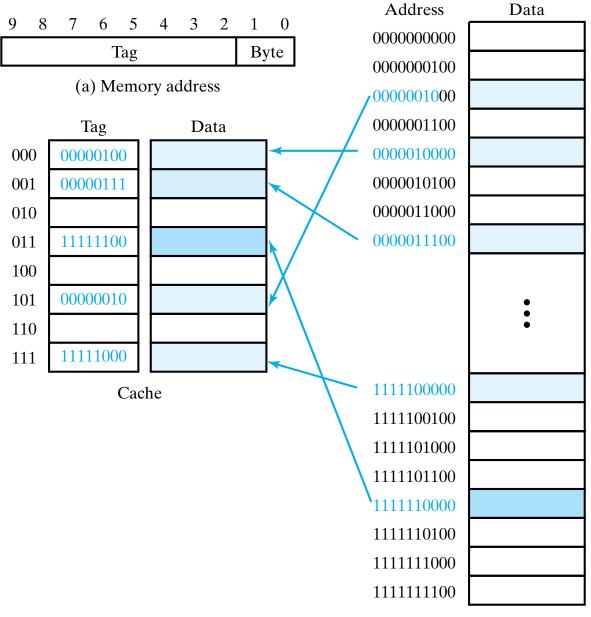


Main memory

(b) Cache mapping

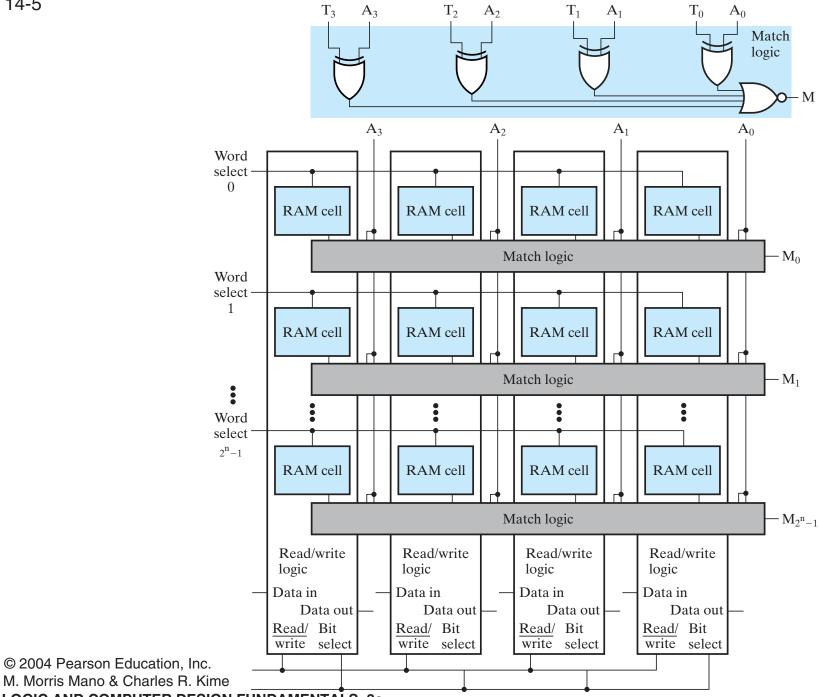
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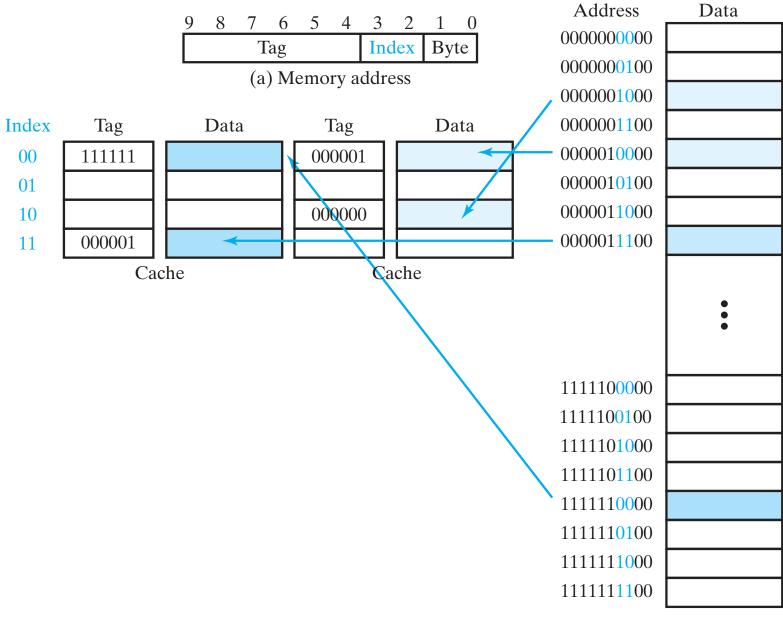
Main memory

