

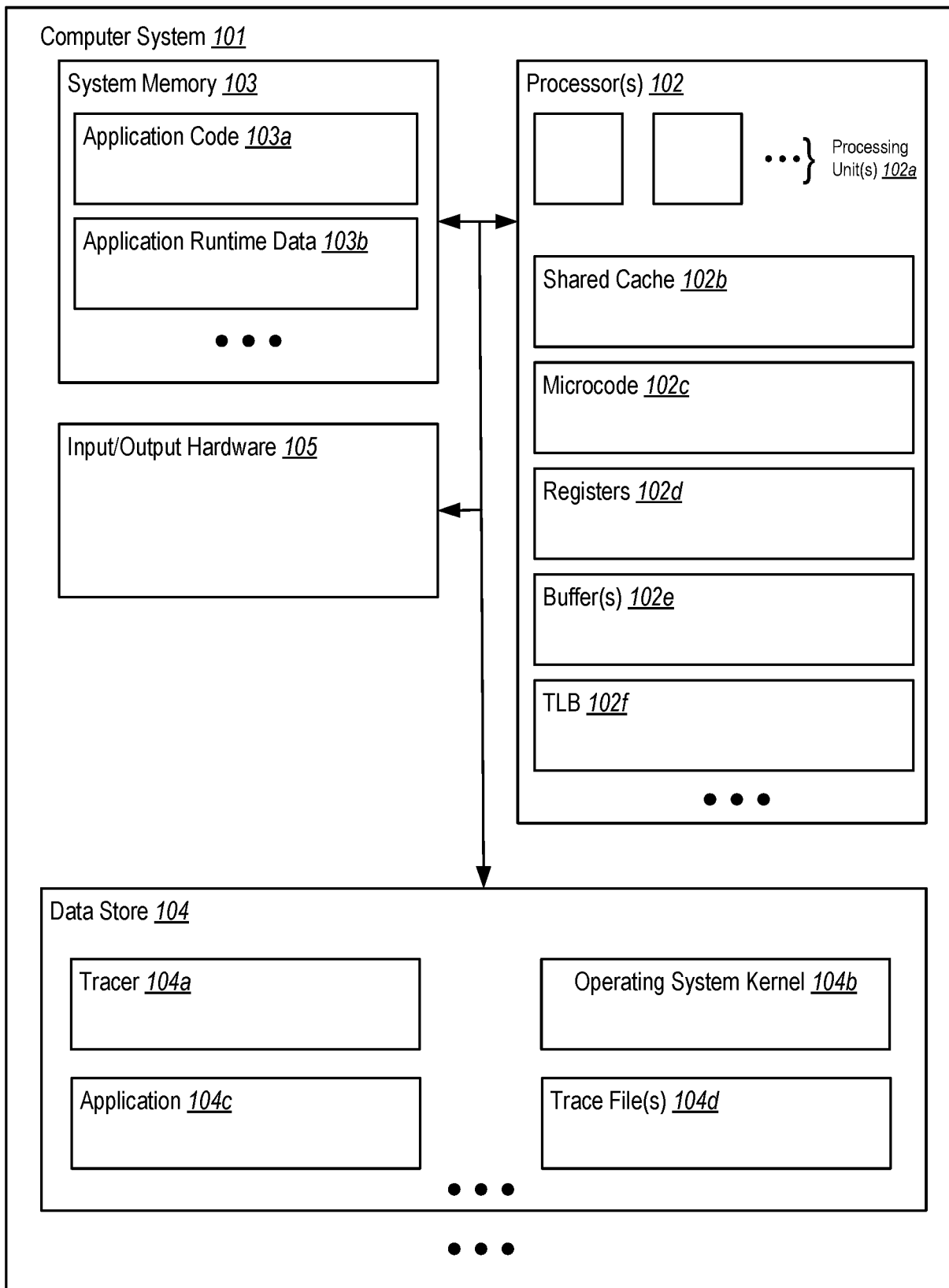


FIG. 1

200

