

How exactly do the social skills work and how to interpret "x Mutator 0.4"?

[Ary_Trake](#) (Ary Trake) #1 April 29, 2021, 4:47am

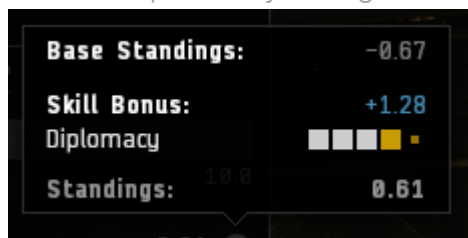
While its easy enough to understand what "Connection", "Criminal Connections", and "Diplomacy" do, both from descriptions and the Standings window, I can't really make sense of the math and would like some help.

So, the 3 skills above are the only ones which affect effective standings which in my case look like this:

- Connections: Increases positive standings for corps and empires by 4% per level. In my case, increases standings with the SoE from 3,99 to 4,48 at skill level 2. How exactly do you get an increase of 0,49 here? What is this value 8% (or 8,16%) *of*?
- Diplomacy: Decreases effective negative standings by 4% (or as the attribute window says: "Diplomacy mutator 0.4"). In my case, increases standings with caldari state from -0,67 to 0,61 at level 3. Just... what? How?
- Criminal connections: In my case, I have no positive standings with any pirate faction but the math should be identical to Connections.

While its simple enough to just train the skills and forget about them, knowing how big the increase is, or how the skill *actually* works, would be of huge help in some cases.

Edit: I am specifically talking about the math behind this:



[Geo_Eclipse_Oksaras](#) (Geo Eclipse Oksaras) #2 April 29, 2021, 3:39am

When standings go up or down they do so as a percentage; this is always a percentage decay towards the extreme end of the scale. For example, if someone has 1.0 standing with an NPC corporation and completes a mission that changes standing by +5%, then the current standing is increased by 5% of the difference from 1 to 10; that's a change of +0.45 with an end result of 1.45. However, if someone else with a 4.0 standing completes the same

mission under the same circumstances and also gets a 5% increase, then that's 5% of the difference from 4 to 10; that's a change of +0.30 with an end result of 4.30.

If something causes a standing decrease, then it's a percentage decay towards -10. For example, if someone with 1.0 standing suffers a -5% change, then that's 5% of the difference from 1 to -10; that's a change of -0.55 with an end result of 0.45. If someone with 4.0 standing suffers that same -5% change, then it's 5% of the difference from 4 to -10; that's a change of -0.7 with an end result of 3.3.

The formula for standing increase is

New standing=Old standing+(10-Old standing)×Standing increase

The formula for standing decrease is almost same, just towards -10

New standing=Old standing+(-10-Old standing)×Standing decrease

where *Standing decrease* is the decimal form of standing change. For example 0.4% would be 0.004.

The consequence of this math is that the higher your standings are, the less effective standings increases become and the more dramatic penalties become. For example a standing loss of 1% turns 9.0 standing into 8.81 but increase of 1% would bring 9.0 standing to 9.01.

The equation for resulting standing for receiving same standing gain multiple times is

$S_n = S_0 \times (1 - \text{Standing increase}) + 10 \times (1 - (1 - \text{Standing increase})^n)$

And in similar style the equation for resulting standing for receiving same standing loss multiple times is

$S_n = S_0 \times (1 - \text{Standing decrease}) - 10 \times (1 - (1 - \text{Standing decrease})^n)$

if you want further explanation, feel free to reach out to the United Standings Improvement Agency on discord.unitedstandings.org

Detailed PvE Standings Log

[Ary_Trake](#) (Ary Trake) #3 April 29, 2021, 4:44am

Indepth answer of standing gains but doesn't seem to answer my initial question about standing modifiers. Thanks for the ad though.

[Geo_Eclipse_Oksaras](#) (Geo Eclipse Oksaras) #4 April 29, 2021, 4:45am

i tagged this in our USIA discord to see if someone with better math and understanding can either come here with an answer, or if you pop in to the discord they can answer you there.

[Geo_Eclipse_Oksaras](#) (Geo Eclipse Oksaras) #5 April 29, 2021, 4:57am

Effective Standing = Unadjusted Standing + ((Maximum Possible Standing - Unadjusted Standing) * Connections Modifier * Connections Skill Level)

So if your current base standing was 0.9 and you had the connections skill at level two your effective standing out be:

$$0.9 + ((10 - 0.9) \times 0.04 \times 2) = 1.628$$

im assuming this would work the same for all the other social skills that affect standings as well.

1 Like

[Geo_Eclipse_Oksaras](#) (Geo Eclipse Oksaras) #6 April 29, 2021, 5:08am

your diplomacy is not counting level 4... its counting level 3

$$-0.67 + ((10 + 0.67) \times 0.04 \times 3) = 0.61$$

$$-0.67 + (10.67 \times .12)$$

$$-0.67 + 1.28 = 0.61$$

Had your Diplo Level 4 been in effect, you'd be at 1.03 effective.

[Ary_Trake](#) (Ary Trake) #7 April 29, 2021, 5:13am

Perfect. The implication here is that a standing of -5.0 at Diplomacy 5 goes up to -2.0 which seems to mitigate all possible issues of negative derived standings, such as the -5.0 between Amarr and Minmatar. Access to all agents within the faction is regained with a single lvl1 storyline.

Thank you.

[Geo_Eclipse_Oksaras](#) (Geo Eclipse Oksaras) #8 April 29, 2021, 5:20am

Well you cannot train Diplo to V at the moment since you are an Alpha.

so, more than one storyline mission will be needed to get where you want to be.

So right now, you would be at -3.2

[system1](#) (system) closed #9 July 28, 2021, 5:16am

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