

lights_drops.raw

FrameTable Siz	Infinite Memory	FIFO	Random Victim	Second Chance
1 - 256	Page Hits	Page Hits	Page Hits	Page Hits
1	18964	0	0	0
2	18964	0	29	0
4	18964	160	125	155
8	18964	316	254	306
16	18964	512	435	521
32	18964	734	693	758
64	18964	1107	1096	1158
128	18964	1822	1927	2051
256	18964	3483	3276	3936

Algorithm Plot

The plot displays the performance of four memory management algorithms. The Y-axis represents 'Page Hits' (0 to 22500) and the X-axis represents 'Frame Table Size' (1 to 256). The 'Infinite Memory' algorithm (blue) maintains a constant hit rate of 18964. The 'FIFO' (orange), 'Random Victim' (yellow), and 'Second Chance' (green) algorithms show increasing hit rates as the frame table size increases, with 'Second Chance' performing best among the three.

Frame Table Size	Infinite Memory	FIFO	Random Victim	Second Chance
1	18964	0	0	0
2	18964	0	29	0
4	18964	160	125	155
8	18964	316	254	306
16	18964	512	435	521
32	18964	734	693	758
64	18964	1107	1096	1158
128	18964	1822	1927	2051
256	18964	3483	3276	3936

Frame Table Size	Infinite Memory	FIFO	Random Victim	Second Chance
1 - 256	Page Hits	Page Hits	Page Hits	Page Hits
1	1553409	0	0	0
2	1553409	36	144	43
4	1553409	562	514	557
8	1553409	1277	1166	1250
16	1553409	2601	2120	2610
32	1553409	3999	3380	4012
64	1553409	5765	5050	5764
128	1553409	8283	7536	8290
256	1553409	12170	11746	12193

Algorithm Plot

The plot shows Page Hits (Y-axis, 0 to 1,500,000) versus Memory Accesses (X-axis, 0 to 250). The legend indicates four algorithms: Infinite Memory (blue), FIFO (red), Random Victim (orange), and Second Chance (green). Infinite Memory is a constant horizontal line at approximately 1,553,409 hits. The other three algorithms show much lower hit counts, with Second Chance being slightly higher than Random Victim and FIFO.

Memory Accesses	Infinite Memory	FIFO	Random Victim	Second Chance
1	1553409	0	0	0
2	1553409	36	144	43
4	1553409	562	514	557
8	1553409	1277	1166	1250
16	1553409	2601	2120	2610
32	1553409	3999	3380	4012
64	1553409	5765	5050	5764
128	1553409	8283	7536	8290
256	1553409	12170	11746	12193

Chevalier_473.raw

Frame Table Size	Infinite Memory	FIFO	Random Victim	Second Chance
1 - 256	Page Hits	Page Hits	Page Hits	Page Hits
1	989503	0	0	0
2	989503	407	4219	392
4	989503	22953	18167	23679
8	989503	37854	33131	37956
16	989503	53432	47523	54534
32	989503	68751	62336	70417
64	989503	85298	77488	87075
128	989503	101668	94109	103921
256	989503	120341	114862	125068

Algorithm Plot

The plot displays the performance of four memory management algorithms as the frame table size increases from 1 to 256. The y-axis represents the number of page hits, ranging from 0 to 1,000,000. The x-axis represents the frame table size. Infinite Memory maintains a constant hit rate of approximately 989,503. FIFO, Random Victim, and Second Chance show a significant increase in hits as the frame table size grows, with Second Chance and Random Victim performing slightly better than FIFO.

Frame Table Size	Infinite Memory	FIFO	Random Victim	Second Chance
1	989503	0	0	0
256	989503	120341	114862	125068

lights_drops.raw(Memory Accesses)

Memory Access	Infinite Memory	FIFO	Random Victim	Second Chance
1 - upperlimit	Page Hits	Page Hits	Page Hits	Page Hits
1	0	0	0	0
2	0	0	0	0
4	0	0	0	0
8	0	0	0	0
16	1	1	1	1
32	1	1	1	1
64	1	1	1	1
128	6	6	6	6
256	19	19	16	19
512	64	47	39	51
1024	190	100	84	108
2048	581	248	212	266
4096	1809	550	496	615
8192	4744	1143	1085	1313
16384	11596	2229	2114	2512
24576	18964	3483	3276	3936

Algorithm Plot

The plot displays the number of page hits (Y-axis, 0 to 22500) against the number of memory accesses (X-axis, 0 to 24000). Four algorithms are compared: Infinite Memory (blue line), FIFO (red line), Random Victim (orange line), and Second Chance (green line). The Infinite Memory algorithm shows a linear increase in page hits, reaching approximately 19000 hits at 24000 accesses. The other three algorithms show a much slower increase, with Second Chance reaching approximately 3900 hits, Random Victim reaching approximately 3300 hits, and FIFO reaching approximately 3500 hits at 24000 accesses.

