Manual

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Note to Flight Simulator X (original) and Flight Simulator X STEAM EDITION users.
If you want to use FSFlyingSchool with Flight Simulator X you must install Peter Dowson's award winning **FSUIPC version 4.958 or above**. If you already have FSUIPC version **4.958** or above installed on your PC, you do not need to install it again. You can check this by looking at the AddOns Menu of FSX to check if FSUIPC appears there. If it does appear on the AddOns Menu of FSX, it is installed and you do not need to install it. If it does not appear there, you should install it as your next step. To install it, simply launch FSUIPC from your FSFlyingSchool CD or download it from:http://www.schiratti.com/dowson.html and then launch the program you downloaded.

The FSUIPC version you need is free - you do not need to buy (register) it.

**FSFlyingSchool functions as a DEMO version until a registration code is
put into its Credits Screen when FSFlyingSchool *is running*.**

FSFlyingSchool should always be run 'as an administrator'.
You should do this even if you are the only person who uses the PC and even if you are an administrator.
To do this, right click on the FSFlyingSchool icon, shortcut or menu item you use to launch FSFlyingSchool, select 'Properties' from the menu, select the 'Compatibility' tab, and turn ON 'Run this program as an administrator'.

FSFlyingSchool's software is not to be considered, in any way, implied, certified, suitable or valid for the training of any person for the operation of any aircraft, vehicle or equipment of any kind.

If you have 'generated runway data' for a previous version of FSFlyingSchool on your PC then you must 'generate new data' for FSFlyingSchool PRO 2019. FSFlyingSchool will remind you whenever it is launched if the new data has not yet been generated. To generate the data, simply make sure your simulator's folder is shown at the Settings Screen of FSFlyingSchool and then press the matching 'generate' button for your simulator. This process *automatically* installs and uses Peter Dowson's 'MakeRwys' version 4.678 (supplied with FSFlyingSchool PRO 2019).

(NEW Features in version 12.1.0)
(Full history of new features appears in Appendix A in the appendices section at the end of this manual)

Introduction

Welcome to FSFlyingSchool! **To get the most out of this product, please read this manual.** FSFlyingSchool uses sophisticated logic to analyze your flying technique, to help you refine and demonstrate your flying skills. Several of FSFlyingSchool's methods will be new, even to veteran simulation pilots, so please read about them in this manual, to discover how FSFlyingSchool works, what it is telling you, and why.

System Requirements

FSFlyingSchool recommends a PC well equipped to run the version of Flight Simulator you have selected. If the PC can run Flight Simulator at a good pace, without problems, FSFlyingSchool will run fine with it. If the PC is *struggling* to run Flight Simulator, especially FSX, then FSFlyingSchool will be unable to give its best performance.

If you are using FSX - Because FSX requires a high performance system, we recommend, for FSX, the following minimum specification:
3.0 GHz Processor
1 GB RAM
256 MB 3D Graphics Card

To hear your instructors, you will obviously need a sound card.

Installation

IMPORTANT! For FSFlyingSchool to install and to run correctly, you must be a *Computer Administrator* user and not a *Limited Account* user. **Even if you are the only person who uses the computer and you are an administrator** you should always launch FSFlyingSchool "as an administrator" or Windows may prevent operations such as saving your own data to your PC. To do this, right click on the FSFlyingSchool icon, shortcut or menu item you use to launch FSFlyingSchool, select 'Properties' from the menu, select the 'Compatibility' tab, and turn ON 'Run this program as an administrator'.

To install, simply run the installation EXE program supplied by FSFlyingSchool. If installing from CD, follow the instructions on the inside of the product case.

FSUIPC

FSFlyingSchool uses Peter Dowson's excellent FSUIPC. This is installed for you automatically by FSFlyingSchool if you do not already have it and are using FS2004.

***You do not need to register FSUIPC in order to use FSFlyingSchool* as FSUIPC works splendidly with FSFlyingSchool, whether registered or unregistered.**

To use the free version of FSUIPC, just press CANCEL at the FSUIPC registration screen.

If you already have a *rather old* version of FSUIPC installed, then, when you run FSFlyingSchool and Flight Simulator, FSFlyingSchool will display "Status: FSUIPC must be at least v3.22". To resolve this you will need to upgrade FSUIPC to a newer version that is compatible with FSFlyingSchool. The latest version of FSUIPC can be downloaded from: http://www.schiratti.com/dowson.html

For **FS2004** – download the *latest* version of FSUIPC **3**, for example "FSUIPC 3.999z2".

For **FSX** – download the *very latest* version of FSUIPC **4** for example "FSUIPC 4.958".

FSX

FSFlyingSchool is supported with FSX and FS2004.

To configure FSX to work with FSFlyingSchool:
- FSUIPC v4 or above must *not* be used with FS2004! You only need it for FSX!
- Shut down FSFlyingSchool if it is running and then shut down FSX.
- Obtain FSUIPC version 4.958 or above. It will be on your CD purchased from FSFlyingSchool, or it can be downloaded free from: http://www.schiratti.com/dowson.html
- Run the FSUIPC v 4.958 or above install program.
- Run FSX. At some point you'll be asked if you wish to run/trust FSUIPC by Pete Dowson. Select "Yes". Once FSX has loaded, get an aircraft on the ground and ready to fly.
- Run FSFlyingSchool. "FSX" will be detected and FSFlyingSchool can then start monitoring it.

If your PC is struggling to run FSX it will not be ideally suited to running *any* other software at the same time. We have witnessed a noticeable delay in the response from *any* other software, including FSFlyingSchool, when running on a PC which can barely run FSX. The solution of course is to upgrade your PC to run FSX smoothly.

Demo and Registered Versions of FSFlyingSchool

The FSFlyingSchool installation program, on your CD, or downloaded from a web site, installs the *DEMO* version of FSFlyingSchool.
It can be unlocked to become a full version when registered with a registration key.

Differences between the demo and registered versions:

Demo:
Pilot cannot submit scores to web tables
Pilot must fly within area centered on Green Bay (KGRB)
Cannot submit Flight Maps to web
Pilot can perform instant approaches to Green Bay (KGRB) only

Registered:
Pilot can submit scores to web tables
Pilot may fly anywhere in the world
Can submit Flight Maps to web
Pilot can perform instant approaches at **any airport in the world!**

In order to register FSFlyingSchool, you will need to enter the codes which came with your CD or purchase the product if you downloaded it. Download customers are sent a registration key.

Copy and paste your registration data into the
Credits Screen of FSFlyingSchool PRO 2019.

Registration keys issued for earlier versions of FSFlyingSchool are not compatible with FSFlyingSchool PRO 2019.

This product **always** functions as a DEMO until it is registered.
If you like it and would like to own the full version, you will need to purchase the registration codes and **you** can then register the product.
Everyone starts with the **DEMO**.

In order to register FSFlyingSchool, you will need to enter the codes which came with your CD or purchase the product if you downloaded it. Download customers are sent registration codes.

**Copy and paste your registration data into the
Credits Screen of FSFlyingSchool PRO 2019.**

Your registration data contains 4 sets of numbers.

They will look similar to these - (use the codes you bought - these are non-functional examples).
43225475
36452254
26522547
A3CA-0B4E-2AEC-CE4F-5201

After installation, launch FSFlyingSchool PRO 2019 and just copy and paste the 4 individual numbers into the Credits Screen of FS FlyingSchool and then press the Register Program button.

If you have correctly registered the program, the fields will all turn gray to indicate that they cannot be changed and the Register Program button will also turn gray.

We do NOT recommend that you type the codes as the slightest mistake will mean it does not work.

Once your program is registered you will no longer be in DEMO mode.

You do not need to be connected to the internet when you enter your codes.

IMPORTANT TIP!

If the registration codes are rejected - the two most common reasons are:

1. The codes have not been entered correctly. **Always** use **COPY** and **PASTE** unless you are typing from a label inside the boxed version.

2. The user is entering the codes into *the wrong product!* Your codes will work **only** with FSFlyingSchool PRO 2019 for **FSX/FS2004**.
They are not for any other product!

Quick Start

Please read this manual if you want to get the most out of flying with FSFlyingSchool.

If you would prefer to do this later and want to jump right into the cockpit, here's what you should do next:

− Launch Flight Simulator.
− Create or select a flight in Flight Simulator using an aircraft listed in FSFlyingSchool's aircraft folder – *see Aircraft provided with FSFlyingSchool at the end of this section.* (If the aircraft you want to fly is not in this list you can add its data yourself – see *Adding Aircraft Interactively* in this manual) Start with something simple like the Cessna 172. Do not choose a helicopter, glider, aerobatic plane or fighter as such flying is not supported by FSFlyingSchool – yet...
− Get that plane ready to fly, either in mid-air or on the ground. Get yourself at the controls of the plane.
− Launch the FSFlyingSchool program.
− Press the *Connect Button* in FSFlyingSchool.
− Switch back to Flight Simulator and enjoy your flight with FSFlyingSchool by your side!
− **But – you really should read this too…**
It is essential that you and your instructor agree on what stage of your flight you are presently executing. Are you taxiing, taking off, cruising or landing? FSFlyingSchool calls this your *Flight Mode.*
− FSFlyingSchool will attempt to detect this automatically during flight, but this can also be achieved by advancing (or backing up if you make a mistake) your *flight mode* using the following shortcut keys (for more information read *FSFlyingSchool Flight Modes* in this manual):

Shortcut	Default	Alternate
Advance Flight Mode	[Ctrl-Shift-Z]	[Ctrl-Shift-1]
Back Up Flight Mode	[Ctrl-Shift-X]	[Ctrl-Shift-2]

Aircraft allowed to score on the FSFlyingSchool web site
The following list shows the aircraft which can *score* on our web site at present. The list is constantly growing on our web site and FSFlyingSchool now supports scoring with over 100 aircraft. If the aircraft you want to fly is not in this list you can let FSFlyingSchool auto-detect it and estimate its values. You can customize these values yourself in just a minute or two – see *Adding Aircraft Interactively* in this manual. Aircraft are added to the FSFlyingSchool website from time to time – see *Adding Aircraft by Installing New FSR Files* in this manual. **Remember this list only controls which aircraft can submit scores to our website.**
By contrast, you can always fly and get scores evaluated with ANY POWERED AIRPLANE.

- Aeroworx super king air b200
- Airbus_a321
- Alpha_cessna_t-50_bobcat
- Alpha_t-6_texan
- Aopa_cherokee_six
- Atr72-500_fsxv5.7
- Australian simulation piper warrior
- B737_400
- B737_800
- B747_400
- B777_300
- Bae 146-200 eurowings pro
- Beech_baron_58
- Beech_king_air_350
- Bombardier_crj_700
- Bonanzaf33m
- Bonanza_v35b
- C172
- C182
- C182rg
- C208
- C208b
- Carenado piper dakota
- Carenado_centurion
- Carenado_cessna_skylane_182_rg_ii
- Carenado_cherokee
- Commander_112a
- Curtiss_jenny
- Dc3_nh_ifr
- Dhc-2w
- Digital_aviation_do_27_b1__d_emka_
- Digital aviation katana da-20-100
- Digital aviation katana da-20-80
- Douglas_dc3
- Dreamfleet_a36_tip_tanks
- Dreamfleet_baron_58_lite
- Dreamfleet_baron_58_rxp
- Dreamfleet archer iii
- Eaglesoft cirrus sr20 g2
- Eaglesoft cirrus sr22 g2
- Eaglesoft liberty xl2
- Extra300
- F1_112a
- F1_cessna_172
- F1_pilatus_pc-12
- Feelthere pic 737-300
- Ffs vans rv7
- Ffs vans rv7a
- Flight one pa-28
- Ford_trimotor
- Fsd seneca v
- Fsd_aerostar
- Fsd_piaggio_p180
- Fsd_piper_navajo
- Fsd_piper_panther
- Fsd_porter_on_wheels
- Fsd_t38a
- Jf_c152
- Jf_c152_pcpilot
- Jf_pa38_tomahawk
- Kc-135t
- Lear45
- Lockheed_vega
- Lvld_b763
- Maam-sim c-47a - air-drop cargo
- Maam-sim c-47a - cargo
- Maam-sim c-47a - paratroops (american)
- Maam-sim c-47a - paratroops (commonwealth)
- Maam-sim c-47a bbmf
- Maam-sim c-47a delivery
- Maam-sim c-47a raaf
- Maam-sim c-47a warton
- Maam-sim c-47b cnac
- Maam-sim c-47b commando
- Maam-sim dc-3 cargo
- Maam-sim dc-3 passenger
- Maam-sim r4d-6
- Maam-sim xc-47c
- Mooney_bravo
- Neuroflight_f406-v3
- Pa22_tripacer
- Pad_dash8_air canada_jazz
- Piper_j3cub
- Pmdg737-900
- Pmdg_express_b1900c
- Pmdg_express_b1900d
- Realair sf-260 left seat
- Realairc172
- Realair_citabria_2007
- Realair_decathlon_2007
- Realair_scout_2007
- Realair_scout_2007_amphibian
- Realair_scout_2007_tundra
- Realair_sf-260
- Realair_sf-260_left_seat
- Sibwings saab 91b safir
- Sibwings saab 91c safir
- Sibwings saab 91d hb-dbl
- Sibwings saab 91d safir
- Socata_tb200gt
- Socata_tb21gt
- Sopcamel
- Spirit_of_stlouis
- T-37v20
- Vickers_vimy
- Vmax ups cargo new livery
- Wright_flyer

In order for FSFlyingSchool to function correctly FSR files should not be modified. Variations can be created using FSU files – see *Adding Aircraft Interactively* in this manual.

Getting the most from FSFlyingSchool

FSFlyingSchool is an add-on for Flight Simulator X and 2004 and as such depends on the pilot to operating Flight Simulator in a sensible manner. Although FSFlyingSchool contains many checks to stop it being misled by the pilot's actions, it is not impossible for it to be forced into losing track of what is actually happening in Flight Simulator. This will occur if the pilot makes drastic changes such as changing the aircraft *during* a flight, slewing the aircraft or changing the time of day or map location. If FSFlyingSchool detects an extreme change to the simulated flight, it will disconnect from Flight Simulator as it cannot support this style of operation. The reason for the disconnection will be described in the FSFlyingSchool *Log Book* Page.

Note that FSFlyingSchool is not intended for use with helicopters, gliders, aerobatics or combat flying…yet.

The FSFlyingSchool Interface

Under normal circumstances, you will first launch Flight Simulator, get an aircraft on the ground and ready to fly and then launch FSFlyingSchool. If FSFlyingSchool is correctly configured, it will successfully detect Flight Simulator. If it does not detect Flight Simulator, FSFlyingSchool will display the warning "No Flight Simulator Found" and you will not be able to press FSFlyingSchool's *Connect* button to start communications with Flight Simulator.

FSFlyingSchool's *Connect* button opens communications between FSFlyingSchool and Flight Simulator. In addition, FSFlyingSchool has a number of screen pages which control different aspects of configuration and use of FSFlyingSchool:
- Information
- Pilots
- Flight Plan
- Aircraft
- Log Book
- Settings
- Credits

Tips of the Day

A randomly selected tip is displayed when the user launches FSFlyingSchool. The tips can be examined one by one if the user prefers and this feature can be turned on or off as desired. The tips contain a wealth of information about how to get the most from FSFlyingSchool.

Information Page

The Information Page has handy information on how to fly different types of flight with FSFlyingSchool and also a convenient link direct to the FSFlyingSchool web site's Tutorials Page so that the user can jump to a set of detailed narrated video tutorials on how to get the most from FSFlyingSchool. There is also a button to launch the FSFlyingSchool Manual (this document you are reading) in PDF format. If you are using the DEMO (unregistered) version of FSFlyingSchool you may also want to take a look at the DEMO AREA MAP available from the Information Page.

Connect Button

The *Connect* button, when pressed, tells FSFlyingSchool to interact with Flight Simulator; Flight Simulator must of course already be loaded for this to occur and in order for a connection to be established, Flight Simulator must not be *paused. (If it **is** paused the actual connection will occur at the instant the pause is released - by pressing   P   - in the simulator).*

FSFS-Tip Note that Flight Simulator may pause each time you switch to a different task, such as switching to FSFlyingSchool itself. This behaviour is controlled by Flight Simulator's Options – Settings – General – "Pause on task switch". We generally fly with this turned off, but you can choose whatever configuration you prefer.

The FSFlyingSchool *Connect* button will become a *Disconnect* button after you press it.
You will normally leave FSFlyingSchool connected to Flight Simulator as you fly with your favorite FSFlyingSchool instructor, but if you wish to change key areas of the simulation, such as your Flight Simulator aircraft or location, you will need to disconnect FSFlyingSchool from Flight Simulator. You will also need to disconnect should you wish to change any key values in FSFlyingSchool, such as your aircraft or pilot data.
Note that disconnecting FSFlyingSchool *will end your current flight with FSFlyingSchool*.
When you are ready to end your session in FSFlyingSchool, press the *Disconnect* button to end communications between FSFlyingSchool and Flight Simulator.
As you can see, disconnection can take place because you have told FSFlyingSchool to disconnect, or because FSFlyingSchool has detected a drastic change in the simulated situation and *must* disconnect.
In either case, FSFlyingSchool's *Log Book* Page will display the reason for disconnection; this is not part of your flying record and so this information is not saved in your pilot's log book.

FSFS-Tip If, while in Flight Simulator, you are unsure if FSFlyingSchool is connected, you can request a "communications check" from your instructor by changing the frequency selected on your COM2 radio. If you wish you can use the COM2 standby switch to toggle the frequency back and forth. (You can easily switch the frequency of COM2 back and forth in Flight Simulator by typing C2X). Your instructor will not say much, but you'll hear a lot of throat clearing which tells you that FSFlyingSchool is connected and functioning.

Pilots Page

FSFlyingSchool gives you the tools to create a varied team of pilots, each with their own preferences and styles, so you can fly just the way you want. You may wish to create different pilot profiles for flying props and jets, for heavies and lights, or whatever else interests you.

FSFlyingSchool comes with 2 default pilot profiles to get you started. They are 'HeavyIron' and 'LightSpeed'. The former likes to fly big planes and the latter likes them small. Note how their pilot profiles differ.

Pilots
- Pilot
  This is the name of the pilot, either supplied by us or created by you. You may wish to indicate the type of aircraft this pilot prefers such as "Harry Heavies" or "Laura Lights"
- New Pilot
  Press this button to create a new pilot.
- Load Pilot
  Press this button to load an existing pilot.
- Save Pilot
  Press this button to save the current pilot data. You should always do this if you change *any* of the data on the *Pilots Page.* Make sure the file name you use follows the usual Windows file naming conventions.
- Select Image
  If you wish to give your pilot a face or perhaps a colourful logo, place the image you want to use into the

  C:\Program Files\FSFlyingSchool\PilotRoster\Images

  folder (or perhaps in another folder if you chose a different installation path). The image must be in the GIF, JPG or BMP file format and must be no more than 80 pixels high by 80 pixels wide. Press the *Select Image* button to select the image file you want.
  The image will be shown in FSFlyingSchool when that pilot is selected and will also appear in the full pilot log book HTML file.
- Current Pilot File
  This is the pilot file currently in use.

Failures
- Want random failures
  Think you can handle a few surprises and maybe score some more points? Check this box if you want FSFlyingSchool to randomly fail your aircraft's instruments and systems. In addition, the following switches can perform erratically during a flight. Remember that if 'loose-wire' failures is turned on, the switches (and all other systems prone to failure) can fail and then start working again.

The switches to watch are:
- Auto-Throttle-Arm
- Airspeed-Hold
- Heading-Hold
- Mach-Hold
- Altitude-Hold
- Flight-Director
- Battery
- Alternator
- Avionics
- Pitot Heat

Switch failures are simulated by FSFlyingSchool randomly flipping the switch to the OFF position. It is convenient to consider these failures as being a failure of either the switch itself, or of the system the switch controls. If a switch flips to the OFF position, turning it back on will solve the problem.
- Want 'loose wire' failures
As if failures weren't enough, FSFlyingSchool keeps you on your toes by offering its unique 'loose wire' failures. Check this box if you want FSFlyingSchool to randomly 'fail-fix-fail-fix' your aircraft's instruments and systems.
- Aircraft reliability
Use this to set your aircraft's likelihood to experience failures. The lower the setting, the more likely failures are, but be warned that a very low setting represents an aircraft that's going to give you a lot of trouble…

Sound Setup
- Instructor
Select any one of your installed FSFlyingSchool instructor voice sets from the list box. Mr Smith has more to say than any other instructor…
- Listen to Instructor
Press this button to hear the instructor speak.
- Disable sound
If you want to fly with an instructor who never speaks, check this box to silence FSFlyingSchool. Remember that your instructor is still watching your every move and will evaluate your performance and record the results in your log book.
- Background chatter
Your FSFlyingSchool instructors are a friendly, helpful team. They will offer tips and observations as you fly, but if you would prefer not to listen to these, clear this box to turn them off.
- Background humour
Your instructors make the occasional joke, but if you would rather they did not, check this box to keep things humourless and also keep your aircraft free of the mysterious grumpy stowaway child.
- Monitor Ground Traffic
Instructor optionally comments on the position, type and activity of ground traffic and issues warnings if aircraft are getting too close. Things can get hectic at busy airports so your instructor will help keep you out of trouble.
- Monitor Air Traffic
Instructor optionally comments on the position, type and activity of air traffic and issues warnings if aircraft are getting too close. Listen carefully to avoid tricky situations.
- Announce Nearest Airport
Instructor optionally *automatically* announces nearest airport within an approximately 35 NM radius. Great way to get familiar with an area and this works in combination with the included *Explorer Pack*.
- Monitor Weather
Interactive help with temperature, dew point, wet surfaces and more from Mr Smith right when you need it.
- Instructor notices failures
Checking the *Want random failures* box will cause your instructor to notice each failure when it occurs. This may be a good way for you to learn how to handle failures until you are ready to watch out for them yourself.

– Want taxiing in wind advice
Correct use of ailerons and elevator while taxiing in a light aircraft on a windy day is a challenge in itself. Check this box if you want your FSFlyingSchool instructor to evaluate your performance in this important area.

– Monitor Use of Lights
Flying is more of a challenge if you are trying to use your aircraft lights correctly. Check this box if you want the instructor to monitor the correct use of any lights which you have indicated *for the current aircraft at the Aircraft Page*

– Waypoint Advice
Get help navigating waypoints in a flight plan by having your instructors announce them before you reach them. They'll tell you what they are and advise you on the turn you'll need to make when you get there.

– VOR/NDB Advice
Get a taste of VOR and NDB navigation by asking the instructor to give automatic advice on tuning and using these NAVAIDs at flight plan waypoints.

– Monitor NAV1 VOR
Mr Smith will be watching closely when you are navigating using VOR navigation aids. He will let you know the meaning of the different indications and components of your aircraft's VOR Indicator, such as the TO/FROM/OFF flag, the Omni Bearing Selector (OBS), and the Course Deviation Indicator (CDI). You'll get this information as you fly and change settings and of course as the instruments themselves react to your flight path. He'll also describe at length the general aspects of the different elements of VOR navigation as you fly along.
As you would expect, this information is not given if you have the NAV/GPS switch set to GPS.
All information given applies only to NAV1 and to VOR navigation. It does not apply to NAV2 nor to ILS, LOC, NDB or GPS navigation.
Note that your instructor will not monitor NAV1 VOR on the DC3 as it has no working OBS.

– Monitor Taxiways
Get ready for announcements of taxiways, runways, markings and more when you are in taxi mode at an airport with *named* taxiways..

– Monitor Crosswinds
Interactive help with crosswind take-off and landing from Mr Smith right when you need it.

– Monitor GPS
Interactive help with the operation of the Garmin GPS500 from Mr Smith right when you need it.
In order to use this you must set the NAV/GPS switch inside the aircraft to GPS.

– Monitor Autopilot
Interactive help with the operation of the autopilot from Mr Smith right when you need it.

Control Setup
– I have yoke pressure
If you have a yoke with pressure feedback, such as those with a spring inside, then you will want to turn on this checkbox. When on, this control causes your FSFlyingSchool instructor to remind you to use your trimmers correctly. You may wish to do this even if you do not have yoke pressure feedback, though the effect will be more difficult to control.

– I use a rudder controller
If you have rudder pedals or a rudder control on your joystick, you will want to turn on this checkbox. When on, this control causes your FSFlyingSchool instructor to remind you to use your rudder appropriately to keep your turns coordinated. You may wish to do this even if you do not have a rudder controller, though the effect will be more difficult to control.

Payload Setup
–   Random Payload *(FSX and FSX-SE only)*
     Turn on this option at the Pilots Screen and you'll get a random payload of people and baggage
     each time you connect to FSFlyingSchool.
     This is supported in the following aircraft: Carenado c152, Just Flight c152, FSX c172, Carenado
     c182, Carenado Cherokee, FSX Mooney Bravo, Carenado Mooney. *(If you are not in one of those
     aircraft - it will not function).*
     As the pilot represents *you*, pilot weight is never changed, but a 4 seater can have between 1 and 4
     people on board and possibly baggage, whereas a 2 seater can have 1 or 2 people and possibly
     baggage.
     This changes the *payload weight* - it does not change who or what is graphically shown inside the
     3D cockpit. And yes - you'll often have only one person in the aircraft - even though you can still
     hear your instructor's words!

