JARDesign Group

JD340-500 Airliner for X-Plane 11

(how to Install and Use)

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PRODUCT DESCRIPTION

The JD340-500 Airliner is a simulation software (add-on for X-Plane 11 simulator) of long-range, wide-body passenger jet airliner.

3D Model: External, Cockpit and Cabin 3D objects modelled and animated.

3D Sound: Engines, Apu, Cockpit, Landing Gear, Systems sound modelled.

3D Lights: External, Cockpit and Cabin lights modelled.

Flight Model: Fly-By-Wire with Normal Law & Protections.

System modelled: Air Conditioning, Pressurisation, Ventilation, Auto Flight, Communications, Electrical, Equipment, Fire Protection, Flight Controls, Fuel, Hydraulic, Ice and Rain Protection, Indicating/Recording Systems, Landing Gear, Lights, Navigation, Oxygen, Pneumatic, Information System, APU, Doors , Power Plant

Realism, simplification: We tried to make the system as close as possible to the real and emulate the most of the aircraft systems. But in some systems we have used a number of simplifications. In other words, no 100% guarantees of compliance to the real world prototype. For this reason, this product MUST NOT be used for real life A340 pilots training in real world aviation! The team of developers has the right to keep in a product all these simplifications and discrepancies which can be considered as necessary.

Package content: Right after the payment is cleared, you will get a link to download the ZIP distributive and your personal serial number. Archive doesn't include flight tutorials and liveries (or include just a limited numbers of liveries), for that - please visit DOCs and LIVERIEs part of our forum and get it for free. Buying this product in the store user gets the key (serial number) which allows to activate one copy on one computer (with one computer hardware configuration and one operation system installed).

X-Plane features limitation: This aircraft not support some X-Plane features, like load/save situation, default fuel loading system (use custom), start flight with engine running (use custom HOT START), start flight on approach, replay animation of some surfaces, VR (just not tested).

NAVDATA: This add-on comes with the NavDataPro dataset by Aerosoft. This is outdated cycle, subscription not included.

<u>MAIN FEATURES:</u>

+ External, Cockpit and Cabin 3D model based on real aircraft data

+ Hi-Resolution External 4K PBR textures with normal maps

+ Advanced wingflex simulation with ultra-smooth animation

+ Highly detailed Landing Gear animation

+ Animated cargo and passengers doors controlled via MCDU

+ 3-class passenger cabin with automatic controlled 3D lights

+ Animated Switches, Knobs, Levers and Tables in the cockpit

+ Animated wipers and windshield sun visors in the cockpit

+ Custom plugin based Realistic cockpit and external 3D lights

+ Advanced custom real-feeling FCU knobs control system

+ Pilots seen in cockpit in external view mode

+ Custom FMGS system with all main features required for normal flight

+ SID / STARS procedures based on NavData

+ Take off data - V1, V2, VR, DTo and THS/FLAPS calculated by helper on MCDU Perf page

+ Multi-function MCDU for full aircraft control, optimum flight level, fuel prediction, etc.

+ Ground Handling operation via MCDU

+ Easy-to-use PayLoad and fuel loading via MCDU menu

+ Embedded Flight Plan generator based on navdata cycle

+ Enter Flight Plan manually or read from SimBrief/PFPX text file

+ Aircraft systems with real aircraft logic and indications

+ Custom Fly-By-Wire system with Normal law and Flight Envelope Protections

+ Audible Warning & Caution system

+ Hi-Resolution PFD, ND, EWD and SYS displays

+ Custom terrain radar

+ Custom DCDU Metar reading

+ Weather radar for default XP weather

+ Custom Hot-Start function

+ MCDU 2D pop-out widget

+ Sound volume control 2D widget

+ Lateral and Vertical Flightplan 2D widget

+ Realistic 3D sound based on real aircraft sound recording

+ CoPilot (by JARDesign) plugin compatible (not included)

+ Ground Handling (by JARDesign) plugin compatible for free (not included)

+ X-Life (by JARDesign) plugin compatible (not included)

+ Better PushBack plugin compatible (not included)

+ Integrated tablet using popular Avitab plug-in

REQUIREMENTS

System requirements: 64 bit Windows 10 or MAC OS (Catalina/ Big Sur) with X-Plane 11.41-11.55 installed (not included), CPU: 2,4Ghz Multi-core. Memory: 8 GB RAM. Discrete Video Card: 4Gb VRAM, high-precision joystick, rudder pedals, throttle controller (with 1, 2 or 4 axis), speakers/ headphones. Compatibility with future versions of the simulator and OS has not been tested.

User requirements: This JD340 is aimed at advanced X-Plane users, who are familiar with the principles and logic of a real A340. If you are on the entry level you can possibly face some difficulties due to advanced features of this model. You can experience some difficulties in case your English is poor. Due to advanced realism of this JD340 model it is not recommended for sensitive persons, for persons with any mental sickness and for persons with any nervous system disease. User must be over 16 years old. User must have access to internet for download product and docs, to communicate with support service and use Skype for direct support.

Flight control devices, Drivers/config, Compatibility: Our team is not developing drivers and configuration files for hardware devices from other manufacturers, what you may have. Write drivers – the task of their manufacturers. Problems can arise from the fact that this plane uses a lot of custom datarefs that are not known for device drivers. If you contact our tech support – we can help with information about datarefs (may be), but we cant help you with drivers or configuration files.

3-th part plugins compatibility: Sometimes people use a lot of X-Plane plugins, and install new plugins unnecessarily. Each of them eat memory and some framerate. Rest assured that these plugins may affect the the JD340 plugin. We make no guarantee of successful operation of the JD340 plugin with any other plug-ins and not test them for compatibility. The user uses the plane together with other plugins at your own risk.

