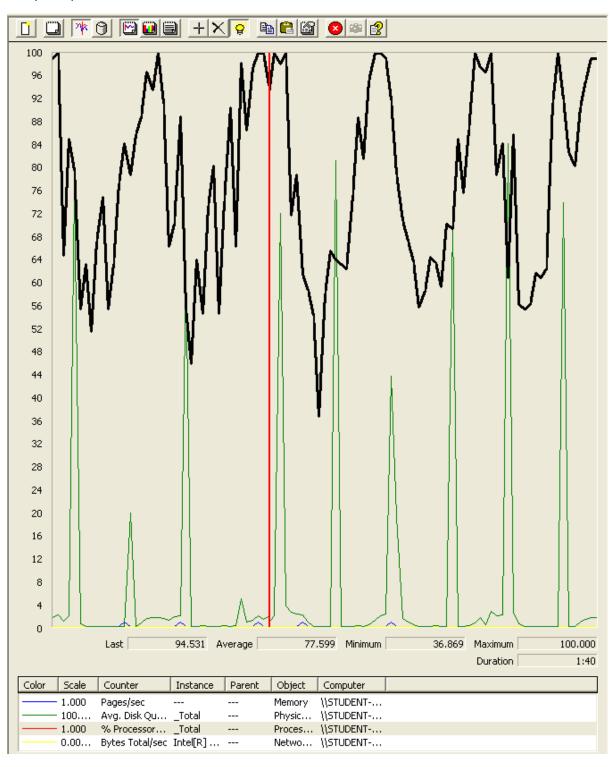
Loop count: 10

Performance test 90% results: Total 1,063ms.

Aggregate Report										
Name: Aggregate Report										
Comments:										
- Write results to file / Read f	rom file ——									
Filename Browse Log/Display Only: Errors Successes Configure										
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Thro	KB/	
/security/login.do	3000	20	7	31	3	3809	0.00%	16.8	61.9	
/j_spring_security_check	3000	58	23	124	8	1874	0.00%	16.7	75.2	
Į.	6000	25	9	45	3	1119	0.00%	31.1	120.9	
/circuit/list.do	9000	66	17	168	4	1972	0.00%	48.2	272.9	
/circuit/raceDirector/edit.do	6000	125	54	317	6	1922	0.00%	33.2	189.2	
/circuit/raceDirector/delete.do	3000	115	56	267	11	1514	0.00%	16.8	97.0	
/circuit/display.do	3000	41	10	73	4	1568	0.00%	16.8	72.1	
/j_spring_security_logout	3000	23	12	38	5	859	0.00%	16.8	64.1	
TOTAL	36000	63	18	145	3	3809	0.00%	183	890.9	

Performance thread results: 11,012 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly

300 users and 10 loops: the application runs perfectly

Use case 33:

As a representative I want to manage my meetings.

Number of Threads (users): 200

Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 12,668ms.

Aggregate Report									
Name: Aggregate Report									
Comments:									
- Write results to file / Read	from file —								
Filename Browse Log/Display Only: Errors Successes Configure									
Label	#Samples	Average	Median	90% Line	Min	Max	Error %	Thr	KB/
/security/login.do	2000	28	14	40	3	2318	0.00%	7.1/	26.2
/j_spring_security_check	2000	679	159	1798	9	10953	0.00%	7.1/	29.7
/	4000	338	46	923	4	12017	0.00%	13	50.3
/meeting/representative/list	6000	572	207	1497	9	10647	0.00%	20	149.4
/meeting/representative/cre	2000	743	264	1998	10	12466	0.00%	7.1/	38.8
/meeting/representative/edit	6000	1034	506	2708	9	13663	0.00%	20	120.1
/meeting/representative/dis	2000	1165	652	2841	9	11713	0.00%	7.1/	29.9
/j_spring_security_logout	2000	327	67	863	3	10217	0.00%	7.1/	27.3
TOTAL	26000	649	194	1838	3	13663	0.00%	86	453.2

Performance thread results: 5,196 per minute



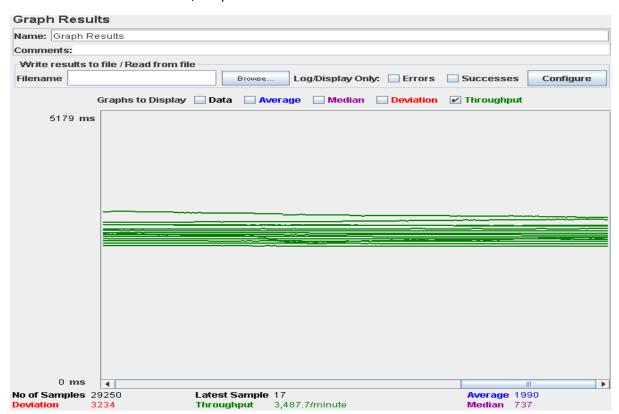
Ramp-Up Period (in seconds): 1

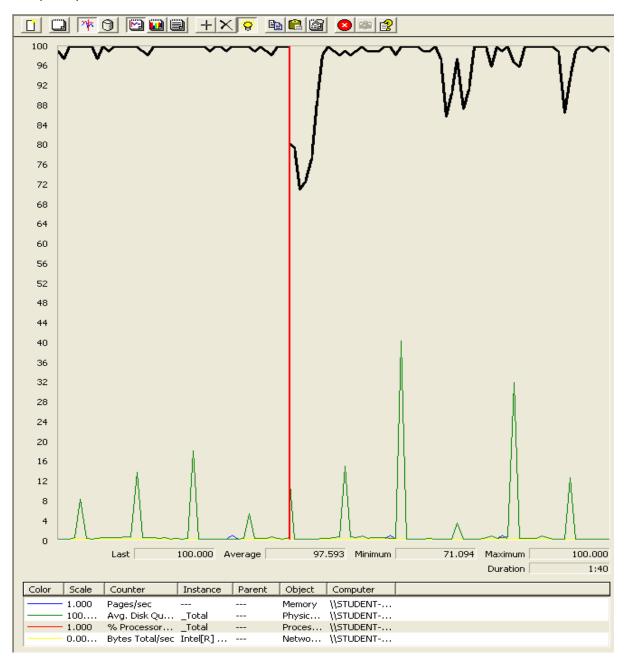
Loop count: 10

Performance test 90% results: Total 40,723ms.

