



Game Clock - Start/Stop Logic

By Bodom, December 26, 2013 in ROM Editing Discussion

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Tecmo Legend



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Location: Boston MA

Posted December 26, 2013

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Anyone know if there's different locations in the game that trigger the game clock to start and stop?

For example, I know there's a separate location that controls the clock at the play selection menu...so I'm wondering if there's different locations for offensive plays vs. kickoffs.

Some **random** thoughts...

- Can the clock start upon KR receiving the ball vs. actual kickoff
- Can the clock start 'x' number of seconds after kicked off
- Can the clock run slower or not at all during kickoffs

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Yak reacted to this

**bruddog**

Posted December 26, 2013

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Down with button mashing

The first and third option would probably be easier to implement.



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Location: Ca

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↑ 1

Yak reacted to this



Bodom

Tecmo Legend



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3,912 posts

Location: Boston MA

Posted December 27, 2013

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On 12/26/2013 at 6:06 AM, Bodom said:

- Can the clock start upon KR receiving the ball vs. actual kickoff

I think this would be the best option.

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bruddog

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Moderators

+ 3,074

11,466 posts

Location: Ca

Posted December 27, 2013

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I'll try and look into it when i get a chance.

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Bodom

Tecmo Legend



Posted December 27, 2013

Report post

On 12/27/2013 at 12:31 PM, bruddog said:

I'll try and look into it when i get a chance.



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3,912 posts

Location: Boston MA

Thanks, bruddog. Nothing urgent, though. I know you have more elaborate hacks in the works. I'm just tossing around ideas.

+ Quote



Dusto

Starter



Members

+ 57

122 posts

Posted January 8, 2014

Report post

i'd love for that to be the case. You lose (trying to recall from memory) like 5-7 seconds of the ball in the air. If you had that and the fair catch hack, that gives you a hail marry that you wouldn't have had.

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Bodom

Tecmo Legend



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Location: Boston MA

Posted January 8, 2014

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On 1/8/2014 at 8:56 AM, Dusto said:

i'd love for that to be the case. You lose (trying to recall from memory) like 5-7 seconds of the ball in the air. If you had that and the fair catch hack, that gives you a hail marry that you wouldn't have had.

Exactly.

Also - to mimic the NFL as closely as possible, I use a ROM that allows kickoffs to go out of the endzone for a touchback. If you score to take the lead with less than 10 seconds left, game over.

+ Quote



bruddog

Down with button mashing



Posted January 8, 2014

Report post

As usual the main problem here is space limitations not figuring out how to do this. As the bank that is in is a quite full one. I'd have to do some painful bank switching to get this working for both sides. Here is code that will have the clock not starting until the player 2 Kick returner has received the ball. This also won't work on onsides....requiring more bank switching.



Moderators

+ 3,074

11,466 posts

Location: Ca

@240B8

00 // replace 80 with 00. This prevents the clock from starting on P2
kickoff

@24840

00 // replace 80 with 00. This prevents the clock from starting on P1
kickoff

@24865

JMP \$9FF0 // jump to hack

EA // NOP

Hex to paste in: 4CF09FEA

////////////////////////////////////

@ 26000

LDA *\$72 // load ball status value from ram location (\$72)

AND #\$20 // and with #20 (ball received code)

BEQ RET // if not received go back to main loop it came from

LDA #\$80 // if received load count down clock value

STA *\$69 // store count down clock code into clock status location (\$69)

JMP \$886B // return to next instruction in sequence.

RET

JMP \$8850 // jump back to beginning of loop we came from

Hex to paste in: A5722920F007A98085694C6B884C5088

+ Quote

 3



You, pambazos88 and Yak reacted to this

Bodom

Tecmo Legend



Members

+ 876

3,912 posts

Location: Boston MA

Posted January 10, 2014

Report post 

Thanks bruddog. I'm looking forward to testing this out (soon as I'm done with the work week from hell).

+ Quote

 1



Yak reacted to this

jesseguild5

Member



Members

+ 4

27 posts

Posted January 11, 2014

Report post 

I always felt that the punts ate up way too much time also, if you could stop the clock during any special teams play i would be happy.