INSTALLATION

1. Download actual aircraft version: http://jardesign.org/forum/viewforum.php?id=44

2. Unzip file, open "OpenMeAndRead" folder. You will find "340_JARDesign" folder there.

3. Copy "340_JARDesign" folder to ..\X-Plane 11\Aircraft\ folder (make sure you don't use non-English symbols in aircraft's installation path). Sure, you may rename "340_JARDesign" folder.
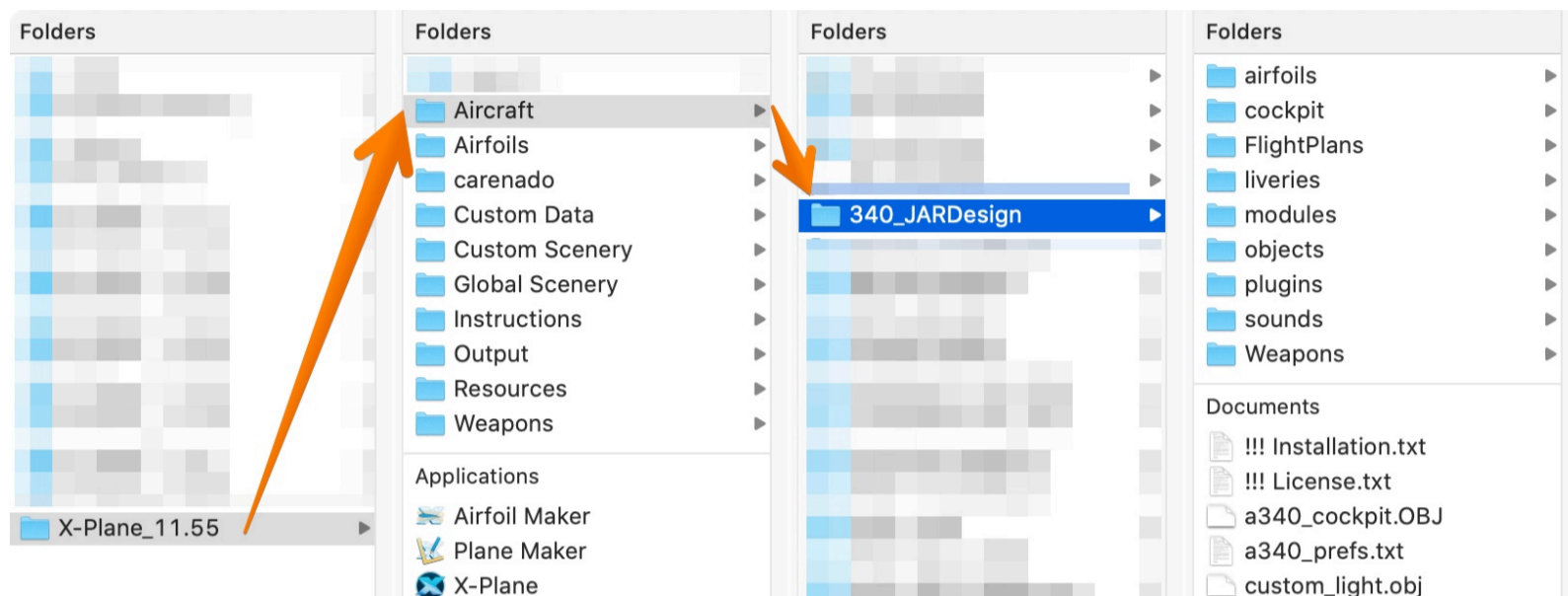

4. Please visit http://jardesign.org/forum/viewforum.php?id=44 and download the latest version of Ground Handling plugin. It works with JARDesign 340 without registration (for free). No registration need. No serial key need. Please note what "Deluxe" version of this plugin (may work with other aircrafts) is payware.

5. Start X-Plane 11 and open JD340. Activation window should appear (please read notes below about MAC OS usage ***).

  - select automatic activation

  - enter your serial key (Regcode), click NEXT and after a successful activation reopen the aircraft via X-Plane menu -> "Developer" -> "Reload the Current Aircraft and Art"

