Version 7.0 .4 (9ᵗʰ January 2021)

1. Fixed bug in key assignments to allow assignment to numpad keys with numlock off (PgDn, End, etc)

2. Correction to registry scanning that caused a crash when a non-existant device found

3. Initial button delay now working, and improvements for a more accurate repeat rate (esp. with virtual buttons)

4. Further controls added from 0.9.0.0 SDK

5. Lua event.cancel() function corrected to cancel all events on the argument function (previously only cancelled first found)

6. Further offsets added:

> 0x0C10: GEAR CENTER STEER ANGLE
>
> 0x0C46: AUTOBRAKES ACTIVE
>
> 0c0C47 LIGHT BRAKE ON

7. Added command-line option '-auto' that, when present, removes the 'Exit with FS' option and makes this mandatory (used when auto-starting FSUIPC7 from MSFS EXE.dll)

8. Added new ini parameter **AdjustNavForMagVar** that adjusts the Nav1/2 in offsets 0x0870 &7 0x0844 with magnetic variation

9. Profile creation update to allow an empty axis profile to be created (i.e. when creating a new axis profile and not importing General axes)

10. Installer updated to start FSUIPC7 automatically with MSFS (from MSFS's EXE.xml). The desktop icon is still available, but this no longer starts FSUIPC7 – it will start MSFS and display a splash screen for 30s.

Version 7.0 .3 (24ᵗʰ December 2020)

1. New *_EX1 controls added for throttle and prop pitch

2. Console window position correction for -ve values

3. Autobrake offset added for A320Neo (0x0260)

4. Reverted pushback direction select control (was reverted due to an SDK error that has now been corrected)

5. Offset 0x0278 re-activated (Autocord Set)

6. Re-enabled offset 0x2F58 for write (Fuel Selected Transfer Mode)

7. Increased max parameter allowed for autobrake offset 0x2F80 to 6 (was 5)

8. Arrow keys re-mapped for key input to allow assignment

9. Added offsets for main control surface slopes (calibration) at offset 0x08A2

10. Offsets for ALTITUDE and ATTITUDE FREEZE ON added at offsets 0x081C and 0x081D (although these are currently not populayed correctly for most, if not all, aircraft)

Version 7.0 .2 (November 2020)

1. Re-compiled against MSFS SDK 0.8.0.0

2. Additional pause (sleep) control added

3. Add-on controls now correctly annotated

4. Allow **DontLogThese** ini parameter to be used in [Profile.*xxx*] sections (to be profile specific)

5. Allow **MaxSteerSpeed** (ini parameter) to be set dynamically from a user-defined offset. Also additional control added to allow **MaxSteerSpeed** to be modified.

6. List of axes controls updated

7. Alt key modifier re-activated, i.e. can now use as a modifier both when assigning keypresses and sending key presses to the sim

8. Added sim variable AUTOPILOT ALTITUDE LOCK VAR:3 at offset 0x0818

9.Correction to bug in loading macro files that only accessed L:vars (only 1st was recognised)

Version 7.0 .1 (November 2020)

1. Re-compiled against MSFS SDK 0.7.1.0

2. Fix for bug in lua sound.play

3. Correction to reconnection process when MSFS restarted and FSUIPC left running

4. Minor update to the Delphi SDK

Version 7.0 .0 (November 2020)

1. Updated for MSFS, initial release.

Version 6.0 .10 (July 2020)
1. Bug fix related to termination of lua plugins

2. Bug fix for lua **event.key** function

3. Default value of ini parameter **LuaTrapkeyEvent** changed to **Yes**.

4. New facilities for SimConnect menu creation via offsets 5100-51FF and lua via **ipc.SetMenu** and **event.MenuSelect**

5, Lua **Wnd** library added to FSUIPC (was previously for WideClient only)

6. Additional flags added for **ipc.keypress** and **ipc.keypressplus** to allow fine-grained trapping or forwarding of the keypress to the FS

Version 6.0 .9 (June 2020)
1. Correction to setting offset 3400 from ini file

2. Controller check corrected (log message).

3. New ini parameter **LuaTrapKeyEvent** to mask lua event.key calls

4. Added option to **[Programs]** Run/RunIf **DELAY** parameter to allow a n individual delay to be specified for each program.