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read	from file —								
Filename		Browse	Log/Disp	lay Only: 🔲	Errors [Success	es Co	nfigur	e
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Thr	KB/
/security/login.do	2250	48	27	79	5	2590	0.00%	4.6/	17.1
/j_spring_security_check	2250	2977	1509	8097	10	32860	0.00%	4.6/	19.5
J.	4500	1477	515	3995	5	35037	0.00%	9.0/	33.7
/meeting/representative/list	6750	1693	650	4521	47	43655	0.00%	13	100.0
/meeting/representative/cre	2250	1799	661	4739	10	37264	0.00%	4.6/	25.3
/meeting/representative/edit	6750	2762	1352	7141	10	34569	0.00%	13	79.3
/meeting/representative/dis	2250	3144	1707	7966	9	41861	0.00%	4.6/	19.6
/j_spring_security_logout	2250	1583	490	4185	7	39732	0.00%	4.7/	18.0
TOTAL	29250	1990	737	5478	5	43655	0.00%	58	305.4

Performance thread results: 3,487 per minute





Analysis results:

200 users and 10 loops: the application runs perfectly

225 users and 10 loops: the application doesn't have errors but the time spend doing the actions is really high (near 5 secs for example). We believe is a processors bottleneck problem.

Use case 34:

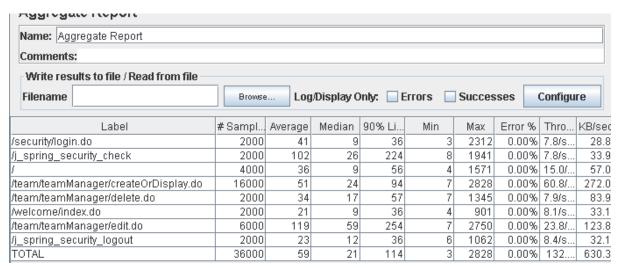
As a team manager I want to manage my team.

Number of Threads (users): 200

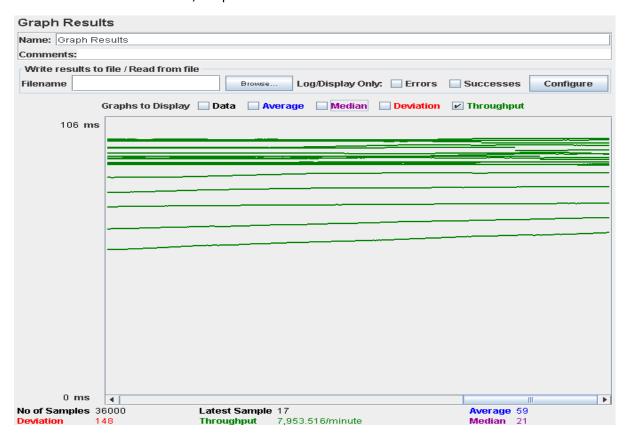
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 793ms.



Performance thread results: 7,953 per minute



Ramp-Up Period (in seconds): 1

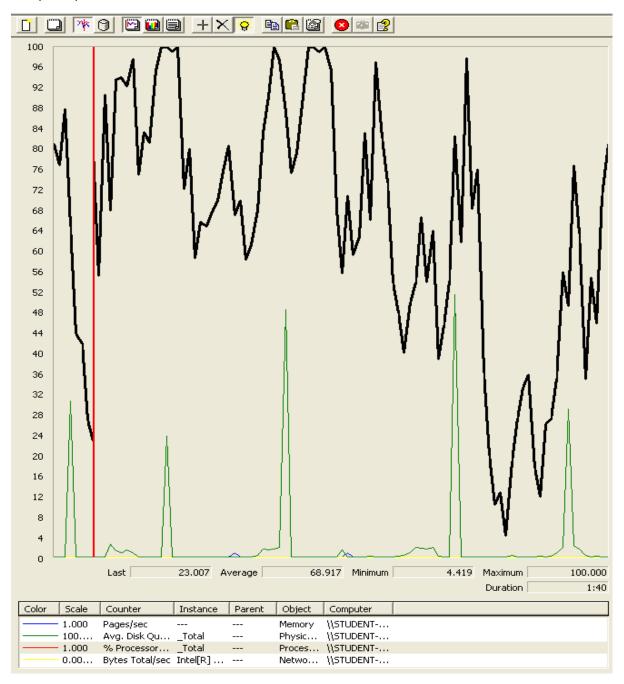
Loop count: 10

Performance test 90% results: Total 16,716ms.

Aggregate Report										
Name: Aggregate Report										
Comments:										
Write results to file / Read from file										
Filename Log/Display Only: Errors Successes Configure										
Label	# Sampl	Average	Median	90% Li	Min	Max	Error %	Thro	KB/se	
/security/login.do	3000	58	17	68	4	5378	0.00%	7.2/s	26.	
'j_spring_security_check	3000	1302	868	2916	12	13224	0.00%	7.2/s	31.	
	6000	673	335	1683	4	18247	0.00%	13.6/	52.	
team/teamManager/createOrDisplay.do	24000	772	382	1943	8	17549	0.00%	55.1/	247.	
'team/teamManager/delete.do	3000	750	398	1837	9	9364	0.00%	7.2/s	76.	
/welcome/index.do	3000	789	389	1932	5	16628	0.00%	7.2/s	29.	
'team/teamManager/edit.do	9000	1076	589	2631	8	16727	0.00%	21.2/	110.	
'j_spring_security_logout	3000	685	339	1769	7	9087	0.00%	7.3/s	27.	
TOTAL	54000	796	389	2037	4	18247	0.00%	122	583.	

Performance thread results: 7,346 per minute





Analysis results:

200 users and 10 loops: the application runs perfectly

250 users and 10 loops: the application doesn't have errors but the time spend doing login action is near the limit of 3 seconds. We believe is a processors bottleneck problem.

Use case 35:

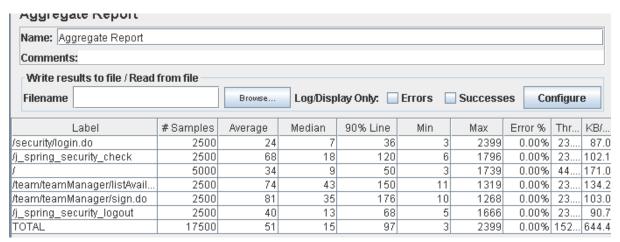
As a team manager I want to sign riders to my team.

Number of Threads (users): 250

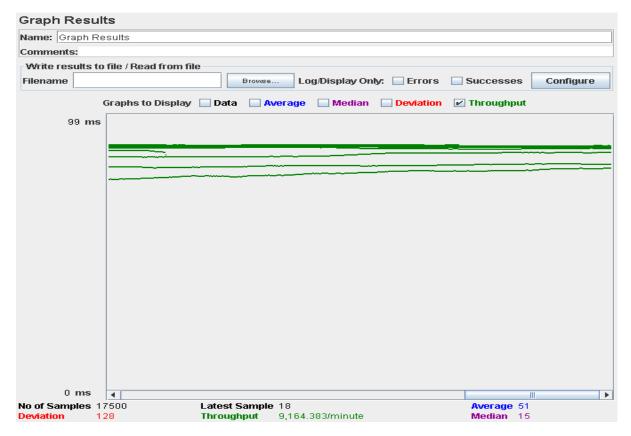
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 600ms.



