

History of FSUIPC7

Version 7.3.16 (11th January 2023)

1. Re-built against MSFS SDK 0.20.5.0
 2. Added additional axis control/event **Rotor Axis Tail Rotor Set**
 3. Input keys strings updated to the latest MSFS SDK: mainly changes to numpad keys when numlock is off, and some new additional keys added
 4. Correction to key repeat handling which caused repeated key down events being sent in certain situations
 5. Added log message to indicate custom control numbers registered
 6. PMDG 737 header and offsets updated to version 3.0.56. Note that the offsets for the following variables have changed:
 - AircraftModel - was 6C8D, now 6C8E
 - WeightInKg - was 6C8E, now 6C90
 - GPWS_V1CallEnabled - was 6C8F, now 6C91
 - GroundConnAvailable - was 6C90, now 6C92
- Last byte of first reserved area for PMDG737 is now 6C93 (was 6C91). See the document **Offset Mapping for PMDG 737-700** for further details.
7. New ini parameter **MaxButtonAssignments** added. This allows you to increase the default number of available button assignments, which is 2099
 8. Offsets that hold lvars now only updated on actual lvar changed received from server, not when you write to the offset

Version 7.3.15 (15th November 2022)

1. Re-built against MSFS SDK 0.20.4.0
2. The following additional controls have been added:
 - ROTOR_LONGITUDINAL_TRIM_SET
 - ROTOR_LONGITUDINAL_TRIM_INC
 - ROTOR_LONGITUDINAL_TRIM_DEC
 - ROTOR_TRIM_RESET
 - AXIS_ROTOR_BRAKE_SET
 - ROTOR_BRAKE_ON
 - ROTOR_BRAKE_OFF
 - ROTOR_BRAKE_TOGGLE
 - MAC_CREADY_SETTING_DEC
 - MAC_CREADY_SETTING_INC
 - MAC_CREADY_SETTING_SET
 - PROP_LOCK_ON
 - PROP_LOCK_OFF
 - PROP_LOCK_SET
 - PROP_LOCK_TOGGLE
 - AXIS_COLLECTIVE_SET
 - COLLECTIVE_INCR
 - COLLECTIVE_DECR
 - TAIL_ROTOR_INCR

TAIL_ROTATOR_DEC
ROTOR_GOV_SWITCH_OFF
ROTOR_GOV_SWITCH_ON
AUTO_HOVER_TOGGLE
AUTO_HOVER_OFF
AUTO_HOVER_SET
AUTO_HOVER_ON
PLASMA_ON
PLASMA_OFF
PLASMA_SET
PLASMA_TOGGLE
SPOILERS_INC
SPOILERS_DEC
RADIO_VOR3_IDENT_TOGGLE
RADIO_VOR3_IDENT_SET
RADIO_VOR3_IDENT_ENABLE
RADIO_VOR3_IDENT_DISABLE
RADIO_VOR4_IDENT_TOGGLE
RADIO_VOR4_IDENT_SET
RADIO_VOR4_IDENT_ENABLE
RADIO_VOR4_IDENT_DISABLE
ADF2_SET
ADF2_EXTENDED_SET
ADF2_LOWRANGE_SET
ADF2_HIGHRANGE_SET
ADF2_OUTSIDE_SOURCE
ADF2_NEEDLE_SET
ADF2_VOLUME_SET
ADF2_VOLUME_INC
ADF2_VOLUME_DEC
HELICOPTER_THROTTLE_INC
HELICOPTER_THROTTLE_DEC
AXIS_HELICOPTER_THROTTLE_SET
HELICOPTER_THROTTLE_SET
HELICOPTER_THROTTLE_CUT
HELICOPTER_THROTTLE_FULL
HELICOPTER_THROTTLE1_INC
HELICOPTER_THROTTLE1_DEC
AXIS_HELICOPTER_THROTTLE1_SET
HELICOPTER_THROTTLE1_SET
HELICOPTER_THROTTLE1_CUT
HELICOPTER_THROTTLE1_FULL
HELICOPTER_THROTTLE2_INC
HELICOPTER_THROTTLE2_DEC
AXIS_HELICOPTER_THROTTLE2_SET
HELICOPTER_THROTTLE2_SET
HELICOPTER_THROTTLE2_CUT
HELICOPTER_THROTTLE2_FULL
AXIS_CYCLIC_LATERAL_SET
AXIS_CYCLIC_LONGITUDINAL_SET
CYCLIC_LATERAL_LEFT
CYCLIC_LATERAL_RIGHT

CYCLIC_LONGITUDINAL_DOWN
CYCLIC_LONGITUDINAL_UP

Note that the new axis AXIS_TAIL_ROTOR_SET is currently not recognised (and so has not been added)

Version 7.3.14 (1st November 2022)

1. Correction to using assignments to lua files with an index ≥ 64 (which were previously interpreted as assignments to presets).