5. Corrected thread issue with Lua globals via ipc.set & ipc.get

Version 6.0 .8 (May 2020)
1. Updated for compatibility with Acticve Sky for P3Dv5.

Version 6.0 .7 (May 2020)
1. Correction to previous release for when **LuaPath** not being used.

Version 6.0 .6 (May 2020)
1. Correction to initialisation of AutoSave **Next** pointer (ini parameter).

2. Correction to lua functions **SetLuaValue**, **KillLua** & **FlagLua** when using **LuaPath** ini parameter.

3. 64-bit Java SDK added

Version 6.0 .5 (April 2020)
1. Correction to request and reception of SimConnect Text events for P3Dv5. Note that with this change, FSUIPC6 is no longer compatible with P3Dv4 versions before 4.3.

2. Correction to processing of lua onKey events.

Version 6.0 .4 (April 2020)
1. Update population of offsets for PMDG 747 to correspond to latest header file

2. Timings adjusted/increased to allow correct shutdown of VRI devices

Version 6.0 .3 (April 2020)
1. Correction for AutoSave: separate autosave file list now maintained for P3Dv4 and P3Dv5

Version 6.0 .2 (April 2020)
1. Correction for Flight Path location and FS path location for P3Dv4

Version 6.0 .1 (April 2020)
1. Correction to paths used to find lua files and libraries

Version 6.0 (March 2020)
1.   Updated for P3Dv5

Version 5.155 (March 2020)
1.   Correction to PMDG offset mapping for NGXu

2.   Additional logging added for P3D controllers.

3.   Correction to logging of period AI traffic data

Version 5.154 (March 2020)

1. New control '**auto-save toggle**' added to enable the Auto-Save feature to be dynamically enabled/disabled.

2. Old auto-save files removed correctly when number of auto-save files reduced.

3. Length for offset 0D70, for holding Macro and Lua file requests) increased in length from 40 to 128 characters.

4. Added population of offset 83BC for Active Eyepoint LLA.

5. New Lua function **ipc.moucemacro** added to allow mouse macros to be directly activated without the need of a .**mcro** file.

6. New Lua function **ipc.createLvar** added to allow the creation of lvars from lua scripts.

7. Functionality of offset 0D70 update to also include lvar creation using '**:::**' prefix.

Version 5.153 (December 2019)

1. New *ini* parameter **IgnoreThese** in *[Axes]* section, which allows axes to be permanently ignored in the assignment window.

2. New logging option and *ini* parameter **ConsoleWindowTopMost,** to keep the Console window on top of other windows..

3. Correction to reading of *ini* parameter **ZapCylinderAltDiff**.

4. Size allowed for Lvar names in macro files increased from 32 to 64 characters.

5. Allow for white space at start of USB device names.

6. New options tab for Traffic with UI access provided to additional *ini* parameters related to Traffic limits. Miscelleneous tab re-organised as a corollary.

7. Improved frame rate calculation using PDK.

8. Additional optional numeric parameter added to the event.lvar lua function.

9. Added compatibility including new offset mapping for new PMDG 737NGXu.

10. New facility to monitor offset ranges.

Version 5.152 (July 2019)

1. New *ini* parameter **SetForegroundOnKeySend**, which sets focus to P3D after a key send event.

2. New offsets added for ground (0x2090) and airborne (0x2094) AI traffic counts.

3. Thread for **TextFileForDisplay** functionality only started when needed.

4. Fixed bug that caused a CTD when simultaneously controlling (e.g. slewing) many AI aircraft (>255).

5. Improvements to AI Traffic Limiter.

Version 5.151 (February 2019)

1. Allow brake calibration in **DirectAxisToCalibs** mode by setting the value to **All**.

2. Instant replay flag offset 0x0628 now updated from Sim mode.

3. Bug in writing compound (multi-line) macros fixed.

4. Key Focus restore control 1125 updated to add a ShowWindow call to unminimize and to set focus a 2nd time.

5. Scanning of joystick updated to add further checks and corrections for duplicate joystick ids with additional *log* and *ini* file entries to warn the user to check his assignments in case of problems.

