# ERROR in Spanish Checkers: Next turn is not given to opponent when player's piece becomes king.

Status: **UNSOLVED** - 29/10/2019

#### Error in:

Scenario Outline: Crowning the Eligible Piece
Given the game is played up to a certain point from file "<file\_name>"
When the player picks a valid source coordinate that has a "pawn" piece in it
And the player picks a valid destination coordinate in opponent's crownhead
Then the piece is "promoted" to a crowned piece
And the piece is moved to the destination coordinate
>>>>>>>> And the next turn is given to the "other" player

## Examples:

```
file_name | explanation | crowningTheEligiblePiece3 | f: there are possibilities for a jump move but piece is crowned, so the next turn should be given to the opponent
```

# The game set-up in SpanishCheckers.ini file is specified as follows:

[crowningTheEligiblePiece3]
boardSetUp=crowningTheEligiblePieceBoard1
playerMove=0,2>2,0
turn=white

[crowningTheEligiblePieceBoard1]
3,5=black-pawn

4,6=white-queen

6,6=black-pawn

0,2=white-pawn

1,1=black-pawn

5,1=white-pawn

3,1=black-pawn

## **Expected Behavior:**

The pawn piece reaches opponent's crownhead with a jump move. There are still possibilities for performing another jump move but the turn should be given to the opponent because the pawn became king.

#### **Actual Behavior:**

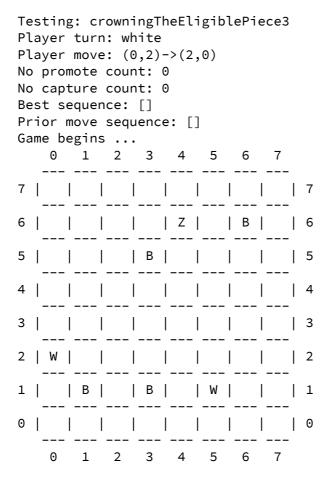
The player's turn is not terminated even after his piece becomes king, and he is asked for another jump move.

#### Error:

The piece becoming king (crowning) does not terminate player's turn immediately.

# **Test Outputs:**

## Before the move is conducted:



# **Test Outputs:**

After the move is conducted:

```
TEST ABORTED!!!!!
Test: crowningTheEligiblePiece3
Informers: [Player will be asked for another destination coordinate
(previous move was a jump move) (there are still possibilities for a
jump move).]
Final Informers: [Player will be asked for another destination
coordinate (previous move was a jump move) (there are still
possibilities for a jump move).]
Was player going to make another move?: true
End of the game?: false
Board:
    1 2 3 4 5 6 7
  --- --- --- --- --- ---
7 | | | | | | 7
5 | | B | | 5
4 | | | | 4
1 | | B | W | 1
0 | | Z | | | 0
  0 1 2 3 4 5 6 7
```

## HOW DOES CUCUMBER HELP US FIND THE PROBLEM?

The following method in AmericanCheckersScenarioTester (superclass of SpanishCheckersScenarioTester) fails (lines are renumbered):

```
1 @Override
 2 public void theNextTurnIsGivenToTheP1Player(String p1) {
    if (referee.getInfo().isGameEnded()) {
      output("Informers: " + referee.getInfo().getInformers().toString());
 5
    assertFalse(referee.getInfo().isGameEnded());
 6
    if (p1.equals("other")) {
8 assertFalse(referee.getInfo().isPlayerWasGoingToMakeAnotherMove());
      assertFalse(referee.getCurrentPlayer().equals(playerOfPlayerMove));
    } else if (p1.equals("current")) {
10
      assertTrue(referee.getInfo().isPlayerWasGoingToMakeAnotherMove());
11
      assertTrue(referee.getCurrentPlayer().equals(playerOfPlayerMove));
12
13
    }
14 }
```

And we know that the game thinks player was still going to make another move.

## WHERE IS THE PROBLEM?

While American Checkers' Referee class checks whether the piece has become king or not before giving the player another turn (in conductCurrentPlayerTurnAgain(...) method), there is such check in Spanish Checkers' Referee class.

Note: The same error also causes crowningTheEligiblePiece5 test to fail.