



## TSB - Clinching Division Cutsceen By TheRaja, January 16, 2013 in Hacking Documentation

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TheRaja **TFO Chief Operating Officer** 



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Posted January 16, 2013

Hey all;

I am working on my TFO rom and have each team playing 11 games in the season over 17 weeks. I notice that since I am not playing 16 games that the Clinching Division Cutscenedoesn't usually appear until after all games have been played (end of week 17).

Even though they are only playing 11 games the cutscene is still looking at it like they have 16 games total, and only when all weeks are over it just spits out the top teams like it normally does. I know this is true because if a team is 10-0 and the next team in their division is 3-7 then it will show the cutscene during the season because even if the 2nd team was to win the remaining "6" games they still wouldn't be able to overtake the team at 10-0.

I'm wondering where the algorithm for the Clinching Division is as I'm fairly sure their has to be a variable that takes 16 (number of original games played) into the equation and I'd like to change it to 11 (how many games my teams will play) so that when a team clinches their division with say 7-2 that it appears right away and not at the end of the season.





## TheRaja TFO Chief Operating Officer

Posted January 16, 2013

Found that 0x022e4b determines what week to start checking for Divisional Champs, but changing it just has it check earlier in the season. Not even sure why they had to place a "when to start" variable and why that variable was set to Week 10 but oh well closer to finding that variable <sup>(1)</sup>



Posted January 16, 2013

TheRaja TFO Chief Operating Officer

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Found some info while searching the boards. Quote comes from <u>http://tecmobowl.org/topic/3569-editing-playoff-schedule-for-tsb-nes/?</u> <u>hl=x22e47#entry80324</u>

## • On 5/25/2007 at 12:32 PM, cxrom said:

firgured i'd post this here as well. all code is executed after a cmp #\$09 at 0x22E4B if the week# > #\$09. thanks to jstout for pointing me to the starting point.

\$AE64:85	8E	STA \$008E = #\$02	
\$AE66:0A		ASL	
\$AE67:A8		ТАҮ	
\$AE68:B9	5D BF	LDA \$BF5D,Y @ \$BF61 = #\$08	
\$AE6B:85	8F	STA \$008F = #\$08	
\$AE6D:85	90	STA \$0090 = #\$08	
\$AE6F:B9	5E BF	LDA \$BF5E,Y @ \$BF62 = #\$04	
\$AE72:85	91	STA \$0091 = #\$04	
\$AE74:85	92	STA \$0092 = #\$00	
\$AE76:A9	00	LDA #\$00	
\$AE78:85	93	STA \$0093 = #\$08	

this code gets the starting index of the division and the number of teams in that division based on what A is at \$AE64.

\$AE7A:A5	8F		LDA	\$008F = #\$08	
\$AE7C:20	DE	DE	JSR	\$DEDE	
\$AE7F:A0	Β3		LDY	#\$B3	
\$AE81:B1	3E		LDA	(\$3E),Y @ \$6D62 = #\$3F	
\$AE83:85	44		STA	\$0044 = #\$50	
\$AE85:A0	B2		LDY	#\$B2	
\$AE87:18			CLC		
\$AE88:71	3E		ADC	(\$3E),Y @ \$6D62 = #\$3F	
\$AE8A:A0	Β4		LDY	#\$B4	
\$AE8C:18			CLC		
\$AE8D:71	3E		ADC	(\$3E),Y @ \$6D62 = #\$3F	
\$AE8F:85	45		STA	\$0045 = #\$00	
\$AE91:A9	10		LDA	#\$10	
\$AE93:38			SEC		
\$AE94:E5	45		SBC	\$0045 = #\$00	
\$AE96:A0	B2		LDY	#\$B2	
\$AE98:18			CLC		
\$AE99:71	3E		ADC	(\$3E),Y @ \$6D62 = #\$3F	
\$AE9B:85	45		STA	\$0045 = #\$00	
\$AE9D:20	1B	B4	JSR	\$B41B	
\$AEA0:A6	93		LDX	\$0093 = #\$08	
\$AEA2:95	9E		STA	\$9E,X @ \$019D = #\$00	
\$AEA4:A5	8F		LDA	\$008F = #\$08	
\$AEA6:95	9F		STA	\$9F,X @ \$019E = #\$10	
\$AEA8:E6	93		INC	\$0093 = #\$08	
\$AEAA:E6	93		INC	\$0093 = #\$08	
\$AEAC:E6	8F		INC	\$008F = #\$08	
\$AEAE:C6	91		DEC	\$0091 = #\$04	
\$AEB0:D0	C8		BNE	\$AE7A	

this code calculates a rating based on the highest possible win percentage for each team in the division and stores it to an array starting at \$9E that goes .

