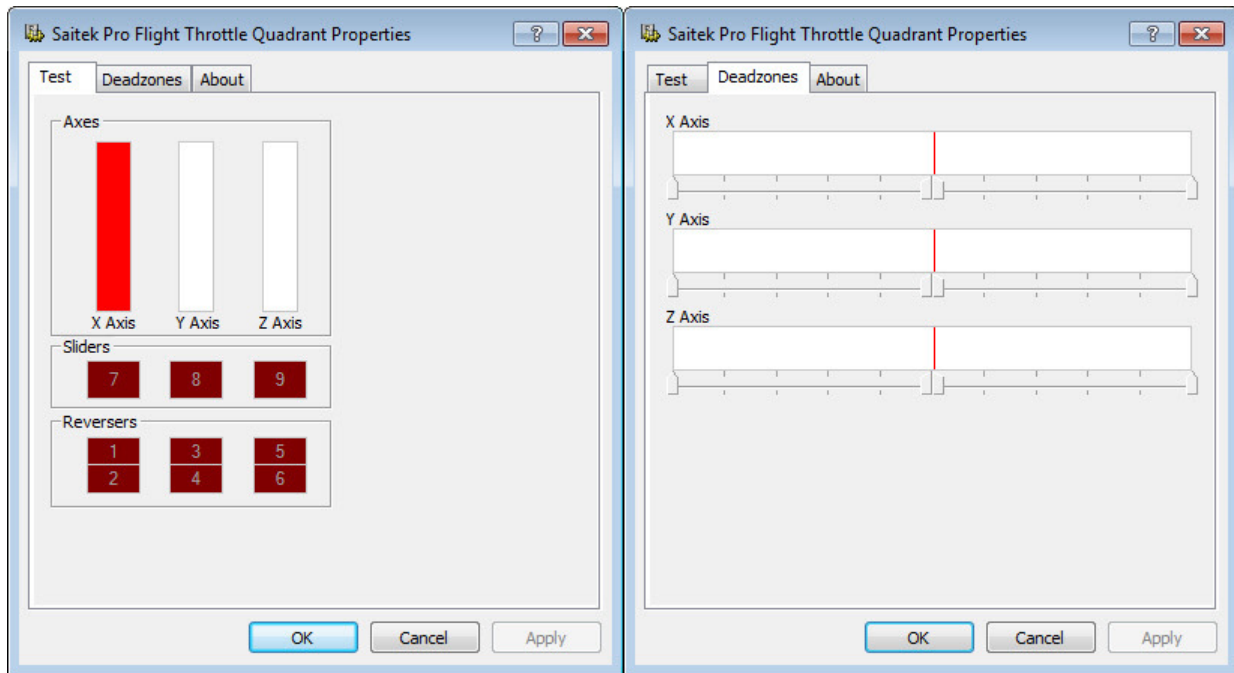


# Throttle calibration with FSUIPC

## Step 1 – Calibration in Windows – Devices and Printers

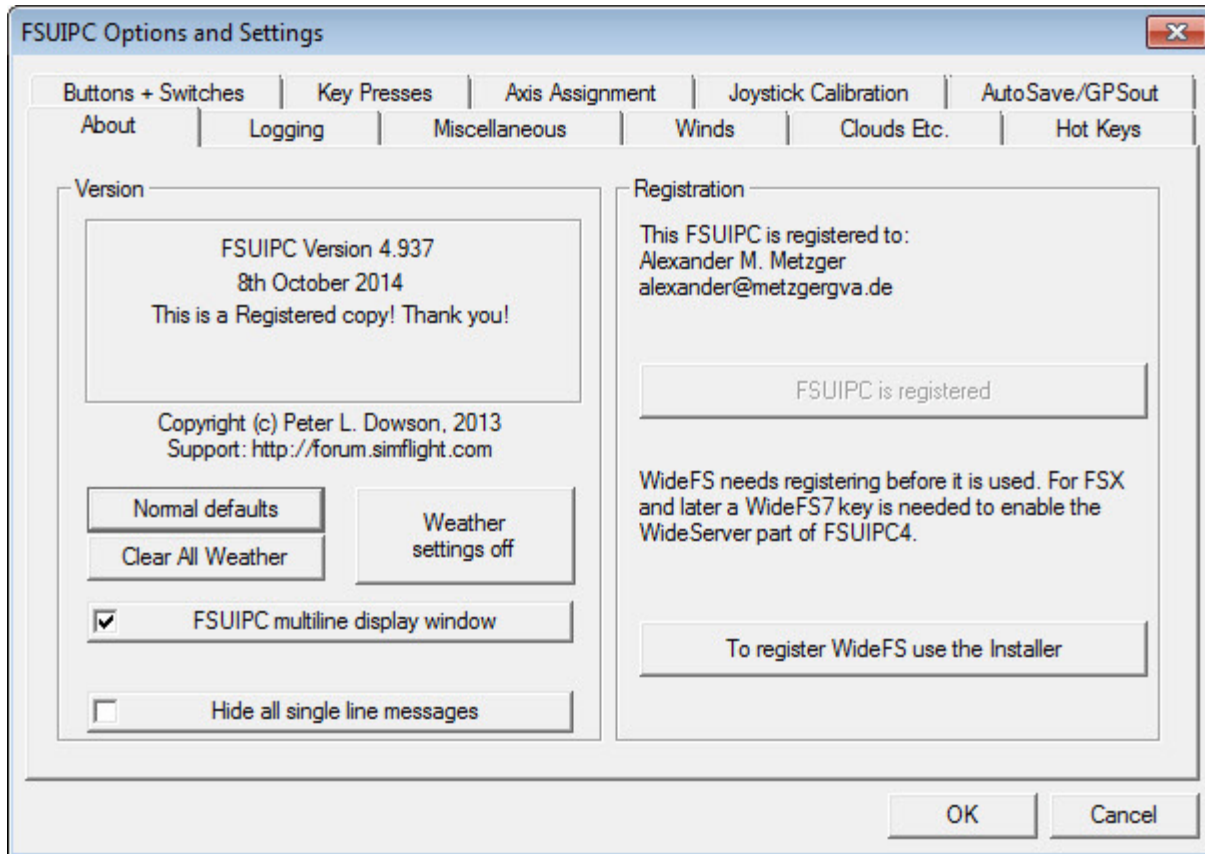
Right click for “Game controller settings”



