[tCS]

Theory Manual v. 1.3

This manual will describe how to make the game smoothier and easier for your perception, how to enhance your piloting performance with proper binds, as well as tell what gear a newbie should pick for their first steps in learning and why.

1) Pilot's visual interface settings

- First of all, make sure that <u>V-Sync</u> is off for your Freelancer.exe. That can be checked in your GPU's control panel. V-Sync is a feature that forces an application to cap it's frame-rate to the amount of Hz that your monitor has. Example: for a 60Hz monitor your FPS limit would be set on 60, as well as that would be 120 for a 120Hz monitor.
  The easiest way to control your in-game FPS wold be installing [BandiCam](). Aside from recording this tool allows you to see your current FPS, while also being able to set a physical limit for it. In case your FPS goes above 180 with V-Sync turned off, it's recommended to cap it 120 – 150 range, so that you wouldn't cause screen-tearing to other players.

- <u>The launcher</u>
  - "Show flight text" should be off as it's just taking away a bit of precious screen space.
  - The resolution used should be desktop. If you know how to widen the screen horizontally, you should go for it. In Freelancer it's usually beneficial for the pilots to use widescreens: the wider the screen is, the bigger the firing arcs would be, as well as the opportunity to shoot at the cross.
  - As of 4.90.2 there was a feature introduced called [Frame Limiter](). Sometimes it may cause weird FPS behavior, so that would be more reliable to disable it and cap it by yourself with Bandi. Frame Limiter can be disabled by adding line: *"-noframelimit"* (without quotes) to your "Optional Arguments" section of the Launcher.
  - Show joining players should be on, as it provides you with some nice meta on who's joining the server. Sometimes it can save your life as a raider if you see the enemy is going to outnumber you heavily.

- As a neat addition we can also change our in-game HUD's targeting frames' colors. This feature is described [here](#) and can be activated in-game with "Activate HUD Colour" function. In short, if you want everyone to be white, you may add "*-color-white=FFFFFF -color-red=FFFFFF -color-green=FFFFFF -color-pink=FFFFFF*" line to your Optional Section of the Launcher. All the colors are represented as RGB codes, so it may be any any color you want for any type of the entities (white for neutral, red for hostile, pink for group members, green for friendlies). All the codes are working except for 000000, this total black one isn't working for a reason.
  The feature still works out-of-the-box without cmd line parameters, as the game will just make the colors brighter than the stock ones and the group members will be dark blue.

- ## The graphics

  Frankly, I don't recommend using any graphic enhancements during your training course as a newbie-learner. Simplicity and the easiness of perception should be focused at first. After you've become solid enough with understanding of what you expect from the game and it's visuals, it'd be totally up to you what it looks like and what additions are installed as the matter of preference.

  Keep in mind that additional graphic/sound packs are taking away more of your machine's resources, while the number one priority that a learner should seek as a solid performer would be smoothness and FPS stability. Having stable 150 FPS during duelling in Connecticut is one thing, while being able to keep it up during large-scale fleet group fights is another.

- Resolution will be set through your launcher, no need to pay any attention to that.
- Gamma should be tuned as it fits you. Goal is to make enemy ships' appearance as clear as possible, same goes to the projectiles, as they have to be easily trackable by your vision. Make sure to play with that setting until you feel comfortable enough.
- Mouse sensitivity is also totally up to you. Play with that until you realize it's easy for you to aim, while still moving the cursor from one screen edge to another doesn't take away a dozen of time.
- Auto Hide Maneuver Bar should be <u>Enabled</u>, as it leaves more clear space on the scren which is useful to look around (pity that it doesn't remove that bar entirely).

PERFORMANCE OPTIONS

DETAIL

OBJECT DETAIL

SPACE DETAIL

TEXTURE DETAIL

CUT SCENE DETAIL

EFFECT DETAIL

BACKGROUND STARS

BACKGROUND DUST — ENABLED ✓

HUD ANIMATION — ENABLED ✓

DYNAMIC COMM WINDOW — ENABLED ✓

PLANET ATMOSPHERES — ENABLED ✓

ENVIRONMENT MAPS — ENABLED ✓

DEFAULT   CANCEL

- Here drag the "Detail" to the left entirely, as it will set the rest settings on 0 as well. What you need on 1 (turned on) would be:

1) Object Detail, as it might corrupt some imported Discovery models so they are not shown properly

2) Texture detail, same here, leave it at 1 as well

3) Cut Scenes, as it may cause mouse lag on bases if set on 0

4) Effect Detail can be either 0 or 0.5. Most of the times you might want it on 0, as this setting takes away the most FPS while turned on. Only reason to set it to 0.5 would be a need to make some projectiles visible, as they might have no projectile with that setting on 0. It's not

that such weapons are really important to be visible, they're quite rarely used.