(b) Cache mapping

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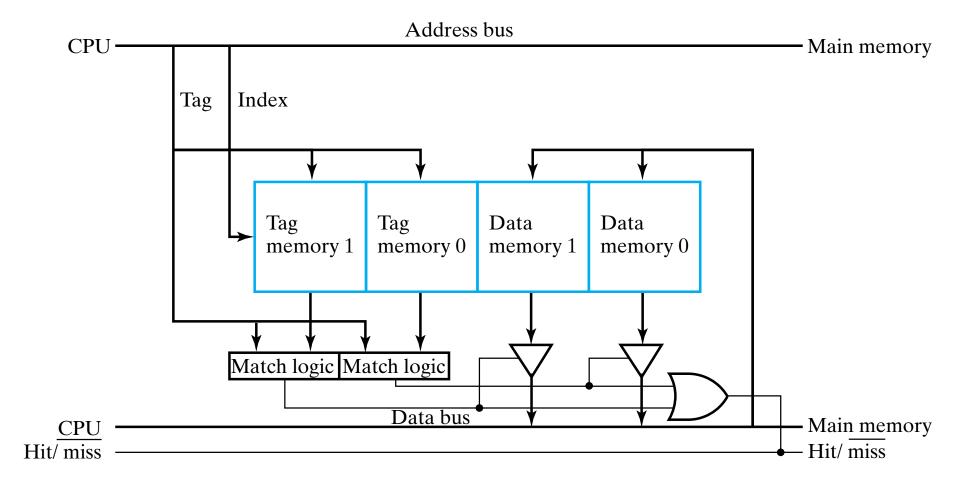


Main memory

(b) Cache mapping

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9	8	7	6	5	4	3	2	1	0	
Tag				In	dex	Wo	Word		Byte	

(a) Memory address

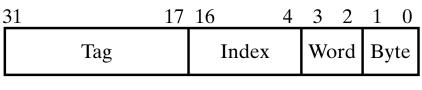
							000000 0000		
							000000 0100		
Index	Tag 1	Data 1	Word	Tag 0	Data 0	Word	000000 1000		
00			00	0000	1	00	000000 1100		
			01		1	01	000001 0000		
			10			10	000001 0100		
			11		1	11	000001 1000		
01	0000	*	00	0000		00	000001 1100	П	
			01		-	01		П	
			10			10		•	
			11			11		:	
10	1111	4	00			00			
			01			01	111110 0000		
			10			10	111110 0100	-	
		_	11			11	<b>—</b> 111110 1000	-	
11			00			00	111110 1100	$\vdash$	
			01			01	111111 0000	$\blacksquare$	
			10			10	111111 <mark>01</mark> 00	-	
			11			11	111111 1 <mark>0</mark> 00	$\mathbf{H}$	
			ı			I	111111 1100	$\blacksquare$	
on Educat	ion Inc		C	ache		Main		nory	
on Education, Inc.								-	