6. The **TextFileForDisplay** option for use with the lua **event.textmenu** function has been added to FSUIPC5 (was previously for WideClient only).

7. New *ini* parameter **VRIDisableCMDRST** (with values **Yes** or **No**, default to **No**) added to disable the sending of **CMDRST** for VRI devices.

Version 5.15 (November 2018)

1. The Lua library functions **ipc.setdisplay** and **ipc.setowndisplay** have been made to work consistently, and enhanced by allowing either P3D4 screen coordinates or percentages of the P3D4 screen for display size and position. The **ipc.setowndisplay** uses the same SimConnect display as **ipc.setdisplay** (and **ipc.ask**) and this is clarified.

   Note that you may see a little flicker of the window in the old position when the display is moved.

   An updated Lua library document is included in this release package.

2. The Lua library now allows for a zero for a zero Vendor ID (VID), as apparently used in some devices.

3. Version 5.141e fixes an error in the operation of the RudderBlendLowest facility.

4. The Lua **event.textmenu** function, previously only available in WideClient, has been added so that it can be used locally without needing a locally enabled WideClient.

5. The "instant replay" and "recording playback" modes of P3D4 are now recognized so that the FSUIPC joystick scanning now remains enabled in those modes.

6. The older format (FS9) formatted FLT files can now be loaded via the Offset 0130. This is done by adding an extra .flt after the normal .flt filetype (i.e. "name.flt.flt"). The extra .flt is removed, leaving the original intact. Otherwise only the "name" part would be submitted to P3D which only works with the new (XML) format.

7. The FSUIPC Options dialogue can be moved on screen, and its last position is remembered and re-used next time. In P3D4 wndowed mode this can even be outside the P3D window area.

8. There was a bug which badly corrupted mouse macro files if additional actions for one of the entries are added after the macro creation mode in ended and restarted. This is fixed.

9. The [Sound] device list in FSUIPC5.INI, used for Lua and application access to the sound playing facilities, is now amended if new devices are detected. New devices are added (but older ones, are left listed in case they are temporarily absent). Previously on a change of hardware the sound lst was only updated if first deleted so a new one could be added.

10. An INI option "NoMessageWindows=Yes" can be used to stop FSUIPC using the SimConnect Message Window facility, forcing any Lua or application text destined for that display to be routed to the text output (the one defaulting to a bar at the top).

11. The offset 3402 (a 16-bit short word) contains flage indicating one of several Simulator modes. These are detailed in the updated FSUIPC4 Offsets Status document supplied.

Version 5.14 (August 2018)

1. Fixes a strange problem where key combinations including the number keys (0-9) no longer worked unless the number was repeated.

2. Offset 0x3365's "in dialog" indication handles the scenario loading message "Adjusting scenery objects", during which SimConnect rather strangely indicates that the Simulation has restarted – only to say it is stopped again on the next message, loading Traffic.

3. The 0x3365 value now changes from 3 to 2 then back to 3 during the loading sequence – the value 2 indicating "in dialog" and the 1 "in menu": the dialog is a result, normally, of Menu action, and FSUIPC has to assume that SimConnect STOP events are all Menu entries.

4. FSUIPC5 now includes a facility to place all Lua files to be indexed for assignment into a separate folder, anywhere else on the same PC.

