



Sven's Mod for JeeHell FMGS – Read Me

1. Background

JeeHell A320 FMGS (“the JeeHell software”) is a suite of software components allowing flight simulator enthusiasts, and especially cockpit builders, to recreate a completely functional Airbus A320 flight deck. The JeeHell software is free for private use and supports hardware peripherals from various suppliers.

Currently the JeeHell software supports FSX and P3D, but not FS2020. The developer of the JeeHell software has stated his intention to support FS2020 at some point in the future. In the meantime Sven (aka ZockerParadise) has developed a “mod” (“Sven’s mod”) allowing the use of most features of the JeeHell software with FS2020.

2. Prerequisites

The following software will need to be installed for the JeeHell software to work, in combination with Sven’s mod, using FS2020 for the external visuals. Please follow the standard installation procedure to install, and, if necessary, register and activate, each program.

2.1. Microsoft Flight Simulator 2020

Although somewhat lengthy the installation of FS2020 should be straightforward. Note that which store you purchased your copy of FS2020 from or which specific edition (Standard, Deluxe, Premium Deluxe) you are using should not matter.

After successfully installing FS2020 you should make note of the location on your hard drive of the “Community” folder. If in doubt, numerous online resources are available to help you locate the “Community” folder. This information will be needed when installing part of Sven’s mod and, optionally, any additional liveries.

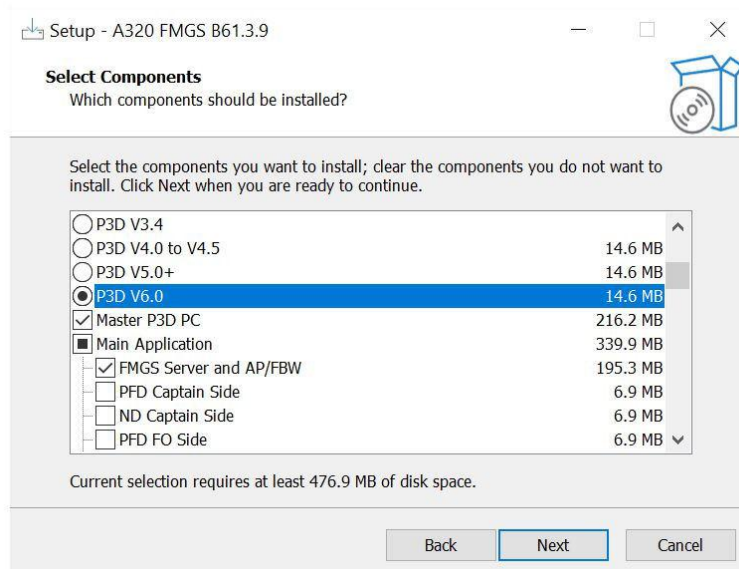
2.2. FSUIPC

If you plan on using any add-ons requiring access to the status of the parking brake in FS2020 (e.g. GSX) you will need to install FSUIPC v7 for MSFS. For more information about FSUIPC visit [Pete & John Dowson's Software web page](#).

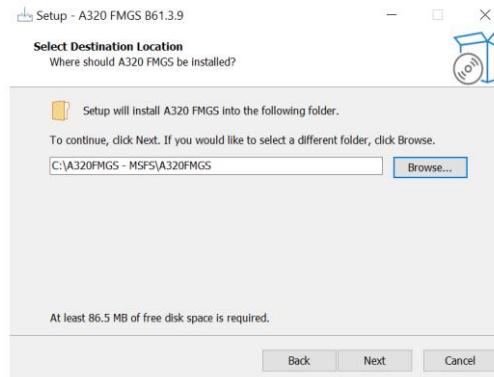
2.3. JeeHell A320 FMGS

The latest version of the JeeHell software can be downloaded from the [Current versions](#) section of the JeeHell forum. Due to the networked and highly modular nature of the JeeHell software many configurations are possible. It is not the intention of this document to cover any detailed installation and configuration instructions. Available resources include several documents available with the download of the JeeHell software and the [Software support](#) section of the JeeHell forum. The [SoarByWire](#) and [pero Aviation](#) websites are also great resources.

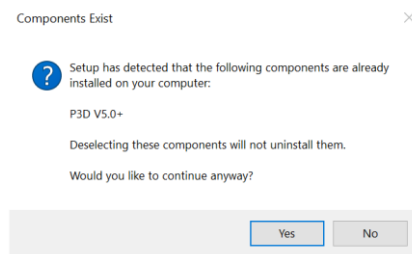
If you plan on using FS2020 exclusively (i.e. you don't have P3D installed) you should select P3D v6.0 during installation (see screenshot below) and you can point the installation to the default folder ("A320FMGS").



If you intend to use the JeeHell software with both P3D and FS2020 then you should select P3D v6.0 during the installation and point the installer to a dedicated folder reserved for use with FS2020 (for example "A320FMGS - MSFS"). The installer will then create a new "A320FMGS" folder in that folder, preventing your existing installation and its configuration from being overwritten.



Note that in this case the installer will detect your existing version of the JeeHell software and warn you that an existing version is already installed on your computer. Click “Yes” on the window below as you do indeed want to proceed without uninstalling any existing components.