Performance thread results: 9,164 per minute



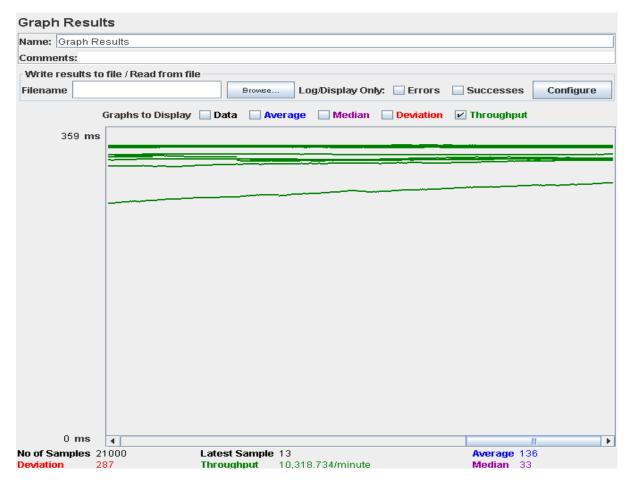
Ramp-Up Period (in seconds): 1

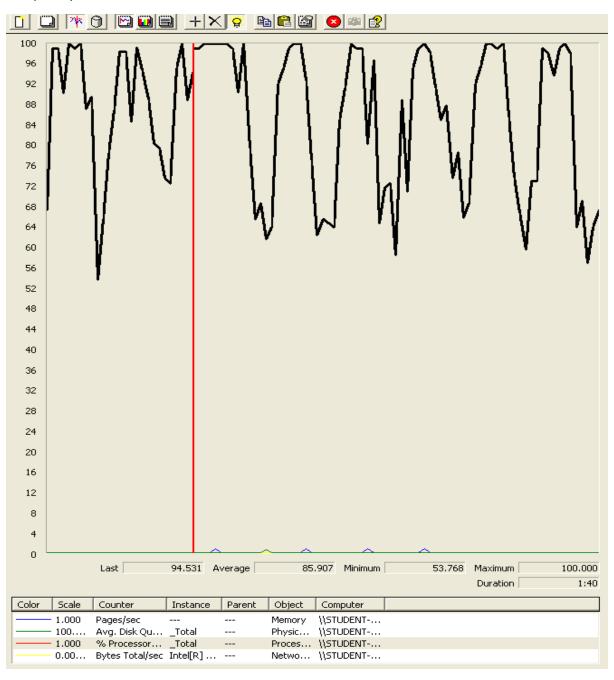
Loop count: 10

Performance test 90% results: Total 2,220ms.

Aggregate Report									
Name: Aggregate Report									
Comments:									
Write results to file / Read	from file —								
Filename		Browse	Log/Disp	lay Only: 🔲	Errors [Success	es Co	nfigur	e
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Thr	KB/
/security/login.do	3000	25	10	35	4	3839	0.00%	26	98.0
/j_spring_security_check	3000	147	40	384	8	4180	0.00%	26	115.3
J.	6000	93	17	241	3	3636	0.00%	50	192.1
/team/teamManager/listAvail	3000	190	88	470	10	3437	0.00%	26	151.3
/team/teamManager/sign.do	3000	301	118	820	8	3674	0.00%	26	115.9
/j_spring_security_logout	3000	103	26	270	4	3160	0.00%	26	101.9
TOTAL	21000	136	33	361	3	4180	0.00%	172	726.0

Performance thread results: 10,318 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly

250 users and 10 loops: the application runs perfectly

Use case 36:

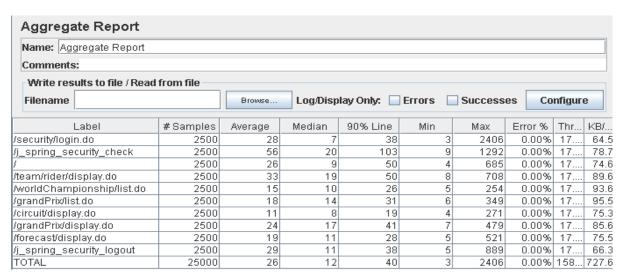
As a rider I want to see the world championships, grand prixes, circuits, races, forecasts and my team.

Number of Threads (users): 250

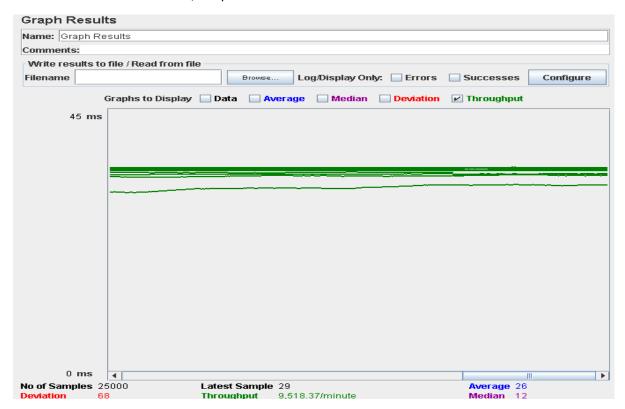
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 424ms.



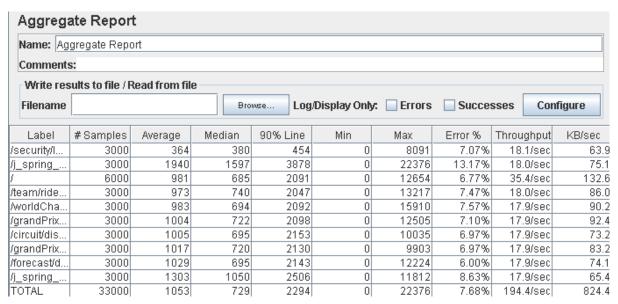
Performance thread results: 9,518 per minute