6. X-Plane may crash during first aircraft loading - please reload X-Plane if so.

Navdata cycle update: If you need to update your navdata cycle, please use Aerosoft/ Navigraph "JARDesign 320/330 Native" format. Download needed files and put a new cycle to ../X-PLANE 11/Custom Data/GNS430/navdata/ folder (create this folder if need).
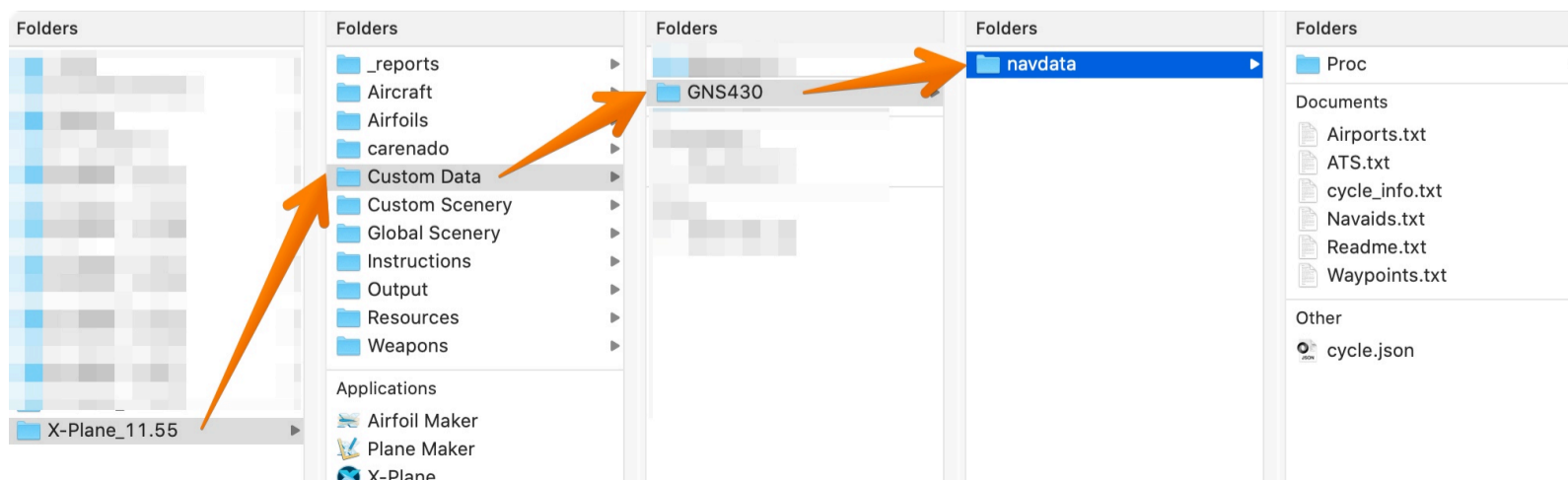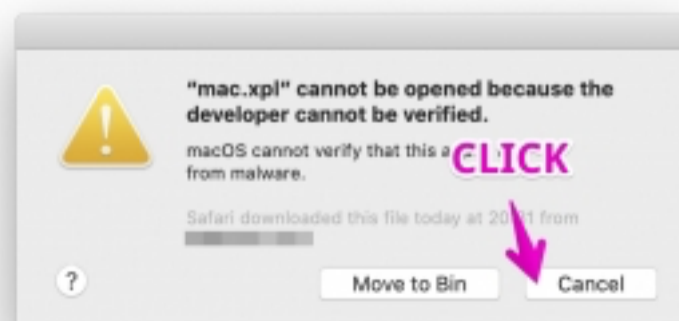
<u>Avitab usage:</u> To use Avitab with your 3D cockpit iPad please be sure what Avitab plugin installed (you may download it from https://github.com/fpw/avitab)
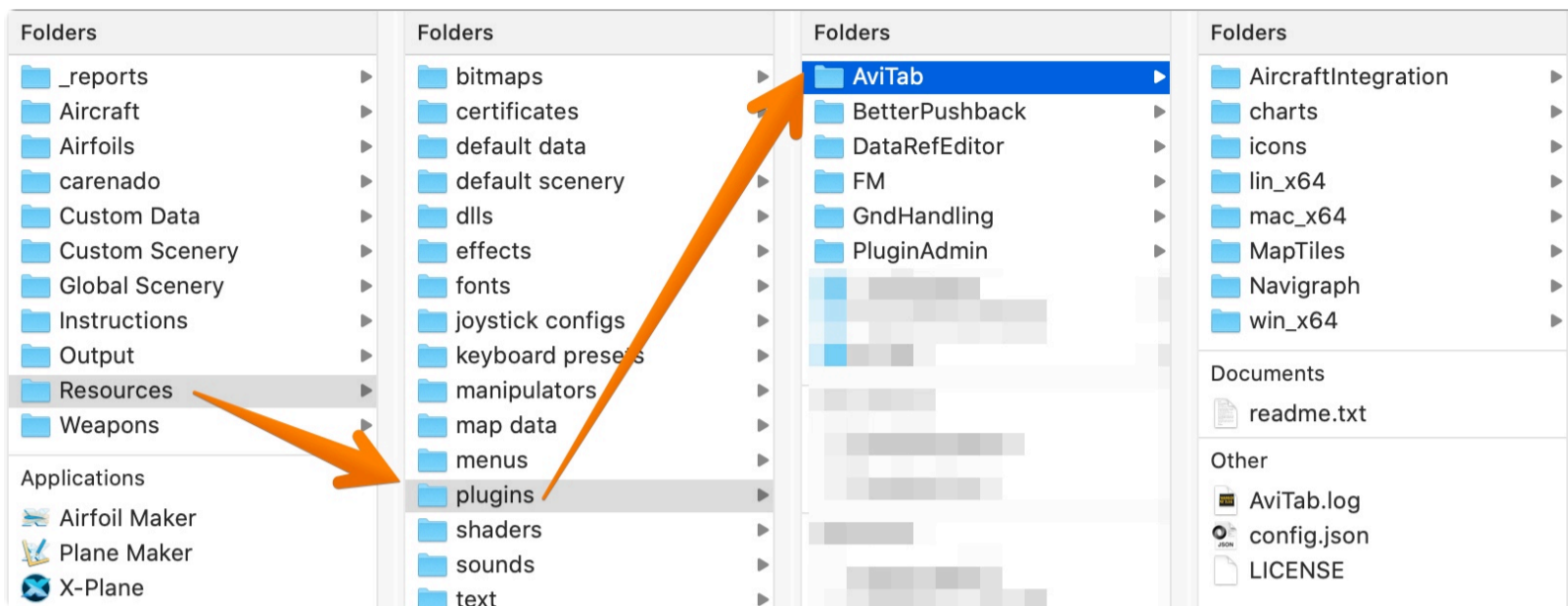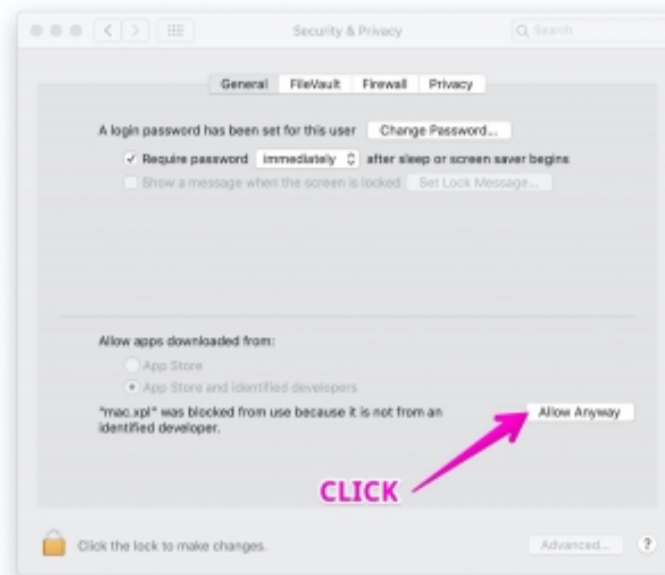

