PROJECTILE UPDATE*

model: GAME projectile action output: STRING

-- make feature for the class make model

-- creates the client supplier link from model to this class

feature -- Commands incr proj id+

feature -- Oueries

require

ensure

make proj update+

feature -- attributes proj id: INTEGER

-- increments the current projectile id value by one

decr proj id+ -- increments the current projectile id value by one

update location(p: PROJECTILE)+

-- Updates the projectile 'p' location -- It can either be "out of board" or at a location "[X,Y]"

update location list(p list: LINKED LIST[PROJECTILE]) -- Updates the location of a list of projectiles

-- Used when multiple projectiles of the same type are spawned set projectile action(output: STRING)

-- Appends 'output' to a string called 'projectile action output'

-- It is used to append output after a projectile moves or is spawned

get projectile(identity: INTEGER; projectile list: LINKED LIST[PROJECTILE]): PROJECTILE -- Returns a projectile based on the identity passed in

-- and the projectile list to look through (enemy or friendly projectile list)

identity exists: ∃identity: identity ∈ projectile list

proj apart of list: projectile ∈ projectile list

FRIENDLY PROJECTILE UPDATE+

feature -- Attributes projectiles: LIST[PROJECTILE]

move output: STRING feature -- Commands

create projectile: LINKED LIST[PROJECTILE]

-- Spawns a new projectile and appends it to a linked list that will be used for output to the game board

-- The spawn also appends the new projectile to the 'projectiles' list

move proj -- moves all existing projectiles in the list 'projectiles'

list not empty: $\exists x : x \in \text{projectiles}$