

TCE Selection and Move State Machine

Input: x, y, e Values for „e“: BUTTON_DOWN (D), SHIFT_BUTTON_DOWN (SD), MOUSE_MOVE (MM), BUTTON_UP (U)

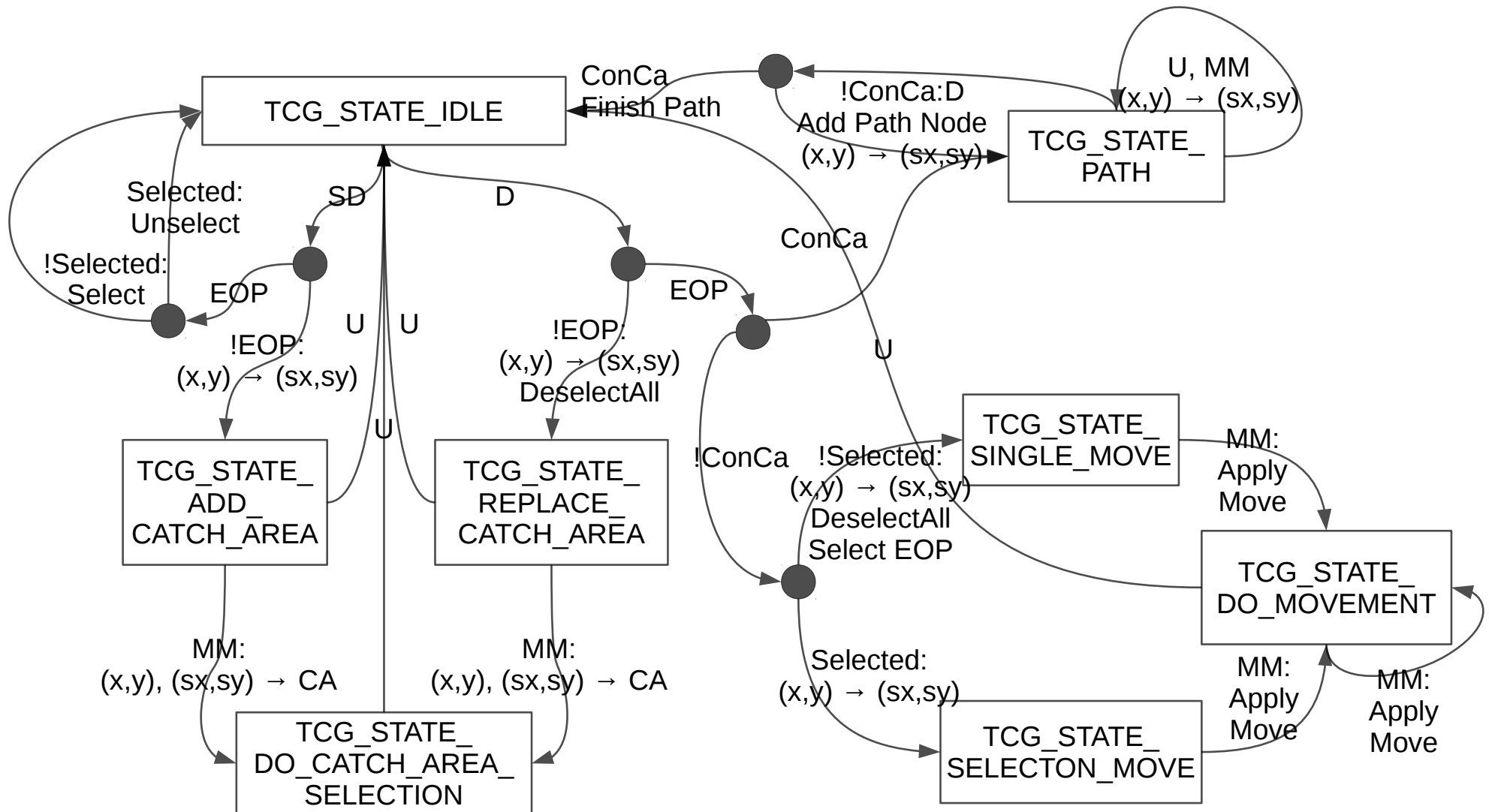
Functions:

