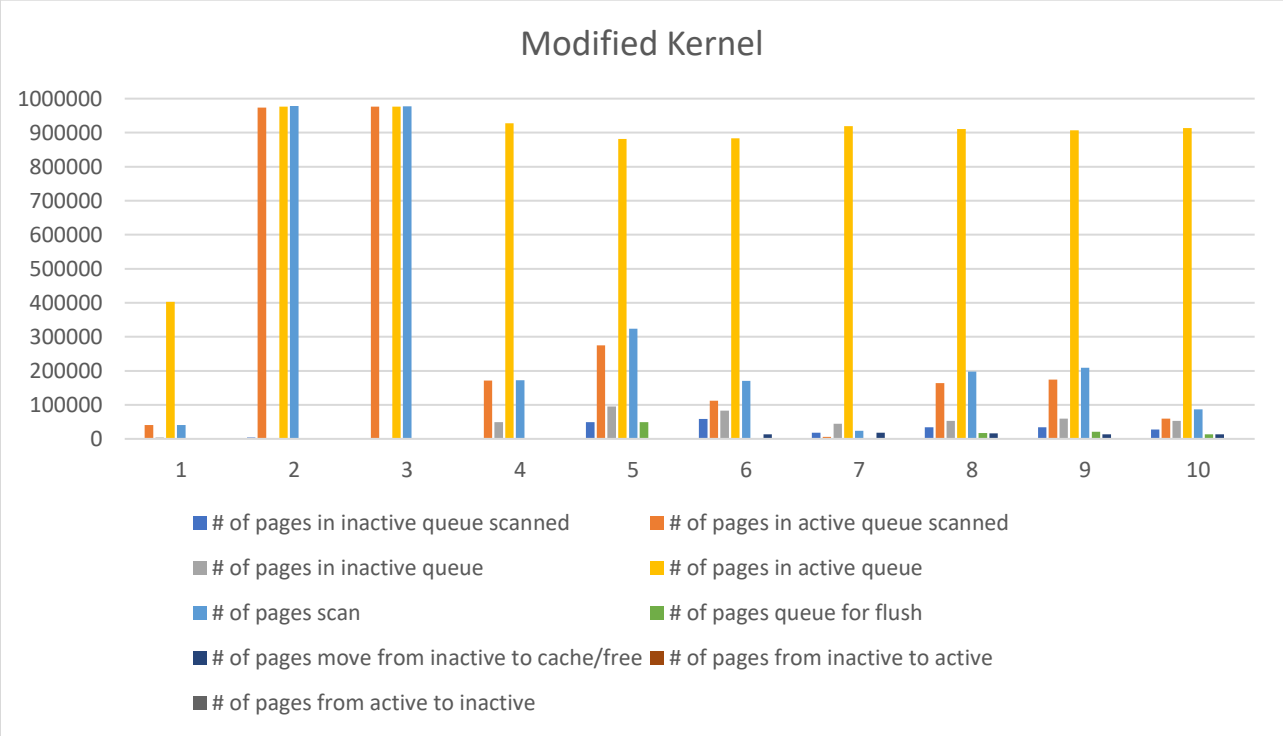
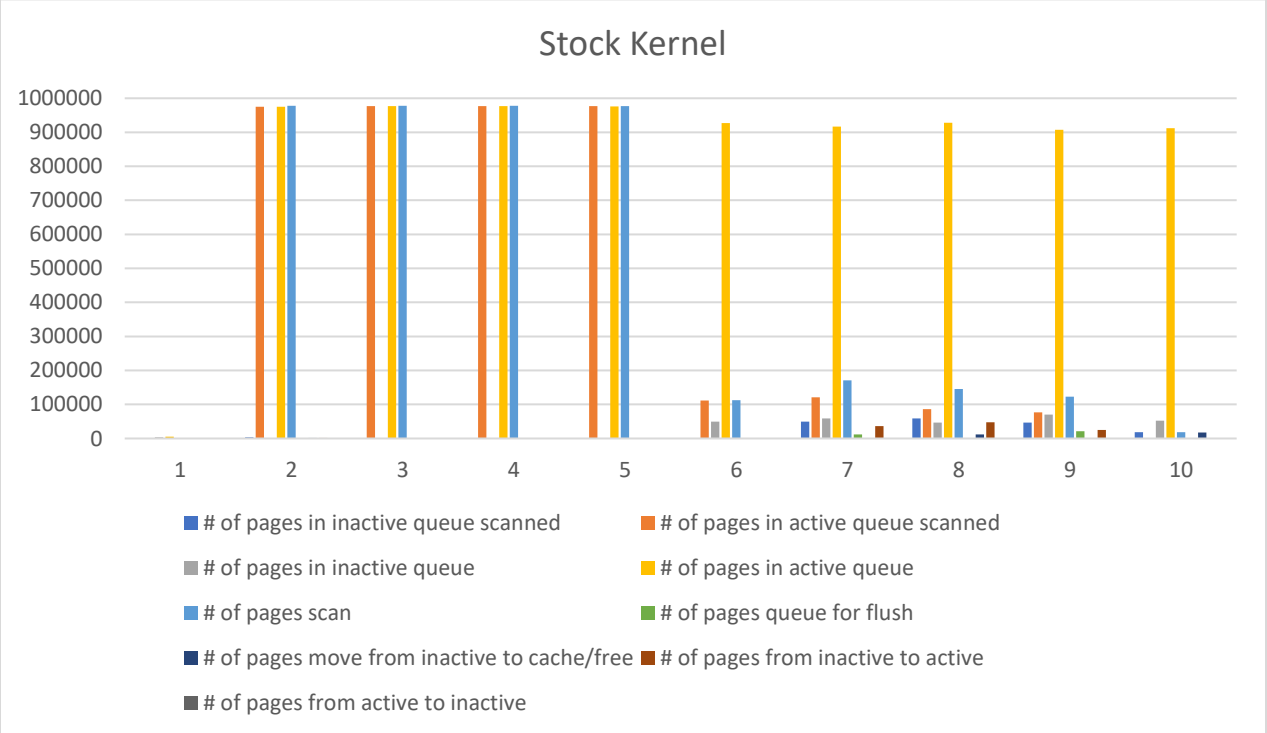
The following data was gathered using the vm_pageout_scan function. We used counter variables to count all the pages in our data and each variable is explained in the design document. The command we used to stress was: stress –vm- 17 –timeout 60s –vm-keep.