\$AEB2:A5	92	LDA	\$0092	=	#\$00
\$AEB4:85	91	STA	\$0091	=	#\$04
\$AEB6:A5	90	LDA	\$0090	=	#\$08

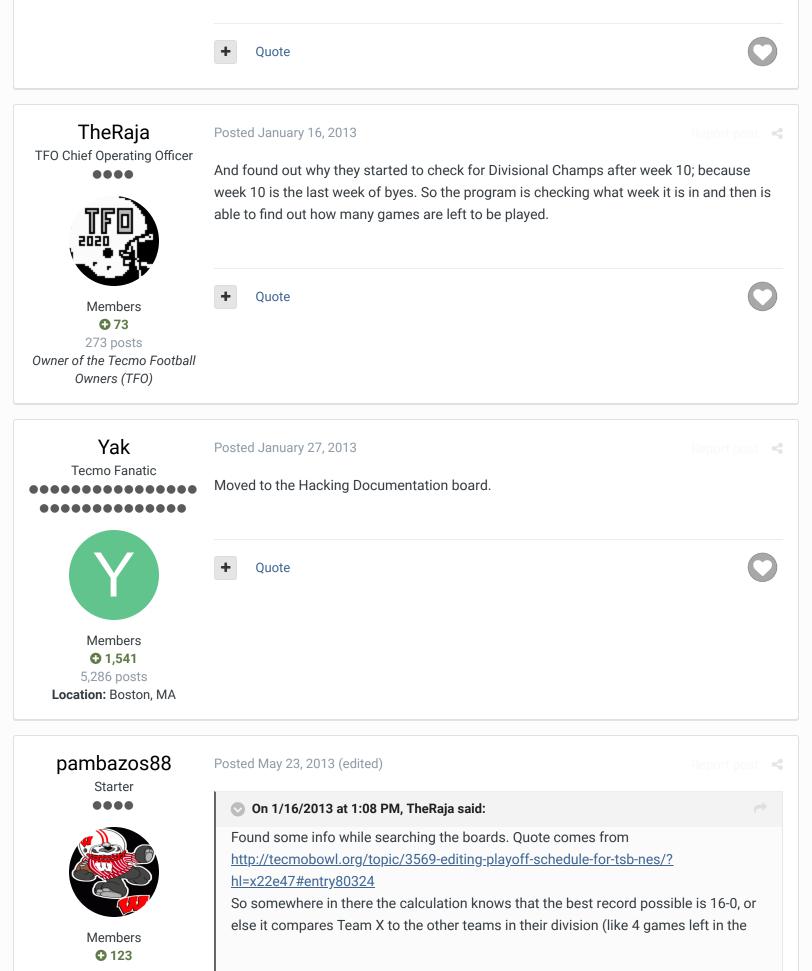
\$AEB8:20	DE	DE	JSR	\$DEDE
\$AEBB:A0	B2		LDY	#\$B2
\$AEBD:B1	3E		LDA	(\$3E),Y @ \$6D62 = #\$3F
\$AEBF:85	45		STA	\$0045 = #\$00
\$AEC1:A0	Β4		LDY	#\$B4
\$AEC3:18			CLC	
\$AEC4:71	3E		ADC	(\$3E),Y @ \$6D62 = #\$3F
\$AEC6:A0	Β3		LDY	#\$B3
\$AEC8:18			CLC	
\$AEC9:71	3E		ADC	(\$3E),Y @ \$6D62 = #\$3F
\$AECB:85	44		STA	\$0044 = #\$50
\$AECD:A9	10		LDA	#\$10
\$AECF:38			SEC	
\$AED0:E5	44		SBC	\$0044 = #\$50
\$AED2:18			CLC	
\$AED3:71	3E		ADC	(\$3E),Y @ \$6D62 = #\$3F
\$AED5:85	44		STA	\$0044 = #\$50
\$AED7:20	1B	B4	JSR	\$B41B

this code calculates the same rating from above, but for the current team (index @ \$90). this rating reflects the team if they lose the rest of their games.