5. The path to be scanned is specified by a "**LuaPath**" parameter in the [LuaFiles] section. It can be a subpath of Modules (in which case just give the subpath), or a full path anywhere elsewhere on the same PC (determined by seeing a ':' character in the path, denoting a drive spec).

6. You either have *all* the *assignable* Lua files in the Modules folder, or in another. The limit is still 127 and the numbering in the [Luafiles] section of the INI will still be based on the order of the Lua files in the folder, as discovered initially (i.e when they first appeared). The numbering will stay the same if you merely copy all the Lua files out of the Modules folder and into the new one.

7. **5.132** fixed problems generating multiple action Mouse Macros.

8. When used with **P3D version 4.3** or later (strongly recommended), the new "TextEventDestroyed" facility added in that release is used to send display clearance notifications to WideFS clients using the Lua **event.textmenu** function for client local displays.

9. When offset 3367 is used to operate aircraft doors, FSUIPC now writes directly to he relevant SimConnect Variable ("SimVar"), rather than send the TOGGLE AIRCRAFT EXIT controls.

10. A strange problem which occurs when using the "Time Preview" facility is now fixed. This facility generates a display which looks exactly like any other dialog window, so FSUIPC stops doing certain actions – notably processing joystick inputs and making autosaves. However, it seems that this particular dialog is produced *without stopping the simulation*. (There may be others?)

11. The fix involves removing the check for dialogs completely and relying only the state (Stop or Start) as relayed to FSUIPC by SimConnect. Unfortunately there's an odd bug in that when a scenery reload is taking place, and this could cause problems. L-M have been informed.

12. A new HotKey facility has been added to the Hotkeys tab in FSUIPC Options, to allow a key combination to invoke the FSUIPC Options without having to go through the Addons Menu.

13. Lua threads are now enveloped in crash detection code so that if one plug-in does somehow cause an exception, the matter is reported in the log, and the thread closed tidily. This prevents the whole sim crashing because of the actions of one plug-in (or, more likely, the DLLs or system facilities it calls upon).

14. Non-click mouse events such as "Move" do not now invoke a prompt during Mouse macro making mode.

15. New offsets are provided for full COM1 and COM2 frequency setting and reading in Hz, complementing the normal (original) BCD encoding offsets. This allows the new frequency spacing to be used where supported.

16. These offsets are:

05C4	4 bytes	32-bit word containing the active COM1 frequency in Hz.
05C8	4 bytes	32-bit word containing the active COM2 frequency in Hz.
05CC	4 bytes	32-bit word containing the standby COM1 frequency in Hz.
05D0	4 bytes	32-bit word containing the standby COM2 frequency in Hz.

17. All four can be written as well as read. The changes will also be respected in the BCD encoded offsets, but of course they cannot show complete values for the new intermediate frequencies. If an invalid value is written, SimConnect appears to ignore it, so the read-back value won't change.

18. The "UsePDK=No" option is removed – the PDK use is now essential because of the changes described above, where starting FSUIPC actions requires notification from the PDK of the completion of loading.

19. When the steering/rudder blending facility is used in FSUIPC, by both being assigned directly to the FSUIPC controls and then calibrated, the rudder pedals used to have no effect when the aircraft is stationary, or nearly so.

20. This meant that rudder operation checks -- those on screen within the cockpit (along with the other control surfaces), or via viewing the rudder from outside – meant operating the steering tiller instead of the rudder pedals.

21. To make these checks possible, a new parameter is added in the specific JoystickCalibration section of the INI file: **RudderBlendLowest**. This gives a ground speed below which the rudder blending is not taking place and only the rudder input is used. This speed defaults to 1 knot, which means the aircraft needs to be stationary.

22. Settings saving/loading dialogue has been re-formatted to fit the text properly.

23. To prevent corruption of the P3D4 file wxstationlist.bin causing the simulator to hang or behave erratically due to in-memory corruption in the next session, that file is now deleted by FSUIPC when the current session is closed. It will be automatically regenerated by P3D4 next time.

