

Gebruik van FSUIPC in FSX

Harm Meertens

LaMaMa 25 februari 2013

Werkgroep Flight Simulator

hcc groningen



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Indeling presentatie

- Inleiding
- Enkele benamingen
- Acties in FSX
- Knoppen, schakelaars, rotaries en assen
- Waarom FSUIPC gebruiken
- Acties koppelen aan controllers m.b.v. FSUIPC
- Praktijkvoorbeelden

Minimale configuratie FSX



laptop
of
desktop

toetsenbord
en
muis

26/12/2012

Toetsenbord commando's voor FSX acties

FSX KEYBOARD COMMANDS



NOTE: MAKE SURE NUM LOCK IS OFF BEFORE USING NUM PAD COMMANDS.

TO ADD OR CUSTOMIZE KEYBOARD COMMANDS, ON THE OPTIONS MENU, POINT TO CONTROLS, THEN CLICK BUTTONS/KEYS. TO LEARN MORE, SEE THE USING THE KEYBOARD ARTICLE IN THE LEARNING CENTER

SIMULATOR

Pause	P or BREAK
Full Screen Mode	ALT + ENTER
Menus (display/hide)	ALT
ATC Menu (display/hide)	ACCENT or SCROLL LOCK
Kneebboard (display/hide)	SHIFT+F10
Sound (on/off)	Q
Reset Current Flight	CTRL+; (SEMICOLON)
Save Flight	; (SEMICOLON)
Exit Flight Simulator	CTRL+C
Exit Flight Simulator Immediately	CTRL+BREAK
Joystick (on/off)	CTRL+K
Cycle Coordinates/Frame Rate	SHIFT+Z
Select Item 1	1
Select Item 2	2
Select Item 3	3
Select Item 4	4
Select Time Compression	R
Drop Objects	SHIFT+D
Fuel Truck (request)	SHIFT+F
Aircraft Labels (display/hide)	CTRL+SHIFT+L
Flying Tips (display/hide)	CTRL+SHIFT+X
Increase Selection	= (EQUAL SIGN)
Increase Selection Slightly	SHIFT+= (EQUAL SIGN)
Decrease Selection Slightly	SHIFT+- (MINUS SIGN)
Decrease Selection	- (MINUS SIGN)
Capture Screenshot	V
Jetway (attach/detach)	CTRL+J
End Flight	ESC

CONTROL SURFACE

Ailerons (bank left)	Num Pad 4
Ailerons (bank right)	Num Pad 6
Aileron Trim (left)	CTRL+Num Pad 4
Aileron Trim (right)	CTRL+Num Pad 6
Rudder (yaw left)	Num Pad 0
Rudder (yaw right)	Num Pad ENTER
Rudder Trim (left)	CTRL+ Num Pad 0
Rudder Trim (right)	CTRL+Num Pad ENTER
Center Ailerons and Rudder	Num Pad 5
Pitch Down (elevator)	Num Pad 8
Pitch Up (elevator)	Num Pad 2
Elevator Trim Down	Num Pad 7
Elevator Trim Up	Num Pad 1
Flaps (retract fully)	F5
Flaps (retract incrementally)	F6
Flaps (extend incrementally)	F7
Flaps (extend fully)	F8
Extend/Retract Spoilers/Airbrakes	/ (FORWARD SLASH)
Arm Spoilers	SHIFT+/ (FORWARD SLASH)
Water Rudder Up/Down	CTRL+W

GENERAL

Brake (set parking)	CTRL+. (PERIOD)
Pushback (start/stop)	SHIFT+P (then press 1 or 2 to turn tail right/left)
Brakes (apply/release)	. (PERIOD)
Brakes (apply left brake)	Num Pad + (PLUS)
Brakes (apply right brake)	Num Pad - (MINUS)
Landing Gear (extend/retract)	G
Tail wheel (lock/unlock)	SHIFT+G
Landing Gear (extend manually)	CTRL+G
Fuel Dump (on/off)	CTRL+SHIFT+D
Subpanels (display/hide)	SHIFT + 1 through 9
Smoke System ((on/off))	I
Cowl Flaps (open incrementally)	CTRL+SHIFT+V
Cowl Flaps (close incrementally)	CTRL+SHIFT+C
Tow Plane (call)	CTRL+SHIFT+Y
Tow Rope (release)	SHIFT+Y
Doors (select)	SHIFT+E

ENGINE

On multiengine aircraft, engine commands affect all engines unless you first select an engine.

Select Engine	E+engine number (1-4)
Select All Engines	E+1+2+3+4
Engine Autostart	CTRL+E
Throttle (cut)	F1
Reverse Thrust (turboprops/jets)	F2 (press and hold)
Throttle (decrease)	F2 or Num Pad 3
Throttle (increase)	F3 or Num Pad 9
Throttle (full)	F4
Propeller (low RPM)	CTRL+F1
Propeller (decrease RPM)	CTRL+F2
Propeller (increase RPM)	CTRL+F3
Propeller (high RPM)	CTRL+F4
Mixture (idle cutoff)	CTRL+SHIFT+F1
Mixture (lean quickly)	CTRL+SHIFT+F2
Mixture (enrich)	CTRL+SHIFT+F3
Mixture (full rich)	CTRL+SHIFT+F4
Carb Heat/Engine Anti-ice ((on/off))	H
Magnetos (select)	M
Master Battery/Alternator (select)	SHIFT+M
Jet Starter (select)	J
Helicopter Rotor Clutch ((on/off))	SHIFT+. (PERIOD)
Helicopter Rotor Governor ((on/off))	SHIFT+, (COMMA)
Helicopter Rotor Brake ((on/off))	SHIFT+B
Increase Selection	= (EQUAL SIGN)
Increase Selection Slightly	SHIFT+= (EQUAL SIGN)
Decrease Selection Slightly	SHIFT+- (MINUS SIGN)
Decrease Selection	- (MINUS SIGN)

MISSION COMMANDS

Compass/Pointer (on/off)	U
Compass Objective (next)	K
Compass Objective (previous)	SHIFT+K

LIGHTS

Lights - all (on/off)	L
Strobe Lights (on/off)	O
Panel Lights (on/off)	SHIFT+L
Landing Lights (on/off)	CTRL+L
Landing Light (tilt down)	CTRL+SHIFT+Num Pad 2
Landing Light (tilt left)	CTRL+SHIFT+Num Pad 4
Landing Light (tilt right)	CTRL+SHIFT+Num Pad 6
Landing Light (tilt up)	CTRL+SHIFT+Num Pad 8
Landing Light (center)	CTRL+SHIFT+Num Pad 5

RADIO

ATC Window (display/hide)	ACCENT or SCROLL LOCK
VOR 1 Ident (on/off)	CTRL+1
VOR 2 Ident (on/off)	CTRL+2
MKR Ident (on/off)	CTRL+3
DME Ident (on/off)	CTRL+4
ADF Ident (on/off)	CTRL+5
Standby Frequency (swap)	X
COM Radio (select)	C
NAV Radio (select)	N
OBS indicator (select)	SHIFT+V
ADF (select)	CTRL+SHIFT+A
DME (select)	F
Transponder (select)	T
Increase Selection	= (EQUAL SIGN)
Increase Selection Slightly	SHIFT+= (EQUAL SIGN)
Decrease Selection Slightly	SHIFT+- (MINUS SIGN)
Decrease Selection	- (MINUS SIGN)

AUTOPILOT

Master (on/off)	Z
Flight Director (on/off)	CTRL+F
Wing Leveler (on/off)	CTRL+V
Yaw Damper (on/off)	CTRL+D
Altitude Hold (on/off)	CTRL+ Z
Altitude Bug (select)	CTRL+SHIFT+Z
Heading Hold (on/off)	CTRL+H
Heading Bug (select)	CTRL+SHIFT+H
Airspeed Hold (on/off)	CTRL+R
Mach Hold (on/off)	CTRL+M
Autothrottle (arm)	SHIFT+R
Autothrottle engage (TOGA)	CTRL+SHIFT+G
Nav 1 Hold (on/off)	CTRL+N
Approach Mode (on/off)	CTRL+A
Back Course Mode (on/off)	CTRL+B
Localizer Hold (on/off)	CTRL+O
Attitude Hold (on/off)	CTRL+T
Increase Selection	= (EQUAL SIGN)
Increase Selection Slightly	SHIFT+= (EQUAL SIGN)
Decrease Selection Slightly	SHIFT+- (MINUS SIGN)
Decrease Selection	- (MINUS SIGN)

INSTRUMENTS

Heading Indicator (reset)	D
Altimeter (reset)	B
Pitot Heat (on/off)	SHIFT+H
Increase Selection	= (EQUAL SIGN)
Increase Selection Slightly	SHIFT+= (EQUAL SIGN)
Decrease Selection Slightly	SHIFT+- (MINUS SIGN)
Decrease Selection	- (MINUS SIGN)

VIEWS

2-D Cockpit (cycle panels)	W
Snap to Panel View	SHIFT+Num Pad 0
View (next category)	S
View (previous category)	SHIFT+S
View (next view in category)	A
View (previous view in category)	SHIFT+A
View (previous view toggle)	CTRL+S
View (default zoom)	BACKSPACE
Look (snap)	Num Pad
Look (pan)	Hat switch or thumbstick
Look (reset to forward view)	SHIFT+Num Pad DEL
Look Using Mouse (on)	Hold SPACEBAR
Look Using Mouse (on/off)	SHIFT+O
View (open new window)	[(LEFT BRACKET)
View (close selected window)] (RIGHT BRACKET)
View (open new top-down window)	SHIFT+] (RIGHT BRACKET)
Virtual Cockpit	F9
2-D Cockpit	F10
Locked Spot View	F11
Top-Down View	F12
2-D Panel Transparency	CTRL+SHIFT+T (+ or -)
Window (bring selected to front)	' (APOSTROPHE)
Zoom In	= (EQUAL SIGN)
Zoom Out	- (HYPHEN)
View (next window)	CTRL+TAB
View (previous window)	CTRL+SHIFT+TAB
Eye point (move back)	SHIFT+ENTER
Eye point (move down)	CTRL+BACKSPACE
Eye point (move forward)	CTRL+BACKSPACE
Eye point (move left)	CTRL+SHIFT+BACKSPACE
Eye point (move right)	CTRL+SHIFT+ENTER
Eye point (move up)	SHIFT+ENTER
Eye point (reset)	CTRL+SPACE

MULTIPLAYER

Chat Window (display/hide)	CTRL+SHIFT+]
Chat Window (make active)	ENTER
Voice (start transmit)	CAPS LOCK
Voice (stop transmit)	^CAPS LOCK
Voice (select transmit)	SHIFT+CAPS LOCK
Voice (select transmit)	SHIFT+CAPS LOCK
Transfer/Accept Control	SHIFT+T
Follow Other Player	CTRL+SHIFT+F

in deze lijst aan 188 FSX acties

Menu: Options Settings Controls



Waar zijn in FSX de toetsenbord-commando's voor de verschillende FSX acties te vinden?