+ Quote



Bodom

Tecmo Legend



Members

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3,912 posts

Location: Boston MA

Posted January 15, 2014

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On 1/8/2014 at 3:30 PM, bruddog said:

@ 26000

Hex to paste in: A5722920F007A98085694C6B884C5088

Just found out this space is already taken by the 'Conditions Change Every Play" hack. (I'm probably the only one on this site that actually likes that one!).

No worries. I'm going to try a few games with the clock not running on kickoffs and go from there. Thanks again.

+ Quote

DFM reacted to this

1

adsc184

Promising Rookie



Members

+ 29

96 posts

Posted December 29, 2015

Report post

On 1/11/2014 at 9:15 AM, jesseguild5 said:

I always felt that the punts ate up way too much time also, if you could stop the clock during any special teams play i would be happy.

I ran the code logger during a punt and the only code I could find that seemed like it would keep the clock from running -- the "a980" at x255dc -- is used during all plays. Unfortunately, I don't think the game has separate clock logic for anything other than kickoffs.

+ Quote

bruddog

Down with button mashing



Moderators

+ 3,074

11,466 posts

Location: Ca

Posted December 29, 2015

Report post

There is definitely separate clock logic for punts. It gets set to a slower than normal countdown speed while the punter has the ball and then back to normal speed once he's punted it.

+ Quote

adsc184

Posted December 29, 2015 (edited)

Report post

Promising Rookie



Members

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96 posts

On 12/29/2015 at 1:21 PM, bruddog said:

There is definitely separate clock logic for punts. It gets set to a slower than normal countdown speed while the punter has the ball and then back to normal speed once he's punted it.

That's good to know, but i wish i knew more about this stuff. I'd like to stop the clock on punts. I just learned about the code logger yesterday and started messing with it.

I just searched for "a980" since changing the 80s to 00 stop the clock from running on kickoffs. There was a lot more a980's in yellow than i was expecting after just a few seconds of gameplay. I changed a bunch of them to 00 with no visible effect or the game would glitch. Then again, i really don't know what I'm doing so I'm not surprised if it's something totally different i should be looking for.

Edited December 29, 2015 by adsc184

+ Quote



bruddog

Down with button mashing



Moderators

+ 3,074

11,466 posts

Location: Ca

Posted December 29, 2015

Report post

I'll help you along. Memory location \$69 is the clock status register. There is 4 types of clock status (stopped, play select, punter has ball, normal). Set a write break point on that

+ Quote

1

adsc184 reacted to this



adsc184

Promising Rookie



Members

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96 posts

Posted December 29, 2015

Report post

I appreciate that. I kinda like trying to figure it out for myself, but I definitely need help. I felt a great sense of accomplishment when I figured out how to make an 8 team playoff correctly, even though I have no idea how to fix the problem with the bracket. I'd like to start reading some of the stuff on programming but it's a lot of information to take in.

I have no idea what \$69 means (I'm familiar only with hex), but I'll take a look at some of the programming docs and see if I can figure it out. I'll report back in a day or so.

+ Quote



bruddog

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Moderators

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11,466 posts

Location: Ca

Posted December 29, 2015

Report post

The NES has memory like any other computer. \$69 refers to a memory location. In this case \$69 is the memory location where the clock status is stored. When you are searching for a9 80 you have been searching for

LDA #\$80

This value then gets save to the clock status memory location changing the clock status to normal running clock.

in FCEUX

Click on debug->debugger

Under Breakpoints

Click add

Type 0069 in both of the address boxes

click on the write check box

+ Quote



adsc184

Promising Rookie



Members

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96 posts

Posted December 29, 2015

Report post

Is it normal for FCEUX to freeze? I first tried it on a kickoff since I knew where that hex code was. Then, when I snapped the ball on my punt, it went to 255dd so I think I understand how it works (except how someone would figure out \$69 is the proper memory location). But I end up having to close and reopen the emulator and reload the rom.