Automatic Detection Setup
–   Cruise Mode
     The pilot can indicate if cruise mode is to be automatically detected as the aircraft levels off after
     takeoff.
–   Landing Mode
     The pilot can indicate if landing mode is to be automatically detected as the aircraft maintains a
     continuous descent.

Automatic Radio Tuning Setup
–   ILS
     Instructor optionally tunes NAV1 (Navigation Radio One) to ILS (Instrument Landing System) at
     destination airport. Things can get busy so you can have your instructor take care of this for you if
     you wish.
–   ATIS/AWOS/ASOS
     Instructor optionally tunes COM2 (Communications Radio Two) to ATIS (Automatic Terminal
     Information Service) at destination airport. Handy to save time and COM2 will not interfere with ATC
     communications. If there is no ATIS, the instructor will tune AWOS or ASOS if available.
     In addition, the instructor will tune these services for you if they are present at the last 'nearest
     airport' announced. Remember that the *nearest airport* is announced either automatically, if the pilot
     has chosen that option OR because the pilot has requested it with a voice command.
–   VOR
     Instructor optionally tunes NAV1 (Navigation Radio One) to the frequency of the next VOR NAVAID
     in your flight plan, when it becomes the next waypoint in your flight plan. Another time saver for
     when things are getting busy and ideal for working on VOR navigation.

***PAUSE IT!* Setup**
–   Pause on Points Loss
     FSFlyingSchool will cause Flight Simulator to become *paused* when an event occurs which will lose
     the pilot points. This applies to all phases of flight, except the landing score, as there are so many
     different factors involved in landing that the pilot would be unlikely to recover if paused during the
     final moments of a landing.
     Note that the reason for the pause will always be displayed as a text *caption* in Flight Simulator.
     ***This is essential as there may be times when, due to FSFlyingSchool's logic which prevents
     constant repetition of phrases, <u>the instructor may not actually say anything</u>.***
     Note also that the reason for the event which caused the pause may relate to an action that can
     only be taken once the pilot has *released* the *paused* mode in Flight Simulator by pressing "P".
     In general it is best to :
     - Read the reason for the pause as shown in the text caption in Flight Simulator
     - *Release the pause by pressing   P*
     - Press the key or operate the control necessary to correct the reason for the event.
–   Pause on Warning
     This is the same as "Pause on Points Loss" except that Flight Simulator will pause when
     FSFlyingSchool has detected something for which it is merely issuing a *warning* without actual
     points loss.

– Minimum gap between pauses
Too many pauses will feel disruptive and so the pilot can set a minimum period which must elapse between pauses. Note that the period is specified in *seconds*.

Flight Plan Page

Several of the features of FSFlyingSchoolPro depend on the pilot filing a flight plan with FSFlyingSchoolPro. It only takes a moment and really does lead to a far richer experience when your flight instructor knows where you are going and how you intend to get there!

Flying with Flight Simulator and FSFlyingSchool is a richer experience if you load a flight plan into FSFlyingSchool before starting your flight.

In order to use a flight plan with FSFlyingSchool:

1. Create or load an existing flight plan in Flight Simulator.

2. Select the *Flight Plan* page in FSFlyingSchool. Browse to your Flight Simulator flight plan folder and press the *Load Flight Plan* button. A dialog window will now list the available flight plans. Select the flight plan you loaded into Flight Simulator and press the *Load Plan* button. FSFlyingSchool will list the waypoints of the flight plan. If the plan contains more than 25 waypoints, the list will be abbreviated, but the destination waypoint will always be shown.

If FSFlyingSchool cannot find the FSFlyingSchool runway data it will advise you and offer you a button which you can use to generate the data at that time. If you chose to do this, FSFlyingSchool will quit allowing you to restart it later with all the runway data available.

FSFlyingSchoolPro will ask that you create a new whole world runway data file even if you already have an FSFlyingSchool2010 whole world runway data file already in place as it is not compatible with FSFlyingSchoolPro. Just do what it says and you'll be all set – you only have to do this once.

3. Fly your flight as normal, but take care to pass the waypoints within 1 nautical mile in a light aircraft or within 3 nautical miles in a heavy. As you pass within this minimum distance, your instructor will bring this to your attention. When a waypoint in a flight plan is reached, your instructor will announce this, and announce the number, name, distance and heading of the next waypoint.

The *Flight Plan Page* also allows you to specify V_1, V_r and V_2 speeds for your flight and these will be called off by your instructor as you reach them.

You can also specify a transition altitude, which your instructor will be watching to make sure you use your altimeter correctly. You can change the transition altitude during the flight if this is appropriate. For your convenience, the transition altitude is saved with FSFlyingSchool's data – it will be the same the next time you launch it.

In addition, you may choose to end the flight, after landing, when the aircraft is:
– Stopped or Taxiing
– Stopped and the parking brake is set
– Stopped and the parking brake is set and the engine(s) are off

FSFS-Tip In some aircraft, cutting off the fuel is difficult to achieve using the mouse with the on-screen aircraft controls, such as fuel mixture or jet fuel cut off, and so you may need to use Flight Simulator's standard Ctrl+Shift+F1 to cut off the engine(s).

If you choose to cancel the current flight plan, simply press the *Clear Flight Plan* button in FSFlyingSchool.

You can even load a new plan during a flight, but FSFlyingSchool will expect you to start it from the beginning of the plan.

On Approach Feature
FSFlyingSchool contains a feature to give you the perfect opportunity to instantly practice approaches and landings at any airport in the world!

You have several types of approach to choose from:

-- On Final   You will start your approach lined up with the runway
-- Intersect Final   You will begin flying a course that will intersect your final approach
-- Downwind   You will begin at the start of the Downwind leg of the traffic pattern
-- Base   You will begin just before the start of the Base leg of the traffic pattern
-- Enter   You will begin flying a course that will intersect Downwind leg at 45 degrees

–   ICAO Code
 Enter the code of the airport at which you wish to practice a landing, for example, KGRB (Green Bay). The registered version of the program allows any airport in the world, for example, EGLL (London Heathrow) or KLAX (Los Angeles).
–   Find Airport
 Press this button to find the runway in the FSFS Pro runway data and set it as your approach airport..
–   Set Random Airport
 Press this button to select a random runway - anywhere in the world! Note that the runway information is displayed when the button is pressed. You may wish to press again for a different runway if the runway randomly selected is unsuitable for your aircraft.
–   Start
 Check this box so that FSFlyingSchool will put you on approach to your chosen airport when you press **Connect**.
 If you want to fly an approach of any kind, this checkbox must be turned ON.
–   Nautical Miles out from runway
 This is the length of the 'on final' leg of your approach.
 Use these two boxes to enter the distance you want to start from and the runway that you wish to land at.
 Note that the *length* of the 'on final' leg is *ignored* if you choose to fly an approach starting you on the 'Downwind' or 'Base' leg of the traffic pattern or if you chose to 'Enter' the pattern.
–   Flying at
 Choose the speed at which you would like to start the approach.
 (Note this feature is not available for FS2004).
–   Intersect from
 Check this box if you wish to start your approach from a path that *intersects* your final approach path at an angle. The *default* is 45 degrees.
 You can now set this to any angle you wish.
 You will then be able to select it from *left* or *right* and to choose the *length* of the intercepting path. The pilot can now begin an approach, at any runway in the world, on a path that will intersect the final approach path. The intersecting path can be from the left or the right of the final approach and the pilot can choose to set the length of the intersecting path in nautical miles, or can alternatively let FSFlyingSchool set the length based on the pilot's initial approach speed.
 This new feature is a handy way to practice intersecting the glideslope and localizer, or for just practicing "getting onto final".
 Note that if this option is chosen, your altitude remains that computed by FSFS for a *straight in approach* at the distance given in 'Nautical Miles out from runway'.
 Note also that if you specify a wind *relative* to the aircraft, it will be *relative* to the aircraft when on the *final* approach leg - not when it starts an *intersecting* approach leg. This is the same as saying that the wind is relative to the *runway heading* and not the *intersecting* approach leg.
–   Left
 Choose this option if you wish to start your approach from a path that intersects your final approach path, from the left, at an angle you choose. You will also want to choose the *length* of the intercepting path. When you return to Flight Simulator to fly, you will notice that the runway is to your left.

_____

- Right
  Choose this option if you wish to start your approach from a path that intersects your final approach path, from the right, at an angle you choose. You will also want to choose the *length* of the intercepting path. When you return to Flight Simulator to fly, you will notice that the runway is to your right.
- Nautical miles back
  If you have chosen to *intersect* your final approach leg, this is where you specify the distance back from that intersection that you will start the flight. Note that this distance is *in addition* to the distance you start your *final* approach leg from the runway.
  You can either specify the distance in nautical miles or choose the "AUTO" option in which case you will start approximately 1 *minute* back from the intersection point based on your initial speed.
  (In FS2004 "AUTO" will start 2 miles back from the intersection point.)
- Downwind
  Check this box if you wish to begin your approach at the start of the 'Downwind' leg of the traffic pattern at that runway. This means that you will start with your airplane abeam the far end of the runway you have chosen to land at, facing in the opposite direction, at 1000 feet AAL (above airfield level) and at a distance based on your speed. (Several of these settings can be changed if you wish - see below). You will then be able to select it for a *left* or *right* traffic pattern and to choose the *length* of the 'Base' leg of the traffic pattern.
  Note that if you specify a *relative* wind direction, it will be *relative* to the *runway heading.*
- Base
  Check this box if you wish to begin your approach just a little before the start of the 'Base' leg of the traffic pattern at that runway. You are not placed at the very start of the Base leg as that would require an *immediate* descending turn and this is a less useful point to start the simulation from. In order to give you a little time to get ready for the turn, you will start with your airplane abeam the *start* of the runway you have chosen to land at, facing in the opposite direction, at 1000 feet AAL (above airfield level) and at a distance based on your speed. (Several of these settings can be changed if you wish - see below). You will then be able to select it for a *left* or *right* traffic pattern and to choose the *length* of the 'Base' leg of the traffic pattern.
  Note that if you specify a *relative* wind direction, it will be *relative* to the *runway heading.*
- Enter
  Check this box if you wish to begin your approach on a course that will intersect the 'Downwind' leg of the traffic pattern at an angle of 45 degrees. You are placed with the same distance to fly as was chosen for the Base leg before you reach the Downwind leg abeam the mid-point of the runway. You will be at at 1000 feet AAL (above airfield level) and at a distance based on your speed. (Several of these settings can be changed if you wish - see below). You will then be able to select it for a *left* or *right* traffic pattern and to choose the *length* of the 'Base' leg of the traffic pattern.
  Note that if you specify a *relative* wind direction, it will be *relative* to the *runway heading.*
- Left
  Choose this option if you wish to begin your approach at the start of the 'Downwind' or 'Base' leg of the *Left* Traffic pattern at that runway or 'Enter' the pattern by intersecting 'Downwind' at 45 degrees. When you return to Flight Simulator to fly, you will notice that the runway is to your left.
- Right
  Choose this option if you wish to begin your approach at the start of the 'Downwind' or 'Base' leg of the *Right* Traffic pattern at that runway or 'Enter' the pattern by intersecting 'Downwind' at 45 degrees. When you return to Flight Simulator to fly, you will notice that the runway is to your right.
- Nautical miles Base
  If you have chosen to fly the Downwind or 'Base' leg, this is where you specify the lateral distance (the distance of parallel separation) from the runway at which you will start the flight.
  If you have chosen 'Enter' (pattern) then this will be the length of the Base leg, which also determines your starting distance from the point at which you enter the Downwind leg at 45 degrees abeam the runway mid-point.
  You can either specify the distance in nautical miles or choose the "AUTO" option in which case you will start approximately 1 *minute of flying* from the runway based on your initial speed.
  (In FS2004 "AUTO" will set a 2 mile Base leg distance.)
- Auto-repeat Approach
  Choose this option if you wish to automatically repeat the approach you just flew. There is no longer any need to exit Flight Simulator and return to FSFlyingSchool. If chosen, this option will let you land and once you've *completed your flight*... another approach will automatically begin!
  Note that this is *especially* powerful (and challenging) when used in combination with the

'Increasing Wind' and 'Decreasing Visibility' settings introduced in Approach Builder and described below. A different challenge each time!
NOTE: As this feature repeats _approaches_ it will have no effect at all unless the On Approach function of FSFlyingSchool is being used *(for which the 'Start' checkbox at the Flight Plan screen of FSFlyingSchool must be turned ON).*

– Show Approach Types Available
Press this button to display a pop-up diagram of the several types of approaches available and instructions on how to quickly set them up!
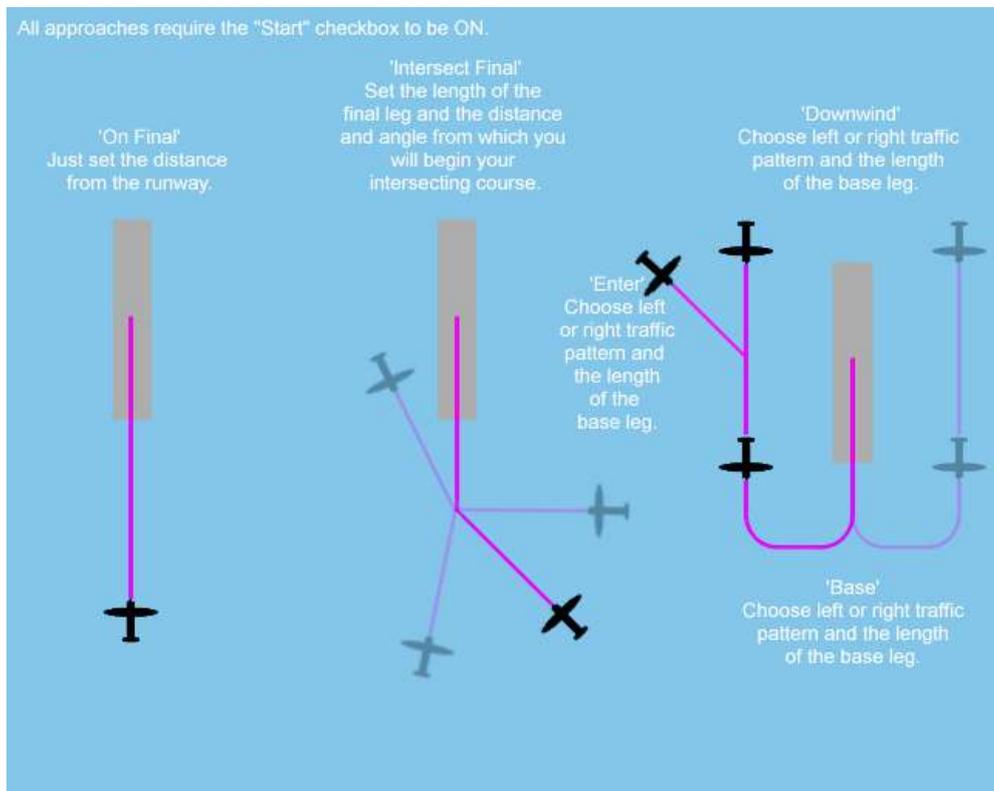
– Set (local) Time
Practice day, night, dawn and dusk! If you want to practise approaches at a particular simulated time of day, you can turn on this checkbox and enter the time of day here so FSFlyingSchool will set it when you connect to Flight Simulator. Note that you must first select an airport for your approach.
Note also that this is *local* time, not *Zulu (UTC) time.*
The amount of daylight will obviously also depend on the simulated date and your runway's latitude.
– ICAO Codes start with
If you wish to restrict randomly chosen airports so that they begin with a preferred letter or letters, you can enter the letters here. For example, enter "K" if you want codes that start with "K" such as KLAX (Los Angeles Intl) and KJFK (Kennedy Intl), or "EG" for airports such as EGLL (Heathrow) and EGLC (London City).
– Runway Types
You can filter randomly chosen *runways* so that they must have an Instrument Landing System (ILS), or they must *not* have ILS, or you can include all runways without regard to ILS being present.

– Runway Elevation
   Random airports can also be filtered by elevation. Check this box if you want to specify the minimum or maximum elevation *in feet* of the airports to include in random selection.
   Note - if you want no minimum then leave the selection blank - do not set it to "0000" as that will exclude runways which are below mean sea level. Likewise, if you want no upper limit, leave *that* selection blank.
– Runway Length
   Random airports can also be filtered by length. Check this box if you want to specify the minimum or maximum length *in feet* of the airports to include in random selection.
   Note - if you want no minimum then leave the selection blank. Likewise, if you want no upper limit, leave *that* selection blank.
   This is a great way to practice short field approaches... or to make sure there is enough room to land that big airliner!
– Runway Surface
   Random runways can also be filtered by the type of surface. This can be left blank or you can select a particular surface type of you wish.
   How about landing on sand today?! Planks tomorrow?
   Pilots flying heavy iron may not want to practice approaches at *grass (etc)* runways, no matter how long they are, so a new option "HEAVIES OK" restricts *random runways* to those suited to *heavy aircraft.* These are effectively: Asphalt, Bituminous, Concrete, Macadam, Tarmac.
– Detailed Airports
   Check this box if you want to specify that only 'detailed' airports supplied with FSX Deluxe or FSX Acceleration will be included in random selection.
– Altitude
   It is essential to note that this setting *is not required*. If you wish, you can set the altitude (in feet) above MSL or AAL (Above Airfield Level) at which the airplane begins the approach, but this is optional. If this is not chosen, altitude for the approach is computed automatically.
   If this is set to the new *random* setting, the approach will start somewhat above or below the expected altitude; this adds more challenge to the approach - are you ready?
– Scenarios
   An approach with FSFlyingSchool has *a lot* of options. Wouldn't it be great to be able to set up interesting approaches, often with random aspects, and *save them*? Now you can!
   Each situation you create at the Flight Plan screen of FSFlyingSchool can now be saved as a 'Scenario', and loaded whenever you want to fly the same sort of approaches again.
   You can even indicate that a scenario you have created should be loaded automatically when you launch FS FSFlyingSchool.
   You can now build a whole collection of exciting approach scenarios to use whenever you wish!
   NOTE: In order to make any scenario file load *automatically* when FSFlyingSchool is launched, you must turn on the 'Startup' option next to the scenario Save button and then <u>save the scenario file</u>.
   If you want to **stop a file loading automatically**, simply turn off the 'Startup' option next to the scenario Save button *and then <u>save the scenario file</u>*.
   For reference - all scenario files are *plain text files* and are stored in a new folder called *Scenarios* which is within your FSFlyingSchool folder.
   You can call your scenario files anything you like so long as it is a valid Windows file name. We suggest you use highly descriptive names to describe the way you have configured the approaches, such as:
   "Windy day at Los Angeles"
   "Night flights in United Kingdom"
   "Falling visibility on short grass strips"
   "High altitude heavy iron"
– Increasing Wind
   For those who like variety and challenges, the wind can now be set to *automatically increase* with each new approach flown. This will keep you on your toes and is a great way to fly a whole set of increasingly challenging approaches in minutes.
   If this option is chosen the wind speed will increase to the next On Approach setting each time the pilot *disconnects* from an approach OR the *approach is automatically restarted.*
– Decreasing Visibility
   Low visibility is always a challenge - now you can set it to *automatically decrease* with each approach you fly. How good is your flying on instruments?.

If this option is chosen the visibility will decrease to the next On Approach setting each time the pilot *disconnects* from an approach OR the *approach is automatically restarted.*

–   Wind
    You can set the surface wind at the approach runway. Check this box to set the surface layer wind - note that the altitude of the upper limit of the surface layer is controlled within FSX.
    If you change the wind using this control and want to go back to what it was originally, you need to set it to something else here. It will not 'reset' to its previous value if this is left blank.
–   Kts *(Surface Wind Speed)*
    Set the surface wind speed here. Note that this speed is used regardless of whether the pilot chooses to set the wind direction in degrees or by choosing the relative wind direction option. The speed applies to either method.
    For extra excitement, you can now set this control to produce *random* wind strength.
–   Direction *(Surface Wind Direction)*
    You can either set the wind direction in degrees OR you can set the wind direction relative to the aircraft's heading when on final approach. For the latter, use *Relative Wind Direction.*
    Want variety? You can now set this control to produce a *random* wind direction.
–   Relative Wind Direction
    This sets the surface wind relative to the aircraft as it starts the **final** approach. This is the same as saying that the wind is relative to the *runway heading*.
–   Gusts
    Check this box to turn on surface wind gusts. Use with caution - the gusts can be very challenging and their strength increases in proportion to the wind speed.
–   Visibility
    Use this control to set the visibility for your approach. Note that this does not change the overall weather and so it is possible to have very low visibility on what Flight Simulator otherwise describes as a clear day. Think of low visibility set this way as being haze, mist or fog.
    You can now set this control to produce a *random* visibility. Can you handle it?!

GPS Features
FSFlyingSchool gives you the option to use your GPS during the flight in a way that interacts directly with your instructor Mr Smith (only). These have been developed using the (simulated) Garmin GPS 500 and the Garmin G1000 Glass cockpit, but other GPS simulated units are likely to work although cannot be guaranteed.

– GPS Overrides FSFS Flight Plan
Check this box to turn on interaction with the GPS. This produces the following features and effects:

- The GPS features come into effect when there is a flight plan of some sort in the GPS. The pilot can put it there by hand or of course or Flight Simulator will load the Flight Simulator flight plan into the GPS when any Flight Simulator flight plan is loaded in Flight Simulator.

- If the pilot uses the GPS to indicate a "Direct To" flight plan (fly direct to an airport or NAVAID) then **this will clear any flight plan which was loaded into FSFlyingSchool** and, if it is an airport, will set the destination airport in FSFS to the one selected with the GPS.
The destination runway in FSFS is set to the first (numerical) runway at the airport as the instructor has no other information on it at that point. The pilot can later use the GPS to select an approach to a specific runway if desired.

- If the pilot selects and **activates** an "Approach" with the GPS, then **this will clear any flight plan which was loaded into FSFlyingSchool** and set the destination airport in FSFS to the one selected with the GPS.

- Whenever the GPS causes FSFS to change its flight plan, the "departure airport" is taken to be the closest airport if the airplane is on the ground - otherwise it will be blank.

- When the "Direct To" or "Approach" or "Next Waypoint" changes in the GPS, the instructor announces this.

Important technical issues...

There are a lot of different approaches out there and some of them have issues with this FSFS feature.

- If an approach is selected which contains no runway in its name, such as "GPS-A", the destination runway in FSFS is set to the first (numerical) runway at the airport as FSFS has no other information on it at that point. The pilot can later use the GPS to select an approach to a specific runway if desired. If no such approach exists, then the pilot can just land at the runway of choice anyway and FSFS will automatically detect which runway is being landed at.

- Some approach names are too long for FSFS to read fully for technical reasons.
Approaches which are "VORDME" will result in the destination runway in FSFS being set to the first (numerical) runway at the airport as FSFS has no other information on it at that point. The pilot can later use the GPS to select an approach to a specific runway if desired. If no such approach exists, then the pilot can just land at the runway of choice anyway and FSFS will automatically detect which runway is being landed at.

Aircraft Page
FSFlyingSchool comes with its own data files for several of the Flight Simulator community's favorite aircraft.

When flying these aircraft, you will not need to enter any data into the fields on the Aircraft Page.

FSFlyingSchool needs *FSFlyingSchool aircraft data files* to provide a worthwhile instructor. We have provided several and are adding lots more; you can add your own as described in this manual. FSFlyingSchool cannot support the operation of an aircraft without an FSFlyingSchool aircraft data file which has been provided by us, or created by yourself.
If the FSFlyingSchool Aircraft Page's *Data Source* indicates 'Unknown' when you are connected to a selected aircraft in Flight Simulator, FSFlyingSchool will estimate values for the aircraft using available data. *This will allow you to fly the aircraft immediately*, but you should save the data and make adjustments to the data when you have time and information on the plane in question, from manuals and similar sources.
Start your flights with FSFlyingSchool with some of the popular Flight Simulator aircraft for which we have provided aircraft data files. Check our website for new files. Later, move onto your own favorite add-on aircraft when you are familiar with the data in the aircraft configuration and are ready to configure some of your own, by creating FSU files.

If you wish to fly an aircraft, but have no FSFlyingSchool aircraft data file for it, you can let FSFlyingSchool estimate the aircraft data values, or check the FSFlyingSchool.com website, as new aircraft files are added occasionally. If you find the file for the aircraft you want simply download it from the website and follow the instructions in this manual headed *"Adding Aircraft by Installing New FSR Files"*.

The fields on the Aircraft Page are as follows:

Other Data
– Retractable Gear
  Check this box if the aircraft has landing gear which can be raised during flight.
– Float Plane
  Check this box if the aircraft can land on water.
– Flaps allowed down during taxi
  Check this box if it is normal practice to taxi with this aircraft's flaps down.
– Spoilers
  Check this box if the aircraft has spoilers.