Version 7.3.13 (28th October 2022)

1. Re-enabled ability to calibrate axis when assigned with 'Send to FS as normal axis' or when assigned outside of FSUIPC (which was disabled in v7.3.9).

2. Additional controls added: HEADING_BUG_SET_EX1, SET_THROTTLE_REVERSE_THRUST_ON, SET_THROTTLE_REVERSE_THRUST_OFF, DECISION_HEIGHT_SET, DECISION_ALTITUDE_MSL_SET

3. **Rudder Trim Set Ex1** and **Aileron Trim Set Ex1** flagged as axes controls

4. Allow the following axes controls to go through FSUIPC's calibration facilities: *_EX1 axes controls for Throttle and PropPitch, **Axis Steering Set**

Version 7.3.12 (20th October 2022)

1. Fix for using custom control numbers

2. Lua sound.play function updated to ignore a negative volume request – this was used to only play sound if the FS has the focus but is no longer possible. Negative values still accepted (for backwards compatibility) but will be treated as positive values.

3. Requests for facilities (i.e. nearest airports) switched to using the new SDK *_EX1 functions.

4. WASM and WAPI both updated to version 0.9.1. The WASM contains a fix for when setting lvars to negative numbers, and the build tools for both have been updated to VS2022 and the latest platform toolset.

5. FSUIPC7 build infrastructure updated to VS2022 and using the latest platform toolset.

Version 7.3.11 (5th October 2022)

1. Correction to preset loading in certain situations (when WAPI not enabled in FSUIPC7.ini file).

2. Simvar CAMERA STATE added to offset 0x026D (1-byte) for read-only.

3. Most threads, including WideServer, now not initially started until aircraft loaded and ready-to-fly.

4. Lua [Auto] and profile-specific [Auto.xxx] scripts now also auto-started when FSUIPC7 is started and MSFS already running with an aircraft loaded.

Version 7.3.10 (27th September 2022)

1. Correction to preset loading – presets now loaded before the general assignments.

Version 7.3.9 (26th September 2022)

1. Fixed CTD caused by WAPI config data being received in quick succession (caused when creating multiple lvars via the WAPI interface)
2. Menu option **Add-ons->WASM->List Lvars** no longer automatically performs a reload of the WASM. A new option is provided for this: **Add-ons->WASM->Reload & List Lvars**
3. The **Create Mouse Macro** button has removed from key assignments dialog as mouse macros are not available in FSUIPC7 / MSFS
4. Correction to loading of presets due to a missing *[WAPI]* section in the *FSUIPC7.ini* file
5. Corrected loading of lvars/hvars when starting a new flight in the same aircraft and improved logging of number of lvars/hvars as well as the enabling/disabling of the **Add-ons->WASM** menu items so that the state of the menu items as well as the logging of lvars/hvars should correctly reflect when lvars/hvars are available.
6. A new option is available to have the FSUIPC7 main window open on start-up: **Options -> Open on Start.**
7. Presets assigned to axes are now saved using the preset name rather than the control number to prevent issues when the preset control number changes.
8. WASM and WAPI both updated to version 0.9.0:
 - removed gauge handler for internal events and switched to using custom events
 - delay lvar loading timer until camera state indicates that MSFS is out of the main menu system. With this change, you should be able to remove or at least substantially reduce the value if the WASM ini parameter **LvarScanDelay**, if you have manually set this in the WASM ini file (*FSUIPC_WASM.ini*) in your WASM persistent storage area.
9. The range of the **BRAKE LEFT/RIGHT POSITION** simvars (held in offsets 0c0BC4 and 0x0BC6) has been changed from 0-16384 to 0-32767 in accordance with MSFS documentation.
10. Axes are no longer calibrated UNLESS assign using *Send direct to FSUIPC Calibration*. Axes assigned using *Send to FS as normal axis* are no longer calibrated as this is causing issues since the SU10 update. Note that you can still scale (and reverse) such axes if needed using FSUIPC's axes scaling feature (see the Advanced User guide for details)