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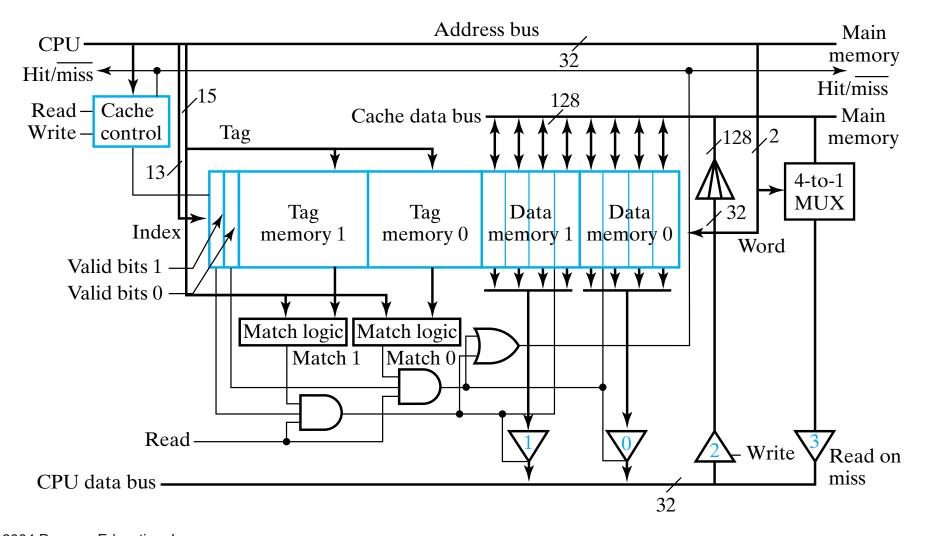
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(b) Cache mapping