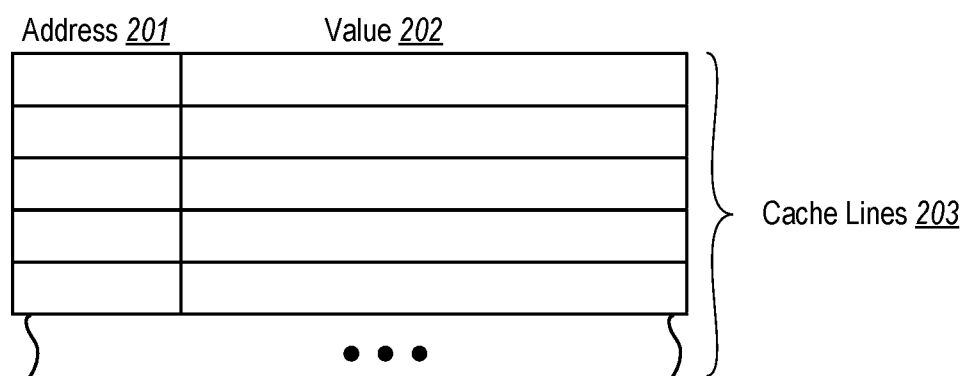


FIG. 2

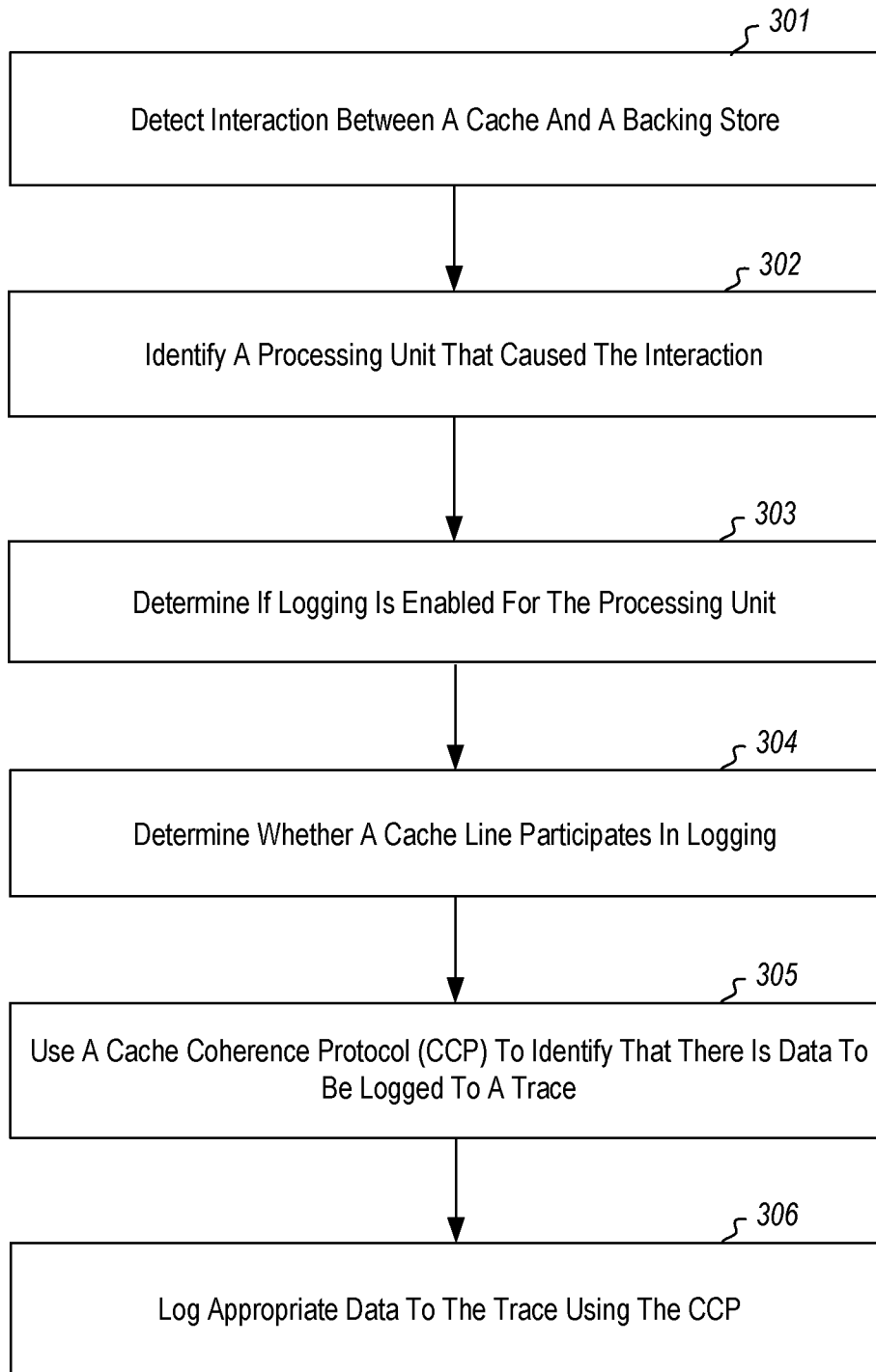


