## Subject: [CODE] Game start auto-team change functions hooks Posted by iRANian on Sun, 01 Jul 2012 09:43:05 GMT

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These hooks hook 4.0's hooks/replacements of the team change functions that get called when the game starts. You'll have to re-implement all the code for them as I'm too lazy to. The following functions are replaced:

Remix\_Team\_Sides() -- changes the player type of every in-game player with a shitty rand() call Rebalance\_Team\_Sides() -- gets called after Remix\_Team\_Sides(), it rebalances the team sides as Remix\_Team\_Sides() just randomly sets the player type of every players

Swap\_Team\_Sides() -- this function swaps the team of every player, don't think this is called on laddered servers.

```
Hook *RemixTeamSidesHook = new Hook;
int TTTeamRemixHookAddress = 0;

void Remix_Team_Sides_Replace()
{
    Console_Output("Remix_Team_Sides_Replace() called\n");
}

Hook *SwapTeamSidesHook = new Hook;
int TTSwapTeamsHookAddress = 0;

void Swap_Team_Sides_Replace()
{
    Console_Output("Swap_Team_Sides_Replace() called\n");
}

Hook *RebalanceTeamSidesHook = new Hook;
int TTRebalanceTeamsHookAddress = 0;

void Rebalance_Team_Sides_Replace()
{
    Console_Output("Rebalance_Team_Sides_Replace() called\n");
}

int Calculate_Address_From_Displacement(int JMPStartAddress)
{
    char OpCodes[5];
    int Displacement, Address;
```

Hooking::ReadMemory(JMPStartAddress, OpCodes, 5); // 0x004B4910 is where the JMP opcode (E9) starts, next 4 are the displacement/relative address

memcpy(&Displacement, OpCodes+1, sizeof(char)\*4); // OpCodeBuffer+1 or we'll also read the

```
JMP opcode
Address = JMPStartAddress + 5 + Displacement;
return Address:
}
/* in the installation function add: */
TTTeamRemixHookAddress = Calculate Address From Displacement(0x00471D60);
Console Output("TT Team Remix Hook address = 0x%X\n", TTTeamRemixHookAddress);
RemixTeamSidesHook->Install('\xE9', TTTeamRemixHookAddress,
(int)&Remix Team Sides Replace, "");
TTSwapTeamsHookAddress = Calculate_Address_From_Displacement(0x00471A10);
Console_Output("TT Swap Teams Hook address = 0x%X\n", TTSwapTeamsHookAddress);
SwapTeamSidesHook->Install('\xE9', TTSwapTeamsHookAddress,
(int)&Swap Team Sides Replace, "");
TTRebalanceTeamsHookAddress = Calculate Address From Displacement(0x00471E70);
Console_Output("TT Rebalance Teams Hook address = 0x\%X\n",
TTRebalanceTeamsHookAddress);
RebalanceTeamSidesHook->Install('\xE9', TTRebalanceTeamsHookAddress,
(int)&Rebalance_Team_Sides_Replace, "");
/* end installation function */
```