Version 7.3.8 (28th August 2022)

1. PMDG 737 offsets enabled and working – see new document **Offset Mapping for PMDG 737-700**. However, please note that PMDG have still not published the SDK and so there may be some offsets not populated or at the wrong address. Please report any errors found to the FSUIPC7 support forum.
2. WideFS Enable option correctly remembered, i.e. you only need to enable once.
3. *Preset* controls moved to a distinct drop-down menu when used for assignments, available on a checkbox to switch between standard FS controls and presets.
4. Minor update to WAPI library to prevent issues when running multiple clients.
5. Simvar added to new offset: 0x0590 holding **Indicated Altitude Calibrated** as a 4-byte float (in feet)

Version 7.3.7 (30th June 2022)

1. PMDG 737 offsets enabled, although these are still not being populated (and so cannot be used). I will look into this further once PMDG have published the SDK for the MSFS2020 version of the 737-700.
2. New ini option added: **TrapMSFSKeys**. Setting this to **Yes** will enable a global keyboard trapping mechanism and FSUIPC7 will receive all keypresses (when MSFS is NOT in the main menu system). This may help with certain button-box devices that act like 2nd keyboards (i.e. devices that send key presses/releases).
3. Added auto-detection of windows 11 to automatically set **DisableMSFSMonitor** ini parameter to Enum
4. Defaulted to enable the WASM if installed
5. Corrected move of profile specific **[LvarOffsets.xxx]** section to separate ini file when using **UseProfiles=Files**

Version 7.3.6 (30th May 2022)

1. WAPI updated to 0.5.10: fixed a CTD issue caused when using multiple WASM clients

Version 7.3.5 (29th May 2022)

1. WASM & WAPI updated to 0.5.9: increased the maximum number of lvars available from 2044 to 3066
2. Corrected / enabled repeat key assignments (previously not working)
3. Added two new ini parameters for adjusting key repeat rate:
InitialKeyRepeatRate – defaults to 250ms
SubsequentKeyRepeatRate – defaults to 100ms
These parameters can be added to the *[Keys]* section or a profile-specific *[Keys.xxx]* sections.
4. Corrected shift codes used when sending keys using the FSUIPC-added KeySend controls and enabled the use of the Win key for such controls. Note that this change may break existing assignments to the FSUIPC-added keysend controls using key modifiers (especially the Win key). You should update your assignments to such controls to use the new “shift” value numbers as documented in the Advanced User guide.

Version 7.3.4 (19th May 2022)

1. WAPI updated to 0.5.8.
2. Correction to bulk writing to multiple offsets. A bug was introduced in 7.3.0 that prevented simvars being updated when bulk writing to an offset area that included an offset that was not linked to a simvar. This caused issues when, for example, updating payload weights using ProSim.
3. Bug corrected that prevented presets being sent when assigned to key presses.
4. Corrected use of left/right modifiers for when using the shift and ctrl keys. Also the left/right alt keys are distinguished (current assignments using the alt key modifier will now use the left alt key) and removed the windows key as a modifier (as it was not possible to use anyway!).

Version 7.3.3 (12th April 2022)

1. New ini parameter added 'UseKeyboardHook'. When set, uses a global keyboard hook to receive key presses directly from windows and not via simconnect. To be used if using controllers that send keypresses that are otherwise not detected by FSUIPC7
2. Recompiled against MSFS SDK 0.18.0.0. No new events – all new events in this release currently give an error (Unrecognised Name).
3. Re-enabled main window (was disabled in previous release) to allow window scrolling to see lvars/hvars. Keyboard input no longer recognised when FSUIPC7 has the focus.
4. WASM / WAPI updated to versions 0.5.8 and 0.5.7 respectively, containing minor bug fixes.

Version 7.3.2 (20th March 2022)

1. Keyboard input to FS enabled when FSUIPC has the focus.
2. Updates made to when running FSUIPC7 on an MSFS client machine to allow keys to be sent. Note that keys are not sent to any particular application, and so any client can only react to these if they have been defined as 'hot keys' for that application.