Menu: Options Settings Controls

SETTINGS - CONTROLS

CALIBRATION | **BUTTONS / KEYS** | **CONTROL AXES**

Controller type: BU0836X Interface

Event category: Views

Flight mode: Normal Slew

Assignment list:

Event	Joystick	Repeat
Eyepoint (move back)		
Eyepoint (move down)		
Eyepoint (move forward)		
Eyepoint (move left)		
Eyepoint (move right)		
Eyepoint (move up)		
Eyepoint reset	SHIFT + ENTER	
Kneeboard (display/hide)	CTRL + SPACE	
Locked Spot View (shortcut)	SHIFT + F10	
Look (reset to forward view)	F11	
	SHIFT + NUM DECIMAL	

New Assignment... Delete Key Assignment

Change Assignment... Delete Joystick Assignment Reset Defaults

HELP CANCEL OK

in deze lijst staan 444 FSX acties

Menu: Options Settings Controls

Event or Action and Buttons / Keys

SETTINGS - CONTROLS

CALIBRATION **BUTTONS / KEYS** CONTROL AXES

Controller type: BU0836X Interface

Event category: All events

Flight mode:
 Normal
 Slew

Assignment list:

Event	Keyboard	Joystick	Repeat
Aileron trim (left)	CTRL + NUM 4		<input type="checkbox"/>
Aileron trim (right)	CTRL + NUM 6		<input type="checkbox"/>
Ailerons (bank left)	NUM 4		<input type="checkbox"/>
Ailerons (bank right)	NUM 6		<input type="checkbox"/>
Aircraft (reload)			<input type="checkbox"/>
Aircraft labels (display/hide)	CTRL + SHIFT + L		<input type="checkbox"/>
Alternate static source (on/off)			<input type="checkbox"/>
Altimeter (Standard Pressure)			<input type="checkbox"/>
Altimeter (reset)	B		<input type="checkbox"/>
Altitude bug (select)	CTRL + SHIFT + Z		<input type="checkbox"/>

Instelling geldt voor alle vliegtuigen

New Assignment... Delete Key Assignment

Change Assignment... Delete Joystick Assignment Reset Defaults

HELP CANCEL OK

Action names and Action Lists

FSX Events or Actions			
Action Category	FSX list Short Action	FSX list All Action	FSX list All Offset
Simulator	Pause	PAUSE TOGGLE	65561
Control Surface	Flaps (extend incrementally)	FLAPS INCR	65607
General / Systems	Landing gear (extend/retract)	GEAR TOGGLE	65570
Engine	Throttle (decrease)	THROTTLE DECR	65617
Mission Commands	Compass/Pointer (on/off)		
Lights	Strobe Lights (on/off)	STROBES TOGGLE	65560
Radio	Nav Radio (select)	NAV RADIO	65585
Autopilot	Master	AP MASTER	65580
Instruments	Pitot Heat (on/off)	PITOT HEAT TOGGLE	65858
Views	Eyepoint (reset)	EYEPOINT RESET	66530
Multiplayer	Chat Window (display/hide)	MP ACTIVATE CHAT	65905

Action names and Action Lists

Long list of FSX Actions

Order: Numeric Offset

DEMO STOP	65537		
SELECT 1	65538		
SELECT 2	65539		
SELECT 3	65540		
SELECT 4	65541		
DEMO RECORD 1 SEC	65543		
DEMO RECORD 5 SEC	65544		
MACRO BEGIN	65546		
MACRO END	65547		
MINUS	65548		
PLUS	65549		
ZOOM 1X	65550	SET LAUNCH BAR SWITCH	66880
SOUND TOGGLE	65552	SET TAIL HOOK HANDLE	66881
ENGINE	65554	SET WING FOLD	66882
SIM RATE	65555	TOGGLE RACERESULTS WINDOW	66883
XPNDR	65556	BLEED AIR SOURCE CONTROL SET	66886
SLEW TOGGLE	65557	FUEL DUMP SWITCH SET	66887

Totaal 66887 – 65537 = 1350 numbers
about 1090 different actions

Action names and Action Lists

FSX Events or Actions			
Action Category	FSX list Short	FSX list All	Offset
General	Landing gear (extend/retract)	GEAR TOGGLE GEAR DOWN GEAR PUMP GEAR SET GEAR UP	65570 66726 65852 65700 66079

FSX Actions Shortlist

FSX KEYBOARD COMMANDS



NOTE: MAKE SURE NUM LOCK IS OFF BEFORE USING NUM PAD COMMANDS.

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SIMULATOR

Pause	P or BREAK
Full Screen Mode	ALT + ENTER
Menus (display/hide)	ALT
ATC Menu (display/hide)	ACCENT or SCROLL LOCK
Kneeboard (display/hide)	SHIFT+F10
Sound (on/off)	Q
Reset Current Flight	CTRL+; (SEMICOLON)
Save Flight	; (SEMICOLON)
Exit Flight Simulator	CTRL+C
Exit Flight Simulator Immediately	CTRL+BREAK

GENERAL

Brake (set parking)	CTRL+. (PERIOD)
Pushback (start/stop)	SHIFT+P (then press 1 or 2 to turn tail right/left)
Brakes (apply/release)	. (PERIOD)
Brakes (apply left brake)	Num Pad + (PLUS)
Brakes (apply right brake)	Num Pad - (MINUS)
Landing Gear (extend/retract)	G
Tail wheel (lock/unlock)	SHIFT+G
Landing Gear (extend manually)	CTRL+G
Fuel Dump (on/off)	CTRL+SHIFT+D

LIGHTS

Lights - all (on/off)	L
Strobe Lights (on/off)	O
Panel Lights (on/off)	SHIFT+L
Landing Lights (on/off)	CTRL+L
Landing Light (tilt down)	CTRL+SHIFT+Num Pad 2
Landing Light (tilt left)	CTRL+SHIFT+Num Pad 4
Landing Light (tilt right)	CTRL+SHIFT+Num Pad 6
Landing Light (tilt up)	CTRL+SHIFT+Num Pad 8
Landing Light (center)	CTRL+SHIFT+Num Pad 5

INSTRUMENTS

Heading Indicator (reset)	D
Altimeter (reset)	B
Pitot Heat (on/off)	SHIFT+H
Increase Selection	= (EQUAL SIGN)
Increase Selection Slightly	SHIFT+= (EQUAL SIGN)
Decrease Selection Slightly	SHIFT+- (MINUS SIGN)
Decrease Selection	- (MINUS SIGN)

VIEWS

ENGINE

On multiengine aircraft, engine commands affect all engines unless you first select an engine.

Select Engine	E+engine number (1-4)
Select All Engines	E+1+2+3+4
Engine Autostart	CTRL+E
Throttle (cut)	F1
Reverse Thrust (turboprops/jets)	F2 (press and hold)
Throttle (decrease)	F2 or Num Pad 3
Throttle (increase)	F3 or Num Pad 9
Throttle (full)	F4
Propeller (low RPM)	CTRL+F1
Propeller (decrease RPM)	CTRL+F2
Propeller (increase RPM)	CTRL+F3
Propeller (high RPM)	CTRL+F4
Mixture (idle cutoff)	CTRL+SHIFT+F1
Mixture (lean quickly)	CTRL+SHIFT+F2
Mixture (enrich)	CTRL+SHIFT+F3
Mixture (full rich)	CTRL+SHIFT+F4
Carb Heat/Engine Anti-ice ((on/off))	H
Magnetos (select)	M
Master Battery/Alternator (select)	SHIFT+M
Jet Starter (select)	J
Helicopter Rotor Clutch ((on/off))	SHIFT+. (PERIOD)
Helicopter Rotor Governor ((on/off))	SHIFT+, (COMMA)
Helicopter Rotor Brake ((on/off))	SHIFT+B
Increase Selection	= (EQUAL SIGN)
Increase Selection Slightly	SHIFT+= (EQUAL SIGN)
Decrease Selection Slightly	SHIFT+- (MINUS SIGN)
Decrease Selection	- (MINUS SIGN)

CONTROL SURFACE

Ailerons (bank left)	Num Pad 4
Ailerons (bank right)	Num Pad 6
Aileron Trim (left)	CTRL+Num Pad 4
Aileron Trim (right)	CTRL+Num Pad 6
Rudder (yaw left)	Num Pad 0
Rudder (yaw right)	Num Pad ENTER
Rudder Trim (left)	CTRL+ Num Pad 0
Rudder Trim (right)	CTRL+Num Pad ENTER
Center Ailerons and Rudder	Num Pad 5
Pitch Down (elevator)	Num Pad 8
Pitch Up (elevator)	Num Pad 2
Elevator Trim Down	Num Pad 7
Elevator Trim Up	Num Pad 1
Flaps (retract fully)	F5
Flaps (retract incrementally)	F6
Flaps (extend incrementally)	F7
Flaps (extend fully)	F8
Extend/Retract Spoilers/Airbrakes	/ (FORWARD SLASH)
Arm Spoilers	SHIFT+/(FORWARD SLASH)
Water Rudder Up/Down	CTRL+W

on sheet:
188 actions

in menu:
444 actions

known:
1090 actions

Controller

- ❑ Joystick



- ❑ Yoke



- ❑ Rudder



- ❑ Throttle quadrant



- ❑ Game pad



- ❑ Other



In Windows: Human Interface Device (HID)

In Windows Control Panel: weergave knoppen en assen en calibratie assen

Controller

Saitek X52 Pro Flight Control System

USB Joystick

Command: BUTTON 8



7 assen

X-as

Y-as

Z-as

X-draaiing

Y-draaiing

Z-draaiing

schuifregelaar

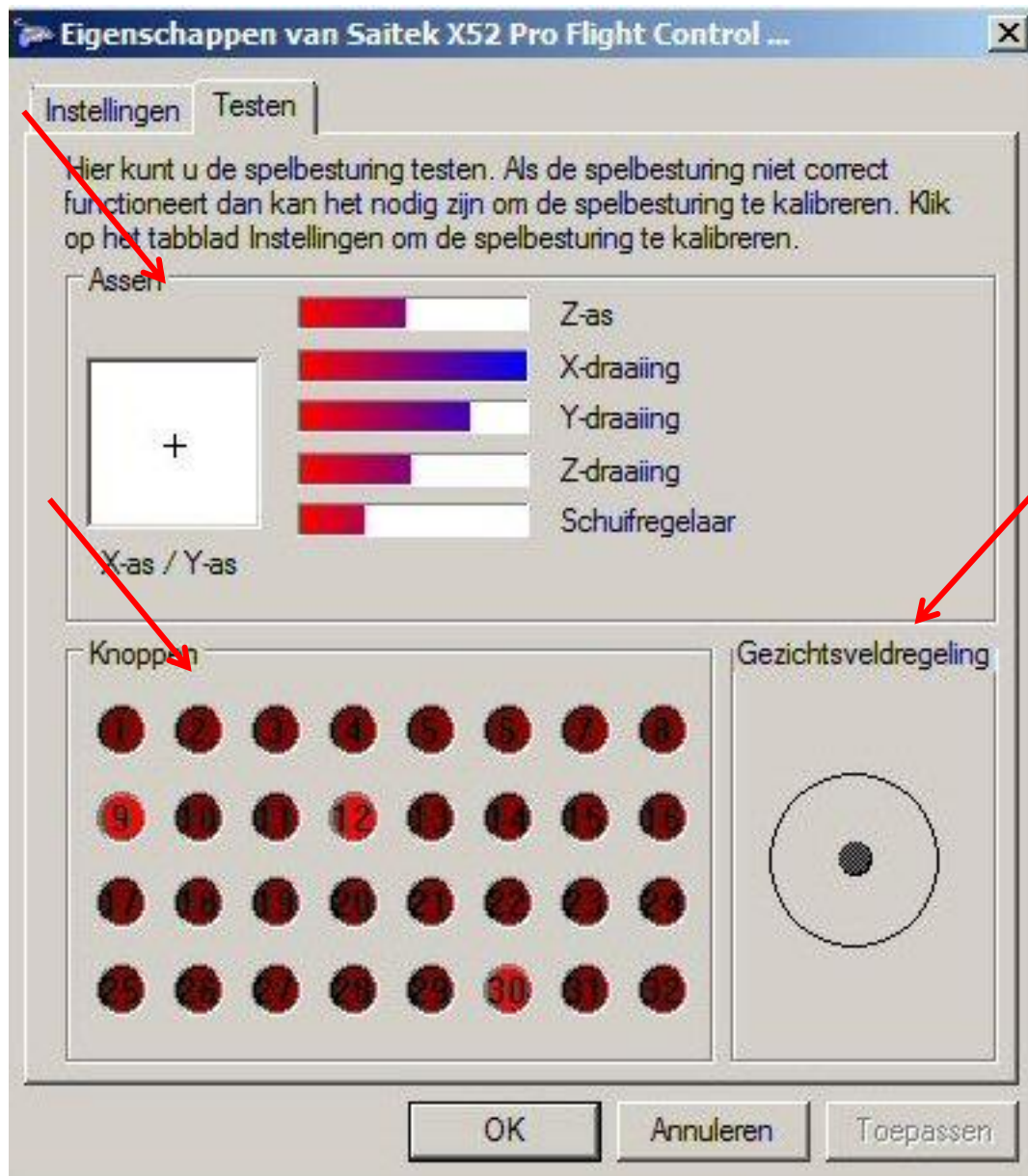
32 knoppen

3 POV knoppen

Uitbreiding naast
toetsenbord
en
muis

Human Inderface Device (HID)

