

Behavioral Contract:

The user attempts to move a worker.

Pre-conditions :

The player must have already deployed their workers, and it must be their turn to act. The game can get the action turn of each player by accessing the method *getActions()* in the Player class.

The destination for the worker must be within the game board, reachable in terms of level, and must not already be occupied by another worker or dome. Before any movement execution, the boundary and movement validity would be checked by *validBound(int x, int y)* and *validSurround(int x, int y, block)*. The block level and occupancy can be retrieved from the specific Block using *getLevel()* and *getOccupied()*.

Post-conditions :

After the worker is moved, their previous spot will be emptied and the new location will be recorded. The occupancy status of the block would be updated using *setOccupied()* of that block. Also, the key-value list between each worker and its new occupied block would also be updated using *setWorker()* method in the Player. The worker will now occupy this new space and the player's turn status will be updated. The *setAction()* method is used to update action behavior of each player. Finally, the game will assess if the player has met the winning criteria by *isRoundOver()* and *getWinner()*.