After successfully installing the JeeHell software you should make note of the path to the “FMGS Server” folder in the main JeeHell installation folder (if using multiple computers, on the computer running the FMGS Server). This path will be needed when installing part of Sven’s mod.

2.4. Lockheed-Martin Prepar3D (optional)

Although not strictly required, it might be beneficial to have a version of P3D installed as well. This would allow you to test that the JeeHell software is properly working, independently of FS2020. Another benefit is that you would be able to generate your own Navdata (.BIN) files which might match more closely the navigation data in FS2020 (see section 4.3 for more information).

3. Sven’s Mod

3.1. Download

The latest version of Sven’s mod can be downloaded from the [Downloads](#) section of the Homecockpit Simulation forum. Note that you will have to register first before downloading the two separate installers, one for modifying the JeeHell software and one for adding the aircraft external model in FS2020.

3.2. Serial Number

A valid serial number is required during installation. It can be obtained by sending an email request to fmgsmod@cockpitpanels.de

3.3. Installation

3.3.1. FMGS Mod

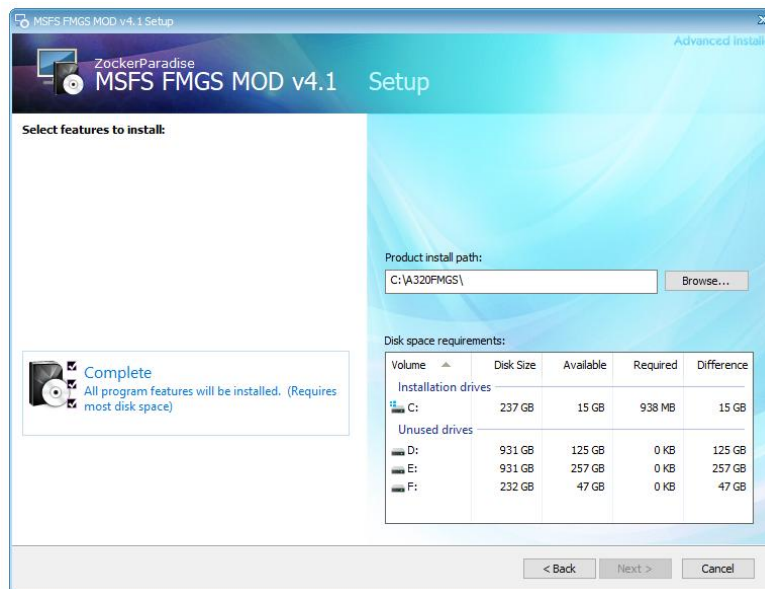
Run the “MSFS FMGS MOD vx.x.msi” installer (where “x.x” is the version number). The following screen will appear (after allowing Windows to run the installer if need be).



Click “Next” to continue.

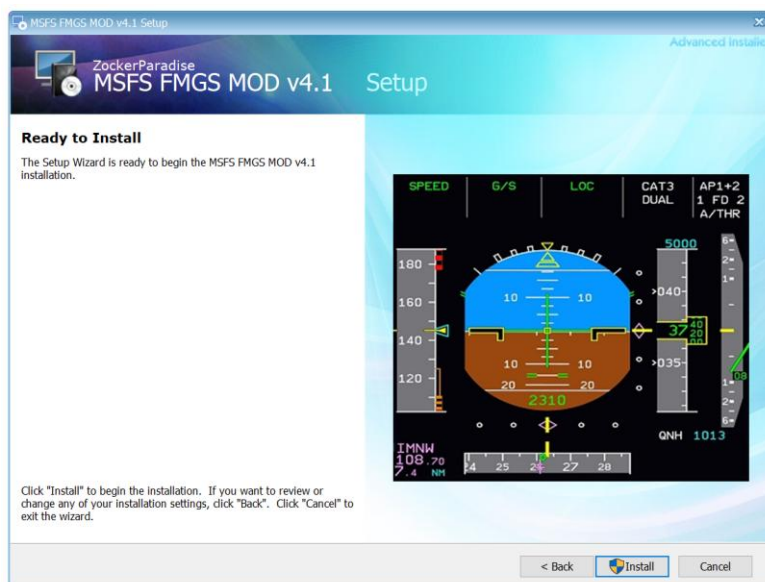


On the next screen, enter the serial number you received via email (see 3.2) in the “Serial Number” field before clicking “Next”.



The installer should detect the path to the JeeHell software and use it as default for the “Product install path” field. If you need to change the installation path, use the “Browse...” button to select the desired JeeHell software installation path (see 2.3).

Then click the “Complete” option on the left to move to the next screen (the “Next” button will stay grayed out).