In Windows: Human Interface Device (HID)



Knoppen

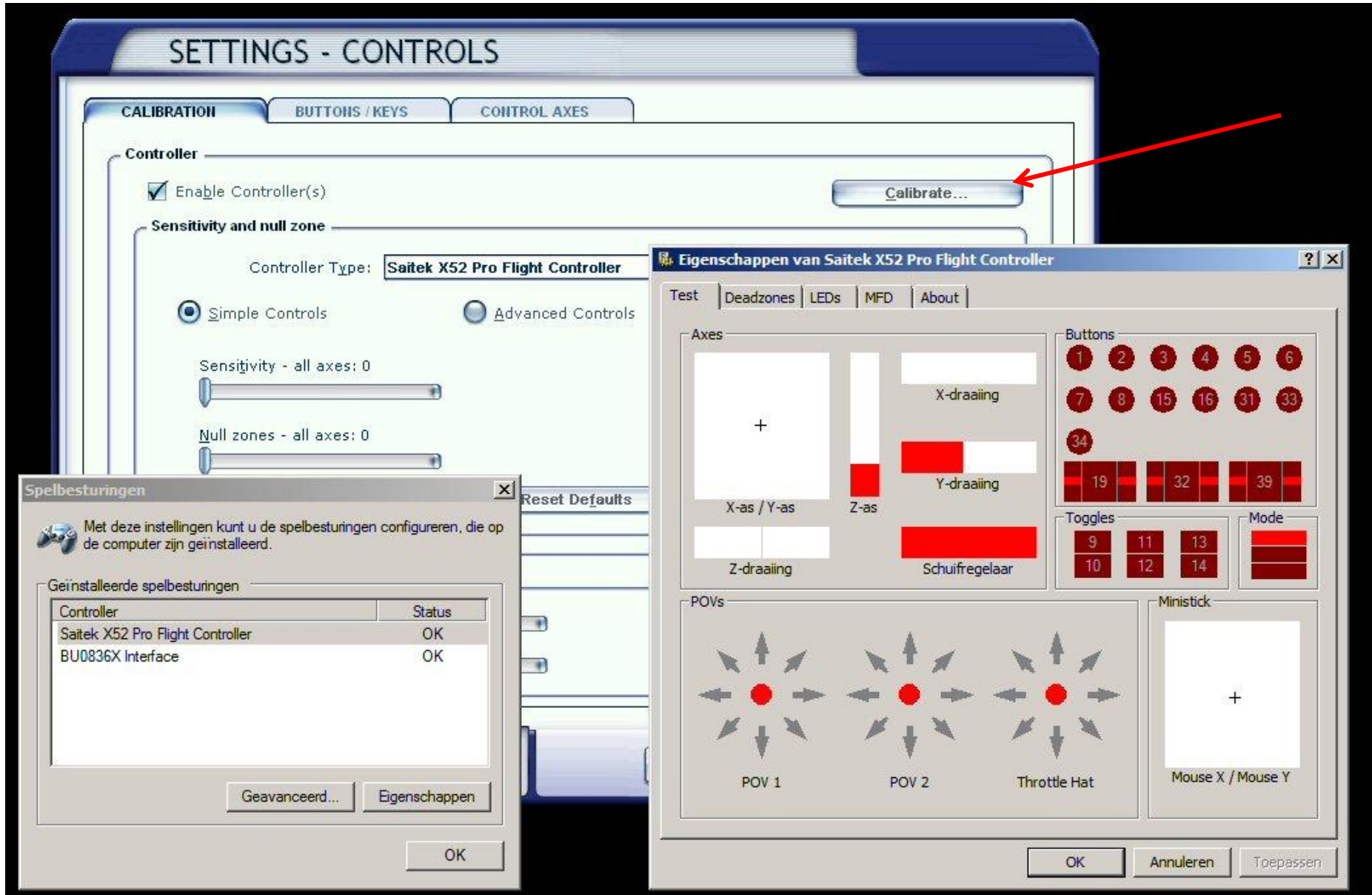
Assen

Gezichtsvelddregeling

Weergave Controller in

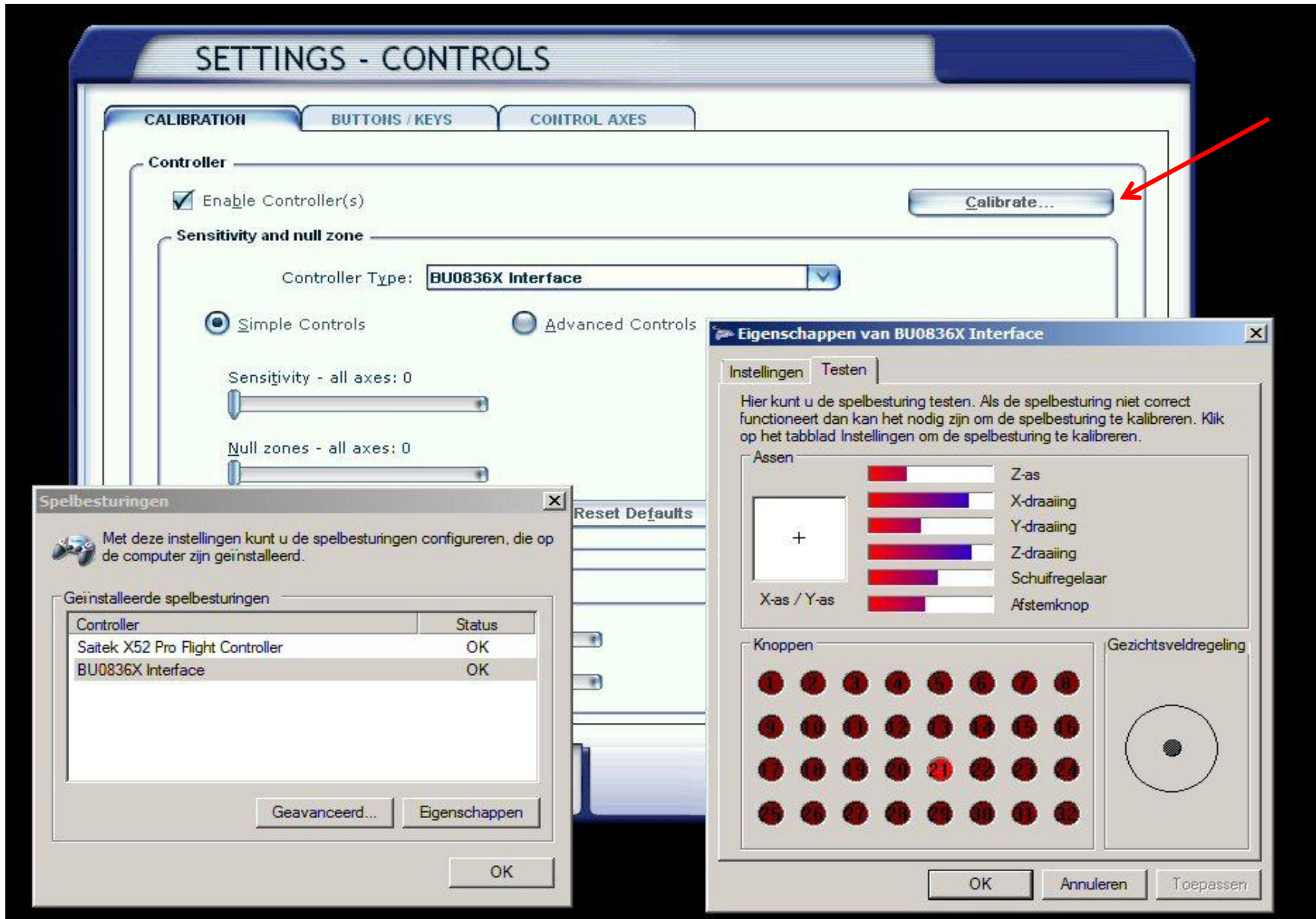
Windows Control Panel

In Windows: Human Interface Device (HID)



Saitek Controller: 32 buttons 7 axes 12 POV buttons

In Windows: Human Interface Device (HID)



Bodnar Controller: 32 buttons 8 axes 1 POV button

Menu: Options Settings Controls

Button assignment

SETTINGS - CONTROLS

CALIBRATION **BUTTONS / KEYS** CONTROL AXES

Controller type: BU0836X Interface

Event category: All events

Flight mode: Normal Slew

Assignment list:

Event	Keyboard	Joystick	Repeat
Aileron trim (left)	CTRL + NUM 4	Button 19	<input type="checkbox"/>
Aileron trim (right)	CTRL + NUM 6	Button 15	<input type="checkbox"/>
Ailerons (bank left)	NUM 4		<input type="checkbox"/>
Ailerons (bank right)	NUM 6		<input type="checkbox"/>
Aircraft (reload)			<input type="checkbox"/>
Aircraft labels (display/hide)	CTRL + SHIFT + L		<input type="checkbox"/>
Alternate static source (on/off)			<input type="checkbox"/>
Altimeter (Standard Pressure)			<input type="checkbox"/>
Altimeter (reset)	B		<input type="checkbox"/>
Altitude bug (select)	CTRL + SHIFT + Z		<input type="checkbox"/>