IAS Data
– Clean Stall
  Enter the stall speed with flaps up.
– Landing Configuration Stall
  Enter the stall speed with flaps configured for landing.
– Max Gear Extension
  Enter the maximum speed at which the landing gear can be extended.

Monitor Engines
– Check this box if you want your instructor to monitor your use of aircraft engines.
– As an added convenience, these checkboxes can be turned on and off *while flying.* There is no need to disconnect FSFlyingSchool to do this.

Monitor Lights
– The checkboxes here allow you to select precisely which lights you want monitored or not for the aircraft in question. You can monitor none, some or all of the lights.
Note that this is used in conjunction with the **Monitor Use of Lights checkbox at the Pilots Page**, which if off, will mean that no lights are ever monitored.
– As an added convenience, these checkboxes can be turned on and off *while flying.* There is no need to disconnect FSFlyingSchool to do this.

Flap Settings
Enter the data for all the flap settings on the aircraft. If the aircraft has no flaps, leave this area blank.
– Position
For each flap setting enter the flap Position in degrees of flaps, using decimal fractions when required. If the aircraft has flaps, these entries will never be zero. For example: 20 (degrees)
– Max Speed
For each flap setting, enter the maximum speed (KIAS) at which the aircraft can be flown. If the aircraft has flaps, these entries will never be zero. For example: 110 (KIAS)
The last flap setting on the aircraft should be followed by *Position* values which are all zero and *Max Speed* values which are all zero.

Sound Settings for this Aircraft
Configure FSFlyingSchool's sound the way you want it to work with this particular aircraft.
– Instructor Volume
The loudness of your FSFlyingSchool instructor will not need to vary much, but you can fine tune it to suit the background noise of your selected aircraft. This will in turn depend on the volume settings you have chosen within Flight Simulator. Note that the setting you choose here relates to the specific aircraft you are flying in Flight Simulator; you may have different settings for each of your favorite aircraft. If the aircraft noise is loud then choose a loud setting for your FSFlyingSchool instructor; if quiet then choose a quieter one.
– Listen to Instructor
Press this button to hear the instructor speak at the chosen volume level.
– Disable Instructor Altitude Calls
If you are flying an aircraft which has its own built in ground proximity warning system (GPWS) then you may wish to check this box in order to tell your instructor that you don't need any such information from FSFlyingSchool. Also inhibits instructor descent rate calls at landing.

FSX Boeing 737-800 Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major features.
– Monitor FSX Boeing 737-800
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the 737-800 the standard, more relaxed FSFlyingSchool treatment.
– Monitor MCP Heading
Check this box to have the instructor expect use of the MCP heading in flight.
– Monitor MCP Speed
Check this box to have the instructor expect use of the MCP speed in flight.
– Monitor MCP Altitude
Check this box to have the instructor expect use of the MCP altitude in flight.

Cessna 172 Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major features.
– Monitor Cessna 172
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the Cessna 172 the standard, more relaxed FSFlyingSchool treatment.

Cessna 152 Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
−   Monitor Cessna 152
     Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a
     great deal about its operation, systems and procedures and will expect the same from you!
     Alternatively, if you want the quiet life, turn this off, and the instructor will give the Cessna 152 the
     standard, more relaxed FSFlyingSchool treatment.

Mooney Options (Accessible only when connected to Mooney Bravo)
Configure the way you want to work with one of FSFlyingSchool's major options.
−   Monitor Mooney
     Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a
     great deal about its operation, systems and procedures and will expect the same from you!
     Alternatively, if you want the quiet life, turn this off, and the instructor will give the Mooney the
     standard, more relaxed FSFlyingSchool treatment.

Beechcraft Baron 58 Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
−   Monitor Beechcraft Baron 58
     Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a
     great deal about its operation, systems and procedures and will expect the same from you!
     Alternatively, if you want the quiet life, turn this off, and the instructor will give the Baron 58 the
     standard, more relaxed FSFlyingSchool treatment.

Beechcraft King Air 350 Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
−   Monitor Beechcraft King Air 350
     Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a
     great deal about its operation, systems and procedures and will expect the same from you!
     Alternatively, if you want the quiet life, turn this off, and the instructor will give the Beechcraft King
     Air 350 the standard, more relaxed FSFlyingSchool treatment.

Comanche Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
−   Monitor Comanche
     Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a
     great deal about its operation, systems and procedures and will expect the same from you!
     Alternatively, if you want the quiet life, turn this off, and the instructor will give the Comanche the
     standard, more relaxed FSFlyingSchool treatment.
−   Stabilator Tips
     Check this box if your plane has stabilator tips - these increase the maximum allowed speed.
−   Tip Tanks
     Check this box if your plane has tip tanks. Mr Smith needs to know in order to compute your fuel
     capacity.

Learjet 45 Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major features.
−   Monitor Learjet 45
     Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a
     great deal about its operation, systems and procedures and will expect the same from you!
     Alternatively, if you want the quiet life, turn this off, and the instructor will give the Learjet 45 the
     standard, more relaxed FSFlyingSchool treatment.
−   Monitor FGC Heading
     Check this box to have the instructor expect use of the FGC heading in flight.
−   Monitor FGC Speed
     Check this box to have the instructor expect use of the FGC speed in flight.
−   Monitor FGC Altitude
     Check this box to have the instructor expect use of the FGC altitude in flight.

Cessna 208B Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
– Monitor Cessna 208B
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the Cessna 208B the standard, more relaxed FSFlyingSchool treatment.

Boeing 757 Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
– Monitor Boeing 757
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the 757 the standard, more relaxed FSFlyingSchool treatment.
– Monitor MCP Heading
Check this box to have the instructor expect use of the MCP heading in flight.
– Monitor MCP Speed
Check this box to have the instructor expect use of the MCP speed in flight.
– Monitor MCP Altitude
Check this box to have the instructor expect use of the MCP altitude in flight.

Cessna 182 Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
– Monitor Cessna 182
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the Cessna 182 the standard, more relaxed FSFlyingSchool treatment.
– Monitor Fuel Pump
Check this box if you want the instructor to monitor use of the fuel pump - leave this OFF if your plane has no fuel pump!
– Monitor Carb Heat
Check this box if you want the instructor to monitor use of carburetor heat - leave this OFF if your plane has no carburetor heat control.

Douglas DC3 Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
– Monitor Douglas DC3
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the Douglas DC3 the standard, more relaxed FSFlyingSchool treatment.

Cherokee Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
– Monitor Cherokee
Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the Cherokee the standard, more relaxed FSFlyingSchool treatment.
– Monitor Pitot Heat
Check this box if you want the instructor to monitor use of pitot heat - leave this OFF if your plane has no pitot heat switch!

DHC-2 Beaver Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
- Monitor DHC-2
  Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the Beaver the standard, more relaxed FSFlyingSchool treatment.
- Starter then Magnetos
  Check this box if you want the instructor to expect engine starter first, then when engine cranks, engage both magnetos.

CRJ 700 Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major features.
- Monitor CRJ 700
  Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the CRJ 700 the standard, more relaxed FSFlyingSchool treatment.
- Monitor FCP Heading
  Check this box to have the instructor expect use of the FCP heading in flight.
- Monitor FCP Speed
  Check this box to have the instructor expect use of the FCP speed in flight.
- Monitor FCP Altitude
  Check this box to have the instructor expect use of the FCP altitude in flight.

DHC-6 Twin Otter Options (Accessible only when connected to this aircraft)
Configure the way you want to work with one of FSFlyingSchool's major options.
- Monitor DHC-6
  Check this box if you want the *detailed* treatment when flying this aircraft. Your instructor knows a great deal about its operation, systems and procedures and will expect the same from you! Alternatively, if you want the quiet life, turn this off, and the instructor will give the DHC-6 the standard, more relaxed FSFlyingSchool treatment.
- Set Vr and V2
  Check this box to have the instructor overwrite any values previously set by the pilot at the Flight Plan screen for Vr and V2 speeds. Note that the instructor will always compute these speeds for the DHC-6 and put them into the fields at the Flight Plan screen of FSFS, but will only overwrite any values previously set by the pilot if this checkbox is set.
- Feathered Startup
  Check this box to have the instructor expect propeller levers *feathered* (full aft) when starting engines. This depends on airline policy. Starting engines with the propeller levers forward (not feathered) allows a cooler start resulting in Ng stabilized around 52%, in contrast to around 48% if feathered.

Log Book Page

As when flying in the real world, your log book becomes an invaluable record of your flights. FSFlyingSchool enhances basic real world log book data by the introduction of a written review of each and every flight you have flown with an FSFlyingSchool instructor. A brief version of this information is shown on the FSFlyingSchool Log Book page – to see more, click on the View Full Pilot Log Book button on the Log Book page.

When a flight flown with FSFlyingSchool ends, the FSFlyingSchool log book will display your instructor's detailed analysis of your flight, containing the following elements:

- Summary information on the pilot, aircraft, flight start, end, duration, visibility, wind, Flight Simulator version, aircraft model, registration, flight number, airline and flight plan.
- All failures which occurred during the flight, with an indication of whether the system is *still* inoperative and the total duration of the failure. This enables pilots to see if they correctly diagnosed those systems which failed during the flight and also gives an indication of how serious those failures were. Failures affect your score. Scores are increased in proportion to the severity and duration of the failure.
  Example:
  Failure(s):
  COM1 Radio inop for 202 secs, still inop
  Electrical System inop for 3.5 secs
  Fuel Indicator(s) inop for 26.5 secs, still inop
  Turn Coordinator inop for 47.5 secs
- Failures which occurred during flight are reported in detail in the log book, listing the instrument or system involved and the time at which the failure occurred. In addition, if a failed instrument or system should start working again, because the pilot has chosen the option of 'loose wire' failures, this is also listed. Pilots can see if they correctly diagnosed systems which failed during flight and may even discover a few they missed.
  Example:
  Failure Event(s) (Zulu Time):
  Failure: Z21:11:17 Heading Indicator
  Failure: Z21:15:36 Altimeter
  Working: Z21:17:46 Altimeter
- Failure bonus.
- Flight duration.
- Landing score and evaluation. Any corrective advice that your instructor gave you during your landing will be listed here and often a lot more besides, including acknowledgement of those things you did correctly.
- Flight score and evaluation. Take note of the items to which your instructor draws your attention. Take credit for those you did well.
- Circuit score and evaluation. If you flew a circuit around one of your favorite airports, your demanding FSFlyingSchool instructors will let you know all about any areas of your circuits you need to improve.

At the end of a flight using FSR aircraft data (not FSU), you will be presented with links to the FSFlyingSchool online score tables. The links shown will depend on what type of flight you have just flown. You must have an open internet connection when you click on the link in order to submit scores.

- Submit landing score to the online table
  Press this link to submit your best landing scores to the online table.
- Submit flight score to the online table
  Press this link to submit your hard earned flight scores to the online table.
- Submit circuit score to the online table
  Press this link to submit your circuit scores to the online table.

FSFlyingSchool records your log book entries so that you can review your performance over time. To access this information, click on the View Full Pilot Log Book button on the Log Book page.

Career Analyzer
For an in depth analysis of the pilot's flying career with FSFlyingSchool, press the Career Analyzer button (this cannot be done while *Connected* to the simulator – so if *Connected* press the FSFlyingSchool *Disconnect* button first).
At first, FSFlyingSchool will open your browser to display a graph of the *Landing Scores* of the currently selected pilot, but this is just the beginning…
FSFlyingSchool's unique Career Analyzer examines over 70 different aspects of the pilot's performance during landings, circuits and flying in general. The following controls are provided to control the graph:

- Aircraft
  Use this list box to restrict the pilot's Career Analyzer to a single aircraft.
- Show
  Use this list box to choose the flight parameter you wish to examine.
- Compare with
  Use this list box to choose the second flight parameter you wish to examine.
- Show all values
  Check this box to show all flights flown regardless of date.
- Date slider
  Use this slider to adjust the period of time under analysis.

At first, the graph shows flight, circuit and landing information gathered from the last 20 landings the pilot performed, but the horizontal scroll bar at the bottom of the graph can be moved to show data all the way back to the start of the pilot's career.

Flight parameters of a true or false nature (such as *Wings not Level near Ground*) are displayed as single points rather than graphed.

The pilot's career is analyzed only after the pilot has achieved at least *two landings.*

To examine the career of a different pilot, simply select a different pilot at the Pilots Page.

FSFS-Tip Use the Career Analyzer to find areas of your performance which need attention and concentrate on getting them just right. Areas such as *Landing Vertical Speed* and *Rough Turns* are good places to start.

When you have finished using the Career Analyzer, close its window to return to FSFlyingSchool.

Pilot Briefing
If you've ever wondered which areas of your performance you need to concentrate on, the Pilot Briefing will provide the answers you need. Click the Pilot Briefing button (this cannot be done while *Connected* to Flight Simulator – so if *Connected* press the FSFlyingSchool *Disconnect* button first). Use the drop down to select a pilot's log book information. Then click the load button and so long as the pilot has saved a few flights in his/her log book, you will be shown the areas which that pilot:
- Has no improvement
- Is improving
- Is mastering
- Has mastered
In order to keep the information concise and to the point, areas in which the pilot has had no trouble are not listed. You will be looking at aspects of flying that have proven to be problems.

FSFS-Tip Use the Pilot Briefing before a flight to get the low down on which areas of performance you need to improve in the next flight. Keep practicing and you will soon have them mastered.

When you have finished using the Pilot Briefing, close its window to return to FSFlyingSchool.

Traditional Log Book

For a traditional pilot log book, showing one line for each flight completed, press the *Traditional Log Book* button (this cannot be done while *Connected* to Flight Simulator – so if *Connected* press the FSFlyingSchool *Disconnect* button first).

FSFlyingSchool will display a list of all flights flown by the currently selected pilot.

The log records multiple columns of data which are traditionally maintained, in real aviation, for each flight.

The following controls are provided to control the Traditional Log Book:
- Aircraft
  Use this list box to restrict the pilot's Traditional Log Book to a single aircraft.
- Previous Page
  Press this button to flip back to the previous log book page.
- Next Page
  Press this button to flip forward to the next log book page.
- Print Page
  Press this button to print the page currently displayed on the screen.

The following columns are shown in the Traditional Log Book:
- Date
  Date flight began.
- Type
  Aircraft type, such as *Cessna* or *Boeing*.
- Ident
  Aircraft registration.
- Airline
  Abbreviated airline.
- Flight
  Flight number.
- Depart
  Departure time.
- Arrive
  Arrival time.
- Day
  Hours flown during day.
- Night
  Hours flown during night.
- Inst
  Hours flown using an IFR flight plan. For this item of data, for simplicity's sake, pilot's use of IFR plan is checked once, when the aircraft lands.
- Total Length
  Total length of flight.
- Distance
  Distance of flight.
- Block Time
  Time of flight from pressing FSFlyingSchool *Connect* button to end of flight.

The vertical scroll bar at the right of the page can be moved to scroll the displayed data up and down the current page.

To examine the log book of a different pilot, simply select a different pilot at the Pilots Page.

The FSFlyingSchool Traditional Log Book examines data produced by FSFlyingSchool version 1.4 and later, but note that only flights flown with version 1.5 or later will contain entries in all columns as some of the data was not available before that version.

FSFS-Tip Use the Traditional Log Book to monitor how many hours you're clocking up, especially on instruments and also to keep track of data for your membership in a **Virtual Airline!**

When you have finished using the Traditional Log Book, close its window to return to FSFlyingSchool.

Save & View Google Map of Flight (displayed after Disconnect pressed)
Wouldn't it be nice to be able to review your flight paths over real world satellite terrain using Google Maps? And... wouldn't it be just great to be able to store them and look back over them at your leisure? How about sharing them with friends? Oh - and how about tracking taxi routes too?
Now you can do all of this with FSFlyingSchool's Flight Mapping feature!
In order to share a map - just copy the URL in the browser's web address field at the top of the screen and email them the address.

View all Flight Maps
This button will open a browser which lists all the *Flight Maps* you have logged with FSFlyingSchool.
You can review them at your leisure!

Settings Page
This page displays miscellaneous information about FSFlyingSchool's connection to Flight Simulator and FSUIPC, and provides a means to tell FSFlyingSchool where Flight Simulator's folders are.

See Voice Command Pack Manual for details on settings here for the Voice Command Pack.

FSFlyingSchool supports the generation of FSFS data for runways all over the world, which allows the instructor to evaluate approaches *without ILS*, anywhere.

In order to generate the runway data for FSFlyingSchool PRO 2019, simply press the appropriate button at the Settings Page for your version of Flight Simulator.

The process will launch 2 external programs in separate windows and will take a few minutes

You only need to perform this operation once, unless you update your Flight Simulator runway data, in which case you should run it again.

FSFlyingSchool News Updates
You can click this button to either turn on or turn off (toggle) whether FSFlyingSchool will check for news updates for you when FSFlyingSchool is launched. This is a great way to stay informed about news headlines in the world of FSFlyingSchool. New products, free updates and more!

You can also turn on several types of spoken tips at this page.

FS & FSFS Tips
These tips relate to the operation of the FSFlyingSchool and Flight Simulator programs and are spoken by the instructor directly to you the PC user - they are not "in the character" of the instructor and talk about keys and other PC procedures.

Aviation Tips
These require that the "background chatter" be turned **on** at the FSFS Pilots Screen.
If these tips are turned on, then during flights, the instructor will talk about aviation basics, such as cockpit instruments, etc.

Instant Help
If turned on the pilot will get spoken tips on aircraft instruments, switches and controls when they are used during flights.

Taxiway Tips
If these are turned on, you'll get tutorial tips on taxiways, runways, markings, lights and more when you are in taxi mode at an airport with *named* taxiways..

Weather Tips
If turned on, you'll get tutorial tips on temperature, runway elevation, dew point, precipitation, cloud cover, low light, crosswinds and much more.

GPS Tips
If these are turned on, you'll get tutorial tips on getting the most out of the GPS, shortcuts, best practices and much more.

Autopilot Tips
If these are turned on, you'll get tutorial tips on getting the most out of the autopilot, best practices and much more.

Credits Page

This is where we acknowledge those behind the FSFlyingSchool concept and the help we have received from the dedicated team of enthusiasts who have made FSFlyingSchool Classic, FSFlyingSchool 2009, FSFlyingSchool 2010, FSFlyingSchool 2011, FSFlyingSchool Pro, FSFlyingSchool Pro 2013, FSFlyingSchool Pro 2014, FSFlyingSchool Pro 2015, FSFlyingSchool Pro 2016 and FSFlyingSchool PRO 2019 what it is today and will be tomorrow.

The registration section of this page allows users with a registration key from FSFlyingSchool to register the program and enjoy the benefits. Help for the registration process is available by pressing the *Registration Help Movie* button.

FSFlyingSchool Instructors

FSFlyingSchool gives you the unlimited services of several different FSFlyingSchool instructors. The role of the instructor is to praise good work, give you flying tips, tell you immediately whenever you do something wrong, score your performance in several areas, record what you did in your log book and much more.

You choose from an eclectic team of male and female instructors, each with their own personality, nationality and style.

Your actions and the current stage of your flight will determine what your FSFlyingSchool instructor says to you. The instructor knows better than to bother you with mere details when you are just about to land, and will not ask general questions about your flight during crucial periods.

In many cases, your instructors will give you tips on what to do next and warn you before you make a mistake that would cost you points.

Scoring Points

Think you've got what it takes to be a great pilot? Prove it!
One of FSFlyingSchool's most exciting and innovative features is its detailed evaluation of your flying skills, where a precise score is assigned to each of several aspects of your flight.
FSFlyingSchool invites you to "Put your money where your mouth is."

Points can be earned in these areas of flying:

Flight
Your FSFlyingSchool instructor will keep an eye on your performance throughout your flight and give you an overall score. If you want to do well, fly realistically. No aerobatics; no combat manoeuvres. See the information later in this manual which describes what your instructor is watching during each flight.

Landing
Because landing is such a crucial, demanding stage of any flight, FSFlyingSchool evaluates it separately. This feature is also a great tool for those pilots who enjoy practicing landings repeatedly until they can get them 'just right'. Once you can get your aircraft down perfectly, move on to something trickier or larger and add in a gusting crosswind and some rotten weather.
See the *Landing* section later in this manual.

Circuits
If you would like to try your hand at flying circuits, your FSFlyingSchool instructor is ready to grade you on your performance. You will need to stay within some pretty demanding limits to get your best score.
See the *Circuits* section later in this manual.

Airmanship Challenge
For those who are wondering if they have mastered some of the most basic flying skills, the Airmanship Challenge gives you an instant answer. Simply press [Ctrl-Shift-C] while flying (without autopilot) and your FSFlyingSchool instructor will set you an immediate task to perform. Some will be quite simple; others very hard. Still too easy? Add in some heavy weather and see how well you do…
See the *Airmanship Challenge* section later in this manual.

Autopilot effect on scoring
If your aircraft has an autopilot and it is used for an appreciable period during your flight, your scores are affected as follows:

Scoring	AP Effect
Flight	Reduced by 33%
Landing	Reduced by 33%
Circuits	Reduced by 33%
Airmanship Challenge	No points

The *exceptions* to this rule are when:
- In cruise mode in a light aircraft above 1000 feet AGL
- In a heavy aircraft and cruising, or taking off and above 600 feet AGL, or landing and above 900 feet AGL
In these cases, no points are lost by having the autopilot engaged. This gives the pilot a chance to use the autopilot on long flights without losing points, but note that the aircraft must be significantly above the ground.

Scoring is affected by visibility and wind at your destination airfield and by the weight and speed of the aircraft you are flying. Failures affect your score in proportion to their length and severity..

In order to get a *flight score* you must take off and land. If you started in the air, you will still have your flight evaluated when you land, but will not score points for your *flight*. In addition, you must fly for a minimum of 30 seconds to get your flight evaluated.

You must fly for a minimum of 30 seconds to get your *landing* evaluated.

_____

After your landing, flight or circuit has been evaluated, you may wish to take a look at your FSFlyingSchool log book, either inside FSFlyingSchool or by launching the HTML log book by clicking on the *View Full Pilot Log Book* button on the Log Book page of FSFlyingSchool.

When a flight ends, you may wish to share your performance with other users by submitting your score to the FSFlyingSchool website.
For more information see the Log Book Page section of this manual.

FSFlyingSchool Flight Modes

FSFlyingSchool flight modes reflect the current stage of your flight. They are:
– *Taxiing*
– *Take Off*
– *Cruise*
– *Landing*

Your FSFlyingSchool instructor will evaluate certain sections of your flight depending on the current flight mode.

It is normally up to you, as pilot in command, to tell the FSFlyingSchool instructor what your intentions are; in other words, which flight mode you are in.

FSFlyingSchool's approach is that the pilot has to think in terms of what stage of the flight he or she is in. We feel that this is not much of a chore, considering a *real* pilot announces intentions to:
- himself/herself - before deciding which checklist to check
- the passengers - even in general aviation, so they know what's coming up next
- the 1st officer - as part of normal procedures

Many simmers often fly a little looser than would be expected in real flight, and the main focus of FSFlyingSchool is to help the pilot behave more like a real one - especially in terms of control of the aircraft.

It is essential that you and your instructor agree on what stage of your flight you are presently executing.

FSFlyingSchool will attempt to detect this automatically during flight, but this can also be achieved by advancing (or backing up if you make a mistake) your flight mode using the following shortcut keys.

Shortcut	Default	Alternate
Advance Flight Mode	[Ctrl-Shift-Z]	[Ctrl-Shift-1]
Back Up Flight Mode	[Ctrl-Shift-X]	[Ctrl-Shift-2]

FSFS-Tip Our team at FSFlyingSchool like to map these keys to yoke and joystick buttons. You can assign these key combinations to your yoke or joystick using their manufacturer's keystroke assignment mapping software, or by using the key mapping facilities in a registered version of FSUIPC.

Flight modes are arranged in the sequence they naturally occur in real flights. You begin in *Taxi Mode*, advance to *Take off Mode*, move onto *Cruise Mode*, then *Landing Mode*, perform a landing and finally return to *Taxi Mode*.

FSFlyingSchool will automatically change the flight mode for you if it is *obvious* that this is appropriate:
– If you taxi very fast or leave the ground while taxiing, you will go into *Take Off Mode.*
– If you level off at a sensible altitude, you will advance to *Cruise Mode.*
– If you start a steady descent you will go into *Landing Mode* unless at a high cruising altitude.
– If you touch down, you will go into *Landing Mode* if you are not already in it.
– When you stop on the ground during a landing, you automatically advance to *Taxi Mode*.

If FSFlyingSchool suspects that you may have progressed to a new phase of your flight, it will display a hint to suggest that you may wish to change your flight mode.

You can always have FSFlyingSchool tell you what flight mode you are in by asking it to display essential data in Flight Simulator using the *Display Data* shortcut keys.

