Add-on for Microsoft

Flight Simulator X

and FS2004!

FDC
Live Cockpit!
2011

Manual

Developed by

Dave March — Program design and development.

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Add-on for:

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Credits:

Marcus Borg — Program graphics design and development.

Ray Epps — QuickStart Flight development, performance and checklist development for the DC3 and Fokker 50, and never ending help, advice and support. Ray spent many long hours collating data we never got to use. Maybe next time?

Peter Gellion — Proof-reading all documentation and context-sensitive help texts.

Scott Hayden — Originator of the idea to implement the checklist functionality in FDC's predecessor, S-Combo. Recorded and supplied many of the included airport ambience sounds. Recorded the sample flightdeck announcement files and provided a host of great ideas.

Jim Hickman — Provided a lot of input with regard to FDC's ATC Chatter feature and did some vigorous testing of it as well.

Jon-Inge Paulsen — User guide and QuickStart Flight documentation.

Paul Riley — QuickStart Flight development, performance file and checklist development for the King Air 350 and Baron 58, and never ending general help, advice and support.

Flight deck voice authors

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Cabin announcement voice authors

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Beta testers

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All of whom not only gave their time testing the product, but where also very keen to suggest ways in which to improve and enhance FDC's functionality.

Thanks also to...

Kirby Angell (SimVoice) — Kirby provided me with registration facilities to allow all my voice authors to use his great program SimVoice when recording the FDC voice sets.

Mike Clark (TecPilot) — for obtaining permission from OneMileUp to include a selection of their aircraft images in FDC. TecPilot's web site is www.tecpilot.com.

Content

Starting Off

System Requirements

- Processor min. 1000 MHz
- 256 MB RAM, recommended 512 MB
- 400 MB free disk space
- Soundblaster or compatible soundcard
- Microsoft Flight Simulator X, 2004, 2002, 2000 or 98

Installation

Note: A registry code is required to install FDC Live Cockpit! 2011. You will find this code on the CD sleeve. Please keep the registry code in a secure place. You will need it for further installations.

If you are working with Windows XP, NT4.0 or Windows 2000, you will have to be registered as administrator in order to install this program. The installation routine will then install FDC Live Cockpit! 2011 automatically.

If the CD does not autoload, then click on the START| RUN-button after this, type „d:\setup.exe" (where „d" is substituted by the drive letter of your CD-ROM drive).

After choosing your language, you´re welcomed by the installation routine and you´ll receive some important information.

Before the installation routine actually starts, the important data is shown again in short form. The installation routine copies the FDC Live Cockpit! 2011 data on to your disk.

The installation is now complete. You will not need the FDC Live Cockpit! 2011 CD whilst flying.

Deinstallation

To remove FDC Live Cockpit! 2011 from your computer click on the START Button in the Windows taskbar and choose "Settings".

In the following menu choose "Control Panel". Look for "Add/Remove Programs" and start it by doubleclicking on the icon. Now search for "aerosoft's - FDC Live Cockpit 2011" in the listbox and mark it by clicking on it. Then click on the "Add/Remove" Button. The files will now be removed from your harddisk.

Important Note!

On the added installation disc you will find a PDF file with all changes and corrections of FDC Live Cockpit! 2011 up to version 3.14. Version 3.14 can be found under START/PROGRAMS.

Technical support

Support for this product is done by Aerosoft. We prefer to do support on the support forum for one simple reason, it is fast and efficient because customers help customers when we are sleeping.

Aerosoft forums:
http://forum.aerosoft-shop.com/forum/index.php

We feel strong about support. Buying one of our products gives you the right to waste out time with questions you feel might be silly. They are not.

About FDC Live Cockpit! 2011

With one exception, you should make all your settings in FDC Live Cockpit! 2011 prior to connecting to the flight simulator. To perform changes to the settings, you will have to disconnect from flight simulator; an operation that will reset all flight parameters used to detect the current phase of your flight (more on flight phases below).

The exception to this rule is ControllerX, which requires you to be hooked up to the flight simulator to be able to detect the controller's buttons.

Note! You can also adjust the volumes in FDC Live Cockpit! 2011 while you are connected to Flight Simulator by clicking the Volumes button in the main FDC Live Cockpit! 2011 window.

Flight Phases in FDC Live Cockpit! 2011

The key to FDC Live Cockpit! 2011`s functionality is the division of your flight into various flight phases. The following functionality is dependent on the flight phases:

- Checklists
- Cabin announcements
- ControllerX
- ATC chatter
- Airport ambience

FDC Live Cockpit! 2011 divides the flight into the phases listed below, and detects the flight phases automatically. The different flight phases and the criteria for activating them are described in the table below.

At the Gate   Provided you start with your wheels on the ground this is the mode you'll begin with.

Taxi to Runway	The phase is activated once the Gate Departure announcement has been made. The announcement is usually made when you release the parking brakes.
Takeoff	The phase is activated in different ways. If you have the Prepare for Takeoff call configured to play before or after the takeoff checklists, the phase is activated when the Prepare for Takeoff call is made. Otherwise, the program does its best to ascertain that you've finished taxiing.
Climb	The phase is activated the moment your wheels leave the ground.
Cruise	The phase is activated as you pass 3000 ft.
Descent	The phase is activated when you descend below a given triggering height. If your highest altitude was less than 12000 ft, the triggering height is 20% lower than your highest altitude. If you went to an altitude higher than 12000ft, the triggering height is 10% lower than your highest altitude.
	To exemplify, if you went to an altitude of 10000 ft, the Descent phase will be activated once you descend below 8000 ft, and if you went to an altitude of 20000 ft, the phase is activated once you descend below 18000 ft.
Final	The phase is activated as you descend below 3000 ft.
Landed	The phase is activated as soon as your wheels touch the ground (which seems like a reasonable criteria).
Taxi to Park	The phase is activated once your ground speed drops below 30 knots.
Parked	The phase is activated when the parking brake is set at your destination airport.

As you can see from the table above, the transition between phases is based either on events in Flight Simulator, or in FDC Live Cockpit! 2011. The flight phases allow FDC Live Cockpit! 2011 to provide you with checklists and cabin announcements on ALL flights, not just adventures created in dedicated adventure creation software.

Missed approaches and Touch-and-go

Most pilots will at some point or another have experienced a missed approach. This can happen due to wind conditions, visibility, and other technical reasons. You will also sometimes have to perform missed approaches in Flight Simulator. FDC Live Cockpit! 2011 will in these cases automatically issue a Gear up call. However, you must manually restart the Approach checklist, should you wish to repeat it. You do this by hitting Ctrl-Shift-Space.

In case of a missed approach, the GPWS will be reset, and you will receive the GPWS calls again when you start descending to attempt a new approach.

Note! When you perform a missed approach, the flight phases will not be changed. You will still be in the Approach phase as you go around and attempt a new approach.

Pilots of smaller aircraft frequently perform Touch'N'Gos at various airports. When you perform a Touch'N'Go, FDC Live Cockpit! 2011 will follow you, and automatically return to the Descent phase as you take off from the runway again. The After Takeoff and Climb checks will be played over again, and as you descend to make your approach to another airport, the Approach checklist will once again play automatically (if you are using the Auto checklist mode).

Starting a new flight

After completing a flight at the destination airport, you can start a new flight by hitting Ctrl-Shift-A.

Note! Disconnecting and reconnecting FDC Live Cockpit! 2011 from Flight Simulator will also reset all flight parameters.

Multiple sounds simultaneously played

All the sounds in FDC Live Cockpit! 2011 can be played simultaneously. This means that ATC chatter, airport ambience, checklist calls, cabin announcements and GPWS warnings can be heard at the same time! You are allowed to control the mix of the various volumes freely by using the built-in volume control panel. FDC Live Cockpit! 2011's advanced sound capabilities adds to the visual realism of Flight Simulator, adding an extra level of flight realism to your simulation!

Note! Since both FDC Live Cockpit! 2011 and FS contains ATC chatter, you should choose the one you like the best, as using both can cause the resulting ATC chatter to appear unrealistic.

FDC ControllerX

FDC Live Cockpit! 2011 ControllerX – which lets you create different button assignments for each of the flight phases in FDC Live Cockpit! 2011 – connects to the joystick/yoke/game controller through the flight simulator. You therefore have to be connected to the flight simulator in order to set up the assignments. FDC Live Cockpit! 2011's controller extension is far superior to the flight simulator's own button assignment capabilities, as FDC Live Cockpit! 2011 allows you to assign different actions to the same button in different flight phases.

This means that if you have 5 buttons on your controller, you can assign one keystroke for each button for each of the ten flight phases, allowing you to program a total of 50 keystrokes available directly from your controller's buttons during your flight!

Note! You should make sure that the buttons you assign keystrokes to in FDC Live Cockpit! 2011 are left unassigned in the flight simulator, otherwise you will get conflicting actions in the simulator.

Look into the programs Main Help for assignments.

Using FDC Live Cockpit! 2011

Using FDC Live Cockpit! 2011 is actually quite simple; the challenge lies in mastering the added level of realism in your flight simulator!

FDC Live Cockpit! 2011 allows you to customize a large amount of parameters based on your favourite aircraft. The most important parameters are those gathered in the Performance file for your aircraft. There are, however, many other parameters that might differ between various aircraft. If you are flying a GA type aircraft, such as one of Flight Simulator's Cessnas, it would probably seem a little out of order to have cabin announcements played at various stages during your flight. If, on the other hand, you later switch to a large airliner, the cabin announcements add a touch of realism and feeling to your flight. To allow you to quickly recall your own settings for various aircraft and flight types, FDC Live Cockpit! 2011 features a powerful Profile feature. We strongly recommend you to study how to use profiles, as we know this will save you a lot of work when you are performing your flights in Flight Simulator!

The Quick Menu

FDC Live Cockpit! 2011 contains many option panels, and to allow easy navigation between them, a QuickMenu is at your disposal. To use the QuickMenu:

   • Right-click somewhere in the empty space of the current panel (between labels, buttons, etc.). If you click on a label, the context-sensitive help for the corresponding item will appear.

   • The QuickMenu appears.

   • Select the panel to go to in the list, or click Cancel to close the QuickMenu.

If there are unsaved changes in the current panel, you will be asked to save them before the selected panel is activated.

Profiles and how to use them

FDC Live Cockpit! 2011 has lots of options available to you, but going through every panel to change them whenever you change an aircraft, would be a tedious task. FDC Live Cockpit! 2011 therefore features a strong profile functionality, allowing you to save the entire FDC Live Cockpit! 2011 set-up for easy retrieval at a later stage. By creating different profiles for different aircraft and/or different flight types, you can easily restore the FDC Live Cockpit! 2011 settings that you need to perform the flight in question.

Note! Data for ControllerX is not saved with the profile. FDC Live Cockpit! 2011 keeps only one set of button assignments at the time.

Restoring defaults

You can at any time restore the defaults for FDC Live Cockpit! 2011 by simply clicking Restore Defaults in one of the option panels.

Note! All parameters will be restored, not only the parameters on the option panel on which you clicked the button!

Connecting to Flight Simulator

Connect

Once you have finished setting up FDC Live Cockpit! 2011 to your satisfaction, you are ready to connect to Flight Simulator. We suggest that you select the aircraft you intend to use and that you select your departure position (airport and gate) before establishing the connection. Also, to gain full effect of FDC Live Cockpit! 2011`s cockpit functionality, you should shut down the engines.

- Close the Options panel (if it is open, that is...)
- Start Flight Simulator, and select the aircraft and departure location (airport and gate). (Optional: Shut down the engines.)

• Click FDC Live Cockpit! 2011 on the task bar (or hit Alt-Tab on your keyboard, and select FDC on the task menu).

• Click Connect in the FDC Live Cockpit! 2011 main window.

• If the connection is successful, the FDC Live Cockpit! 2011 main window will automatically be minimized and Flight Simulator will be brought to front.

FDC Live Cockpit! 2011 will attempt to establish a connection to the flight simulator, and if it succeeds, the message CONNECTED will appear in the connection status area.

Note! While FDC Live Cockpit! 2011 is connected to the flight simulator, all option panels will be unavailable for input. You are only allowed to work with the controller assignments while connected.

You can adjust the volume mix in FDC Live Cockpit! 2011 at any time, even while FDC Live Cockpit! 2011 is connected to Flight Simulator, by clicking Volumes in the main window.

Disconnect

To disconnect FDC Live Cockpit! 2011 from the flight simulator:

• Click Disconnect in the FDC Live Cockpit! 2011 main window.

• Click Yes to confirm the disconnection, or click No to stay connected to the flight simulator.

FDC Live Cockpit! 2011 will drop the connection to the flight simulator, and the message NOT CONNECTED will appear in the connection status area.

Note! All flight parameters used to detect the active flight phase will be reset when FDC Live Cockpit! 2011 is disconnected from the flight simulator. If you are in the middle of a flight, you run the risk of having to fly the rest of the flight without FDC Live Cockpit! 2011 realism.

A note on connecting in mid-flight

If you attempt to establish a connection between Flight Simulator and FDC Live Cockpit! 2011, FDC Live Cockpit! 2011 will handle this in two ways:

• If you are above 3000MSL when connecting, FDC Live Cockpit! 2011 will automatically assume the next flight phase will be the Cruise phase. The next checklist will be the Climb checks.

• If you are below 3000MSL when connecting, FDC Live Cockpit! 2011 will assume that the next flight phase will be the Climb phase. The next checklist will be the After Takeoff checks.