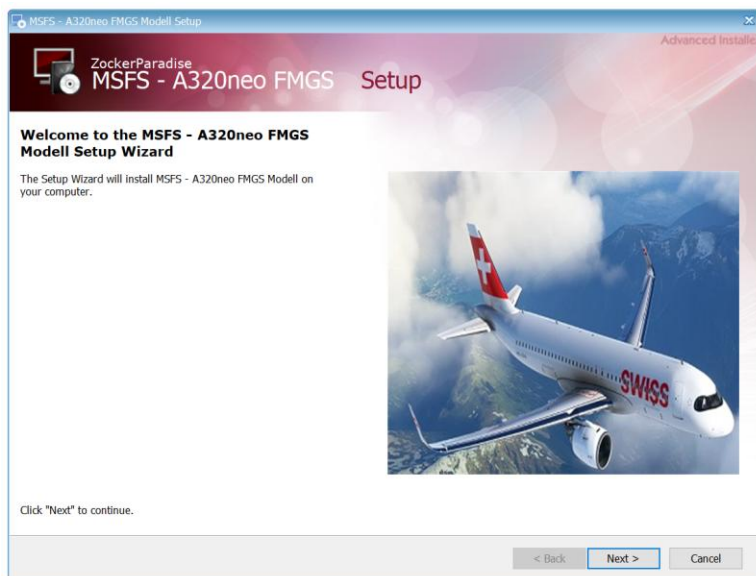
You are now ready to start the installation. Click “Install” to begin the installation.



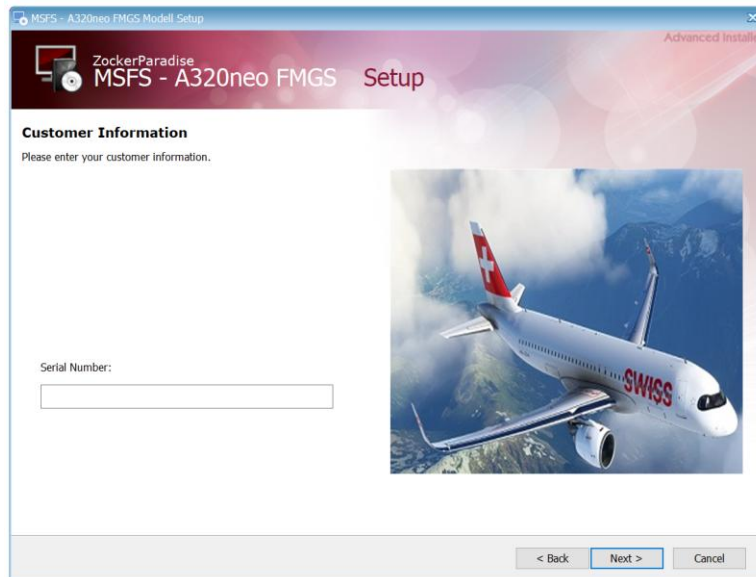
Once the installation finishes click the “Finish” button to exit the Setup Wizard.

3.3.2. A320neo Model

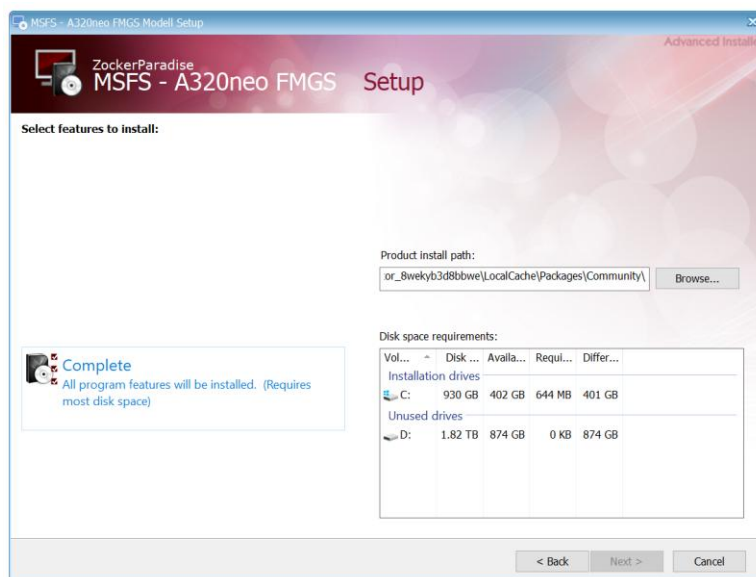
Run the “MSFS - A320neo FMGS Modell.msi” installer. The following screen will appear (after allowing Windows to run the installer).



Click “Next” to continue.

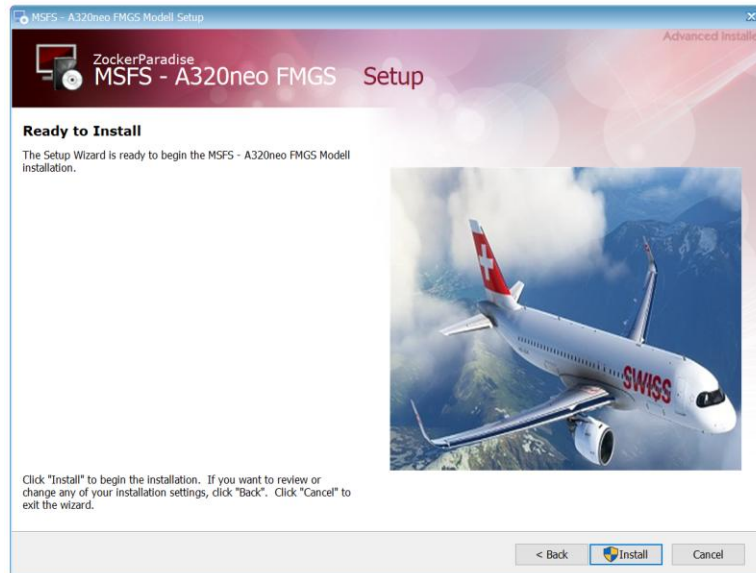


On the next screen, enter the serial number you received via email (see 3.2) in the “Serial Number” field before clicking “Next”.