Shortcut	Default	Alternate
Display Data	[Ctrl-Shift-D]	[Ctrl-Shift-3]

FSFlyingSchool will display the following:
- NAV1 OBS setting
- Current Waypoint number and ID
- Current Flight Mode
- Type of Aircraft Data in use by FSFlyingSchool (FSR or FSU)
- Current Circuit Leg (if you are flying circuits)

Taxiing

If you connect to FSFlyingSchool when your aircraft is on the ground you will be automatically placed into *Taxi Mode*. If you started in the air, once you complete your landing, use [Ctrl-Shift-Z] or a programmed button to advance the flight mode to *Taxiing* (this will happen automatically if you stop on the ground)*.

While you are taxiing, your FSFlyingSchool instructor will be watching out for:

- Dangerous taxiing turns - these cause discomfort and stress
- Poor attention to taxi speed - dangerous to yourself and others
- Throttle and brakes during taxi - bad for many systems
- Harsh braking - taxi gently and brake smoothly
- Use of flaps while taxiing - up or down as appropriate

If you are piloting a small aircraft, your FSFlyingSchool instructor will also be watching out for:

- Poor elevator control during taxi in wind - danger of flipping
- Poor aileron control during taxi in wind - danger of flipping

Take Off

Before you tell your FSFlyingSchool instructor you are ready to take off, get lined up with the runway centre line. Set NAV1 OBS (the omni-bearing-selector of navigation radio one) to the exact heading of your departure runway.

> **FSFS-Tip** In some aircraft the exact setting of NAV1 OBS can be difficult to read from the screen in Flight Simulator, in which case you can press [Ctrl-Shift-D] to have FSFlyingSchool display the exact setting for you.

Using Ctrl-Shift-Z or a programmed button, advance the flight mode to *Take Off.*

While you are taking off, your FSFlyingSchool instructor will be watching out for:

- Poor steering during takeoff - stay in the centre of the runway
- Braking during takeoff - watch those feet
- Late rotation - when V_r is reached - take off
- Loss of altitude during takeoff - climb smoothly

Cruise

If you connect to FSFlyingSchool when your aircraft is in the air you will be automatically placed into *Cruise Mode*. If you started on the ground, once you complete your take off and climb to cruise altitude, FSFlyingSchool will detect this and change to *Cruise Mode*. If your flying suggests otherwise and this has not occurred, use [Ctrl-Shift-Z] or a programmed button to advance the flight mode to *Cruise.*

If you have loaded a Flight Simulator flight plan into FSFlyingSchool, then take care to navigate so as to pass the waypoints on the plan within 1 nautical mile in a light aircraft or 3 nautical miles in a heavy, and in the correct sequence, in order to score points with your FSFlyingSchool instructor.

If you begin a steady descent, you will be automatically placed into *Landing Mode,* unless your aircraft is still at a high altitude.

If you are not already in *Landing Mode,* you should advance the flight mode to *Landing Mode* before you descend below 1000 feet AGL (Above Ground Level), or your FSFlyingSchool instructor may reduce your score due to flying too low at too great a speed.

Landing

If you connect to FSFlyingSchool when your aircraft is in the air and below 1000 feet AGL (Above Ground Level), you will be automatically placed into landing mode.

In all other cases, when you have finished cruising and are about to begin your approach, FSFlyingSchool will detect a steady descent and advance you to *Landing Mode.* If the situation has suggested otherwise and this has not occurred, use [Ctrl-Shift-Z] or a programmed button to advance the flight mode to *Landing.*

Before entering *Landing Mode*, NAV1 OBS (the omni-bearing-selector of navigation radio one) should always be set to the exact heading of the runway you intend to land at, regardless of whether the approach is to be flown visual or using ILS. If you frequently perform ILS approaches, you will already be familiar with this concept. In FSFlyingSchool it is essential, as many aspects of your flight and the score which your FSFlyingSchool instructor awards you are based on the bearing set on NAV1 OBS.

> **FSFS-Tip** In some aircraft the exact setting of NAV1 OBS can be difficult to read from the screen in Flight Simulator, in which case you can press [Ctrl-Shift-D] to have FSFlyingSchool display the exact setting for you.

If the aircraft's NAV1 radio is tuned to a runway ILS, the instructor will announce this with reference to the NAVAID at the runway and also which specific runway has been selected. This helps the pilot confirm that the correct ILS signal is being received and is a convenient reminder of where to land.

While you are landing, your FSFlyingSchool instructor will be watching out for:

−   Landing too hard – this may damage your aircraft or landing gear
−   Landing too fast – you may float and you will use a lot of runway
−   Wings not level – you may clip the ground or damage your gear
−   Landing away from the centre line
−   Pitching down hard at touch down – can damage your aircraft
−   Pitching up hard at touch down – can damage your aircraft
−   Nose up too high – poor visibility and danger of tail strike
−   Nose down too low – danger of failing to land on main gear
−   Poor alignment with the runway – point down the runway centre
−   Throttle(s) not idle
−   Poor alignment with runway during approach
−   Poor tracking of glideslope during approach
−   Poor steering after landing
−   Glideslope lost before you flared
−   Failure to use spoilers correctly
−   Amphibian plane landing with retractable gear down on water

If you are piloting a heavy aircraft, your FSFlyingSchool instructor will also be watching out for:

−   Failure to use flaps

If you are piloting a small aircraft, your FSFlyingSchool instructor will also be watching out for:

−   Failure to use flaps if no appreciable crosswind

In order to get any kind of ILS based glideslope and localizer score, your equipment must detect an ILS signal when you descend through 500 feet AGL (Above Ground Level) during your landing.
Your tracking, during your approach, of the ILS glideslope and localizer, or the visual glideslope and runway centre line, affect your landing score to an extent.
They are verbally evaluated, separately, upon landing with their own scores, out of a hundred.
For example, you might score 80 for the glideslope and 70 for the localizer.
This score is used to produce some of the points for your final landing score.
In a simple landing, the maximum landing points to be gained from glideslope and localizer performance is 20 points.
As an example, in the simplest landing situation, if you tracked the glideslope and localizer perfectly, you would get a
−   glideslope score of 100
and a
−   localizer score of 100
These are read to you by your instructor when you land.
This would add a total of 20 points to your final landing score, because your performance on the glideslope and localizer is only part of what makes a good landing.

Note that when landing at a runway which is part of add-on scenery, the location of the runway in FSFlyingSchool PRO 2014's whole world runway data or the signal of the ILS on an ILS approach, *may* not match the physical position of the runway in the add-on scenery.
We have seen ILS signals direct us down into a lovely field next to the runway… or worse…
If such mismatched runways are used for visual approaches with FSFlyingSchool, this may lead to poor scores and confusing instruction, *because the runway is not where the data says it is!*
If such mismatched runways are used for ILS approaches with FSFlyingSchool, this may lead to poor scores and confusing instruction, *because the runway is not where the ILS says it is!*
In the end, you should try an approach to the add-on scenery runway and see how it feels.

General aspects of good airmanship

While you are out there flying, your FSFlyingSchool instructor will be watching out for:

–   Airspeed too low - risking stalls
–   Ballooning during landing - needs practice
–   Exceeding flap speeds - your flaps may be damaged
–   Exceeding gear speed - your landing gear may be damaged
–   Exceeding maximum speed - you may damage the aircraft
–   Excessive G forces - your passengers will feel rather unwell
–   Excessive speed at low altitude - may result in loss of licence or worse
–   Excessive speed during approach - reduce speed earlier
–   Flaps not down on time - plan your landing next time
–   Narrowly missed obstacles - plan your safety altitudes
–   Narrowly missed tail strike - watch your pitch: could be very bad
–   Nose held too high - spilt drinks and worried expressions
–   Nose held too low - we're not on a combat mission
–   Poorly coordinated turns - use the rudder correctly
–   Poorly trimmed aircraft - trimmers are there to help: use them
–   Rapid descent - dangerous and uncomfortable
–   Rough pitch control – feels like a rollercoaster
–   Rough turns - your passengers will spill their drinks and have a pain in their necks
–   Stalls – in a word: dangerous
–   Steep banking - save your aerobatic flying for some other time
–   Wings not level near ground - danger of clipping a wing or damaging your gear

Pre-flight checks

Your instructor will be looking for *pre-flight* checks in the following areas:
–   Rudder – full motion left and right (checked only if you have indicated you are using a rudder controller)
–   Elevator – full motion up and down
–   Ailerons – full motion up and down
–   Flaps – lower full flaps and retract them
–   Run up – check magnetos (piston aircraft)
–   Main Exit – open the main exit and close it

Miscellaneous Instructor Checks

Your instructor will not appreciate the main exit being opened at dangerous times; not good practice in any aircraft. Your instructor will also expect spoilers to be retracted and thrust reversers to be disengaged at the appropriate times.

Factors which affect your score

Your FSFlyingSchool instructor will make adjustments to your basic score based on the following criteria:

If your score was already good then:

–   Aircraft weight
    FSFlyingSchool generally considers heavier aircraft to be more demanding to fly than smaller machines. As a result, your score is increased in proportion to the weight of your aircraft. Flying the heavies has its rewards.

–   Aircraft speed
    Faster aircraft are considered by FSFlyingSchool to be to be more demanding to fly than slower aircraft and therefore your score is increased in proportion to the speed of your aircraft. If you can handle it, speed matters.

– Wind
If you have flown in a wind which is greater than 4 knots and which was more than 20 degrees deflected from the runway heading at landing, your score is increased in proportion to the strength of the wind. The nastier the crosswind, the higher your score will be.

– Visibility
When flights are flown in less than 1 mile visibility, your score is increased in inverse proportion to the visibility. When visibility gets very low, your score can get very high.

– Failures
If aircraft system failures were experienced during flight they will increase your score if you still manage a successful landing. Note this applies to failures generated by FSFlyingSchool and not by other programs. Bonus points are awarded in proportion to the fraction of the flight the failure lasted and the nature of the failed system, so for example, the loss of the whiskey compass is not as important as the loss of the attitude indicator. The bonus is also affected by the current situation, so for example the loss of the attitude indicator will be far more serious when flying in low visibility than when the skies are clear.

Regardless of your score:

– Autopilot
If an autopilot is engaged for a total of more than 10 seconds during the flight, your score is reduced by 33%, unless
in cruise mode and in a **light aircraft** above 1000 feet AGL
or
in a **heavy aircraft** and cruising, or taking off and above 600 feet AGL, or landing and above 900 feet AGL
Keep in mind that this can still produce excellent scores if you are flying a challenging aircraft in difficult conditions.

– Simulation rate
If your simulation rate is anything other than normal (simulation speed 1) for a total of more than 10 seconds during the flight, your score is zero; FSFlyingSchool does not support this kind of flying.

Visual Approaches

If an aircraft's NAV1 radio is tuned to the destination runway's Instrument Landing System (ILS) frequency, FSFlyingSchool uses the ILS to measure the pilot's adherence to the glideslope (vertical) and localizer (horizontal) signals from the destination runway. This provides an extremely accurate measure of how closely the pilot is following the correct approach to landing.

Alternatively, FSFlyingSchool also supports landings at airfields which do not have an ILS, or landing at runways which have ILS, but without using ILS.

FSFS-Tip To get set for a visual approach, you must be **lined up with the runway you intend to land at** and that runway **must be in front of you as you descend through 500 feet above ground level in landing mode** on your final approach. If you do not do this, your instructor won't know where you are going and you should perform a missed approach (climb and circle back to the runway once more) and try it again.
Remember:
- In FSFlyingSchool's landing mode
- Lined up with the runway you intend to land at
- Runway in front of you as you descend through 500 feet above ground level

If FSFlyingSchool has information for a visual approach to the destination airport, but an ILS is detected (because NAV1 is tuned to it), it will use the ILS to evaluate the landing and will not use the visual approach information **even if you land on another runway which is not the one with the ILS signal**. **So.. don't do this!**

Circuits

Your FSFlyingSchool instructor is always ready to help you practice flying circuits around your favorite airports. This version of FSFlyingSchool supports left hand circuits only. Circuits are not supported in heavy aircraft.

FSFlyingSchool instructors will not evaluate circuits until the pilot has proven basic proficiency at flying and landing the aircraft. A Landing Score above 70 and a Flight Score above 80 must be achieved before circuits can be flown with FSFlyingSchool.
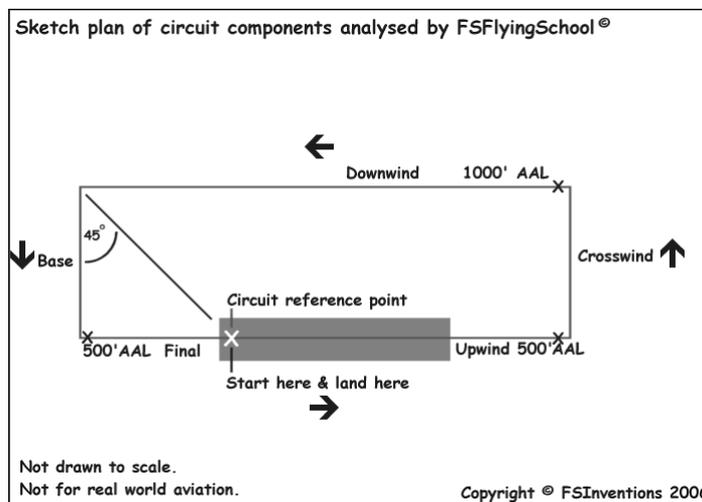
If you wish to fly a circuit, you should get into position, ready for take off on your departure runway, located at the point you intend to *land* and which will also be used for reference in turning from Downwind onto Base. Make sure you are lined up exactly with the runway centre line. NAV1 OBS should be set to the runway heading.

At this point, press [Ctrl-Shift-Space] to let your FSFlyingSchool instructor know you wish to fly circuits. If you have already achieved the required Landing and Flight scores, this will place you into *FSFS Circuit Mode* which will mean your FSFlyingSchool instructor will treat your flight as a circuit. You can exit this mode at any time by pressing [Ctrl-Shift-Space].

FSFlyingSchool records your *exact position* on the runway when you enter *FSFS Circuit Mode.* This is your *Circuit Reference Point.* FSFlyingSchool compares this to your position when you are flying the Downwind leg in order to determine when you should turn onto Base. This is normally done when this reference point is in the *8 o'clock* position (behind you over your left shoulder). If you pass this point, your FSFlyingSchool instructor will remind you to make the turn.

Once you lift off, your FSFlyingSchool instructor will announce that you are flying a circuit and give you a general guideline of how to fly each leg of your circuit as you enter it. If you wander from the basic parameters of the circuit, this will cost you points and your FSFlyingSchool instructor will give you tips on how to correct your mistakes.

Should you decide you would rather not continue flying a circuit, simply press [Ctrl-Shift-Space] to cancel *FSFS Circuit Mode,* but think first, because once you cancel your circuit, you cannot start a new one unless you are on the ground in *Taxi Mode* or *Take off Mode*.

FSFlyingSchool circuit legs reflect the current stage of your circuit; they are:
– *Upwind*
– *Crosswind*
– *Downwind*
– *Base*
– *Final*

Your FSFlyingSchool instructor will evaluate your flight depending on the circuit leg you are currently on. Unlike FSFlyingSchool *flight modes*, you do not need to tell your FSFlyingSchool instructor which leg of your circuit you are on; your instructor will determine that.

Circuit legs are arranged in the sequence they naturally occur in real flights. You begin on the runway, take off into the upwind leg, turn onto crosswind, turn onto downwind, turn onto base and ultimately turn onto final. Landing ends your circuit.

When flying a circuit you should concentrate on the following points:
– Note exactly where you were when you entered *FSFS Circuit Mode.* This is your *Circuit Reference Point.* An effective method of orientation is to switch to the overhead view in Flight Simulator by pressing *Ctrl S*. Make certain you know exactly where you are on the runway.
– Carefully check that your heading indicator is set to the correct heading. This can be done by pressing *D* in Flight Simulator. Note that you may need to reset this *during* flight.
– Note the runway heading. The path of your circuit will be based on this. You may wish to set your autopilot heading bug (if available) to the runway heading as a reminder.
– Note the altitude of the *airfield*. You must be aware of your Above Airfield Level (AAL) during your circuit. Your instructor will talk to you in terms of your altitude above the airfield during the circuit. This is unlikely to be the same as the altitude above sea level.
– After lifting off, climb smartly to 500 feet AAL while maintaining a track extending from the runway centreline.
– At 500 feet AAL make a climbing turn Crosswind onto a track which is at 90 degrees to the runway heading.
– At 1000 feet AAL make a level turn Downwind onto a track which is parallel to the runway and maintain this altitude.
– When the *Circuit Reference Point* is in the *8 o'clock* position (behind you over your left shoulder), make a descending turn onto Base on a track which is at 90 degrees to the runway heading. Press *NumberPad1* key for a quick peek over your left shoulder.
– When ready, make a descending turn onto Final on a track which leads straight down the runway centre line. Plan to arrive on final while still at least 500 feet AAL.
– Land on the runway within 300 feet of your *Circuit Reference Point.*
– You must achieve a *landing score* of at least 50 in order to get a *circuit score.*
– Circuit legs must be flown within the following limits to qualify as a real circuit:

Leg	Minimum Duration	Maximum Duration
Upwind	20 seconds	6 minutes
Crosswind	20 seconds	6 minutes
Downwind	30 seconds	6 minutes
Base	05 seconds	6 minutes
Final	10 seconds	6 minutes

– When flying a circuit, keep in mind that your instructor is evaluating how well you are following the correct *ground track* for the circuit. This can be very difficult to achieve with a good crosswind – can you do it?

Airmanship Challenge

A short sharp test of your flying skills is never far away with the FSFlyingSchool Airmanship Challenge. With your autopilot off, simply press [Ctrl-Shift-C] at any time while in *Cruise Mode* and after a few seconds your FSFlyingSchool instructor will test your ability to maintain a randomly selected combination of:

Bank Angle
Altitude
Heading
Indicated Airspeed
Pitch

You will quickly learn that this is relatively easy when flying straight and level, but becomes much harder when flying, for example, in a steeply banked climbing turn.

FSFS-Tip You can also **start** or **end** this mode by saying "Airmanship test" into your microphone when you have the Voice Command Pack active.

Any use of the autopilot during the test will cancel the test and result in a score of zero.

Advanced Airmanship Challenges (New in version 7.7.1)
Your instructor Mr Smith has a whole new set of challenges for you to master! Building upon FSFlyingSchool's popular Airmanship Challenge mode, Mr Smith will soon have you flying with great skill and precision.
Whereas all of the basic Airmanship Challenges were based on *maintaining* a heading, airspeed, altitude, pitch or bank, these new additional tests require the pilot to both **set up and maintain** up to 4 different flight parameters at the same time!
"Turn to 273 degrees, while climbing to 5,200 feet and accelerating to 85 knots indicated airspeed".
Are you flying at this level of precision? Can you prove it?
This is your chance to show Mr Smith you've got what it takes!
In addition, the target values are now displayed on screen for easy reference.

Advanced challenges are now automatically mixed in evenly with basic challenges - so you need to be ready!

FSFS-Tip If you plan to perform a number of airmanship challenges we recommend that you **turn off the display of text captions** while you are flying the challenges. This is because the text display can get very busy otherwise. With captions off, you will see a simple and direct display of the airmanship goals on which you are currently being tested. Captions are controlled at the "Display captions in simulator" option at the Pilots Screen of FSFlyingSchool.

FSFS-Tip Make sure you start your airmanship challenges at an altitude that is several thousand feet above ground level as several of the tests will require that you descend.

Basic Challenge
Once a basic challenge starts the instructor will describe the flight parameters you are required to "maintain" and this will take a few seconds. At 10 seconds your performance will be monitored for a further 10 seconds. Finally you will be given your score which is also displayed on screen.

Advanced Challenge
Once an advanced challenge starts the instructor will describe the flight parameters you are required to "set and maintain" and this will take a few seconds. It will also take you a little time to achieve the required flight parameters such as altitude, speed, etc. At 20 seconds your performance will be monitored for a further 10 seconds. Finally you will be given your score which is also displayed on screen.

FSFS-Tip We hope that you are flying with your aircraft configured *realistically* in your simulator. If this is the case *gyro drift* will be ON meaning for example that a Heading Indicator will *drift* during flight. Just as in the real world, you should adjust this to match the magnetic 'whiskey' compass periodically. As a shortcut you can do this by pressing   **D**.

Finally, keep in mind that some of the advanced challenge manoeuvres will require actions that are not necessarily part of the smooth, uneventful flight the FSFlyingSchool instructors want. As a result, you may, for example, be told off for "lowering your nose" if the test requires you to lose a lot of altitude, but this will not affect your Airmanship Challenge score.

Good luck and have fun learning with these challenges!

Adding Instructors

Each instructor has his or her own set of WAV files which are stored in a folder bearing the instructor's name.
The instructor folders are all in

C:\Program Files\FSFlyingSchool\Sound

or perhaps in another folder if you chose a different installation path.
Be sure to have a complete set of files for each instructor or you will hear only silence when FSFlyingSchool attempts to play missing files.
The audio format of all FSFlyingSchool files is

Microsoft PCM 11.025 kHz, 8 Bit, Mono

You may download extra instructor files which appear on the FSFlyingSchool.com website.
You can also create your own instructors using any tool capable of recording WAV files in the format shown above.
Try to make the files as short as possible and be certain to trim off any wasted space at the start and end of the file. This is essential to prevent long queues of audio files building up which will tend to lead to files not being played as they are too far out of sequence. Keep the files short and they will work splendidly.
The best way to go about creating your own instructor file sets is to create a new instructor folder, copy an existing set of files into it and then work your way through those files, replacing them with your own recordings as you create them. You will need to leave the *file names* exactly as they were; do not alter any of them.
Test any new FSFlyingSchool instructor file sets by selecting the instructor of your choice and using the *Listen to Instructor* button on the Pilot or Aircraft page.

Adding Aircraft Interactively

In order to get the most out of FSFlyingSchool, each aircraft needs its own data, stored in an FSFlyingSchool aircraft data file. FSFlyingSchool comes with its own data files for several of the Flight Simulator community's favorite aircraft. If you wish to fly an aircraft, but have no FSFlyingSchool aircraft data file for it, check the FSFlyingSchool.com website, as new aircraft data is being added all the time. If you find the file for the aircraft you want simply download it from the website and follow the instructions in this manual headed *"Adding Aircraft by Installing New FSR Files".*

As you explore the skies with FSFlyingSchool, you will occasionally decide to fly an aircraft which currently has no corresponding FSFlyingSchool data file. You can be the first person to create one!

Each aircraft has its own FSR file, bearing the aircraft's Flight Simulator name.
The aircraft FSR files are all in

      C:\Program Files\FSFlyingSchool\Aircraft

or perhaps in another folder if you chose a different installation path.

In order to add a new aircraft to FSFlyingSchool:
1. Collect all the data you can about the aircraft in question. An obvious place to start is the Flight Simulator reference file and Flight Simulator checklist file supplied by the makers of the simulated aircraft.
2. Load a flight of that aircraft into Flight Simulator. If not already running, launch FSFlyingSchool. *Connect* FSFlyingSchool to Flight Simulator. Return to Flight Simulator and make sure your flight is not *paused.* After a few seconds, FSFlyingSchool will *estimate the aircraft values.* You can fly with these values or make adjustments to them, by disconnecting from FSFlyingSchool and continuing as follows.
3. Bring up the *Aircraft* page in FSFlyingSchool and select the *User Specified Data* within the *Data Source* group box. FSFlyingSchool stores user created data in FSU files and you are about to create one. FSU files contain *User Specified Data* for aircraft flown in FSFlyingSchool.
4. Enter all relevant data into the IAS Data, Flap positions, Flap speeds and Other Data fields. Once this has been done, press the *Save User Data* button. This will create an FSU file for the aircraft if one does not exist or will simply update the file if one does.

You are now ready to *connect* FSFlyingSchool to Flight Simulator and fly that aircraft with FSFlyingSchool using the *User Specified Data.*

FSFlyingSchool will remember that you want to fly *this* aircraft with your own *User Specified Data.*

You will not be able to submit your scores to the FSFlyingSchool website when flying with *User Specified Data*, but you will have your performance scored and evaluated by your FSFlyingSchool instructor as you fly, and the results recorded in your FSFlyingSchool log book.

If you want to submit your scores to the FSFlyingSchool website when flying with this aircraft, share your work by posting the FSU file you created to the FSFlyingSchool Forum. We will check it out and add it to the FSFlyingSchool FSR aircraft accessible from our web site and forum. You can then download the FSR file and fly the aircraft using that instead of the FSU file. To install the FSR file, see *Adding Aircraft by Installing New FSR Files* in this manual.

Adding Aircraft by Installing New FSR Files

New FSFlyingSchool aircraft data (FSR) files are always becoming available from the FSFlyingSchool.com website and from the FSFlyingSchool community in general. These files allow you to add new aircraft data without having to collect and enter it into the FSFlyingSchool *Aircraft* page fields.

