

DetectWins

When a player places three of his or her marks in a horizontal, vertical, or diagonal line, the player wins;

EnforceTurns

To play, one player marks a square in a 3 by 3 grid with X, then the other player marks a square with O, then it is X's turn again, and so on;

SquareTaken

Once a square is marked, it cannot be marked again;

DefaultOMoves

When other tactics are not applicable, player O should prefer the center square, then the corners, and mark an edge square only when there is no other choice;

StartOAtCenter

O should start playing at the center;

PreventThirdX

After the X player marks two squares in a line, the O player should try to mark the third square (to foil the attack);

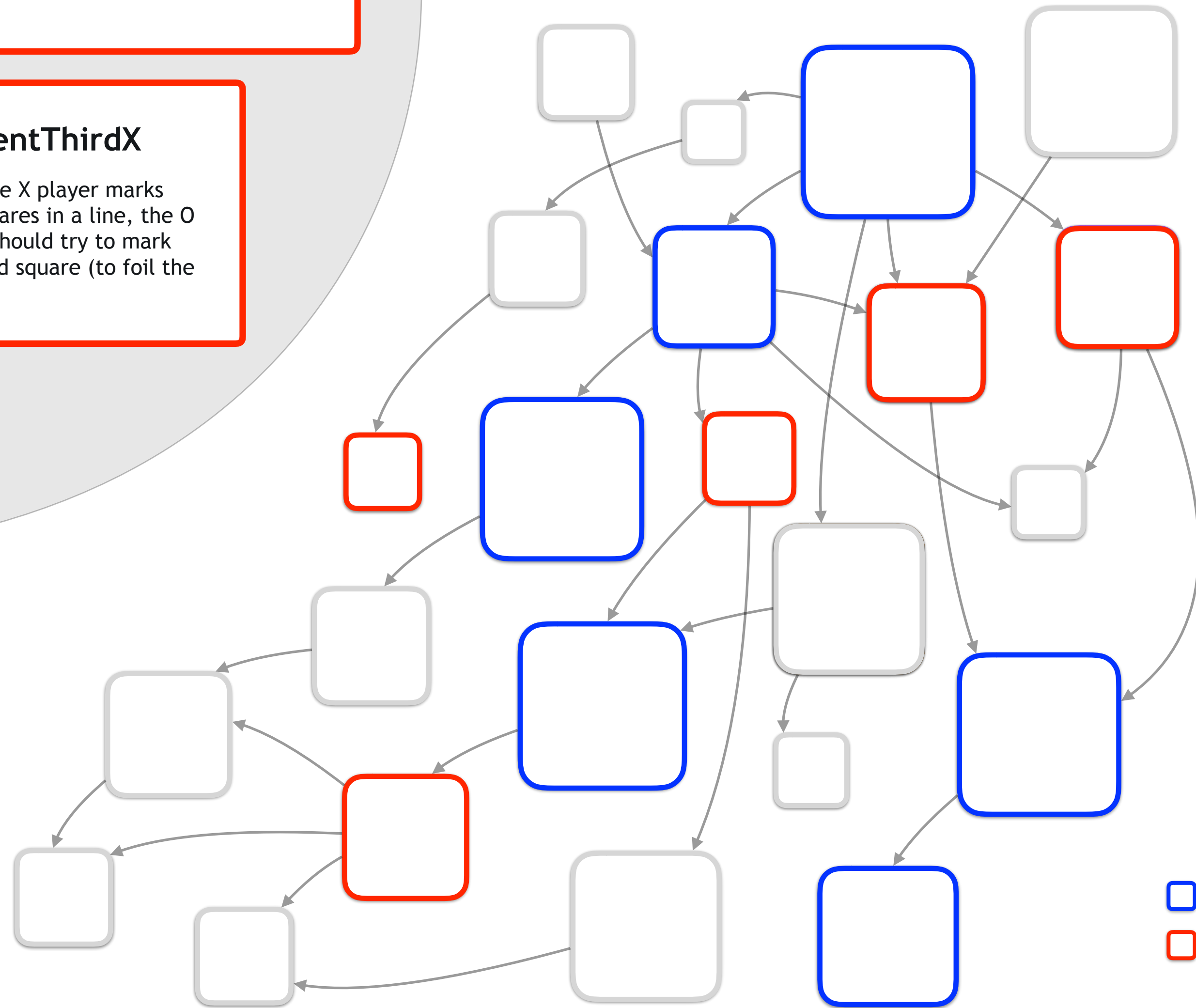
“requirements world”

Multi-modality

Specifying what may happen will provide the system with options and possibilities for things to execute and specifying what must be done and what may not be done will constrain these options.

Tic Tac Toe

“implementation world”



- Start driving on I-78 W [135 mi]
- Merge onto I-81 S [36.6 mi]
- Take ramp onto I-76 W [152 mi]
- Merge onto I-70 W [613 mi]
- Merge onto I-44 W [497.2 mi]
- Continue to I-40 W [1,214 mi]
- Merge onto I-15 S [72.6 mi]
- Merge onto I-10 W [38.9 mi]

(a) Directions

Repeatedly:

- Drive for 5 h; look for restaurant
- Stop the car; have lunch
- Drive for 5 h; look for restaurant
- Stop the car; have dinner
- Drive for 2 h; look for hotel
- Stop the car
- Sleep until morning

(b) Day schedule



Trip