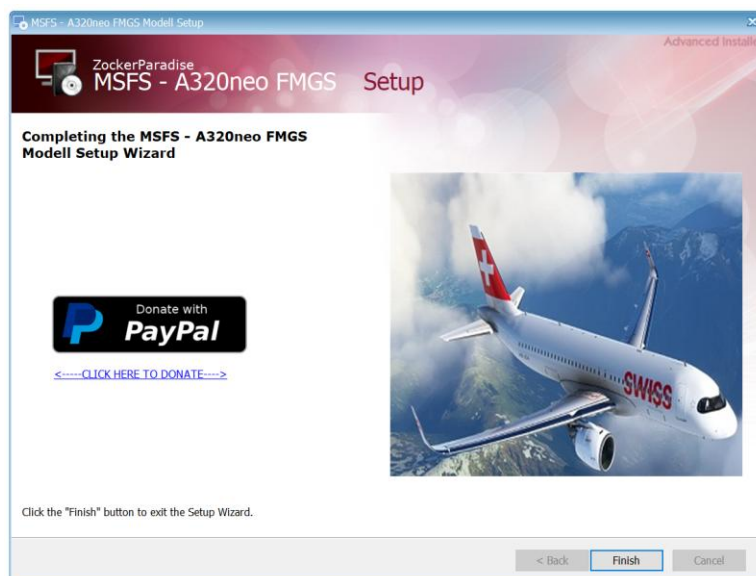


Use the “Browse...” button to select the path to your “Community” folder (see 2.1). If you run into any issues targeting the “Community” folder directly you can always select a temporary folder for the installation and then manually copy the installed files to your “Community” folder.

Then click the “Complete” option on the left to move to the next screen (the “Next” button will stay grayed out).



You are now ready to start the installation. Click “Install” to begin the installation.



Once the installation finishes click the “Finish” button to exit the Setup Wizard.

3.3.3. Liveries

You will find additional liveries in the *available-liveries* channel on the ZockerParadise Discord server or in the [Liveries](#) section of the forum. After uncompressing the files just copy those to the FS2020 “Community” folder (see 2.1).

3.4.Additional Configuration

3.4.1. Parking Brake

If you are using any add-ons requiring access to the status of the parking brake in FS2020 (e.g. GSX) you will need to configure some buttons, switches, or key presses in order to set the default parking brake in FS2020. Note that this is in addition to whatever configuration you need for the JeeHell software to control the parking brake based on the specific hardware you might have.

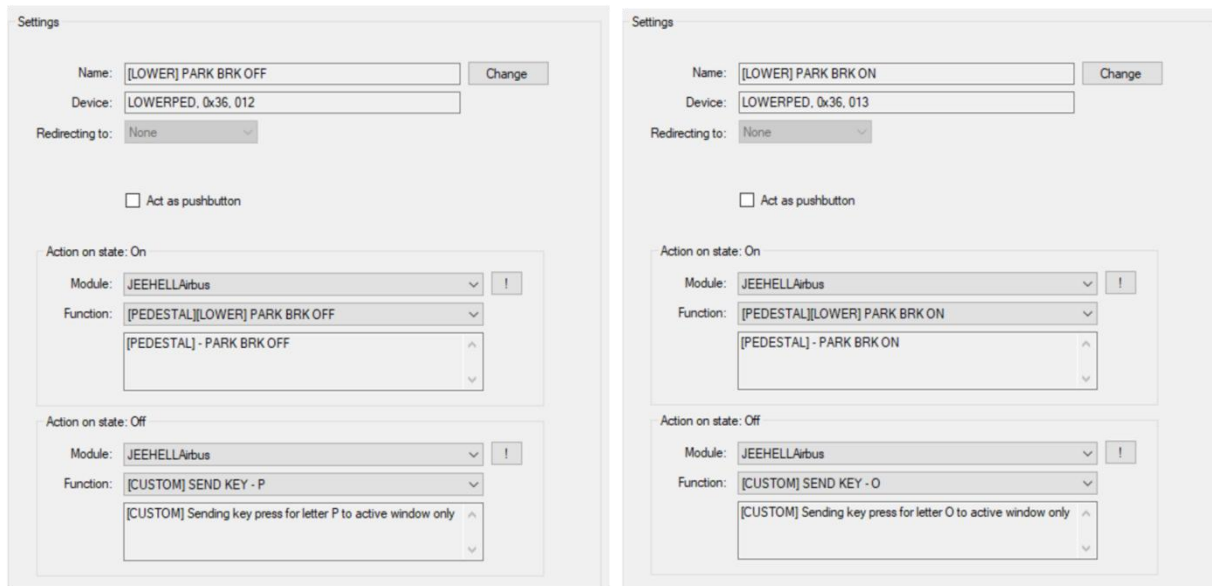
Using FSUIPC you would want one action to send the “Parking Brake Set” command with the parameter set to 1. This will set the parking brake. Another action will need to send the “Parking Brake Set” command with the parameter set to 0. This will release the parking brake (once again only setting the internal FS2020 variable, with no effect on the JeeHell software).