New Assignment... Delete Key Assignment

Change Assignment... Delete Joystick Assignment Reset Defaults

HELP CANCEL OK

Instelling geldt voor alle vliegtuigen

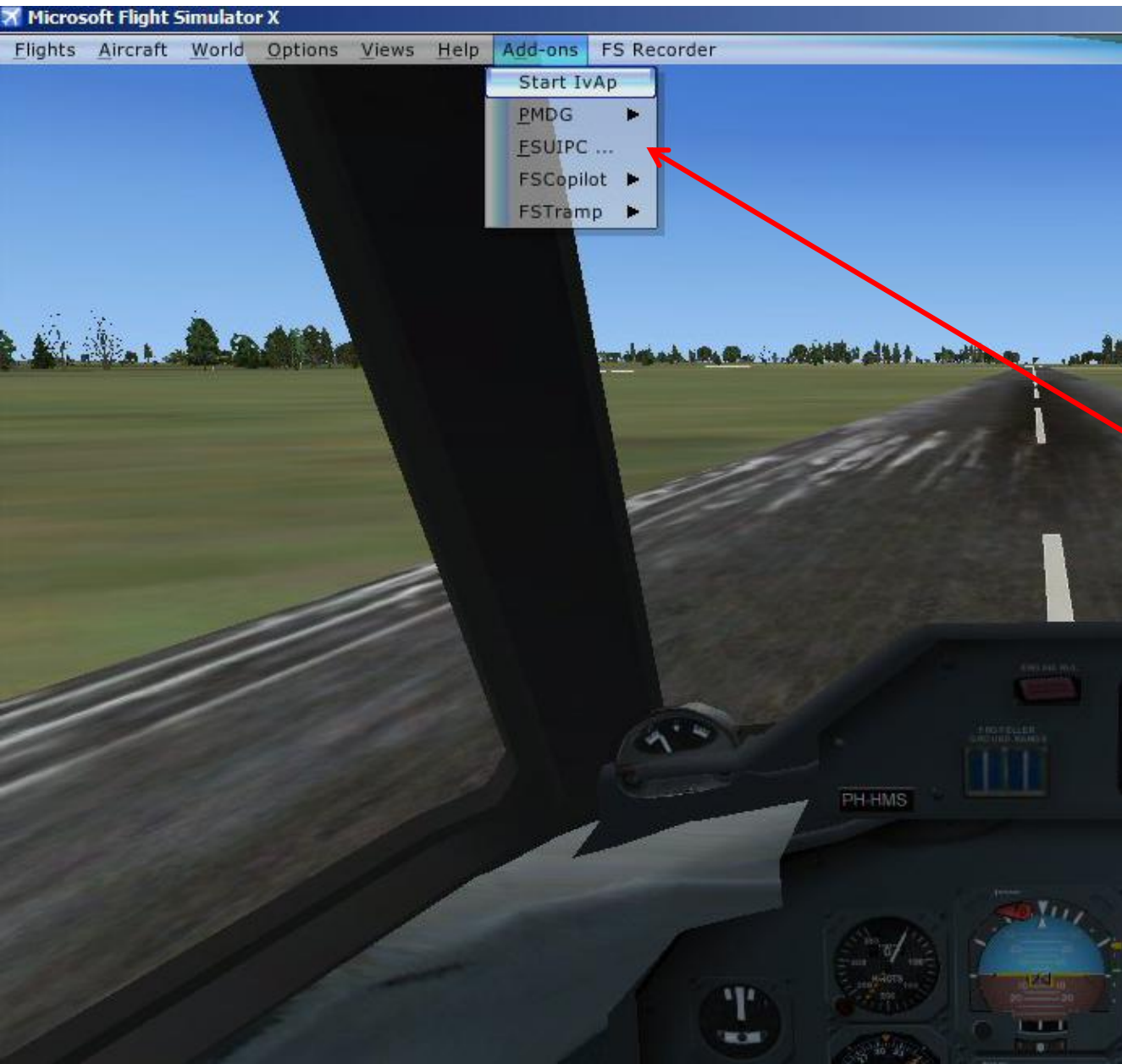
Toekennen van knoppen, toetsen en assen aan FSX acties

4 Opties for USB controllers in FSX

- gebruik van de Controller Software van de fabrikant van de controller
- gebruik alleen settings menu in FSX (Windows to calibrate)
- gebruik uitsluitend FSUIPC voor toekennen van knoppen en assen en calibratie van assen**
- elke mix van bovenstaande mogelijkheden

Wat is FSUIPC

Interface naar FSX voor applicatie programma's en add-on vliegtuigen



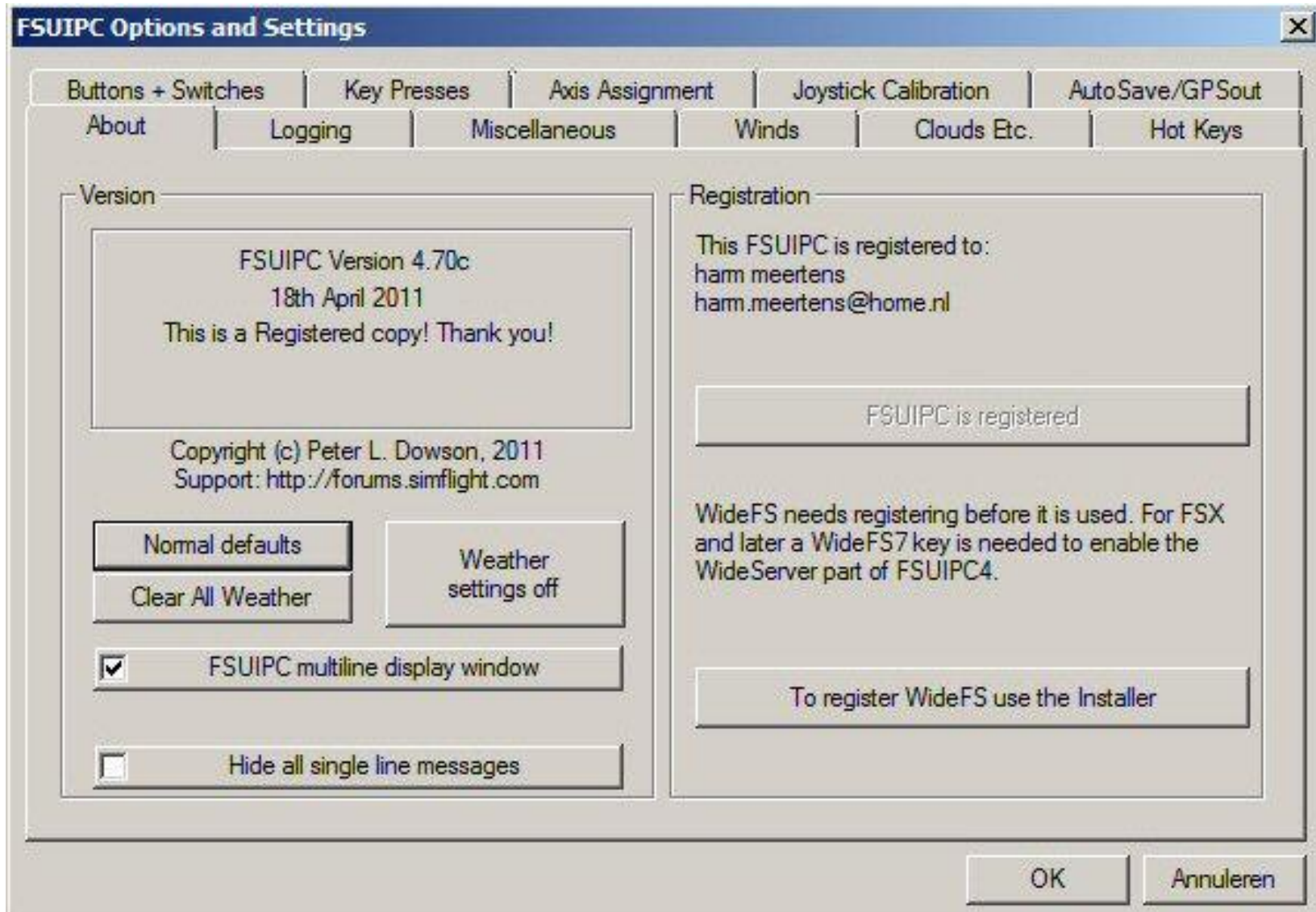
FSUIPC in
Add-ons menu

Ontwikkeld door:

Pete Dowson

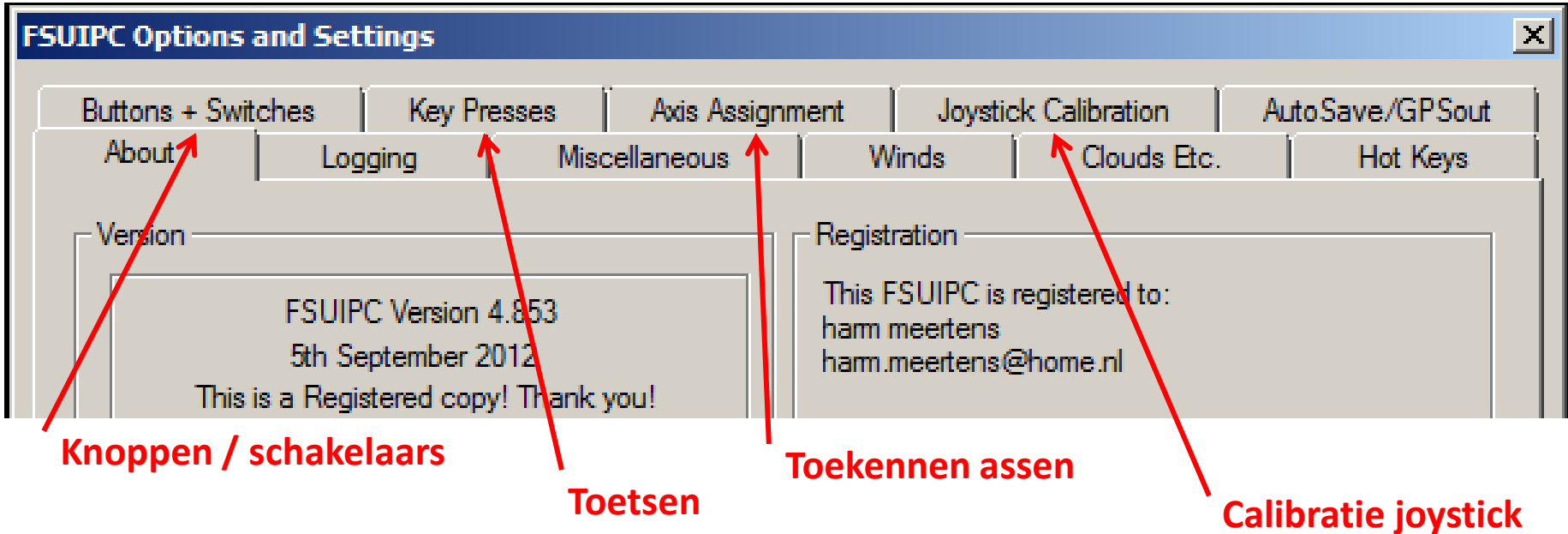
Wat is FSUIPC

Interface naar FSX voor applicatie programma's en add-on vliegtuigen



Wat is FSUIPC

Interface naar FSX voor applicatie programmas en add-on vliegtuigen



Zeer flexibele en krachtige voorziening voor onder andere:

- toekennen van controller-inputs voor een specifiek vliegtuig
- programmeren van knoppen en assen
- nauwkeurige joystick calibraties

FSPC handleidingen

FSUIPC: Application interfacing module for Microsoft Flight Simulator X and Microsoft ESP, and Lockheed-Martin Prepar3D (1.3)

Flight Simulator Universal Inter-Process Communication 4
by Pete Dowson, © 12th August 2012

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



Version 4.85 of FSUIPC.dll

Note: All my Windows based software is always available in the latest versions from <http://www.schiratti.com/dowson>. (Selected modules are also available elsewhere).

FSUIPC4 for Advanced Users (for FSUIPC4 Version 4.85, August 2012)

For changes since the previous version, please review the History document

**In deze presentatie gebruikt:
FSPC (Flight Simulator Process Communication)**

€ 28

Waarom FSPC gebruiken

- Meer FSX acties benaderbaar
- Gebruik van profielen
- Uniforme benadering van controls
- Meer mogelijkheden voor knoppen/schakelaars
- Meer mogelijkheden voor assen
- Mouse Macro's
- Macros
- Lua plugg-inns

Meer FSX acties benaderbaar

Long list of FSX Actions

DEMO STOP	65537		
SELECT 1	65538		
SELECT 2	65539		
SELECT 3	65540		
SELECT 4	65541		
DEMO RECORD 1 SEC	65543		
DEMO RECORD 5 SEC	65544		
MACRO BEGIN	65546		
MACRO END	65547		
MINUS	65548		
PLUS	65549		
ZOOM 1X	65550		
SOUND TOGGLE	65552	SET LAUNCH BAR SWITCH	66880
ENGINE	65554	SET TAIL HOOK HANDLE	66881
SIM RATE	65555	SET WING FOLD	66882
XPNDR	65556	TOGGLE RACERESULTS WINDOW	66883
SLEW TOGGLE	65557	BLEED AIR SOURCE CONTROL SET	66886
		FUEL DUMP SWITCH SET	66887

**Totaal 1350 Offset numbers
about 1090 different actions**

Additional “FS” Controls added by FSUIPC4

All the true FS controls are represented by **numbers above 65536**. FSUIPC has augmented these with its own set, programmable for both Button and Keys, and these utilise lower numbers, currently **in the 1000–3000 range**.

