Making ArrCab v2.6 (freeware) work in FSX (Accel/SP2) 1 of 3

After the exclusivity license with Abacus terminated several years ago, ArrCab has been freeware again. In late 2007 I released version 2.6.2 with FSX support (look for arrcab26.zip). That was accomplished before I owned FSX, with the help of gracious testers (see credits in arrcab26.zip).

But FSX users who did not tweak ArrCab's parameters probably got a big shock, just as I did when I recently started using FSX. Unless you tweak the timing granularity and other parameters, ArrCab overloads FSX Simconnect and everything goes haywire. I can understand that some folks probably gave up at that point. I'm sorry we didn't properly capture and share these settings in the 2.6 release.

*But ArrCab v2.6 **does** work in FSX (Accel/SP2)!* Fortunately, I made ArrCab tweakable for just this kind of situation.

Now that I actually own FSX Accel/SP2 (I can't speak to any behaviors in FSX basic or SP1 configurations) I've been able to experiment. Your results may vary, but on my computer (Intel Core2 CPU 6700 @ 2.66GHz, 4GB RAM, GeForce 8800 GTS video, running 32-bit Vista Home Premium), which does a decent job of displaying FSX at 20 fps except in highly detailed big cities, the following settings prevent the Simconnect bottleneck problem from occurring, resulting in smooth ArrCab operations.
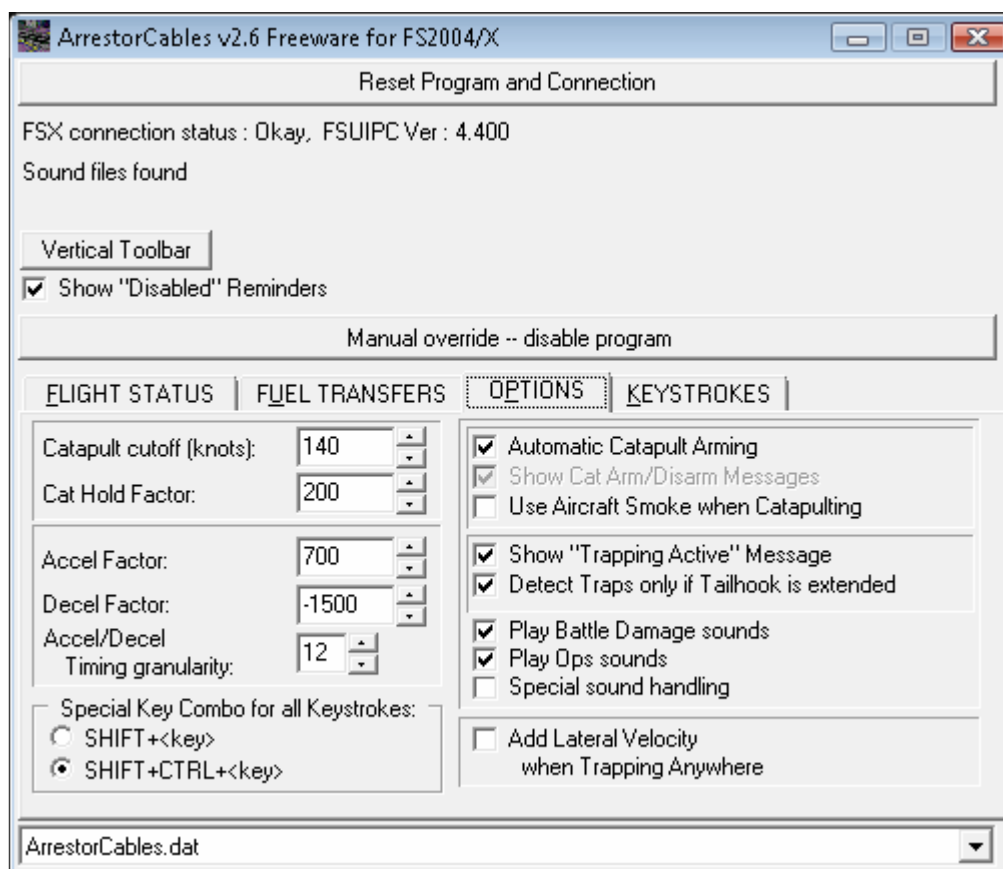
Every parameter on the left half of the Options tab has changed from what worked (for me) in FS9. Also I have "Automatic Cat Arming" enabled because that's easy to use on both static and moving carriers – manual only works on static carriers, so using

Automatic Cat Arming means I can stay in full screen mode for flying. Try it! (Note the change of the keystroke combo to SHIFT+CTRL+<key> because FSX now uses some SHIFT+FnKey combinations in the default keymap.)