sends this control when pressed	
Parking Brake Set	
Parameter	1

sends this control when pressed	
Parking Brake Set	
Parameter	0

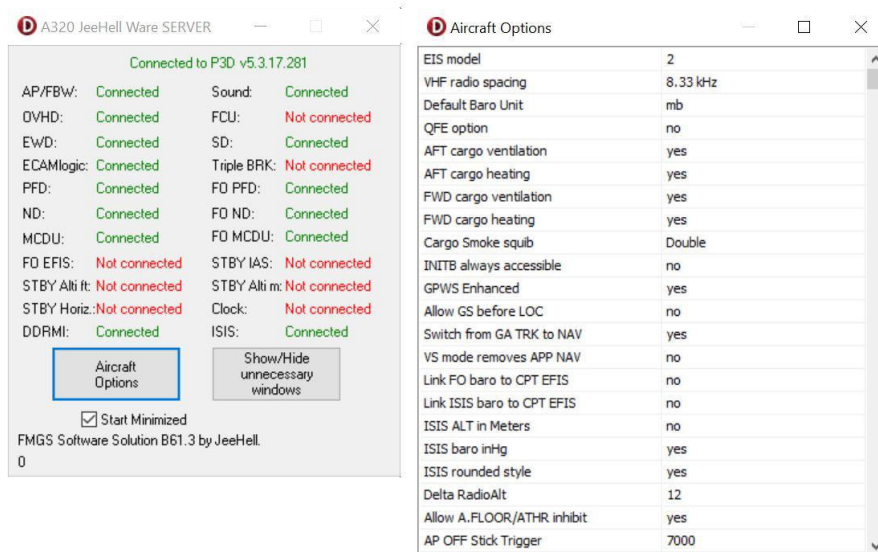
When pushing back from the gate with GSX you can then use the button, switch, or key press you configured to “virtually” release the parking brake so that GSX detects it and starts the pushback. Use the second button, switch, or key press to “virtually” set the parking brake once the pushback is completed. Note that this can also be useful for other external applications tracking the status of your flight (e.g. ACARS used by virtual airlines, A Pilot’s Life).

For Skalarki users, it is possible to tie these actions to the physical parking brake handle on your pedestal. This requires defining two separate key presses in FSUIPC (as described above) and then associating in the Skalarki Profiler these key presses with the “Action on state: Off” for the two switches connected to the parking brake handle. See below for an example of a configuration using the “P” and “O” key presses to set and release, respectively, the parking brake. Please make sure that whichever key presses you decide to use does not conflict with a default keyboard setting in FS2020. Note that on first use of the parking brake handle you might have to cycle it once for the Profiler to detect the new position of the switches and send the associated key press.



3.4.2. Aircraft Options

Sven's mod comes with its own default aircraft configuration for the JeeHell software. Thus you will have to reconfigure your preferred aircraft options in the pop-up window accessible from the A320 JeeHell Ware Server window.



3.5. Known Issues

3.5.1. Default Cockpit View

The default cockpit view is located outside the cockpit, in front of the Captain's window, and is thus off center. You might have to change the view in order to find what works best for your particular display configuration and preference.

3.5.2. Flight Model

The flight model in FS2020 will most likely behave (“feel”) somewhat differently from what you might be used to in P3D. This also applies to the aircraft behavior while using the autopilot.

3.5.3. Ground Handling

The ground handling in FS2020 will most likely behave (“feel”) somewhat differently from what you might be used to in P3D.

3.5.4. Weather Radar

The weather radar is currently not functional.

3.5.5. Radios

The radios will appear to be functional but will not set the corresponding radio frequencies in FS2020. This means that external programs reading the radio frequencies from FS2020 will (most likely) read a different value. This will for example be the case for any client program used to connect to online networks (VATSIM, IVAO, etc.). See section 5 (Frequently Asked Questions) for a possible workaround.

3.5.6. Engine Not Detected Running

Programs relying on FS2020 to properly report the state of the engines (running or not) will not be able to detect when the engines are running in the JeeHell software. This is for example the case with GSX (“Clear to start engine” message received even after both engines are running) or A Pilot’s Life (not detecting the start of the taxiing phase). One possible workaround is to use the default Ctrl+E command to “virtually” start the engines in FS2020.