Hotkeys in FDC Live Cockpit! 2011

You are not required to remember many hotkeys when using FDC Live Cockpit! 2011. There are, however, a few that are useful to remember. The hotkeys and their actions are summarized in the table at the bottom of the page.

Changing hotkeys

You can easily change the hotkeys in FDC Live Cockpit! 2011:

• In the FDC Live Cockpit! 2011 main window, click Options.
• In the Main Options Panel, click Hotkey Setup.
• In the Hotkey Setup panel, select the hotkey you would like to change in the Current Hotkeys list on the left.
• Click Change Hotkey.
• Hit the key(s) you wish to use, and click Assign.
• Confirm (or reject) the change.

Note! The hotkey setup is not saved when you save a profile.

You find a summary of hotkeys on the next page.

Hotkey Summary

SPACEBAR   Step through each checklist call when in Manual checklist mode.
If you are in Auto 1, Auto 2, or Semi-Auto checklist modes, hitting SPACEBAR will temporarily pause the checklist being played. To resume the checklist, hit SPACEBAR once again.

CTRL-SHIFT-A   Trigger first cabin announcement.

SHIFT-SPACEBAR Step back through each checklist call.

SHIFT-ESC   Bypass an interactive checklist item. This hotkey allows you to escape a negative checklist response without fixing it. This can be useful in various situations, for example if your panel doesn't support the option called for in the checklist call. Although the response will still be negative, the checklist will move on to the next checklist item.

CTRL-SPACEBAR Step forward to the next checklist (flight) phase.

CTRL-SHIFT-SPACEBAR   Step back to the previous checklist (flight) phase.

CTRL-   Play the next Flight Deck Announcement.

CTRL-\\-A   Play the corresponding Flight Deck Announcement from 1 to 26:

CTRL-\\-B   A = Flight Deck Announcement 1, B = Flight Deck Announcement 2, ..., Z = Flight Deck Announcement 26.

CTRL-\\-Z   The rest of the Flight Deck Announcements (27 – 99) can only be played in numerical order using the hotkeys above.

SHIFT-   Repeat the last Flight Deck Announcement.

CTRL-SHIFT- Skip the next Flight Deck Announcement without reading it.

CTRL-W	Play the user recorded Turbulence warning message.
CTRL-E	Detect the FS hotkey for auto-starting the engines.
CTRL-SHIFT-M	Redisplay the last on-screen FDC message in Flight Simulator.
CTRL-SHIFT-X	Jump to the next Enroute ATC chatter file selection.

About flight time and black box logging

If you wish, you can have FDC Live Cockpit! 2011 log your flight time and flight data – the latter referred to as black box logging.

Flight time logging

Unlike the automatic flight logging in Flight Simulator, you can specify when FDC Live Cockpit! 2011 should start and stop the logging of flight time. You can start logging flight time as soon as the engines are started; when you start taxiing to the runway; or after takeoff. Similarly, you can stop logging flight time as soon as you have landed; as soon as the parking brake is applied at the gate; or when the engines are shut down. You can also turn the logging off if you wish. FDC Live Cockpit! 2011 will save the logged flight time in log files, and if you wish, FDC Live Cockpit! 2011 can create a new log file for each flight you make.

You can view the logged flight time directly in FDC Live Cockpit! 2011, in the Flight Log panel. This panel also allows you to delete single entries from the flight log. The Flight Log panel is available both in the main window of FDC Live Cockpit! 2011 and in the Main Options panel.

Specifying flight time logging

To specify start and stop times for flight logging and file options:

- In the FDC Live Cockpit! 2011 main window, click Options.
- In the Main Options panel, click Misc Items.
- Under Flight Time Logging, specify the start and stop options.
- To create a new log file for each flight, select the New log each flight option. Alternatively, if you would like all flights to be logged in one file, select the Append to existing log option (default).
- Click Save Changes and Close to exit the panel.

Black box logging

The black box logging is activated together with the flight time logging in FDC Live Cockpit! 2011. The black box data for the three last flights will be kept. The black box logs all flight data. If you are interested, you can view all relevant data from your last three flights.

Note! Although black box logging is optional, we strongly recommended you to activate it. In the unlikely event of a problem this file provides us with essential bug tracking information to find the error quickly.

Activating black box logging

- In the FDC Live Cockpit! 2011 main window, click Options.
- In the Main Options panel, click Misc Items.
- Select the Black Box Data Recorder to activate the logging device.
- Click Save Changes and Close to exit the panel.

Viewing black box logs

- In the FDC Live Cockpit! 2011 main window, click Options.

- In the Main Options panel, click Black Box Log.

- When you have finished viewing the log, you should click Close to exit the panel.

Log Files

The log files from FDC Live Cockpit! 2011 will be saved to the Logs folder under the FDC Live Cockpit! 2011 installation path. By default, this path will be C:\Program Files\Aerosoft\FDC\Logs

The Flight Time log files will be saved as fdc_flight.log.

The Black Box log files will be saved as Blackbox.log. In addition to the last log file, FDC Live Cockpit! 2011 will also keep the three previous flights. These will be named Blackbox.log.1, Blackbox.log.2, and Blackbox.log.3, which is the oldest log file.

About display messages in FDC Live Cockpit! 2011

FDC Live Cockpit! 2011 will present information to you while you are flying in Flight Simulator. FDC Live Cockpit! 2011 will display different information to you as the flight progress. The information is pretty self-explanatory, and is easily understandable when displayed.

You can display the last message from FDC Live Cockpit! 2011 once again by hitting Ctrl-Shift-M. This allows you to recall a message if you for some reason should have missed it.

You can also customize the time the messages are visible in Flight Simulator, as well as turn them completely off.

- In FDC Live Cockpit! 2011 main window, click Options.

- In the Main Options panel, click Misc Items.

• Under FDC Live Cockpit! 2011 system operation settings, there are checkboxes for Takeoff data, Cruise data, and Landing data. Select the messages to display in FDC Live Cockpit! 2011. Enter the number of seconds to display each message.

Note! If you enter 0 seconds, the message will be displayed constantly.

• Click Save Changes and Close to exit the panel.

What messages will be displayed?

The table below shows the most important on screen messages that can appear.

Message	Description
Takeoff data	This message is displayed as you enter the Taxi flight phase, and contains speed data for various flap settings.
Cruise data	this message is displayed as you enter the Cruise flight phase, and contains speed data.
Landing data	This message is displayed as you enter the Finals phase, and contains speed data for various flap settings.
Misc	You will receive an on-screen notification when FDC Live Cockpit! 2011 successfully connects to Flight Simulator; if you have received a negative checklist response; and if you have to turn on the fuel flow for the engine(s).
Error messages	Hopefully you will not receive these, but should FDC Live Cockpit! 2011 fail for some reason, you will be notified by a message in Flight Simulator.

Controlling volume levels

As mentioned earlier, FDC Live Cockpit! 2011 is capable of playing several sounds at the same time; such as checklist calls, ATC chatter, ambience of various types, and cabin announcements. You are allowed to control the volume mix of the various sound types from within FDC Live Cockpit! 2011.

To adjust the volume levels

- In the FDC Live Cockpit! 2011 main window, click Volumes.
- Use the control arrows to adjust the volume levels of the various sound components. Possible volume levels are 1 through 10.
- Click Save Vols to save your new volume settings.
- Click Close to exit the panel and return to the FDC Live Cockpit! 2011 main window.

The volume panel available in the main window allows you to adjust the volume settings of FDC Live Cockpit! 2011 even when a connection to Flight Simulator is active. You can also access the volume panel through the Main Options panel.

Note! If you have difficulty hearing the FDC Live Cockpit! 2011 sounds you may have to reduce the overall sounds generated from Flight Simulator to achieve optimum result!

Volume controls

There are seven volume controls in the FDC Live Cockpit! 2011 Sound Controls panel. These are described below.

Volume	Sound
Captain	The volume of the captain's voice.
Co-pilot	The volume of the co-pilot's voice.
Engineer	The volume of the engineer's voice.
Cabin crew	The volume of the cabin announcements.

GPWS	The volume of the GPWS warnings.
ATC Chatter	The volume of the ATC chatter (available by selecting the Airport (air/ground) traffic ambience option on the Misc Items panel).
Airport ambience	The volume of the airport ambience (available by selecting the Airport (air/ground) traffic ambience option on the Misc Items panel).

Using FDC Live Cockpit! 2011 help

There are two ways of getting help in FDC Live Cockpit! 2011. First, you can read the User Guide, as you are doing right now. Second, you can read the Context-sensitive help that provides you with help on the various parameters and functions of the FDC Live Cockpit! 2011 programme.

Context-sensitive help

As you have probably already noticed, all labels in FDC Live Cockpit! 2011 contains context-sensitive help information. You just have to right-click on the label that you want an explanation for, and information about that parameter appears. There are many useful tips and hints available in the context-sensitive help entries, so we recommend that you take your time to read them, even if you are already familiar with the parameter in question.

Abbreviations

We have used a few abbreviations in the documentation. The most important ones are:

- **AGL:** Altitude above Ground Level;
- **MSL:** Mean Sea Level;
- **GTOW:** Gross Takeoff Weight;

- **GLW:** Gross Landing Weight;

- **KIAS:** Knots Indicated Air Speed.

For an explanation of other common abbreviations commonly used in aviation, please refer to one of the online dictionaries that are available.

FDC Live Cockpit! 2011 User Guide

The User Guide is available by hitting F1 anywhere in FDC Live Cockpit! 2011. In addition, you can also access the User Guide if you click Main Help in the Main Options panel.

There are several ways of searching for information in the User Guide. You can use both the Table of Contents, Index, and Full-text search to locate the information you need. Many topics also contain links to related topics containing useful information about the same subject.

The Favourites tab allows you to make shortcuts to your favourite topics in the help system. To add a topic to favourites, simply browse to it, and click Add in the Favourites tab to make a shortcut. A shortcut can be removed later, if you wish.

The toolbar of the User Guide features the following buttons:

- **Hide / Show:** Click this button to hide or show the panel containing Table of Contents,

- **Previous / Next:** Click these buttons to go to the previous (or next) topic in the Table of Contents. Use this buttons to browse through the help in the pre-defined order. This is recommended if you are reading the entire User Guide continuously.

- **Back / Forward:** Click these buttons to browse through the browser history. As opposed to the Previous and Next buttons, these buttons will browse through the pages previously viewed.

- **Home:** Click this button to return to the front page of the User Guide.

- **Font:** Click this button to cycle through the font size list. The order of the font list is: Smallest, Small, Medium, Large, and

Largest. The font size in the topic will change as you cycle through the font size list.

Note! The pages are designed to be viewed using the Medium font size. Note also that the help viewer shares the same font settings as Internet Explorer on your computer. Thus, if you make changes to the font size, this will also be used for Internet Explorer.

• **Print:** Click this button to print the selected topic. You will be asked to select the printer to use.

Note! You can also print an entire book from the Table of Contents if you wish. Simply select the book you want to print, click the Print button, then the Print the selected heading and all subtopics option when asked. This question will only appear if you click the Print button while the book you require is high-lighted (the selection is blue rather than grey).

• **Options**: Click this button to customize the appearance of the help viewer.

Note! The help viewer shares the same settings as Internet Explorer on your computer. Thus, if you make changes to the Internet Options available under the Options button, these will also affect the appearance and behaviour of Internet Explorer.

Aircraft and Flightdeck calls

About aircraft and checklists

FDC Live Cockpit! 2011 allows you to select aircraft to use in three different ways. First, you can either select one of the fully supported aircraft, which will automatically set all the parameters needed to perform a full flight. Second, you can select the Not Listed option in the Select Aircraft drop down, and then quickly specify the minimum data required to utilize most of FDC Live Cockpit! 2011`s features. Third, you can create a new performance file for your aircraft, allowing FDC to support your aircraft in the best way possible. [Read more on adding your own aircraft...]

FDC Live Cockpit! 2011 fully supports 18 different default and 12 Add-on aircraft. If you choose one of these, you will get a fully working cockpit environment, with captain and co-pilot communication. Not only checklist calls, but also calls related to speed and flap settings, flight instruments, gear, etc. FDC Live Cockpit! 2011 supports the following aircraft:

- Airbus A320
- BAe 146
- Beechcraft King Air 350 and Baron 58.
- Boeing 737-400, 747-200 (crew includes engineer), 747-400, 767-200, and 777-300;
- Cessna 172SP, 182S, 182RG, 208 Amphibian, 208B Grand
- Douglas DC-3;
- Fokker F50;
- Lear Learjet 45
- Mooney Bravo

Special Add-on aircraft (FS2004):

• Eurowings Pro and 2004 (A319,A320, BAe146, ATR42/72)

• PMDG 737NG 600/700/800/900

• PIC A320

• Just Flight A330/A340

Note! In the unlikely event that you should actually crash your aircraft, FDC will disconnect from Flight Simulator and reset all flight parameters.

Selecting an aircraft in FDC Live Cockpit! 2011

To select an aircraft:

> • In FDC Live Cockpit! 2011 Main window, click Options.
>
> • In the Main Options panel, click Select Aircraft.
>
> • Select the aircraft you want to use in the Select Aircraft for this flight drop-down box.
>
> • Click Save Changes and Close to exit the panel.

The aircraft selected will be displayed in the Main Options panel.

If you select one of the standard FDC Live Cockpit! 2011 aircraft, the corresponding checklist will be automatically selected for you. However, if you select an aircraft that you have specified yourself, you will have to manually select the checklist in the Select Checklist to use for this aircraft drop-down box.