In order to install new aircraft FSR files into FSFlyingSchool:
1. Place the new FSR file into

> *C:\Program Files\FSFlyingSchool\Aircraft*

or perhaps in another folder if you chose a different installation path.
Note that the FSR file for the aircraft must bear the same name as that of the aircraft itself in

> *C:\Program Files (x86)\Microsoft Games\Microsoft Flight Simulator X\SimObjects\Airplanes*

or
> *C:\Program Files (x86)\Steam\steamapps\common\FSX\SimObjects\Airplanes*

or
> *C:\Program Files\Microsoft Games\Flight Simulator 9\Aircraft*

For example, the Cessna Skyhawk SP Model 172 is in the file:

> *c172.fsr*

You are now ready to *connect* to Flight Simulator and fly that aircraft with FSFlyingSchool. FSFlyingSchool will henceforth use the FSR file, which contains the aircraft data, by default.

Editing Aircraft Data

If you feel there are elements of FSFlyingSchool aircraft data stored in FSR files, which were created by us, yourself or others, which could benefit from a little fine tuning, you can create your own version of the data and store it in an FSU *User Specified Data* file*.*

In order to edit aircraft data in FSFlyingSchool:
1. Collect all the data you can about the aircraft in question. An obvious place to start is the reference file and checklist file supplied by the makers of the simulated aircraft.
2. Load a flight of that aircraft into Flight Simulator. If not already running, launch FSFlyingSchool. *Connect* FSFlyingSchool to Flight Simulator. Return to Flight Simulator and make sure your flight is not *paused.* After a few seconds, FSFlyingSchool will *estimate the aircraft values.* You can fly with these values or make adjustments to them, by disconnecting from FSFlyingSchool and continuing as follows.
3. Bring up the *Aircraft* page in FSFlyingSchool and select the *User Specified Data* within the *Data Source* group box. FSFlyingSchool stores user created data in FSU files and you are about to create one. FSU files contain *User Specified Data* for aircraft flown in FSFlyingSchool.
4. Enter all relevant data into the IAS Data, Flap positions, Flap speeds and Other Data fields; this information is described in detail in the *Aircraft Page* section of this manual. Once this has been done, press the *Save User Data* button. This will create an FSU file for the aircraft if one does not exist or will simply update the file if one does.

You are now ready to *connect* to Flight Simulator and fly that aircraft with FSFlyingSchool using the *User Specified Data.*

FSFlyingSchool will remember that you want to fly *this* aircraft with your own *User Specified Data.*

You will not be able to submit your scores to the FSFlyingSchool website when flying with *User Specified Data*, but you will have your performance scored and evaluated by your FSFlyingSchool instructor as you fly, and the results recorded in your FSFlyingSchool log book.

If you feel the FSR file should be permanently amended, please let us know through the FSFlyingSchool Forum.

Should you wish to return to the standard FSR file, bring up the *Aircraft* page in FSFlyingSchool and select *FSFlyingSchool Data* within the *Data Source* group box.

Location Triggered Sounds

FSFlyingSchool enhances your immersion in the simulation by playing files that depend on your location. These files are played when you are within a specific distance of the latitude and longitude coordinates contained in the filename of the associated sound file. For example, the file
          "N52_28_46#E13_23_29 [Berlin Tempelhoff].wav"
will play when you are close to Berlin Tempelhoff airport.

Files with the prefix "LANDED#" will play only when a landing takes place in the specified region, not merely when flying over it. For example the file:
          "LANDED#N41_58#W87_54 [Chicago OHare].wav"
will play when you land at Chicago O'Hare airport.

Files defined in degrees (with no minutes) are triggered within that exact area. Files defined in minutes are triggered if the pilot is within +/- 2 minutes. Files defined in fractions of minutes are triggered if the pilot is within +/- 0.02 minutes.

We have included several files which will play as you explore the world with FSFlyingSchool.
You can add your own 'location' files to be played when you fly over some of your favorite places using these simple steps:
1. Record the file you wish to play at the location you have chosen. Use Windows own *Sound Recorder* program (often found under the Start Menu-Programs-Accessories-Entertainment menu), or a specialized sound editor if you prefer. Be sure to save the file in the following format:

        Microsoft PCM 11.025 kHz, 8 Bit, Mono

Make sure you trim off any unnecessary silence at the start and end of the recording. Keep the recording fairly short or it may clash with the other things happening during your flight with FSFlyingSchool.
2. Save your recorded file in

        C:\Program Files\FSFlyingSchool\Locations

or perhaps in another folder if you chose a different installation path. The filename must follow this format:

Note that the latitude and longitude are given in degrees and minutes – same format as Flight Simulator map display.

Flying FSFlyingSchool – help us build the add-on you want!

The most important thing you can do, of course, is take to the skies with FSFlyingSchool!

Be sure to start with landings and very short flights first so that you fully understand how FSFlyingSchool behaves before investing your time in long flights or demanding circuits.

Why not try out a range of different types of flights and report the results back to us?
Try flights with a variety of: aircraft; weather; times of day; hemispheres; durations; with and without flight plans; VFR and IFR; ILS and visual approaches.

Try flights with unusual parameters such as bad weather and even just plain bad flying!

At the end of each session you fly, you can submit your account of your experience with FSFlyingSchool to the FSFlyingSchool forum at: http://www.fsflyingschool.com/forum/
We'd like to hear:
- What you did - you can be brief because your log book (see below) will provide us with a lot of data.
- What you liked.
- What you did not like.
- Your suggestions.
- Error messages.
- Incorrect behavior or information.
- Performance problems.

In addition we would like to see any files you may have created yourself for:
FSU – User defined Aircraft Data
WAV – Location files
WAV – Landing files
WAV – Instructor files
BMP/GIF/JPG – Pilot image files

Thanks – we look forward to hearing about your flights with FSFlyingSchool!

How to improve your flying (and your scores!) in FSFlyingSchool

Here are some tips on flying well in your simulator with FSFlyingSchool and for keeping those chatty instructors happy. We published these last year but a lot of folks will not have seen them - and they may even help those who have!

The following is a list of tricks and tips for flying with FSFlyingSchool with specific reference to what *does*, and *does not* matter when your instructors are up there with you in the virtual skies.

This is not an operating manual or checklist for any particular aircraft and the tips described apply in general to all powered aircraft except where noted.

We are concerned here with those elements of your flights with FSFlyingSchool that are noted by instructors. Flights in *real* aircraft involve a great deal of planning, inspections, communications and more and these details are not our subject here.

And of course, I am describing tips for flying well, with happy instructors and scoring points *in FSFlyingSchool*. *This is not to be used for real aviation.*

Pre-flight planning

- Weather has no effect on *increasing* your scores except at approach and landing. You can enjoy your flight with clear or challenging weather, but dealing with bad weather well will only *increase* your points scored when you are on approach and landing. If you choose bad weather for the whole flight, you may lose some points for rough handling of the plane as your instructors only take flying well in bad weather into consideration on... approach and landing.

- File a flight plan. This not only makes the whole flight more chatty, informative, realistic and interesting, but also means you'll pick up points for crossing waypoints in the correct sequence.

- Size matters. Heavier aircraft mean more points. They are harder to manoeuvre and must generally be flown faster than lighter aircraft so take one on and see your points go up, so long as you can handle it well!

Taxi out and take off

- Watch your taxi speed and use gentle turns and braking on the ground. Keep the whole thing smooth and easy; no darting this way and that.

- Just before advancing FSFlyingSchool to 'take off mode' make sure you are pointing straight down the runway center line. The instructor will expect you to stay on that line until you are airborne.

- Keep that airplane straight on your take off run. Remember to use your rudder pedals for steering. You may find that on a small propeller plane you need to kick in some right rudder to neutralize a tendency to yaw to the left.

- When rotation speed is reached - rotate! Your instructor expects you to do so; don't continue to use up runway when you can fly.

- Be sure to keep those wings level when you are very close to the ground or things could get dangerous and expensive.

- If you've taken off with some flaps down, get them up at the appropriate time. Don't forget or you could damage them and your instructor certainly won't like it.

- Climb smoothly and do not descend when in 'take off mode'.

Cruising

- Advance your FSFlyingSchool flight mode to 'cruising' once you reach the altitude at which you will cruise. Remember that cruise mode does not penalize descents which may be called for by ATC so you want to get into this mode as soon as you are at cruise altitude.

- Know the autopilot points deduction rules in FSFlyingSchool! If your aircraft has an autopilot and it is used for an appreciable period during your flight, all your scores are reduced by 33%, except when:
    (a) In cruise mode in a light aircraft above 1000 feet AGL (Above Ground Level)
    (b) In a heavy aircraft and cruising, or taking off and above 600 feet AGL, or landing and above 900 feet AGL
In these cases, no points are lost by having the autopilot engaged. This gives the pilot a chance to use the autopilot on flights without losing points, but note that the aircraft must be significantly above the ground.

- Watch your airspeed and stay well away from stall speed and from overspeed. The former will mess up your flight path and score. The latter is likely to destroy your aircraft in seconds.

- If you filed a flight plan, be sure to cross all your waypoints in the right sequence. Cross within 1 nautical mile a light aircraft and 3 nautical miles in a heavy.

- The instructors expect banks of no more than 30 degrees, so watch your attitude indicator carefully when turning.

- Always attempt to fly smoothly with low G forces and a gentle touch on the controls.

Landing

- To achieve high scores, you want low visibility and a significant crosswind during approach and landing.

- Advance your FSFlyingSchool flight mode to 'landing' when you are getting ready to begin your final approach and have slowed to a speed at which you can lower your first notch of flaps (if present).

- Once in landing mode, get some flaps down, but only of course if you are slow enough. Same for the gear.

- Arm your spoilers if you have them.

- Get lined up with your destination runway before you descend below 500 feet AGL.

- Follow the glideslope from the VASI or PAPI lights on a visual approach or on your instruments if flying an ILS approach.

- Stay lined up with the runway using visual cues on a visual approach or your localizer instruments if flying an ILS approach.

- Note that in some senses, flying an ILS approach may be easier due to the cues coming from the instruments rather than the outside visual cues.

- Touchdown as soon as is practicable after crossing the runway threshold or you'll lose points for an excessively long landing.

- Have your throttle(s) idle at touchdown.

- Touchdown at a recommended speed of course, but generally you want it to be slow and pretty close to stall speed. We don't want to have to force the plane to stay on the ground.

_____

- Touchdown softly, but don't get distracted about it being lighter than a feather or you may use up a lot of runway and have to brake very hard. Moreover, there are reasons that you will want to land a 'heavy' aircraft with a firm hand especially on a wet runway.

- Pitch is crucial at touchdown. Be sure to know in advance what makes sense. You never want the nose down and watch out for a tail strike (pitch too high) especially in nose wheel airliners. Always land on your main wheels.

- Take care to gently bring the nose down if there is a nose wheel or the tail down on a tail dragger.

- Keep it straight on landing until you slow to taxi speed (FSFlyingSchool will then change to 'taxiing mode' automatically) at which point you can of course turn off the runway.

That's it! If you can follow most of these tips most of the time, you'll certainly have pretty respectable scores. If you can follow all of them all of the time, you're one heck of a simulator pilot!

Let's not miss some of the best features of FSFlyingSchool

They are there... so let's use them!

Let's talk about some of those features...

Registered version

Right now, you may be using the free demo of FSFlyingSchool. With the registered version you can fly *anywhere in the world* with an instructor and you can submit your best scores to our website tables and your flight maps to our website too, so you can see the flights you flew with Google Maps. Zoom in right down to the runways and taxiways!

Scoring points

You always score points when you land and also for your flight if you *took off* (did not start in mid-air). This is recorded in your log book so you can follow your progress. You can only submit your scores to the web if you are registered and if you flew one of the planes listed in the manual which supports submitting scores.

Pilot briefing

Once you have flown several flights you can see how you are progressing by looking at the Pilot Briefing at the log book screen of FSFlyingSchool. This will soon give you an idea of those areas you need to work on.

Career Analyzer

You can also see graphs of over 70 aspects of your flights at the Career Analyzer at the log book screen of FSFlyingSchool. You'll see at once which things you need to improve.

Flight Plans

Flights in FSFlyingSchool are always more fun and more interesting if you also file a flight plan in FSX/FS2004 or P3D, because this of course means that the instructor knows *exactly* where you are supposed to be going for the entire flight. He/she will give you tips on upcoming waypoints and will reward or deduct points depending on how well you follow them!

Voice Command

You'll have a lot more fun if you take the time to set up Speech Recognition in Windows (this is done by you outside of FSFlyingSchool) and then use Voice Command in FSFlyingSchool. You'll be able to talk to your instructor and get all kinds of information using natural phrases like "Where's the airport?" and "Next flap speed?". Not only will you be better informed, but the whole experience becomes more atmospheric as you feel like you are really talking to a friendly copilot up there with you in the simulated skies.

Aircraft Variety

Don't make the mistake of thinking that FSFlyingSchool is only for little single engined propeller aircraft! Fly with any powered airplane you like - your instructors will adjust what they say and expect based on the airplane details and also on general concepts of what is appropriate for the class of airplane you are flying. Don't forget you can fly tail-draggers and float planes too.

Airmanship Challenges

Best to read the manual for the details here - but don't miss out on these. Press a key or speak the command and the instructor will instantly challenge you to fly exactly as specified. Can you hold your airspeed, altitude and more to precise requirements? All good pilots can!

Circuit Training

Once you've managed a few good landings and flights you are allowed to engage in circuit training (flying circuits within the traffic pattern at an airport). This is one of the most demanding features of FSFlyingSchool as the instructor knows how to fly a perfect circuit and will be expecting you to do your best.

On Approach

This feature of the flight plan screen of FSFlyingSchool allows you to practice, practice, practice approaches and landings at your favorite airports anywhere in the world and takes only seconds to set up each approach. Spice things up by adding in random winds, visibility and more.

Set up approaches like this in seconds!

Failures

You can turn on random aircraft failures and this is where things get really interesting. Can you manage your aircraft safely when things go wrong?

Traffic

Your instructors are not just watching *you*. They're also looking out for traffic both in the air and on the ground. Be sure to maintain safe distances and take time to enjoy the instructor's expert aircraft recognition skills!

And more... so read those manuals!

FSFlyingSchool has many, many more features - too many to list here - so take a look at those manuals that came with the product and try them out! There are so many features and add-on packs included with the product that it comes with no fewer than 15 manuals for you to enjoy. *(FSX version)*

Building up a collection of your favorite approaches

What's the best way to build up your own collection of exciting, challenging and instructional approaches to runways in your simulator?

Simple! Just set up any approach you want, to any runway in the world, in seconds, using the 'On Approach' feature of FSFlyingSchool.

Next, when you have connected to your simulator and are ready to fly the approach, press the semicolon ";" key to open the "save flight" dialogue in your simulator and save the flight.

That's it!

Pilots all over the world are using this technique to quickly build up a whole 'library' of approaches they click... load... and practice, practice, practice.

FSFlyingSchool PRO 2019 takes all the time consuming steps out of using the map or 'slewing' around to set up approaches, leaving you with lots more time to enjoy *flying* instead of *setting up.*

And remember, not just straight in approaches! You can set up approaches which intersect with 'final', from left or right *and also left or right 'downwind leg' approaches* in just a few mouse clicks.

Precision Flight Paths

One of the great things about the flight mapping feature of FSFS PRO 2019 is that it provides a great way to practice flying particular patterns in the sky.

Whether you are fine tuning your approaches, working on more precision for your 'holding patterns' or perfecting turns across a road, you can save the flight map, view it on Google Maps and see how well you did.

Unlike FSX which can only show you the track of the last flight flown, with the FSFS PRO 2019 flight mapping feature, you can review dozens of your own maps and monitor your progress.

So... why no give it a shot this weekend?

Just how precisely can you fly specific patterns...?

Master flying heavy aircraft

If you want to master flying heavy aircraft, keep in mind that FSX and FS2004 will configure your airplane to have *full tanks* unless you change the amount of fuel.

This is simplistic, but not realistic. The aircraft could easily be too heavy to fly within its manufacturer's limits and will handle far more sluggishly than if realistically fuelled.

This is especially apparent on approach and landing, when you need that bird to be as responsive as she can be and reducing fuel will also lower the stall speed, making things easier to manage.

So... look at the stats for the airplane and be sure to put in an appropriate amount of fuel for the job at hand, but don't let Flight Simulator simply "Fill her up!""

Try it - we think you'll like it!

More Top Tips

If you want to score lots of points (and why not?!) then think... big plane + low visibility + stiff crosswinds at landing.

Remember that if you are using a plane for which FSFlyingSchool has estimated flaps speeds, stall speeds, etc, you can always, at your option, fine tune those details at the Aircraft Screen of FSFlyingSchool PRO 2019.

Using trim correctly is a vital skill which pilots must master. Turning on 'I have yoke pressure' at the Pilots Screen of FSFlyingSchool will mean your instructors will be watching your use of elevator trim and expecting you to use it correctly.

If you want more control over your flights, turn off the 'Automatic Detection Setup' option at the Pilots Screen of FSFlyingSchool PRO 2019 so that you tell the instructor when you enter cruise and landing modes.

You'll have a lot more fun if you take the time to set up Speech Recognition in Windows (this is done by you outside of FSFS)and then use Voice Command in FSFlyingSchool. You'll be able to talk to your instructor and get all kinds of information using natural phrases like "Where's the airport?" and "Next flap speed?". Not only will you be better informed, but the whole experience becomes more atmospheric as you feel like you are really talking to a friendly copilot up there with you in the simulated skies.

Aircraft have lots of lights and using them correctly is something you'll want to learn. FSFlyingSchool PRO 2019 helps you master their correct use and lets you control exactly which lights the instructors are watching.

Want to spice up your taxiing time? Turn on the option at the Pilots Screen of FSFlyingSchool PRO 2019 to have your instructors comment on the winds and how you should taxi correctly. Correct use of ailerons and elevator while taxiing in a light aircraft on a windy day is a challenge in itself.

If you want a real challenge just tell your instructor "Birds ahead of us!" and... if your failures are turned on in FSFlyingSchool PRO 2019, you'll get a strike from birds or some nasty object up there. Things will go very wrong - can you handle it? *(You need to have your Voice Command Pack operating of course.)*

We hope these TOP TIPS help!

Notes from the designer

You will get the most out of FSFlyingSchool if you read this manual and you handle your aircraft realistically. By this, we mean that you fly in such a manner that your passengers are neither ill nor terrified at the end of the flight and the aircraft is still in good shape.

FSFlyingSchool is about airmanship, the handling of the plane. It is not about checklists or operating the FMC. You can still do this, (we do), but this is not the reason we built this add-on. We want virtual pilots to think about what they are doing to themselves, their passengers, their aircraft, ATC and the traffic they are sharing the virtual skies with.

It can be very easy to get reasonable landing, flight, circuit and airmanship challenge scores when flying a simple plane in dead calm weather… but where's the challenge in that? Set up a nasty gusting crosswind at your destination, lower the visibility at the airfield and try something *heavy.* This is where your scores can really get good!

One of our guiding principals at FSFlyingSchool is that we create products which can be enhanced and extended by us, by you and by the flight simulation community at large. As a result, FSFlyingSchool allows us, you and them to add:
- Instructors
- Aircraft Profiles
- Location ambience sound files
- Landing ambience sound files
…so try creating some of your own – there's nothing quite so rewarding as creative play!

Finally, we thought you might like to hear about some of the enhancements we are considering for FSFlyingSchool.
We have a very active forum and these ideas are discussed there passionately. Many ideas suggested by fans have already been added to the software!
- Monitoring pilot's performance based on the changing factors which affect use of flaps, approach speeds, etc, such as current pressure, current temperature and current aircraft weight.
- Support for SIDs & STARs
- Support for helicopters
- Support for gliders
- Support for aerobatic and combat flying
- Touch and go landings
- Right handed circuits

Good luck with your flights and have fun!

- Jeff Preston
December 2018

Troubleshooting

FSFlyingSchool Forum
Check the FSFlyingSchool Forum: [www.FSFlyingSchool.Com/Forum]
Whatever difficulty you may experience, others may be able to help.
If you got some results into your log book (you didn't merely fly for a few seconds or wreck or crash the aircraft) you can send us the following files from the
        C:\Program Files\FSFlyingSchool\PilotRoster
folder
(you may have installed this to a different folder on your PC)
.PLT file (your pilot configuration file)
.HTM file (your pilot's FSFlyingSchool log book file)
.CSV file (raw debugging data useful to us at FSFlyingSchool)

For example, if you had created a pilot called Sebastian, then we would like you to send us:
        C:\Program Files (x86)\FSFlyingSchool\PilotRoster\Sebastian.plt
        C:\Program Files (x86)\FSFlyingSchool\PilotRoster\Sebastian.htm
        C:\Program Files (x86)\FSFlyingSchool\PilotRoster\Sebastian.csv

Application Priority
Windows applications can have their *Priority* configured higher than normal. This means they are taking an unusually large amount of the PC's processing power for themselves, at the expense of other applications running on that PC.
FSFlyingSchool should not be used when applications on the same PC have a Windows *Priority* set other than at normal.
The most likely effect of having an application, such as Flight Simulator, with its priority set higher than normal is that FSFlyingSchool's instructor's voice will seem to lag behind the events which are occurring. This can be simply solved by making other applications on the PC run with normal priority. To change the priority of an application back to normal, please consult Microsoft's technical help literature or their help on the Web.

Controllers are Recommended
Flying smooth, realistic flights with splendid landings is a lot easier, in our opinion, with good flight controls. If you can get hold of them, use a joystick or yoke. If you have funding to spare, get a throttle and rudder pedals. These make a huge difference in smooth aircraft control and of course in your own immersion in the simulation.

Footnotes

– If you find the FSFlyingSchool default keyboard shortcuts are already used by an add-on you are using at the same time as FSFlyingSchool, you can use any of the following shortcuts instead:

Shortcut	Default	Alternate
Advance Flight Mode	[Ctrl-Shift-Z]	[Ctrl-Shift-1]
Back Up Flight Mode	[Ctrl-Shift-X]	[Ctrl-Shift-2]
Display Data	[Ctrl-Shift-D]	[Ctrl-Shift-3]
Circuits Start / Stop	[Ctrl-Shift-Space]	[Ctrl-Shift-4]
Airmanship Test	[Ctrl-Shift-C]	[Ctrl-Shift-5]

– Note that if FSFlyingSchool's shortcut keys conflict with your add-on, you will often be able to change the key assignments in the add-on to something which does not conflict with FSFlyingSchool.
– FSFlyingSchool detects transponder emergency settings and displays them as text.
– FSFlyingSchool detects COM1 emergency frequency and displays it as text.

Some Technical Terms

- **Transition altitude**
  Typically, in the USA, a pilot climbing through 18000' should set the altimeter to 29.92" Hg (1013 hPa). Descending through 18000', the pilot will set the local altimeter setting. This altitude is very different in other countries and can vary within the same country.

Aircraft Lights

- **Beacon**
  If an engine is on, have the beacon on.
- **Nav**
  If an engine is on, have nav lights on.
- **Taxi**
  If in taxi mode at night, or in taxi mode in a heavy aircraft, taxi lights on.
- **Strobe**
  If not in taxi mode, strobe lights on.
- **Landing**
  If not in taxi mode, landing lights on, unless above 10,000 feet MSL in a heavy aircraft or in cruise mode in a light aircraft..

END-USER LICENSE AGREEMENT

This End-User License Agreement ("EULA") is a binding legal agreement between yourself and FSFlyingSchool; when you click to "agree" when installing this software, you indicate your approval of these terms and conditions, at which point this EULA becomes a legally binding agreement between yourself and FSFlyingSchool.

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Last revision – June 15 2018

APPENDIX A - New Features in FSFlyingSchool

Summary of new features in FSFlyingSchool Pro 2019

(Features in version 12.1.0)

Now includes Career Analyzer Version 2
FSFlyingSchool pilots have relied on the powerful information shown in the Career Analyzer to show them which areas of airmanship they need to work on.
It just got better!
Now with improved graphing logic the Career Analyzer now allows the pilot to compare 2 sets of data alongside each other so that patterns can easily be found.
Landing speed too high because flaps are not down? Banking too much to the left but not to the right? Now you can find out!
Full details in the Career Analyzer description in this manual.

(Features in version 12.0.0)

Next Level Pack Included
Now you can experience a new level of attention and help from your chief instructor Mr Smith.
Pilots are used to this sort of level *only* with FSFlyingSchool Detail Pack planes; not any more!
Mr Smith is always looking for ways to improve your performance and get you flying with expert skills. This new pack will take your instruction to *the next level.*
With Mr Smith's help you'll soon be familiar with useful load, never exceed speeds, fuel capacity, flap and gear speeds and much more.
In addition... he'll let you know if you should abort a take off or a landing. He'll advise when you should use more throttle on your take off run and climb... and a lot more besides!
See 'APPENDIX F - Next Level Pack' at the end of this manual.