4. Additional Software

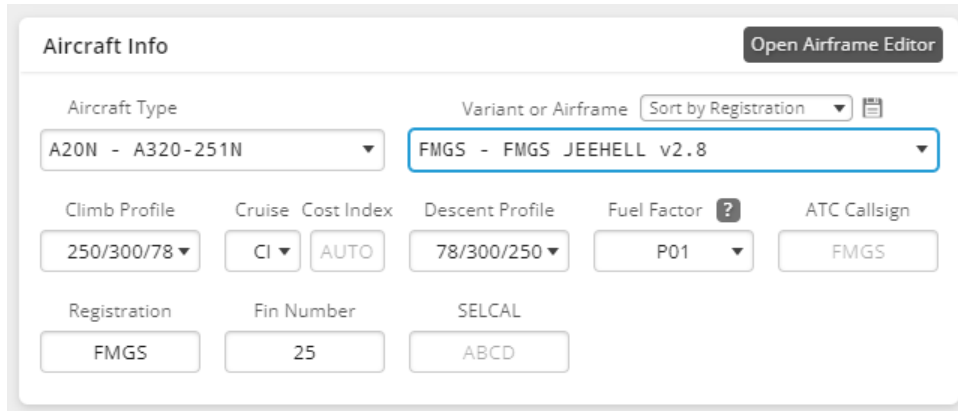
4.1. Recommended

4.1.1. SimBrief

SimBrief is a free flight planning tool offering many features. SimBrief is a web-based application and is available [here](#).

A SimBrief profile is available for the A320neo modeled by Sven’s mod and can be accessed from the *download-mod* channel on the ZockerParadise Discord server. You can further configure the airframe in SimBrief or just save it as is.

When planning your flight with SimBrief make sure to select “A20N – A320-251N” as the Aircraft Type and then “FMGS JEEHELL v2.8” under Variant or Airframe (see below).



Aircraft Info Open Airframe Editor

Aircraft Type: A20N - A320-251N

Variant or Airframe: FMGS - FMGS JEEHELL v2.8

Climb Profile: 250/300/78

Cruise: CI

Cost Index: AUTO

Descent Profile: 78/300/250

Fuel Factor: P01

ATC Callsign: FMGS

Registration: FMGS

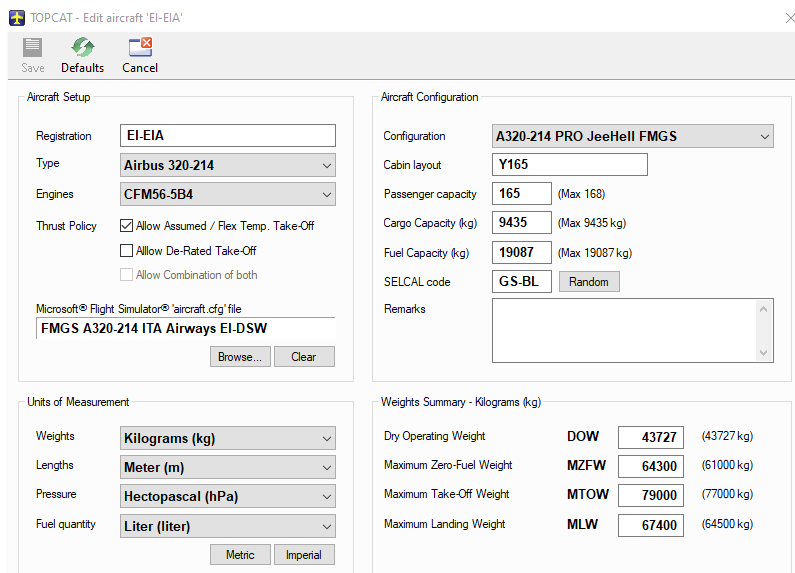
Fin Number: 25

SELCAL: ABCD

4.1.2. TOPCAT

TOPCAT is a tool for calculating takeoff and landing performance data and is available [here](#). Buyer beware: please note that TOPCAT does not receive any additional development or maintenance updates.

You will need to use a new aircraft configuration, which is included in this [download](#). After extracting the files, look for the “Airbus A320-214 JeeHell FMGS.txt” file in the “\TOPCAT\Configurations” folder. Copy that file to the “Configurations” folder in your main TOPCAT installation directory. You can then create a new profile and adjust it to match your favorite A320 and general preferences (with the exception of the “Type” and “Engines”).



TOPCAT - Edit aircraft 'EI-EIA'

Save Defaults Cancel

Aircraft Setup

Registration: EI-EIA

Type: Airbus 320-214

Engines: CFM56-5B4

Thrust Policy: ☒ Allow Assumed / Flex Temp. Take-Off
☐ Allow De-Rated Take-Off
☐ Allow Combination of both

Microsoft® Flight Simulator® 'aircraft.cfg' file
FMGS A320-214 ITA Airways EI-DSW

Browse... Clear

Aircraft Configuration

Configuration: A320-214 PRO JeeHell FMGS

Cabin layout: Y165

Passenger capacity: 165 (Max 168)

Cargo Capacity (kg): 9435 (Max 9435 kg)

Fuel Capacity (kg): 19087 (Max 19087 kg)

SELCAL code: GS-BL Random

Remarks:

Units of Measurement

Weights: Kilograms (kg)

Lengths: Meter (m)

Pressure: Hectopascal (hPa)

Fuel quantity: Liter (liter)

Metric Imperial

Weights Summary - Kilograms (kg)

Dry Operating Weight	DOW	43727	(43727 kg)
Maximum Zero-Fuel Weight	MZFW	64300	(61000 kg)
Maximum Take-Off Weight	MTOW	79000	(77000 kg)
Maximum Landing Weight	MLW	67400	(64500 kg)

Using the “Weight & Balance” tab in TOPCAT you can setup the payload, fuel, and other trip details. Alternatively you can use Flight Manager (see 4.1.3) to import the data from your last SimBrief flight plan.

