

Belady's Algorithm

➔ What is optimal if you knew the future?

Access	Hit/Miss	Evict	P0	P1	P2	P3
1	Miss		1			
2	Miss		1	2		
3	Miss		1	2	3	
4	Miss		1	2	3	4
1	Hit		1	2	3	4
2	Hit		1	2	3	4
5	Miss	4	1	2	3	5
1	Hit		1	2	3	5
2	Hit		1	2	3	5
3	Hit		1	2	3	5
4	Miss	1	4	2	3	5
5	Hit		4	2	3	5

● Total 6 misses

Belady's Algorithm

Belady's Algorithm is known (proven) to be the optimal page replacement algorithm

- Problem : it is hard (impossible) to predict the future
- ➔ Belady's algorithm is useful to compare page replacement algorithms with the optimal to gauge room for improvement