These are:

- 1001 PTT on (for Squawkbox 3, Roger Wilco or AVC Advanced Voice Client)
- 1002 PTT off (for Squawkbox 3, Roger Wilco or AVC Advanced Voice Client)
- 1003 Set button flag (param = 256*joy + btn or JjBb)
- 1004 Clear button flag (param = 256*joy + btn or JjBb)
- 1005 Toggle button flag (param = 256*joy + btn or JjBb)
- 1006 KeySend to WideClients (param = KeySend number, 1–255)
- 1007 Autobrake Set (param=0 for RTO, 1=off, 2-5 for 1,2,3,Max)**
- 1008 Traffic Density Set (param = 0–100 %)
- 1009 Traffic Density Toggle (param = 0–100 %)
- 1010 Spoiler inc (by 512 or amount set in SpoilerIncrement= INI parameter)
- 1011 Spoiler dec (by 512 or amount set in SpoilerIncrement= INI parameter)
- 1012

Gebruik van profielen



**Throttle
Quadrant**

PMDG NGX 737

- Spoiler
- Throttle
- Flaps

Mooney Bravo

- Throttle
- Propeller
- Mixture



User profiles for all controller settings

Vliegtuig specifiek

Uniforme benadering van controls



Verschillende fabrikanten

- Saitek
- VFR Insight
- GoFlight
-



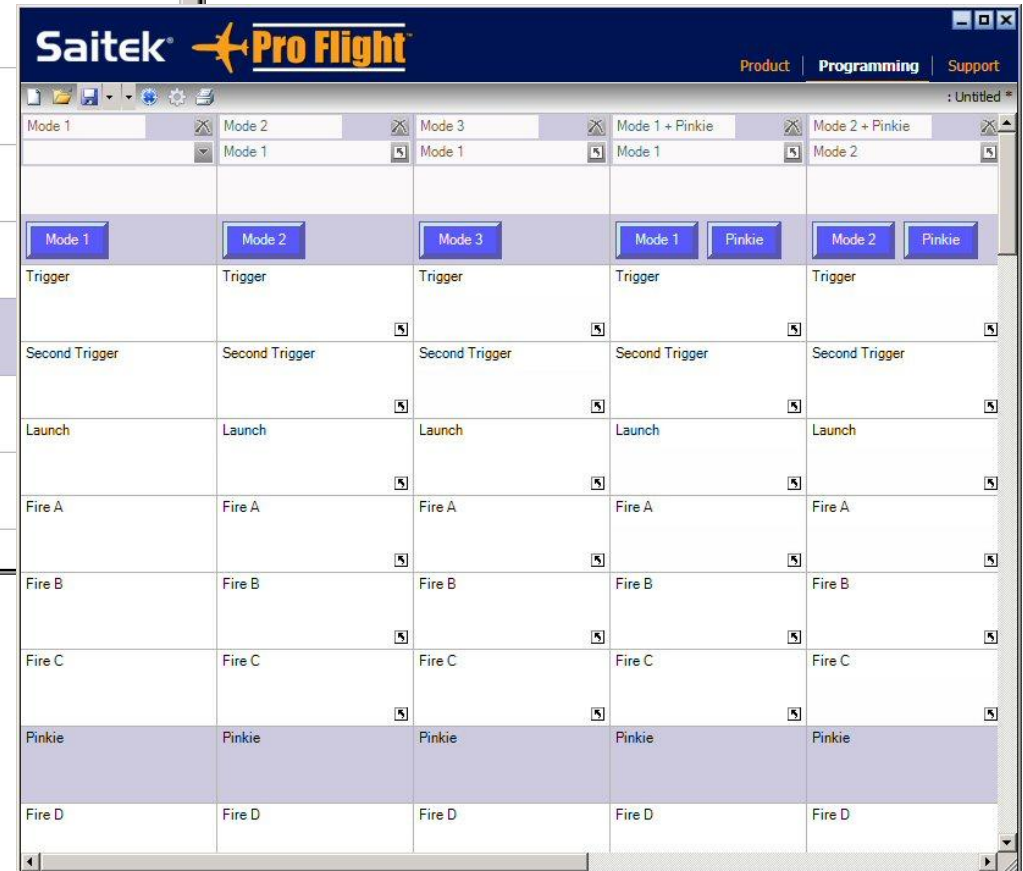
Universele benadering

Geen verschillende applicatie/driver programma's



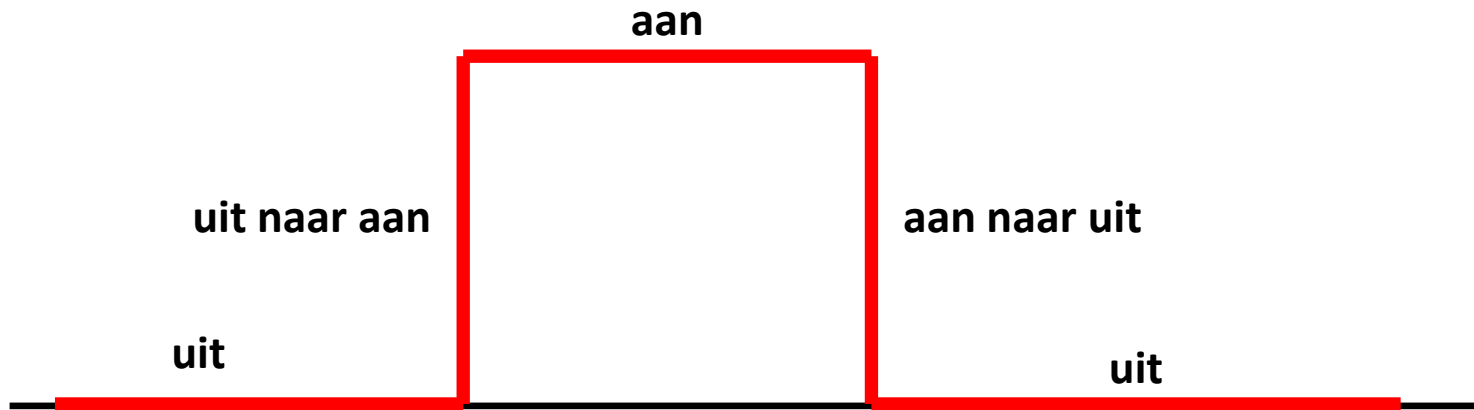
Keeping track of multiple control devices

