

FSUIPC 3.999w changes since 3.999

Additional facilities

- 1 A new Lua library, '**mouse**', has been added. This provides ways of moving the mouse pointer and clicking its buttons, and even turning its wheels. It is documented in the update Lua documentation package available separately. This addition also applies to FSUIPC3, but not to WideClient.

- 2 A new FSUIPC control is provided:

1130 Mousebutton swap

This, when executed, makes the next Left Mouse Button press and release operate as a Right mouse button press and release. This is a one-off action, only applying to the next left mouse button action.

This is primarily aimed at users of touch screens with aircraft panels like those from PMDG where the left button decreases a setting and the right one increases it. Touch screen 'touches' are usually only left mouse clicks.

- 3 There's now a built-in facility for tracing the operation of Lua plug-ins, both with line numbers within the files and with changing local and global variables being logged. This effectively makes the "LuaDebug" control redundant, but it has been left in just in case folks would rather use their own souped-up version of the ipcDebug.lua plug-in.

The debug/trace mode is enabled and disabled in the Logging tab. The tracing and variable records go to either individual Lua logs or the main FSUIPC log, depending on the Lua log files option chosen (also in the Logging tab). So that log lines can be differentiated when more than one Lua plug-in is running, the first few characters of each line are "LUA.n" where n is an arbitrary ID number (0-255).

The state of the option is recorded in the FSUIPC.INI file as DebugLua=Yes or No.

- 4 Added new Lua function **lua.setowndisplay**, which enables the **ipc.linedisplay** and **ipc.display** functions to have their own private Window entitled, positioned and sized as needed. Full details are provided in the updated Lua plug-ins documentation published separately.
- 5 The Lua **gfd** library is improved for the GoFlight RP48 "mouse edition", which appears to have a firmware error which prevents the indicator status being read. FSUIPC compensates for this by remembering the settings made by itself.
- 6 An additional Lua **gfd** library function, **gfd.ReadLights**, is added which returns the current indicator settings for those GoFlight modules which support it. [Note that this value is whatever is returned by the module itself, so units with faulty implementations of the indicator reading function -- some LGT2's and the "mouse edition" of the RP48 -- will only return zero.
- 7 The Lua event library is extended with the addition of the event.Lvar function. This allows a named local gauge variable ("L:Var") to be monitored at regular intervals (minimum 100 mSecs) and a given function called when the value is found to have changed.

Full details are included in the updated Lua documentation, released already.

Bug Fixes

- 1 An error in the **ipc.exit** function, which could in some circumstances cause subsequent Lua executions to hang FS, has been fixed. This applies also to FSUIPC and WideClient.
- 2 The FSUIPC options assignment and calibration tabs could be fooled into making a Profile assignment to a Profile with no name, if the INI file had somehow been corrupted and ended up with a [Profile.] section and accompanying [Axes.] etc sections. To avoid the latter corruption in future, such bad sections are deleted automatically when FS is started.
- 3 An error which can cause spurious generation of phantom Profile assignments, and unwanted additional sections in the INI file such as [Buttons.] and [Keys.], has been found and fixed.
- 4 Errors in the Calibration "sync pos" facility could result in poor alignment despite the positions synchronised, and when using the "No reverse zone" option could produce entirely the wrong range.

Note that, as part of the fix, the reverse range part of the axis, if any, is not subject to synchronised positioning, and any positions defined there are discarded.

Users already with Sync Pos usage may wish to re-do this with this version for better accuracy.

- 5 Fixed an error which could cause FS to hang when any [Axes] assignments section in the INI file includes a scaling entry in an incorrect format.
- 6 Avoided changing the main Windows DLL search path so that RealityXP addons do not fail to find a needed DLL. The Lua DLLs can still be found when needed because the Modules\DLL path is now added to the 'PATH' environment variable.
- 7 Fixed a problem with the LVar macro format "L:<name>=DEC,0", to decrement the named L:Var value down to 0. The "0" was taken as omission and so did not limit the decrementing process.
- 8 Fixed an error in the Lua **event.key** function. This caused it to fail to act upon any subsequent shifted keys (Ctrl, Shift, or Alt plus a keypress) after the first such event. It was recording the key down but not the key up, so did not see any more key downs.
- 9 Fixed an error which could cause some Lua plug-ins to crash FS when being repeatedly killed and restarted (as in the case of assignment to a rotary encoder).
- 10 The Lua sound.playloop function now works, correctly looping, even when the option is set for not playing when FS doesn't have the focus (i.e with a negative volume value).
- 11 A newly introduced bug causing L:VAR SET macros to fail when called with parameter = 0 is fixed.
- 12 The Lua function **ipc.setdisplay** now succeeds in not only setting the size and position of an existing Lua Display window, but also of presetting those parameters for one about to be created.
- 13 A problem with accessing the KEY file of registered users when FS is being run in Windows 7 or Windows Vista without being set to run in XP Compatibility mode is fixed.

Note that in Windows 7 or Vista modes the FSUIPC INI, KEY and LOG files are placed in and used from the Flight Simulator Files folder in your "Documents" folder. This is to avoid write permission problems. It is best, though, to run FS in XP compatibility Mode, for many other reasons too.

- 14 Any Lua control type other than the basic Lua <name> control (to load and execute the named lua plug-in) assigned to Axis ranges on the right-hand side of the Axis assignments tab reverted to that basic Lua function, because in error they were saved incorrectly. This long-standing error is now fixed.