24. The corrupted file appears to easily result in a variety of different and apparently unrelated problems soon after FSUIPC starts requesting weather data from P3D. This problem appears to have become a lot worse since P3D4.3 was released. L-M have been asked to check the file before using it to prevent this in future, but meanwhile the deletion should help.

25. The Lua functions **sound.path** and **sound.play** now accept system defined paths such as %APPDATA%.

26. To help stop unwanted runway incursions, traffic freeze controls have been added to FSUIPC's repertoire, operating on ground AI traffic in "taxi out" mode. These are:

1148 **Traffic freeze toggle**
1149 **Traffic freeze on**
1150 **Traffic freeze off**

27. The way it is done is by sending **Slew toggle** controls to each relevant aircraft (i.e. those in taxi out state). There are no "on" and "off" slew controls, so FSUIPC keeps a note of what state you've set. If you load a new flight then the aircraft will all load in unslewed state in any case, so it is reasonably safe. However, you may occasionally need to use the toggle control twice. Because of this it is best to only use the on or off controls.

28. Also, in my tests, it can sometimes happen that the control doesn't actually get to an aircraft. I'm not sure why. There may be so many and SimConnect so busy, that is misses some

in the queue. However, this seems to be a rare occurrence, and for me it only happened when I sped the sim up to 4x so that the traffic got a move on! ▯ ▯

29. The Lua functions **ipc.setdisplay** and **ipc.getdisplay** now work with the SimConnect Message Window, which is the one used for Lua displays (and multi-line displays created via the 3380,32FA offsets).

30. The **ipc.setowndisplay** operates identically to **ipc.setdisplay**. The title cannot be used via SimConnect, so it is discarded.

Version 5.13 (May 2018)

1. Facilities are added to transmit SimConnect text displays and menus to a WideFS client. There'll be a new version of WideClient too with enhanced Lua **TextMenu** event options to distinguish between different types of display and sources, but the current client will still work, as it stands.

   Note that this is *not* diversion of the displays. The text displays can be inhibited from the simulator screen by a P3D4 user interface option, but the menus cannot be so eliminated. Furthermore, at present there's no indication from P3D4 (as at version 4.2) of when a display is cleared from the screen, so clearing the transmitted display on the client is a matter for the local Lua plug-in. Hopefully L-M will address this matter in due course.

2. A new button is added to the Logging tab in FSUIPC Options called "**Open Folder**". This invokes Windows Explorer with the P3D4 Modules folder showing, so that access to configuration (INI) and log files is easier.

3. The **Mouse Macro** facility is added, making use of new facilities in P3D provided by L-M. This facility is superior to the FSUIPC4 FSX incarnation as it will operate on all switches, buttons (all mouse-sensitive cockpit parts) on all aircraft, and will operate provided the matching aircraft is loaded, even if the panel concerned is not currently visible.

   The creation of the macro files, and their use in assignments, is exactly like the FSUIPC4 version, just with different encoding in the macro files. This will all be covered in the User Guide and other documents in the full release in due course.

4. Facilities are provided to obtain surface details at a given location (specified by Latitude and Longitude). The offsets are as follows:

8670	int 32bit	Resulting altitude AMSL in metres. Also the "trigger" (see below)
8674	float 32	Latitude, in degrees
8678	float 32	Longitude, in degrees
867C	byte	Surface type: value using same encoding as in offset 31E8
867D	byte	Surface condition: value using same encoding as in offset 31EC
867E	word 16bit	Flags:

   $2^{15} = 1$ when valid result is supplied
   $2^0 = 1$ if surface is a platform
   $2^1 = 1$ if platform is moving (aircraft carrier?)

   To use this, first write the Lat/Lon to the assigned locations, then write anything to offset 8670 (the act of writing to it triggers the query to P3D4).