*** - if you use macOS Catalina or Big Sur - some procedures need to do. Please follow:
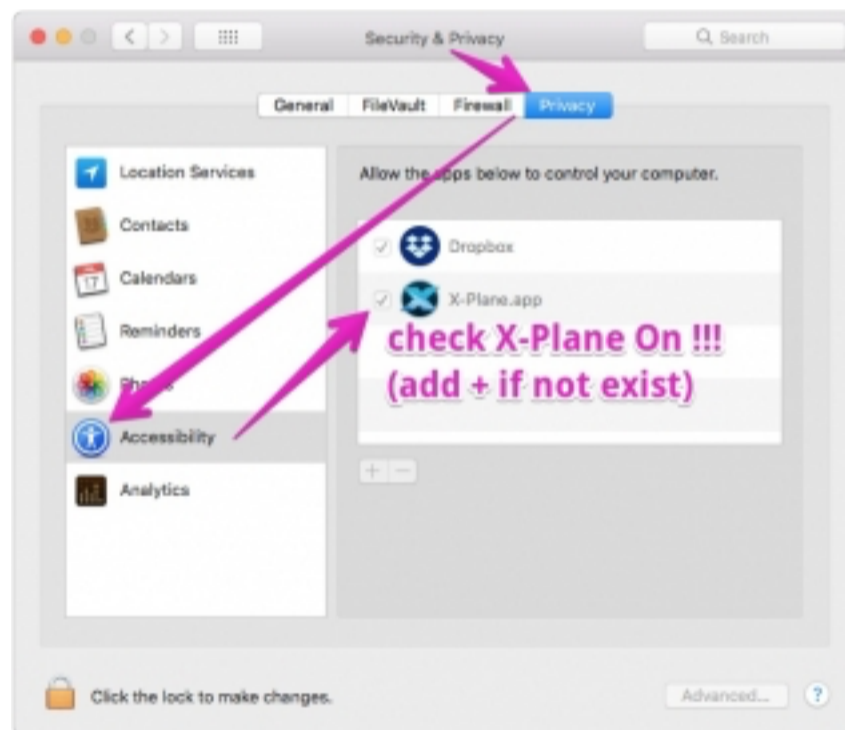
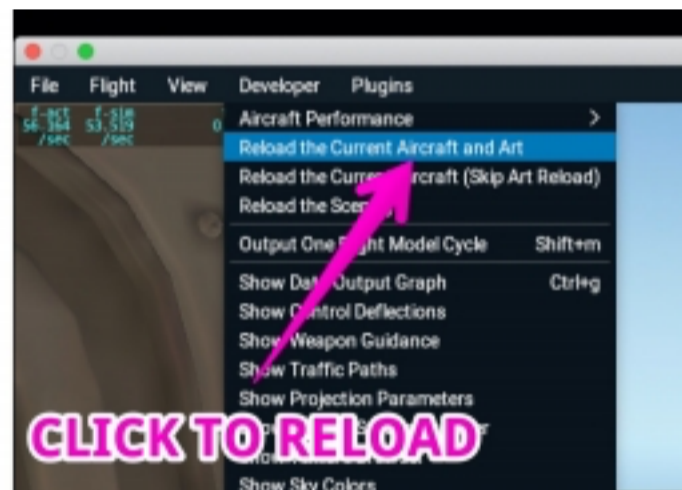1.During loading aircraft, if you meet this messages: Click "CANCEL"

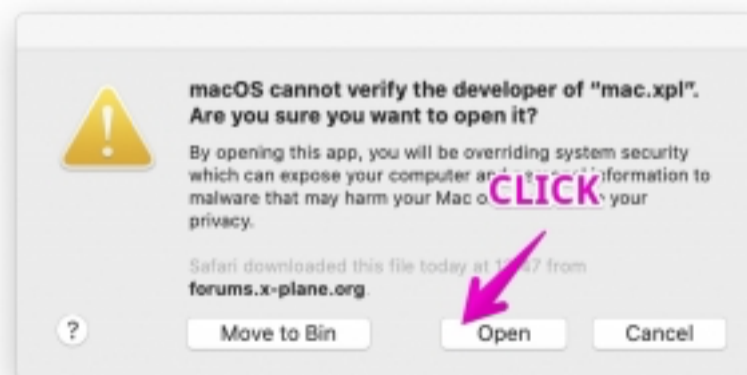2.Next open your macOS Security & Privacy settings, General tab and select "Allow Anyway"

3.Do points 1 and 2 for EVERY message like in p.1, until aircraft loading complete.

4.Reload aircraft using menu:

5.During loading aircraft, when you meet another messages: Click "OPEN"

6.Do points 5 for EVERY message like in p.5, until aircraft loading complete.

7.Reload aircraft again. Messages should not happen more.

SETTINGS

Please be sure what you use well-calibrated SideStick, Pedals and Throttle control hardware to operate JD340. Please use just default parameters like this (all at 50%):
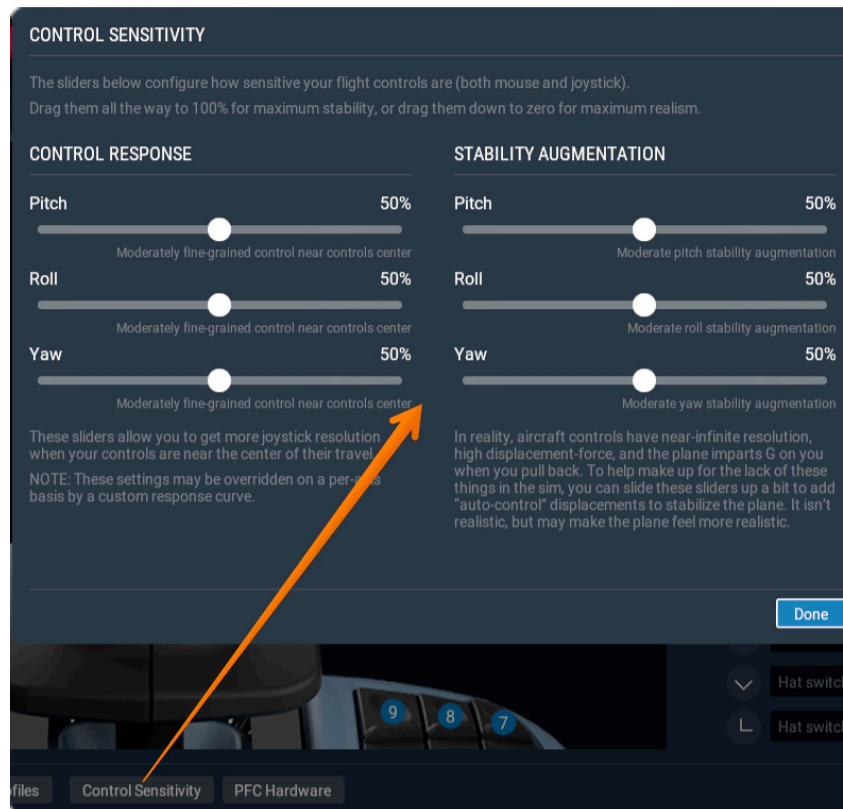
To operate with aircraft SETTINGS, you may use M C D U screen widget, or 3-D cockpit M C D U device. Please select MCDU MENU -> SETTINGS

