
Subject: Re: Syncing or changing BuildingGameObj 'IsDetroyed' state for clients
Posted by [dblaney1](#) on Sun, 04 May 2014 17:34:44 GMT

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iRANian wrote on Sun, 04 May 2014 02:25 To find the function epilogue to patch open Renegade and attach OllyDbg, make sure Renegade is already in the main menu. in OllyDbg go to 0x006843E0 then follow the jump at the location. The new scripts 4.1 uses SSE heavily so the instructions for functions look kinda weird. Scroll up to find this kind of pattern at a function prologue:

ORIGINAL RENEGADE CODE AS EXAMPLE, THE TT CODE LOOKS DIFFERENT BUT ACTS THE SAME:

```
mov    al, [esp+20h+var_11]
test   al, al
jz     short loc_68431E
mov    al, [ebx+770h]
test   al, al
jnz    short loc_68431E
mov    edx, [ebx-8]
lea    ecx, [ebx-8]
call   dword ptr [edx+94h]
```

```
pop    edi
pop    esi
pop    ebx
add    esp, 14h
retn   4
```

All you really need is to find the check with 0x770 and a virtual function call to edx+0x94. Patch the epilogue so offset 0x770 is given the content of the byte stack variable that is tested for zero before the test for 0x770 being tested for zero in the code above. In this case:

```
mov    al, [esp+20h+var_11]
test   al, al
```

Happens before:

```
jz     short loc_68431E
mov    al, [ebx+770h]
```

So the epilogue needs to be patched so that offset 0x770 is updated with the content of [esp+20h+var_11].

Use OllyDbg to patch the epilogue in memory. then select and copy the patched instructions and save them somewhere. Undo these memory patches (select the patches and right click -> Undo Selection) then open bandtest.dll with a hex editor, then find the epilogue in of the function in your hex editor by searching for the instruction bytes for the original epilogue (obviously make sure you find the correct one so check if there are multiple matches in the hex editor), replace the original epilogue instruction bytes with the instruction bytes have written down for your modified one. It might also be possible to just memory patch with OllyDbg and use the 'copy to executable' command.

Instruction bytes look like this:

```
64E016C9 8B7424 14      MOV ESI,DWORD PTR SS:[ESP+14]
64E016CD 8A46 0B        MOV AL,BYTE PTR DS:[ESI+B]
64E016D0 8886 70070000  MOV BYTE PTR DS:[ESI+770],AL
64E016D6 5F             POP EDI
64E016D7 5E             POP ESI
64E016D8 5B             POP EBX
64E016D9 83C4 14        ADD ESP,14
64E016DC C2 0400        RETN 4
64E016DD CC             INT3
```

The "8B7424 14" on the first line are 4 bytes for the instruction on the right of the line, "8A46 0B" on the second line are 3 bytes for the instruction on the right of that line etc.

Once done load up the game with the hex edited bandtest.dll and find the epilogue for the BuildingClass::Import_Rare() function again and check if your hex edits match the patched code your wrote down earlier, the code patches you applied with a hex editor.

I've attached a patched bandtest.dll, I have NOT checked if it works correctly with building revival. If the game crashes during startup or just after joining a server the file is incompatible with your version of 4.1.

Can you apply this patch to the latest tt bandtest.dll. The version you posted is from a few version back.

I just tried it and it works with restores. Was able to buy a vehicle after restore just fine. I think this bandtest.dll is from the first 4.1 release with the disappearing airstrip plane.