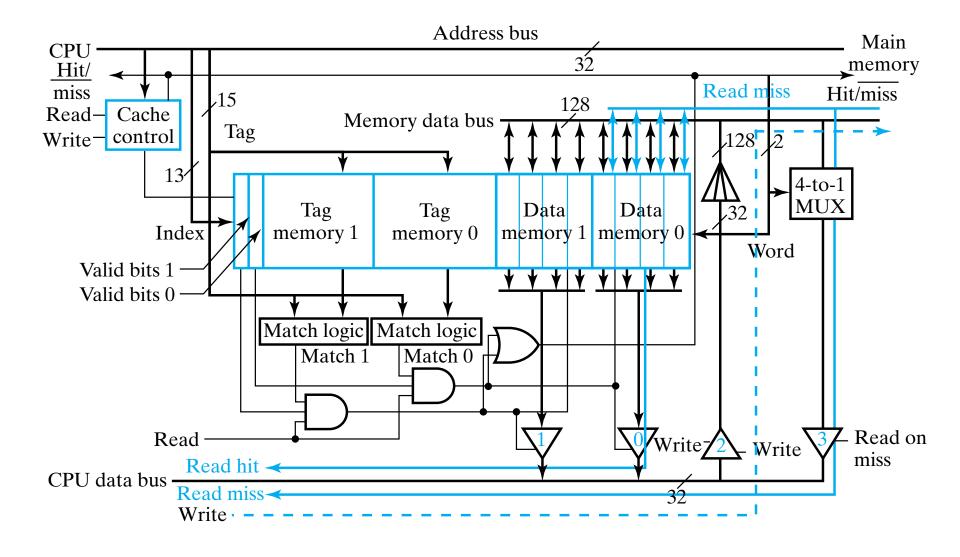


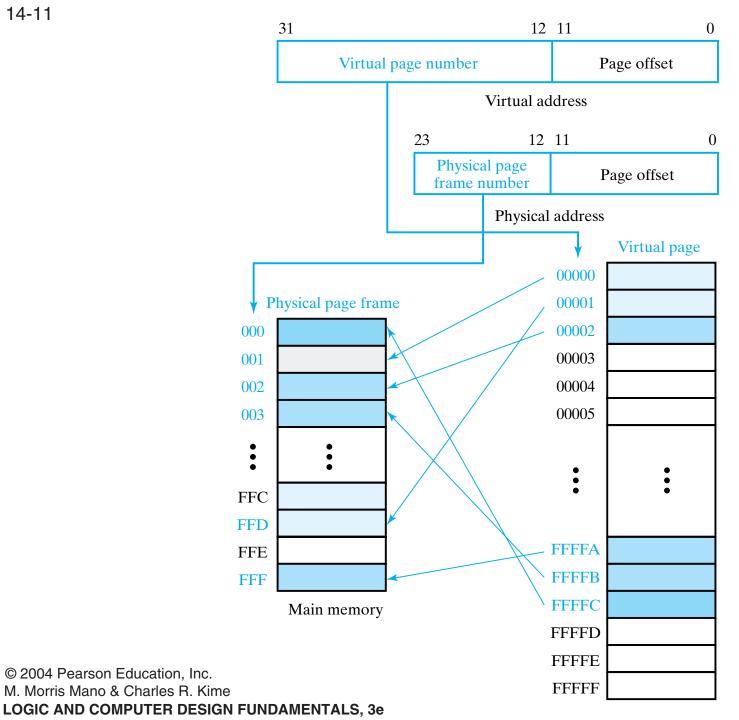
(a) Memory address

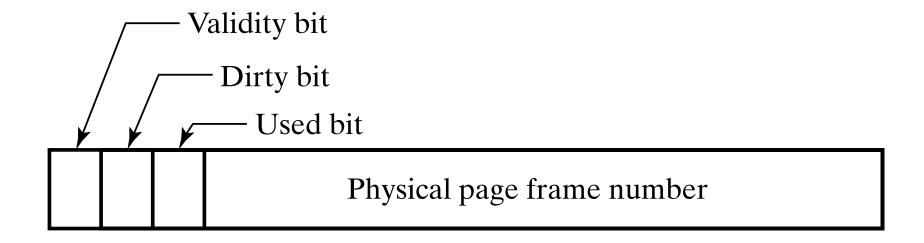


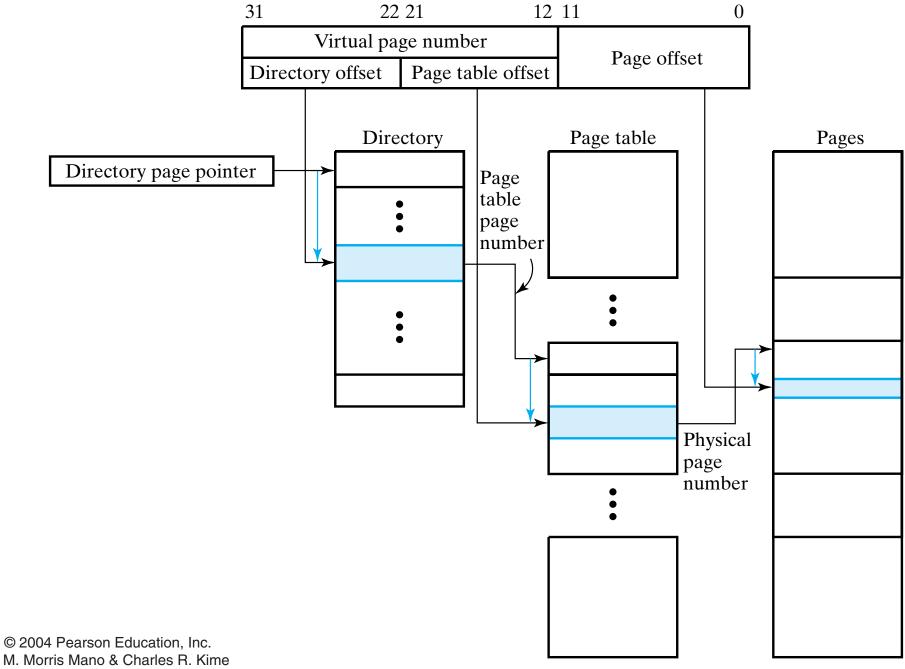
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<sup>(</sup>b) Cache diagram









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## Virtual Address from CPU Page offset Virtual page number Page number input Fully associative or set-associative cache Valid bit Dirty bit Tag Data Virtual page number Physical page frame number Page frame number output Page frame number Page offset

Physical address to main memory