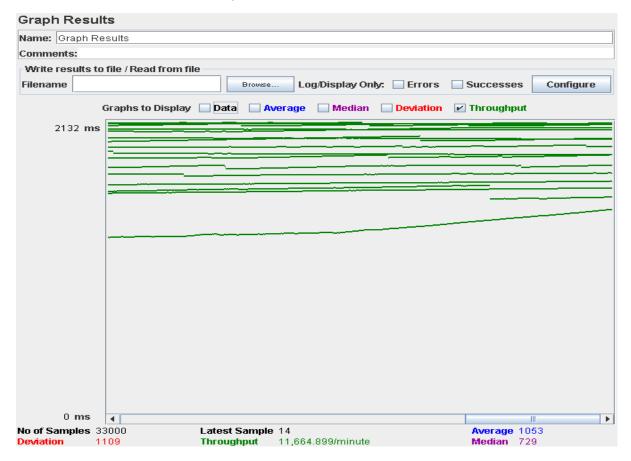
Ramp-Up Period (in seconds): 1

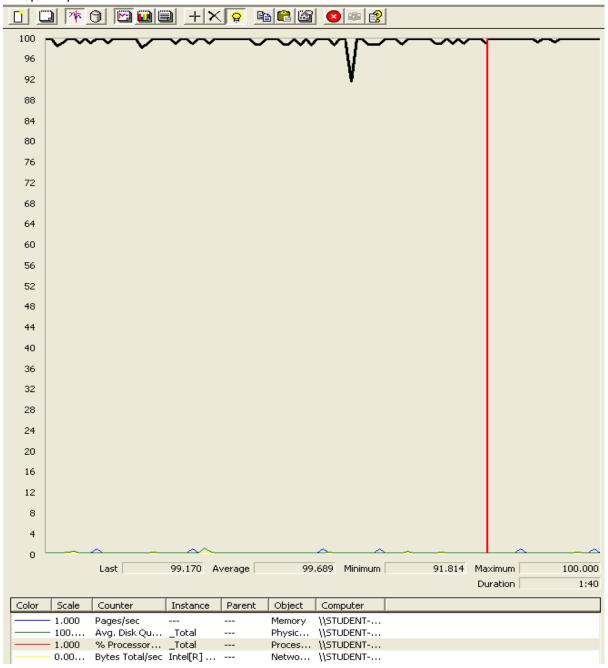
Loop count: 10

Performance test 90% results: Total 19,863



Performance thread results: 11,664 per minute





Analysis results:

200 users and 10 loops: the application runs perfectly

250 users and 10 loops: the application have errors and the time spend doing login action is high. We believe is a processors bottleneck problem.

Use case 37:

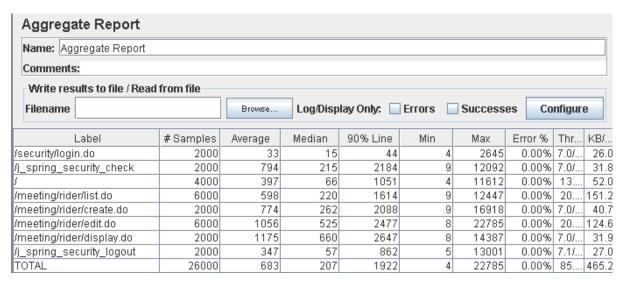
As a rider I want to manage my meetings.

Number of Threads (users): 200

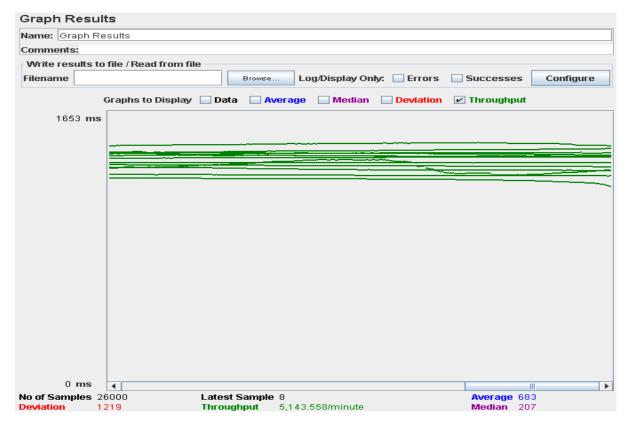
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 12,967.



Performance thread results: 5,143 per minute



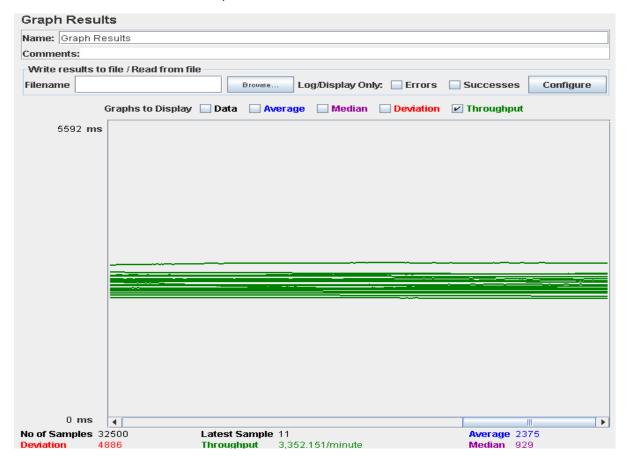
Ramp-Up Period (in seconds): 1

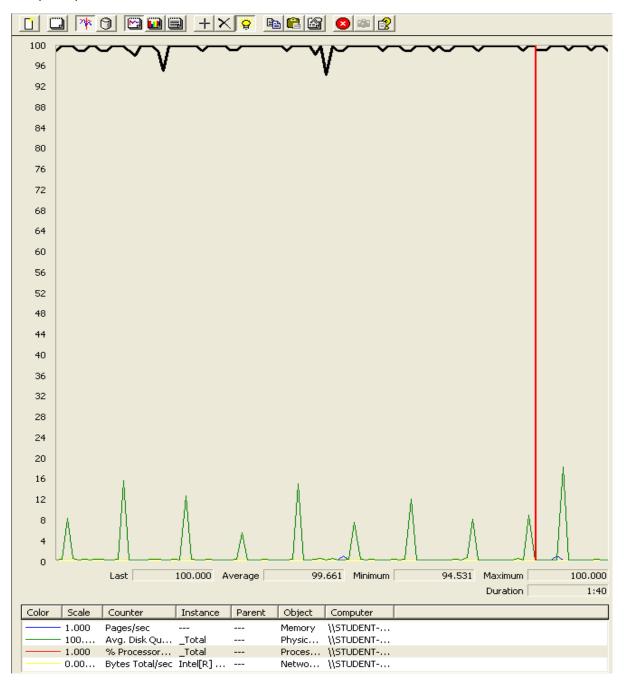
Loop count: 10

Performance test 90% results: Total 43,401ms.

Aggregate Report										
Name: Aggregate Report										
Comments:										
Write results to file / Read from file										
Filename		Browse	Log/Disp	lay Only: 🔲	Errors [Success	es Co	nfigur	е	
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Thr	KB/	
/security/login.do	2500	120	52	308	5	3517	0.00%	4.4/	16.4	
/j_spring_security_check	2500	3616	1774	8500	12	113697	0.00%	4.4/	20.0	
/	5000	1841	630	4470	5	120619	0.00%	8.6/	33.8	
/meeting/rider/list.do	7500	1971	823	4749	51	108313	0.00%	13	98.4	
/meeting/rider/create.do	2500	2034	809	4572	10	90303	0.00%	4.4/	25.6	
/meeting/rider/edit.do	7500	3280	1599	7746	10	105689	0.00%	13	79.5	
/meeting/rider/display.do	2500	3738	1977	8640	9	108212	0.00%	4.4/	20.2	
/j_spring_security_logout	2500	1932	751	4416	7	108964	0.00%	4.5/	17.4	
TOTAL	32500	2375	929	5879	5	120619	0.00%	55	304.9	

Performance thread results: 3,352 per minute





Analysis results:

200 users and 10 loops: the application runs perfectly

250 users and 10 loops: the application doesn't have errors but the time spend completing the actions is too high. We believe is a processors bottleneck problem.