Note! You will be unable to establish a connection between FDC Live Cockpit! 2011 and Flight Simulator if the aircraft selected in FDC Live Cockpit! 2011 doesn't match the aircraft selected in Flight Simulator.

Using aircraft not listed

Although FDC Live Cockpit! 2011 supports many standard Flight Simulator aircraft, you will perhaps not find your own favourite among these planes. Although we strongly recommend you to create a performance file and checklist for your aircraft, you will still be able use FDC Live Cockpit! 2011 with your aircraft quickly.

To quickly use an aircraft that is not listed in FDC Live Cockpit! 2011:

- In FDC Live Cockpit! 2011 Main window, click Options.

- In the Main Options panel, click Select Aircraft.

- Select the option Not Listed in the Select Aircraft for this flight drop-down box. A new section will appear below the drop-down box.

- Select the flap settings supported by the aircraft in the section below the drop-down box. It is important that the aircraft supports the same number of flap positions as the aircraft (and panel) in Flight Simulator uses.

- Specify the V1, Vr, and V2 speeds for the aircraft in the corresponding boxes. V1 is the decision speed of the aircraft; above this speed you will probably be unable to stop the aircraft on the runway. Vr is the rotation speed; at which you should raise the nose to lift off the runway. V2 is the minimum takeoff safety speed; this is the minimum safe flying speed should an engine fail immediately after takeoff. Vr should be equal to or higher than V1, and V2 should be equal to or higher than Vr.

- Select a checklist to use for the aircraft in the Select Checklist for this aircraft drop-down box. This can be one of the standard checklists, or it can be one of your own creation.
Note! If your aircraft has fixed gear, make sure you select a checklist that also supports fixed gear aircraft! If you get stuck in an interactive gear call that cannot be corrected, you can hit Shift-Escape to jump to the next checklist call.

• Use the checkboxes in the Checklist section to enable (or disable) the checklists you wish to use with your aircraft.

• Click Save Changes and OK to exit the panel.
Note! Functionality in FDC Live Cockpit! 2011 that is dependent on the data entered in the Performance file, will be disabled when you use the Not Listed aircraft. This mainly concerns flap calls during takeoff and approach.

The cockpit crew

In a modern airliner, the cockpit crew usually consists of two members; the captain and the co-pilot, also referred to as the first officer. While in flight, the crew members have their separate tasks, and the communication between them is an essential part of flying an airliner of this size. While Flight Simulator is fairly accurate on flight dynamics and visual details, this aspect of the cockpit realism is overlooked. This is where FDC Live Cockpit! 2011`s flightdeck functionality adds an extra dimension to Flight Simulator! To give you variation while flying, you can select different voice sets for the various crew members, should you fall out with one of them...

To alter the cockpit crew settings

• In the FDC Live Cockpit! 2011 main window, click Options.

• In the Main options panel, click Flightdeck calls.

• The crew options are available on the panel that appears. They will be discussed in greater detail below.

The captain

In a real aircraft, the captain has the final word on all decisions being made on the flightdeck. Usually the captain will check each item on the checklist as the co-pilot reads them from the checklist.

In FDC Live Cockpit! 2011 you can disable (or enable) groups of calls made by the captain, or you can „switch him off" altogether. In addition, you define the altitude at which the captain makes the Climb thrust call.

The co-pilot

The co-pilot will, amongst other tasks, usually read you through the checklists (although you are free to decide who should read the checklist when you create your own checklists), make flap calls, and make the speed calls at take off.

You can enable or disable the co-pilot entirely, or you can enable or disable a group of calls that should be made.

The co-pilot is also responsible for making the prepare for take-off call to your cabin crew. You have several options for enabling this call.

• Hotkey: The call is made when you hit the hotkey (same as Turbulence Warning hotkey).

• Auto: The call is armed when you stop the aircraft after taxiing from the terminal. The call is played the moment the aircraft starts moving again, assuming that you are now rolling onto the runway and ready to take off.

• Before takeoff checks: The announcement is made immediately before you start the takeoff checklist.

• After takeoff checks: The announcement is played once the before takeoff checklist is complete.

You should select the option that best suits your taxiing habits. If you for various reasons have to start and stop your aircraft several times while taxiing (as a result of other airport traffic or similar), one of the two last options might be good, since they prevent the announcement from being armed far too early.

Note! Using the hotkey to trigger the announcement also provides an easy way to set FDC Live Cockpit! 2011 in the Ready for takeoff phase. This allows you to start the flight in a quick way.

The engineer

New electronics and more technically advanced cockpits have more or less made the engineer superfluous in modern airliners. However, on old, large airliners, the cockpit crew usually included an engineer to take care of technical and navigational tasks. In FDC Live Cockpit!

2011, the engineer is present if you select the Boeing 747-200 Jumbo Jet. The engineer will also be available in any performance file you add having three crew members.

As for the other cockpit crew members, you can select which calls the engineer should make, or „switch him off" altogether.

The Virtual Co-Pilot mode

In a real aircraft, the co-pilot will respond to flap and gear calls during the flight. The Virtual Co-Pilot mode in FDC Live Cockpit! 2011 allows you to enable the co-pilot to respond to these calls by setting flaps and gear automatically according to the pilot's calls.

To enable the Virtual Co-Pilot mode:

   • In the FDC Live Cockpit! 2011 main window, click Options.
   • In the Main Options panel, click Flightdeck Calls.
   • In the lower left section of the panel, select the Virtual Co-Pilot Mode checkbox.
   • Click Save Changes and Close to exit the panel.

While the Virtual Co-Pilot mode is active your co-pilot will automatically extend and retract flaps and lower and retract the landing gear according to the captain's calls. If you would rather take care of these operations yourself, simply disable the Virtual Co-Pilot mode by deselecting the Virtual Co-Pilot Mode checkbox.

Checklist modes

FDC Live Cockpit! 2011 divides your flight into several flight phases automatically based on various criteria. The checklists available in FDC Live Cockpit! 2011 can be synchronized with these flight phases, or they can be advanced manually. The various modes are discussed in detail below.

Interactive checklist calls

FDC Live Cockpit! 2011 will control many of the checklist calls made. Thus, if the item of a checklist call is not set correctly, you will get a negative response for the call. You can specify the length of the delay yourself, allowing you the time to avoid the negative call by correcting the item. If you receive a negative response, the checklist will be temporarily paused. When you have corrected the checklist item, you must manually resume the checklist again. The call will be made again to ensure that the response is positive, before the checklist is advanced further.

You can turn off all checklist interactivity by turning off the Interactive Checklist Master Switch on the Select Aircraft options panel. All checklist calls that have the reply set to Call Actual Setting will not have a reply at all.

Note! Interactive checklist calls are unfortunately not available if you are using FDC with Microsoft Flight Simulator 98.

To change the checklist mode:

- In the FDC Live Cockpit! 2011 main window, click Options.
- In the main options panel, click Select Aircraft.
- Under the checklist section on the right of the panel, select the checklist mode you would like to use; Auto, Semi-Auto, or Manual.
- Click Save Changes and then OK to exit the panel.

To change the negative response delay:

- In the FDC main window, click Options.
- In the main options panel, click Select Aircraft.
- Under the checklist section on the right of the panel, enter the number of seconds for the delay in the Delay box.
- Click Save Changes and then OK to exit the panel.

Auto 1 and Auto 2

If you select one of the Auto mode, the checklist will be locked to the flight phases in FDC. The checklists will be played a short time after the flight phase has been activated, except for the checklists at the gate (explained below). When in the Auto modes, the checklists will be started automatically. However, the execution of the checklist differs between the two. If you use Auto 1 the checklists will play automatically. The only interaction you have to do is to resume the checklist again (by hitting Ctrl-Spacebar) when you have received a negative checklist response. If you use Auto 2 the checklist will stop after each checklist is made. You will then have the chance to check the item, and correct it. When you're happy with the item, you hit Spacebar to hear FDC Live Cockpit! 2011 call out the response, and then make the next checklist call. Thus, FDC Live Cockpit! 2011 will automatically progress through the checklist if you select the Auto 1 mode, while you must manually progress through it if you select the Auto 2 mode.

As mentioned above, you must manually control the checklists at the gate. Before you start, you should start the crew briefing by hitting Ctrl-Space. The captain will instruct the cockpit crew of how to respond to failures during takeoff. The first checklist is the Pre-start checklist, and you start it by hitting Ctrl-Space once again. If you receive a negative response, you must correct the item, and then hit Ctrl- Space to recall the item once again. Once the Pre-start checklist is complete, you can advance through the Before push-back and Before start-up checklists in the same way. The rest of the checklists will be timed according to the parameters entered in the Select Aircraft Panel in FDC Live Cockpit! 2011, starting with the After start-up checklist, which will be started when the specified time interval has elapsed after you have started your engines.

Note! You can start the next checklist by hitting Ctrl-Spacebar and restart the last checklist by hitting Ctrl-Shift-Spacebar. When a checklist is played, it will not be be played again (even when the triggering condition is met).

Semi-Auto

If you select the Semi-Auto mode, the checklists will be detached from the flight phases, and you can scroll through the various checklists by using the hotkeys (Ctrl-Spacebar to scroll forward and Ctrl-Shift-Spacebar to scroll back). However, the checklists themselves will be played automatically, and you only have to start the checklist again (by hitting Ctrl-Spacebar) when you have received a negative checklist response.

Note! If you select the Semi-Auto or Manual checklist modes, the checklists will no longer be attached to the flight phases.

Manual

If you select the Manual mode, the checklists will be detached from the flight phases, exactly as for Semi-Auto mode. You can use the hotkeys to scroll through the checklists. However, you also need to hit Spacebar to advance through the checklist calls. The Manual mode also lets you scroll through the individual checklist calls (hit Ctrl-Spacebar for the previous and Spacebar for the next checklist call).

Checklists in FDC Live Cockpit! 2011

FDC Live Cockpit! 2011 allows you to select which checklists you would like to include in your flight. The following checklists are available to you:

Pre-start, Before pushback, Before start, After start, Taxi, Before takeoff, After takeoff, Climb, Descent, Approach, After landing, Parking.

To disable or enable a checklist

- In the main FDC Live Cockpit! 2011 window, click Options.

- In the main Options panel, click Select Aircraft.

- Under checklists, select the checkmark(s) for the checklist(s) you wish to enable. Alternatively, deselect the checkmark(s) for the checklist(s) you wish to disable.

- Click Save changes and then OK to exit the panel.

Controlling the Auto mode

As mentioned in the topic covering checklist modes, you can control how the checklists will be timed in the Auto mode. The timing settings are available only when you have selected the Auto option. The table below summarizes how and when the various checklists are started in the Auto mode.

Checklist	Criteria
Pre-start	You must manually start the checklist by hitting Ctrl-Space.
Before Pushback	You must manually start the checklist by hitting Ctrl-Space.
Before start-up	You must manually start the checklist by hitting Ctrl-Space.
After start-up	The checklist is run after you have started the engines. Specify a time delay in seconds.
Taxi	The checklist is run after you have started taxiing. Specify a time delay in seconds.
Before takeoff	The checklist is run after the aircraft has stopped after taxiing. Specify a time delay in seconds.
After takeoff	The checklist is run after a given altitude or after a given time delay, depending on which of the two occurred last. As an example, assume that you enter an altitude of 3000 ft and a time delay of 60 seconds. If you reach 3000 ft in 30 seconds, you must wait another 30 seconds for the checklist to start. However, if you reach 3000 ft in 90 seconds, the checklist will start as soon as this altitude is reached.
Climb	The checklist is run when the aircraft has reached a given altitude.
Descent	The checklist is run when the aircraft has reached a given altitude.

Approach	The checklist is run when the aircraft has reached a given altitude.
After landing	The checklist is run after the flaps have been raised. Specify a time delay in seconds.
Parking	The checklist is run when the aircraft comes to a complete stop at the gate after taxiing from the runway at the destination airport. The checklist is activated when the parking brake is applied.

Flightdeck calls

Checklists – as described in the previous topics – are the most important flightdeck calls available in FDC Live Cockpit! 2011. However, there are other calls as well; FDC Live Cockpit! 2011 adds cockpit realism by introducing proper flap calls, takeoff calls, etc. These calls are triggered by events in the simulator, such as the speed of your aircraft, the altitude, etc. The various categories of flightdeck calls are summarized in the table at the bottom of this page.

To enable (or disable) a group of calls

- In the main FDC Live Cockpit! 2011 window, click Options.

- In the Main Options panel, click Flightdeck Calls.

- Select (or deselect) the checkmark(s) for the type(s) of calls you wish the crew member to make.
Alternatively you can disable all calls from the given crew member by deselecting the checkbox next to the crew member. This will disable all the options for that crew member.

- Click Save Changes and OK to exit the panel.

Types of calls

The table below summarizes the various types of calls available, and gives some examples of various calls. In addition, the crew members who can make the calls are also mentioned.