Version 7.3.1 (9th March 2022)

1. Bug fixed that prevented assignments to buttons with numbers 64 – 95 from being triggered.

Version 7.3.0 (6th March 2022)

1. Updated to MSFS SDK v0.17.0.0. The following additional controls have been added:

TOGGLE_THROTTLE1_REVERSE_THRUST
TOGGLE_THROTTLE2_REVERSE_THRUST
TOGGLE_THROTTLE3_REVERSE_THRUST
TOGGLE_THROTTLE4_REVERSE_THRUST
SET_THROTTLE1_REVERSE_THRUST_ON
SET_THROTTLE2_REVERSE_THRUST_ON
SET_THROTTLE3_REVERSE_THRUST_ON
SET_THROTTLE4_REVERSE_THRUST_ON
SET_THROTTLE1_REVERSE_THRUST_OFF
SET_THROTTLE2_REVERSE_THRUST_OFF
SET_THROTTLE3_REVERSE_THRUST_OFF
SET_THROTTLE4_REVERSE_THRUST_OFF
THROTTLE1_REVERSE_THRUST_HOLD
THROTTLE2_REVERSE_THRUST_HOLD
THROTTLE3_REVERSE_THRUST_HOLD
THROTTLE4_REVERSE_THRUST_HOLD
MASTER_WARNING_SET
MASTER_WARNING_ON
MASTER_WARNING_OFF
MASTER_WARNING_TOGGLE
MASTER_WARNING_ACKNOWLEDGE
MASTER_CAUTION_SET
MASTER_CAUTION_ON
MASTER_CAUTION_OFF
MASTER_CAUTION_TOGGLE
MASTER_CAUTION_ACKNOWLEDGE
AP_ALT_RADIO_MODE_TOGGLE
AP_ALT_RADIO_MODE_SET

AP_ALT_RADIO_MODE_ON
AP_ALT_RADIO_MODE_OFF
MENU_RENO_KICK_PLAYER

Existing events now recognised:

ELEVATOR_DOWN
ELEVATOR_UP
AILERON_LEFT
AILERON_RIGHT
TAXI_LIGHTS_ON
TAXI_LIGHTS_OFF
NAV_LIGHTS_ON
NAV_LIGHTS_OFF
STARTER1_SET
STARTER2_SET
STARTER3_SET
STARTER4_SET

2. Offset 0x7C50 added to enable setting of lvars, activation of hvars, calling presets and executing calculator code (added for use by external programs)
3. Ability to add any simvar to a free FSUIPC offset for both reading and writing, via a 'myOffsets.txt' file.
4. Changes to starting of ipcReady.lua: the ipcReady.lua will only be started once lvars/hvars have been received from the WASM, if the WASM functionality has been enabled.
5. Correction to the starting of lua [Autos] (and profile specific [Autos.xxx]) when the WASM is not installed or enabled.
6. Correction to writing to the PUMP SWITCH offsets.

Version 7.2.16 (14th February 2022)

1. The following additional controls have been added:

OIL_COOLING_FLAPS_SET
OIL_COOLING_FLAPS_UP
OIL_COOLING_FLAPS_DOWN
OIL_COOLING_FLAPS_TOGGLE
RADIATOR_COOLING_FLAPS_SET
RADIATOR_COOLING_FLAPS_UP
RADIATOR_COOLING_FLAPS_DOWN
RADIATOR_COOLING_FLAPS_TOGGLE
NAV1_VOLUME_SET_EX1
NAV2_VOLUME_SET_EX1
TACAN1_ACTIVE_CHANNEL_SET
TACAN1_ACTIVE_MODE_SET
TACAN1_STANDBY_CHANNEL_SET
TACAN1_STANDBY_MODE_SET
TACAN1_SWAP
TACAN1_VOLUME_DEC
TACAN1_VOLUME_INC
TACAN1_VOLUME_SET
TACAN2_ACTIVE_CHANNEL_SET
TACAN2_ACTIVE_MODE_SET
TACAN2_STANDBY_CHANNEL_SET

