

## 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:

Testing: crowningTheEligiblePiece3

Player turn: white

Player move: (0,2)->(2,0)

No promote count: 0

No capture count: 0

Best sequence: []

Prior move sequence: []

Game begins ...

	0	1	2	3	4	5	6	7	
7									7
6					Z		B		6
5				B					5
4									4
3									3
2	W								2
1		B		B		W			1
0									0
	0	1	2	3	4	5	6	7	

## 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:

	0	1	2	3	4	5	6	7	
7									7
6					Z		B		6
5				B					5
4									4
3									3
2									2
1				B		W			1
0			Z						0

## 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) {
3     if (referee.getInfo().isGameEnded()) {
4         output("Informers: " + referee.getInfo().getInformers().toString());
5     }
6     assertFalse(referee.getInfo().isGameEnded());
7     if (p1.equals("other")) {
8         assertFalse(referee.getInfo().isPlayerWasGoingToMakeAnotherMove());
9         assertFalse(referee.getCurrentPlayer().equals(playerOfPlayerMove));
10    } else if (p1.equals("current")) {
11        assertTrue(referee.getInfo().isPlayerWasGoingToMakeAnotherMove());
12        assertTrue(referee.getCurrentPlayer().equals(playerOfPlayerMove));
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.