   The result is available in offsets 8670 and 867E when 867E is non-zero. The action should only take a few milliseconds, so if 867E remains zero for, say, half a second, then the request has failed.

Version 5.124 (January 2018)

1. Two very obscure but very old bugs have been fixed, one which could in very rare circumstances affect WideFS performance, and the other related to floods of requests arriving from FSUIPC client applications overflowing a queue so corrupting the following variable.

   Neither of these bugs have apparently affected FSUIPC operation at all (or at least not noticeably) over the last 12 years, but other recent modifications and tests have revealed them.

2. Improved Lua **ext** library functions operating on external application windows so that they more reliably find and act on the top level window.

Version 5.123 (January 2018)

1. The "sync" facility in the multiple throttle calibration tab produced incorrect results when the "No Reverse Zone" option was selected and the "**UseAxisControlsForNRZ**" option was set to "Yes". This is an original error dating back through all versions which has only recently been reported and now fixed.

2. The "realism" value provided in offset 0C44 was only ever 0 or 1, when it should have been a percent value 0-100. This was due to a misinterpretation of the SimConnect "Realism" SimVar and is now fixed.

3. Inconsistencies in the display of a monitored value in the sim's title bar are fixed.

4. Each time FSUIPC5 is used with a new build of P3D4, a text (.TXT) document is produced in the **FSUIPC Documents** sub-folder containing the *current* list of assignable P3D4 controls. The name is "**Controls List for P3D4 Build xxxxx**" where the **xxxxx** identifies the applicable build number (the last number in the 4-part version number). This document is also produced if the previous one doesn't exist.

   This method provides a "live" list of assignable FS controls, and is given in numeric order of internal code followed by an alphabetically sorted list. Note that it doesn't include the additional FSUIPC controls listed in the Advanced User's guide, nor of course the Lua and Macro-associated controls which are related to the user's files.

Version 5.122 (November 2017)

1. The Lua library facilities are extended for HID devices, with two new functions:

   com.connected: to test if the HID device is currently connected or not.
   event.comconnect: to call a function if the HID device is disconnected or re-connected.

   For details please see the updated Lua library document (enclosed with the 5.121c interim release).

   The updated documentation also includes two functions which have always been included, but strangely never got into the document, These are:

   com.readfeature: reads the feature bytes from a HID device.
   com.readreport: reads a report from a HID device.

2. The SimConnect window size and position actions, introduced recently, are now optional and defaulted **off**. This change is made because it seems they don't play well with some users' screen configurations, especially when changing between full screen and windowed mode.

   They can be re-enabled by checking the option on the left side of the **Miscellaneous** tab in the FSUIPC Options.

3. From 5.122 onwards, FSUIPC5 gets its assignable controls list from P3D4, using facilities only available since version 4.1 of P3Dv4. Therefore, this version is NOT compatible with P3D version 4.0.

4. The AdvDisplay window toggle hot key option now works.

Version 5.121 (September 2017)

1. A problem with the correct recognition of existing assigned Profile names in the Axis Assignments tab, introduced by a small change in 5.112, is fixed.

2. The saving and restoring of screen positions of ATC and SimConnect displays was incorrect for docked windows in P3D Windowed mode. This is fixed by *only* positioning docked windows in full screen mode. The undocked windows are unaffected and their positions retained in any case.

3. Lua display windows are now correctly removed when the Lua plug-in terminates.

4. Runway designations such as L,R and C are now correctly included in the AI Traffic details.

5. The [Programs] section "RunIf" now detects when the specified process is already running and does not try to run it again.

Version 5.112 (August 2017)

1. Additional offsets are provided for additional weather information provided by the recent versions of Active Sky. These are:

   8638 Ambient turbulence at aircraft (0-1000), 32-bit float
   863C Exported ambient visibility (metres), 32-bit float (-ve if not supported)
   8640 Exported precipitation type (0 none, 1 rain, 2 snow, 3 hail), 8-bit integer (Byte)
   8641 Exported precipitation rate (0-4), 8-bit integer (Byte)
   8642 In cloud flag (non-zero if aircraft is in cloud), Byte.