FIG. 3

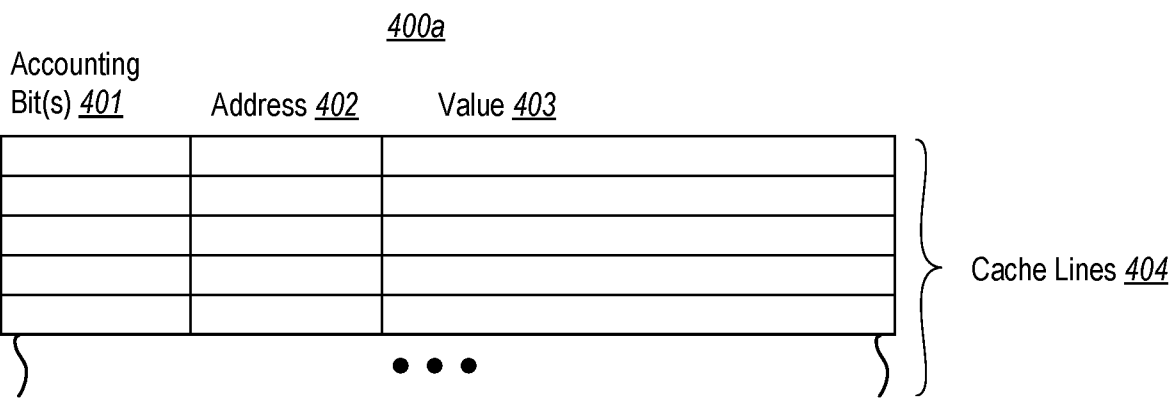


FIG. 4A

