

# Excel PONG Tutorial #9

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- animating the score display, adding new-game and end-game sound effects

- The previous tutorial (#8) showed how to build a game score display in the upper part of the pong court. This section (which is a continuation of part#8) will explain the VBA upgrades needed to make the score functional. In this section we will add new-game and end-game sound effects too. Next tutorial will explain how to create a "demo play" option which means that both bats will be automatically run by worksheet logic.



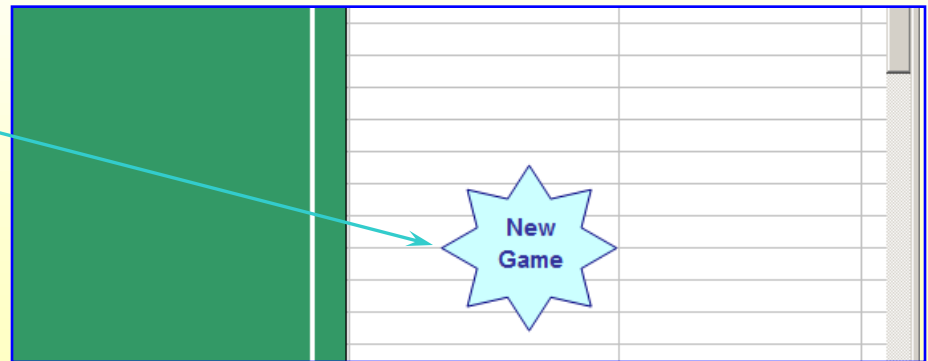
### 53. Create a new copy of the worksheet

- In the folder "Pong\_Tutorial\_Archive" open Pong\_Tutorial\_Advanced.xls and copy the last worksheet (Pong\_Tutorial\_8). Rename the new worksheet Pong\_Tutorial\_9.
- Using the VBA editor insert a new module, Module3. Copy all the code from Module2 into Module3.
- Change the name of the Serve\_8 macro into Serve\_9.
- Change the name of the Play\_Tutorial\_8 macro into Play\_Tutorial\_9.
- Change the name of the Collision\_Effects\_8 macro into Collision\_Effects\_9.
- Reassign the Serve\_9 and Play\_Tutorial\_9 to the Serve and Play buttons in the new worksheet.
- Reassign the Enable\_Sounds macro attached to the new worksheet to the new Enable\_Sounds button.
- Also make sure you call the Collision\_Effects\_9 macro within the Play\_Tutorial\_9 macro.

### 54. Write the "New Game 9" macro

- We introduced two more sound files in the same folder with the excel file: "new\_game.wav" and "end\_game.wav".
- Create a new button and assign to it the macro to the right (written in Module3)
- This macro will reset the score, bring the ball in the serve position and play a little tune (the "new\_game.vaw")

```
Sub New_Game_9()  
[R33:S33] = 0  
Call PlaySound(ThisWorkbook.Path & "\new_game.wav", 0&, &H1)  
On Error Resume Next  
Serve_9  
End Sub
```



## 55. Upgrade the existing macros

All the collision effects (sounds and scoring) will happen only if the sound is enabled and the score is below the maximum score of 25.

If the score reaches the maximum of 25 the ball is reset (Serve\_9 macro is called), the end\_game sound effect is played and the macro is exit.

After the sound effects accompanying the “missed bat events” are triggered, a score increment is added. If Player#1 misses the ball, Player#2 scores one point and vice versa.

### **Sub Play\_Tutorial\_9()**

RunPause = Not RunPause

Dim Pt0 As POINTAPI

Dim Pt1 As POINTAPI

GetCursorPos Pt0

Do While RunPause = True

DoEvents

GetCursorPos Pt1

[S6] = [P8] \* (-Pt1.Y + Pt0.Y)

On Error Resume Next

Range("R28:Y29") = Range("R27:Y28").Value

**If [P1] = "ON" And ([S33] < 25 Or [R33] < 25) Then Collision\_Effects\_9**

The old code is in black.

```
If ([S33] = 25 Or [R33] = 25) Then
    Serve_9
    Call PlaySound(ThisWorkbook.Path & "\end_game.wav", 0&, &H1)
    Exit Sub
End If
Loop
End Sub
```

### **Sub Collision\_Effects\_9()**

If [T15] Then Call PlaySound(ThisWorkbook.Path & "\wall\_bounce.wav", 0&, &H1)

If [T16] Or [T18] Then Call PlaySound(ThisWorkbook.Path & "\bat\_bounce.wav", 0&, &H1)

If [T17] Then

Call PlaySound(ThisWorkbook.Path & "\crowd\_applause.wav", 0&, &H1)

**[S33] = [S33] + 1**

End If

If [T19] Then

Call PlaySound(ThisWorkbook.Path & "\crowd\_laugh.wav", 0&, &H1)

**[R33] = [R33] + 1**

End If

On Error Resume Next

**End Sub**

The old code is in black.

to be continued...