Memory Accesses	Infinite Memory	FIFO	Random Victim	Second Chance
0	0	0	0	0
3000	1500	100	100	100
6000	3000	200	200	200
9000	4500	300	300	300
12000	6000	400	400	400
15000	7500	500	500	500
18000	9000	600	600	600
21000	10500	700	700	700
24000	12000	800	800	800

JohnBell.gif(Memory Accesses)

Memory Access	Infinite Memory	FIFO	Random Victim	Second Chance
1 - upperlimit	Page Hits	Page Hits	Page Hits	Page Hits
1	0	0	0	0
2	0	0	0	0
4	0	0	0	0
8	1	1	1	1
16	2	2	2	2
32	4	4	4	4
64	7	7	7	7
128	14	14	13	14
256	52	52	44	52
512	98	95	78	96
1024	111	102	87	103
2048	139	112	95	113
4096	258	130	110	130
8192	689	154	135	154
16384	2229	198	182	197
32768	7781	311	296	313
65536	25831	536	519	538
131072	76656	979	973	982
262144	199323	1947	1929	1952
524288	459035	4031	3953	4043
1048576	983052	8073	7782	8094
1618943	1553409	12170	11746	12193

The plot shows that the Infinite Memory algorithm has the highest number of page hits, followed by FIFO, Random Victim, and Second Chance. The x-axis represents Memory Accesses (0 to 1,500,000) and the y-axis represents Page Hits (0 to 1,500,000). The area under the Infinite Memory curve is shaded blue.

Chevalier_473.raw(Memory Accesses)

Memory Access	Infinite Memory	FIFO	Random Victim	Second Chance
1 - upperlimit	Page Hits	Page Hits	Page Hits	Page Hits
1	0	0	0	0
2	0	0	0	0
4	0	0	0	0
8	1	1	1	1
16	2	2	2	2
32	6	6	6	6
64	10	10	10	10
128	17	17	16	17
256	23	23	21	23
512	29	26	25	27
1024	205	176	180	179
2048	447	280	264	288
4096	1088	516	495	540
8192	2745	749	722	790
16384	7712	1351	1317	1440
32768	20493	2725	2655	2964
65536	50764	5948	5568	6367
131072	110034	13705	12918	14499
262144	227506	46890	44055	48166
524288	467249	98451	94103	102322
1048576	985440	119745	114308	124447
1052640	989503	120341	114862	125068

Algorithm Plot

The plot displays the performance of four memory management algorithms over 1,052,640 memory accesses. The Y-axis represents 'Page Hits' (0 to 1,000,000) and the X-axis represents 'Memory Accesses' (0 to 1,052,640). The 'Infinite Memory' algorithm (blue line) shows a linear increase in page hits, reaching approximately 989,503 hits at the end of the trace. The 'FIFO' algorithm (red line) shows a much slower increase, reaching approximately 120,341 hits. The 'Random Victim' (orange line) and 'Second Chance' (green line) algorithms perform similarly, with Random Victim reaching approximately 114,862 hits and Second Chance reaching approximately 125,068 hits.

Memory Access	Infinite Memory	FIFO	Random Victim	Second Chance
1	0	0	0	0
2	0	0	0	0
4	0	0	0	0
8	1	1	1	1
16	2	2	2	2
32	6	6	6	6
64	10	10	10	10
128	17	17	16	17
256	23	23	21	23
512	29	26	25	27
1024	205	176	180	179
2048	447	280	264	288
4096	1088	516	495	540
8192	2745	749	722	790
16384	7712	1351	1317	1440
32768	20493	2725	2655	2964
65536	50764	5948	5568	6367
131072	110034	13705	12918	14499
262144	227506	46890	44055	48166
524288	467249	98451	94103	102322
1048576	985440	119745	114308	124447
1052640	989503	120341	114862	125068