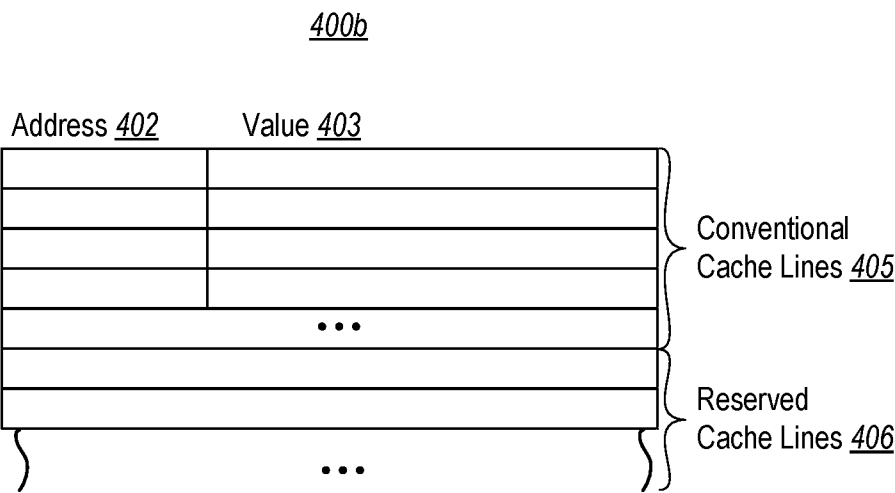
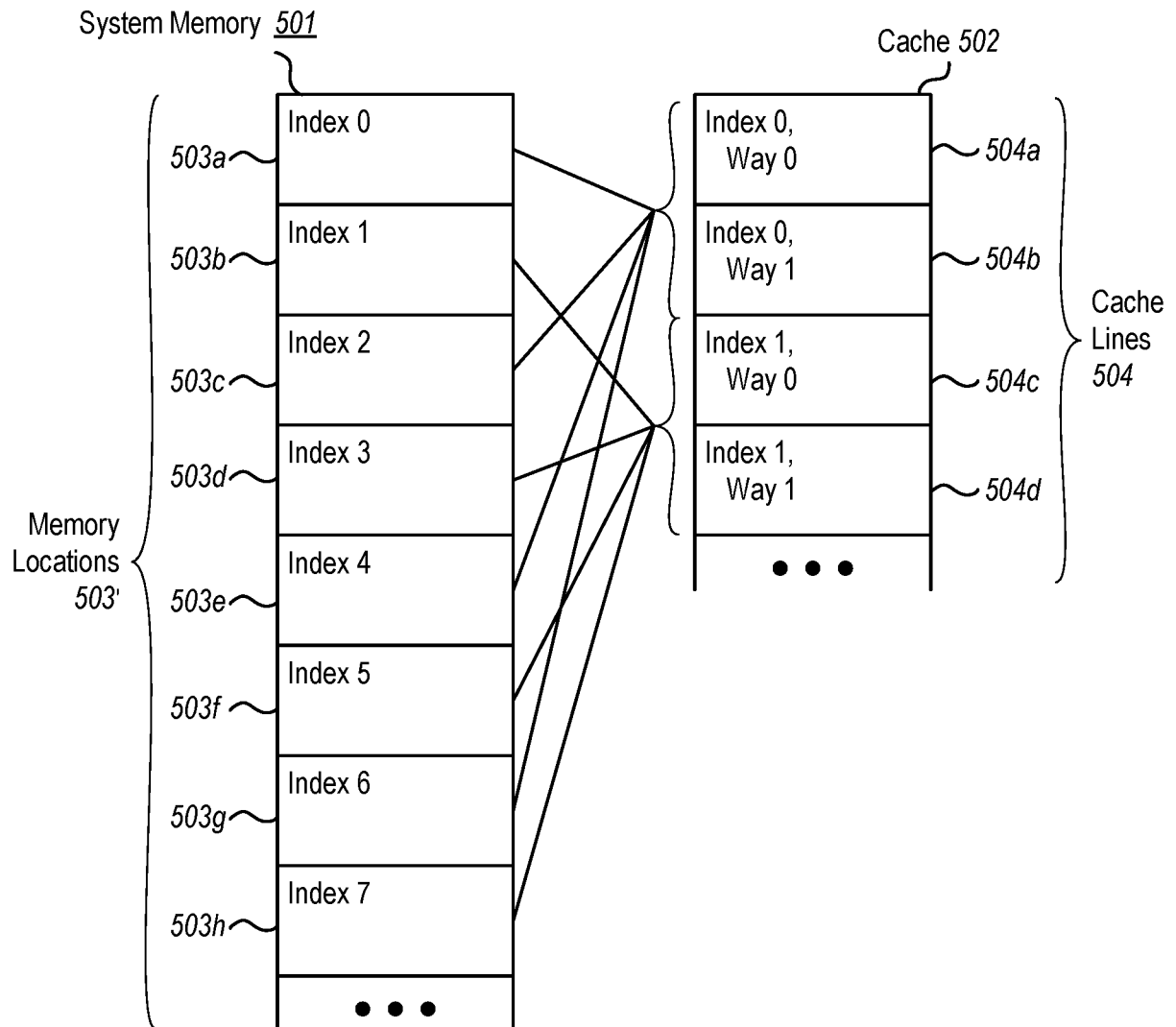


