



Tecmo mystery of int chance on overthrows solved...

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By bruddog, September 16, 2016 in Tecmo Super Bowl - NES

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Down with button mashing



Moderators

+ 3,074

11,466 posts

Location: Ca

Posted September 16, 2016

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Even after documenting the code I had missed this bug. Previously after documenting the game code for pass completions it appeared that game was doing the following:

Taking the QB's pass completion value (based on his pass control skill) subtracting the players interception value (based on his skill) doing some random number manipulations and then comparing the result to a threshold value 0x0E.

Working correctly this would result in high int players picking off more errant balls and high passing control QB's being much better at avoiding said interceptions.

However as most who have played the game extensively know...by far the most common result is for the pass to maddeningly bounce of the player harmlessly regardless of the player being used.

The reason for this is about to be explained. In all of the other passing calculation situations the QB's passing control completion value is loaded to the memory location \$DC. (unless I've missed any other bugs).

However for the case where the WR isn't close enough to the ball to catch it, the game does not load the QB's passing control completion value into \$DC. The problem and bug is the game is still using the value at \$DC in its calculation.

The game however uses the \$DC location as temporary variable location for processing the player scripts. The game is constantly processing the player scripts so the \$DC value

is constantly changing.

However by far the most common value in \$DC after a play has been going for awhile are the values 0xFE, 0xFD. These two commands are the player "script" commands to loop back to a previous command and set to block respectively

A value of 0xFD or 0xFE makes it impossible to intercept the ball. However there is a player script command that is very favorable D7 00 C0 which basically tells the DB to move backwards towards the endzone rather than play man to man. In this case 00 gets loaded into \$DC which makes its impossible not to intercept the ball.

Many of the player scripts for "picked plays" have players dropping back rather than playing man to man which might make things more favorable for interceptions in the case of overthrows on picked plays

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buck

DARRELL GREEN



Members

+ 2,060

6,332 posts

Location: Tecmo Super Street

Tecmo Titles: Lincoln V (2015)

Posted September 16, 2016

Report post

that is an awesome find, man! is the entire command to "load PC into \$DC" just missing from the code - and is there room to add it?

+ Quote



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

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segathonsov

Posted September 16, 2016

Report post

Tecmo Legend



Members

+ 2,040

2,466 posts

Location: South of the River
R.O.Y Buring Mort 2

Wow, great find

So if I am reading right on a huge overthrow it doesn't matter if you have Grogan or Montana throwing it because Pass Control is randomized?

+ Quote



bruddog

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Moderators

+ 3,074

11,466 posts

Location: Ca

Posted September 16, 2016

Report post

@buck yes it would be easy enough to use the routine that already exists that loads PC into DC. Most of the other pass calculations use this routine.

@segathonsov

You are correct although its not so much that PC is randomized as that its using a bogus value for PC. Most of the values wouldnt even fall in the normal PC range.

+ Quote



buck

DARRELL GREEN



Members

+ 2,060

6,332 posts

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

Posted September 16, 2016

Report post

On 9/16/2016 at 9:46 AM, bruddog said:

@buck yes it would be easy enough to use the routine that already exists that loads PC into DC. Most of the other pass calculations use this routine.

can't you make it happen, cap'n?

+ Quote



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

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bruddog

Down with button mashing



Moderators

+ 3,074

11,466 posts

Location: Ca

Posted September 16, 2016

Report post

Ya I'll post a fix at some point.



Quote



bruddog

Down with button mashing



Moderators

+ 3,074

11,466 posts

Location: Ca

Posted September 16, 2016

Report post

Here is a fixed version of the OG rom.

[TPC_TSB_overthrow_bug_fix.nes](#)



Quote



buck

DARRELL GREEN



Members

+ 2,060

6,332 posts

Location: Tecmo Super Street

Posted September 16, 2016

Report post

so, I tried to make a patch from this but it didn't work right. is it too much to post the fix locations and bytes?



Quote

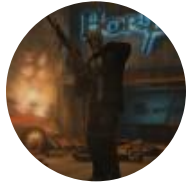


"The right to speak and the right to refrain from speaking are complementary components of ... 'individual freedom of mind.'"