TOPCAT - Take-Off and Landing Performance Calculation Tool [2.74]

File Options Help

Aircraft W & B Take-Off Landing TLR Weather Editor Config Quit

Aircraft
 Registration: **EI-EIA**
 Type: **A320-214 CFM56-5B4**
 Weight Units: **Kilograms (kg)**

Trip Data
 Flight Nr.: **ITY1677** Dist (NM): **221** 00:45
 From: **LIRF** **FIUMICINO**
 To: **LIRQ** **PERETOLA**

Weight Limits
 Max Zero Fuel: **64300 kg**
 Max Take-Off: **79000** Max
 Max Landing: **67400** Max

Passenger Load
 Type of Flight: **SCHEDULED**
 Adults: **129**
 Children: **0**
 Infants: **0**
 Total: **129+0** **10836 kg** Random

Fuel Load
 Fuel on Board (kg): **5548**
 (Max 19087 kg) **6871 lit**
 Taxi Fuel (20 minutes): **230**
 Trip Fuel (kg): **1735**
 Remaining Fuel: **3583 kg** Estimate

Destination Alternates
 Primary: **LIRF** **129NM**
 Secondary:

Cargo Load
 Type of Flight: **DOMESTIC**
 Baggage: **1677**
 Cargo: **500**
 Mail: **0**
 Other: **0**
 Total: **2177 kg** Random

Weight & Balance Summary

Dry Operating Weight	DOW	43727 kg	
Payload		13013 kg	
Zero Fuel Weight	ZFW	56740 kg	32.1% MAC
Take-Off Fuel		5318 kg	
Take-Off Weight	TOW	62058 kg	31.0% MAC
Trip Fuel		1735 kg	
Landing Weight	LDW	60323 kg	31.3% MAC

Underload 7077 kg (Limited by LDW) **Stab Trim: 0.6 DN**

Other / Remarks
 Prep. by: **P.I.C.**
 Remarks:

Licensed to Thierry Debelle TOPCAT DATABASE (NG2404) ACARS: Disabled 01 MAY 2024 19:04 UTC

Once satisfied with the weight and balance configuration click the “Export to Flight Sim...” button to open the following window. Click the “Send” option at the top of the window to export the weight data to FS2020.

TOPCAT - Export to Flight Simulator

Save Send Browse Close

Save to 'Aircraft.cfg' file

Configuration: **FMGS A320-214 ITA Airways EI-DSW**

'Aircraft.cfg' Location: **\\a320\A320FMGS\Aircraft\A320\Aircraft.cfg**

☐ Add Loadsheet to the Flight Simulator Kneeboard
☐ Add Take-Off and Landing Report to the Flight Simulator Kneeboard

Send via FSUIPC / WideClient

FSUIPC status: **Connected (Version 7.411)**

Aircraft loaded in FS: **Airbus A320 Neo ITA Airways**

☒ Update Fuel quantity

4.1.3. Flight Manager

Flight Manager is a free tool allowing you to transfer data from your latest SimBrief flight plan to TOPCAT. You can find the latest version in [this thread](#).

By default Flight Manager will import the data from your latest SimBrief flight plan.

You can then use the “Send” button to launch TOPCAT and import the data to the last aircraft you used in TOPCAT.

4.2. Optional

4.2.1. GSX Pro

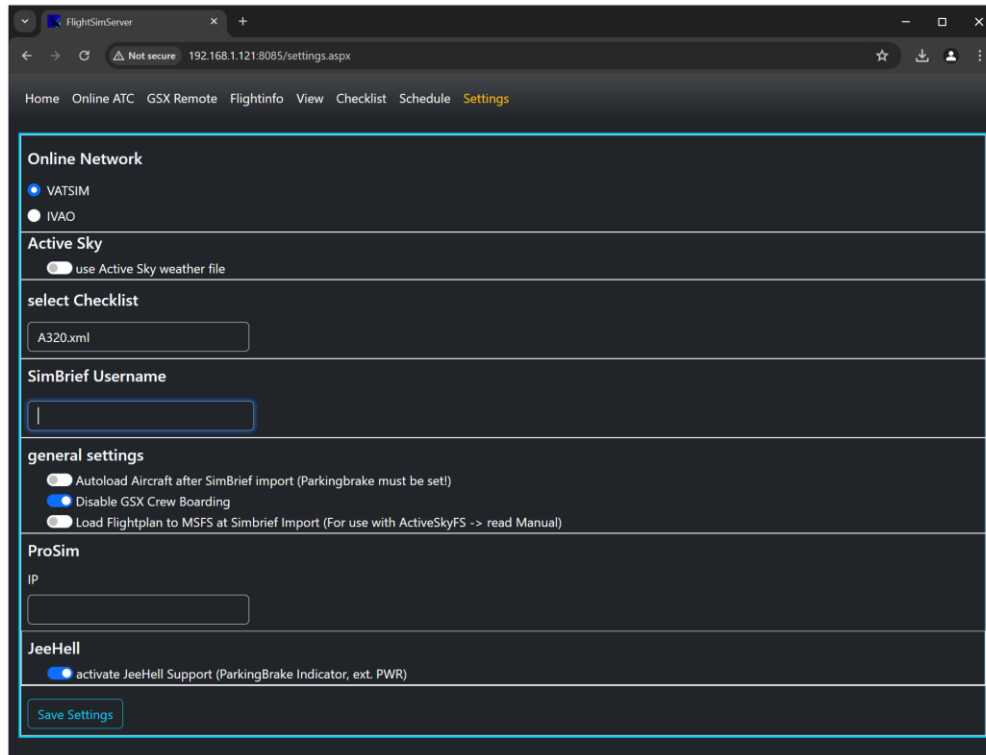
Ground Service X Pro (GSX) improves existing ground services and adds entirely new services not available as standard. GSX can be purchased [here](#). Please follow the instructions provided in the included manual to install and configure GSX.