Use case 38:

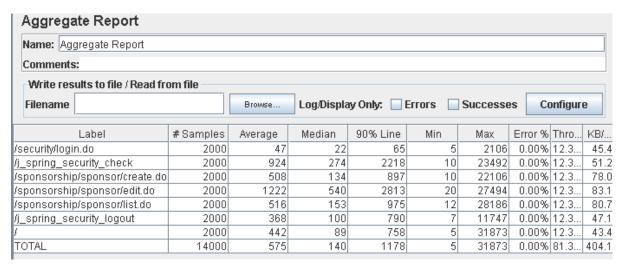
As a sponsor I want to create sponsorships.

Number of Threads (users): 200

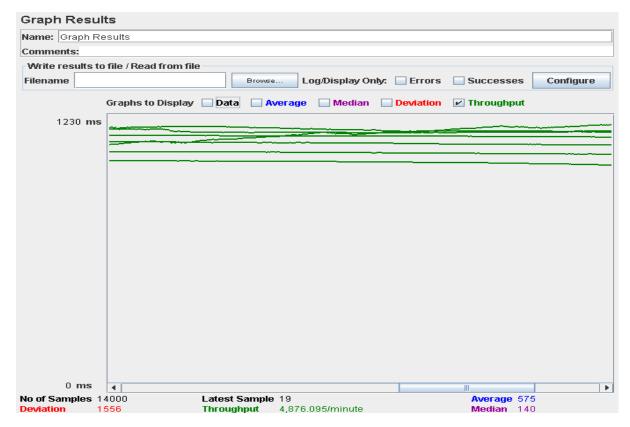
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 8,156ms.



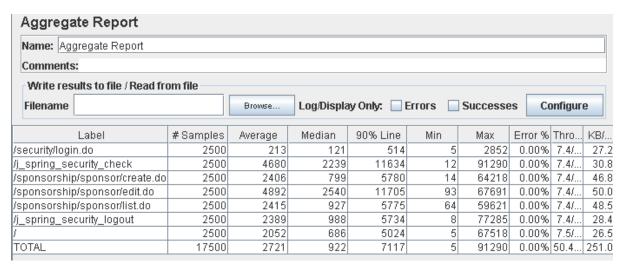
Performance thread results: 4,876 per minute



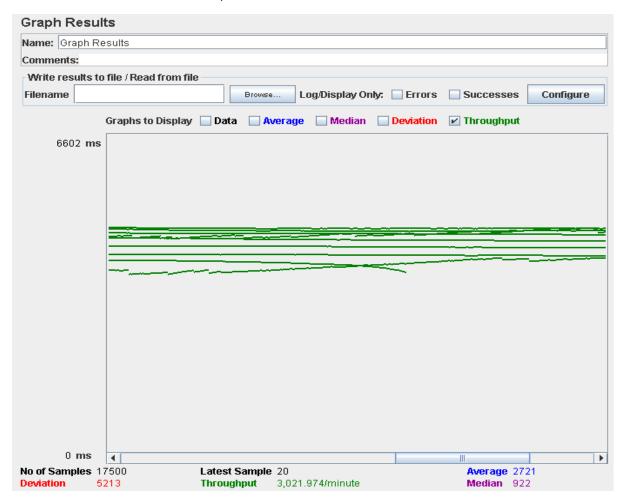
Ramp-Up Period (in seconds): 1

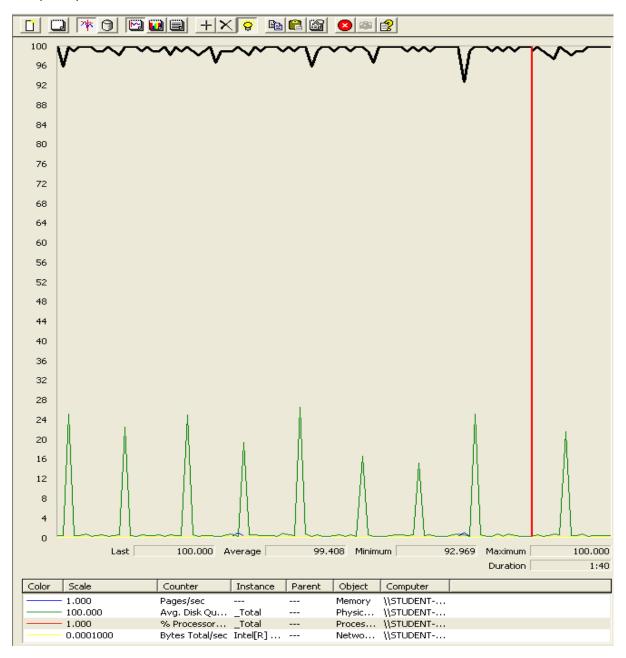
Loop count: 10

Performance test 90% results: Total 46,166ms.



Performance thread results: 3.021 per minute





Analysis results:

200 users and 10 loops: the application runs perfectly, but the time spend creating the sponsorship is near the limit of 3 secs.

250 users and 10 loops: the application runs without errors but the times are incredibly high. We believe is a processor bottleneck problem.

Use case 39:

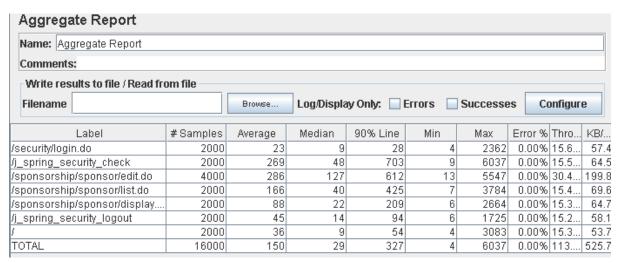
As a sponsor I want to see and update my sponsorships.