Some of these parameters butt right up against the allowable limit, so if things still don't work well on your machine, let me know and if enough people are having problems I may release a new version with wider parameter allowables. Make sure you include your computer specs and that you've really experimented and have a feel for what's needed before sending requests.

A KEY PIECE OF INFO FOR SITUATIONS LIKE THIS (READ THIS!)

An issue comes up with ArrCab in situations like this. ArrCab stops trying to decelerate your aircraft after trapping when
  A) you come to a complete stop while landed, or
  B) you crash (only if crash detection is turned on).
In a situation where you trap but go too far and fall off the end of the ship, or your parameters are such that Simconnect is still overloaded and you trap but keep going and then Simconnect finally catches up and keeps trying to stop your aircraft in flight, that's totally abnormal and ArrCab can't handle it. There's no solution to that very special testing condition other than to
  A) reset or restart ArrCab (so it stops sending commands to FSX, **and**
  B) change aircraft or perform a "Go To Airport" to purge any remaining
       Simconnect commands flowing to your aircraft.
After getting your parameters properly set you should NEVER experience this, but while experimenting you might. This sort of goes away if you turn ON crash detection and just let your aircraft crash if a trap goes badly due to Simconnect overload.

And here are two additional suggestions for optimal ArrCab/FSUIPC operation:
       1) Wait to launch ArrCab until after you're in the cockpit, rather than launching it when you're sitting in the pre-flight setup screens. Quick test: try an automatic mode catapult launch (anywhere) - if you see a delay of something like 1/4 to 1/2 a second between release of brakes and initiation of the catapult, then something's out of synch and you should restart ArrCab while in the game world. When I've had that delay I've noticed it also affects trapping, and we can't have that. Restarting ArrCab from the cockpit has always fixed this minor lag for me. (Also, shut down ArrCab *before* shutting down FS - this ensures ArrCab will save parameters correctly, if you changed any.)
       2) http://www.schiratti.com/dowson.html (the FSUIPC support forum) has at least one thread discussing the issues related to third party security software interrupting the http Simconnect pipeline used by FSX to allow the world (e.g. FSUIPC) to talk to it. Simconnect is an http pipeline, so that opens it up to security software that checks http pipelines. That slows down the pipeline, unnecessarily in this case, which can be disastrous for real-time operations like these.
       The long and short of it is that Pete Dowson, the author of FSUIPC, warns people to configure their security software accordingly - i.e. he can't control this, so all he can do is tell people that if they're having lag issues with FSUIPC they must manage their

own security software that's causing the problem. FSUIPC is part of the FSX.EXE process, loaded at FSX start, so telling the firewall to ignore FSX.EXE should get the firewall out of the equation. After that all that remains is anti-virus/security software. I was able to tell my antivirus software to ignore all three files, FSX.EXE, ARRESTORCABLES.EXE, and FSUIPC.DLL, and my Firewall to ignore FSX and ArrCab. If you find yourself having ugly lag issues with ArrCab after cranking up the timing granularity factor a few more notches and otherwise experimenting with the tweakable parameters, *and* you've already told your security software to ignore these programs, *and* your computer hardware is in working order and reasonably fast running FSX, you may be SOL. The only thing I might consider doing myself would be to A) use different security software that allows more control, or B) consider temporarily disabling my security software (NOT the firewall) and avoid using a browser or email while it's disabled. I can only recommend that you *consider* this, I can't recommend that you *do* this. It might make a good short term experiment to discover what software is causing the lag, though. As a permanent solution it's a desperate last resort. It would be preferable to use different security software that allows more control rather than disabling it entirely.

Note that my landable Javier Fernandez carriers have been splendidly updated by R.A. Baum (look for carr2006.zip at your favorite download site) and these carriers work in FSX! That's 18 nice carriers around the world, with working blast shields. There may be some graphical artifacts depending on your video configuration, but it's a small price to pay for all those carriers around the world. So we have motivation to make ArrCab v2.6 work in FSX!

Also, I've installed and tweaked Rick Sasala's naval aircraft (EA-6B, C-2A, E-2C, A-6) as well as quite a few other pre-FSX aircraft and (with minor tweaks in some cases) they work just fine for my purposes. Once people's computers catch up to FSX, there's no reason FSX can't be a good home for naval and other military aviation VAs, especially since FSX includes a Navy Hornet and a Navy EH-101 helicopter.

Enjoy,
Rich Hogen
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(NOTE: All my ArrCab 2.6 / FSX Accel-SP2 testing has been with FSUIPC 4.4 unregistered.)