New 'Enter Traffic Pattern' option for On Approach Function
Check this box if you wish to begin your approach on a course that will intersect the 'Downwind' leg of the traffic pattern at an angle of 45 degrees. You are placed with the same distance to fly as was chosen for the Base leg before you reach the Downwind *leg abeam the mid-point of the runway.* You will be at at 1000 feet AAL (above airfield level). (Several of these settings can be changed if you wish - see below). You will then be able to select it for a left or right traffic pattern and to choose the length of the 'Base' leg of the traffic pattern.
This gives you a powerful new tool to quickly practice *joining* the traffic pattern!

Cessna 172 PRO Pack Included
Pilots have been enjoying the extra level of instruction that comes with the Cessna 172 Detail Pack included with FSFlyingSchool for many years.
Good news!
The pack has been greatly expanded with the inclusion in FSFlyingSchool PRO 2019 of the new Cessna 172 PRO Pack.
Look at these new features:
- Interactive shutdown sequence where instructor calls off and monitors each step and waits for the correct sequence to be followed.
- Instructor reads drill if engine fire occurs in flight.
- Instructor reads drill if engine fire occurs on ground.
- Advice on maximum altitude.
- Monitoring of use of pitot heat and advice on its use.
- Advice on short field take off procedure at short fields.
- And more!

Summary of new features in FSFlyingSchool Pro 2018

(Features in version 11.0.0)

GPS Tutor Pack Included
GPS units are common nowadays and can save the pilot a great deal of effort when used correctly. Your chief instructor Mr Smith can now help you master the GPS!
As many pilots will know, use of the GPS can be challenging and it is essential that you read our full detailed description of the GPS Tutor Pack, which explains what it does and how to use it.
See 'APPENDIX D - GPS Tutor Pack' at the end of this manual.

Autopilot Tutor Pack Included
Autopilot units are common nowadays and can save the pilot a great deal of effort when used correctly. Your chief instructor Mr Smith can now help you master the autopilot!
Correct use of the Autopilot can be challenging and it is essential that you read our full detailed description of the Autopilot Tutor Pack, which explains what it does and how to use it.
See 'APPENDIX E - Autopilot Tutor Pack' at the end of this manual.

Mr Smith advises pilot on displaced runway thresholds and their lighting
Mr Smith knows a displaced threshold when he sees one and will let you know when you are on approach. He'll advise you on the associated runway lighting too!

Mr Smith advises pilot of maximum flaps speed on any airplane
Mr Smith will now tell you the maximum flaps speed below which you can safely lower flaps when on approach. Until now, this has been available only on Detail Pack airplanes, but he now does it for all planes with flaps!

Summary of new features in FSFlyingSchool Pro 2017

(Features in version 10.0.0)

Taxiway Tutor Pack Included
It has been said that the hardest part of some flights is taxiing to and from the runway! Now your chief instructor Mr Smith can help in FSX, FSXSE and FS2004.
'Taxiway Tutor' will quickly have you taxiing safely and with confidence at the busiest airports!
Your instructor calls off taxiways, runways, holding positions, markings and more as you move around the airport.
In addition, your instructor gives tutorial advice on taxiways, runways, markings, lights, holding positions, and more.
This can be a complex subject and it is essential that you read our full detailed description of this feature, which explains what it does and how to use it.
See 'APPENDIX B - Taxiway Tutor Pack' at the end of this manual.

Weather Tutor Pack Included
Weather and its effects on aviation are an essential part of pilot knowledge. Now your chief instructor Mr Smith can help!
Get ready to learn - here are some of the areas Mr Smith will explain to you:
(Note that in addition to weather, the Weather Tutor covers several bonus subjects that are not strictly weather but still essential to safe flight.)
–   Effects of temperature-dew point spread
–   Considerations when flying in low light
–   Considerations when flying in low visibility
–   Considerations when flying in the presence of clouds
–   Considerations when flying in low temperatures
–   Crosswind landing technique
–   Crosswind take-off technique
–   Crosswind take-off roll aileron use
–   Crosswind landing roll aileron use
–   Take-off from a high elevation
–   Landing at a high elevation
–   Take-off at a high temperature
–   Landing at a high temperature
–   Take-off from a wet grass runway
–   Take-off from a dry grass runway
–   Landing at a wet grass runway
–   Landing at a dry grass runway
–   Landing at a wet paved runway
...and a lot more!
This can be a complex subject and it is essential that you read our full detailed description of this feature, which explains what it does and how to use it.
See 'APPENDIX C - Weather Tutor Pack' at the end of this manual.

FSFlyingSchool Detail Pack for A2A Piper Comanche 250 for FSX/FSXSE Included
Pilots certainly love the Piper Comanche 250. Now your chief instructor Mr Smith will help you get the most out of your flights in this fast aircraft! Be sure to read the new manual we've included for this pack..
The full manual for this new product is installed in the same location as this manual on your PC.
A *big thanks* for the kind assistance of A2A in the production of this detail pack!

Enhanced Instructor Awareness Version 3!
We have once again made several incremental improvements to FSFlyingSchool, including new areas requiring the pilot's attention.
Mr Smith, the chief instructor, is looking at each pilot's performance in even greater detail with the arrival of FSFlyingSchool PRO 2017. Here are some of the enhancements:

- Mr Smith has always *advised* that your flight controls be checked before flights. In addition, he will now expect you to specifically check the free and correct function of your elevator, ailerons and rudder.
- Your instructor will advise you that if your aircraft has been stored for a long time you need to check for damage or obstructions caused by insects and birds.
- In cold weather, Mr Smith will remind you that frost on the wings can prevent the aircraft from becoming airborne.
- Shortly after entering cruise mode, you'll hear comments from Mr Smith on your success or failure in checking your elevator, ailerons and rudder before take off. Let's develop good habits.
- If you're in the kind of aircraft that has a 'run-up' procedure, Mr Smith will point that out and expect it to be done before take off. You'll be hearing from him later if you don't.
- All your instructors will now announce your tail number when you start a flight on the ground. If, for example you are flying "Mooney November Niner Zero Zero Three Juliet", we decided it was time that this was brought to your attention. You need to know who you are in communications with ATC..
- If there is no ATIS (Automatic Terminal Information Service) is available at your departure airport, but there is AWOS, Mr Smith will now tell you the frequency automatically. Be sure to listen to AWOS!
- If there is no ATIS (Automatic Terminal Information Service) is available at your departure airport, but there is ASOS, Mr Smith will now tell you the frequency automatically. Be sure to listen to ASOS!
- Mr Smith will remind you to fully extend and retract your flaps before take off to check their correct function. You'll hear his feedback on this so let's get it done.
- You'll be reminded, when climbing on warm days, that steep climbs can lead to overheating - so be careful out there.
- And more...!

Addition of AWOS and ASOS frequencies at destination
Until now your instructor would only watch for the ATIS frequency at your destination airport, but now you'll receive the AWOS and ASOS frequency if they are there instead.

Addition of ATIS, AWOS and ASOS frequencies en route
Mr Smith will now optionally report the frequencies of this information as you pass their transmissions along your route. It's good practice to listen to them as it keeps you up to date with what's going on down below and could be crucial in an aircraft or passenger emergency.

Addition of automatic tuning of ATIS, AWOS and ASOS en route and at destination
All instructors can now optionally tune your COM2 radio to these frequencies for you. This is a great way to learn what these services can do for you, until you are ready to tune them yourself.

Addition of Log Book Statistics Charts to Full Log Book
Want a powerful summary of your performance with FSFlyingSchool? It's here!
Color coded charts now give you a powerful insight into your pilot skills as recorded by FSFlyingSchool.
Just click the 'Show Statistics' button in the Full Log Book to see a chart of your scores in flights, landings and circuits, graded as poor, fair, good and of course... excellent!
Note that in order to view the charts you must open the 'Full Log Book' at the Log Book Screen of FSFlyingSchool.

Random Payload Option (FSX and FSX-SE only)
It's easy to fall into the habit of always flying with exactly the same payload so we've created a convenient way to vary the number of passengers and baggage weight on each flight.
Just turn on this option at the Pilots Screen and you'll get a random payload of people and baggage each time you connect to FSFlyingSchool!
We're excited to hear what folks think of this new feature and have started out by supporting it in the following aircraft: Carenado c152, Just Flight c152, FSX c172, Carenado c182, Carenado Cherokee, FSX Mooney Bravo, Carenado Mooney. (If you are not in one of those aircraft - it will not function).
As the pilot represents *you*, pilot weight is never changed, but a 4 seater can have between 1 and 4 people on board and possibly baggage, whereas a 2 seater can have 1 or 2 people and possibly baggage.
As you will imagine, this changes the *payload weight* - it does not change who or what is graphically shown inside the 3D cockpit. And yes - you'll often have only one person in the aircraft - even though you can still hear your instructor's words!

Addition of Flight Menu to Full Log Book
We know that hard working pilots build up a lot of flights quickly and that can be a lot to scroll through in your FSFlyingSchool 'Full Log Book'.
To make things that much easier, we've added a menu to the Full Log Book so that you can pick and choose any logged flight you wish to examine. Get all the details from previous flights, from an easy to use drop down menu at the top of your Full Log Book!
Note that in order to use the menu you must open the 'Full Log Book' at the Log Book Screen of FSFlyingSchool.

Summary of new features in FSFlyingSchool Pro 2016

(Features in version 9.0.0)

Enhanced Instructor Awareness Version 2!
We have once again made several incremental improvements to FSFlyingSchool, including new areas requiring the pilot's attention.
Mr Smith, the chief instructor, is looking at each pilot's performance in even greater detail with the arrival of FSFlyingSchool PRO 2016. Here are some of the enhancements:

- If you are about to land but are approaching the runway at an excessive above ground level, Mr Smith will advise that you will need to go around. At this point you should return to Cruise Mode and leave the area near the runway.
- Once you have landed, Mr Smith will expect you to slow down so you can get to a safe taxiing speed. Do not use up runway you don't need just because you've forgotten to slow down!
- Mr Smith will expect you to clear the runway after landing for the next arrival. If you don't, he'll offer you some prompt advice.
- Parking brake applied and aircraft moving? Mr Smith will have something to say about that. The wheels are slipping or the brakes cannot hold and this needs to be resolved by you the pilot in command!
- If ATIS (Automatic Terminal Information Service) is available at your departure airport, Mr Smith will now tell you the frequency automatically. Be sure to listen to ATIS!
- Mr Smith loves facts an figures and will tell you the length of your selected departure runway. Let's get into the habit of knowing it before he does!
- Your throttles will reward considerate use and punish harsh treatment. Mr Smith is now watching and will let you know if you are increasing or decreasing them without care.
- Mr Smith wants that heading indicator set correctly before take off and will certainly let you know if it is not!
- And more...!

FSFlyingSchool PRO 2015 Detail Pack for Aerosoft Beaver X and FSX Beaver Included
If you fly the Aerosoft Beaver X or FSX Beaver you will experience a new, rich level of attention to the details of the Beaver and the way it should be flown by you.
The full manual for this new product is installed in the same location as this manual on your PC.

A *big thanks* for the kind assistance of Aerosoft in the production of this detail pack!

Addition of Extensive Help and Tips to Program Features
All the screens in the FSFlyingSchool program itself and even its groups of features now have their own help buttons, so you can get help and handy tips on the section you are looking at, right there on the screen.

'Approach Builder' Pack for FSFlyingSchool PRO 2015 Included
The following *Approach Builder* features are ready for you whenever you use the *On Approach* feature of FSFlyingSchool PRO 2016.

- Scenarios! An approach with FSFlyingSchool PRO 2016 has a lot of options. Wouldn't it be great to be able to set up interesting approaches, often with random aspects, and save them? Now you can!

- Each situation you create at the Flight Plan screen of FSFlyingSchool PRO 2016 can now be saved as a 'Scenario', and loaded whenever you want to fly the same sort of approaches again.
You can even indicate that a scenario you have created should be loaded automatically when you launch FSFlyingSchool PRO 2016.
You can now build a whole collection of exciting approach scenarios to use whenever you wish!

- A new feature lets you set up an approach which starts immediately before the Base Leg of an approach in the pattern to your chosen airport. Fly left or right traffic - the choice is yours!

- The Flight Plan screen includes a handy updated diagram showing which approach types are available to set up with FSFlyingSchool PRO 2016 at your selected runway.

- Repeat your approach automatically. When you have finished your approach and want to fly another... let FSFlyingSchool do this for you! No longer any need to exit Flight Simulator and return to FSFlyingSchool. A new option at the Flight Plan screen will let you land and once you've finished your flight... another approach will automatically begin!
This is especially powerful (and challenging) when used in combination with the 'Increasing Wind' and 'Decreasing Visibility' settings introduced in *Approach Builder*. You'll get a different challenge each time!

- Automatically worsening (increasing) wind! For those who like variety and challenges, the wind can now be set to automatically increase with each new approach flown. This will keep you on your toes and is a great way to fly a whole set of increasingly challenging approaches in minutes.

- Automatically worsening (decreasing) visibility! Low visibility is always a challenge - now you can set it to automatically decrease with each approach you fly. How good is your flying on instruments?

- Random approach altitude! Optionally set a random altitude for your approach. This will give you an extra challenge by starting you (a sensible amount) above or below where you would want to be on the glideslope or pattern altitude. Be ready!

- New option for 'Heavy aircraft runways only please!' Pilots flying heavy iron may not want to practice approaches at grass (etc) runways, no matter how long they are! A new option restricts random runways to those with surfaces suited to heavy aircraft.
(For full details of these new features, see the On Approach section of this manual).

FSFlyingSchool PRO 2015 Detail Pack for A2A Cherokee & Carenado Cherokee Included
If you fly the A2A Cherokee or Carenado Cherokee you will experience a new, rich level of attention to the details of the Cherokee and the way it should be flown by you.
The full manual for this new product is installed in the same location as this manual on your PC.

A *big thanks* for the kind assistance of A2A and Carenado in the production of this detail pack!

FSFlyingSchool PRO 2015 Detail Pack for Aerosoft Twin Otter Extended Included
If you fly the Aerosoft Twin Otter Extended you will experience a new, rich level of attention to the details of the Twin Otter and the way it should be flown by you.
The full manual for this new product is installed in the same location as this manual on your PC.

Summary of new features in FSFlyingSchool Pro 2015

(Features in version 8.7.3)

Modifications to storage of 'monitoring' preferences set at Aircraft Screen
For technical reasons, we have been compelled to change the way your preferences for **what the instructor will monitor** (which are set at this screen) are stored on your PC. Such settings include, for example, which lights to monitor and whether to apply a detail pack's extra detail to your flying experience with each particular aircraft. As a result **it will be necessary** for you to indicate to FSFlyingSchool, at the Aircraft Screen, what your preferences are *the next time* you fly any given plane with FSFlyingSchool. Once this is done, your preferences are of course stored safely.
Note that this change relates *only* to your preferences of what the instructor *monitors. It does not relate to the core aircraft data (such as flap positions and speeds) in any way*

(Features in version 8.4.0)

Support for A2A c182
Your instructors are now familiar with the A2A version of this aircraft. Just as with the A2A c172, we've made adjustments to take into account the differences of how this airplane is modeled by the publisher and you are all set to take one of these fabulous aircraft into the simulated skies! And of course, you can fly your flights with the built-in FSFS PRO 2015 Detail Pack for the c182!

Support for A2A Piper Cherokee 180
Your instructors have been very busy and are now familiar with the A2A version of this aircraft. As with the A2A c172 and c182, we've made adjustments to take into account the differences of how this airplane is modeled by the publisher - now you can enjoy flights in this marvelously simulated aircraft.

Improved support for A2A c172
Your instructors are now watching for an elevator check and also that the throttle is set correctly on startup and when landing.

A *big thanks* for the kind assistance of A2A in donating aircraft to help make these modifications possible!

IMPORTANT notes for A2A pilots!

All A2A aircraft must be installed in folders which have *unchanged*, *default* folder names in order for our A2A supported features to function. The folder names are:
A2A_C172
A2A_C182
A2A_Piper_PA28_180_Cherokee
(So long as these names are not changed - FSFS will correctly detect the aircraft as A2A aircraft)

Note that the ASI in the A2A Cherokee is in *MPH* and not *knots*.

As explained in the c182 Detail Pack manual, when flying an aircraft which has no carburetor heat control you should turn *off* the option to 'monitor carb. heat' at the Aircraft Screen of FSFlyingSchool.

(Features in version 8.3.0)

Instructors' awareness of turbulence
Your instructors now take account of turbulence and will not take points off your score simply because the weather is throwing your aircraft around.

Improved analysis of glideslope on visual approaches
Changes have been made to the program logic which analyses visual (not ILS) approaches to landing and these lead to a much improved experience when coming in to land!

Improved automatic detection of 'unknown' aircraft data in FSX Steam Edition
Pilots had reported problems with some aircraft getting no 'estimated values' from FSFS when connecting to FSX Steam Edition. This has been solved.

Improved A2A c172 support
Pilots had reported problems getting a flight to *end* when FSFS was configured to end flights when the engine was cut in the A2A c172. This has been solved.

(Features in version 8.1.0)

Support for FSX Steam Edition!
FSFlyingSchool now supports the new FSX Steam Edition of this splendid flight simulator!

DEMO AREA MAP
If FSFlyingSchool is running in DEMO (unregistered mode) a helpful map of the demo area is displayed when FSFlyingSchool has connected to your simulator after being launched. Our testing has shown this greatly helps with the orientation of pilots who are trying out the free demo of FSFlyingSchool.
Remember that *you must stay within the DEMO area* or your instructor will stop monitoring your flight and will announce "FSFlyingSchool Disconnecting...".
To fly *anywhere in the world with an instructor* you will need to register (purchase) FSFlyingSchool.

Demo Area Changed
The demo area is now centered on Green Bay Austin Straubel International Airport (KGRB).
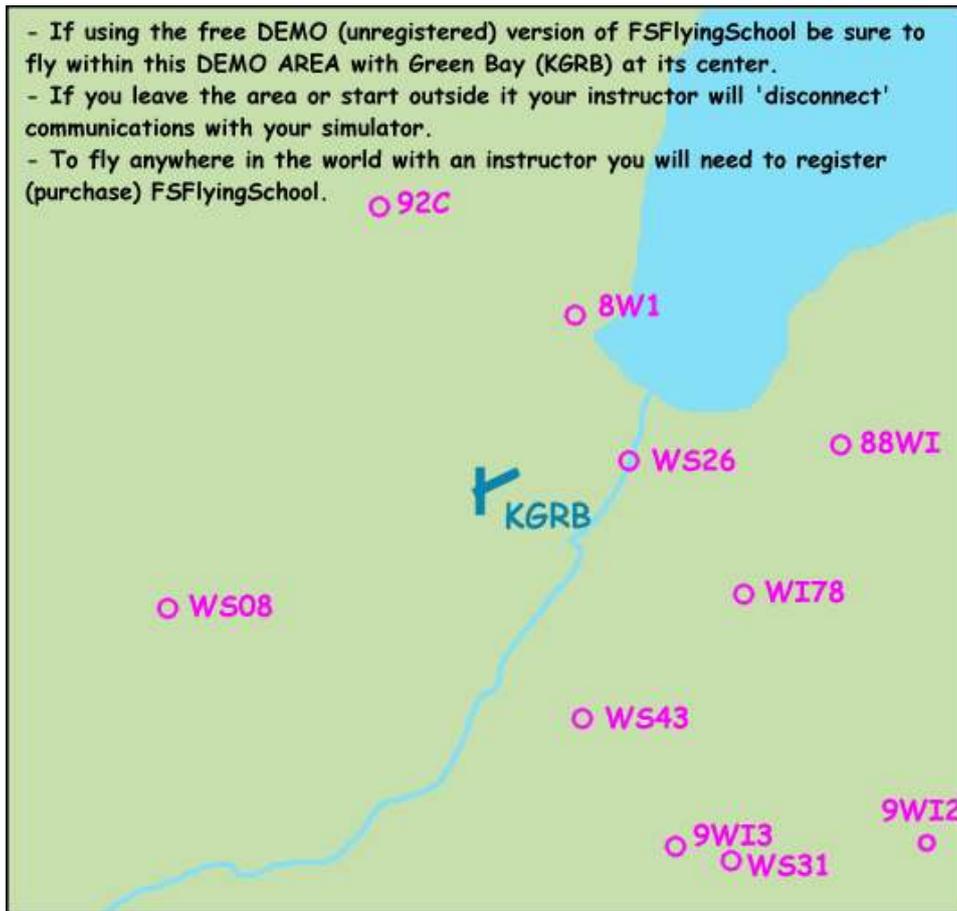
(Features in version 8.0.0)

Enhanced Instructor Awareness!
Once again, we have made several incremental improvements to FSFlyingSchool, including new areas requiring the pilot's attention.
The ever watchful instructor Mr Smith is looking at each pilot's performance in even greater detail with the arrival of FSFlyingSchool PRO 2015. Here are some of the enhancements:

- If you are about to land but are approaching the runway at excessive speed, Mr Smith will advise that you either do something about slowing down or go around.
- Once you begin your take off run down the runway - get moving! Accelerate! Mr Smith knows *the runway behind you* is useless.
- If you are coming in to land and you are not heading into the wind, Mr Smith is going to let you know!
- Parking brake applied while moving? Mr Smith will have something to say about that.
- Most larger aircraft use flaps for take off and even if Mr Smith is not directly familiar with the airplane, you'll get a reminder to check its procedures if flaps are not set at take off.
- The autopilot is a very useful tool, but you don't need it for taxiing or at take off and Mr Smith knows this.
- If stationary, engines should be started with the parking brake applied. If not, Mr Smith will give you some advice.
- Ready for take off? ATC is expecting you to get going and so is Mr Smith. Don't just sit there on the runway.
- And more...!

Log Book Screen displayed when flight ends
It's a small thing - but so convenient. When your flight is over, FSFlyingSchool's Log Book Screen is automatically displayed, so you can see at a glance how you performed.

FSFlyingSchool PRO 2014 Bombardier CRJ 700 Detail Pack Included
If you fly a CRJ 700 you will experience a new, rich level of attention to the details of the CRJ 700 and the way it should be flown by you.
The full manual for this new product is installed in the same location as this manual on your PC.

FSFlyingSchool PRO 2014 Boeing 757 Detail Pack included
If you fly a Boeing 757 you will experience a new, rich level of attention to the details of the Boeing 757 and the way it should be flown by you. Get ready to deal with spoilers, autobrake, fuel switches, mode control panel, weight management, autothrottle, speedbrake, thrust reversers, yaw damper, anti-ice and much more.
Works with several Boeing 757s including *the excellent Boeing 757 'Freemium' from Just Flight and the excellent Boeing 757 from Quality Wings!*

FSFS-Tip
If you don't yet have this aircraft - you can download it *for free* from Just Flight!
Please note that we receive no payment from Just Flight for making this suggestion to you. It's just too good a deal to miss!
Just go to the Just Flight site and search for 757 FREEMIUM.

The full manual for this new detail pack product is installed in the same location as this manual on your PC.

FSFlyingSchool PRO 2014 Douglas DC3 Detail Pack Included
If you fly a DC3 you will experience a new, rich level of attention to the details of the DC3 and the way it should be flown by you. Get ready to deal with carburetor heat, propeller control, cowl flaps, manifold pressure and much more.
Works with several DC3s including the Microsoft DC3 *and the excellent DC3 from Just Flight!*
Many thanks to Just Flight for their help in the production of this detail pack!
The full manual for this new detail pack product is installed in the same location as this manual on your PC.

FSFlyingSchool PRO 2014 Learjet 45 Detail Pack Included
If you fly a Learjet 45 you will experience a new, rich level of attention to the details of the Learjet 45 and the way it should be flown by you.
The full manual for this new product is installed in the same location as this manual on your PC.

FSFlyingSchool PRO 2014 Beech King Air 350 Detail Pack Included
If you fly a King Air 350 you will experience a new, rich level of attention to the details of the King Air 350 and the way it should be flown by you.
The full manual for this new product is installed in the same location as this manual on your PC.

Extensive tips and ideas added to concluding sections of this manual!
Lots and lots of hints and insider tips on how to get the most from FSFlyingSchool.
Even seasoned FSFlyingSchool pilots can find something new!

