



states

BOARD +

feature -- Attributes

imp: ARRAY2[CHARACTER]
size: INTEGER
started: BOOLEAN
history: HISTORY

c_knight, c_king: COORDINATE

feature -- Commands

set_started
require \neg started
ensure started = true

move_king(a_coordinate: COORDINATE)
require valid_king_move(a_coordinate)
ensure c_king = a_coordinate \wedge imp[a_coordinate.x, a_coordinate.y] = "K"

move_knight(a_coordinate: COORDINATE)
require valid_knight_move(a_coordinate)
ensure c_knight = a_coordinate \wedge imp[a_coordinate.x, a_coordinate.y] = "N"

undo
require valid_undo

redo
require valid_redo

feature -- Queries

valid_size(a_size: INTEGER): BOOLEAN
ensure $5 \leq a_size \wedge a_size \leq 8$

valid_non_stacking_pos(a_move:COORDINATE):BOOLEAN
ensure $\neg a_move = c_king \wedge \neg a_move = c_knight$

valid_undo:BOOLEAN
ensure \neg history.before

valid_redo:BOOLEAN

valid_king_move(a_move: COORDINATE):BOOLEAN

valid_knight_move(a_move:COORDINATE):BOOLEAN

COORDINATE +

feature -- Attributes

x, y: INTEGER
board: BOARD

feature -- Queries

valid_within_board_size(a_x, a_y:INTEGER):BOOLEAN
ensure $(1 \leq a_x \wedge a_x \leq board.size) \wedge$
 $(1 \leq a_y \wedge a_y \leq board.size)$

invariant

valid_within_board_size(x, y)

c_knight, c_king: ..

history: ..

HISTORY +

feature -- Attributes

imp: LIST[MOVE]

feature -- Queries

after:BOOLEAN
ensure Result = imp.after

before:BOOLEAN
ensure Result = imp.after

on_item:BOOLEAN

item:BOOLEAN

feature -- Commands

forth
require \neg after

back
require \neg before

remove_right

extend_history