2. Details of the nearest airborne and nearest ground AI aircraft are provided in offsets as follows:

   9690 Nearest ground aircraft data (24 bytes, see below)
   96A8 Nearest airborne aircraft data (24 bytes, see below)

   Both areas contain data in the following format:

Byte	Size	Content
0	4	32-bit integer identifying the aircraft (FSUIPC type ID)
4	4	Latitude as 32-bit float
8	4	Longitude as 32-bit float
12	4	Altitude as 32-bit float
16	2	Heading as 16-bit integer
18	2	Ground speed as 16-bit integer
20	2	Vertical speed as 16-bit integer
22	2	COM1 frequency (1dd.dd where 0xdddd is the value here)

3. The distances to the nearest ground and airborne aircraft are given in offsets 736C and 736E, respectively. These are 16-bit integers in nautical miles. These are the offsets used by the latest version of TrafficLook.

4. The Installer now creates the P3D4 Modules with full control access by users and program alike, even in the Program Files folders.

5. A problem with the 64-bit conversion of the Lua interpreter is fixed. This could cause P3D4 to crash in obscure circumstances with complex Lua application.

6. The optional Add-Ons menus for Loading flights ("scenarios") and plans now work. This was an omission in previous releases.

7. The screen display options now make use of the two different SimConnect facilities. Multiline messages (from Lua or via offset 3380) go to the SimConnect Message Window, which is so

titled, whilst single line (fixed or scrolling) messages go to the standard title free Message Window.

8. SimConnect Window positions (including Menus) are saved in the INI file and (normally) restored.

9. When a new session is started and before an FSUIPC5.LOG is created, the current log is saved as FSUIPC5_Prev.Log.

Version 5.11 (August 2017)

1. This version supports the same GoFlight devices as FSUIPC4. You need to download the **GFDEV64.DLL** from the **Download Links** subforum in the FSUIPC Support Forum, and place it into the P3Dv4 **Modules** folder.

2. A problem with the offset "spoofing" facilities implemented via offset 0024 is fixed.

3. PMDG 737, 747 and 777 offsets are supported as before. A different method is used when requesting these from SimConnect, as the method previously used (the same as the one in FSX and P3D3) can cause very log freezes (85 seconds on m system) during initialisation, just after the sim is "ready to fly".

The PMDG aircraft offset support is not enabled all the time, *unless* specifically required. The option is controlled by three parameters now added to the [General] section of the FSUIPC5.INI file, thus:

> PMDG737offsets=Auto
> PMDG747offsets=Auto
> PMDG777offsets=Auto

The default "Auto" setting makes the offset support start only when the aircraft is loaded. This assumes the texts "PMDG" and "7x7" (x as appropriate) are found anywhere in the pathname to the add-on's AIR file. For all PMDG installations which haven't been user modified this should be the case, but otherwise you can force the support by setting "Yes" instead of "Auto".

To prevent any PMDG offsets support at all, just set these parameters to "No". This should not be needed except to possibly avoid or diagnose problems.

4. A much longer timeout is used before forcing a SimConnect reconnection when FSUIPC detects that a flight has been saved. This is intended to stop FSUIPC timing out SimConnect and reconnecting whilst add-ons like the PMDG aircraft freeze the sim whilst collecting and saving cockpit systems data. Whether it manages to detect this event before the Sim is frozen or not is not known.

There is hope that this change will allow AutoSave to be used with PMDG aircraft and other complex add-ons. Feedback on the Forum please.

5. Errors found in the Lua **ext** library functions (mainly **run** and **shell**) are fixed.

6. The joystick scanning has been improved considerably, and should now work reliably no matter what configuration of Joystick type devices is found.