TACAN2_STANDBY_MODE_SET
TACAN2_SWAP
TACAN2_VOLUME_DEC
TACAN2_VOLUME_INC
TACAN2_VOLUME_SET
G_LIMITER_ON
G_LIMITER_OFF
G_LIMITER_SET
G_LIMITER_TOGGLE
TACAN1_SET
TACAN2_SET
TACAN1_OBI_DEC
TACAN2_OBI_DEC
TACAN1_OBI_INC
TACAN2_OBI_INC
TACAN1_OBI_FAST_DEC
TACAN2_OBI_FAST_DEC
TACAN1_OBI_FAST_INC
TACAN2_OBI_FAST_INC
TOGGLE_TACAN_DRIVES_NAV1
CONDITION_LEVER_SET
CONDITION_LEVER_INC
CONDITION_LEVER_DEC
CONDITION_LEVER_HIGH_IDLE
CONDITION_LEVER_LOW_IDLE
CONDITION_LEVER_CUT_OFF
AXIS_CONDITION_LEVER_SET
CONDITION_LEVER_1_SET
CONDITION_LEVER_1_INC
CONDITION_LEVER_1_DEC
CONDITION_LEVER_1_HIGH_IDLE
CONDITION_LEVER_1_LOW_IDLE
CONDITION_LEVER_1_CUT_OFF
AXIS_CONDITION_LEVER_1_SET
CONDITION_LEVER_2_SET
CONDITION_LEVER_2_INC
CONDITION_LEVER_2_DEC
CONDITION_LEVER_2_HIGH_IDLE
CONDITION_LEVER_2_LOW_IDLE
CONDITION_LEVER_2_CUT_OFF
AXIS_CONDITION_LEVER_2_SET
CONDITION_LEVER_3_SET
CONDITION_LEVER_3_INC
CONDITION_LEVER_3_DEC
CONDITION_LEVER_3_LOW_IDLE
CONDITION_LEVER_3_CUT_OFF
AXIS_CONDITION_LEVER_3_SET
CONDITION_LEVER_4_SET
CONDITION_LEVER_4_INC
CONDITION_LEVER_4_DEC
CONDITION_LEVER_4_HIGH_IDLE
CONDITION_LEVER_4_LOW_IDLE

CONDITION_LEVER_4_CUT_OFF
AXIS_CONDITION_LEVER_4_SET

2. WASM updated to 0.5.7, to allow 1k of calculator code (was previously 256 bytes).
3. Maximum number of events loaded from event files now defined by new ini parameter **MaxNumberOfCustomEvents**, with a default value of 1024.
4. Added implicit call to Reload the WASM before listing lvars.
5. Drop-down menu for testing lvars/hvars increased in width.
6. New ini parameter added (default value **Yes**): **StopWAPIInMenu**
7. New functionality to assign to calculator code presets, loaded from files **events.txt** and **myevents.txt**.

Version 7.2.15 (26th January 2022)

1. The following additional controls have been added:
 - Flight Level Change
 - Flight Level Change On
 - Flight Level Change Off
 - Rpm Slot Index Set
 - Beacon Lights On
 - Beacon Lights Off
 - Ap Spd Var Set Ex1
2. Two new lua functions added related to hvars:
 - ipc.getHvarName(hvarId)
 - ipc.getHvarId(hvarName)
3. The following simulator variables have been added to offsets:
 - 0x0798: AUTOPILOT ALTITUDE LOCK VAR:3 [4 bytes]
 - 0x07A8: NEW FUEL SYSTEM [1 byte]
 - 0x07A9: NEW ELECTRICAL SYSTEM [1 byte]
 - 0x07AA: EXTERNAL_POWER_AVAILABLE [1 byte]
 - 0x07AB: EXTERNAL_POWER_ON [1 byte]
4. Added new ini parameter to be used in the *[General]* section: **UseAirLocForProfiles**
This allows profile matching on the aircraft.cfg folder location, that can improve profile matching when using different liveries
5. WASM updated to 0.5.6: changes are:
 - new ini parameter added **UseAirLocForHvars**, to allow hvar file matching on air file folder name
 - logging messages for processing hvar files corrected and updated

Version 7.2.14 (21st December 2021)

1. Path to FLT files held in offset 0x1000 corrected for MS Store installations
2. Corrected use of **LuaPath** ini parameter when using relative paths
3. Added new ini parameter to be used in the *[General]* section: **NumberOfPumps**. This restricts the request for the indexed simvars
 - FUELSYSTEM PUMP ACTIVE
 - FUELSYSTEM PUMP SWITCH

to the number of pumps defined by this ini parameter.