EOP tcg_GetElementOverPosition(...) returns true

Selected `tcg_IsSelected(...)` returns true

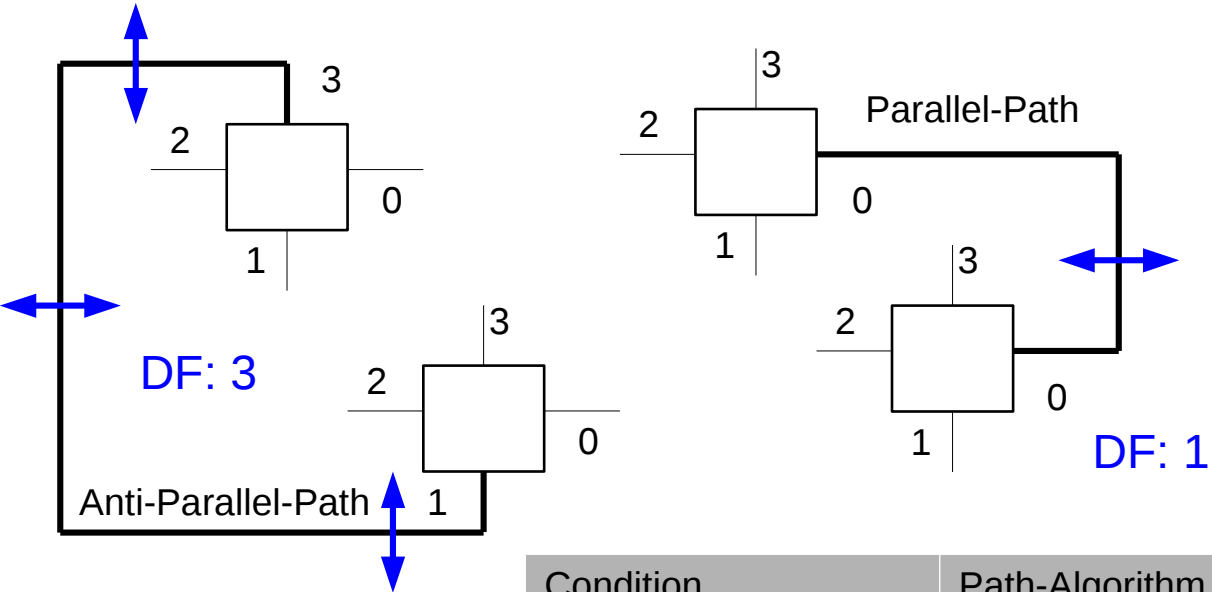
ConCa Connector caught

Internal: Start position: sx, sy (tcg->start_x, tcg->start_y). Catch Area: CA (tcg->catch_area)