USE COPILOT - You may turn On/OFF copilot plugin (not included) if you have it already installed. Please leave it OFF if copilot plugin not installed to avoid graphic artefacts.

FPS MESSAGE - Allow you to switch OFF alert message about low framerate value

RIGHT CLICK - Allow you to switch manipulators style on FCU, may be applicable for VR usage.

WIND & DISP REFLECT - You may turn off, or turn on display reflection, using this option.

TCA QUADRANT: If you use TCA Quadrant - please open X-Plane Settings -> Joystick and assign command jd - "TCA_MasterSwitch1ON" on your Master Switch 1 ON position. (Please not create special joystick profile for this aircraft). Next - Open MCDU MENU -> SETTINGS -> Page 2 and set ON your TCA option. Next - you can deassign "TCA_MasterSwitch1ON" command if need. Please be sure what you not assign some special profile for TCA Quadrant or just Reset It to Default at Joystick Settings.

LOAD WITH MCDU - MCDU widget will appear on the screen every time you load aircraft.

THR LEVER AXIS - you may select how many hardware axis have your device 1, 2 or 4.

SPOILERS AXIS - for users, who want to set one of joystick axis, on Ground Spoilers Control. If I set it On - I may switch ground spoilers handle position using joystick axis. If I turn this option off - I may control this handle with keyboard and mouse in 3-D cockpit. if you assign spoilers control to one of your hardware axis - please turn this ON. Else - OFF.

T/D PAUSE Simulator will paused, when your aircraft will be close to Top Of Descent. Very useful for long flights. You need turn it ON every flight, option not saved.

THR CLB POS: If you hardware throttle lever have "too short moving" issue - please MCDU MENU -> SETTING -> page 3: You may tune percent of your hardware throttle lever where CLB position may be.

Sound volume allow you to set sound parameters. You may decrease and increase volume here.

3D Lights: to make 3D lights in cabin and cockpit visible, need to set Visual Effect setting in X-Plane at least to High (HDR).
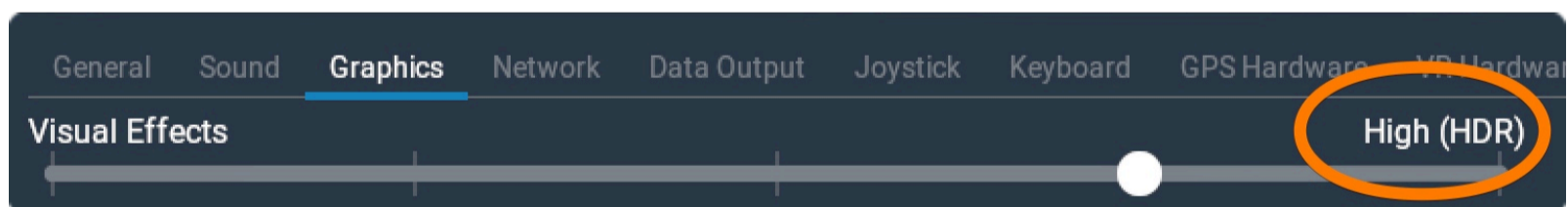
OPERATION

System operation: Please follow FCOM (Flight Crew Operation Manual) to operate aircraft systems. Procedures should be based on real aircraft docs, what you may download a lot from internet, like this way: https://www.smartcockpit.com/plane/AIRBUS/A340.html

FMGS operation: Please follow FMGS manual what you can download from internet: https://www.smartcockpit.com/docs/Smiths_Thales_A_1_0_1_FM_Pilot_Guide.pdf

Flightplan and MCDU widget usage: You need to assign some keyboard key to CommandShowMcdu
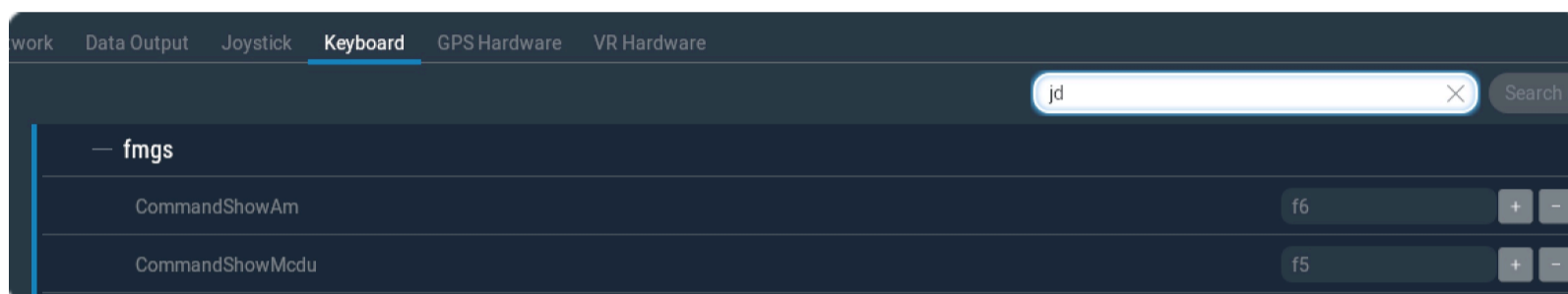
Please follow this learning video https://youtu.be/lO7h3CLmAM4 To operate with these menu, you may use MCDU screen widget, or 3-D cockpit M C D U device.