Number of Threads (users): 200

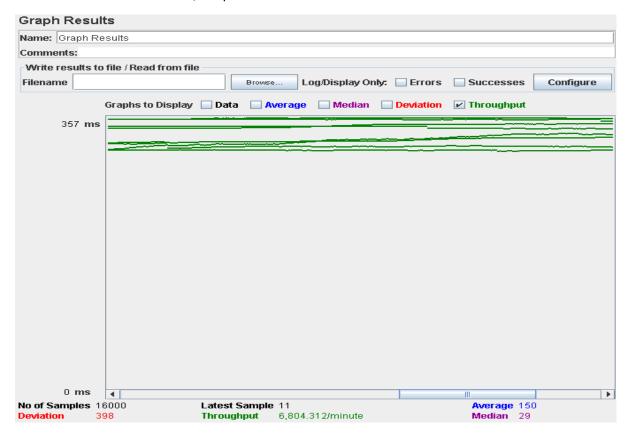
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 2,125ms.



Performance thread results: 6,804 per minute



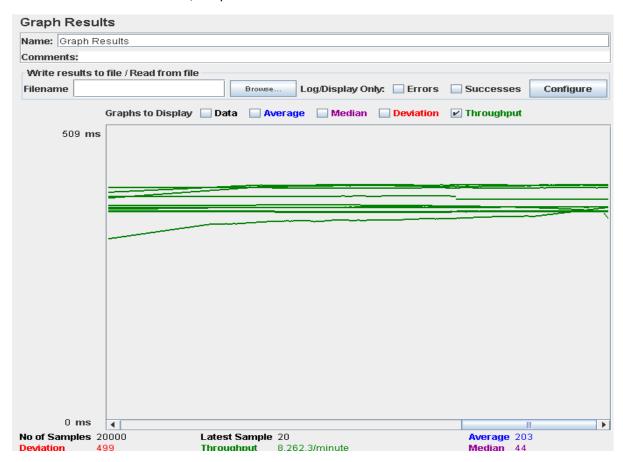
Ramp-Up Period (in seconds): 1

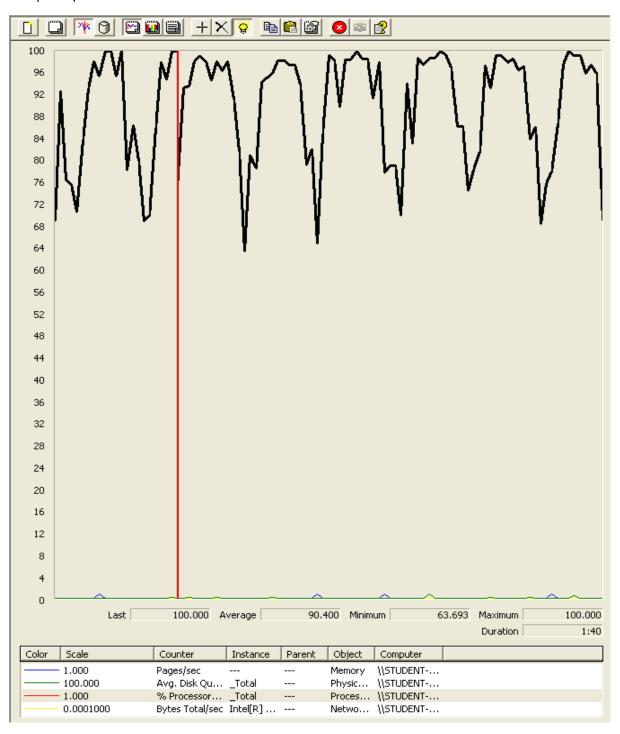
Loop count: 10

Performance test 90% results: Total 3,173ms.

Aggregate Report										
Name: Aggregate Report										
Comments:										
Write results to file / Read fro	om file ——									
Filename		Browse	Log/Displa	ny Only: 🔲 I	Errors 🗌	Successe	es Co	onfigur	е	
Label	# Samples	Average	Median	90% Line	Min	Max	Error %	Thro	KB/	
/security/login.do	2500	34	11	32	3	4794	0.00%	18.6	68.5	
/j_spring_security_check	2500	355	85	1009	8	7602	0.00%	18.5	77.0	
/sponsorship/sponsor/edit.do	5000	330	138	754	12	7489	0.00%	36.5	240.4	
/sponsorship/sponsor/list.do	2500	231	57	519	6	7389	0.00%	18.4	83.5	
/sponsorship/sponsor/display	2500	146	34	393	6	4750	0.00%	18.5	78.1	
/j_spring_security_logout	2500	116	21	273	5	4750	0.00%	18.5	70.7	
I .	2500	87	14	193	4	5211	0.00%	18.5	65.0	
TOTAL	20000	203	44	479	3	7602	0.00%	137	638.8	

Performance thread results: 8,262 per minute





Analysis results:

200 users and 10 loops: the application runs perfectly

250 users and 10 loops: the application runs perfectly

Use case 40:

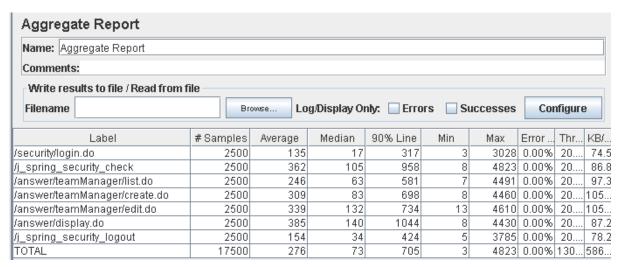
As an admin I want to launch a process to compute the score of every representative and rider, edit the list of the positive and negative words used to compute the score and display a dashboard with information of the system:

Number of Threads (users): 250

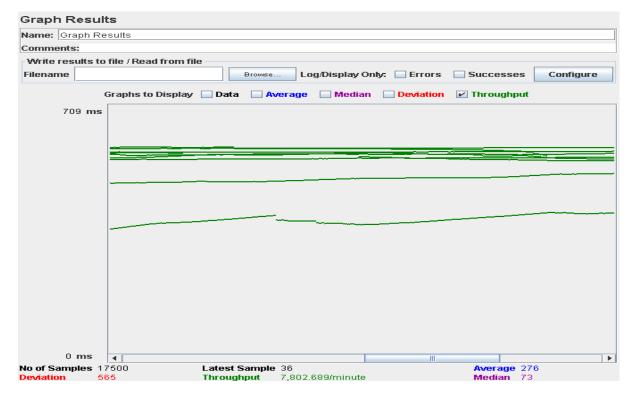
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 4,756ms.