Scan #	# of pages in inactive queue scanned	# of pages in active queue scanned	# of pages in inactive queue	# of pages in active queue	# of pages scan	# of pages queue for flush	# of pages move from inactive to cache/free	# of pages from inactive to active	# of pages from active to inactive
1	0	40327	4127	402879	40327	0	0	0	0
2	4127	973854	763	976825	977981	0	2067	1321	0
3	763	976827	856	976588	977590	726	146	0	0
4	856	171602	49225	927373	172458	0	854	2	37
5	49446	274703	94841	881568	324149	49334	189	0	221
6	58352	111805	82965	883162	170157	4	13319	0	0
7	17709	6064	44871	918872	23773	0	17697	12	0
8	34154	163659	52534	910694	197813	17543	16617	45	0
9	34405	174609	59055	906974	209014	21199	13185	62	48
10	27542	59107	52678	913732	86649	13826	13779	42	144

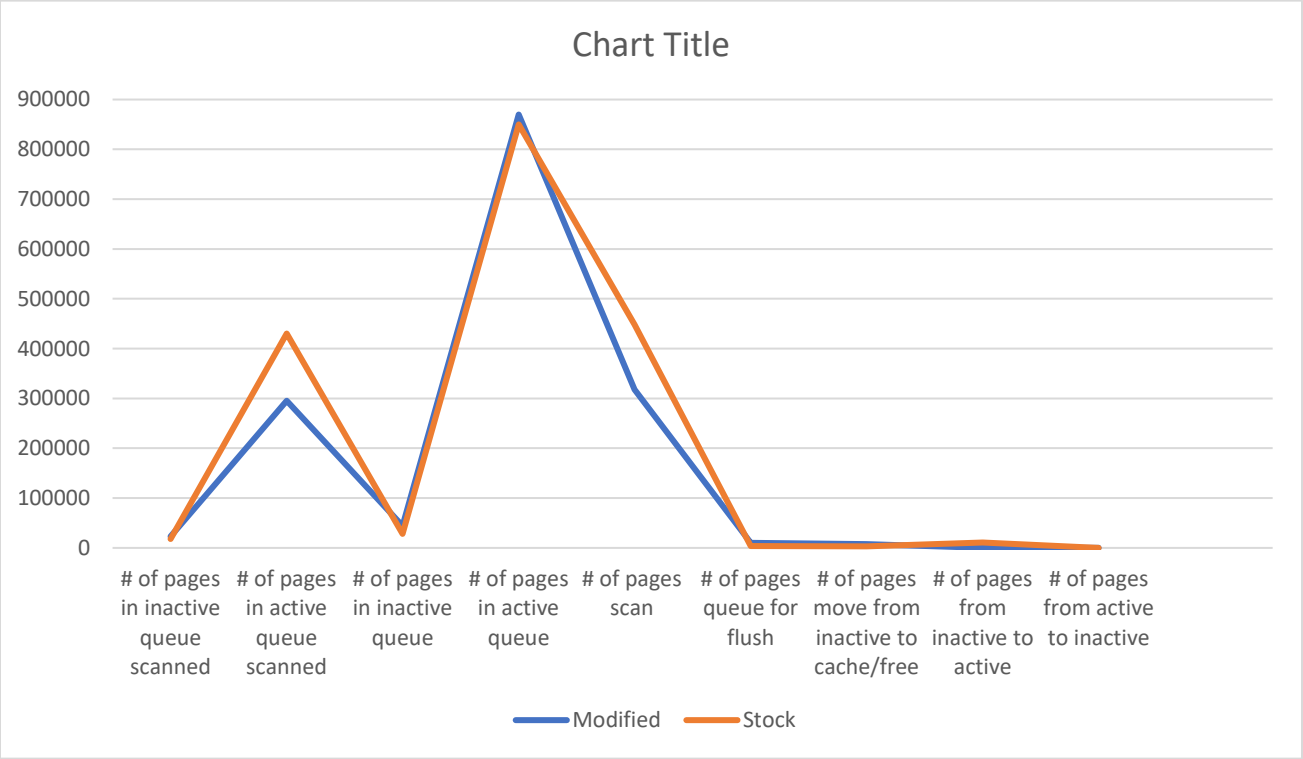


	# of pages in inactive queue scanned	# of pages in active queue scanned	# of pages in inactive queue	# of pages in active queue	# of pages scan	# of pages queue for flush	# of pages move from inactive to cache/free	# of pages from inactive to active	# of pages from active to inactive
1	0	8	3015	4903	8	0	0	0	0
2	3047	974793	277	974793	977840	0	1567	1227	0
3	277	977377	451	977143	977654	240	65	0	5
4	451	977143	390	976785	977594	24	427	0	33
5	390	976785	614	976310	977175	139	251	0	0
6	614	111687	49167	927416	112301	311	341	0	0
7	49167	121489	59421	916384	170656	12382	778	36240	0
8	59421	86103	46370	927561	145524	0	12149	47272	0
9	46370	77003	70134	907476	123373	21420	17	24950	0
10	18119	782	52015	911822	18901	0	17696	423	0



We took the average of each column of each table and compared them:

	# of pages in inactive queue scanned	# of pages in active queue scanned	# of pages in inactive queue	# of pages in active queue	# of pages scan	# of pages queue for flush	# of pages move from inactive to cache/free	# of pages from inactive to active	# of pages from active to inactive
Modified Kernel	22735.4	295255.7	44191.5	869866.7	317991.1	10263.2	7785.3	148.4	45
Stock Kernel	17785.6	430317	28185.4	850059.3	448102.6	3451.6	3329.1	11011.2	3.8



The performance of the modified kernel closely resembles the stock kernel, which is expected because no big changes to the logic or algorithms were made, only the insertion places. We observe that our modified kernel moved pages to the inactive queue more quickly than the stock kernel did; however, once the memory was fully utilized, both kernels paged and kept roughly the same number of pages in each of the queues. The only big discrepancy shown in the data is the value for the pages scanned in the active queue; the modified kernel seemed to scan more pages on average.