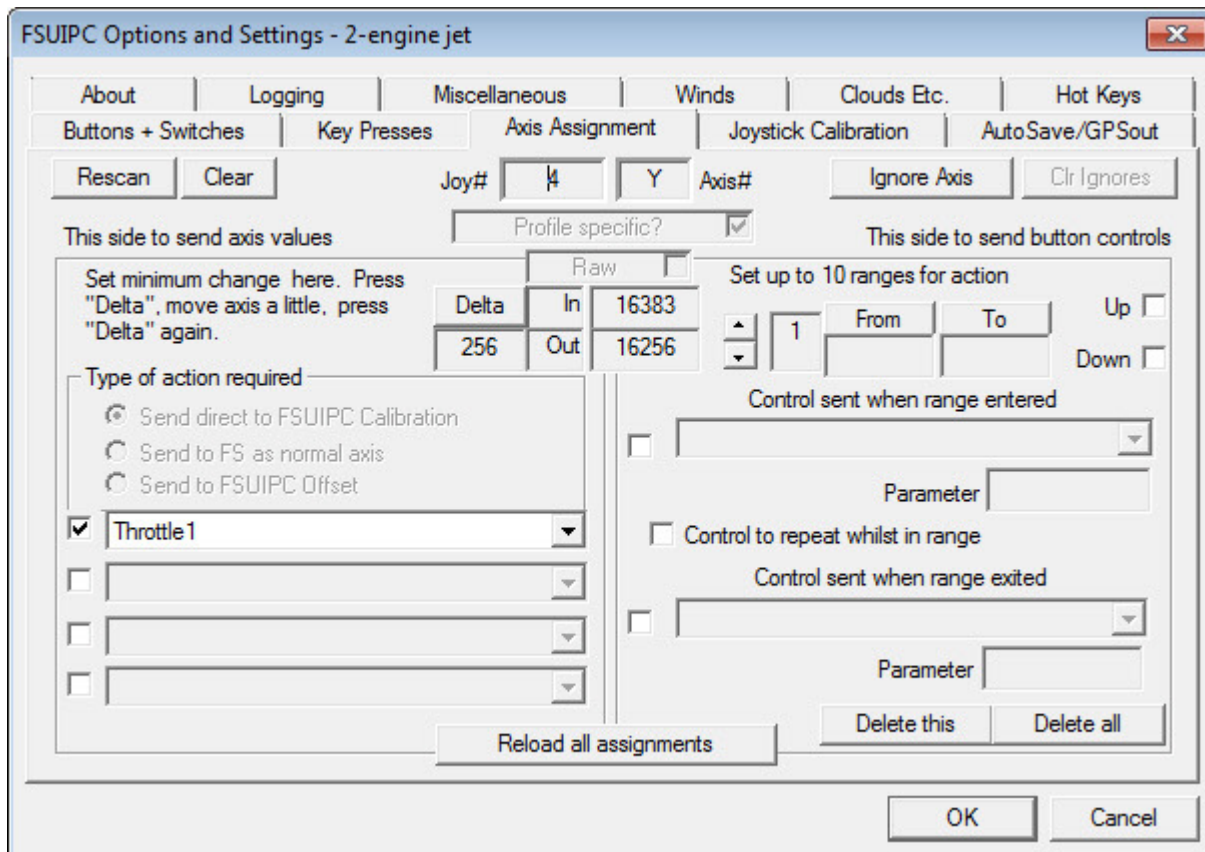
Make sure that when you move your hardware throttle that the red bar is moving through the whole range. Use the tab “deadzones” to adjust if it does not.