This has been added as requesting these indexed simvars in aircraft that use the new **FuelSystem** module that have less than the number of pumps requested will produce continual errors in the MSFS developers console.

The default value for this parameter is 6. If you do not use the developers console, you can set this to 16 to request all indices for these variables (regardless of loaded aircraft).

Version 7.2.13 (19th November 2021)

1. Rebuilt against MSFS SDK 0.16.0.0

2. Added new ini parameter value **Enum** for parameter **DisableMSFSMonitor** to restore MSFS monitoring under Windows 11. This value should now be preferred over the value **Yes**, which disables the MSFS window monitor.

3. WAPI thread read/write protection updated to prevent possibly CTD when receiving lvar/hvar values

4. Following simvars added to offsets, all 1 byte booleans, with the 'SWITCH' variables being read/write and the 'ACTIVE' ones read-only:

0x0B02 FUELSYSTEM PUMP ACTIVE:1
0x0B03 FUELSYSTEM PUMP SWITCH:1
0x0B04 FUELSYSTEM PUMP ACTIVE:2
0x0B05 FUELSYSTEM PUMP SWITCH:2
0x0B06 FUELSYSTEM PUMP ACTIVE:3
0x0B07 FUELSYSTEM PUMP SWITCH:3
0x0B08 FUELSYSTEM PUMP ACTIVE:4
0x0B09 FUELSYSTEM PUMP SWITCH:4
0x0B0A FUELSYSTEM PUMP ACTIVE:5
0x0B0B FUELSYSTEM PUMP SWITCH:5
0x0B10 FUELSYSTEM PUMP ACTIVE:6
0x0B11 FUELSYSTEM PUMP SWITCH:6
0x0B12 FUELSYSTEM PUMP ACTIVE:7
0x0B13 FUELSYSTEM PUMP SWITCH:7
0x0B14 FUELSYSTEM PUMP ACTIVE:8
0x0B15 FUELSYSTEM PUMP SWITCH:8
0x0B16 FUELSYSTEM PUMP ACTIVE:9
0x0B17 FUELSYSTEM PUMP SWITCH:9
0x0AEE FUELSYSTEM PUMP ACTIVE:10
0x0AEF FUELSYSTEM PUMP SWITCH:10
0x0AA8 FUELSYSTEM PUMP ACTIVE:11
0x0AA9 FUELSYSTEM PUMP SWITCH:11
0x0AF2 FUELSYSTEM PUMP ACTIVE:12
0x0AF3 FUELSYSTEM PUMP SWITCH:12
0x0AF6 FUELSYSTEM PUMP ACTIVE:13
0x0AF7 FUELSYSTEM PUMP SWITCH:13

0x0AFA FUELSYSTEM PUMP ACTIVE:14
0x0AFB FUELSYSTEM PUMP SWITCH:14
0x0AFC FUELSYSTEM PUMP ACTIVE:15
0x0AFD FUELSYSTEM PUMP SWITCH:15
0x0AFE FUELSYSTEM PUMP ACTIVE:16
0x0AFF FUELSYSTEM PUMP SWITCH:16

5. Indexed simvar **FUELSYSTEM ENGINE PRESSURE** added to same offset as legacy simvar **GENERAL ENG FUEL PRESSURE** for all 4 engines. This new simvar is read-only.
6. New ini parameter KillLuasOnSimStop added.
7. Experimental (and currently undocumented) new feature added to allow FSUIPC7 to be ran on an FS client PC.