FSFlyingSchool PRO 2014 *Explorer* Pack Included

This exciting new pack contains a set of features that will have you exploring the world in your simulator!
Announce Nearest Airport (automatically)
Turn this on at the Pilots Screen of FSFlyingSchool and let your instructors automatically tell you full details on your nearest airport as you fly over or merely in the vicinity of each one. Reports nearest airport with its ICAO code (e.g. Kilo Lima Alpha X-Ray), bearing, distance, runway length. This works for airports within approximately 35 nautical miles of the airplane.
If you are just flying around for fun and want somewhere "to go" or if you need to get down onto the ground in a hurry, this feature is a winner!
"Specify Airport" Voice Command
Say this command to let your instructor know that you are about to request information on an airport. Your instructor will confirm he/she is waiting with the response "Airport..."
Say the 4 letter airport ICAO code using the phonetic alphabet (e.g. Kilo Lima Alpha X-Ray). If you have announced the code of a valid airport, your instructor will confirm this by replying with its ICAO code, bearing, distance, runway length. This works for airports anywhere in the world. ICAO codes must contain only letters. An incorrect ICAO code gets the response "Negative."
Very useful when used with the Explorer Pack's "Divert to Alternate" command when you want to fly to a specific airport and don't want to return to the FSX flight planner or the FSFlyingSchool flight plan screen. And also for just getting general information! Now you can TELL your instructor where you want to go!
"Divert to Alternate" Voice Command
Simply say this command and your instructor will know that you have changed the FSFlyingSchool flight plan to fly to the last airport you requested information on. This works with any airport the instructor has described to you as a result of any of these commands:
"Nearest Airport?"
"Airport [x] o'clock?"
"Specify Airport"
The instructor will respond with its ICAO code, bearing, distance, runway length. If you have not asked for information on an airport already you will get the response "Negative."
"Next Runway" Voice Command
Simply say this command and your instructor will know that you have changed the FSFlyingSchool flight plan to land at the next (numerically listed) runway at the airport in the flight plan. You can say this several times if you wish in order to find the runway you want. The instructor will respond with details on the newly chosen destination runway. If there is no flight plan in FSFlyingSchool you will get the response "Negative."
Very useful for changing to a better suited runway, especially if just directed to it by ATC.

Summary of new features in FSFlyingSchool Pro 2014

(Features in version 7.7.1)

Advanced Airmanship Challenges
Your instructor Mr Smith has a whole new set of challenges for you to master! Building upon FSFlyingSchool's popular Airmanship Challenge mode, Mr Smith will soon have you flying with great skill and precision.
Whereas all of the previous Airmanship Challenges were based on *maintaining* a heading, airspeed, altitude, pitch or bank, these new additional tests require the pilot to both *set and maintain* up to 4 different flight parameters at the same time!
"Turn to 273 degrees, while climbing to 5,200 feet and accelerating to 85 knots indicated airspeed".
Are you flying at this level of precision? Can you prove it?
This is your chance to show Mr Smith you've got what it takes!
In addition, the target values are now displayed on screen for easy reference.
Before trying it - read the *Airmanship Challenge* section within this manual for full details.

(Features in version 7.6.1)

Free Demo of FSFlyingSchool PRO 2014 Bombardier CRJ 700 Detail Pack
If you fly a CRJ 700 within the FSFlyingSchool PRO 2014 demo area (near Chicago O'Hare International Airport) you will experience a new, rich level of attention to the details of the CRJ 700 and the way it should be flown by you.
The full manual for this new product is installed in the same location as this manual on your PC.
Not all pilots fly the CRJ 700 and the *Detail Pack* product is therefore offered as an optional add-on for FSFlyingSchool PRO 2014.
If you would like to fly a CRJ 700 *anywhere* with this feature, you can purchase the full *FSFlyingSchool PRO 2014 CRJ 700 Detail Pack* from http://www.fsflyingschool.com or from a shop of your choice.

(Features in version 7.5.1)

Free Demo of FSFlyingSchool PRO 2014 Boeing 757 Detail Pack
If you fly a Boeing 757 within the FSFlyingSchool PRO 2014 demo area (near Chicago O'Hare International Airport) you will experience a new, rich level of attention to the details of the Boeing 757 and the way it should be flown by you. Get ready to deal with spoilers, autobrake, fuel switches, mode control panel, weight management, autothrottle, speedbrake, thrust reversers, yaw damper, anti-ice and much more.
Works with several Boeing 757s including *the excellent Boeing 757 'Freemium' from Just Flight and the excellent Boeing 757 from Quality Wings!*

FSFS-Tip
If you don't yet have this aircraft - you can download it *for free* from Just Flight!
Please note that we receive no payment from Just Flight for making this suggestion to you. It's just too good a deal to miss!
Just go to the Just Flight site and search for 757 FREEMIUM.

The full manual for this new detail pack product is installed in the same location as this manual on your PC.
Not all pilots fly the Boeing 757 and the *Detail Pack* product is therefore offered as an optional add-on for FSFlyingSchool PRO 2014.
If you would like to fly a Boeing 757 *anywhere* with this feature, you can purchase the full *FSFlyingSchool PRO 2014 Boeing 757 Detail Pack* from http://www.fsflyingschool.com or from a shop of your choice.

(Features in version 7.4.2)

Free Demo of FSFlyingSchool PRO 2014 Douglas DC3 Detail Pack
If you fly a DC3 within the FSFlyingSchool PRO 2014 demo area (near Chicago O'Hare International Airport) you will experience a new, rich level of attention to the details of the DC3 and the way it should be flown by you. Get ready to deal with carburetor heat, propeller control, cowl flaps, manifold pressure and much more.
Works with several DC3s including the Microsoft DC3 *and the excellent DC3 from Just Flight!*
Many thanks to Just Flight for their help in the production of this detail pack!
The full manual for this new detail pack product is installed in the same location as this manual on your PC.
Not all pilots fly the DC3 and the *Detail Pack* product is therefore offered as an optional add-on for FSFlyingSchool PRO 2014.
If you would like to fly a DC3 *anywhere* with this feature, you can purchase the full *FSFlyingSchool PRO 2014 DC3 Detail Pack* from http://www.fsflyingschool.com or from a shop of your choice.

(Features in version 7.3.8)

Free Demo of FSFlyingSchool PRO 2014 *Explorer* Pack
If you fly within the FSFlyingSchool PRO 2014 demo area (near Chicago O'Hare International Airport) you will experience the demo of the new *Explorer Pack*.
If you would like to fly *anywhere* with this feature, you can purchase the full *FSFlyingSchool PRO 2014 Explorer Pack* from http://www.fsflyingschool.com or from a shop of your choice.

FSFlyingSchool PRO 2014 *Explorer* Pack (Description of Features)
This exciting new pack contains a set of features that will have you exploring the world in your simulator!
Announce Nearest Airport (automatically)
Turn this on at the Pilots Screen of FSFlyingSchool and let your instructors ***automatically*** tell you full details on your nearest airport as you fly over or merely in the vicinity of each one. Reports nearest airport with its ICAO code (e.g. Kilo Lima Alpha X-Ray), bearing, distance, runway length. This works for airports within approximately 35 nautical miles of the airplane.
If you are just flying around for fun and want somewhere "to go" or if you need to get down onto the ground in a hurry, this feature is a winner!

"Specify Airport" Voice Command
Say this command to let your instructor know that you are about to request information on an airport. Your instructor will confirm he/she is waiting with the response "Airport..."
Say the 4 letter airport ICAO code using the phonetic alphabet (e.g. Kilo Lima Alpha X-Ray). If you have announced the code of a valid airport, your instructor will confirm this by replying with its ICAO code, bearing, distance, runway length. This works for airports anywhere in the world. ICAO codes must contain only *letters*. An incorrect ICAO code gets the response "Negative."
Very useful when used with the Explorer Pack's "Divert to Alternate" command when you want to fly to a specific airport and don't want to return to the FSX flight planner or the FSFlyingSchool flight plan screen. And also for just getting general information! Now you can TELL your instructor where you want to go!

"Divert to Alternate" Voice Command
Simply say this command and your instructor will know that you have changed the FSFlyingSchool flight plan to fly to the last airport you requested information on. This works with any airport the instructor has described to you as a result of any of these commands:
"Nearest Airport?"
"Airport [x] o'clock?"
"Specify Airport"
The instructor will respond with its ICAO code, bearing, distance, runway length. If you have not asked for information on an airport already you will get the response "Negative."

"Next Runway" Voice Command
Simply say this command and your instructor will know that you have changed the FSFlyingSchool flight plan to land at the next (numerically listed) runway at the airport in the flight plan. You can say this several times if you wish in order to find the runway you want. The instructor will respond with details on the newly chosen destination runway. If there is no flight plan in FSFlyingSchool you will get the response "Negative."
Very useful for changing to a better suited runway, especially if just directed to it by ATC.

(Features in version 7.2.0)

Free Demo of FSFlyingSchool PRO 2014 Learjet 45 Detail Pack
If you fly a Learjet 45 within the FSFlyingSchool PRO 2014 demo area (near Chicago O'Hare International Airport) you will experience a new, rich level of attention to the details of the Learjet 45 and the way it should be flown by you.
The full manual for this new product is installed in the same location as this manual on your PC.
Not all pilots fly the Learjet 45 and the *Detail Pack* product is therefore offered as an optional add-on for FSFlyingSchool PRO 2014.
If you would like to fly a Learjet 45 *anywhere* with this feature, you can purchase the full *FSFlyingSchool PRO 2014 Learjet 45 Detail Pack* from http://www.fsflyingschool.com or from a shop of your choice.

(Features in version 7.1.0)

Free Demo of FSFlyingSchool PRO 2014 Beech King Air 350 Detail Pack
If you fly a King Air 350 within the FSFlyingSchool PRO 2014 demo area (near Chicago O'Hare International Airport) you will experience a new, rich level of attention to the details of the King Air 350 and the way it should be flown by you.
The full manual for this new product is installed in the same location as this manual on your PC.
Not all pilots fly the King Air 350 and the *Detail Pack* product is therefore offered as an optional add-on for FSFlyingSchool PRO 2014.
If you would like to fly a King Air 350 *anywhere* with this feature, you can purchase the full *FSFlyingSchool PRO 2014 King Air 350 Detail Pack* from http://www.fsflyingschool.com or from a shop of your choice.

(Features in version 7.0.0)

Interactive VOR Navigation Help
- Mr Smith will be watching closely when you are navigating using VOR navigation aids. He will let you know the meaning of the different indications and instruments of your aircraft's VOR Indicator, such as the TO/FROM/OFF flag, the Omni Bearing Selector (OBS), and the Course Deviation Indicator (CDI).
- You'll get this information as you fly and change settings and of course as the instruments themselves react to your flightpath.
- He'll also describe at length the general aspects of the different elements of VOR navigation as you fly along.
(**For full details of these new features, see the *Sound Setup* section of this manual).**

Advanced Approaches Pack Included
The following *Advanced Approaches* features are ready for you whenever you use the *On Approach* feature of FSFlyingSchool PRO 2014:
- A new feature lets you set up an approach which *intersects* your final approach from *any angle* you choose. This was previously limited to 45 degrees.
- Begin your approach at the start of the *'Downwind' leg* of the traffic pattern at any runway. Fly left or right traffic - the choice is yours!
- Optionally set the *specific altitude* of your approach using MSL *or now AAL* (Above Airfield Level). Very useful to quickly set 'pattern altitude'.
- Now you can specify that only the slick 'detailed' airports supplied with FSX Deluxe or FSX Acceleration will be included in random selection.
- The Flight Plan screen includes a handy detailed diagram showing which approach types are available to set up with FSFlyingSchool PRO 2014 at your selected runway.
- For those who like variety and challenges, the wind can now be set to a *random* strength and direction. This will keep you on your toes and is a great way to fly a whole host of very different approaches in

minutes.
- Low visibility is always a challenge - now you can set it to a *random* distance that will automatically vary with each new approach! Who knows what you will be facing next time?
(**For full details of these new features, see the *On Approach* section of this manual).**

FSFlyingSchool PRO 2014 Voice Command Pack DELUXE Included
Your instructors will be listening for a whole new set of powerful, useful, fun voice commands that extend the basic set that came with the Voice Command Pack built into FSFlyingSchool PRO 2013. You'll get information on fuel consumption and reserves, waypoint frequencies, rate of descent to destination, the nearest airport and much more!
(**For full details of these new features, see the Voice Command Pack Deluxe Manual).**

FSFlyingSchool PRO 2014 Cessna 208B Caravan Detail Pack Included
If you fly a Cessna 208B you will experience a new, rich level of attention to the details of the Cessna 208B and the way it should be flown by you.
(**For full details of these new features, see the Cessna 208B Detail Pack Manual).**

FSFlyingSchool PRO 2014 Cessna 182 Detail Pack Included
If you fly a Cessna 182 you'll get a deep level of attention to the details of the Cessna 182 and the right way to fly her. Get ready to deal with carburetor heat, propeller control, cowl flaps, manifold pressure and much more.
(**For full details of these new features, see the Cessna 182 Detail Pack Manual).**

Further modifications to Cessna 172 Detail Pack to support use of A2A Simulations Accu-Sim c172 Trainer
This popular new aircraft from A2A can now be flown in FSFlyingSchool PRO 2013 with our built-in FSFlyingSchool Cessna 172 Detail Pack.
In some cases, this involved adjustments to what is being monitored so that this plane could be used with the detail pack. As is sometimes the case with complex add-on aircraft, some of the values FSFlyingSchool is getting from FSX are not those expected and so we've had to exclude a small number of details. As a result, you won't hear your instructor react to landing with throttle engaged.
Also - a *big thanks* for the kind assistance of A2A in donating an aircraft to help make this modification to our Cessna 172 Detail Pack possible.
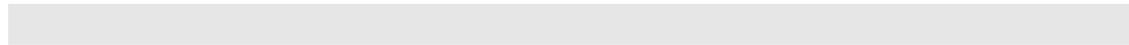
Summary of new features in FSFlyingSchool Pro 2013

What's new in FSFlyingSchool Pro 2013? Once again, this new version is brimming with new features.

The major new features of FSFlyingSchool Pro 2013 are as follows:

(Features in version 6.4.3)
(This update is free to all registered owners of FSFlyingSchool PRO 2013 for FSX/FS2004)

Modifications to Cessna 172 Detail Pack to support use of A2A Simulations Accu-Sim c172 Trainer
This popular new aircraft from A2A can now be flown in FSFlyingSchool PRO 2013 with our built-in FSFlyingSchool Cessna 172 Detail Pack.
In some cases, this involved adjustments to what is being monitored so that this plane could be used with the detail pack. As is sometimes the case with complex add-on aircraft, some of the values FSFlyingSchool is getting from FSX are not those expected and so we've had to exclude a small number of details.
You won't hear your instructor react to use of the mixture control, the fuel tank selector or the fuel cut off valve. But a whole host of other features are still there - so have fun with this new airplane!
Also - a *big thanks* for the kind assistance of A2A in donating an aircraft to help make this modification to our Cessna 172 Detail Pack possible.

(Features in version 6.4.2)

Instructors report a lot more air traffic!
You now have the option to ask your instructors to report more air traffic. Your instructors will announce air traffic at 3 times the usual lateral distance and twice the vertical distance.
This is an option, as it can lead to a very talkative instructor near busy airports, but certainly keeps you informed and is a handy way to refine your traffic awareness skills. How good are you?
Fun for plane spotters too!
To switch to this mode, just tune your COM2 radio to 136.87 in flight.
Why COM2? We are testing the waters - using COM2 for various functions and would like to see what FSFlyingSchool pilots think!

(Features in version 6.4.1)

Instructors monitor final descent to touchdown and offer advice
Your instructors will now be closely watching your descent rate as you come into land. You are most likely used to instructors advising that you are descending too fast, when you are, but they are now watching very closely as you come in to land. As you would imagine, they expect your descent rate to drop as you get closer to the runway and are looking for a gentle landing whenever possible.
As you get closer to the runway, the rate of descent expected becomes smaller and smaller and the rate expected in a heavy aircraft is greater than that of a light aircraft.
If your rate of descent is greater than the instructor would like, you will hear "You're descending too fast" from the instructors. Previously, your instructors left the descent rate of the last few hundred feet up to your judgment, but now they are ready to share their advice!
Extensive testing has shown that pilots often react to this by adjusting vertical speed at the last moment and overshooting their landing target when they realize how heavily they've been landing due to excessive descent rates. But... after a little practice, landings become smoother and smoother, thanks to the new help from the FSFlyingSchool instructors!
As with most features in FSFlyingSchool, this new feature is *optional* and can be turned off by checking (activating) the checkbox at the Aircraft Screen labeled 'Disable Instructor Altitude Calls'.

FSFlyingSchool News Updates (All screens)
A new button shown at the bottom of all screens in the main FSFlyingSchool program shows you a 'headline' for news in the world of FSFlyingSchool.
New products, free updates and more!
The headline will change with events unfolding in the FSFlyingSchool world.
As you would imagine, this is optional, and you can turn this off if you wish at the Settings Screen as explained in the next paragraph.

FSFlyingSchool News Updates button (Settings Screen)
You can click this button to either turn on or turn off (toggle) whether FSFlyingSchool will check for news updates for you when FSFlyingSchool is launched. This is a great way to stay informed about news headlines in the world of FSFlyingSchool. Don't get left in the dark!

(Features in version 6.4.0)

Free Demo of Advanced Approaches Pack
The following *Advanced Approaches* features are ready for you to try out whenever you use the *On Approach* feature of FSFlyingSchool PRO 2013 at the Flight Plan screen to instantly put you on approach to Chicago (KORD) or Green Bay (KGRB):
- A new feature lets you set up an approach which *intersects* your final approach from *any angle* you choose. This was previously limited to 45 degrees.
- Begin your approach at the start of the *'Downwind' leg* of the traffic pattern at any runway. Fly left or right traffic - the choice is yours!
- Optionally set the *specific altitude* of your approach using MSL *or now AAL* (Above Airfield Level). Very useful to quickly set 'pattern altitude'.
- Now you can specify that only the slick 'detailed' airports supplied with FSX Deluxe or FSX Acceleration will be included in random selection. (This specific feature requires *registration* of the *Advanced Approaches Pack*).
- The Flight Plan screen includes a handy detailed diagram showing which approach types are available to set up with FSFlyingSchool PRO 2013 at your selected runway.
- For those who like variety and challenges, the wind can now be set to a *random* strength and direction. This will keep you on your toes and is a great way to fly a whole host of very different approaches in minutes.
- Low visibility is always a challenge - now you can set it to a *random* distance that will automatically vary with each new approach! Who knows what you will be facing next time?
(**For full details of these new features, see the *On Approach* section of this manual).**

If you would like to fly advanced approaches *anywhere* with these features, you can purchase the full *FSFlyingSchool PRO 2013 Advanced Approaches Pack* from http://www.fsflyingschool.com or from a shop of your choice.

(Features in version 6.3.0)

Free Demo of FSFlyingSchool PRO 2013 Cessna 182 Detail Pack
If you fly a Cessna 182 within the FSFlyingSchool PRO 2013 demo area (near Chicago O'Hare International Airport) you'll get a deep level of attention to the details of the Cessna 182 and the right way to fly her. Get ready to deal with carburetor heat, propeller control, cowl flaps, manifold pressure and much more.
Not all pilots fly the Cessna 182 and the *Detail Pack* product is therefore offered as an optional add-on for FSFlyingSchool PRO 2013.
If you would like to fly a Cessna 182 *anywhere* with this feature, you can purchase the full *FSFlyingSchool PRO 2013 Cessna 182 Detail Pack* from http://www.fsflyingschool.com or from a shop of your choice.

(Features in version 6.2.0)

Free Demo of FSFlyingSchool PRO 2013 Voice Command Pack DELUXE

If you fly within the FSFlyingSchool PRO 2013 demo area (near Chicago O'Hare International Airport) your instructors will be listening for a whole new set of powerful, useful, fun voice commands that extend the basic set that comes with the Voice Command Pack built into FSFlyingSchool PRO 2013. You'll get information on fuel consumption and reserves, waypoint frequencies, rate of descent to destination, the nearest airport and much more!

If you would like to fly *anywhere* with this feature, you can purchase the full *FSFlyingSchool PRO 2013 Voice Command Pack DELUXE* from http://www.fsflyingschool.com or from a shop of your choice.

(Features in version 6.1.0)

Free Demo of FSFlyingSchool PRO 2013 Cessna 208B Caravan Detail Pack

If you fly a Cessna 208B within the FSFlyingSchool PRO 2013 demo area (near Chicago O'Hare International Airport) you will experience a new, rich level of attention to the details of the Cessna 208B and the way it should be flown by you.

Not all pilots fly the Cessna 208B and the *Detail Pack* product is therefore offered as an optional add-on for FSFlyingSchool PRO 2013.

If you would like to fly a Cessna 208B *anywhere* with this feature, you can purchase the full *FSFlyingSchool PRO 2013 Cessna 208B Detail Pack* from http://www.fsflyingschool.com or from a shop of your choice.

(Features in version 6.0.0)

Beechcraft Baron 58 Detail Pack Included

Fly a detailed flight in this fabulous twin-engine aircraft. You'll have your hands full but your instructor will be there to help you get the most out of your flights.

Mooney Bravo Detail Pack Included

This elegant, fast airplane is a joy to fly and your instructor will guide you as you treat her with the respect she deserves.

Cessna 152 Detail Pack Included

Want to fly a detailed flight in the ever popular Cessna 152? FSFlyingSchool Pro 2013 offers extra detailed treatment when flying this marvelous airplane.

Your team of instructors know the details of this machine and will expect the same from you!

Get ready to fly the c152 like you've never done before!

Voice Command Pack Included

This is your chance to talk back! Now you can become even more immersed in the simulation as you talk to your instructors during your flights. They are ready to help with all kinds of useful information and you can now simply tell the instructors what you are doing instead of using the keyboard.

On Approach PLUS Pack Included

Folks around the world love flying with the On Approach features of FSFlyingSchool. Introduced in 2011, these features make setting up approaches to any runway in the world the work of only a few seconds. But wait - there's more! Now FSFlyingSchool PRO 2013 includes the On Approach PLUS Pack which allows the pilot to set up *intersecting approaches,* set approach initial altitude and much more.
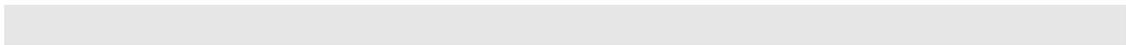
Summary of new features in FSFlyingSchool Pro

What's new in FSFlyingSchool Pro? As usual, we have made several incremental improvements to FSFlyingSchool Pro.

The major new features of FSFlyingSchool Pro are as follows:

Pause IT! at Pilots Screen *(Introduced in FSFS Pro version 5.8.6)*
Option to pause Flight Simulator when points are lost or when instructor issues a warning.

Spoken Instant Help at Settings Screen *(Introduced in FSFS Pro version 5.8.2)*
If turned on the pilot will get spoken tips on aircraft instruments, switches and controls *when they are used* during flights.

Spoken Aviation Tips at Settings Screen *(Introduced in FSFS Pro version 5.7.4)*
These require that the "background chatter" be turned **on** at the FSFS Pilots Screen.
If these tips are turned on, then during flights, the instructor will talk about aviation basics, such as cockpit instruments, etc.

"Help Me!" panic button! *(Introduced in FSFS Pro version 5.7.2)*
Sometimes, things start to get a little out of control and we could all use some help way up there in the simulated skies.
If the pilot thinks that things are getting out of control and just cannot recover, a recovery *may be possible* by asking your instructor for emergency assistance via the new FSFS Pro "Help Me" panic button.
This is actually a new FSFS Pro keystroke which has been added to the existing set.
The new keystroke is:

Ctrl-Shift-S

If this is pressed when the aircraft is *airborne*, the instructor will immediately configure the throttle(s) and autopilot in an attempt to get the airplane back under control.
The airplane must have an autopilot which functions in the standard FSX manner and this will not always be the case with all add-on aircraft. *As with all other features, this can be tested for free with our demo software.*
The pilot is still responsible for the operation of the gear, flaps and speed brake (if any of these are present) and after the airplane has been brought back under control, will need to exercise caution when the autopilot is to be *turned back off.*
The "Help me" keystroke can be pressed as often as desired - and it is important to note that it can be pressed *during recovery* from a bad situation as this *may improve things.*
We make no guarantee that your instructor will always be able to save the day, but if things are not too far out of control, he/she will certainly try.
Keep in mind that the chance of recovery is reduced by:
Low altitude
Extreme attitude
Larger aircraft

FSX Boeing 737-800 Detail Pack Included
Ever wanted to fly a detailed flight in an airliner? After 2 years of design, development and testing, FSFlyingSchool now offers extra detailed treatment when flying the world's most popular airliner.
Your instructor *Mr Smith* knows a very great deal about the correct operation, systems and procedures of this aircraft and will be watching you carefully.
Around 100 events are added to the instructor's watch and you also get detailed verbal and written checklists.
Get ready for some 'heavy iron'!

On Approach feature
We all know we need to practice, practice, practice, our approaches and landings.
It's never been easier with this unique new feature for Flight Simulator!
Just get into your airplane and then have FSFlyingSchool Pro put you on approach to *any airport* of your choice.
You can even have FSFlyingSchool Pro choose a random airport *anywhere in the world.*
Ready to be challenged?!

FSFS Pro Flight Mapping feature
Wouldn't it be nice to be able to review your flight paths over real world satellite terrain using Google Maps?
And... wouldn't it be just great to be able to store them and look back over them at your leisure?
How about sharing them with friends?
Oh - and how about tracking taxi routes too?
Now you can do all of this with FSFlyingSchool Pro's new Flight Mapping feature!

Cessna 172 Detail Pack Included
Want to fly a detailed flight in the ever popular Cessna 172? FSFlyingSchool Pro offers extra detailed treatment when flying this marvelous airplane.
Your team of instructors know the details of this machine and will expect the same from you!
Get ready to fly the c172 like you've never done before!