Checklists	Calls made in conjunction with checklists. Captain, Co-pilot, Engineer
Flap calls	Calls made when operating the flaps. Captain, Co-pilot, Engineer
Takeoff calls	Calls made during takeoff, such as V1, Rotate, and V2. Captain, Co-pilot, Engineer
Misc calls	Miscellaneous calls made during the flight, such as gear calls, altimeter calibration calls, etc. Captain, Co-pilot, Engineer
Crew Briefing	Message read at the start of the flight, before the checklists are read. Captain
Speed check	When the Pilot Flying (PF) makes flap calls the Pilot Not Flying (PNF) will sometimes say Speed Check to indicate that he has double-checked the PF's call, and to confirm that setting the flaps will be within the safety margins for the aircraft. Co-pilot
Altitude Alert (1 to go)	The Altitude Alert (One to go) is called by the PNF when the aircraft climbs (or descends) to within 1000 ft off the Autopilot setting. Co-pilot

A note on Altimeter calls

When the aircraft passes the transition altitude of an airport (either descending or climbing), the barometer settings of the altimeter should be changed. In some cases, this will occur while the climb or descent checklists are run, in which case the Altimeter call will be made in the checklist. Otherwise, the call will be skipped in the checklist, and instead played when you actually pass the transition altitude.

A note on flap calls

The number of flap calls and at which speed they are made depend on the performance data given for the aircraft you use. The Flaps Up call after landing will be different for GA and non-GA aircraft. FDC Live Cockpit! 2011 will display flap and speed data for your aircraft at various times during your flight. You can use the Performance Editor to view the data for each aircraft in detail.

Fine tuning speed and altitude calls

On some graphic intensive panels you may find that speed and altitude calls occur too late. The One-hundred knots call made during takeoff may occur when your speed readout is actually showing more than 100 knots. FDC Live Cockpit! 2011 allows you to fine tune these calls on the Misc Items panel, under the FDC Live Cockpit! 2011 system operation settings section. There are three settings available, one for speed calls, one for altitude calls below 100 ft, and one for altitude calls above 100 ft.

Entering a higher number in these boxes makes the call occur earlier, while entering a lower number makes the call occur later. The default settings found on this page are based on the default Flight Simulator aircraft and panels. However, with a little tweaking of these values, you should be able to adjust the calls to be accurate using any aircraft and panel combination.

Note! The figures entered in these boxes are saved with your profiles. If you find that you need different figures for different aircraft and panel combinations, we recommend that you save your settings in a profile for each combination. This saves you the extra work of having to edit these numbers each time you change aircraft.

Flightdeck call settings

Some of the flightdeck calls have individual settings. These are:

Call setting	Description
Climb thrust	You can specify the altitude at which the captain will make the Climb thrust call.
Prepare for takeoff	You can specify when the co-pilot will make the Prepare for takeoff call. Your options are Auto, hotkey, After takeoff checks, and Before takeoff checks.
IAS Active	You can specify the speed (in knots) at which the co-pilot will make the IAS Active call (IAS = Indicated Air Speed).

Note! The Takeoff Flight Phase is activated when the co-pilot makes the Prepare for takeoff call. Using the hotkey to make the call therefore constitutes a way of „jump starting" the Takeoff flight phase, should you so wish.

Procedural variations for flap calls

There are slight variations in how different airlines perform certain functions. For example, while the crews of some airlines flying the Boeing 747-200 do not call for Flaps 5 during takeoff or landing, other airline's procedures require their crew to do so. Also, sometimes a Flaps 10 call from a captain will receive a Flaps 10 confirmation from the first officer. In other procedures, the first officer will confirm Flap 10 selected, and once the flap movement is complete, he will call Flap 10 set. FDC Live Cockpit! 2011 acknowledges this difference, and allows you to select the procedure variation you prefer.

Note! The panel you use for your aircraft must support the flap settings defined for the selected aircraft in FDC Live Cockpit! 2011.

Variation	Call
1	Captain: „Flap 10"
	Co-pilot: „Flap 10"
2	Captain: „Flap 10"
	Co-pilot: „Flap 10 selected"
	Co-pilot: „Flap 10 set"

Handling the approach

As you know, whether you are a real-life pilot or a flight simulator enthusiast, the approach and landing are the most challenging situations when flying an aircraft. This is also the case for FDC Live Cockpit! 2011. You might need to perform a missed approach, or you might feel like performing a Touch'N'Go at your favourite airport. Or you might find yourself a little below the glideslope, and want to climb a little to align yourself better with the glideslope. How will FDC Live Cockpit! 2011 actually handle these different situations to find out what you are actually doing?

Missed approach

Most pilots will at some point or another have experienced a missed approach. This can happen due to wind conditions, visibility, and other technical reasons. You will also sometimes have to perform missed approaches in Flight Simulator. FDC Live Cockpit! 2011 detects a missed approach if you start climbing above the glide slope of the runway, if the runway is ILS equipped. Otherwise, starting to climb during the Approach phase will be interpreted as a missed approach. FDC Live Cockpit! 2011 will in these cases automatically issue a Gear up call. However, you must manually restart the Approach checklist, should you wish to run it. You do this by hitting Ctrl-Shift-Space.

In case of a missed approach, the GPWS will be reset, and you will receive the GPWS calls again when you start descending to attempt a new approach.

Note! When you perform a missed approach, the flight phases will not be changed. You will still be in the Approach phase as you go around and attempt a new approach.

Touch-and-go

Pilots of smaller aircraft frequently perform Touch'N'Gos at various airports. When you perform a Touch'N'Go, FDC Live Cockpit! 2011 will follow you, and automatically return to the Descent phase as you take off from the runway again. The After Takeoff and Climb checks will be played over again, and as you descend to make your approach to another airport, the Approach checklist will once again play automatically (if you are using the Auto checklist mode).

Climbing during approach

When performing an ILS approach, you will frequently find yourself below the glideslope, and will need to climb a little to align yourself properly for your landing. As long as you are below the glideslope, FDC assumes that you are performing minor adjustments as a part of your normal landing procedure. However, if you climb too much above the glideslope, FDC Live Cockpit! 2011 assumes that you are performing a missed approach, as explained above.

Note! In the unlikely event that you should actually crash your aircraft, FDC Live Cockpit! 2011 will disconnect from Flight Simulator and reset all flight parameters.

Selecting voice sets for the crew

FDC Live Cockpit! 2011 contains 15 different voice sets that you can use for your cockpit crew. Thus, should you fall out with one of the crew members, you can always replace him or her with another. The voice sets feature various dialects and timbres, so hopefully you will be able to compose a cockpit crew that you are happy with! If you are really serious about your flight experience, you can also add your own voice set to FDC Live Cockpit! 2011

To select a voice for a crew member:

- In FDC Live Cockpit! 2011 Main window, click Options.

- In the Main Options panel, click Voice Sets.

- Select a voice set for the crew member(s). You can hear a sample of the selected voice by selecting a sample in the drop-down box, and then clicking Play your selection.

- Click Save Changes and OK to exit the panel.

Recording your own voice set

Each of the 15 available voice sets in FDC Live Cockpit! 2011 contain more than 1000 different recordings. It's a formidable amount of work our voice authors have invested in recording all of these. However, FDC Live Cockpit! 2011 is designed to handle 16 different voice sets, the last slot being left open for your own recorded voice sets. If you have the patience to record all the various calls, replies, and messages, you have the opportunity to actually take the captain's (or first officer's) seat yourself! As you might have noticed, there are fewer messages read by the captain than by the first officer. Thus, if you plan to use your voice set only as the captain's voice, you can record a smaller voice set comprising a little more than 600 messages. By recording the remaining 400+ messages, you will have a fully compatible voice set that can be used for any crew member in FDC Live Cockpit! 2011.

All the voice recordings available in FDC Live Cockpit! 2011 currently were recorded using the excellent tool SimVoice, by Kirby Angell. You might want to check it out before starting recording all of the messages available in FDC Live Cockpit! 2011

Adding your own voice set to FDC Live Cockpit! 2011

Here are guidelines to assist you in creating your own voice set. The guidelines assume that you are familiar with recording sound files. If not, you can find some simple instructions here (although these instructions are for recording flight deck announcements, the recording technique is the same). The guidelines also assume that you are familiar with working with files and folders in Windows Explorer. Although the steps might seem simple below, don't expect the task to be finished in an evening. To allow the recordings to be as natural as possible, you should take some breaks and rest your voice for a couple of hours during the recording process. Good luck!

All the different voice messages are available here. You will find two listings; one listing only the calls made by the captain, and one containing all messages available in FDC Live Cockpit! 2011.

- Print out the list of voice recordings to be made.

- Record the messages one by one, and save them under the name given in the list of calls. The sound files must be recorded in 11025 Mhz, 8 bit mono format.
Note! Make sure that you get the file names correct, or otherwise FDC Live Cockpit! 2011 will not be able to locate the messages when they are required!

- In the installation folder of FDC Live Cockpit! 2011, you will find a folder named Wav, and inside this you will find 16 voice set folders. Locate the folder named Voice16. Copy all the files you have recorded into this folder.

- Start FDC Live Cockpit! 2011, go to the Voice Sets panel under Main Options, and select voice set # 16.

- Start Flight Simulator, connect to FDC Live Cockpit! 2011, and prepare to perform your first flight with your own voice recordings.

Cabin information

About cabin information

FDC Live Cockpit! 2011 supports three different types of cabin information. First, there are the cabin announcements that are made by the cabin crew. These are pre-recorded announcements, and FDC Live Cockpit! 2011 contains five different recordings for various languages and accents. Second, there are the user´s files messages. These are your own recordings and contain information to your passengers. The user files are timed and played automatically. Third, there are the flightdeck announcements. These are also your own recordings, but they can be played randomly and are activated by hotkeys. The last category also includes the turbulence warning message, which you can activate by hitting Ctrl-W.

The cabin announcements

The cabin announcements are made by the flight attendants at various stages of the flight, starting with the Welcome aboard announcement after your passengers have boarded the aircraft, and ending with the Taxi to terminal announcement that is played on your way to the terminal after landing.

You have the option of selecting between five cabin crews of different nationalities, including a UK and a US crew. The Cabin Info panel available in Main Options also allows you to hear a sample of each crew, should you wish to do so.

Starting the cabin announcements

You can manually start the cabin announcements using the hotkey, or you can have FDC Live Cockpit! 2011 start them automatically. Using the hotkey Ctrl-Shift-A allows you to start going through the cockpit checklists while your virtual passengers are boarding the

aircraft, and then play the cabin announcement when they have finished embarking. Should you wish to let FDC Live Cockpit! 2011 start the cabin announcements automatically, the Welcome Aboard announcement will be played immediately after the connection to Flight Simulator is established. FDC Live Cockpit! 2011 also offers a third choice, where you can have FDC Live Cockpit! 2011 start the cabin announcement automatically when you are flying a jet airliner, while you start them manually for other aircraft. This option allows you to have cabin announcements with large airliners, and start them if you wish to when flying smaller aircraft.

Note! If you use the hotkey to start the announcements, no announcements will be played at all until you have hit the hotkey (this is an easy way of making flights without cabin crew and without having to adjust the settings in FDC Live Cockpit! 2011).

To change the way cabin announcements are started:

- In the FDC Live Cockpit! 2011 main window, click Options.

- In the Main Options panel, click Cabin Info.

- Select the start-up method by checking the appropriate check box. Options are Auto for all aircraft, Manual (use Ctrl-Shift-A), and Auto only on for jets.

- Click Save Changes and Close to save your changes and exit the panel.

The cabin announcements

The table below summarizes the six available cabin announcements and when they are played.

Announcement	Description
Welcome aboard	The announcement is played when you hit Ctrl-Shift-A (if you have selected the Manual start-up option) or shortly after the connection to Flight Simulator is established

	(if you have selected the Auto start-up option).
Prepare for gate departure	The announcement is played immediately after you have released the parking brake.
Safety briefing	The safety briefing is played a given time delay after you have started to taxi towards the runway holding position (time delay entered in seconds on the Cabin Info panel).
Refreshments	The announcement is played a given time delay after your aircraft has left the ground. The time delay is entered in minutes on the Cabin Info panel. In addition, FDC Live Cockpit! must be in the Cruise flight phase (read more about flight phases).
Descent (Final compliance)	The announcement is played when FDC Live Cockpit has determined that your aircraft has started its descent towards your destination airport (read more about flight phases).
Taxi to terminal	The final announcement is played approximately 30 seconds after the speed of your aircraft has dropped below 25 knots.

About user messages

While the cabin announcements made by the cabin crew are prerecorded in FDC Live Cockpit! 2011, the user files messages offer you the chance to add your own, personal information to your virtual passengers. The triggering of the user files are based on other events, so when these conditions are met, the user messages are played automatically. You can include up to twelve different user messages.

Note! While the user files are played automatically, FDC Live Cockpit! 2011 also offers you the capability of adding up to 99 flightdeck announcements that can be played randomly during your flight.

Timing the user files

- In the FDC main window, click Options.

- In the Main Options panel, click User Files.

- Enter the timing parameter for each user message in minutes in the appropriate boxes.

- Click Save Changes and then Close to save your changes and exit the panel.

Note! Setting the timing parameter to 0 means you turn the given user file off. Since the user files are blank when you install FDC Live Cockpit! 2011, all the parameters will be set to 0 initially.

Timing of user files

The table below summarizes the timing of the various user files.

User File	Description
1	The message is played the specified time interval after the first cabin announcement (Welcome aboard) is made.
2	The message is played the specified time interval after the second cabin announcement (Prepare for gate departure) is made.
3	The message is played the specified time interval after the third cabin announcement (Security briefing) is made.
4	The message is played the specified time interval after the fourth cabin announcement (Refreshments) is made.
5-11	The message is played the specified time interval after the previous user file has been played.
12	The message is played the specified time interval after the parking brake has been set after taxiing to the terminal at the destination airport. **Note!** This time interval is given in seconds, not minutes!