Uniforme benadering van controls



Saitek
applikatie/driver programma

Knoppen Schakelaars en Rotaries



Drukknop



2-standen tuimelschakelaar

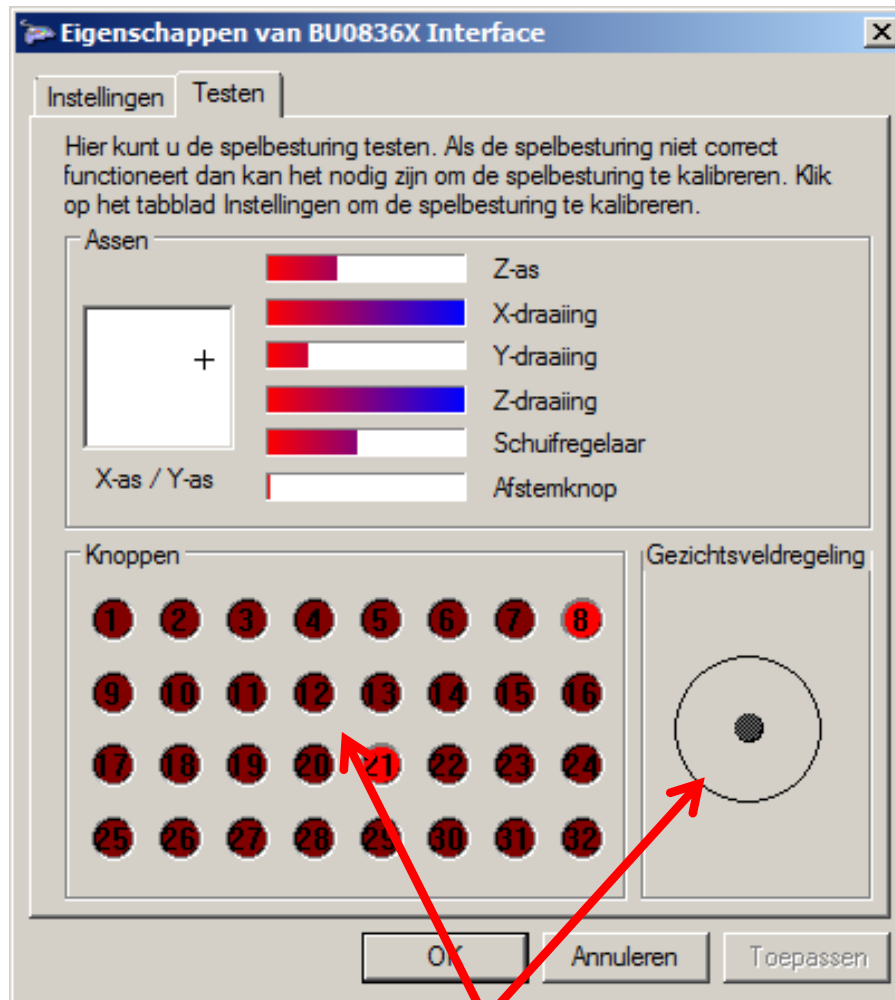


12-standen draaischakelaar



rotary schakelaar

Knoppen Schakelaars en Rotaries



Druknop



2-standen tuimelschakelaar

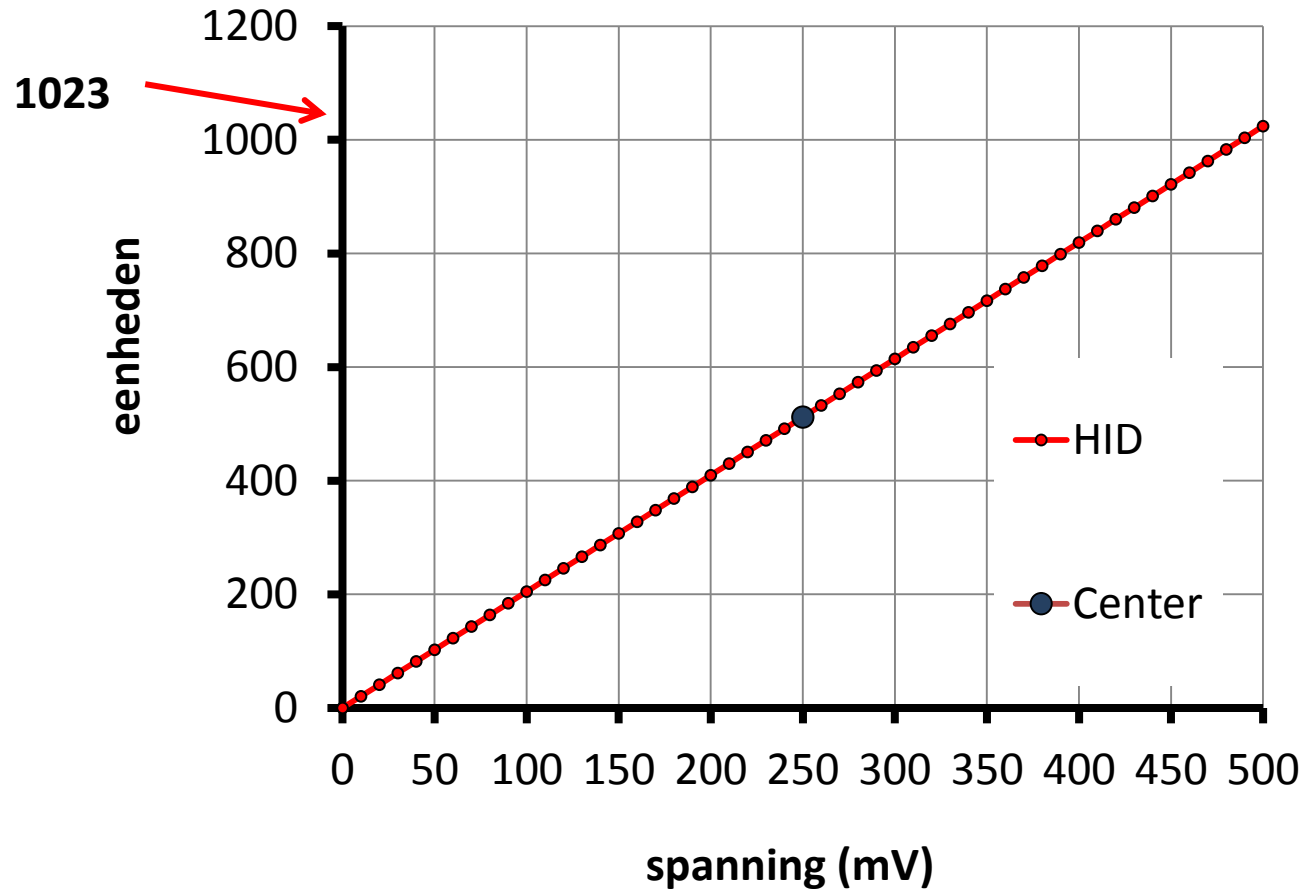


12-standen draaischakelaar



rotary schakelaar

Assen



**draai
potentiometer**



**schuif
potentiometer**

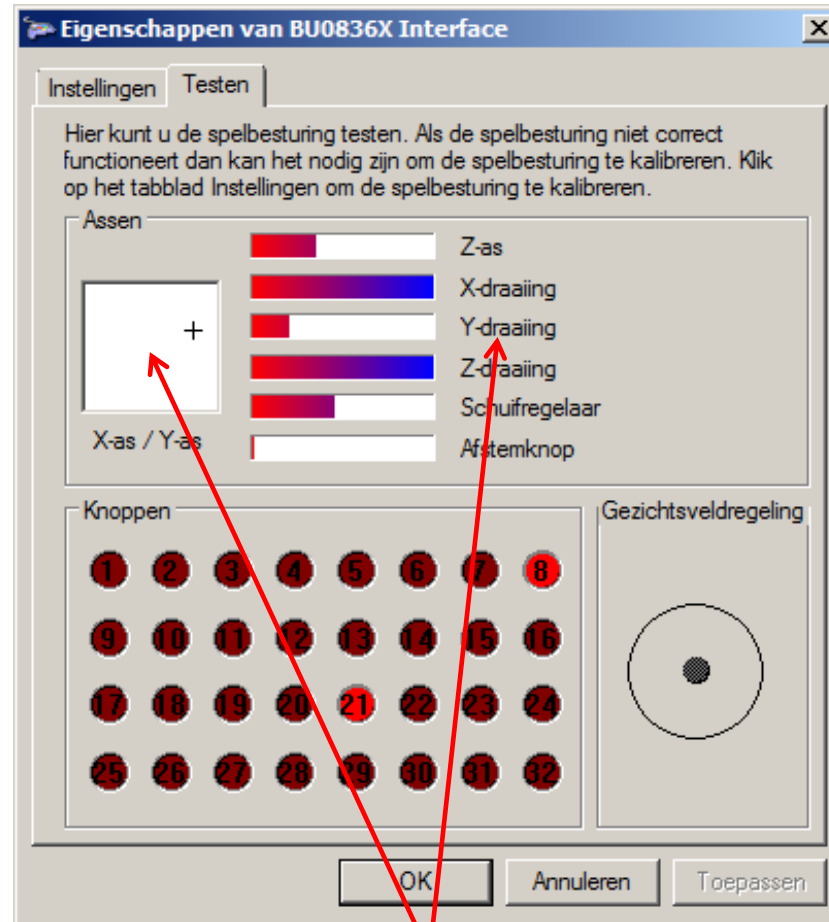


**12-stappen
potentiometer**



joystick

Assen



**draai
potentiometer**



**schuif
potentiometer**



**12-stappen
potentiometer**



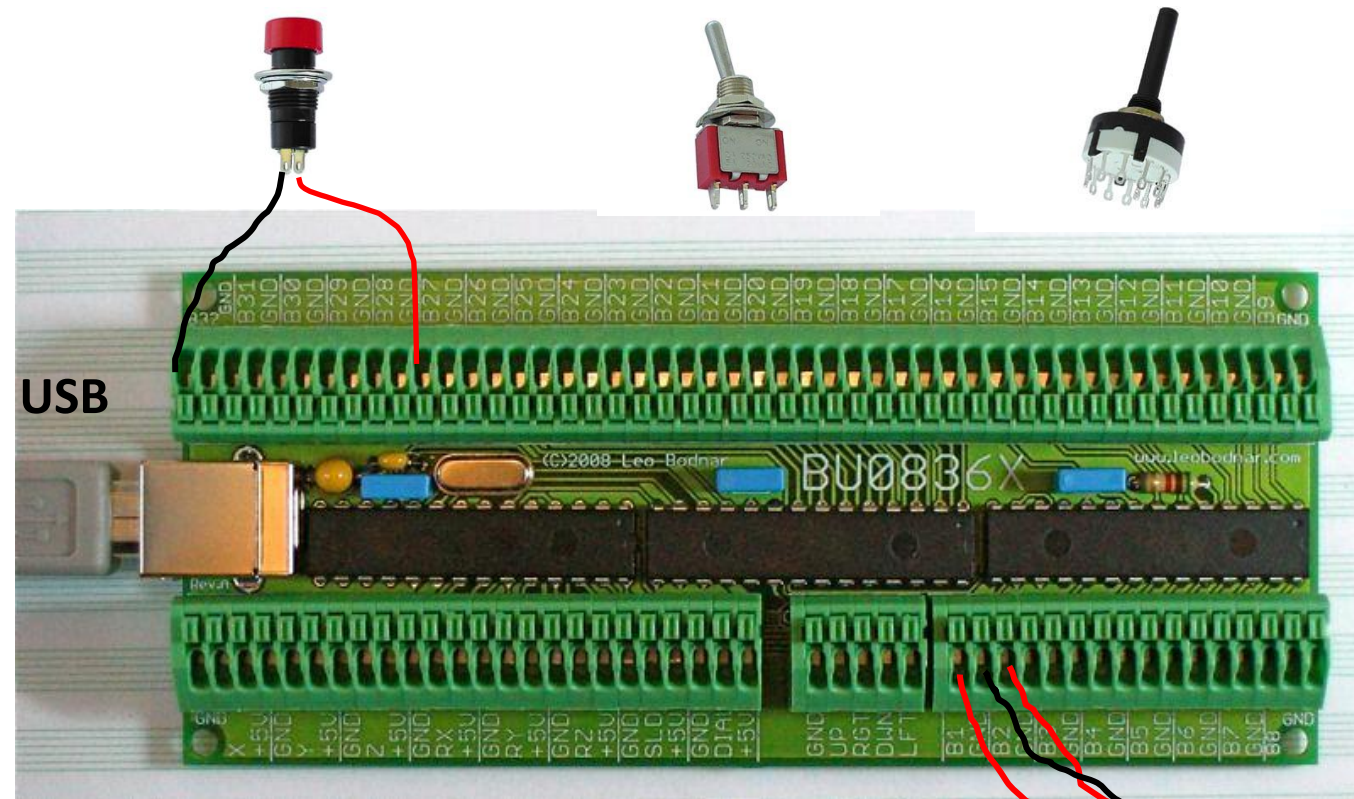
joystick

Assen



Knoppen Schakelaars Rotaries en potentiometers

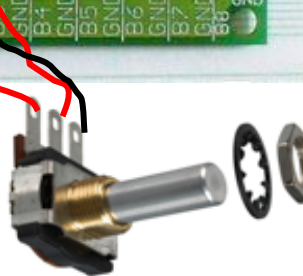
Bodnar HID



32 drukknoppen

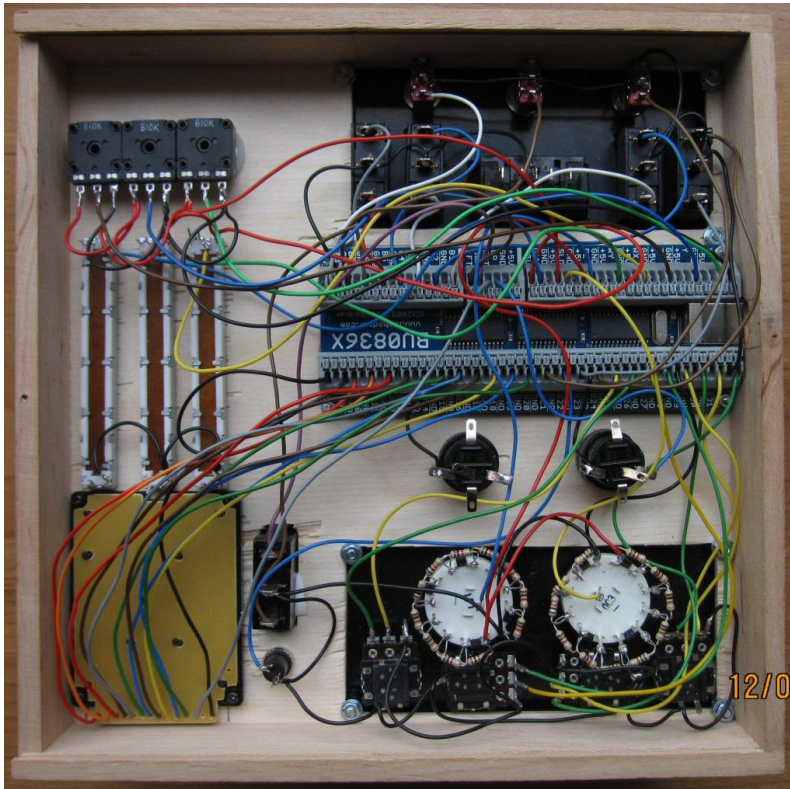
8 potentiometers

1 POV (4 drukknoppen)



Knoppen Schakelaars Rotaries en potentiometers

Bodnar HID



binnenzijde

- schakelaar keyboard (12 schakelaars)
- 3 schuifpotentiometers
- 3 draaipotentiometers
- 2 schakelaar potentiometers

- 14 schakelaars
- 4 rotaries



bovenzijde

Praktijkvoorbeelden

drukknop / rotary

- ❑ Eyepoint reset en zoom 1x d.m.v.
 - 1 drukknoop

- ❑ Rudder trim d.m.v.
 - 2 drukknoppen

- ❑ Heading increase / decrease d.m.v.
 - 2 drukknoppen
 - Rotary

Eyepoint reset en zoom 1x met drukknop

The screenshot shows the 'Buttons + Switches' tab in the FSUIPC Options and Settings window for DHC7. The window title is 'FSUIPC Options and Settings - DHC7'. The 'Buttons + Switches' tab is selected, and the 'Clear' button is visible. The main configuration area is titled 'Choose the action for this button: either keypress or FS control?'. The 'Select for key press' checkbox is unchecked, and the 'Select for FS control' checkbox is checked. The 'Joy#' is set to 'A' and the 'Btn#' is '21'. The 'Profile specific?' checkbox is checked. The 'Include Project Magenta' checkbox is unchecked. The 'Control sent when button pressed' dropdown is set to 'Eyepoint Reset'. The 'Control sent when button released' dropdown is set to 'Zoom 1x'. The 'Zoom 1x' option is highlighted in the list. The 'Zoom 1x' option is also highlighted in the list. The 'Zoom 1x' option is also highlighted in the list.