LOAD AND FUEL allow you to enter Payload data. When you click on it - Payload page appear. You may increase or decrease number of your passengers, in the forward cabin and backward cabin. Also, you may set forward and backward cargo weight. Indication in the right side show actual centre of gravity, actual payload weight, and T H S angle for takeoff.

GROUND HANDLING Page: With this menu you can operate with ground power unit, chokes, stairways, fuel car, and catering tracks. GHD plugin must be installed for this. Please check, what your parking breaks is set. You may select needed cars and push <DRIVE UP to call it.

DOORS STATE Page: You may select any door, to open or close it. No I want to open all doors, at the right side of aircraft.

MCDU PERF Page data: You need enter correct data (V1,2,R, Flaps, THS) for takeoff. Sure, you may calculate it yourself and enter to PERF Page. Another way - just click on L1, L2 and so on without anu Scratchpad input - FMGS will enter actual well-precalculated data then (this feature not work with real aircraft).
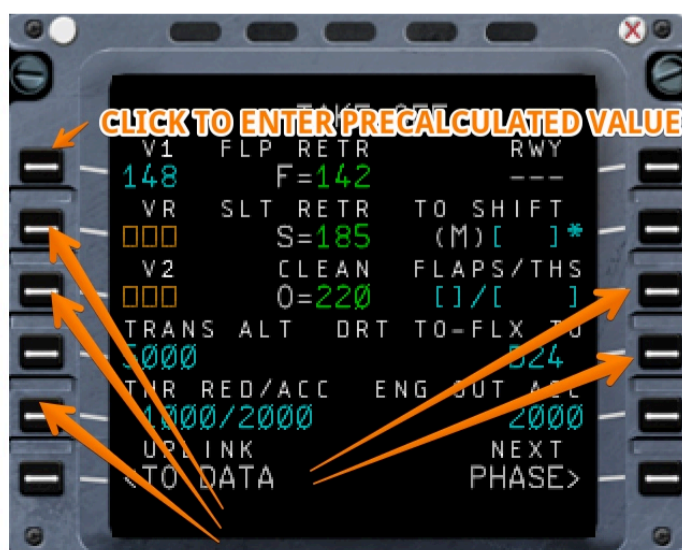
METAR data reading: If FROM/TO airports data was entered to MCDU Init Page - You able to get metar data via DCDU. !!! Attention !!! Some 3th part plugins have conflict with this function and may generate X-Plane crash.

FCU knobs: When you put mouse ower FCU knobs - you see "Push-Pull / Rotate" lable. You may push knob with left mouse button, pull it with right mouse button and rotate knob with mousewheel.

User flightplan (CO RTE) saving: To save your flightplan as CO-ROUTE - select MCDU DATA, next click "->" and select PILOTS ROUTES.


Next - enter your CO-ROUTE name to scratchpad and click L1 to save CO-ROUTE into your aircraft "FlightPlans" folder.

When you need to load saved flightplan - enter it name ("MYPLAN123" in this example) and click on CO-RTE at Init page. Or, when you will enter FROM/TO at init page you will get this CO-ROUTE name in list.