[link to change one's signature](#)

kamphuna8

Tecmo Fanatic



PureTecmo Administrators



+ 3,917

14,517 posts

Location: Tacoma

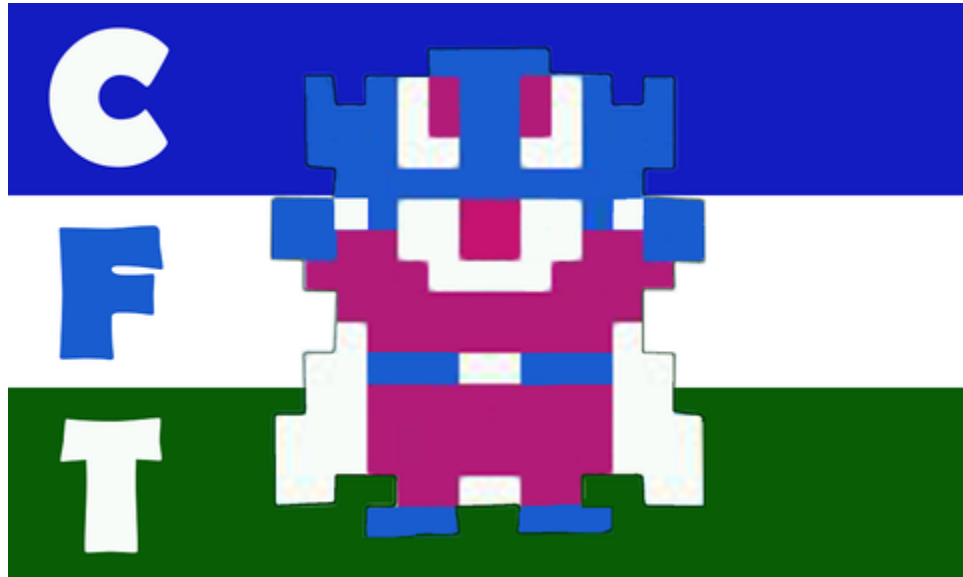
Tecmo Titles: Overrated
Overstated

Posted September 16, 2016

Report post

Your welcome Tecmo

+ Quote



tecmo gods, über alles

PLAY HARD

bruddog

Down with button mashing



Moderators

+ 3,074

Posted September 17, 2016

Report post

On 9/16/2016 at 6:46 PM, buck said:

so, I tried to make a patch from this but it didn't work right. is it too much to post the fix locations and bytes?

Probably because the rom you are patching it to has something in that location.

at 0x29DBC (assuming you have space the the 2BF40-2C00F) section

SET(0x29DBC, 0x4CFOBf)

JMP \$BFF0 ; jump to 0x2C000 in rom

11,466 posts

Location: Ca

SET(0x2C000, 0x20319E203D9E4CAF9D)

JSR \$9E31 ; checks for pass result already we wrote over this above so need to run the routine

JSR \$9E3D ; loads PC into \$DC and PC + REC into \$DD

JMP \$9DAF ; return to the location after the jump instruction

The location to jump to will have to be changed if there is something there. That section is used for a lot of the grapple hacks and some other jstout hacks so for other roms I'd probably have to post a bank switch routine.

+ Quote



bruddog

Down with button mashing



Moderators

+ 3,074

11,466 posts

Location: Ca

Posted September 17, 2016

Report post

This is the code for the no WR section:

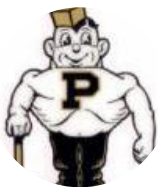


+ Quote



Tecmonster

rom producer



Members

+ 211

634 posts

Location: Reno, NV

Posted September 17, 2016

Report post

On 9/17/2016 at 8:15 AM, bruddog said:

Probably because the rom you are patching it to has something in that location.

at **0x29DBC** (assuming you have space the the 2BF40-2C00F) section

SET(0x29DBC, 0x4CFOBf)

JMP \$BFF0 ; jump to 0x2C000 in rom

SET(0x2C000, 0x20319E203D9E4CAF9D)

JSR \$9E31 ; checks for pass result already we wrote over this above so need to run the routine

JSR \$9E3D ; loads PC into \$DC and PC + REC into \$DD
JMP \$9DAF ; return to the location after the jump instruction

The location to jump to will have to be changed if there is something there. That section is used for a lot of the grapple hacks and some other jstout hacks so for other roms I'd probably have to post a bank switch routine.

Great stuff here, bruddog.