1: Points to the 'Buttons + Switches' tab.

2: Points to the 'Clear' button.

3: Points to the 'Joy#' field.

4: Points to the 'Select for FS control' checkbox.

5: Points to the 'Control sent when button pressed' dropdown menu.

6: Points to the 'Zoom 1x' option in the 'Control sent when button released' dropdown menu.

Rudder Trim Left met drukknop

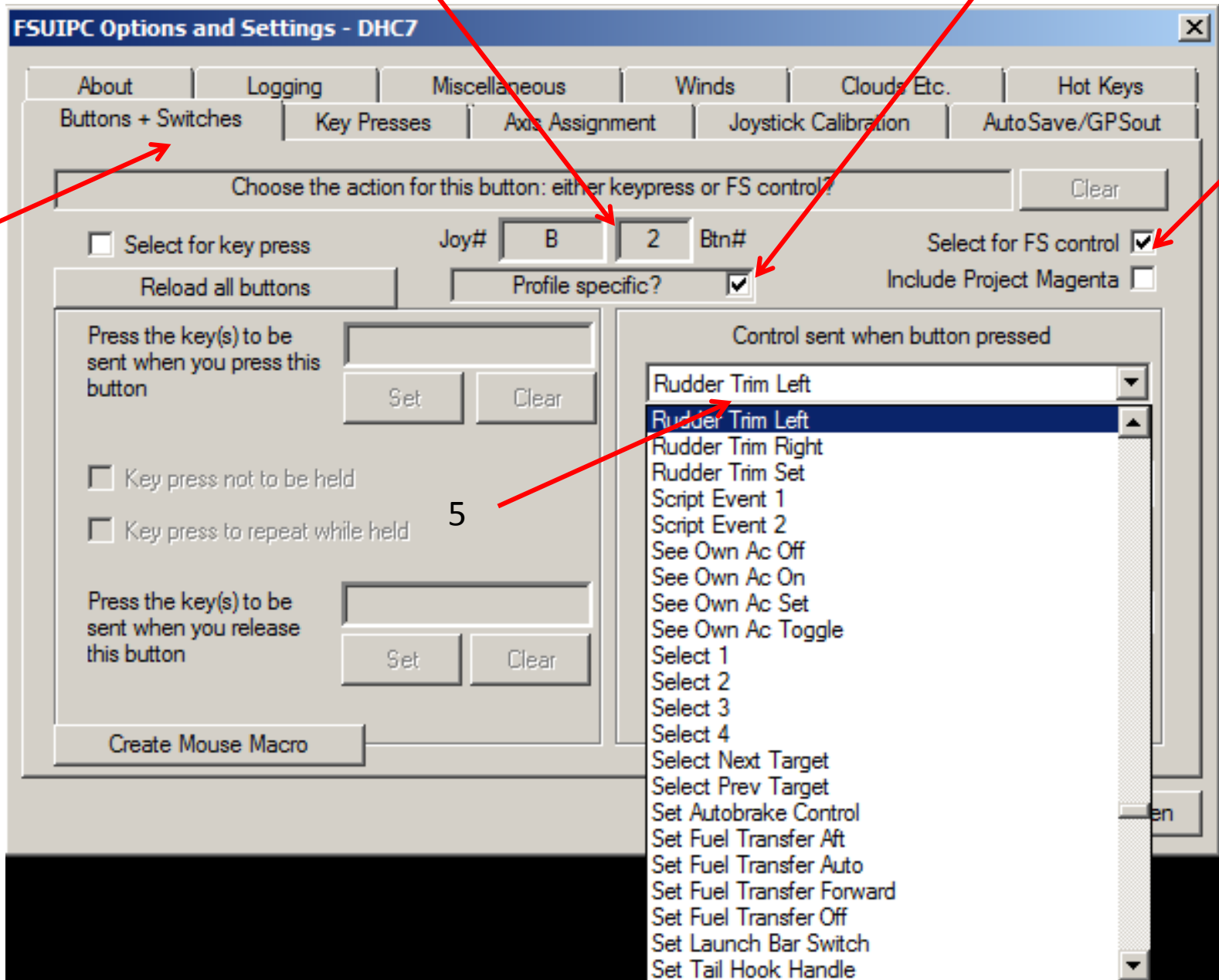
3

2

4

1

5



Rudder Trim Left met drukknop

The screenshot shows the 'Buttons + Switches' tab in the FSUIPC Options and Settings window for DHC7. The window title is 'FSUIPC Options and Settings - DHC7'. The 'Buttons + Switches' tab is selected, and the 'Choose the action for this button: either keypress or FS control?' dialog is open. The 'Select for FS control' checkbox is checked, and the 'Control sent when button pressed' dropdown is set to 'Rudder Trim Left'. The 'Control to repeat while held' checkbox is also checked. The 'Joy#' is set to 'B' and the 'Btn#' is set to '2'. The 'Profile specific?' checkbox is checked. The 'Include Project Magenta' checkbox is unchecked. The 'Key Presses' sub-tab is selected, and the 'Press the key(s) to be sent when you press this button' field is empty. The 'Key press not to be held' and 'Key press to repeat while held' checkboxes are unchecked. The 'Press the key(s) to be sent when you release this button' field is empty. The 'Create Mouse Macro' button is visible at the bottom left. The 'OK' and 'Annuleren' buttons are at the bottom right. Red arrows point to various elements: 1 points to the 'Buttons + Switches' tab, 2 points to the 'Joy#' field, 3 points to the 'Btn#' field, 4 points to the 'Select for FS control' checkbox, and 5 points to the 'Control sent when button pressed' dropdown.

1 Buttons + Switches

2 Joy# B

3 Btn# 2

4 Select for FS control

5 Control sent when button pressed: Rudder Trim Left

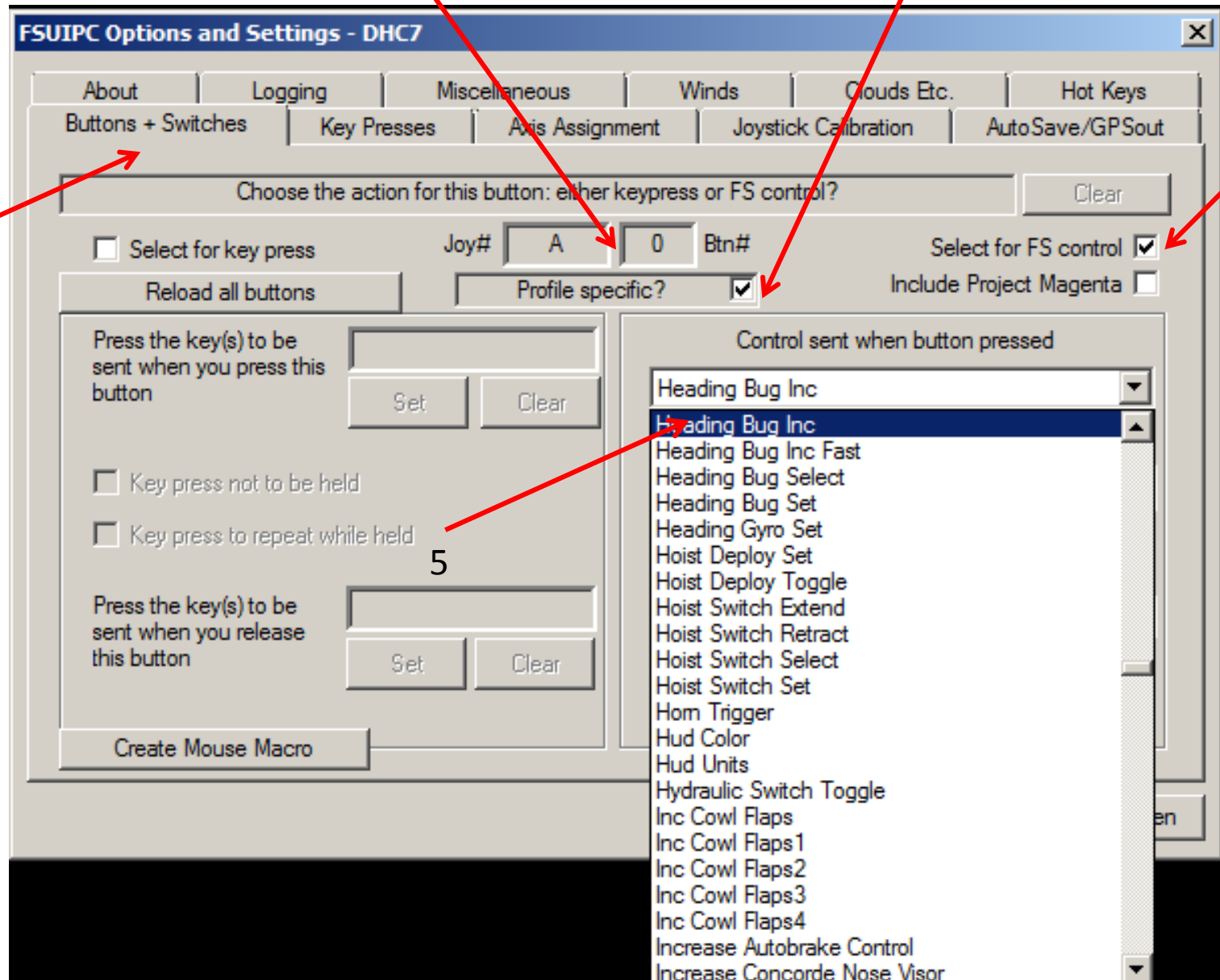
Control sent when button pressed: Rudder Trim Left

Control to repeat while held

Control sent when button released

OK Annuleren

Heading Bug Inc met Rotary



1

3

2

4

5

Heading Bug Inc met Rotary

The screenshot shows the 'Buttons + Switches' tab in the FSUIPC Options and Settings - DHC7 window. The window title bar includes 'About', 'Logging', 'Miscellaneous', 'Winds', 'Clouds Etc.', and 'Hot Keys'. The sub-tab bar includes 'Buttons + Switches', 'Key Presses', 'Axis Assignment', 'Joystick Calibration', and 'AutoSave/GP Sout'. The main area contains a 'Choose the action for this button: either keypress or FS control?' prompt with a 'Clear' button. Below this, there are checkboxes for 'Select for key press' (unchecked) and 'Select for FS control' (checked). The 'Joy#' is set to 'A' and 'Btn#' is '0'. A 'Profile specific?' checkbox is checked. There are also 'Reload all buttons' and 'Include Project Magenta' (unchecked) options. The left side has two sections for key assignment: 'Press the key(s) to be sent when you press this button' and 'Press the key(s) to be sent when you release this button', each with 'Set' and 'Clear' buttons. A 'Create Mouse Macro' button is at the bottom left. The right side has a 'Control sent when button pressed' section with a dropdown menu showing 'Heading Bug Inc', a 'Clear' button, and a 'Parameter' input field. Below it is a 'Control to repeat while held' checkbox (checked) and a 'Control sent when button released' section with a dropdown menu and a 'Clear' button, also with a 'Parameter' input field. At the bottom right are 'OK' and 'Annuleren' buttons. Red arrows with numbers 1 through 5 point to specific elements: 1 points to the 'Buttons + Switches' tab; 2 points to the 'Choose the action...' prompt; 3 points to the 'Btn#' field; 4 points to the 'Clear' button next to the 'Choose the action...' prompt; 5 points to the 'Heading Bug Inc' dropdown menu.