Performance thread results: 7.802 per minute



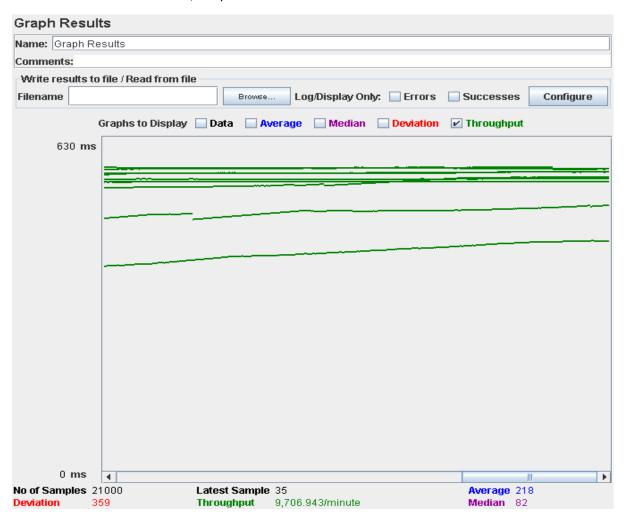
Ramp-Up Period (in seconds): 1

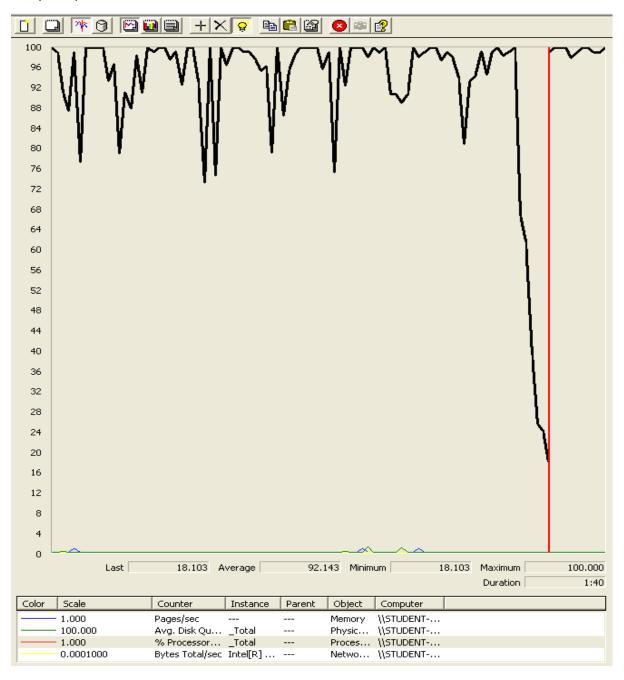
Loop count: 10

Performance test 90% results: Total 3,784ms.

Aggregate Report										
Name: Aggregate Report										
Comments:										
Write results to file / Read from t	īle									
Filename Log/Display Only: Errors Successes Configure										
Label	# Samples	Average	Median	90% Line	Min	Max	Error	Thr KB/		
/security/login.do	3000	65	16	82	0	6251	0.40%	25 92.1		
/j_spring_security_check	3000	340	144	915	0	5008	0.43%	25 108		
/answer/teamManager/list.do	3000	212	85	554	0	4767	0.27%	25 121		
/answer/teamManager/create.do	3000	231	94	610	1	3586	0.17%	25 130		
/answer/teamManager/edit.do	3000	235	129	545	0	3121	0.23%	25 132		
/answer/display.do	3000	304	164	786	0	3846	0.47%	25 109		
/j_spring_security_logout	3000	139	50	382	0	2701	0.63%	25 96.2		
TOTAL	21000	218	82	583	0	6251	0.37%	161 727		

Performance thread results: 9,706 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly

300 users and 10 loops: the application begin to have errors. We believe is a processor bottleneck problem.

Use case 41:

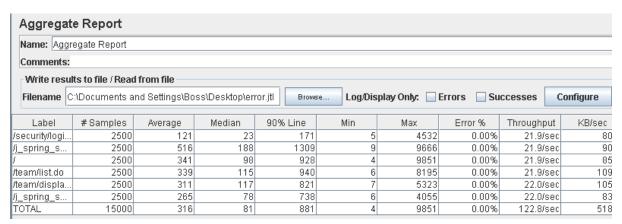
As a sponsor I want to see the teams of the systems.

Number of Threads (users): 250

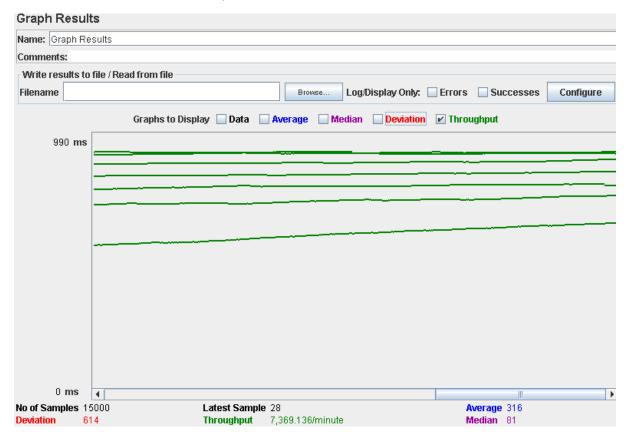
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 4,907ms.



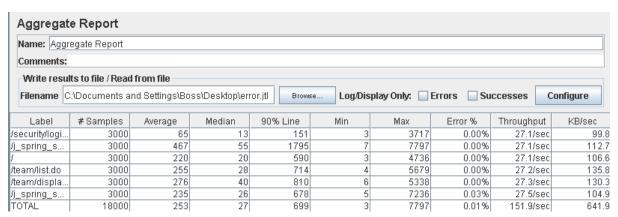
Performance thread results: 7,369 per minute



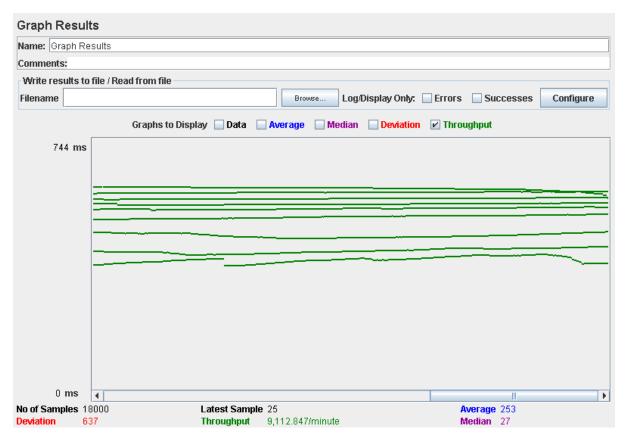
Ramp-Up Period (in seconds): 1

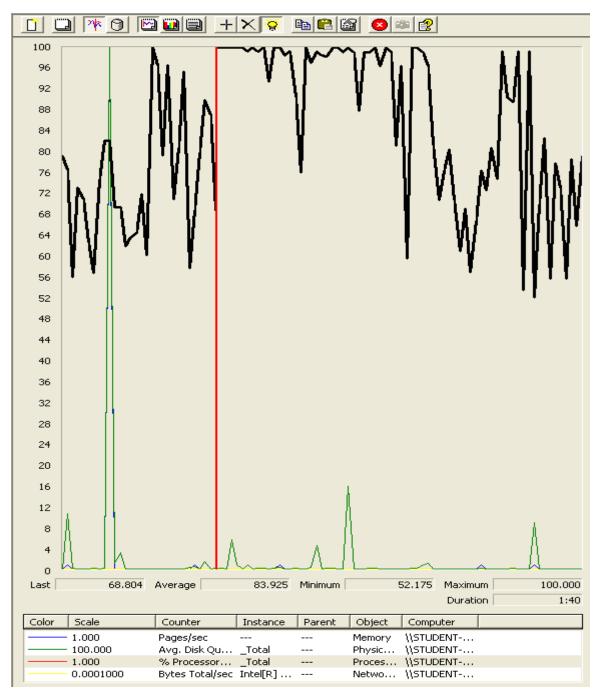
Loop count: 10

Performance test 90% results: Total 4,738ms.