I didn't check every known hack ever made, but I didn't see a conflict at x29dbc. There is, however, a conflict at x2c000 with the "Quickness = Coverage" hack.

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bruddog

Down with button mashing



Moderators

[+](#) 3,074

11,466 posts

Location: Ca

Posted September 17, 2016

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Ya im sure there are a number of conflicts. I can write up a bankswitch version.

[+](#) Quote



Tecmonster

rom producer



Members

[+](#) 211

634 posts

Location: Reno, NV

Posted September 18, 2016

[Report post](#)

Cool, thanks.

[+](#) Quote



vikingmoe02

Tecmo Junkie

Posted September 23, 2016

[Report post](#)



@bruddog

Does it calculate differently for drones vs MAN controlled defenders?



Members

+ 614

1,019 posts

Location: St. Paul, MN

Tecmo Titles: 9



Quote



2017 TTL back-to-back Season 23 & 24 Online League Champion



2016 HSTL Season 34 Online League Champion

2015 Madison XI - Elite 8

2014 TTL Season 9 Online League Champion

2014 Madison X - Field of 32

2013 TRL Season 3 Online League Champion

2012 Minnesota Tecmo IV Live Tournament Champion

5-Time Sartell, MN *Cap Boso* Cup Live Tournament Champion ('12, '13, '14, '15, '16)

[sigs.php?player=2192](#)

bruddog

Down with button mashing



Posted September 23, 2016

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No.



Moderators

+ 3,074

11,466 posts

Location: Ca



Quote



rmm1976

HSTL and HSRL Founding Member



Posted September 23, 2016

Report post



Members

+ 2,237

16,576 posts

Location: Jacksonville, FL



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Overthrow Bug Fix Question

By Atrain400, January 19, 2018 in ROM Editing Discussion

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overthrow

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Promising Rookie



Members

+ 13

73 posts

Location: Philadelphia, PA

Posted January 19, 2018 (edited)

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If I don't have space at the exact location as Bruddog stated below for **0x29DBC**, can I just input it somewhere else, say **0x2BF70** ? I have plenty of room from this point on.

at **0x29DBC** (assuming you have space the the 2BF40-2C00F) section

SET(0x29DBC, 0x4CFOBf)*JMP \$BFF0 ; jump to 0x2C000 in rom***SET(0x2C000, 0x20319E203D9E4CAF9D)***JSR \$9E31 ; checks for pass result already we wrote over this above so need to run the routine**JSR \$9E3D ; loads PC into \$DC and PC + REC into \$DD**JMP \$9DAF ; return to the location after the jump instruction*

The location to jump to will have to be changed if there is something there. That section is used for a lot of the grapple hacks and some other jstout hacks so for other roms I'd probably have to post a bank switch routine.

Edited January 19, 2018 by Atrain400



Quote



bruddog

Down with button mashing



Moderators

+ 3,074

11,466 posts

Location: Ca

Posted January 19, 2018

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Yes you will have to change the 4CF0BF to 4C60B0 if you move it to 2BF70.

+ Quote



Atrain400

Promising Rookie



Members

+ 13

73 posts

Location: Philadelphia, PA

Posted January 19, 2018

Report post

Thanks bruddog. everything seems to be running fine. What exactly am I supposed to be seeing in the gameplay with this change?

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bruddog

Down with button mashing



Moderators

+ 3,074

11,466 posts

Location: Ca

Posted January 20, 2018

Report post

Seeing.... Nothing visually. It fixes a bug where the defenders int ratings aren't used on overthrows where the wr isnt near the ball.

+ Quote



jessegto

Posted July 21, 2018

Report post

Member



Members

+ 2

14 posts

Location: Madison, WI

On 1/19/2018 at 8:36 PM, bruddog said:

Yes you will have to change the 4CF0BF to 4C60B0 if you move it to 2BF70.

@bruddog Do you mean change from 4CF0BF -> 4C60BF?

+ Quote



bruddog

Down with button mashing



Posted July 22, 2018

Report post

@jessegto whoops good catch. You are correct

+ Quote



Moderators

+ 3,074

11,466 posts

Location: Ca



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By bruddog



View File Tecmo Super Bowl -NES (bugs fixed)

The original rom has been completely rebuilt. DO NOT TRY TO APPLY ANY OF THE HACKS LISTED ONE THE WEBSITE. It is extremely likely they won't work due to locations in the...

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