5) Rest of the settings might be turned off as well for the sake of better FPS.

I'm not stating that having all the graphics on or having additional graphic packs is entirely negative for your overall performance. It's just that we're trying to leave mostly basic things around as you progress through the learning. How the game looks like would become totally your concern after some time getting better. The rule of simplicity still applies though, the simplier it is, the better it might perform.

- Alternative way to further HUD tweaking (a tip by @KamiFaby)
  - Described here and here in the Library section. Make sure you backup the involved .ini's before-hand.

- The sound
  - 3D sounds should be turned off as it may cause fatal errors on some machines. It doesn't give any edge in combat or at anywhere else, so better just keep it on 0 and stay cool.
  - Keep the musics on 0 or at least at lower volumes. Yes, it makes the game less atmosperic, but it's better to get rid off that to preserve concentration and environmental awareness. The less extra sounds are there, the better it is for your focus and perception.
  - Sound effects volume should be at that point, which would keep the shots clearly hearable, but still not hurting your ears with any extra loudness.
  - Speech volume has to be loud enough at a point at which you could clearly hear all the Missile/Torpedo and Shield-related warnings.

- FLHook features
  - Here is the full listing of in-game FLHook commands.
  - Currently we're only interested in 2 of them, the first one being "*/set chatfont small default*", which will keep the messages small enough for not to take away half of your screen.
  - Second one being "*/set diemsg self",* which removes all the unwanted die messages flooding at your screen, leaving only the ones involving yourself.

2) Control tweaking

The overall goal here is simple: keeping everything close to WASD, while not forcing you to break your fingers as you play. Here I'll be taking my own key layout as an example of one developed through years of Discovery dueling and raiding, however, it works pretty fine with Vanilla Frelancer as well.

- My layout can be found here.
  - As you see, all the necessary keys are scattered around WASD mostly, so that you don't need to hover all across the keyboard to press something exteremely needed. One or two days will be needed for you to get along with the new layout.
  - That is all optional of course as well, so feel free to edit it as you wish after a while. For instance, some people prefer using ESDF instead of WASD, as it leaves more free functional keys around than the standard WASD layout.

3) Proper equipment

Now once you're all set up, lets talk about the proper ships and weaponry. As a member of [tCS] or just any other freelancer, your only choice would be Civilian/Border World ships along with (House) Civilian/Codename weaponry.

- The gear meta
  - The compatibilty table can be found here. It allows you to check how much nerf you will get applied to your core's regeneration in case you buy any ship or equipment combined. Usually, using anything below 90% nerf is senseless, as you will be performing poorly as the core barely regenerates, only exception for that is 75% maximim DPH Sabre with Mini-Razor. 12.4k+ core fighters won't feel much of a difference. However, during group fights every bit of regeneration ratio matters a lot, keep that in mind.
  - Gear accessibility across the Sirius can be checked via FLStat utility. Extract it to any folder on your hard drive, then launch it. Show it where your Discovery is installed (Settings -> Freelancer location). This handy software allows you to browse all the extracted info from the game itself, starting from reputation hacks to guns statistics and ships. All the lists can be sorted as you prefer

it, by clicking the column headers. There you will perform ship/gun stat checkings, as well as finding out where that preferred gear is sold.

- Navigation should be aided by the [Discovery Online NavMap](#) or by [FLExplorer](#) utility (make sure to show it where Discovery is installed as well). Unlike the online map, FLExplorer takes info directly from the game files, just like FLStat does.