The user files that are timed after events other than other user messages, can be handled individually. Thus, you can, if you wish, include user file 1, 3, and 12.

If one or more of the user files should overlap, FDC Live Cockpit! 2011 will queue the messages and play them in rapid succession.

Adding user file messages to FDC Live Cockpit! 2011

Supplied with FDC Live Cockpit! 2011 are twelve user file blanks named user01.wav through to user12.wav. Adding your own recordings simply involves copying your file into FDC Live Cockpit! 2011`s wav folder, and then rename it to the appropriate file number. You will find FDC Live Cockpit! 2011`s wav folder in the folder where you installed FDC Live Cockpit! 2011. The default installation path is C:\Program Files\Aerosoft\FDC, and thus the default Wav path is C:\Program Files\Aerosoft\FDC\Wav.

Note! It is a good idea to make a copy of the original user files supplied with FDC Live Cockpit! 2011 should you wish to revert to the original FDC Live Cockpit! 2011 settings.

Note! When you record user files, please use the format 11025, 8 bit, mono to ensure compatibility throughout FDC Live Cockpit! 2011.

An example...

Let's say you want to record your own message that is to be played three minutes after the fourth cabin announcement (Refreshments) has been made. This is done by recording a new user04.wav and copy it into the correct folder. The steps to this procedure are presented below.

• Record your message using Sound Recorder in Windows, or similar recording software. Once you are satisfied with your recording, save it.

• Open Windows Explorer.

• Locate FDC Live Cockpit! 2011`s wav folder (default path C:\ Program Files\Aerosoft\FDC\Wav).

• Rename the default FDC Live Cockpit! 2011 user file (user04. wav) to a suitable backup name, or create a backup copy somewhere on your hard disk.

• Copy the recording you made above to the Wav folder, and rename it to user04.wav.

• Open FDC Live Cockpit! 2011, or switch to it if it is already running.
Note! You must be disconnected from Flight Simulator to perform the steps below.

• In the FDC Live Cockpit! 2011 main window, click Options.

• In the Main Options panel, click User Files.

• Enter the number 3 in the text box after Play File 04. The line should now read the following:
Play File 04 3 mins after 'Cruise' msg

• Click Save Changes and Close to save your changes and close the panel.

• Click Close in the Main Options panel to return to FDC Live Cockpit main window.

• Connect to Flight Simulator. The user message will be played three minutes after the 'Cruise' announcement (a.k.a. Refreshments) have been made.

Note! Please ensure that you rename the user files correctly, including the preceding '0' for user file 1 to 9. These files should be named user01.wav, user02.wav, etc. rather than user1.wav, user2.wav, etc.

About flight deck announcements

In addition to the 12 user files that will be played automatically based on timed triggers during your flight, FDC Live Cockpit! 2011 also supports up to 99 Flight deck announcements that can be played randomly during your flight. These files – your own recordings or selections – could perhaps be the Captain's in-flight chat to his passengers, explanations for unusual events, etc. The flight deck announcements are stored in strict numerical order, and when you hit the appropriate hotkey, the next message is played. You can, if you wish, skip the next message in the queue. When the last available file has been played, FDC Live Cockpit! 2011 loops back to the beginning of the list, and starts over again.

FDC Live Cockpit! 2011 also features direct shortcut keys for the 26 first Flight deck announcements in your set. You can play the first announcement by hitting Ctrl-\-A, the second by hitting Ctrl-\-B, the third by hitting Ctrl-\-C, and so on. The 26th announcement is played by hitting Ctrl-\-Z.

Note! You can play flight deck announcements at any time in your flight, even before the first cabin announcement has been made.

Short, medium, and long hauls

The flight deck announcements might differ between various types of flight. FDC Live Cockpit! 2011 allows you to record three different sets of messages; you can select between these on the User Files panel in FDC Live Cockpit! 2011. You can record files into Short Haul, Medium Haul, and Long Haul sets.

To select a different set of flight deck announcements:

- In FDC Live Cockpit! 2011 main window, click Options.

- In the Main Options panel, click User Files.

- At the bottom of the panel, select the type of journey you want to make. Available options are Short Haul, Medium Haul, and Long Haul.

- Click Save Changes and Close to exit the panel.

Using Flightdeck announcements in Flight Simulator

Note! You obviously need to have FDC Live Cockpit! 2011 connected in Flight Simulator to perform the operations described below...

While in Flight Simulator, you can control the Flight deck announcements by:

   • hitting Ctrl-\-A, Ctrl-\-B, Ctrl-\-C, ... Ctrl-\-Z to play the first, second, third, ..., 26th Flight deck announcement respectively;

   • hitting Ctrl-\ to play the next Flight deck announcement in the list;

   • hitting Shift-\ to replay the last Flight deck announcement played;

   • hitting Ctrl-Shift-\ to skip the next Flight deck announcement in the list without playing it.

Adding flight deck announcements

FDC Live Cockpit! 2011 does not come with file blanks for Flightdeck announcements (unlike for the user files feature). However, the files should be named in a similar fashion to that of User message files. The first Flightdeck announcement should be named FD01.wav, the second FD02.wav, etc.

Note! Be sure to include the preceding 0 in the file name for the announcements 1 to 10. The file name should be FD01.wav, FD02.wav, etc., and not FD1.wav, FD2.wav, etc.

You can install as many (or as few) files as you wish up to a maximum of 99 (the last would be named FD99.wav).

Note! When you record flightdeck announcements, please use the format 11025, 8 bit, mono to ensure compatibility throughout FDC Live Cockpit! 2011.

FDC Live Cockpit! 2011 allows you to keep three different sets of flight deck announcements. There are organized into the three categories Short Haul, Medium Haul, and Long Haul. Each of these

sets can contain 99 user messages. The files belonging to each category should be copied to the corresponding folder inside FDC Live Cockpit! 2011`s FD_User_Announcements folder. If you used the default installation path when installing FDC, these folders would be C:\Program Files\Aerosoft\FDC\FD_User_Announcements\Short_Haul, C:\Program Files\Aerosoft\FDC\FD_User_Announcements\Medium_Haul, and C:\ Program Files\Aerosoft\FDC\FD_User_Announcements\Long_Haul.

An example...

To add flight deck announcements (such as information to passengers about delays, welcome on board messages from the captain, etc.) to a medium haul flight, follow the steps below.

• Record your message using Sound Recorder in Windows, or similar recording software. Once you are satisfied with your recording, save it.

• Open Windows Explorer.

• Locate FDC Live Cockpit! 2011`s wav folder (default path C:\ Program Files\Aerosoft\FDC\FD_User_Announcements\Medium_ Haul).

• Copy the recordings you made above to the Medium_Haul folder, and rename them to fd01.wav, fd02.wav, etc.

• Open FDC Live Cockpit! 2011 and Flight Simulator, and establish a connection.

• When you have reached the point in the flight where you would like to play your announcement, hit Ctrl-\.

• Repeat the last step for all your messages, playing them at the appropriate time during your flight. You can skip a message by hitting Ctrl-Shift-\, or replay a message by hitting Shirt-\.

Sample recordings in FlightDeck Companion

On the FDC Live Cockpit! 2011 CD you will find a set of pre-recorded sample files recorded by Scott Hayden. There are two sets of files available.

The first set is recorded as the Captain of the crew, and is suitable if you use Scott's voice set (#8) for the Captain's voice. The second set is recorded as the first officer, and is suitable if you use Scott's voice set for the First Officer's voice. These recordings are included to allow you to easily test out the Flight Deck Announcement feature in FDC Live Cockpit! 2011. Please study the product CD to learn more!

Turbulence Warning Message

When an airliner encounters bad weather, it is quite usual for the Captain to make an announcement to reassure his passengers. FDC Live Cockpit! 2011 lets you record your own turbulence warning message, and save it in the default Wav folder of your FDC Live Cockpit! 2011 installation path. The file should be named fd00.wav. The default FDC Live Cockpit! 2011 installation path is C:\Program Files\Aerosoft\FDC. Once recorded and copied to the correct folder, you can activate the message from within Flight Simulator by hitting Ctrl-W.

Note! Be sure to name the Turbulence warning message fd00.wav, and place it in the Wav folder (default would be C:\Program Files\ Aerosoft\FDC\Wav

A Turbulence warning message could be something like Ladies and gentlemen, this is your captain speaking. I'm afraid we have a little unsettled weather ahead, so I would suggest you all please take your seats and fasten your seatbelts.

If you want to use the Turbulence warning message on your flights, you must record your own message, and save it in under the file name and path stated above.

The GPWS

About the GPWS

FDC Live Cockpit! 2011 features a built-in Ground Proximity Warning System – GPWS for short. Some panels already support a GPWS, in which case you can easily disable FDC Live Cockpit! 2011`s GPWS on the GPWS panel.

The GPWS produces audible warnings and alerts when various events occur in the simulator. While most of the features – such as Low terrain and Bank angle warnings – are not connected to the flight phases of FDC Live Cockpit! 2011, features related to the landing and final approach of the aircraft – such as altitude readings – will only be activated when FDC Live Cockpit! 2011 is in the Approach or Landing phases.

How to disable the GPWS

- In the FDC Live Cockpit! 2011 main window, click Options.
- In the Main Options panel, click GPWS.
- In the GPWS Settings panel, deselect the GPWS Master option.

Types of GPWS calls

The GPWS in FDC Live Cockpit! 2011 features several different types of calls, and they will be triggered by various events and criteria. You can customize most of these criteria yourself. The categories below reflect the categories available in the GPWS Settings panel. Thus, to deactivate a group of calls, simply deselect the corresponding option.

Landing Calls

The GPWS will call your altitude as you descend to land. The calls start at 2500 ft above the ground, provided FDC Live Cockpit! 2011 is in the Approach phase. If you're flying an aircraft with a three-man crew, the engineer will make these calls rather than the GPWS (which in a real aircraft are automated, pre-recorded calls).

In addition, the GPWS will alert you when you have reached the Decision Height by making the Minimums call. The decision height is the latest point at which you can perform a missed approach; when passing this height, you will have to land no matter what!

When you are intercepting an ILS localizer beam, the GPWS will make this call as the localizer (ILS tuned on VOR1) starts moving. The call is only made when FDC Live Cockpit! 2011 is in the Approach or Finals phase, and when your altitude is below the specified altitude on the GPWS panel.

Miscellaneous Calls

These calls are the Bank Angle and the Low Terrain Warning calls. The Bank Angle call is made when your bank angle exceeds the angle entered in the Bank Angle box.

The Low Terrain Warning message warns you when the altitude measured by the radio altimeter drops below the altitude entered in the Low Terrain Warning box below. The radio altimeter will always measure the distance between the belly of the aircraft and the terrain below. The warning will only occur, however, when the aircraft's gear is in the up position.

If you set either of the two parameters above to zero, the calls are effectively turned off. Alternatively, you can disable both of the calls by deselecting the Misc Calls option.

Audio Altitude Alert

The Audio Altitude Alert allows you to receive an audible signal when the aircraft approaches the altitude set in the autopilot. The Audio Altitude Alert is played at a distance from the set altitude. You define this distance by entering a number in the A/P Audio Altitude Alert box below. The default value for this distance is 900ft.

To illustrate how the Audio Altitude Alert works, let's say that you are cruising at 20.000ft, and starting the descent to land. You have programmed the autopilot to an altitude of 5000ft, and the distance set in the A/P Audio Altitude Alert box is kept at the default value of 900ft. In this case, the alert will be given as you pass an altitude of 5900ft. If you are climbing from takeoff, however, and have the autopilot set to 20.000 ft, the alert will be given as you pass 19.100ft.

Note! While the other GPWS calls are voice recordings, the Audio Altitude Alert is a beep.

Add Ambience to FS

About ambience

In addition to the voice of your co-pilot (and maybe your engineer) and the cabin crew announcements, you can also have FDC Live Cockpit! 2011 add airport ambience or ATC (Air Traffic Control) chatter to your flight.

Airport ambience

Ever paid any attention to the difference in background noise between various airports? Usually, the background noise will differ between airports of a different size, simply because of the distance to the runway, the size of the aircraft served by the airport, and the frequency of departures and arrivals. To create a realistic background ambience for your airports, FDC Live Cockpit! 2011 allows you to select the size of your departure and destination airports individually. Based on your selection, FDC Live Cockpit! 2011 plays airport ambience that suits an airport of that type. You can select between Small, Medium, and Large airport size. FDC Live Cockpit! 2011 also allows you to control the interval (in seconds) between files being played. You can turn airport ambience on and off on the Misc Items panel under Options in FDC Live Cockpit! 2011.

ATC Chatter

Air Traffic Control (ATC) Chatter is the communication going on between the air traffic controllers in the various sectors, and the pilots of the aircraft passing through that sector. FDC Live Cockpit! 2011 offers an extensive ATC Chatter functionality allowing you to

- add different ATC chatter based on geographic location;
- add different ATC chatter based on the current flight phase of your flight;
- select between ATC from various geographic areas during your flight
- select ATC chatter based on the frequency set on the COM1 radio in flight simulator.

FDC Live Cockpit! 2011 doesn't contain any ATC chatter sound files by default. Adding ATC chatter files to FDC Live Cockpit! 2011 is simply a matter of copying your own favourite chatter files to the appropriate folder in the FDC Live Cockpit! 2011 folder structure. You will be able to find an extensive collection of ATC chatter files on the Internet, at one of the large file libraries dedicated to Flight Simulator.