7. The Lua and FSUIPC-offset controlled message Window on screen is improved by making use of new SimConnect window facilities. It is now similar in appearance to the one used in FSUIPC4. However, only one such Window is available at a time, and the title is fixed by SimConnect, not configurable.

Version 5.103 (June 2017)

1. Where the Joystick Scan detects multiple device possibilities (GUIDs) for the same Vendor/Product IDs, but none of the alternatives meet all of the requirements for input in the tests carried out via DirectInput, an attempt will be made still to acquire them all, but label

them "as alternative possibilities" within the JoyScan "Device Acquired" list in the Log.

2. The Carenado Bonanza A36 FREQUENCY SWAP work-around added in the 5.102a release has been removed as it has been fixed by L-M in the latest update.

Version 5.102a (June 2017)

1. The facility for different user names for WideFS registration is now built into the Installer.

2. Fixed the Lua **event.com** function.

3. Fixed the Lua sound facilities.

4. Added a work-around to allow the FREQUENCY SWAP event to work correctly in the **Carenado Bonanza A36**. This was a strange one. The FREQUENCY SWAP event doesn't by itself do anything. It needs a preceding sequence of radio selection (COM RADIO or NAV RADIO, then SELECT 1 or SELECT 2), and the result of the three of them is converted into a normal SWAP even as used in other aircraft (i.e. COM STBY RADIO SWAP, COM2 RADIO SWAP, NAV1 RADIO SWAP, or NAV2 RADIO SWAP).

   This appears to be a bug in the P3D4 package, so this modification is temporary, pending a fix from L-M.

Version 5.102 (June 2017)

1. This version is ready for **PFCcom64.dll** and **PFChid64.dll** modules, (replacing for P3D4 the PFC modules PFCFSX.DLL and PFChid.DLL), also released.

2. WxRadar facilities work now with the Beta version of the Active Sky release of P3D4.

3. Problems with Joystick Scanning have been fixed.

4. Different user names can now be used for WideFS registration.

5. Serious problems with offset writing to change P3D4 switches are fixed (affected LINDA and many other programs).

6. The VRi, COM, HID and EXT library facilities in Lua now work properly, including associated event types.

7. The FSUIPC **Traffic Toggle** and **Traffic Set** controls, to change the FS traffic levels, now work

8. 64-bit module user calls are fixed to assume the structures passed include 64-bit rather than 32-bit pointers. Facilities have also been added for 64-bit external users to call FSUIPC with the appropriate structures.

   [*Note: the SDK will be updated to include these details and recompiled LIBs for 64-bit: pre-releases are available on application to Pete***]**

9. A bug making FSUIPC ignore FSUIPC assignments after the "Kneeboard" has been viewed (and whilst it is still on view) is fixed.

10. Offset 330C bit 2 is now correctly set to indicate a registered user.

Version 5.10 (June 2017)

This was the very first user release of the 64-bit version of FSUIPC for Prepar3D version 4.0.

It is partly a re-write, partly a very comprehensive and labour-intensive conversion, closely based on the facilities and functions of FSUIPC 4.967, the release of 32-bit FSUIPC made close to the same time.

There were definite, listed elements missing in this release, notably PFC serial and HID device support, VRi support and GoFlight support. Also, because the Active Sky release was not ready beforehand, the Weather Radar feature was absent. However, all these deficiencies are now rectified, as shown in the preceding History notes.

Some facilities which are still missing and this is due to the deliberate avoidance of any attempts to hack into P3D4's code itself, as agreed with Lockheed-Martin. These facilities instead remain dependent upon cooperation from Lockheed-Martin in the provision of the relevant facilities. These are:

- Ground friction table access

- SimConnect text and menu transfer to WideFS client PCs

- Mouse macros – though this a declining need and may well be dropped

- The "control acceleration" fix, if it appears to be still needed

I will be pursuing these with Lockheed-Martin as P3D4 develops.