Summary of new features in FSFlyingSchool 2011

The fast track on what's new in FSFlyingSchool 2011. As usual, we have made several incremental improvements to FSFlyingSchool 2011, including small adjustments to the ease or the challenge of satisfying your instructor and made the scoring system a little gentler.

The major new features of FSFlyingSchool 2011 are as follows:

It's never been easier to use
You can now land anywhere you like and your instructors will know which runway you have chosen. You do not need to file a flight plan and you do not need to create the runway files that FSFlyingSchool used previously.
Just get lined up with a runway ahead of you when you descend, in landing mode, below 500 feet above ground. The instructor will look ahead, figure which runway you are heading for and announce where you are going to land. Easy!

No need to file a flight plan
Fly any route you wish with full evaluation of your performance.

Instructor knows which runway you are landing at
Even without a flight plan or ILS, and will give advice on how to land.

Instructor knows which runway you are taking off from
Make sure that you are headed down the runway you want when you select take off mode.
Instructor will comment and give advice on the runway you have selected.

No need to land on a fixed point on the runway
Any reasonable landing on a runway will get a reasonable score.

Flight Plan Page – Auto-read FSX's current flight plan
We've added a new check box to this screen which, if turned on, will mean that FSFS2011 will *always* read FSX's current flight plan when you press the connect button in FSFS2011. This is a great time saver!

Settings Page – Spoken Teaching Tips
We've added a new check box to this screen which, if turned on, will mean that FSFS2011 will speak a series of helpful tips when you fly with FSFS2011.
These tips are always in the same voice and are clearly different from a normal 'instructor' voice. The idea is that these tips are like *training wheels* on a bicycle and are telling you how to use FSFS2011 and Flight Simulator itself.
Once you have got the basics of these operations down, you may wish to turn these basic tips off.

Friendlier scoring system
Rewards all flights which were basically safe - higher scores require plenty of skill.
If you can walk away from your landing - you will get a score. If you crash – you will not!
Numerical data added to log book
Shows details of flight performance, such as landing speed, distance from threshold, approach accuracy and more.

Runway length and threshold now part of landing evaluation.
Landings have never been easier – just land beyond the threshold (even when displaced), on the runway, and not too long, and you'll be looking at great scores.

Airfield cities and facility names added to log book
No longer just the ICAO code – now you get to see your full airfield names.

Summary of new features in FSFlyingSchool 2010 v 3.40

Version 3.40 is a free update for owners of FSFlyingSchool 2010 and introduces several new features.

Flight Plan Page
We've added 2 new buttons to this screen. The "Read FSX's Plan" button will load the flight plan currently in use in FSX *into FSFlyingSchool2010.* This is a great time saver! The "Real Airport Data" button will open a browser containing detailed real world information about your destination airport with links to lots of useful resources from the excellent AirNav.com website (for U.S. airports) and other websites outside the U.S.

Demo of FSFlyingSchool Voice Command Pack
See details above on this page.

Totals of all your log book data
All your log book data can be seen as totals when you read the "Traditional Log Book" format in FSFS2010. This can be sub-sorted by individual aircraft. How many hours have *you* flown...?

Summary of new features in FSFlyingSchool 2010 v 3.10

Version 3.10 is a free update for owners of FSFlyingSchool 2010 and introduces some handy new features.

Information Page
We've improved the layout to help you get your bearings when starting with FSFlyingSchool 2010. Take a look around and you'll soon be up and flying with our instructors.

Discuss FSFlyingSchool
A new Information Page button takes you directly to the FSFlyingSchool online forum, where you can ask for help, search a huge storehouse of tips and tricks or just chat with other FSFlyingSchool fans.

Twitter FSFlyingSchool
A new Information Page button takes you directly to your Twitter home page, from which you can let folks know what you are up to with FSFlyingSchool.

Enhanced Traffic Identification
Your instructors have been studying their aircraft recognition charts and you'll hear them being more specific about what kind of traffic is out there on the ground and in the air. These folks can tell a Boeing from an Airbus – can you?

Summary of new features in FSFlyingSchool 2010

Here's the fast track on what's new in FSFlyingSchool 2010. As usual, we have made several incremental improvements to FSFlyingSchool 2010, including small adjustments to the ease or the challenge of satisfying your instructor.

The major new features of FSFlyingSchool 2010 are as follows:

TRAFFIC! TRAFFIC!

Instructor optionally comments on the position, type and activity of both air and ground traffic and issues warnings if aircraft are getting too close. Things can get hectic at busy airports so your instructor will help keep you out of trouble.

Waypoint Advice

Instructor optionally advises when the next waypoint in a flight plan is approaching and reports its ID and type and advises the turn which must be made when it is reached. This gives you a hand setting up for that next important stage of the flight plan.

Navigation Aid Advice

Instructor optionally advises which radio to tune for the next NAVAID (Navigation Aid) in the flight plan (VOR or NDB) and reports the ID and type of the NAVAID, how to use its signal, and the course which can be tracked with it. It all helps the pilot stay on track and is a gentle way of introducing the pilot to the basics of VOR and NDB navigation.

Instant Customization of FSFlyingSchool Runway Data

Powerful new feature means that with a single key-press the pilot can optionally indicate what exact touchdown point on *any runway in the world* the pilot wants a landing to be evaluated on. You can aim for any point on the runway you like with this handy new tool.

Automatic Setting of OBS

Instructor will automatically set NAV1OBS to the runway heading during landing. One less thing for the pilot to worry about during a very busy time.

Runway Details

Instructor reports runway length, altitude and surface type when on approach. It all helps in planning that perfect landing.

ILS Advice
Instructor advises frequency of ILS (Instrument Landing System) at destination airport. If you want to do an ILS approach and need that frequency, your instructor has it for you.

ATIS Advice
Instructor advises frequency of ATIS (Automatic Terminal Information Service) at destination airport. Use this to tune a radio and get vital information on the current conditions at the airport.

Automatic ILS Tuning
Instructor optionally tunes NAV1 (Navigation Radio One) to ILS (Instrument Landing System) at destination airport. Things can get busy so you can have your instructor take care of this for you if you wish.

Automatic ATIS Tuning
Instructor optionally tunes COM2 (Communications Radio Two) to ATIS (Automatic Terminal Information Service) at destination airport. Handy to save time and COM2 will not interfere with ATC communications.

DME Reporting
Instructor reports distance from DME (Distance Measuring Equipment) navigation aid.

Handy Hints
Even more helpful cues and suggestions from your instructors.

Announces Selected Runway
Instructor reminds pilot which runway has been chosen for landing at destination airport. Helps keep the pilot on the right track and off the wrong runway.

Announces Flight Plan Length
Instructor reports total distance of flight plan. Make sure you can get there safely and with plenty of fuel to spare.

Tips
The in-program text tips have been expanded to help pilots get the most from all of FSFlyingSchool2010's features.

Runway Information
Enhanced runway data displayed at Flight Plan Page, including runway length, surface type and ILS and ATIS frequencies.

FSFlyingSchool

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Summary of new features in FSFlyingSchool 2009

Many of you will have used FSFlyingSchool – now known as FSFlyingSchool Classic – in all its versions up to 1.9.2. We think you will be eager to know what's new in FSFlyingSchool 2009. Several incremental improvements have been made to FSFlyingSchool 2009, including small adjustments to the ease or the challenge of satisfying your instructor.

The major new features of FSFlyingSchool 2009 are as follows:

Free Demo of FSFlyingSchool2009 Cessna 172 Detail Pack

If you fly a Cessna 172 within the FSFlyingSchool2009 demo area (near Chicago O'Hare International Airport) you will experience a new, rich level of attention to the details of the Cessna 172 and the way it should be flown by you.
Not all pilots fly the Cessna 172 and the *Detail Pack* product is therefore offered as an optional add-on for FSFlyingSchool2009.
If you would like to fly a Cessna 172 *anywhere* with this feature, you can purchase the full *FSFlyingSchool2009 Cessna 172 Detail Pack* from www.FSFlyingSchool.com or from a shop of your choice.

Evaluates landing with or without ILS at any runway in the world

You can perform an ILS approach or a visual approach to any runway, with the instructor watching and helping you through the entire process.

Automatically creates FSFlyingSchool profile for any powered airplane

Any plane you choose to fly will be automatically detected by FSFlyingSchool and a profile for it will be created.

Pilot Briefing Tool analyzes all flights to find patterns of performance which need improvement

This unique tool will look at all flights made with FSFlyingSchool and find areas which need improvement and advise you of those which you are perfecting.

Option to monitor correct use of aircraft lights

Your instructor will now, if you wish, add a whole new dimension to your flying by expecting you to use your aircraft lights correctly.

Instructors now give additional warnings before mistakes are made

We can all use a little help and your instructors will often caution you when you are about to slip-up.

Instructors have many new helpful and entertaining phrases

Your instructors want you to enjoy the experience and they help out with tips and the odd unexpected observation.

Aircraft Failures integrated into scoring

FSFlyingSchool pilots are no strangers to aircraft failures, but they now score extra points if the pilot retains control.

Option to monitor correct use of aircraft engines

Let's get even more serious about our performance in the air.

Engine fires

These are pretty serious and can lead to exciting times. If you are flying with FSFlyingSchool aircraft failures allowed, you will need to be on the look out for potential engines fires – FSX only.

Monitors use of emergency communications
There is a right time and a wrong time for this sort of thing.

Enhanced Help
Already packed with acclaimed help, the program is now even easier to use. Your instructor will also give you tips on what to do.

Analysis of flight and crash if you crash the aircraft
The fictitious National Aeronautical Safety Board will analyze the crash and other data and record this in your log book, plus the pilot also gets a record of how well the flight had proceeded up to that point..

Tips
The in-program tips have been greatly expanded to help pilots get the most from all of FSFlyingSchool2009's features.

Sound Device Output Selection
Pilots with multiple sound devices are now able to choose which device is used to output sound from FSFlyingSchool2009.

Instructors Report Aircraft Failures
A great number of aircraft systems, instruments and switches can have a simulated failure when flying with FSFlyingSchool2009. When they do, your helpful instructor will (optionally) tell you what the specific problem is.

New Hotkey
Pressing Ctrl Shift B provides handy data to the pilot who wants to know current: AGL (above ground level), ground altitude and also displays the count of errors (if any) that the instructor has noted in this flight. To the sharp eyes of these instructors, flying the wrong way for half a second counts as an error so these can add up fast!

END OF APPENDIX A

APPENDIX B - *Taxiway Tutor Pack*

It has been said that the hardest part of some flights is taxiing to and from the runway! Now your chief instructor Mr Smith can help in **FSX, FSXSE and FS2004**.

This can be a complex subject and it is essential that you read this full detailed description of this feature, which explains what it does and what it does *not* do.

- **Generate your runway data**
  Taxiway Tutor is supplied with default runway and taxiway data, but we advise you to generate your own runway/taxiway data as soon as possible using the 'Generate runway data' button at the Settings Screen of FSFlyingSchool. This guarantees that the data matches all your airports, including any add-on airports on your PC.
- **Some airports will produce a different experience to others**
  Taxiway Tutor will revolutionize your experience at most medium to large airports all over the simulated world, as you soon find yourself familiar with taxiways, runways, markings, lights and more. In order to get the Taxiway Tutor experience, the airport must have *named* taxiways.
  Only *named* taxiways and their junctions and holding positions are considered by Taxiway Tutor.
  It is sometimes the case that an airport, even in the default simulator, has taxiways which are named graphically on the screen, but not in the underlying computer data defined for the airport. In such cases, Taxiway Tutor will not see the taxiways.
  IMPORTANT - Simulator airports are designed and constructed using many different methods and we make no claim that Taxiway Tutor will function as described at all airports.
  Nevertheless, we are happy to report that in its use by 100s of pilots in the first 250 days since its publication we have received *no reports* of any problems.
- **Mr Smith must be used with Taxiway Tutor**
  As your chief instructor, he's the one who explains signs, markings, lights and more!
- **Taxiway and runway announcements are optional**
  If you want to hear them, turn on the 'Monitor Taxiways' option at the Pilots Screen of FSFlyingSchool.
- **Taxiway and runway tutorial advice is optional**
  If you want to hear this advice, turn on the 'Taxiway Tips' option at the Settings Screen of FSFlyingSchool.
- **All taxiway and runway announcements are made in taxi mode and at airports with *named* taxiways**
  Get ready for announcements of taxiways, runways and more when you are at an airport with *named* taxiways.
  In addition, Mr Smith knows you'll want to hear this when you are *in taxi mode*, so he'll keep quiet about this when you are not.
- **All tutorial advice is in taxi mode and at airports with *named* taxiways**
  Just as with taxiway and runway announcements, you'll get tutorial advice on taxiways, runways, markings, lights and more when you are at an airport with *named* taxiways. Our pilots explained to us that they don't want to get this advice when they are bush flying or at a tiny quiet airport!
  Furthermore, Mr Smith knows pilots want advice on taxiing *when they are taxiing*, so you will get this when your flight mode is 'taxiing' and not in any other flight mode.
  In order to avoid these tips sounding repetitive, they are chosen randomly so you won't keep hearing the same advice as you start each flight.
- **Suppression of advice or of announcement**
  As with all of FSFlyingSchool, if the instructor is already talking about something else, he/she may not make a particular statement. You have one instructor with you in the aircraft, not two. For example, if you are listening to a checklist while crossing a junction of taxiways, you will not hear the taxiways announced.
- **Announcement of runway holding positions**
  As you arrive at a runway holding position, your instructor will announce this if you are facing the runway.
- **Announcement of ILS critical area holding positions**
  As you arrive at an ILS critical area holding position, your instructor will announce this and explain what to do.
- **Announcement of runway you occupy**
  As you move from a taxiway onto a runway, your instructor will announce this.

– **Announcement of approach to taxiway junction**
As you near a taxiway junction with a taxiway or a runway, your instructor will announce this.
– **Announcement of approach to end of taxiway**
As you near the end of a taxiway, your instructor will announce this.
– **Announcement of arrival at end of taxiway**
On reaching the end of a taxiway, your instructor will announce this.
– **Announcement of arrival at taxiway junction**
As you arrive at a taxiway junction with a taxiway or a runway, your instructor will announce this, but only if you are taxiing with a ground speed of no more than 10 knots. This avoids the unpleasantness of the instructor talking constantly and announcing a great number of junctions as you pass rapidly over them.

END OF APPENDIX B

APPENDIX C - Weather Tutor Pack

Get ready to learn about the effects of temperature, elevation, dew point, crosswinds and a great deal more. Your chief instructor Mr Smith can help in **FSX, FSXSE and FS2004**.
This can be a complex subject and it is essential that you read this full detailed description of this feature, which explains what it does for FSFlyingSchool pilots.

IMPORTANT - In order to use the real crosswind techniques described by Mr Smith, you need to make sure that the 'auto-rudder' feature of your simulator is turned OFF as you need to be able to control the rudder and ailerons *separately.*
While all of the features in the Weather Tutor pack apply to small and medium sized aircraft, some of them will not be heard when the pilot is flying a large aircraft as they are not applicable.

- **Mr Smith is the man for Weather Tutor**
  As your chief instructor, he's the one who explains temperature, elevation, dew point, precipitation, crosswind techniques and more!
- **Interactive weather advice is optional**
  If you want to hear it, turn on the 'Monitor Weather' option at the Pilots Screen of FSFlyingSchool. You'll hear your instructor describing the current weather and giving instruction and advice on it.
- **Interactive crosswind advice is optional**
  If you want to hear it, turn on the 'Monitor Crosswinds' option at the Pilots Screen of FSFlyingSchool. You'll hear crosswind take off and landing instruction right when you need it!
- **Weather and crosswind tutorial advice is optional**
  If you want to hear this general advice, turn on the 'Weather Tips' option at the Settings Screen of FSFlyingSchool. Chief instructor Mr Smith will give you general instruction on weather and more when you are flying during quieter periods. In order to avoid these tips sounding repetitive, they are chosen randomly so you won't keep hearing the same advice each flight.
- **Get ready to learn - here are some of the areas Mr Smith will explain to you**
  (Note that in addition to weather, the Weather Tutor covers several bonus subjects that are not strictly weather but still essential to safe flight.)
  Effects of temperature-dew point spread
  Considerations when flying in low light
  Considerations when flying in low visibility
  Considerations when flying in the presence of clouds
  Considerations when flying in low temperatures
  Crosswind landing technique
  Crosswind take-off technique
  Crosswind take-off roll aileron use
  Crosswind landing roll aileron use
  Take-off from a high elevation
  Landing at a high elevation
  Take-off at a high temperature
  Landing at a high temperature
  Take-off from a wet grass runway
  Take-off from a dry grass runway
  Landing at a wet grass runway
  Landing at a dry grass runway
  Landing at a wet paved runway
  ...and a lot more!

– **Weather Add-Ons**
   Weather add-ons are designed using many different methods and we make no claim that Weather Tutor will function as described with all weather add-on products for your simulator. Nevertheless, we are happy to report that in its use by 100s of pilots in the first 15 months since its publication we have received *no reports* of any problems.

END OF APPENDIX C

APPENDIX D - GPS Tutor Pack

GPS units are common nowadays and can save the pilot a great deal of effort when used correctly. Your chief instructor Mr Smith will help you master the GPS in **FSX, FSXSE and FS2004**. Correct use of the GPS can be challenging so it is essential that you read this full detailed description of this feature, which explains what it does for FSFlyingSchool pilots.

IMPORTANT - FSFlyingSchool already contains a number of features related to the GPS and these are fully described in the **'GPS Features'** section of this manual.

- **Mr Smith must be used with GPS Tutor**
  As your chief instructor, he's the one with GPS expertise, ready to give tips, monitor your GPS skills and so much more!
- **GPS Units**
  The GPS Tutor Pack has been developed using the (simulated) Garmin GPS 500. Other GPS simulated units may also work. To test for free, simply try out the GPS Tutor Pack by flying FSFlyingSchool within the free demo area.
- **Interactive GPS advice is optional**
  If you want to hear it, turn on the 'Monitor GPS' option at the Pilots Screen of FSFlyingSchool *and set the NAV/GPS switch inside the aircraft to 'GPS'.* You'll hear your instructor describing the GPS and giving instruction and advice on it, including:
  Monitoring the Course Deviation Indicator (CDI)
  Monitoring the Cross Track Error
  Advice on what to do when the CDI is close to centered
  Reminders of the next waypoint
  Monitoring the Course To Steer (CTS) and how to use it
  Desired Track (DTK) and what to do with it
  Updates on the Estimated Time En route (ETE) to next waypoint
  Monitoring Automatic Waypoint Sequencing
- **GPS tutorial advice is optional**
  If you want to hear this general advice, turn on the 'GPS Tips' option at the Settings Screen of FSFlyingSchool. Chief instructor Mr Smith will give you general instruction on the GPS unit and more when you are flying during quieter periods. In order to avoid these tips sounding repetitive, they are chosen randomly so you won't keep hearing the same advice each flight.
- **Get ready to learn - here are some of the areas Mr Smith will explain to you**
  Using a GPS flight plan with the autopilot
  How to tune a voice communication channel directly into COM1 using the GPS
  Flying direct to a new GPS waypoint
  Telling the GPS to skip forward to a waypoint leg in a flight plan
  How to tune a LOC or ILS frequency directly into NAV1 using the GPS
  Selecting arrival procedures in the GPS
  How to tune a VOR frequency directly into NAV1 using the GPS
  Getting the most from the GPS map screens
  How to adjust the range on maps using the GPS
  Choosing the level of detail you want on GPS map screens
  Jumping quickly to the GPS Default Navigation Page
  GPS Navigation Page Group
  How to tune an NDB frequency directly into the ADF using the GPS
  GPS Nearest Page Group
  Using the GPS OBS button to control automatic waypoint sequencing
  Functions of the GPS FPL button
  Flying direct to a listed GPS waypoint
  Magenta flight plan leg symbols on the GPS display
  Using the GPS ENT button
  Scrolling through data with the GPS
  GPS pages and page groups
  ...and a lot more!

END OF APPENDIX D

APPENDIX E - Autopilot Tutor Pack

Autopilot units are common nowadays and can save the pilot a great deal of effort when used correctly. Your chief instructor Mr Smith will help you master the autopilot in **FSX, FSXSE and FS2004**.
Correct use of the autopilot can be challenging so it is essential that you read this full detailed description of this feature, which explains what it does for FSFlyingSchool pilots.

– **Mr Smith must be used with Autopilot Tutor**
 As your chief instructor, he's the one with autopilot expertise, ready to give tips, monitor your autopilot skills and so much more!
– **Autopilot Units**
 The Autopilot Tutor Pack has been developed using the autopilot units supplied with Flight Simulator X. Other units may also work well with the Autopilot Tutor Pack, but some will not. Simply try out the Autopilot Tutor Pack by flying FSFlyingSchool within the free demo area.
– **Interactive Autopilot advice is optional**
 If you want to hear it, turn on the 'Monitor Autopilot' option at the Pilots Screen of FSFlyingSchool. You'll hear your instructor describing the autopilot and giving instruction and advice on it, including:
 Autothrottle
 Speed hold
 Speed Selection
 Heading Hold
 Heading Selection
 Altitude Hold
 Altitude Selection
 Vertical Speed Selection
 Autopilot Master
 Approach Hold
 Back Course Hold
 NAV Hold
– **Autopilot tutorial advice is optional**
 If you want to hear this general advice, turn on the 'Autopilot Tips' option at the Settings Screen of FSFlyingSchool. Chief instructor Mr Smith will give you general instruction on the autopilot unit and more when you are flying during quieter periods. In order to avoid these tips sounding repetitive, they are chosen randomly so you won't keep hearing the same advice each flight.
– **Get ready to learn - here are some of the areas Mr Smith will explain to you**
 Intersecting the ILS glideslope from below
 How to slow down to a target speed
 Disengaging autopilot (or not) before landing
 Speed management required to keep on glideslope
 Importance of correcting drifting heading indicator
 Wasted turns through poor use of heading bug
 Immediate firm control of aircraft after autopilot is disengaged
 Disengaging autopilot if flight path is not right
 ...and a lot more!

END OF APPENDIX E

APPENDIX F - Next Level Pack

There's always room to learn and to improve and your chief instructor Mr Smith is ready with a new level of instruction for FSFlyingSchool pilots.

Mr Smith must be used with Next Level Pack - he's the chief instructor and he's the one with this new level of instruction, to get you performing at your best.

Pilots are used to this sort of level *only* with FSFlyingSchool Detail Pack planes; not any more!

Now he'll grab information from aircraft CFG files to give you the details you need to fly like a PRO.

Here are some of the features...

– **Landing and very low and no gear down**
   Command to abort landing at once unless the gear itself has failed.
– **Landing and low and no gear down**
   Advice to get gear down promptly.
– **Landing and very low and no flaps down**
   Final warning that landing is being attempted without flaps.
– **Landing and low and no flaps down**
   Advice to get flaps down promptly.
– **Loss of engine(s) or fire(s) during take off run and still safe to abort**
   Command to abort take off run at once.
– **Throttle(s) low on take off run**
   Advice to increase throttle(s) for take off.
– **Throttle(s) low during a very slow take off initial climb**
   Advice to increase throttle(s) to climb faster.
– **Before starting engine(s)**
   Report of maximum gross weight for this aircraft - know your limits!
– **Nose low during a fast but shallow take off initial climb**
   Advice to increase pitch to climb faster.
– **Loss of engine(s) or fire(s) during take off run and still safe to abort**
   Braking is now allowed during take off in such a case.
– **Soon after entering cruise**
   Advice on never exceed speed for this aircraft.
– **Loss of engine(s) or fire(s) during take off run and still safe to abort**
   Prompt take off no longer expected in such a case.
– **Soon after entering cruise**
   Advice on maximum flap speed for this aircraft.
– **Before starting engine(s)**
   Maximum range for this aircraft - essential for flight planning.
– **Throttle(s) low and closing on stall speed**
   Advice to increase throttle(s) to increase airspeed.
– **Nose high and closing on stall speed**
   Advice to decrease pitch to increase airspeed.
– **Closing on or above never exceed speed**
   Command to slow below specific speed at once to avoid damage to aircraft.
– **Soon after entering cruise**
   Advice on maximum gear speed for this aircraft.
– **Loss of engine(s) or fire(s) during take off run and still safe to abort**
   Acceleration to take off speed no longer expected in such a case.
– **Before starting engine(s)**
   Maximum altitude for this aircraft.

– **Closing on or above maximum altitude**
Command to descend below specific altitude at once to avoid danger.
– **Loss of engine(s) or fire(s) during take off run and still safe to abort**
Turning from centreline is now allowed during take off in such a case.
– **Before starting engine(s)**
Fuel capacity for this aircraft - let's carry a safe quantity.
– **Loss of engine(s) or fire(s) during landing**
Prompt taxi to nearest turn off no longer expected in such a case.
– **Before starting engine(s)**
Explanation of useful load and value for this aircraft - not too much baggage!
... And more!

END OF APPENDIX F