ATC Chatter in FDC Live Cockpit! 2011

The ATC chatter feature in FDC Live Cockpit! 2011 allows you to play various ATC chatter files based on geographic location, the flight phase you are in, and even on the frequency tuned on the COM1 radio.

Be aware that FDC Live Cockpit! 2011 doesn't include any ATC chatter files when installed. Instead, you should add your own sound files suiting the area in which you fly. To learn more about adding ATC chatter files and the folders to use, click here.

Note! The geographic area you are flying in is determined by the settings you make in the FDC Live Cockpit! 2011 options panel, and not your current geographical position in Flight Simulator. This means that if you specify in FDC Live Cockpit! 2011 that your departure airport is in Europe (West), but then take off from an airport in Australia, you will still hear the ATC chatter that is located in the Europe_(West) folder due to the FDC Live Cockpit! 2011 setting.

Configuring ATC chatter

To turn on ATC chatter and set the time interval between playing files:

- In the FDC Live Cockpit! 2011 main window, click Options.

- In the Main Options panel, click Misc Items.

- Select the ATC (radio) chatter ambience option to turn on ATC chatter.

- Specify the time interval FDC Live Cockpit! 2011 will pause between playing each file. The interval is given in seconds.

- The options below, Enroute 1, 2, and 3, Local ATC Only, as well as Dept and Dest will be discussed in detail below. Select the options that apply to your flight.
- Click Save Changes and Close to exit the panel.

Geographical areas

You can sort your ATC chatter files based on the region in which they are recorded. FDC Live Cockpit! 2011 supports the following geographical areas: Western US, Central US, Eastern US, Latin America, South America, Canada & Alaska, Europe (West), Europe (East), Middle East/Asia, Africa, Pacific, and South Pacific. You should organize the ATC chatter files according to these geographic areas, as well as for the flight phases (as described below).

When you specify your flight, you can specify the geographic area for your departure and destination airport, as well as for three different enroute areas. This allows you to perform long haul flights that cover various geographic areas, and still get the correct ATC chatter for the area you are currently flying over. While the ATC chatter for the airports are controlled by the various ATC chatter phases described below, you manually control which of the three enroute areas to play by hitting the shortcut key Ctrl-Shift-X. FDC Live Cockpit! 2011 will start using files for the geographic area specified in Enroute 1, and advance to the next when you hit the shortcut. This also means that if you perform a flight within one geographic area only, you obviously don't have to specify the two other enroute areas.

ATC chatter and flight phases

Within each of the geographic areas described above, FDC Live Cockpit! 2011 contains seven different ATC phase folders. The ATC phases are quite similar to the flight phases, although the ATC phases overlap the flight phases slightly. The ATC phases are designed to be as realistic as possible. The various phases are shown in the table below.

Phase	Criteria
Departure Ground	This phase is active from the start of your flight.
Departure Tower	This phase is activated as soon as FDC Live Cockpit has decided you are ready for takeoff.
Departure	This phase is activated as soon as you climb through 3000 ft.
Enroute	This phase is activated as soon as you climb through 7000 ft. **Note!** The Enroute phase is divided into three different sections, where you can specify different geographic areas. You advance through these sections hitting Ctrl-Shift-X.
Approach	This phase is activated as soon as you descend through 7000 ft.
Arrival Tower	This phase is activated as soon as you descend through 3000 ft.
Arrival Ground	This phase is activated just prior to the Taxi to Terminal cabin announcement is being made.

As you see from the table above, you only have to advance manually through the various Enroute sections. The other ATC phases are activated automatically based on events in Flight Simulator.

Technically, all files copied to the appropriate folder, such as AtcChatter\ Africa\Approach, will be played when you are in the corresponding ATC phase above. Thus, the folder mentioned should contain ATC chatter files that should be played when you are in the Approach phase to an African airport.

ATC chatter based on radio frequency

Although the geographic sections described above will probably provide more than sufficient functionality and variation for most users, FDC Live Cockpit! 2011 provides one more level of ATC chatter customisation. This feature allows you to actually tune your COM1 radio to an „ATC Channel", so to speak, and only have files played belonging to this exact frequency.

You achieve this by creating a new folder in the appropriate geographical area and flight phase folder. This folder should should have the five digits of the radio frequency as its name. If you are to, say, include departure ATC chatter for the tower at London Heathrow airport at frequency 118.70, you should create a new folder under FDC\ AtcChatter\Europe_(West)\Departer_tower, and name it 11870. You should then copy the ATC chatter files that you have recorded in this folder. When you are ready to start your flight, you should set the geographic area for the departure airport to Europe (West), and tune your COM1 radio to the 118.70 frequency. You will soon listen to ATC chatter from the tower at London Heathrow airport!

Note! The folder names for ATC chatter controlled by frequency should consist of five digits. You should leave out the period (.). Files for the frequency of 118.95 should be placed in a folder named 11895.

Local ATC chatter

As you see above, the ATC chatter functionality in FDC Live Cockpit! 2011 is pretty extensive. If you are frequently flying a GA type aircraft in your local area (for example in the vicinity of your local airport), this functionality is a little overwhelming. FDC Live Cockpit! 2011 therefore also supports a local ATC chatter functionality, allowing you to quickly install your favourite ATC chatter files and have FDC Live Cockpit! 2011 play them all the time while you perform your flight. You simply copy your ATC chatter files to the root ATC chatter folder in FDC Live Cockpit! 2011. Select the Local ATC Chatter Only checkbox in the Misc Items panel in FDC Live Cockpit! 2011. FDC Live Cockpit! 2011 now ignores all the advanced options described above, and will only play the files located in the root folder.

Adding ATC Chatter and Ambience Sound Files

FDC Live Cockpit! 2011 comes equipped with a large set of am-bience sound files that you can start using directly. There are, however, many good sources for ambience sound files on the Internet, and you will most likely feel the desire to add your own sound files to the ambience in Flight Simulator. You might want to add ATC chatter originating from your own geographical area, to make your local flights as realistic as possible! FDC Live Cockpit! 2011 even allows you to associate ATC chatter with COM Radio frequencies, enabling you to hear ATC chatter associated with the controllers with whom you are actually communicating.

Note! Adding your own sound files to FDC Live Cockpit! 2011 requires you to manually copy files into the folder structure of FDC Live Cockpit! 2011. You can read more on how to copy files using Windows Explorer by searching for copying files in Windows Help System (which you will find on the Start button).

To add sound files to FDC Live Cockpit! 2011

Since the various ambience sound files for the various ambience types and categories reside in different folders, you should only copy one type of file at the time.

Note! To be able to return to a „clean" installation of FDC Live Cockpit! 2011, we would recommend you to take a backup copy of the AtcChatter and Ambience folders (and all of their content) prior to copying your own files into the folders.

- Open Windows Explorer, and browse to the location of your new sound files.

- Copy the files you wish to import in FDC Live Cockpit! 2011.

- Browse to the folder where you installed FDC Live Cockpit! 2011 (by default this will be C:\Program Files\Aerosoft\FDC).

• Open the folder corresponding to the ambience type and category to which you wish to add sound files. The folder structure of FDC Live Cockpit! 2011 is explained in detail in the table below.

• Paste the files you copied in step 2.

• Repeat steps 2. through 5. for each of the ambience types and categories to which you wish to import new sound files.

The files will be available to FDC Live Cockpit! 2011 immediately.

Removing sound files from FDC Live Cockpit! 2011

If you should, for some reason, wish to remove the ambience files you have added to FDC Live Cockpit! 2011, just delete your files from the folder structure above. Alternatively, restore the backup copy you made of the AtcChatter and Ambience folders.

Ambience and ATC Chatter Folders

The folders for the various ambience types and categories are shown in the table below. All paths are given relative to the installation path where you installed FDC Live Cockpit! 2011. If you used the default path it will be C:\Program Files\Aerosoft\FDC.

Note! The subfolder structure for each geographic area of ATC chatter is identical, and we will only show one of these below. Similarly , we will only show the location of one (example) frequency folder, but you can obviously add as many such folders that you require.

ATC Chatter Sound Files
Folder
\AtcChatter:
The root folder of the ATC Chatter sound files. Files that are copied here will be played when the option Local ATC only is selected in the Misc Items panel.

\AtcChatter\Africa
\AtcChatter\Canada_&_Alaska
\AtcChatter\Central_US
\AtcChatter\Eastern_US
\AtcChatter\Europe_(East)
\AtcChatter\Europe_(West)
\AtcChatter\Latin_America
\AtcChatter\Middle_East &_Asia
\AtcChatter\Pacific
\AtcChatter\South_America
\AtcChatter\South_Pacific
\AtcChatter\Western_US:

These folders contain sound files for the corresponding geographic areas. No files should be copied directly to these folders, but rather to one of the subfolders shown below.

\AtcChatter\...\Departure_Ground:
The folder containing sound files for the Departure Ground category of the given geographic area.
Example: \AtcChatter\Africa\Departure_Ground.

\AtcChatter\...\Departure_Tower:
The folder containing sound files for the Departure Tower category of the given geographic area.
Example: \AtcChatter\Africa\Departure_Tower.

\AtcChatter\...\Departure:
The folder containing sound files for the Departure category of the given geographic area.
Example: \AtcChatter\Africa\Departure.

\AtcChatter\...\Enroute:
The folder containing sound files for the Enroute category of the given geographic area.
Example: \AtcChatter\Africa\Enroute.

\AtcChatter\...\Approach:
The folder containing sound files for the Approach category of the given geographic area. Example: \AtcChatter\Africa\Approach.

\AtcChatter\...\Arrival_Tower:
The folder containing sound files for the Arrival Tower category of the given geographic area.
Example: \AtcChatter\Africa\Arrival_Tower.

\AtcChatter\...\Arrival_Ground:
The folder containing sound files for the Arrival Ground category of the given geographic area.
Example: \AtcChatter\Africa\Arrival_Ground.

\AtcChatter\...\...\XXXXX
An optional folder containing sound files for a given radio frequency for a given ATC phase in a given geographic area. The name of the folder should be derived from the radio frequency by using the five digits of the frequency, leaving out decimal separators. The files in a folder like this is played when these criteria are met:

1. The given geographic area is selected in These folders contains sound files for the corresponding geographic areas. No files should be copied directly to these folders, but rather to one of the subfolders shown below.

2. The given ATC phase is active

3. The given frequency is tuned on COM1.

Example: Files located in the folder \AtcChatter\Europe_(West)\Departure\12345 will be played when the departure airport area is set to Europe (West), the aircraft is climbing and has passed 3000 ft (where the Departure ATC phase is activated), and the COM1 radio is tuned to frequency 123.45.

Ambience Sound Files

Folder

\Ambience:

The root folder of the Ambience sound files. No files should be copied here, as These folders contains sound files for the corresponding geographic areas. No files should be copied directly to these folders, but rather to one of the subfolders shown below. will play only files that reside in one of the subfolders below!

\Ambience\Large Airport:
The folder containing sound files for Large Airport Traffic Ambience.

\Ambience\Large Airport\General:
The folder containing sound files for Large Airport General Ambience.

\Ambience\Medium Airport:
The folder containing sound files for Medium Airport Traffic Ambience.

\Ambience\Medium Airport\General:
The folder containing sound files for Medium Airport General
Ambience.

\Ambience\Small Airport:
The folder containing sound files for Small Airport Traffic Ambience.

\Ambience\Small Airport\General:
The folder containing sound files for Small Airport General Ambience.

\Ambience\Cabin:
The folder containing sound files for Cabin Ambience.

Adding your own aircraft

Add your own aircraft to FDC Live Cockpit! 2011

By using the built-in Performance Editor and Checklist Editor, you can add your own aircraft to FDC Live Cockpit! 2011. A performance file contains data for the aircraft, related to flap settings, speed tables, and so on. The checklist file contains the definitions for the checklists to be used by your aircraft. There is a wide selection of checklist items to select from, so you should be able to create checklists for most aircraft available!

About the checklist editor

Using the built-in Checklist Editor you can add the checklists of your own favourite aircraft to FDC Live Cockpit! 2011. Whether you prefer flying large jets or smaller turbo-props, you should have no problem creating the checklists you need to make your flight as realistic as possible!

When you have successfully created checklists for your favourite aircraft, you should consider moving on to create a Performance File for your aircraft as well. This will customize all of the FDC Live Cockpit! 2011 functionality to perfectly suit your aircraft, including speed calls, flap settings, etc.

About the Performance Editor

The Performance Editor enables you to take full advantage of all the features in FDC Live Cockpit! 2011 for your favourite aircraft. Using the Performance Editor you can add all vital information on your aircraft. Combined with the custom checklists you have created for your aircraft, you will be able to experience a flight that is as close to the „real thing" as possible!

You can create a new performance file from scratch, or you can base your work on one of the existing templates. You can edit your files later, allowing you to tweak the files to their optimal performance.

Once you have successfully created a performance file, you can select the aircraft on the Select Aircraft panel. Your own aircraft will appear at the bottom of the list, with the prefix User:.

Note! If you have created checklists to be used with your aircraft, make sure you select them under Checklists on the Select Aircraft panel before connecting to Flight Simulator, as the checklists will not be selected automatically.

In the four topics discussing the Performance Editor below, we will also show you how to create a performance file for the default Boeing 737-400 in Flight Simulator. Although the 737-400 is already supported by FDC Live Cockpit! 2011, this should give you a feeling of the steps required to define performance data for your favourite aircraft.