Version 7.2.12 (5th November 2021)

1. WAPI updated to v0.5.5L correction for when connection restarted in same session
2. Added new ini parameter to help with issues with Windows 11 experienced by some users:
DisableMSFSMonitor
3. Code improvements to lua thread close down and crash handling
4. Following simvars added to offsets, all 8 byte floats:

0x7C00 - **EMPTY WEIGHT PITCH MOI**
0x7C08 - **EMPTY WEIGHT ROLL MOI**
0x7C10 - **EMPTY WEIGHT YAW MOI**
0x7C18 - **EMPTY WEIGHT CROSS COUPLED MOI**
0x7C20 - **TOTAL WEIGHT PITCH MOI**
0x7C28 - **TOTAL WEIGHT ROLL MOI**
0x7C30 - **TOTAL WEIGHT YAW MOI**
0x7C38 - **TOTAL WEIGHT CROSS COUPLED MOI**

5. Following 2-byte simvars added to offsets
0x07CE - **AUTOPILOT HEADING LOCK DIR:3**
0x07F8 - **AUTOPILOT VERTICAL HOLD VAR:3**
6. Correction for some issues starting programs from the *[Programs]* ini section
7. Method to determine MS Store vs Steam install changed - no longer relying on MSFS registry entries

Version 7.2.11 (21st October 2021)

1. WASM module updated to version 0.5.5: changed to recognise hvars (in *.hvar files) without the preceding 'H:'
2. Key presses assigned to buttons now distinguish between the left and right **Alt** and **Shift** modifiers.
3. New simulator variable **GPS OVERRIDDEN** added to offset 0x0C7D
4. Simulator variable **GPS DRIVES NAV1** at offset 0x132C now writeable
5. Updated to MSFS SDK 0.15.0.0

Version 7.2.10 (14th September 2021)

1. Fixed fault/exception thrown in FSUIPC7 when MSFS exits
2. WAPI updated to v0.5.4: minor correction to isRunning() function.

Version 7.2.9 (10th September 2021)

1. Fixed bug causing a CTD when using the UD size/type specifier in the [LvarsToOffsets] ini section.
2. Added simvar **Local Day Of Week** to offset 0x026C as an unsigned byte
3. Fixed bug that cause some lua event.offset callbacks to be dropped
4. MSFS SDK updated to 0.14.1.0

Version 7.2.8 (27th August 2021)

1. WASM updated to 0.5.4: lvar/hvar names restricted to MAX_VAR_NAME_SIZE characters (currently set to 56)
2. Corrections to updating lvars via offsets, especially for F (float) types

Version 7.2.7 (23rd August 2021)

1. Lights Potentiometer Set controls/Events flagged as axes controls
2. Double quotes removed from ICAO model, type and designator offsets
3. WASM/WAPI updated to v0.5.3:
 - number of lvar CDAs increased from 12 to 14, to support up to 2044 vars per aircraft
 - correction to bug where wrong lvar value passed to lvar update callback when not in 1st CDA (id above 1023)

Version 7.2.6 (25th August 2021)

1. Bug fix: correction to bug in lvar.hvar access introduced in last release

Version 7.2.5 (3rd August 2021)

1. Updated to MSFS SDK v0.14.0.0
2. Offset 0x3124 updated to contain 0 when not connected to MSFS, so can be used to determine connection status
3. WAPI interface (providing access to lvars/hvars) not enabled if WASM module not installed in Community folder

Version 7.2.4 (28th July 2021)

1. Additional correction to running programs from the **[Programs]** section.
2. Hot key now also restores the FSUIPC main window when minimised to the task bar.

3. New simvars for GEAR type added to bitwise oriented offset 0x05D6:

- IS GEAR WHEELS - bit 0 / 0x1
- IS GEAR SKIS - bit 1 / 0x2
- IS GEAR FLOATS - bit 2 / 0x4
- IS GEAR SKIDS - bit 3 / 0x8

Version 7.2.3 (23rd July 2021)

1. Correction to running programs from the **[Programs]** section when the program file spec is contained in quotes and when any program arguments contain file paths.
2. Key input events (i.e. Key strokes recognised via simconnect) updated to include all those marked as Ok in SDK 0.13.0.0 documentation.
3. WASM module updated to clear config CDA when MSFS goes back to main menu. This fix allows a callback to be issued when the same config data (i.e. same aircraft loaded) is written to the config data CDA so that the [Auto.xxx] section may be actioned.