\$AEDA:85	44	STA	\$0044	=	#\$50			
\$AEDC:A4	91	LDY	\$0091	=	#\$04			
\$AEDE:A2	00	LDX	#\$00					
\$AEE0:A5	90	LDA	\$0090	=	#\$08			
\$AEE2:D5	9F	CMP	\$9F,X	@	\$019E	=	#\$10	
\$AEE4:F0	06	BEQ	\$AEEC					
\$AEE6:B5	9E	LDA	\$9E,X	@	\$019D	=	#\$00	
\$AEE8:C5	44	CMP	\$0044	=	#\$50			
\$AEEA:B0	25	BCS	\$AF11					
\$AEEC:E8		INX						
\$AEED:E8		INX						
\$AEEE:88		DEY						
\$AEEF:D0	EF	BNE	\$AEE0					

this code compares the rating for the current team (\$90 from above) to all the "ideal" ratings (array @ \$9E) for each team in the division. execution drops to \$AEF1 to make the current team their division leader.

So somewhere in there the calculation knows that the best record possible is 16-0, or else it compares Team X to the other teams in their division (like 4 games left in the season, but need 5 wins to be division champ so that team is dropped from the equations). Gonna dig more.



155 posts Location: MX season, but need 5 wins to be division champ so that team is dropped from the equations). Gonna dig more.

## On 1/16/2013 at 1:54 PM, TheRaja said:

And found out why they started to check for Divisional Champs after week 10; because week 10 is the last week of byes. So the program is checking what week it is in and then is able to find out how many games are left to be played.

Man I found something on this topic:

As you did find on jstout's notes, at offset x22E4B it is said :

```
$AE3A:C9 09 CMP #$09 ; Week to start checking (for DIVISION
CHAMPS I guess..)
```

I know the CORRECT answer is within the notes posted by *cxrom*, but they are way over my head (seriously I dont understand a thing in there).

Anyway, in your rom you put a **04** (at that x**22E4B** offset), but if you input a **0E**, ( or **0F** worked ALMOST right for my rom) it will trigger that "search-week" later, it seems.. but you have to "trigger" it before the end of season (week 17). So, at offsets x**22EDD**-x**22EDE**, try the value **A2 10** (I dont know why and I wish someone can tell me please **what these bytes stand for?**, it might seem that the 10 (HEX=16) is for the 16 you mentioned in your post, about the record but thats just guessing.

This will make **SOME** teams leading their division by **2** games or more, to play that CUTSCENE after the **0E** ("X") week, because of "the maths" they're the "virtual" Division champs no matter next results. Making a "crushing" team even more "feared", (or making you believe that they've qualified with ease just because of that cutscene..) NOW, I KNOW IT HAS A PROBLEM, and if I remember correctly, sometimes it "PREcalculates", turning the champion into the second place of its division (because its record can still be tied...) So you have to "play" with the value for the "start-checking-week" and with the "10", or you have to change another value somewhere (I haven't found where yet) for it to work correctly.

					DINGS		
R	ACKL	.E L	L	T	PCT.		SECT OP
	R NVM	8	1	0	. 888	201	155
z	Nes Wes	6	з	0	. 666	244	207
31	<b>Q</b> GRE	з	6	0	. 333	178	189
a	<b>е</b> А. А	з	6	0	. 333	175	200

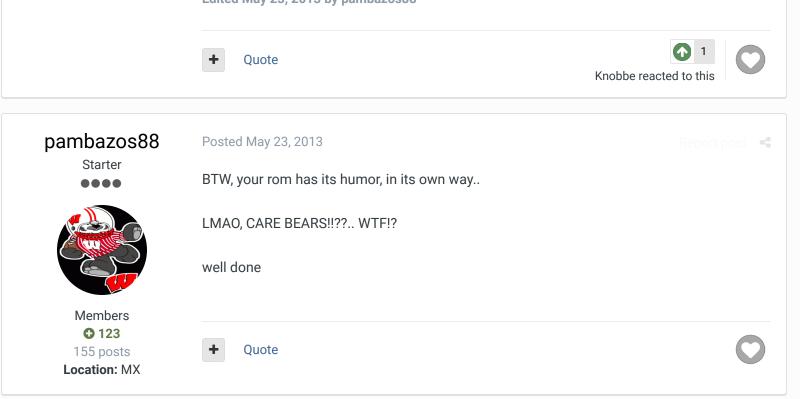
when **0E** is input at offset x**22E4B** it "precalculates" it wrong, cause as you can see, season has 2 games left, for it to end.