FIG. 4B

**FIG. 5**

600a

601 ID	602a P0	602b P1	602c P2	602d P3
0	R[1]			
1		R[1]		
2	W[2]			
3		R[2]		
4	W[3]			
5			R[3]	
6		R[3]		
7				R[3]
8				W[4]
9	W[5]			
10			R[5]	
11		R[5]		
12	R[5]			
13	EVICT LINE			

FIG. 6A

600b

601 602a 602b 602c 602d				
ID	P0	P1	P2	P3
0	S			
1	S	S		
2	M	I		
3	S	S		
4	M	I		
5	S		S	
6	S	S	S	
7	S	S	S	S
8	I	I	I	M
9	M			I
10	S		S	
11	S	S	S	
12	S	S	S	
13	-	-	-	-

FIG. 6B

600c

601 ⌋	603 ⌋				604 ⌋	605 ⌋
ID	UNIT BITS				INDEX	FLAG
0	1	0	0	0	0	1
1	1	1	0	0	1	1
2	1	0	0	0	0	1
3	1	1	0	0	1	1
4	1	0	0	0	0	1
5	1	0	1	0	2	1
6	1	1	1	0	1	1
7	1	1	1	0	1	1
8	0	0	0	0	-1	0
9	0	0	0	0	-1	0
10	0	0	1	0	2	1
11	0	1	1	0	1	1
12	1	1	1	0	0	1
13	0	0	0	0	-1	0

FIG. 6C

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600d

601 └─┘	606 └─┘
ID	LOG DATA
0	P0; @; IC[0]; DATA [1]
1	P1; @; IC[1]; R->R; P0->P0, P1
2	P0; @; IC[2]; R->W; P0, P1->P0
3	P1; @; IC[3]; W->R; P0->P0, P1
4	P0; @; IC[4]; R->W; P0, P1->P0
5	P2; @; IC[5]; W->R; P0->P0, P2
6	P1; @; IC[6]; R->R; P0, P2->P0, P1, P2
7	
8	
9	
10	P2; @; IC[10]; DATA[5], P2
11	P1; @; IC[11]; R->R; P2->P1, P2
12	P0; @; IC[12]; R->R; P1, P2->P0, P1, P2
13	

FIG. 6D

701	702a	702b	702c
ID	P0	P1	P2
0	R[1]		
1		R[1]	
2	W[2]		
3		R[2]	
4			R[2]
5	R[2]		
6		R[2]	
7			R[2]
8	W[3]		
9	R[3]		
10			R[3]

FIG. 7A

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700b

0	P0; @; IC[0]; DATA [1]
1	P1; @; IC[1]; R->R; P0->P0, P1
2	P0; @; IC[2]; R->W; P0, P1->P0
3	P1; @; IC[3]; W->R; P0->P0, P1
4	P2; @; IC[4]; R->R; P0, P1->P0, P1, P2
5	
6	
7	
8	P0; @; IC[8]; R->W; P0, P1, P2->P0
9	
10	P2; @; IC[10]; R->R; P0->P0, P2

FIG. 7B

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700c

0	P0; @; IC[0]; DATA [1]
1	P1; @; IC[1]; R->R; P0->P1
2	P0; @; IC[2]; R->W; P1->P0
3	P1; @; IC[3]; W->R; P0->P1
4	P2; @; IC[4]; R->R; P1->P2
5	P0; @; IC[5]; R->R; P2->P0
6	P1; @; IC[6]; R->R; P0->P1
7	P2; @; IC[7]; R->R; P1->P2
8	P0; @; IC[8]; R->W; P2->P0
9	
10	P2; @; IC[10]; R->R; P0->P2