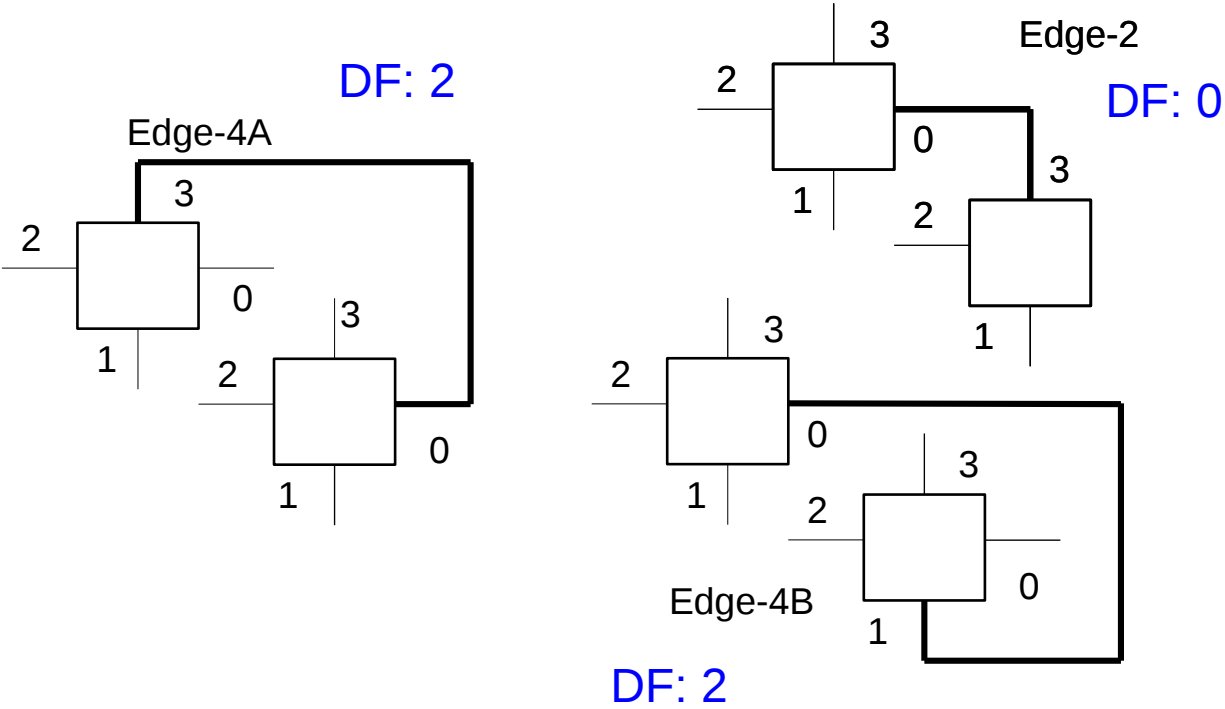


TCE Automatic Path Draw Algorithm

dir_src	dir_dest	Path-Algorithm
0	0	Parallel
0	1	Edge-X
0	2	Anti-Parallel
0	3	Edge-X
1	0	Edge-X
1	1	Parallel
1	2	Edge-X
1	3	Anti-Parallel
2	0	Anti-Parallel
2	1	Edge-X
2	2	Parallel
2	3	Edge-X
3	0	Edge-X
3	1	Anti-Parallel
3	2	Edge-X
3	3	Parallel

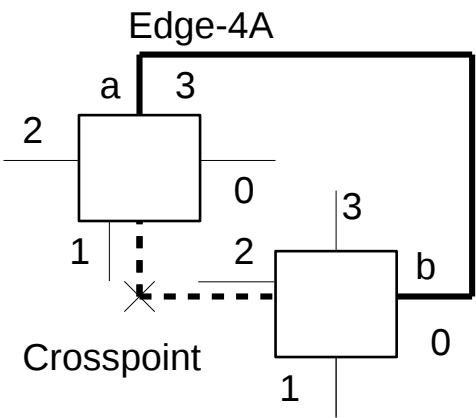


Condition	Path-Algorithm
$\text{dir_src} == \text{dir_dest}$	Parallel
$\text{dir_src} + \text{dir_dest} == 4$	Anti-Parallel
All other	Edge-X



TCE Automatic Path Draw Algorithm

Point a	Dir a	Point b	Dir b	Crosspoint	Crosspoint covers
(ax, ay)	3 odd: x	(bx, by)	0 even: y	(ax, by)	0 → Edge-4A
(ax, ay)	0 even: y	(bx, by)	1 odd: x	(bx, by)	1 → Edge-4B
(ax, ay)	0 even: y	(bx, by)	3 odd: x	(bx, by)	2 → Edge-2



Path	Line Segments	Points	Degree of Freedom
Parallel	3	2	1
Anti-Parallel	5	4	3
Edge-4A	4	3 Example: (ax, d0) (d1, d0) (d1, by)	2
Edge-4B	4	3	2
Edge-2	2	1	0