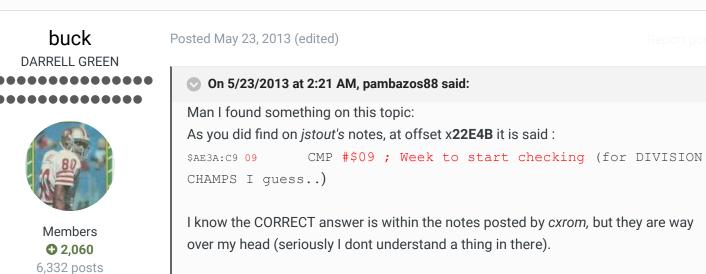
If WESTEROS wins those 2, and if WOLVERINES loses both. the two teams would end up with a TIED record. and the winner, will not always be the "pre-selected-champ" CUTSCENE has been already shown.

R		W	L	Т	PCT.	PTS	OF
Ť	<b></b> wew	7	з	0	. 700	266	233
z	R AXE	6	5	0	. 545	299	259
з	R TBG	5	6	0	. 454	244	24:
4		з	7	0	. 300	189	283

But when **OF** is the "X-week", this "calculation" will be correct (I'm pretty sure it won't anyway. that's why I removed it from my notes, but I checked and checked with your rom and it worked out right all the time...) The problem is that CUTSCENE will appear until the last week (kinda late), right after *AXE* lost their last game, but You can see The *MAULERS* have not played their last game yet.

\*\*And when I say "OF is input (at offset x22E4B)", also the offset x22EDD needs to be changed with A2. (or A7, or I dont remember..)
Edited May 23, 2013 by pambazos88





Location: Tecmo Super Street Tecmo Titles: Lincoln V (2015)

cxrom's post is just a list with 3 columns. each row sequentially follows the previous row.

1. the left column is the address (location), followed by ":" for some reason.

2. the middle column is the actual "hex code" at the address (usually a byte or word)

3. the third column is just a "description" or hint at what the hex code is doing.

in example quoted here, it is saying:

starting at address xAE3A "C909"

CMP #\$09 is just a verbal description telling you that C9 is a "compare" function using value "09"

maybe you already knew that? just thought it might help. I have attached a text file which is a list of NES 6502 processor "op codes", which can be helpful to decipher the code, too. 6502 opcodes.txt

Edited May 23, 2013 by buck

Quote

pambazos88 reacted to th

"The right to speak and the right to refrain from speaking are complementary components of ... 🕷 🗸 'individual freedom of mind."

link to change one's signature

TheRaja Posted May 23, 2013 **TFO Chief Operating Officer** Thanks for these updates. My next version won't care cuz we expanded our league to 28 teams, but this stuff is still very interesting to me. And the teams in my rom were created by my friends. They are a bunch of crazy guys and girls Chttp://tfofootball.weebly.com shows our season, with the "Super Bowl" taking place Members this Sunday (Cleveland Steamers vs Westeros Guardians). 073 273 posts Owner of the Tecmo Football Owners (TFO) Quote pambazos88 Posted May 23, 2013 Starter On 5/23/2013 at 7:38 AM, buck said:





Members • 123 155 posts Location: MX starting at address xAE3A "C909"

CMP #\$09 is just a verbal description telling you that C9 is a "compare" function using value "09"

maybe you already knew that? just thought it might help. I have attached a text file which is a list of NES 6502 processor "op codes", which can be helpful to decipher the code, too.

ALREADY KNEW THAT ??? I knew SHIT !!..

Now, with this Document I can finally begin to understand what they are talking about (I dont know anything about this language either, but I can ask someone who does)

Thanks a lot man! I'll try to dig into it.







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SBlueman

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