- The Ships

  As of 4.91 Discovery offers a wide array of ships that will go as 100%-compatible with Freelancer ID. Lets point out some honourable mentions here:

1) *Eagle*

   And old classic ship from the Vanilla times. In discovery it's still a solid dueling ship, as it relies mostly on it's good reaction time and turn-rate. What also differs it from the one that was there during your teen-ager times is CD mount being placed on top. Good Eagle sits on your tail most of them time and wins by doing that. Another risky option would be forcing the opponent to go for head-to-head attacks with vertical strafe spam. It is quite large for a VHF by Disco's standars, not really recommended for use in group fights. Guns are spread widely across the ship's hull, not adding anything positive to

it's DPS performance. I totally recommend installing Debilitators to 5 and 6 slot.

2) *Sabre*

While being quite a hard ship to master, Sabre still packs a strong punch, thanks to 7 forward-firing guns and it's unique shape. Sabre will teach you how important the energy management is, and how punishing it might be to find yourself in front of your opponent with an empty core (speaking of which that's just got buffed to 1100/11400 as of 4.91). This ship provides many possibilities with gun outfitting, as by just playing with Debilitator placement alone might affect shooting a lot (slots 1 and 2 or 5 and 6 recommended). Besides it's former glory, nowadays it struggles to stand against serious factional VHFs such as Odin and Lynx.
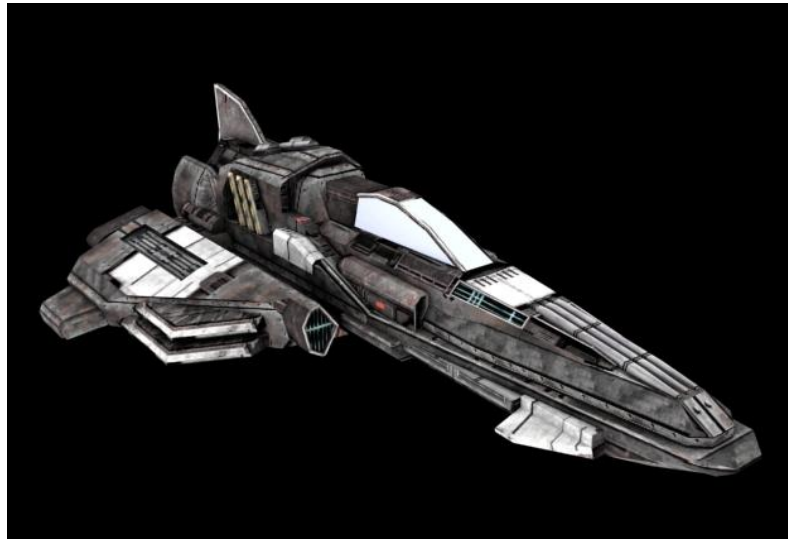
3) *Falchion*

      After getting an entirely new and fancy model, this ship has proven itself as both solid group and duel fighter. While being jack-of-all-trades in terms of stats, it packs a nice sleek prolonged shape along with decent 11.4k power core and is almost best in it's class in terms of gun placement, sporting almost sniper-like grouping.

4) *Raven's Talon*

Has 12.4 core, but turns slower. Gun placement is pretty much as good as Falchion's. Can be easily hit from above and below, try avoiding being in such positions as you fight, while forcing head-on attacks with vertical strafes might be a right call. In right hands can be quite a beast, do not underestimate this ship.

5) *Sutinga*

Pretty regular in all regards, except for being extremely flat from the sides and front, while being an easy prey from above and below. Has 1160/11400 core, accompanied by CD mount on top. Handling and tactics are mostly the same as for the two previous fighters listed above.

- <u>The Armaments</u>

Just in case, I won't be mentioning Codename weaponry here at all, as I find it too specific to use. Most of those guns are nieche high risk/high reward guns with slow speeds, you will try them out when the time comes and see if they fit your style (also note that most of them require Effects on 0.5+ to be used efficiently, which might lead to FPS losses). Here we will focusing on the most wide-spread and accessible ones, giving stable performance in all situations. What is really important is that the gun has easily visible projectile and it's projectile speed is at least mediocre, for the sake of bigger chances to hit, along with energy efficiency. Even the sound should be considered, as it should please your ear along with allowing you to differentiate it from the surroundings. For instance, as we use the sound as a tool of awareness on the battlefield, having something as loud as Rheinland Stealthblades might cost you a life as you couldn't hear an approaching cruiser shooting at you with Cerbs 50 meters away.

