

Title: COMP521 A4 HTN tree by ZiQi Li

- World State:

< bool isInAttackRange, bool isInYellingRange, bool hasCratesInRange, bool
isInFrontOfObstacle, bool isTheChosenCrateDestroyed >

(A) isInAttackRange: true if the player is in attack range of the monster

(B) isInYellingRange: true if the player is in yelling range of the monster

(C) hasCratesInRange: true if there is at least one crate in attack range of the monster

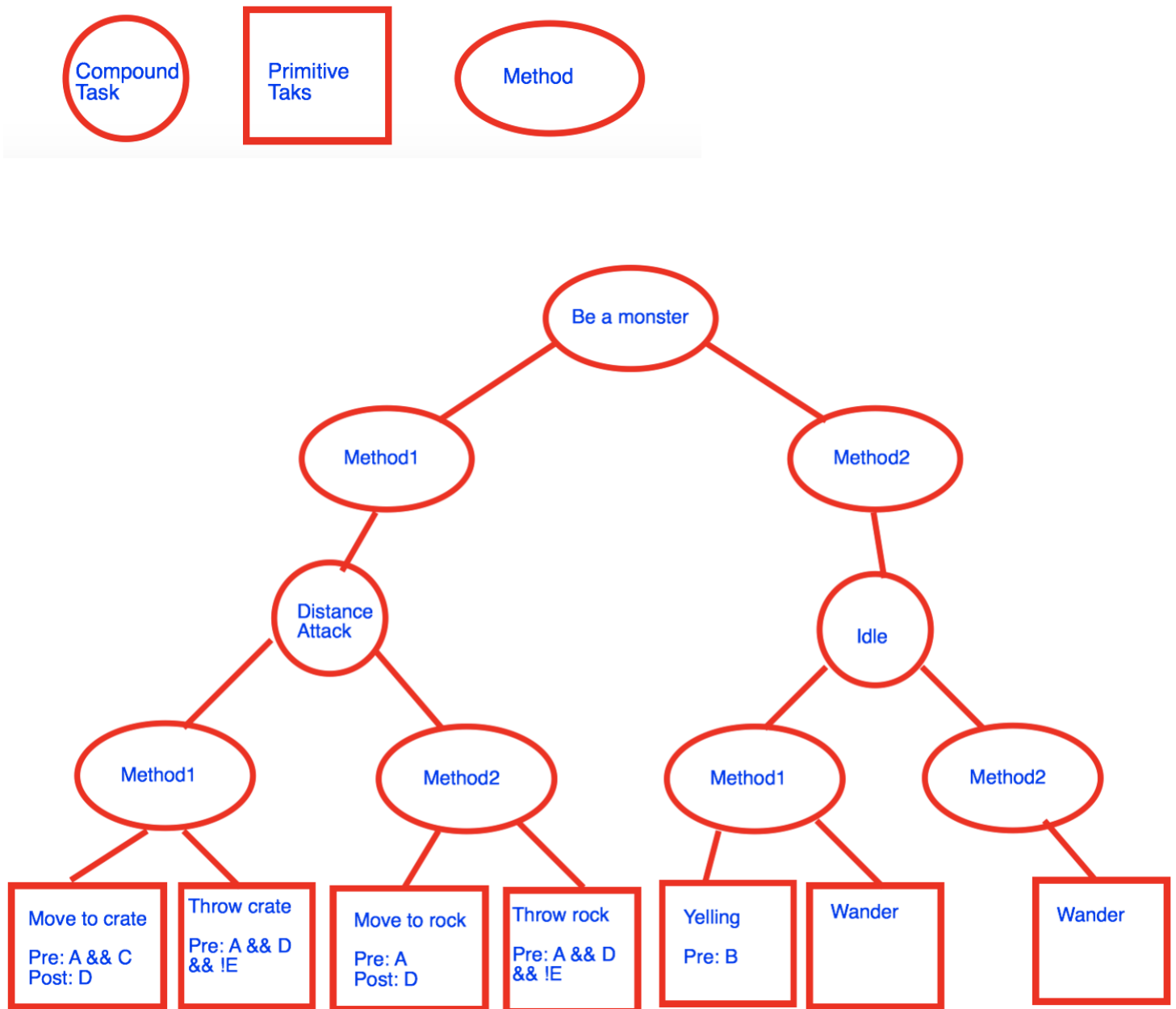
(D) isInFrontOfObstacle: true if the monster is in front of the chosen obstacle to throw

(E) isTheChosenCrateDestroyed: true if the chosen obstacle to thrown is destroyed

(this can happen when the monster choses the obstacle it just threw, and the obstacle will be destroyed after colliding with player. So, we have to guarantee that the chosen obstacle is not destroyed)

Note: in the game, sometimes the plan text displayed at the top of screen will flash frequently for about 1 second of time. That's because the monster is replanning due to some unsatisfied pre-conditions during the execution of plan.

- HTN tree:



In general, if the player is in attack range, this monster will try to throw the nearest crate which is located in the attack range. If no crate in the attack range, this monster will throw the nearest rock to the player. If the player is not in attack range, this monster will perform idle methods.