Version 7.2.2 (13th July 2021)

1. New lua function added: **ipc.ReloadWASM()**
2. Flagged Anti Ice Gradual Set Eng controls as axes controls
3. Updated to clear lvar set CDA after being used so that the same command can be resent
4. Changed starting of autos (lua and macro) until after lvars have been loaded, when the WAPI has been enabled.
5. WASM / WAPI updated to 0.5.2. Changes include:
 - allow hvars to be loaded from WASM persistent storage area (i.e. under User' MSFS Package folder)
 - MobiFlight event files now optionally installed via installer
 - additional hvar files provided

Version 7.2.1 (22nd June 2021)

1. Fixed bug preventing luas from auto-starting when FSUIPC7 is started when MSFS is in a paused state.
2. The following additional simvars have been added to offsets:
 - AUTOPILOT GLIDESLOPE ACTIVE
 - AUTOPILOT GLIDESLOPE ARM
 - SIMULATION TIME
 - BUS LOOKUP INDEX
 - BUS CONNECTION ON:6

Version 7.2.0 (8th June 2021)

1. Corrections to the state of AI traffic in AI traffic tables/offsets
2. Logging of slope adjustments removed when slope is 0 (no adjustment)
3. New FSUIPC control added: **Trigger Auto-save**, used to manually trigger an auto-save.
4. New facility added to enable lvars to be added to offsets (via ini only at the moment) for both reading and writing.

5. WAPI/WASM updated to v0.5.1
6. **AUTOPILOT VS SLOT INDEX** simvar added to offset 0x02FC
7. Enabled write to offset 0x0818 **AUTOPILOT ALTITUDE LOCK VAR:3**. Write in feet, uses **AP_ALT_VAR_SET_ENGLISH** control
8. Updated to MSFS SDK 0.13.0 and added the following new controls/events:
 - Gps Obs On
 - Gps Obs Off
 - Gps Obs Set
 - Gps Obs Inc
 - Gps Obs Dec
 - Gps Obs
 - Adf Active Set
 - Adf Stby Set
 - Adf2 Active Set
 - Ap Pitch Ref Set
 - Ap Avionics Managed On
 - Ap Avionics Managed Off
 - Ap Avionics Managed Toggle
 - Ap Avionics Managed Set
9. Increased number of entries allowed under [*AlsoManage*] ini section from 32 to 64
10. Flagged **LIGHT_POTENTIOMETER_SET** as axis control

Version 7.1.0 (9th May 2021)

1. Added indexed simvar **TURB ENG IGNITION SWITCH EX1 (:1/2/3/4)** as 1 byte offsets (read/write) to offset area at 0x02C0/1/2/3.
2. Updated to recognise up to 128 buttons in Buttons Assignment panel.
3. Added integration to the FSUIPC WASM module to provide lvar access as in FSUIPC5/6 (i.e. via macros and lua scripts)
4. Additional lua functions added to read/write lvars as strings: **readLvarSTR**, **writeLvarSTR**
5. Additional lua function added to activate hvars (**activateHvar**) + allow hvars to be used in macros
6. WASM menu added to Add-ons menu when FSUIPC WASM detected
7. Read-only protection removed from offsets A000 – A200 to allow them to be used as free user offsets, as documented,

Version 7.0.9 (14th April 2021)

1. Rebuild against SDK 0.12.0.0 for MSFS 1.15.7.0

Version 7.0.8 (12th March 2021)

1. Correction to bug in offset monitoring
2. Bug fix to start axes scanning when FSUIPC7 started and MFS already running with a flight loaded

Version 7.0.7 (18th March 2021)

1. Starting of [Auto] luas changed to when ready-to-fly
2. Default stall times updated
3. Transponder offset 0x0354 corrected and now working
4. Monitor facility bug corrected
5. Killing of luas threads updated to prevent lock

Version 7.0.6 (10th March 2021)

1. Re-compiled against MSFS SDK v0.11.0.0
2. Changes to internal re-connection timers.
3. JAVA SDK by Mouseviator updated to v1.1

Version 7.0.5 (17th February 2021)

1. Fixed bug that caused issues when loading multiple event (*.evt) files
2. Increased allowable initial stall time from 100 to 200s
3. Updated to MSFS SDK version 0.10.0.0
4. Further offsets added:

0x0290 - AUTOPILOT ALTITUDE SLOT INDEX

0x0294 - AUTOPILOT HEADING SLOT INDEX

0x0298 - AUTOPILOT SPEED SLOT INDEX

0x029D - APU SWITCH

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-existent 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

0x0C47 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 & 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 populated 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. Initial release.

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Support Forum: [Pete Dowson's Support Forum](#)