DISPLAYS Widgets: To show/hide PFD, ND, EWD or SYS display widget need to click on display. Widget will appear on the screen. Tap hold left mouse button on it center to resize widget. Hold left mouse button on the widget side and move mouse to move widget.
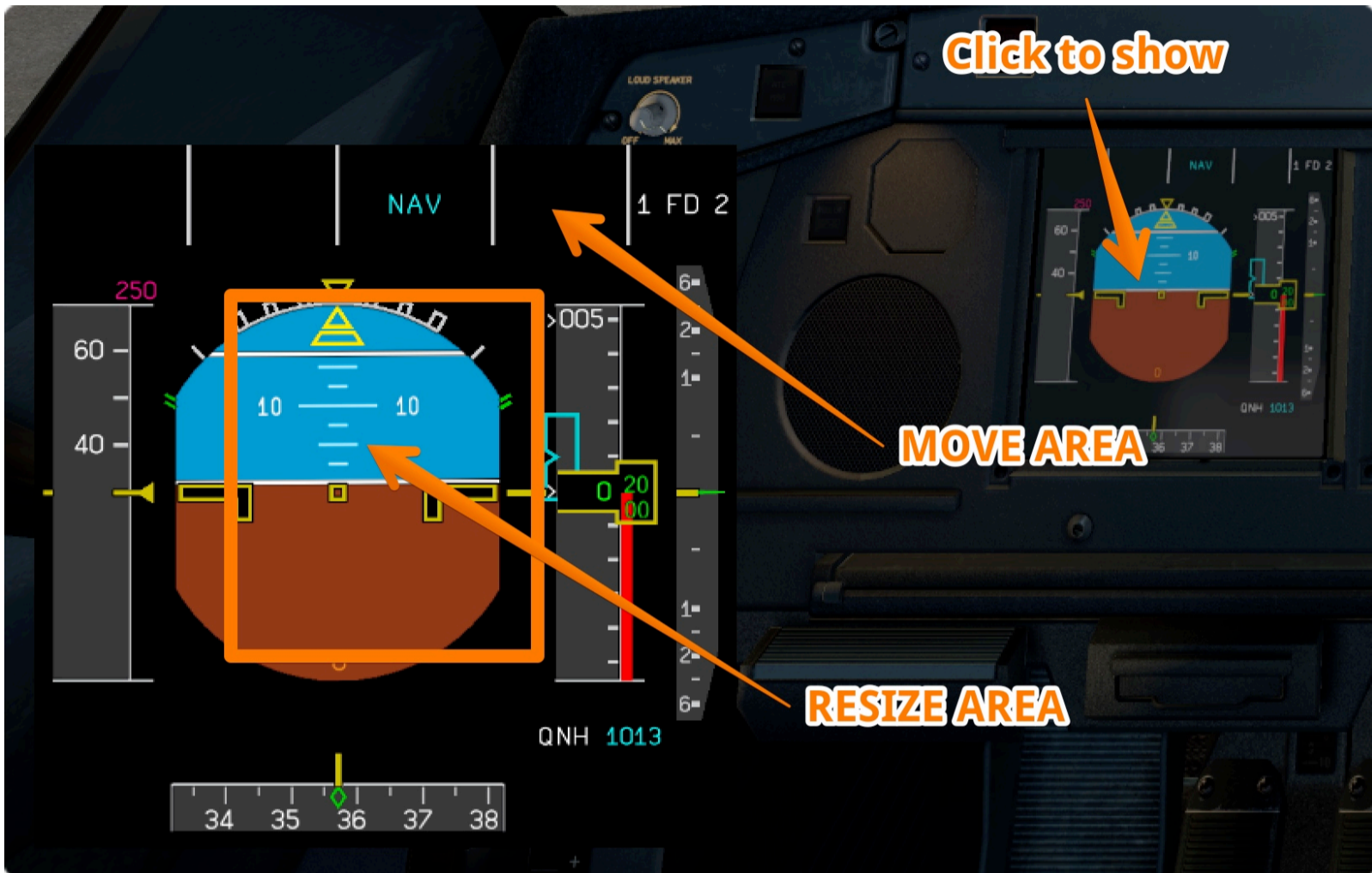
Autopilot Takeover button: To assign AP takeover button on your hardware joystick - please select CommandApTakeover in your X-Plane Settings -> Joystick menu.
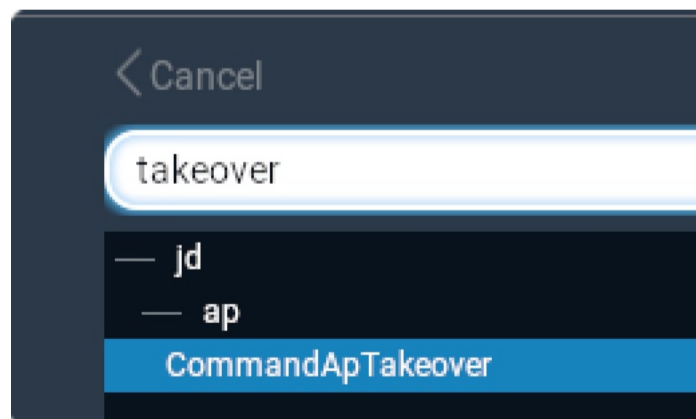
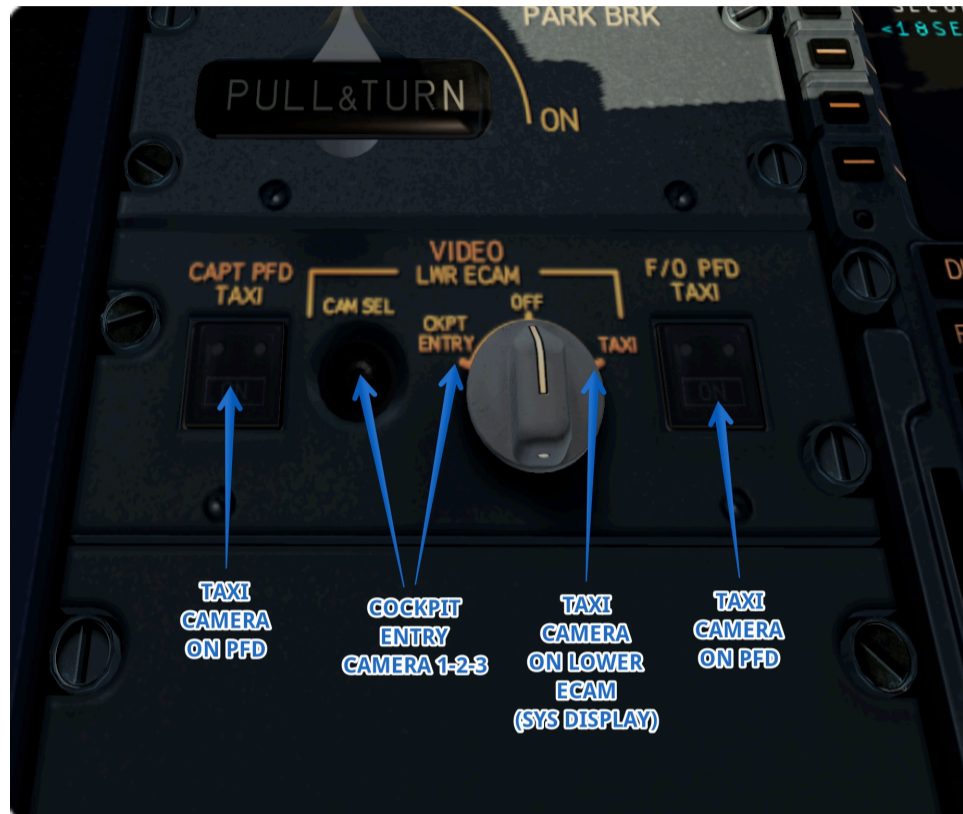Taxi Camera & Cockpit Entry Camera: Please use pedestal VIDEO panel to operate taxi and cockpit entry cameras. To show cockpit entry camera in the lower ECAM (System) display - please turn LWR ECAM selector to "CKPT ENTRY" position. You may switch camera 1, 2 and 3 using CAM SEL button.

To show taxi camera in the lower ECAM (System) display - please turn LWR ECAM selector to "TAXI" position. To show taxi camera in the PFD - please turn On CAPT (F/O) PFD TAXI button. As this version not support separate PFD - camera view will appear on both PFD.

LICENSE

Every product ZIP pack include End-User License. You will find License text file inside "OpenMeAndRead" folder.

