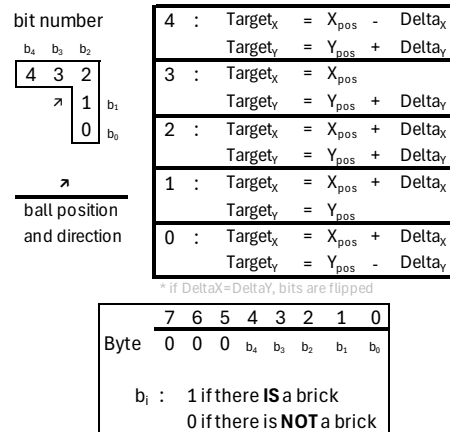
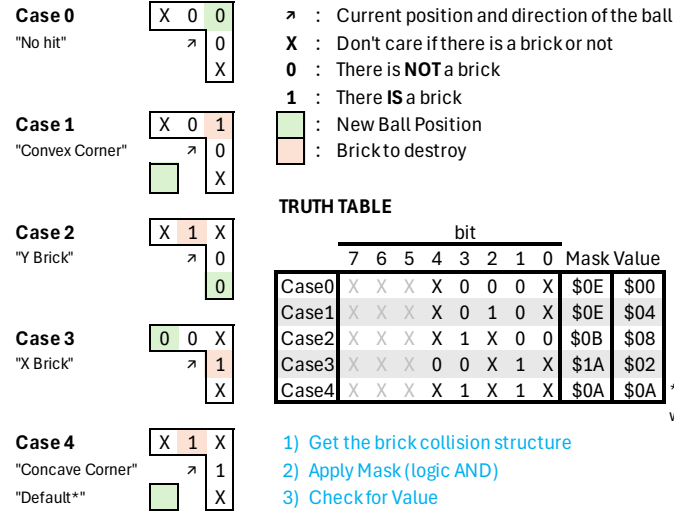


1) Create a bit structure with bricks in the path of the ball



- 1) Look for bricks at all b_i positions
And create a bit-encoded variable
- 2) Flip bits if $\Delta x = \Delta y$

2) Analyze bit structure for selecting collision case



TRUTH TABLE

	bit								Mask Value	
	7	6	5	4	3	2	1	0		
Case0	X	X	X	X	0	0	0	X	\$0E	\$00
Case1	X	X	X	X	0	1	0	X	\$0E	\$04
Case2	X	X	X	X	1	X	0	0	\$0B	\$08
Case3	X	X	X	0	0	X	1	X	\$1A	\$02
Case4	X	X	X	X	1	X	1	X	\$0A	\$0A

*May be default,
without mask/check

- 1) Get the brick collision structure
- 2) Apply Mask (logic AND)
- 3) Check for Value
- 4) Modify a variable to hold the collision case

* This case is also used when Case 2 and Case 3 destination is occupied. Yo may use it as default

3) Switch Case for destroying bricks and modifying Ball Deltas

	Brick to Destroy at		New Ball Deltas	
	X	Y	D_x	D_y
Case 0	N/A	N/A	=	=
Case 1	$X + D_x$	$Y + D_y$	neg	neg
Case 2	X	$Y + D_y$	=	neg
Case 3	$X + D_x$	Y	neg	=
Case 4	X	$Y + D_y$	neg	neg

*neg = two's complement

- 1) Get the collision case variable
- 2) Perform a "switch case"
- 3) Destroy corresponding bricks
- 4) Modify the Ball Deltas

UFV- Computer Engineering Degree
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