+ Quote



adsc184

Promising Rookie



Members

+ 29

Posted December 29, 2015 (edited)

Report post

This is hard, trying to not freeze the game while trying to get the punt off without getting sacked while manipulating the debugger so I can see where it points me. I got a punt off and it went to 243e7. I see that a980 on the kickoff codes is followed by the 8569 I got there. I see 29df at 243e5, so I'm assuming that does the clock. Setting df to 00 caused the clock not to run after the punt (hooray!). So, what exactly is the significance of "a9" and "29"?

96 posts

Thanks a million! Now I just got force the com to punt so I can change the code for player 2 (if there is one). There is: x24b6e.

Edited December 29, 2015 by adsc184

+ Quote



bruddog

Down with button mashing



Posted December 29, 2015

Report post

You have to click on run once the breakpoint is triggered

+ Quote



Moderators

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11,466 posts

Location: Ca

adsc184

Promising Rookie



Members

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96 posts

Posted December 29, 2015

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Like I said, I have no idea what I'm doing...

Thanks for all the help. Now, I just have to figure out how to determine memory locations for things. I guess it's time to start reading about 6502.

+ Quote



Atrain400

Promising Rookie



Members

+ 13

73 posts

Location: Philadelphia, PA

Posted February 8, 2016

Report post

Tried this and it seems to work fine. Any thoughts on where the change would be to have the clock start running once P1 receives the kickoff?

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SBlueman

Tecmo Legend



Members

+ 289

1,048 posts

Location: San Jose, CA

Posted October 9, 2016

Report post

✓ On 1/8/2014 at 3:30 PM, bruddog said:

As usual the main problem here is space limitations not figuring out how to do this.
As the bank that is in is a quite full one. I'd have to do some painful bank switching to get this working for both sides. Here is code that will have the clock not starting until the player 2 Kick returner has received the ball. This also won't work on onsides....requiring more bank switching.

@240B8

```
00 // replace 80 with 00. This prevents the clock from starting on P2  
kickoff
```

@24840

```
00 // replace 80 with 00. This prevents the clock from starting on P1  
kickoff
```

I found [some codes on this site](#) and from what I interpreted it would mean this SET command would do the trick, am I missing anything?

#No Clock on Kickoffs

```
SET(0x240B8, 0x00)
```

```
SET(0x24840, 0x00)
```

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Check out my other releases: [SBlueman's Downloads](#)

Have any SET commands to share? Post 'em up in this thread: [SET Command List \(Use with NES TSB & TSBTool\)](#)

bruddog

Down with button mashing



Moderators

+ 3,074

11,466 posts

Location: Ca

Posted October 9, 2016

Report post

nope..

+ Quote



1



You reacted to this

SBlueman

Tecmo Legend



Members

+ 289

1,048 posts

Location: San Jose, CA

Posted October 9, 2016

Report post

Ok cool. However, I do see that implementing that code completely freezes the clock. Is there a way to edit it so the clock starts once the kick return man handles the kickoff?

+ Quote Edit Options





Check out my latest release: [Tecmo Super Bowl 2020 - SBlueman Edition](#)

Check out my other releases: [SBlueman's Downloads](#)

Have any SET commands to share? Post 'em up in this thread: [SET Command List \(Use with NES TSB & TSBTool\)](#)

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By Bodom, December 26, 2013 in ROM Editing Discussion

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TheRaja

TFO Chief Operating Officer



Members

+73

273 posts

Owner of the Tecmo Football Owners (TFO)

Posted October 11, 2016

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On 10/9/2016 at 2:49 PM, SBlueman said:

I found [some codes on this site](#) and from what I interpreted it would mean this SET command would do the trick, am I missing anything?

#No Clock on Kickoffs

SET(0x240B8, 0x00)

SET(0x24840, 0x00)

So this is No Clock on Kickoffs but resumes Clock for other segments is that correct? I assume this could also be applied to Punts once the values are found. I think I may use this



Quote



1



You reacted to this

DamPenguin

Member



Posted July 21, 2017

[Report post](#)

Just a friendly bump. Was hoping that [bruddog](#) or one of the other great hackers could get it working for the P1 side as well. (Where the clock begins to run once the returner receives the ball).



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