## Step 2 – Calibration in FSUIPC

You need to have a registered FSUIPC version that you can do individual adjustments and use the full program capabilities. When you open FSUIPC it should like this for a registered version.



After pressing <Rescan> you can assign the axis “Throttle1” and option “Send directly to FSUIPC Calibration”



Use<Reset> to eliminate a current axis processing. Then press <Set> to allow configuration.

FSUIPC Options and Settings

About | Logging | Miscellaneous | Winds | Clouds Etc. | Hot Keys

Buttons + Switches | Key Presses | Axis Assignment | Joystick Calibration | AutoSave/GPSout

☐ No reverse Zone    3 of 11: Separate throttles per engine    ☐ Profile Specific

Reverse   Idle   Max

Throttle 1 (direct!)

Set

16256 In    Axis not processed

16256 Out

Throttle 2 (direct!)

Reset   ☐ Filter   Set   Set   Set

-16384 In    -16384   -16384   16380

0 Out    ☐ Rev   -16123   Slope

Throttle 3

Reset   ☐ Filter   Set   Set   Set

0 In    -16384   -16384   16380

0 Out    ☐ Rev   -16123   Slope

Throttle 4

Reset   ☐ Filter   Set   Set   Set

0 In    -16384   -16384   16380

0 Out    ☐ Rev   -16123   Slope

Reload all settings   Sync Pos   ☒ Exclude THROTTLEn\_SET

OK   Cancel

Moving the throttle you should see running "In" and "Out" values in synchronization.

FSUIPC Options and Settings

About | Logging | Miscellaneous | Winds | Clouds Etc. | Hot Keys

Buttons + Switches | Key Presses | Axis Assignment | Joystick Calibration | AutoSave/GPSout

☐ No reverse Zone    3 of 11: Separate throttles per engine    ☐ Profile Specific

Reverse   Idle   Max

Throttle 1 (direct!)

Set

-16384 In    Axis not processed

-16384 Out

Throttle 2 (direct!)

Reset   ☐ Filter   Set   Set   Set

-16384 In    -16384   -16384   16380

0 Out    ☐ Rev   -16123   Slope

Throttle 3

Reset   ☐ Filter   Set   Set   Set

0 In    -16384   -16384   16380

0 Out    ☐ Rev   -16123   Slope

Throttle 4

Reset   ☐ Filter   Set   Set   Set

0 In    -16384   -16384   16380

0 Out    ☐ Rev   -16123   Slope

Reload all settings   Sync Pos   ☒ Exclude THROTTLEn\_SET

OK   Cancel

Press <Set> to obtain the default values. This automatically assigns a reverse range which we need to eliminate.

The screenshot shows the 'FSUIPC Options and Settings' window with the 'Axis Assignment' tab selected. The window has a title bar with a close button. Below the title bar are several tabs: 'About', 'Logging', 'Miscellaneous', 'Winds', 'Clouds Etc.', 'Hot Keys', 'Buttons + Switches', 'Key Presses', 'Axis Assignment' (selected), 'Joystick Calibration', and 'AutoSave/GP Sout'. The main area is divided into sections for 'No reverse Zone', '3 of 11: Separate throttles per engine', and 'Profile Specific'. Under '3 of 11: Separate throttles per engine', there are four throttle settings: Throttle 1 (direct!), Throttle 2 (direct!), Throttle 3, and Throttle 4. Each throttle has a 'Reverse' checkbox, 'Idle' and 'Max' buttons, and a 'Set' button. Below these are 'In' and 'Out' fields with 'Filter' checkboxes. Throttle 1 has 'In' values of -16384 and -4096, and an 'Out' value of 512. Throttle 2 has 'In' values of -16253 and 0, and an 'Out' value of -16123. Throttle 3 has 'In' values of 0 and 0, and an 'Out' value of -16123. Throttle 4 has 'In' values of 0 and 0, and an 'Out' value of -16123. At the bottom, there are buttons for 'Reload all settings', 'Sync Pos', and a checkbox for 'Exclude THROTTLEn\_SET' which is checked. 'OK' and 'Cancel' buttons are at the bottom right.

Throttle	Reverse	Idle	Max
Throttle 1 (direct!)	<input type="checkbox"/>	Set	Set
Throttle 2 (direct!)	<input type="checkbox"/>	Set	Set
Throttle 3	<input type="checkbox"/>	Set	Set
Throttle 4	<input type="checkbox"/>	Set	Set

Buttons: Reload all settings, Sync Pos, Exclude THROTTLEn\_SET (checked), OK, Cancel

Put your throttle to "idle" and press left <Set> and 2x middle <Set> button so that the "In" value is copied in the 3 fields.