FIG. 7C

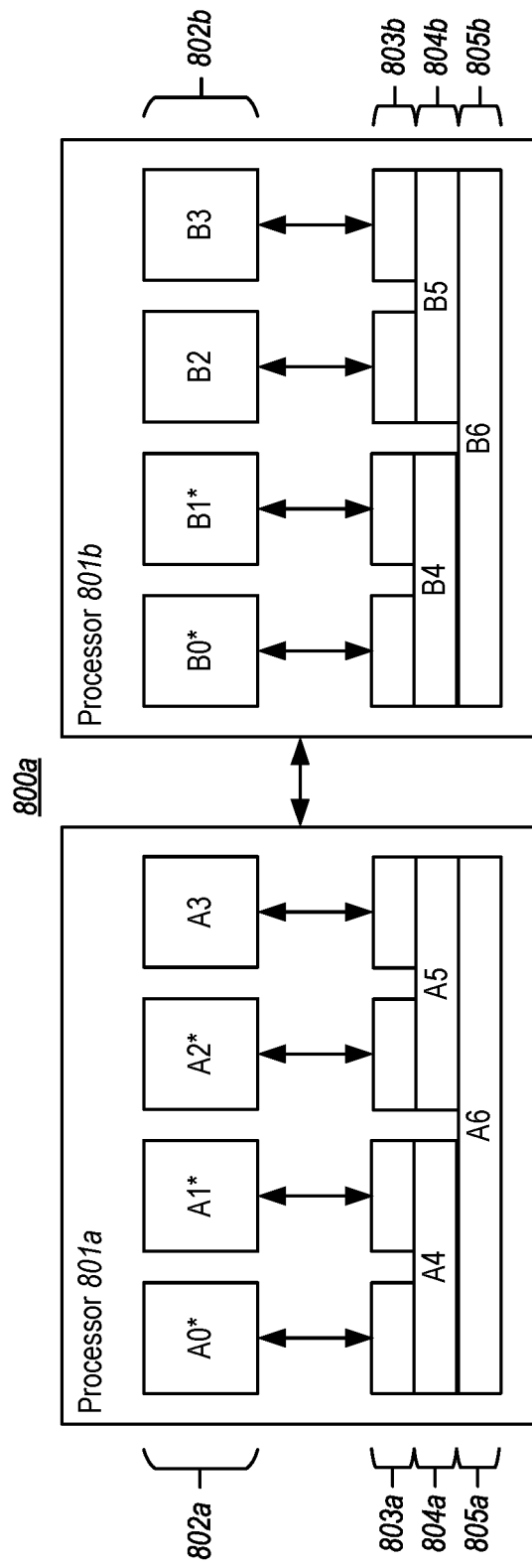


FIG. 8A

ID	A0	A1	A2	A3	B0	B1	B2	B3
0	R[1]							
1					R[1]			
2		R[1]						
3			W[2]					
4			R[2]					
5					R[2]			
6						R[2]		
7					R[2]			
8	W[3]							
9	W[4]							
10		R[4]						
11			R[4]					
12					R[4]			
13						R[4]		
14	R[4]							

