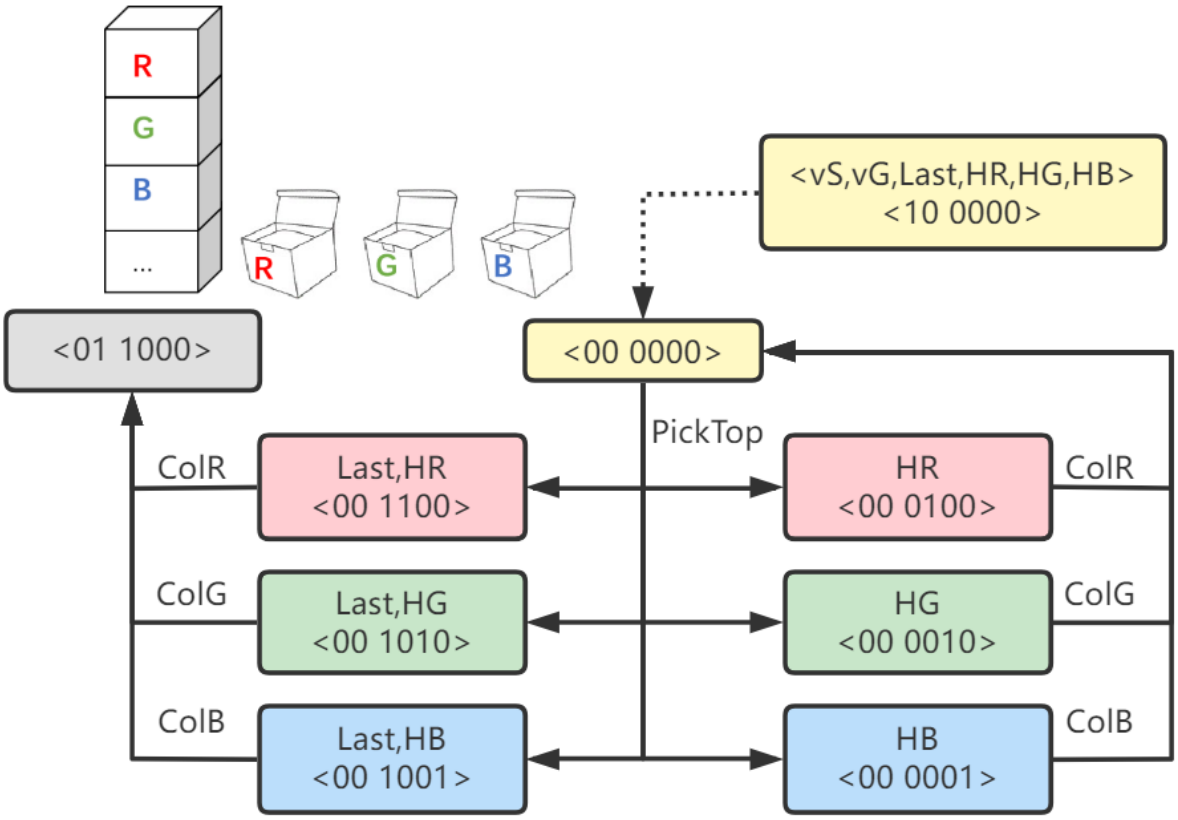
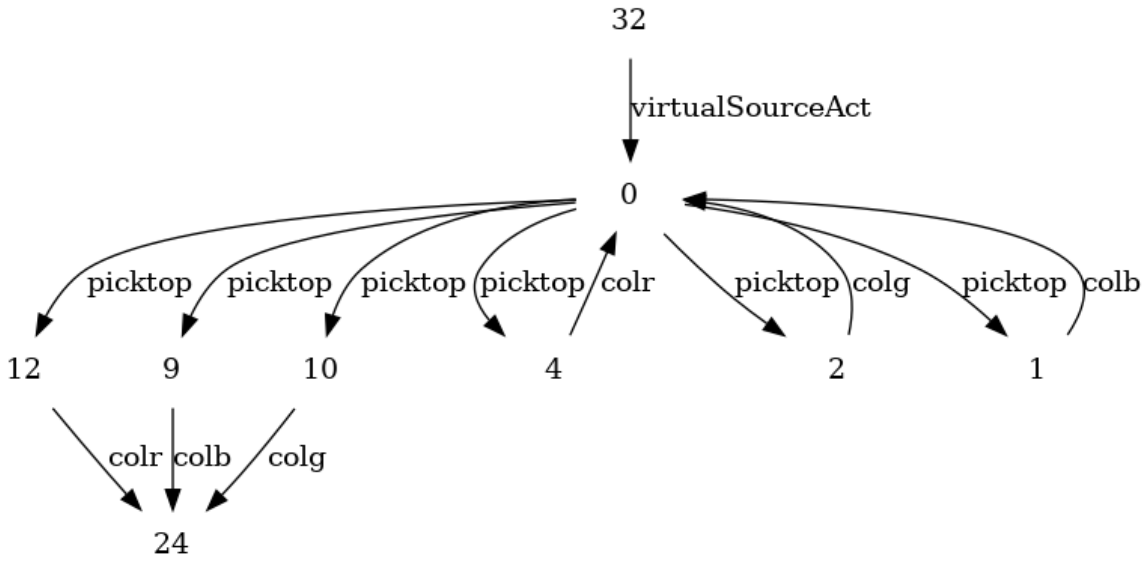
FOND problem



> Full set of examples of domain RGBBlocks: R, G, B, RGBX, where the base block X represents any of the three colors of RGB.

Policy by PRP



```
  (:predicates
    (on_table ?x - BlockType)
    (clear ?x - BlockType)
    (on  ?x1 ?x2 - BlockType)
    (holding ?x - BlockType)
    (isRed ?x - BlockType)
    (isGreen ?x - BlockType)
    (isBlue ?x - BlockType)
    (inRedBox ?x - BlockType)
    (inGreenBox ?x - BlockType)
    (inBlueBox ?x - BlockType)
    (arm_empty)
    ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
    (vStart)
    (VGoal)
    (BlocksCleared)
    (HRed)
    (HGreen)
    (HBlue)
  )
  (:derived
      (BlocksCleared)
      (clear Bottom))
  (:derived
    (HRed)
      (exists (?x - BlockType) (and (isRed ?x) (holding ?x) )))
  (:derived
    (HGreen)
      (exists (?x - BlockType) (and (isGreen ?x) (holding ?x) )))
  (:derived
    (HBlue)
      (exists (?x - BlockType) (and (isBlue ?x) (holding ?x) )))
  ;; ##### ACTIONS #####
  (:action pickTop
    :parameters  (?x ?y - BlockType)
    :precondition (and (on ?x ?y) (clear ?x) (arm_empty))
    :effect (and (holding ?x) (clear ?y)
                (not (on ?x ?y)) (not (clear ?x)) (not (arm_empty))))

```

```
  (:action colR
    :parameters (?x - BlockType)
    :precondition (and
              (holding ?x) (isRed ?x) )
    :effect (and (inRedBox ?x) (arm_empty) (not (holding ?x))    )
  )
  (:action colG
    :parameters (?x - BlockType)
    :precondition (and
              (holding ?x) (isGreen ?x) )
    :effect (and (inGreenBox ?x) (arm_empty) (not (holding ?x))    )
  )
  (:action colB
    :parameters (?x - BlockType)
    :precondition (and
              (holding ?x) (isBlue ?x) )
    :effect (and (inBlueBox ?x) (arm_empty) (not (holding ?x))    )
  )
)
```