See 3.4.1 for instructions on how to configure the parking brake so that its state gets recognized by GSX.

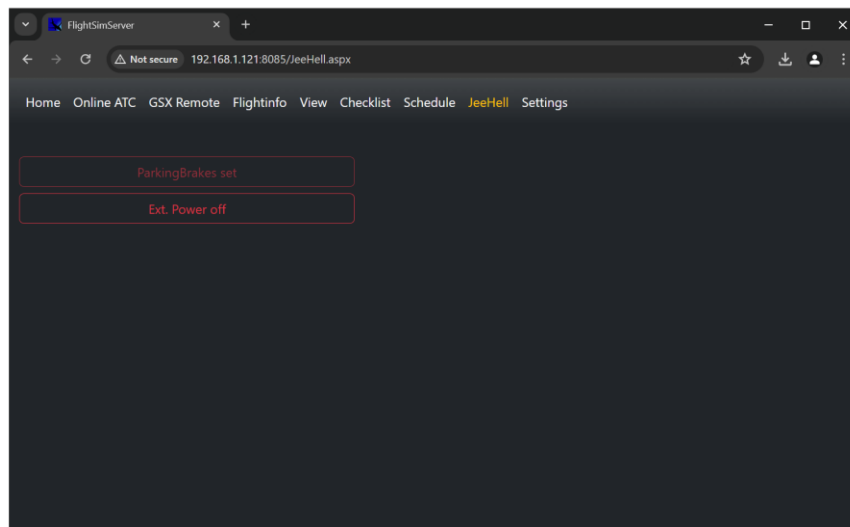
4.2.2. Flight Sim Server

Flight Sim Server is a free application allowing you to monitor and control certain aspects of your simulator via a web browser. It can be downloaded [here](#). Please follow the instructions provided in the included manual to install and configure Flight Sim Server.

Make sure to enable the “activate JeeHell support” option as show below.



You will then have an extra option (“JeeHell”, near the top of the window and in the “Home” tab) to monitor the status of the Parking Brakes and connect/disconnect the External Power (see below).



4.3. Navdata Update

The JeeHell software requires the Navdata information (airports, runways, ILS frequencies, SIDs and STARs, etc.) to be compiled into files (*.bin) with a proprietary format.

The FMGS mod comes with the required Navdata files, generated from a default installation of P3D v4 and updated using the free Navdata update available [here](#). Note that this means that airports and/or runways not included in P3D v4 will not be available in the MCDU.

Currently the JeeHell software is unable to read the Navdata from FS2020. One option to improve the “quality” of the Navdata is thus to use a more recent version of P3D with, optionally, add-ons for the missing airports and/or runways, and updated AIRAC data (e.g. Navigraph). Use the standard procedure for generating the *.bin files and then copy the files to the “Navdata” folder in your JeeHell installation used with FS2020. Please refer to the JeeHell documentation for instructions on how to generate these files.

5. Frequently Asked Questions

External lights don’t seem to work

You need to make sure that you have disabled the “new” (volumetric) lights in the JeeHell software. See the instructions on [this webpage](#) on how to accomplish this.

The status of the parking brake is not detected by my add-on

See 3.4.1.

The engine start is not detected by my add-on

After starting your engines normally, try pressing “Ctrl+E” which is the default keyboard shortcut to start all engines (see 3.5.6).

How do I connect External Power?

One option is to configure an unused button or switch in your cockpit to connect and disconnect the External Power via the associated function in the JeeHell API or the appropriate offset using FSUIPC.

Another option is to use Flight Sim Server (see 4.2.2)

Radios do not set the corresponding frequencies in my VATSIM/IVAO client

This is a known issue (see 3.5.5). For online flying or other situations requiring the use of the standard FS2020 radio frequencies you will need to use an external application to set the desired radio frequency (such as FS Radio Panel or FS Flight Control).

How do I convert my favorite A320 livery to work with this mod?

See [this post](#).

6. Fine Print

This document is intended to assist you in installing and configuring Sven's mod. You should use any information contained in this document at your own risk. We take no responsibility, direct or indirect, in any issues you might run into by using such information.

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