1 Buttons + Switches

2 Choose the action for this button: either keypress or FS control?

3 Joy# A 0 Btn#

4 Clear

5 Control sent when button pressed

Heading Bug Inc

OK Annuleren

Praktijkvoorbeelden

As

- ❑ Rudder trim d.m.v.
 - 2 drukknoppen
 - potentiometer-as

- ❑ Thrust en reverse-thrust d.m.v.
 - potentiometer-as

- ❑ Aparte auto-start per engine d.m.v.
 - stappenschakelaar potentiometer

Praktijkvoorbeelden

Rudder Trim assignment

1

The screenshot shows the 'FSUIPC Options and Settings - DHC7' window. The 'Axis Assignment' tab is selected. The 'Joy#' is set to 'A' and 'Y'. The 'Axis#' is set to '1'. The 'Profile specific?' checkbox is checked. The 'Raw' checkbox is unchecked. The 'Delta' is set to 256. The 'In' value is -29 and the 'Out' value is -272. The 'Type of action required' section has three radio buttons: 'Send direct to FSUIPC Calibration' (selected), 'Send to FS as normal axis', and 'Send to FSUIPC Offset'. Below this is a list of actions with checkboxes. 'Rudder Trim' is checked and highlighted in blue. Other actions include PropPitch4, Reverser, Reverser1-4, RightBrake, Rudder, Rudder/SlewHdg, SlewAhead, SlewAlt, SlewHeading, SlewSide, Spoilers, Steering Tiller, Throttle, Throttle/SlewAlt, Throttle1-4. The 'Control sent when range entered' and 'Control sent when range exited' sections are empty. The 'Delete this' and 'Delete all' buttons are visible. The 'OK' and 'Annuleren' buttons are at the bottom right.

2

Praktijkvoorbeelden

Throttle assignment

The screenshot shows the 'Axis Assignment' tab in the 'FSUIPC Options and Settings - DHC7' window. The interface is annotated with red arrows and numbers 1 through 7. Arrow 1 points to the 'Miscellaneous' tab. Arrow 2 points to the 'Axis#' field. Arrow 3 points to the 'Rescan' button. Arrow 4 points to the 'Joy#' field. Arrow 5 points to the 'Type of action required' section. Arrow 6 points to the 'Throttle' option in the list. Arrow 7 points to a yellow text box at the bottom right.

1

2

3

4

5

6

7

**Range van waarden van FSX Akties:
16383 tot -16383
naar joystick calibration**

Praktijkvoorbeelden

Throttle assignment

The screenshot shows the 'FSUIPC Options and Settings - DHC7' window. The 'Axis Assignment' tab is selected. A red box highlights the 'Throttle (direct!)' section, which includes a 'Set' button, an 'In' value of -10062, an 'Out' value of 0, and a checked 'Map to 4 throttles' checkbox. Red arrows point to the 'Profile Specific' checkbox (labeled '2'), the 'Clouds E...' tab (labeled '1'), and the 'Map to 4 throttles' checkbox (labeled '3').

FSUIPC Options and Settings - DHC7

About Logging Miscellaneous Winds Clouds E... Hot Keys
Buttons + Switches Key Presses Axis Assignment Joystick Calibration AutoSave/GP Sout

1 of 11: Main flight controls

Profile Specific

	Min	Centre	Max
Ailerons (direct!)			
Reset <input checked="" type="checkbox"/> Filter	Set	Set	Set
0 In	-16380	-512	16380
0 Out <input type="checkbox"/> Rev	512	Slope	

	Min	Centre	Max
Rudder (direct!)			
Reset <input checked="" type="checkbox"/> Filter	Set	Set	Set
0 In	-16380	-512	16380
0 Out <input type="checkbox"/> Rev	512	Slope	

	Min	Centre	Max
Elevator (direct!)			
Reset <input checked="" type="checkbox"/> Filter	Set	Set	Set
-161 In	-16380	-512	16380
0 Out <input type="checkbox"/> Rev	512	Slope	

	Min	Centre	Max
Throttle (direct!)			
Set			
-10062 In			Axis mapped - see page 3
0 Out <input checked="" type="checkbox"/> Map to 4 throttles			

Reload all settings

OK Annuleren

Praktijkvoorbeelden

Throttle calibration

FSUIPC Options and Settings - DHC7

About Logging Miscellaneous Winds Clouds Etc. Hot Keys
Buttons + Switches Key Presses Axis Assignment Joystick Calibration AutoSave/GP Sout

3 of 11: Separate throttles per engine

No reverse Zone Profile Specific

Reverse Idle Max

Throttle 1

Reset Filter Set Set Set

-10061 In -15867 -10836 15609

0 Out Rev -5160 Slope

Throttle 2

-8127 In Axis copied from Thr 1

0 Out

Throttle 3

-8127 In Axis copied from Thr 1

0 Out

Throttle 4

-8127 In Axis copied from Thr 1

0 Out

Reload all settings Sync Pos Exclude THROTTLEn_SET

OK Annuleren

1

2

3

dead zone

Praktijkvoorbeelden

Reverser assignment

FSUIPC Options and Settings - DHC7

Buttons + Switches | Key Presses | **Axis Assignment** | Joystick Calibration | AutoSave/GP Sout

Rescan | Clear | Joy# A | Y | Axis# | Ignore Axis | Clr Ignores

Profile specific?

This side to send axis values | This side to send button controls

Set minimum change here. Press "Delta", move axis a little, press "Delta" again.

Delta	In	-29
256	Out	-272

Raw

Set up to 10 ranges for action

1 | From | To | Up | Down

Control sent when range entered

| Parameter

Control to repeat whilst in range

| Control sent when range exited

| Parameter

assignments | Delete this | Delete all

OK | Annuleren

Type of action required

- Send direct to FSUIPC Calibration
- Send to FS as normal axis
- Send to FSUIPC Offset

- Rudder Trim
- PropPitch4
- Reverser
- Reverser1
- Reverser2
- Reverser3
- Reverser4
- RightBrake
- Rudder
- Rudder Trim
- Rudder/SlewHdg
- SlewAhead
- SlewAlt
- SlewHeading
- SlewSide
- Spoilers
- Steering Tiller
- Throttle
- Throttle/SlewAlt
- Throttle1
- Throttle2
- Throttle3
- Throttle4

Praktijkvoorbeelden

Stappenschakelaar-potentiometer assignment

FSUIPC Options and Settings - DHC7

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

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

Rescan | Clear | Joy# A S | Axis# | Ignore Axis | Clr Ignores

This side to send axis values | Profile specific? | This side to send button controls

Set minimum change here. Press "Delta", move axis a little, press "Delta" again.

Raw | Set up to 10 ranges for action

Delta	In	10429	▲	4	From	To	Up <input checked="" type="checkbox"/>
256	Out	10421	▼		7300	7600	Down <input checked="" type="checkbox"/>

Type of action required

- Send direct to FSUIPC Calibration
- Send to FS as normal axis
- Send to FSUIPC Offset

Control sent when range entered

- Engine 3 Autostart
- Engine 4 Autostart
- Engine Auto Shutdown
- Engine Auto Start
- Engine Fuelflow Bug Position1
- Engine Fuelflow Bug Position2
- Engine Fuelflow Bug Position3
- Engine Fuelflow Bug Position4
- Engine Primer
- Exit
- External System Set
- External System Toggle
- Extinguish Engine Fire
- Eyepoint Back
- Eyepoint Down
- Eyepoint Forward
- Eyepoint Left
- Eyepoint Reset
- Eyepoint Right
- Eyepoint Up
- Fire All Guns
- Fire Primary Guns

Reload all assignments

Daarom FSPC gebruiken

- Meer FSX acties benaderbaar
- Gebruik van profielen
- Uniforme benadering van controls
- Meer mogelijkheden voor knoppen/schakelaars
- Meer mogelijkheden voor assen

FSPC handles up to 16 joystick devices numbered 0 to 15

Each joystick can handle up to 12 “axes”.

The possible axis identifications are X, Y, Z, R, U, V, S, T, P, Q, M and N.

- X, Y, Z, R, U, V, are non-DirectInput axes
- S and T are sliders
- P, Q, M and N are all “Point-of-View” (POV) controllers which cannot be used like genuine analogue axes

Of these it is common for

- X and Y to be assigned to aileron and elevator
- Z or S to throttle,
- R to rudder
- U and V for additional uses such as Mixture and Prop, or analogue toe brakes
- POV (P) for view selection or panning.

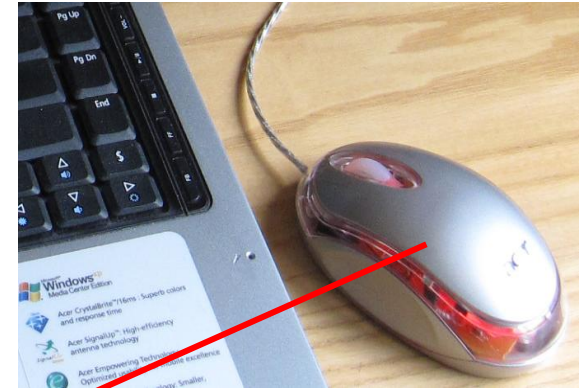
What you get if you don't pay:

The ability to run all FSUIPC-dependent application programs.

What you get if you pay:

- Facilities for joystick calibration, some fancy assignment capabilities, and button programming
- Aircraft-specific assignment capabilities so that you can do different things with the same controls on different aircraft
- Key press programming facilities, also aircraft-specific if desired
- Assorted weather filtering
- AutoSave options—to save a Flight regularly, as a background task so you can resume from a few minutes before in the event of a crash or a need to reproduce some problem

Mouse Macro



1. muis commando omzetten in virtuele knop
2. virtuele knop toekennen aan fysieke knop

Using FSPC4 only!

This is for any Controller, but **NOT** using the supplied software* (not driver) or FSX and Windows.

- Do NOT start CH Control Manager in mapped mode or use the Saitek SST software
- Under Control Panel in Windows detect your controllers so that they are working properly.
- Delete (or move) the FSUIPC.ini file from the \FSX\Modules folder.
- Start FSX and go to “SETTINGS\Controls\Calibration\Controller” **UNTICK** “ Enable Controllers”
- Check for and DELETE any axes assigned to the Mouse & the Keyboard
- Start FSX - default aircraft stationary at any air port.
- Press “**ALT\Add-ons\FSUIPC**”
- Choose “**AXIS ASSIGNMENT**”
- Assign each axis for each controller (Yoke, Pedals Throttle Quadrant) as shown in the FSUIPC4 Manuals. You **MUST** follow the manual exactly to ensure that you assigned each axis correctly. Ensure that you have no duplicate axes assigned.

Using FSUIPC4 only!

- For “**Type of action**” - Choose: “**Send Direct to FSUIPC calibration**”.
- Choose “**Joystick Calibration**” (11 tabs) Calibrate all axes as shown in the FSUIPC4 manuals
- Set up any **Buttons & Switches and Keys** at this stage
- Check again that you have **NO duplicate** axis assignments
- Click “OK” to return to FSX
- Continue the flight: check that all axes, etc are working correctly. Reassign and re-calibrate if necessary; Re-check until satisfied and then close FSX.
- Reboot the PC
- Open FSX and under settings ensure “Enable controllers” is still **unticked**. FSX may reassign axes to your controllers (it will if any USB setting changes), check the mouse and keyboard.
- Load the same default plane, open FSUIPC4 and check that your axis assignments are OK and that you are happy with your controls
- Fly!
- Repeat for other aircraft types as necessary and as described in the manuals.