Faster refiring guns are also capable of occasionally blowing up mines right after an opponent drops them. Sometimes this might even save your life or turn a fight into your favor.

- Honourable mentions are as follows:

1) Adv. Flashpoints

Your most basic 8.33 refires you could get. Nice and clear projectile going at 750 m/s, nice and soft sound.
They were slightly nerfed to be less energy effective, however, any 12,4k core fighter handles 4 of them without any effort. As of 4.91 their projectile got horribly downgraded to something large and pointless. Currently It's not recommended to use these.

2) Purple Goddesses

These ones are 700 m/s and 6.67 refire. What is great with these is that they're particle, they have nice projectile and above anything else are really energy efficient. Add to that more gun hit-points: less chances they will fall off you after eating your 25th mine during a fight. Sabre loves them, I'm giving my word here.

3) *Heavy Flashpoints*

Sometimes we find ourselves lacking DPH (damage-per-hit) during dueling and that's when Hvy. Flashes come into the action. Just by adding 2 of these to your loadout already gives a nice punch travelling at 750 m/s with 5.00 refire rate. The projectile is mediocre as it is quite big, while energy efficiency can make even an 12.4ker a bit sad. But you're watching your core, right? If you do, lots of damage is going to be eaten by your poor opponent. Mix them with whatever you have and see how it works. This weapon is a valuable addition to the existing Civilian array.

4) *Imp. Debilitators*

Trust me, these have to be 750 m/s ones. Even if I find myself with a set of some 650 m/s guns, chances are that Debs are going to be 750's. They're just too good to not be used, I can hardly see any reason any others should be preferred over them. You might also try mixing 650's and 750's for better chances of hitting, that is more fitting for chain-fire lovers though. Any way, this is the exact case when you realize how important the speed can be.

- *Additional weapon options (House Civilian, can still be used at 100% core):*

1) *Rheinland Flammenwerfers C1 and C2*

C1's are the direct successors of old Rheinland Military's Hornvipers. They have pleasing sound, but the problem is that 5.88's could be hard to master for some players (just as 3.03s). Having mercy on ship's core is also not about these. However, they're probably one of the best Civilian jack-of-all-trades guns, you might master them for the sake of versatility. They go well for mixing with both Hvy. Flashpoints or 3.03 Cleansers.

C2's would be of no interest, really. 3.03 600 m/s is quite a crappy thing to use, especially considering it's huge projectiles covering half of the screen while being shot and their total

absence at Effects turned on 0. May be tried out with mixing along with other guns, but there are better options for that.

2) Libertonian Garands Mk 8 and Mk 9

These guns are good on paper, but pretty decent in reality.

Mk 9 being 4.00 and kind of energy inefficient, might be called a direct successor to the old Outcast Krakens, with a different smaller blue projectile. Some players enjoy having 4.00s as they're perfectly synchronized with Debilitators.

Mk 8's are 5.88 ones, with almost the same projectiles as MK 9's.

Both of them are 700 m/s, which is enough to go for. Unlike many other House Civilian guns, it's quite hard to point out any radical pros or cons of these. Try them and see how they fit you.

3) Kusarian Cleansers KP1 and KP2

KP1 is a Purple Goddess' clone, while being more energy efficient, it has horrible projectile with Effects on 0.5+, and has none at 0. Nothing more to be said here.

KP2 is an intersting option for those seeking a nice DPH into their mix. It has a little 700 m/s projectile with 3.03 refire rate and pleasing quiet sound. One of the most underrated Civilian guns one could take a look onto. As all 3.03s, these really love taking a bite on your core.

4) Bretonian Enfield PB4 and Ross PB3

Worse than decent ones. Both have none projectiles with effects on 0, while the stats still leave no real reason to pick these over something else.

Enfield PB4 comes as 650 m/s 3.03, mostly as of no interest as 3.03 Flammenwerfers.

Ross PB3 is 5.00 at 700 m/s. It could stand a chance against Heavy Flashpoints in case it had a reasonable projectile, until then it's not a thing any properly-geared Freelancer would look for.

Thanks for reading.

Sincerely Yours,

Dominique Armande