This screenshot is identical to the previous one, but the 'In' values for all four throttles have been updated to -16384. Throttle 1 now has 'In' values of -16384 and -4096. Throttle 2 has 'In' values of -16384 and 0. Throttle 3 has 'In' values of -16384 and 0. Throttle 4 has 'In' values of -16384 and 0. The 'Out' values remain the same: 512 for Throttle 1, -16123 for Throttle 2, and -16123 for both Throttle 3 and Throttle 4. The 'Exclude THROTTLEn\_SET' checkbox is still checked.

Throttle	Reverse	Idle	Max
Throttle 1 (direct!)	<input type="checkbox"/>	Set	Set
Throttle 2 (direct!)	<input type="checkbox"/>	Set	Set
Throttle 3	<input type="checkbox"/>	Set	Set
Throttle 4	<input type="checkbox"/>	Set	Set

Buttons: Reload all settings, Sync Pos, Exclude THROTTLEn\_SET (checked), OK, Cancel



Moving the throttle thereafter the out value should read “0” if the “In” value is the same as the “set” values.

The screenshot shows the 'FSUIPC Options and Settings' window with the 'Buttons + Switches' tab selected. The '3 of 11: Separate throttles per engine' option is active. The 'No reverse Zone' checkbox is unchecked. The 'Profile Specific' checkbox is also unchecked. The window displays settings for four throttles (1, 2, 3, and 4). Each throttle has a 'Reverse' checkbox (unchecked), an 'Idle' value, and a 'Max' value. The 'In' value is set to -16384 for all throttles. The 'Out' value is set to 0 for all throttles. The 'Rev' checkbox is unchecked for all throttles. The 'Slope' value is set to -16123 for all throttles. The 'Filter' checkbox is unchecked for all throttles. The 'Reset' button is present for each throttle. At the bottom, there are buttons for 'Reload all settings', 'Sync Pos', and 'Exclude THROTTLEn\_SET' (checked). The 'OK' and 'Cancel' buttons are at the bottom right.

Throttle	Reverse	Idle	Max	In	Out	Rev	Slope
Throttle 1 (direct!)	<input type="checkbox"/>	-16384	16380	-16384	0	<input type="checkbox"/>	-16123
Throttle 2 (direct!)	<input type="checkbox"/>	-16384	16380	-16384	0	<input type="checkbox"/>	-16123
Throttle 3	<input type="checkbox"/>	-16384	16380	-16384	0	<input type="checkbox"/>	-16123
Throttle 4	<input type="checkbox"/>	-16384	16380	-16384	0	<input type="checkbox"/>	-16123

In case your “In” value is a bit reluctant to go always to the same value you may add some margin by setting the middle lower field a bit higher. This is done by moving the throttle a bit up and only press the middle lever.

This screenshot is identical to the one above, showing the 'FSUIPC Options and Settings' window with the 'Buttons + Switches' tab selected. The '3 of 11: Separate throttles per engine' option is active. The 'No reverse Zone' checkbox is unchecked. The 'Profile Specific' checkbox is also unchecked. The window displays settings for four throttles (1, 2, 3, and 4). Each throttle has a 'Reverse' checkbox (unchecked), an 'Idle' value, and a 'Max' value. The 'In' value is set to -16384 for all throttles. The 'Out' value is set to 0 for all throttles. The 'Rev' checkbox is unchecked for all throttles. The 'Slope' value is set to -16123 for all throttles. The 'Filter' checkbox is unchecked for all throttles. The 'Reset' button is present for each throttle. At the bottom, there are buttons for 'Reload all settings', 'Sync Pos', and 'Exclude THROTTLEn\_SET' (checked). The 'OK' and 'Cancel' buttons are at the bottom right.

Throttle	Reverse	Idle	Max	In	Out	Rev	Slope
Throttle 1 (direct!)	<input type="checkbox"/>	-16384	16380	-16384	0	<input type="checkbox"/>	-16123
Throttle 2 (direct!)	<input type="checkbox"/>	-16384	16380	-16384	0	<input type="checkbox"/>	-16123
Throttle 3	<input type="checkbox"/>	-16384	16380	-16384	0	<input type="checkbox"/>	-16123
Throttle 4	<input type="checkbox"/>	-16384	16380	-16384	0	<input type="checkbox"/>	-16123

In your FSUIPC.ini, residing in SIM\Modules, you should find the throttle calibration stored as

Throttle1=-16384,-16384,-16123,16380

Throttle2=-16384,-16384,-16123,16380

Throttle3=-16384,-16384,-16123,16380

Throttle4=-16384,-16384,-16123,16380