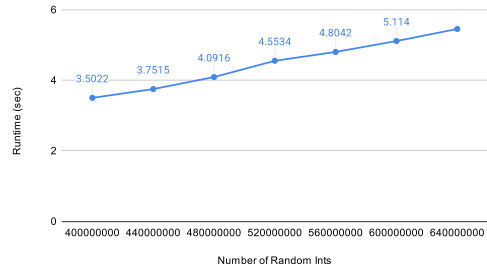
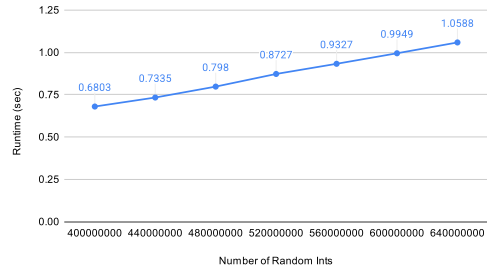


Serial				
Number of Random Ints	Shift Offset	Randomize (sec)	Histogram (sec)	Left Shift (sec)
400000000	1000	3.5022	0.6803	1.8089
440000000	1000	3.7515	0.7335	1.9389
480000000	1000	4.0916	0.798	2.1149
520000000	1000	4.5534	0.8727	2.3541
560000000	1000	4.8042	0.9327	2.468
600000000	1000	5.114	0.9949	2.6447
640000000	1000	5.4552	1.0588	2.8218

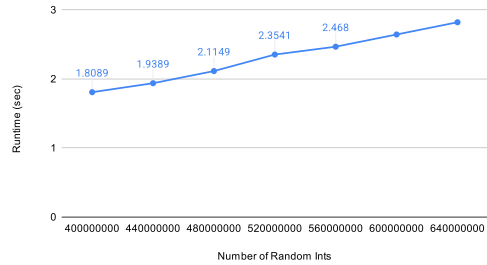
Serial Randomization Runtime



Serial Histogram Runtime



Serial Shift Runtime



Parallel					
Number of Processes	Number of Random Ints	Shift Offset	Randomize (sec)	Histogram (sec)	Left Shift (sec)
2	400000000	1000	5.9166	0.3333	0.8848
4	400000000	1000	6.0993	0.1713	0.4529
8	400000000	1000	5.8575	0.0841	0.2216
16	400000000	1000	6.0997	0.0433	0.1109
32	400000000	1000	6.2522	0.0229	0.0557

Number of Processes	Number of Random Ints	Shift Offset	Randomize (sec)	Histogram (sec)	Left Shift (sec)
2	440000000	1000	6.1603	0.3781	0.9983
4	440000000	1000	6.5167	0.2688	0.9693
8	440000000	1000	6.3753	0.1364	0.3909
16	440000000	1000	6.6559	0.0478	0.1224
32	440000000	1000	6.8745	0.0247	0.0611

Number of Processes	Number of Random Ints	Shift Offset	Randomize (sec)	Histogram (sec)	Left Shift (sec)
2	480000000	1000	7.2087	0.586	2.1152
4	480000000	1000	7.3231	0.2936	1.0573
8	480000000	1000	7.1264	0.1017	0.2661
16	480000000	1000	7.0703	0.0525	0.1334
32	480000000	1000	7.7328	0.027	0.0667

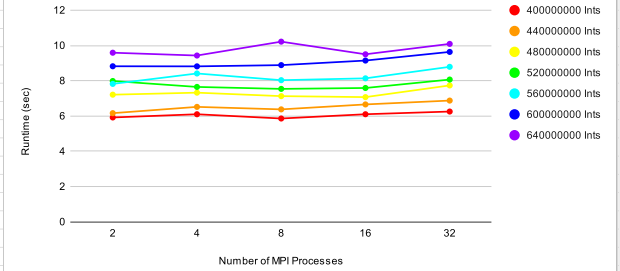
Number of Processes	Number of Random Ints	Shift Offset	Randomize (sec)	Histogram (sec)	Left Shift (sec)
2	520000000	1000	7.9839	0.6511	1.4751
4	520000000	1000	7.6481	0.2233	0.5885
8	520000000	1000	7.5369	0.1092	0.2878
16	520000000	1000	7.5879	0.0555	0.144
32	520000000	1000	8.0659	0.0406	0.118

Number of Processes	Number of Random Ints	Shift Offset	Randomize (sec)	Histogram (sec)	Left Shift (sec)
2	560000000	1000	7.82	0.4687	1.2527
4	560000000	1000	8.4114	0.3423	1.1458
8	560000000	1000	8.0313	0.1186	0.3098
16	560000000	1000	8.1352	0.0599	0.1555
32	560000000	1000	8.7881	0.0433	0.155

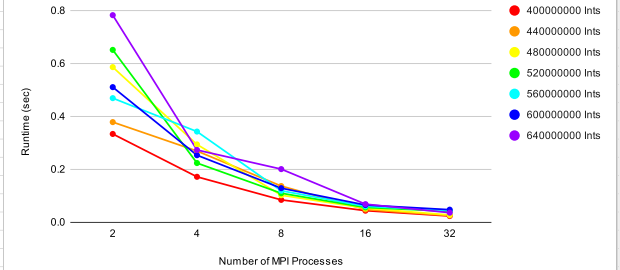
Number of Processes	Number of Random Ints	Shift Offset	Randomize (sec)	Histogram (sec)	Left Shift (sec)
2	600000000	1000	8.8201	0.5103	1.356
4	600000000	1000	8.8148	0.253	0.6792
8	600000000	1000	8.8848	0.1283	0.3389
16	600000000	1000	9.1439	0.0646	0.1662
32	600000000	1000	9.6337	0.047	0.1667

Number of Processes	Number of Random Ints	Shift Offset	Randomize (sec)	Histogram (sec)	Left Shift (sec)
2	640000000	1000	9.5884	0.7824	2.5948
4	640000000	1000	9.4288	0.2727	0.7233
8	640000000	1000	10.2156	0.2004	0.5289
16	640000000	1000	9.4994	0.0679	0.1775
32	640000000	1000	10.0884	0.0356	0.0891

Parallel Randomization Runtime



Parallel Histogram Runtime



Parallel Left Shift Runtime (Shift Offset = 1000)