FIG. 8B

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900a

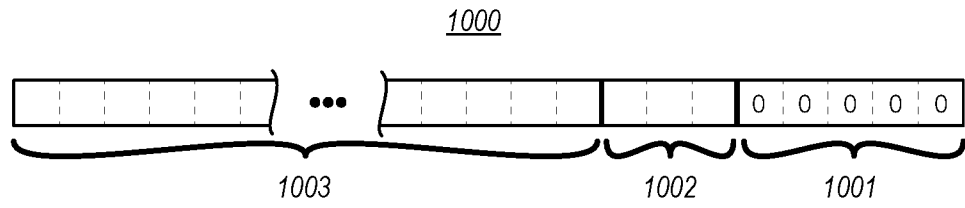
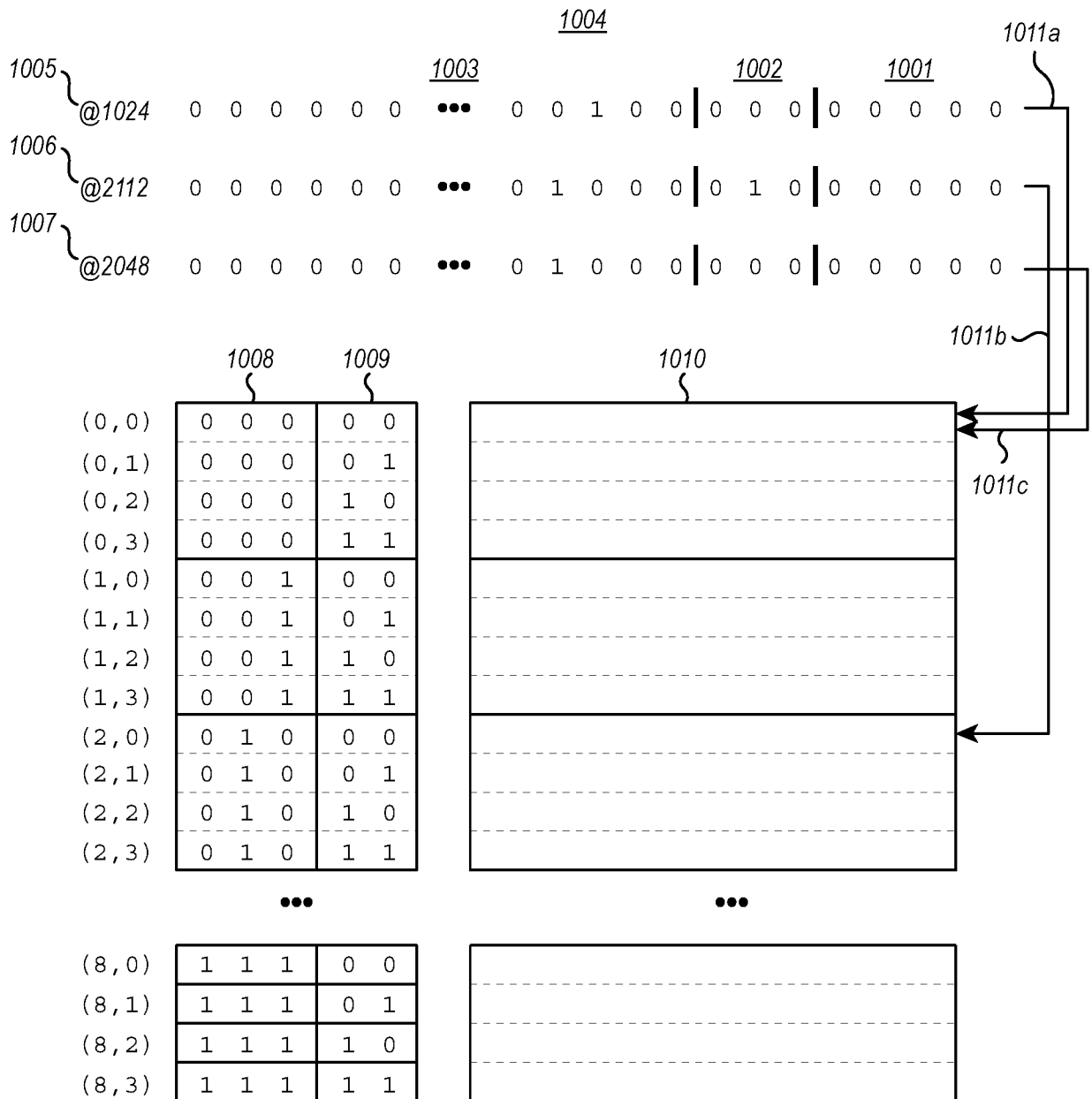
ID	P0	P1
0	W[1]	
1		R[1]
2	R[1]	
3		R[1]
4	W[2]	
5		R[2]

FIG. 9A

900b

ID	CCP Units + Flag	CCP Index + Flag
0		
1	Log DATA	Log DATA
2	Log R->R	Log R->R
3		Log R->R
4	Log R->W	Log R->W
5	Log W->R	Log W->R

FIG. 9B

**FIG. 10A****FIG. 10B**