SUPPORT

<u>Technical Support Policy:</u> If you meet technical troubles with installing or using our products – please contact technical support. For the initial contact – click the <u>http://www.support.jardesign.org</u> or enter it from the main page of the jardesign.org site. You will redirect to the technical support portal. Select the product, check is your problem is typical (it may have already described solution) and specify the details of your trouble. Usually, need to attach log.txt files from X-Plane folder. Send ticket. We will get response within 24 hours. The answer will come to the email. If you not get answer within 24 hr, please check your spambox, maybe.. If the problem can not be solved via ticket system – you will be offered direct contact with the developer via Skype. Please use this unique opportunity. If Skype (freeware) is not installed on your computer (what used for the simulator) – it is possible to use TeamViewer (freeware) to share the screen and skype installed on the smartphone for voice communication. Communication takes place in English/Russian. In the most of cases, the problem can be solved. Bear in mind that technical support does not teach how to use of products – for this there are materials posted on the our forum. Of course, if technical support policy is unacceptable for you – you should avoid becoming a JARDesign customer.

TROUBLESHOOTING

If you meet any troubles with aircraft installation/usage you may contact our support. For many cases user may solve some typical issues, with way what described below. Sometimes you may read error info in the Log.txt file what is placed in the root X-Plane folder.

Livery installation issue: About Livery installation issue. You may find liveries in many places like www.simliveries.com After you unpack ZIP file you need be sure what file structure inside new livery folder look like the inside JARDesign Home livery folder.

1114 error in Log.txt file: If 1114 errors happen at your log "Error Code = 1114", like ..\X-Plane 11/Aircraft/JD340XP11/plugins/sys/win.xpl : Error Code = 1114 : A dynamic link library (DLL) initialisation routine failed. That mean what too many plugins was loaded from your installed Custom Sceneries (all scenery plugins loaded Before aircraft plugin) and X-Plane not allow load any more plugins, include aircraft plugins. So, need to delete/deactivate plugins from some sceneries.

Activation window not appear: If activation window not appear, there is 3 reasons may be for this -

1. Check what you use computer under Admin mode.

2. Please be sure what you use only English letters in file path to X-Plane and X-Plane not installed to Windows Desktop.

3. You use Windows. In this case, please install "Microsoft Visual C++ Redistributable 2010" pack, and also install more fresh JAVA.

4. One of your installed X-Plane plugin can block activation windows. You can temporary remove your plugins one-by-one and check is activation window appear. Another (faster) way you can use - load Cessna 172, open X-Plane Menu->Plugins->Plugin Admin to disable ALL plugins, next - load JD340.

Auto Pilot disconnect: AP disconnect may happen if:

- pilot just move joystick/pedals or joystick move itself (need check how well joystick was centred and calibrated)

- aircraft reach flight conditions when AP should be disengaged cause of "protection" reason - A.FLOOR, TOGA LOCK, Overspeed

Anyway, just after another AP disconnect happen - you may open Log.txt file (in your X-Plane folder) and read a reason for AP disconnect in last log strings.

Aircraft not follow route: There is a big chance what it is some special problem on user side, cause most users have not this problem. The reason may be:

1. An affect of some another installed plugin. There is simple solution in this case to check - load Cessna 172, open X-Plane Menu->Plugins->Plugin Admin to disable ALL plugins, next - load JD320/330. If issue gone - one of your plugin conflict with Airbus FMGS.

2. Problem may come from hardware, from your joystick. Please check - if some of your joystick switch assigned to "Avionics OFF/ON" - it should be stay in ON position when you run JD320/330.

3. Something wrong in settings. To check this faster - please find "Output" folder inside your X-Plane folder and rename it to "OutputOld". Next - run X-Plane. In this case X-Plane will create new and clean "Output" folder with clean settings. Please calibrate your joysticks and check JD320/330 autopilot. If issue gone - some settings was a reason.

4. Please check what you can operate aircraft with disconnected joysticks and mouse only (without any special plugins!!!). Try default Cessna 172 for example. If you can not operate aircraft with mouse (without additional plugins) - something wrong with your settings and you need follow point 3.

Conflict with other plugins: Some trouble may happen cause of this. Sometimes issue happen only for some users and most other user have work this things well. There is a big chance what it is some special problem on user side. The reason may be an affect of some another installed plugin. There is simple solution in this case. You need just delete another plugins for time. I should note what deactivate plugins via Menu/Plugins/Plugin Admin is not a way, cause most of plugins continue working in this case. Better - use a way below. Sure, if you need help with this, you may contact me direct with skype j.a.romanov

How to get "clean" plugins folder to avoid add-on conflict:

- Copy your ../X-Plane/Resources/Plugins folder to some place at your computer (just for reserve)

- Delete ../X-Plane/Resources/Plugins folder at all

- run X-Plane Installer and let him update you X-Plane

- now you have "clean" plugins folder

Run your add-on and check if problem happen in this configuration.

If problem not happen more, you may return plugin back one-by-one to determinate what of them was a real problem

Another (faster) way you can use - load Cessna 172, open X-Plane Menu->Plugins->Plugin Admin to disable ALL plugins, next - load JD320/330.

Aircraft crash during METAR update using DCDU: Some part of users describe crash just after click Update button on DCDU. As you can see at Log.txt (just after crash happen) Metar data was read/save ok, but you may read xPilot plugin info in several strings after this. So, if you will remove xPilot plugin - crash will not happen and you will get metar info on your DCDU. JD320/330 not affect on xPilot plugin, but just send weather request to internet. It is may be what xPilot just intercept metar server answer and trying to parce it with no luck and generate CTD, I don't know, but guess only. Anyway, this issue may be solved on xPilot side and we ready to deal with xPilot developers if need.

Segment error during flightplan/coroute import: Segment error may happen if:

1. Aircraft FMGS active cycle is not the same what was used for flightplan creation.

2. Navdata cycle what used in aircraft FMGS not include this segment. This may be checked manually only in navdata text files.

Sure it is possible to use flightplan generation (standard function for JARDesign aircraft) and alternate soft for route creation, like Routefinder. You can use this service RouteFinder (free access area) to prepare icao-format flightplan and paste it as string into .txt file inside Flightplans folder.

Spoilers operation troubles: If Spoilers not deploy on landing (but was Armed and autobrakes was selected) - Please check MCDU MENU -> SETTINGS -> NEXT PAGE -> SPOILERS AXIS set OFF (if you not. use some axis for spoilers control)

CREDITS

This add-on was created by:

JAR - Coding

SLAVA - Art