Performance thread results: 9,112 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly

300 users and 10 loops: the application begin to have errors. We believe is a processor bottleneck problem and the disk made a unusual behavior.

Use case 42:

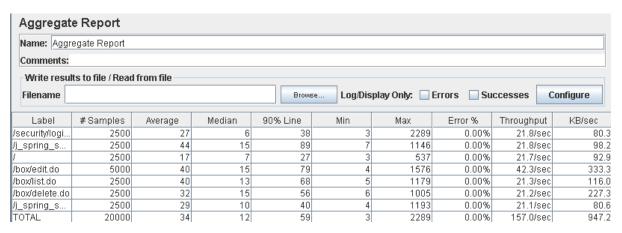
As an authenticated user I want update and delete message boxes.

Number of Threads (users): 250

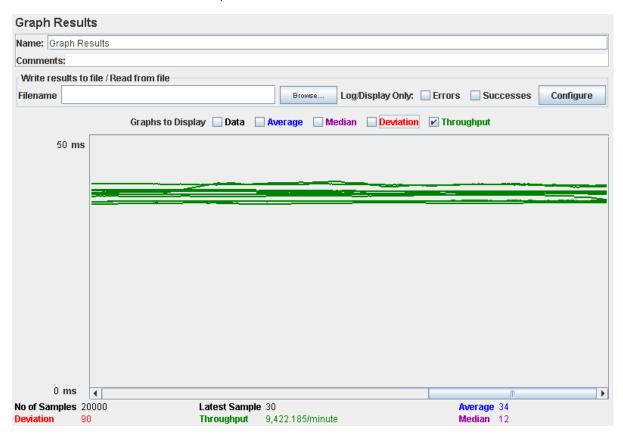
Ramp-Up Period (in seconds): 1

Loop count: 10

Performance test 90% results: Total 11,245ms



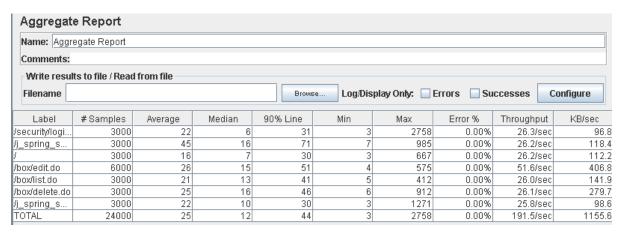
Performance thread results: 6,651 per minute



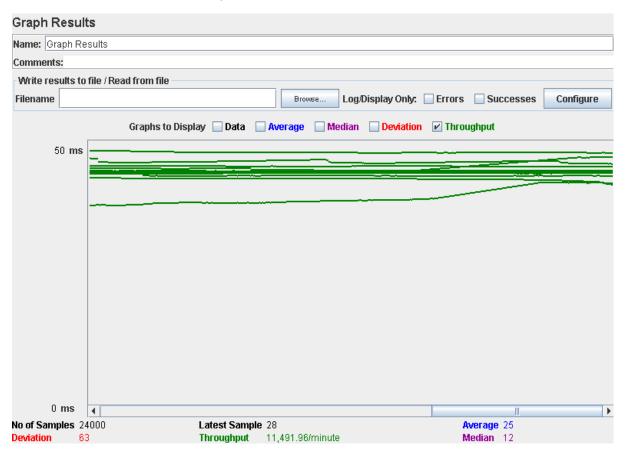
Ramp-Up Period (in seconds): 1

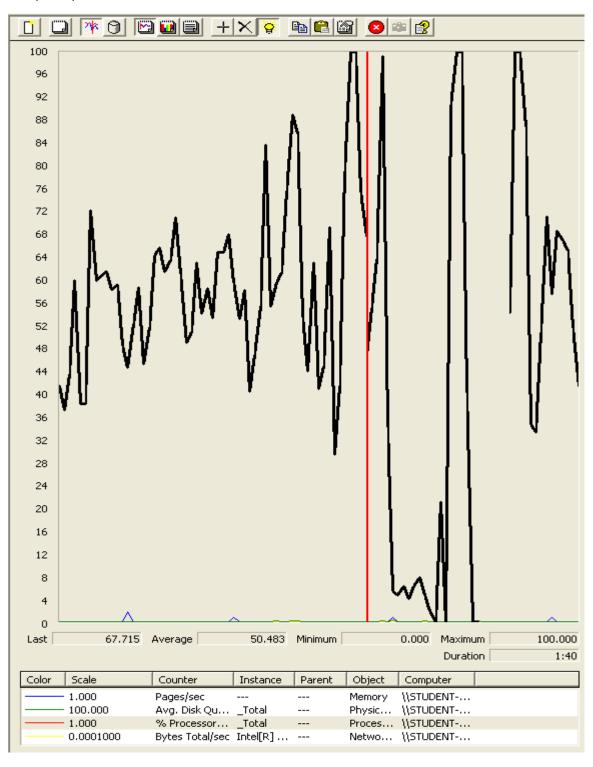
Loop count: 10

Performance test 90% results: Total 12,257ms.



Performance thread results: 6,419 per minute





Analysis results:

250 users and 10 loops: the application runs perfectly

300 users and 10 loops: the application runs perfectly

Conclussion:

After the analysis of all the test realized, we can say that for 200 users and 10 loops all of our tests were successful, without any errors or excessive answer time, but some of the test had some actions near 3 seconds (between 2,500 ms and 2,800 ms).

It seems that from 210 users the time the user spend waiting for the server to respond could be higher than 3 seconds, and from 250 users the system could have server errors.

Since some of the test with 200 users had actions that were near 3 seconds, to avoid this, we believe that with 180/190 users, a bit less than the 200 that we used to prove the tests, the system will answer correctly without errors or excessive answers times that could affect the user experience.

Changing the processor for a better one with more cores could mean an improvement in the number of concurrent users and after this change maybe a disk with better specs would be the way to go to continue increasing the allowed users.