Creating a new checklist

Building checklists in FDC Live Cockpit! 2011 requires four steps:

- Select the checklists to define, and select the calls to be used for each checklist.
- Sort the order of the checklist calls.
- Select the crew member reading the checklist and replying to the checklist call. You are also allowed to alter the reply that is made.
- Save the new checklists.

Each step is performed in its own page in the Checklist Editor panel of FDC Live Cockpit! 2011, except for the final step, which is done automatically when you've finished the three first steps.. Each step is described below.

Opening the Checklist Editor in FDC Live Cockpit! 2011

- In the FDC Live Cockpit! 2011 main window, click Options.
- In the Main Options panel, click Checklist Editor.

The Selections panel

When you set out to create a new set of checklists for an aircraft, you can either start with a blank set of checklists, edit a previously created set of checklists, or you can use one of the default checklists as checklist templates. To edit a previously created checklist set, click Edit and select the checklist set to edit. To base your checklist set on a template, click Templates and select the checklist set to use as a template.

Note! You can easily clear all the selections you have made by selecting the top entry of the Checklist Section drop down box. The entry is named Clear ALL Sections. You will be warned before FDC Live Cockpit! 2011 clears all the selections, to prevent you from accidentally resetting your work!

To select calls for your checklist, follow the procedure below.

- Select the checklist you want to edit in the drop down box. Options are Pre-start, Before Pushback, Before Start, After Start, Taxi, Before Takeoff, After Takeoff, Climb, Descent, Approach, After Landing, and finally Parking checks. As the selection of the drop down box changes, the calls you can select will change in the list below.

- Select the calls you wish to be made by selecting their options in the list. Note that if you select one or more calls in the list, the main calls (at the top and bottom marked with >>> and <<<) are selected automatically. This indicates that the checklist is activated, and that the opening call (such as „Pre-start Checklist") and finishing call (such as „Pre-start Checklist Complete") will be made. You should also note that the list contains calls for both jet and turbo-prop aircraft, so be careful to select calls that are supported by your aircraft!

• You can use the shortcut buttons Select All or Clear All to select or clear all the selections for the selected checklist.

• To play a checklist call, select it in the list and click Play Selection.

• Repeat the steps above for all the checklists you wish to include in your set.

• When you've finished selecting calls, click Next Page to move to the next panel in the editor. You can always move back to select more calls later, if you wish to!

The Arrange panel

The Arrange panel allows you to arrange the order in which checklist calls are made. To change the order of calls:

• Select the call that you wish to move up or down in the list.

• Click the Up button to move the call up, or click the Down button to move the call down the list. Note that you can only move the call within the checklist; you are not allowed to move a call between checklists.

• To play a checklist call, select it in the list and click Play Selection.

• When you have finished reordering the checklist calls, click Next Page to move to the next panel in the editor. Alternatively you can click Previous Page to move to the Selections panel to select more calls for your checklists.

The Voice Selection panel

The Voice Selection panel allows you to specify which crew member would read the checklist, and which member should check the item and reply to the call. You can also specify the reply that is given to each item, should the default selection be inappropriate for your aircraft.

The panel identifies the crew members by three abbreviations. PF means Pilot Flying, and will in FDC Live Cockpit! 2011 identify the Captain – You – of the flight crew. In a real flight, however, the crew members will often take turns flying, and the roles will change

according to who is actually holding the yoke. PNF means Pilot Not Flying, and will in FDC Live Cockpit! 2011 identify the First Officer (Co-pilot) of the crew. ENG means Engineer, and identifies the engineer of a three-member crew.

To alter the members responsible for calls, and alter replies:

• Locate the row for the call that you wish to alter in the list.

• The list contains five columns; Checklist Call, Int, Who, Reply, and Who. To alter the person reading the checklist call, double-click the first Who column, and select the crew member in the drop-down list. **Note!** The Int column indicates whether the checklist item is interactive or not (see below).

• The Reply column contains the reply that is supposed to be given to checklist call. To change it, double-click it and select the reply you wish from the drop-down list.

• The last Who column shows the crew member making the reply call. To alter the member replying, double-click the entry, and select the crew member in the drop-down list.

• Repeat the steps above for all the checklist calls that you wish to change.

Interactive checklist calls

The second column in the Voice Selection panel indicates whether the checklist call is interactive or not. If an Y(es) appears, the call is interactive. The checklist item will be checked in Flight Simulator for the correct setting. If the setting is wrong, a negative response is given. In this case you must correct the item, and resume the checklist by hitting Ctrl-Space on your keyboard.

You can turn off all checklist interactivity by turning off the Interactive Checklist Master Switch on the Select Aircraft options panel.

Note! If you change the reply for an interactive checklist call, this single call will not be checked in Flight Simulator anymore. However, this doesn't affect the other interactive calls in your checklist.

Note! The interactive checklist feature is not available in Flight Simulator 98! All calls will be audible, but their settings will not be checked.

Saving your checklists

When you have finished creating your checklists, click Finish on the Voice Selection panel of the Checklist Editor. You will be prompted to enter a name for your checklist. Your new checklist will now become available in the Select Aircraft panel of FDC Live Cockpit! 2011, under checklists. Your own checklists will be preceded with the text User:, to distinguish them from the standard FDC Live Cockpit! 2011 checklists.

Specifying aircraft type and configuration

Adding your aircraft to FDC Live Cockpit! 2011 is divided into four steps, each step being separated into its own panel in the Performance Editor. The various steps are described in detail below. Once you have opened the Editor, you are allowed to either add a new performance file, edit an existing file, or delete an existing file. If you choose to add a new file to FDC Live Cockpit! 2011, you can either make a new file from scratch, or you can use one of the existing files as a template.

We recommend you to open one of the default performance files of FDC Live Cockpit! 2011 to gain a better understanding of the data contained in a performance file. This also gives you a hint of what data you need to gather for your own aircraft to make your performance accurate enough!

Let us also point out that the data entered in the Performance Editor doesn't affect the performance of the aircraft in Flight Simulator; it is solely used to synchronize the events in FDC Live Cockpit! 2011 properly to your aircraft's performance in Flight Simulator.

Note! You can of course change the standard performance files in FDC Live Cockpit! 2011. If you have made changes to the standard files, you can reset them to their default values by clicking Restore Defaults available on the Performance File Editor panel.

Opening the Performance Editor

- In the FDC Live Cockpit! 2011 Main window, click Options.
- In the Main Options panel, click Performance Editor.
- Select whether you wish to Add a file, Edit a file, or Delete a file. You will be prompted to identify the file you require.
- If you select to Add a file, you will be asked whether you want to start with a blank file, or whether you want to use a template.

Specifying your aircraft's type and configuration

Note! Once you have moved on to the next panel, you will have to exit the Performance Editor to make changes to the settings on this panel!

The first panel in the Performance Editor (PE) allows you to select the flap settings to use for your aircraft. Make sure that your flap settings are done correctly, as you will not be able to go back and edit them later without closing the PE first! If your aircraft supports other flap settings than the ones listed, you should select the flap settings that are closest.

Note! Make sure that the number of flap settings corresponds to the number of flap settings supported by your aircraft and its panel. If the number of settings differ, FDC Live Cockpit! 2011 will malfunction!

This screen also allows you to select the flap setting that is normally used at takeoff. You should also select the type of aircraft you are adding. Valid aircraft types are GA (General Aircraft, such as Cessnas, Beechcraft Baron58, etc.) and non-GA (airliners and other aircraft, such as 737, A320, etc.). Finally, you should specify whether your aircraft has retractable gear or not.

Note! Make sure that the gear option is set correctly. Since FDC Live Cockpit! 2011 will detect the position of the gear and there is no way for you to raise a fixed gear, you will not be able to correct a negative response as a result of a Gear Up call.

Once you're finished, click Continue to move to the next page in the editor.

Creating a performance file
for the Boeing 737-400 (part I)

To create a performance file for the default Boeing 737-400 of Flight Simulator, follow the steps outlined below. This procedure can then be applied to your favourite aircraft, provided you have access to the data required by the PE.

• Click Options in the main window of FDC Live Cockpit! 2011, and then click Performance Editor.

• Click Add File on the first panel of the PE. This will add a new performance file to FDC Live Cockpit! 2011.

• Since we will start entering data for the Boeing 737-400 from scratch, click Blank Template in the second panel.
Note! If you wish to view the data rather than adding them yourself, you can click Use Sample Data, and then select the Boeing 737-400 in the dialog box.

• Select the following flap settings for the aircraft at the top of the panel: Flap 1, Flap 2, Flap 10, Flap 15, Flap 25, Flap 30, Flap 40

Note that the number of flap settings corresponds to the number of flap positions available in Flight Simulator.

• Since the normal flap setting for the 737 during takeoff is Flap 5,, select Flap 5 under Normal takeoff Flap setting.

• The 737-400 is an airliner (not categorized as a General Aircraft), and you should therefore, select non-GA under Aircraft Type.

• Select Retractable under Gear Type, as the 737-400 features retractable gear.

• Click Continue to go to the next panel of the Performance Editor.

Specifying takeoff data for your aircraft

You will find that the third panel of the Performance Editor has three different sections. The takeoff data of your aircraft is available when you click Takeoff at the top of the panel. The other two sections are Cruise and Landing data. In addition to these three sections, you can also enter a name for the aircraft as well as specifying its crew size.

Title and crew

At the top of the Editor area you can enter the title of the performance file. This is the title that will appear in the Select Aircraft panel. The title can differ from the file name, so use the title to properly identify your aircraft!

Also on the top of the Editor area, you can enter the number of crew members of your aircraft. Valid values are 2 or 3, although you can enter any number you wish (higher numbers are treated as 3). If your cockpit crew includes an engineer, enter 3 in the box. Otherwise, enter 2.

Takeoff speed data

The Takeoff Data panel allows you to enter or adjust the takeoff data elements for your aircraft. The top section contains a table summarizing the takeoff speed data. The table below describes the various columns in this table.

You can add, insert, or delete rows in the table. To add a row at the bottom, click Add. To insert a row below the selected row (shown with bold numbers), click Ins. To delete the selected row, click Del, and click Yes to confirm the operation. If no rows are selected, the bottom row will be deleted.

Weight: The weight of the aircraft

The weight of the aircraft in 1000lbs. FDC Live Cockpit! 2011 retrieves the weight of the aircraft in Flight Simulator, and uses this weight to decide which speed data row to use. A given row is used for all weights between the row's own weight value and up to the weight

given in the higher row. Thus, if your data table contains data for the weights of '200', '400', and '600', FDC Live Cockpit! 2011 will use the '200' row for weights between '200' and '399', the '400' row for weights between '400' and '599', and the '600' row for weights over '600'. The rows should be sorted in descending order. If you want a row to be valid for all weights, simply enter '000' in the column (it is generally a good advice to let the last row in the table read '000').
Note! Entering data with short weight intervals will make a more detailed and accurate performance file for your aircraft.

Weight x 1000 lbs.

(131 equals a weight of 131,000 lbs)

Required:Yes

V1 The takeoff decision speed
The takeoff decision speed in knots. When the aircraft exceeds this speed, it may not be possible to stop the aircraft on the runway in case of a rejected takeoff (RTO).

Speed in knots.

Required:Yes

VR The rotation speed
The rotation speed in knots. This is the speed at which the pilot raises the nose to lift off the runway during the takeoff roll. VR should be greater than or equal to V1.

Speed in knots
Vr >= V1

Required:Yes

V2 Minimum takeoff safety speed
The minimum takeoff safety speed in knots. This is the minimum safe flying speed should an engine fail immediately after takeoff. V2 should be greater than or equal to VR.

Speed in knots
V2 >= VR

Required:Yes

F0 The speed to call 'Flaps Up'

This is the 'Clean Speed' for the aircraft, which is the maximum speed the aircraft should fly with flaps extended. Shortly before this speed is obtained, the Flaps Up call is made.

Speed in knots
F0 > 0
Required:Yes

F1 - F40 The speed at which to make flap call

The speed at which the corresponding flap call should be made. As an example, if you enter 100 in the F5 column (if it exists for your aircraft), the Flap 5 call will be made just before the speed of the aircraft reaches 100 knots. There is one column for each flap position selected for the aircraft. The values should decrease from left to right (higher speed for less flap detente).
Note! If you don't want a call to made for a flap setting during takeoff, you can enter '000' in the corresponding column.

Speed in knots
F0 > F1 > F2 > ... > F40
'000' disables the call
Required:No

Pitch The pitch angel required at rotate.

Some airline procedures call the pitch required at rotate during takeoff. This is done particularly for the Boeing 747-200 (Classic) series of aircraft. If you enter a value here, the corresponding value will be included in the rotate call. If the value is 018, for example, the call sequence at takeoff will be „V1, Rotate 18 degrees, V2". If you leave it at 0, the call sequence at takeoff will be „V1, Rotate, V2".

Pitch angle in degrees
'000' disables the call
Required:No

Normal takeoff flap setting

Directly below the weight and speed table you can select the flap setting that will normally be used at takeoff, by selecting the option that corresponds to the flap setting to be used (the options correspond to flap columns in the table).

Speed reduction table

These data are not required

At the very bottom of the panel you will find a weight to speed reduction table that is used to decide when the V-calls are made if a higher flap setting than normal is used during takeoff. The weight to speed reduction table is similar to the larger table above, and the weight column is interpreted by FDC Live Cockpit! 2011 in the same way, and weights should be entered in descending order. Taking off using a higher flap setting than normal will force the V1, VR, and V2 calls to occur at a lower speed then normal. This speed is calculated by subtracting the correct speed reduction value from the normal V-speeds entered. The columns in the table are described below.

Weight The weight of the aircraft

The weight of the aircraft in 1000lbs. FDC Live Cockpit! 2011 retrieves the weight of the aircraft in Flight Simulator, and uses this weight to decide which speed reduction data row to use. A given row is used for all weights between the row's own weight value and the weight given in the higher row. Thus, if your data table contains data for the weights of '200', '400', and '600', FDC Live Cockpit! 2011 will use the '200' row for weights between '200' and '399', the '400' row for weights between '400' and '599', and the '600' row for weights over '600'. The rows should be sorted in descending order. If you want a row to be valid for all weights, simply enter '000' in the column (it is generally a good advice to let the last row in the table read '000').

Weight x 1000 lbs.
(131 equals a weight of 131,000 lbs)
Required:No

Reduction The Vref speed reduction
A speed reduction in knots. If you take off using a higher flap setting than the normal flap setting, the V-speeds will be reduced by this value, making the V-calls appear earlier. (See example below.)

Speed in knots.

Required:No

As an example, the Boeing 737-400 will normally use Flap 5 for takeoff. If the aircraft weighs 121,000 lbs, the V1, VR, and V2 calls will be made at 137, 140, and 149 knots respectively. If you take off using Flap 10 rather than Flap 5, the speed reduction table indicates that the Vref speeds should be reduced by 10 knots. In this case, the V1, VR, and V2 calls will be made at 127, 130, and 139 knots respectively.

Creating a performance file for the Boeing 737-400 (part II)

• Enter Boeing 737-400 in the text box at the top of the panel. This is the name of the aircraft that will appear in the Select Aircraft drop-down box of the Select Aircraft panel.

• Enter 2 in the Crew text box. This populates the cockpit of the aircraft with a Captain and a First Officer.

• The large table at the top of the panel will contain 14 columns. Although the default Boeing 737-400 performance file contains very detailed data for the aircraft, we will only enter three rows in the table, for various weights of the aircraft. The values are given in the table below:

W	V1	VR	V2	F0	F1	F2	F5	F10	F15
154	158	162	168	235	000	000	215	205	190
121	137	140	149	235	000	000	215	205	190
000	112	115	130	235	000	000	215	205	190

F25	F30	F40	Pitch
185	180	175	000
185	180	175	000
185	180	175	000

Add rows to the table by clicking Add, and double-click each cell to enter a new value.

Note that the weight appears in descending order, with higher weights at the top of the table. The first row, starting with 154, is used when the aircraft weighs 154,000 lbs or more. The second row, starting with 121, is used when the aircraft weighs between 121,000 and 154,000 lbs. The last row, starting with 000, is used when the aircraft weighs less than 121,000 lbs. Note also that the V2 is greater than VR, and that VR is greater than V1. The flap call speeds decrease from left to right, making F0 greater than F5, F5 greater than F10, and so on. The F1 and F2 calls will not be made, since their speed is set to '000'.

• Notice that the normal takeoff flap setting is the same as specified on the previous panel. The setting should be F5. If it isn't, select the option beneath the F5 column now.

• If you take off in the 737 using a higher flap setting than the normal F5 setting, the V-speeds should be reduced by 10 knots regardless of the aircraft's weight. Since the same speed reduction of 10 knots is used for all weights, enter '000' in the Weight column and '10' in the Reduction column, as shown below.

Weight	Reduction
0	10

Note that since the weight is entered as '0', the same V-speed reduction will be used regardless of the weight of the aircraft.

Specifying cruise data for your aircraft

The cruise data section is available by clicking the Cruise button on the top of the Editor area. The cruise data are less complex than the takeoff data. The table is interpreted by FDC Live Cockpit! 2011 in the same way as the takeoff data table. The columns of the cruise data table are explained below.

Weight The weight of the aircraft
The weight of the aircraft in 1000 lbs. FDC Live Cockpit! 2011 uses this weight to decide which speed data to use. The given row is used for all weights higher than the entered weight, until the next (higher) weight is reached.

Weight x 1000 lbs.
(131 equals a weight of 131,000 lbs)

Required: Yes

IAS Maximum indicated air speed
Indicated Air Speed. This is the maximum indicated air speed for this aircraft should cruise at to given this weight.

Speed in knots

Required: Yes

FL Maximum height Flight Level.
This is the maximum altitude (flight level) you can attain given this weight.

Flight level in 100 feet
(140 equals FL140 = 14,000 ft)

Required: Yes

CS Clean Speed
This the lowest safe speed with no flaps extended. Reducing speed below this will result in your first flap call from the Captain. This speed should be less than the IAS.

Speed in knots
CS < IAS

Required: Yes

In addition to the information in the cruising speed table, you must also enter the maximum cruise speed of your aircraft, as this is required for FDC Live Cockpit! 2011 to work properly. You can enter this in either Mach or Knots, leaving the other value at '0'.

Mach Max cruise speed in Mach
This is the maximum safe cruise speed.

Speed in mach
A value is required in one of these boxes.

Leave the unused box at '0'.

knots Max cruise speed in knots
This is the maximum safe cruise speed.

Speed in knots
A value is required in one of these boxes.

Leave the unused box at '0'.

Creating a performance file
for the Boeing 737-400 (part III)

- Click Cruise to open the cruise data section.
- In the table, enter the cruise data presented below.

Weight	IAS	FL	
145	275	310	240
110	251	350	230
000	240	370	225

Specifying landing data
for your aircraft

Landing speed data

The landing data are available by clicking Landing on the top of the
Editor area. In the same manner as the takeoff data, the landing
data.

Add rows to the table by clicking Add, and double-click each cell to
enter a new value.

Note that the weight appears in descending order, with higher
weights at the top of the table. Note also that the IAS (Indicated Air
Speed) is higher than the CS (Clean Speed).

• Finally, you should enter the maximum cruise speed for the 737. Enter 0.76 in the Mach text box, leaving the knots text box unchanged at '0'. Alternatively, you could have entered the speed in knots, leaving the Mach speed unchanged at '0'.

contains a table of weight and speed data for the available flap settings of the aircraft. The columns of the landing data table are explained below.

Weight The weight of the aircraft
FDC Live Cockpit! 2011 uses this weight to decide which speed data to use. The given row is used for all weights higher than the entered weight, up to the next (higher) weight (as for takeoff data). If you enter '0', the row will be used for all weights up to the next entered weight.

Weight x 1000 lbs.
(131 equals a weight of 131,000 lbs)

Required:Yes

F1 - F40 The speed at which to make flap call
The speed at which the corresponding flap call should be made. As an example, if you enter 100 in the F5 column (if it exists for your aircraft), the Flap 5 call will be made just before the speed of the aircraft reaches 100 knots. There is one column for each flap position selected for the aircraft. The values should decrease from left to right (higher speed for less flap detente).
Note! If you don't want a call to made for a flap setting during landing, you can enter '000' in the corresponding column.

Speed in knots
F0 > F1 > F2 > ... > F40
'000' disables given call

Required:No

The Gear Down call

Immediately below the table, you can select at which flap position you would like to hear the Gear call by selecting the option beneath the corresponding column. Alternatively, you can enter an altitude at which to make the call. Setting the 'Gear Down' Altitude to '0' makes the Gear Down call occur with the selected flap call. Setting the altitude (different from '0') makes the Gear Down call occur as you descend below that altitude.

Flap position radio buttons Trigger 'Gear Down' call with selected flap call

Select the option corresponding to the flap call with which you wish to make the Gear Down call during approach. Although this option must always be set, you can override it by entering a value in the Altitude box. — Yes (one option is always selected)

Gear Down' Altitude - The altitude at which to make the Gear Down call

If the value is '0' the Gear Down call occurs with the selected flap option. If you wish to make the Gear Down call occur at a given altitude rather than following a given flap setting, you can enter the altitude in this box.

Altitude in feet

Required:No

Let's take the Boeing 737 as an example. Normally, the Gear Down call is made when the Flap 25 call is made. This is achieved by entering '0' in the 'Gear Down' Altitude box, and select the option beneath the F25 column. If you would rather hear the call when you pass 2500 ft during your descent, simply enter '2500' in the 'Gear Down' Altitude box.

Flap calls

Just like the Gear Down call, flap calls can be triggered in two ways. They can either be based on airspeed (IAS), and will in that case use the data entered in the table above. Alternatively, the call can be made based on the altitude of your aircraft. In the lower section of

the panel, you can select the last flap setting that you want to be called based on the airspeed by selecting the corresponding option. The remaining flap calls will be based on the airspeed above, but will occur at the latest when passing the altitudes entered in the table on the lower left of the panel. The number of rows in the table will automatically be updated based on your selection.

Flap The flap setting

A row will appear for each flap setting that is called based on altitude. — Auto

Altitude The minimum altitude at which to make the flap call
Enter the altitude in feet at which to make the given flap call.

Altitude in feet

Required:Yes

If we study the 737 again, the Flap 15 call is the last one that is made based on the indicated air speed alone. Thus, the option beneath the F15 column is selected. The rest of the flap calls—Flap 25, Flap 30, and Flap 40—are made based on both the speed and the aircraft's altitude. The flap calls will therefore occur at the latest when the specified altitude is reached.

Note! This functionality ensures that you don't fly your aircraft at low speeds or at low altitudes without extending the flaps to the required position. The call is made as the indicated air speed drops below the specified speed or when the aircraft passes the specified altitude, whichever comes first.

Saving your performance file

When you're finished entering data in the Performance Editor, you save your file by clicking Save. If you have added a new file to the system, you will be prompted for a new filename before the save is performed. You will be warned if the file already exists.

Adding a picture for your aircraft

You can add a picture for your new aircraft as well. This picture will be displayed in the Main Options panel when your aircraft is selected. The image must be located in the Pics folder of the FDC Live Cockpit! 2011 installation, and must be saved with the same name as the performance file you created. If, say, the performance file is named MyAircraft, you should save the image as MyAircraft. gif. Although FDC Live Cockpit! 2011 will display a larger image, we suggest that you use an image size of approximately 300 x 110 pixels.

If you don't include a custom picture for your aircraft, the default image stating that no image could be found for this aircraft will be displayed.

Creating a performance file for the Boeing 737-400 (part III)

- Click Landing to open the landing data section.
- In the table, enter the landing data presented below.

W	F1	F2	F5	F10	F15	F25	F30	F40
154	235	000	225	215	187	168	159	155
121	207	000	198	190	166	148	141	137
000	165	000	158	151	133	117	111	109

Add rows to the table by clicking Add, and double-click each cell to enter a new value.

Note that the weight appears in descending order, with higher weights at the top of the table. Note also that the speed decreases for each flap call being made. The F2 call will not be made, since its speed is set to '000'.

- Since the Gear Down call should occur together with the Flap 25 call, select the option directly beneath the F25 column. Leave the value in the 'Gear Down' Altitude box at '0', or otherwise the

Gear Down call will be made at that altitude instead.

• The Flap 15 call should be made depending on the air speed of the aircraft, but all subsequent flap calls should be made dependent on the altitude of the aircraft as well. To achieve this, select the option at the bottom of the panel that is beneath the F15 column.

• In the flap to altitude table at the lower left of the panel, enter the minimum altitudes at which to call the remaining flap positions F25, F30, and F40. The values should be 2100, 1800, and 1500 respectively. Double-click each cell to enter the value.

• Click Save to save the performance file. You will be asked to enter a suitable file name.
Note! Since the default performance file for the Boeing 737-400 is much more detailed than the one we have created in this example, we suggest that you skip this step, and close the Performance Editor without saving.

• Click Close to close the Performance Editor.

Congratulations on finishing your first performance file in FDC Live Cockpit! 2011

FDC Live Cockpit! 2011 Support

In the unlikely event that you should experience problems when using FDC Live Cockpit! 2011, please follow the guidelines below on how to get help.

Visit FlightDeck Companion's web site
We will maintain a Frequently Asked Questions (FAQ) section on our web site. If you run in to trouble that you are unable to resolve using the frequently asked questions section in this User Guide, then please visit the FAQ our web site first.

Visit our web site at http://www.oncourse-software.co.uk.

FlightDeck Companion support forum
If you still cannot find what you need to resolve your problem, you can visit FlightDeck Companion's support forum hosted by AVSIM. The forum is available under Commercial Support Conferences and is obviously named FlightDeck Companion.

Visit our support forum at AVSIM.

Contact us directly
If you still haven't found or received the help you need, please don't hesitate to e-mail us and describe your problem.

E-mail us at support@oncourse-software.co.uk

Bug reports

If you experience a bug, we would much appreciate your e-mailing a report to us, by following the guidelines below.

- In FDC Live Cockpit! 2011 main window, click Options.
- On the Main Options panel, click Black Box Log.
- Click Send Email at the bottom of the panel to automatically send the bug report with all necessary attachments to us.
- Click Close to exit the panel.

This feature will work on most computers, as long as MAPI drivers are installed and you are running up-to-date versions of Microsoft Outlook or Outlook Express. However, we know that this feature doesn't work for all e-mail clients out there; if it fails on your computer, you will receive an error message. In this case, please send us your bug report using the manual guidelines below.

• Create a new e-mail message in your e-mail program and enter the e-mail address bugreport@oncourse-software.co.uk (or simply click the link).

• Please describe the bug and how it occurred.

• Attach the following files to your message: FDC_error.log, Blackbox.log, Blackbox.log.1, Blackbox.log.2, and Blackbox.log.3. These files are located in the Logs folder of your FDC installation:

• Send your e-mail to us.