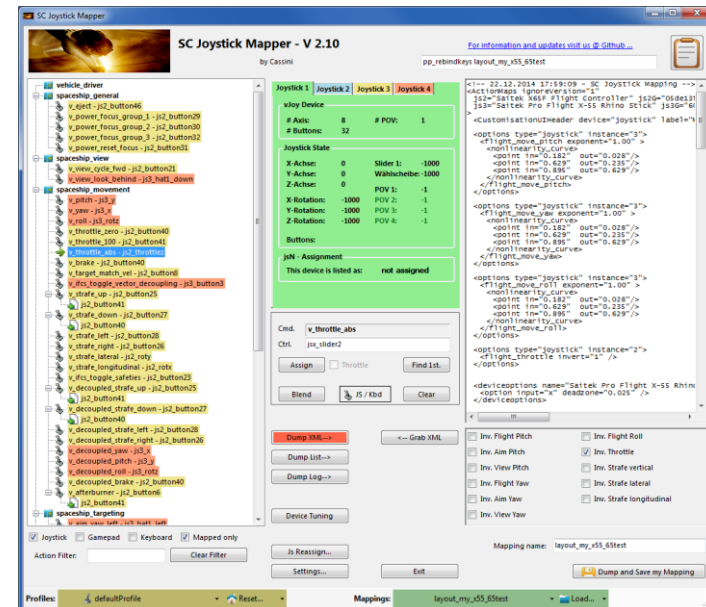


SC Joystick Mapper

Quick Reference Guide V 2.10

20150104 – Cassini
ChangeLog: see ReadMe.txt

Disclaimer:
Usual stuff – no warranty whatsoever..
Freeware – made for the SC community
Hope it helps and does not suck.
Have fun in the verse ...



Updating from V 2.x to V 2.10:

- With AC 1.0 a lot has changed in mapping:
old options (pilot_something) are renamed and re-ordered
→ copy the file and manually delete those from the map before loading.
Or delete them in the XML window and then “Save” it under a new name
then Load the newly created mapping file (it should no longer contain options parts)
- Now you may re-create the options via Tuning and Invert checkboxes
- Further cross device mappings have to be deleted as they are not supported in AC1.0
they will show up in pink or gray in the tree and must be Cleared manually
Use the new sub-actions (page 29) to have multiple assignments.
- If you encounter an error or crash then read on...
- You will find ‘log4net.config.OFF’ in the distribution zip.
Rename it to ‘log4net.config’ and run the program.
Then look for a file named ‘trace.log’ in the program folder and send this to
cassini@burri-web.org along with a description of the problem and your system
i.e. OS, CPU, Graphics card, Joystick(s)
we may then finally solve the issue ...

Contents

- Page 2 Version Upgrade and Issue Handling
- Page 3 Contents (this one...)
- Page 4..10 General GUI and how to's
- Page 11..14 V2.0 new features
- Page 15 V2.1 new features
- Page 16 V2.2 new features + V2.5 refinement
- Page 17 V2.3 new features + V2.4 refinement
- Page 18 V2.5 new features
- Page 19 V2.7 new features
- Page 24 V2.8 new features
- Page 29 V2.10 new features
- Last Page Common Workflows - Cheat sheet

Workflow (see also last page)

- Connect the game control devices to the PC
- Start from scratch or load an existing map from a file
- Make or refine mappings
- Save the new map to an XML file
- Use it in the game: e.g. `pp_rebindkeys C:\maps\layout_my_joystick`
- **V 2.0: You may load and save the map directly from your game folders so next time you just use `pp_rebindkeys layout_my_joystick`**

Note: the predefined actions are the ones found in the AC game default profile – it is likely that some of them will not work at all as the game is not finished. There is no proper description for which one does what – you may get help in SC Forums.

As I had my issues with missiles here a finding..

To reallocate the missile fire command you should map the following 2 actions to the same joystick button:

- `v_target_missile_lock_selected`
- `v_weapon_launch_missile`

BTW: if you copy e.g. “`pp_rebindkeys C:\maps\layout_my_joystick`” from notepad you may use Ctrl-V to paste it in-game into the console – saves you some typing...

The GUI ...

Action tree and mappings

XML dump of the mappings used

The screenshot shows the SC Joystick Mapper interface. On the left is a tree view of the action tree. The center displays detected game devices, with 'Saitek X65F Flight Controller' selected. Below this is a 'Joystick State' table and a 'jsN - Assignment' section. The right side shows an XML dump of the mappings. At the bottom, there are buttons for 'Dump XML', 'Dump List', 'Dump Log', 'Device Tuning', 'Js Reassignment', 'Settings', and 'Exit'. A 'Profiles' dropdown is at the bottom left, and a 'Mappings' dropdown is at the bottom right.

X:	0	Throttle 2:	1000
Y:	0	Slider 2:	0
Throttle 1:	1000	POV 1:	-1
Rotary 1:	1	POV 2:	-1
Rotary 2:	-31	POV 3:	-1
Rudder:	0	POV 4:	-1

This device is listed as:	js2
---------------------------	-----

```
<!-- 22.12.2014 17:59:09 - SC Joystick Mapping -->
<ActionMaps ignoreversion="1"
js2="Saitek X65F Flight Controller" js2G="05de13"
js3="Saitek Pro Flight X-55 Rhino Stick" js3G="6"
>
  <CustomisationUIHeader device="joystick" label="h"
  >
    <options type="joystick" instance="3">
      <flight_move_pitch exponent="1.00" >
        <nonlinearity_curve>
          <point in="0.182" out="0.028"/>
          <point in="0.629" out="0.235"/>
          <point in="0.895" out="0.629"/>
        </nonlinearity_curve>
      </flight_move_pitch>
    </options>
    <options type="ioystick" instance="3">
      <flight_throttle invert="1" >
        <nonlinearity_curve>
          <point in="0.182" out="0.028"/>
          <point in="0.629" out="0.235"/>
          <point in="0.895" out="0.629"/>
        </nonlinearity_curve>
      </flight_throttle>
    </options>
  </CustomisationUIHeader>
  <flight_move_pitch>
    <option type="joystick" instance="3" />
  </flight_move_pitch>
  <flight_throttle>
    <option type="joystick" instance="2" />
  </flight_throttle>
  <device>
    <option type="joystick" instance="1" />
  </device>
  </ActionMaps>
```

Detected Game devices
(up to 8 are shown)

Device properties
(greyed out ones are not available)

Joystick device map

Selected mapping

Action Mapping Buttons

XML Area Buttons

Dump nice List

V2.10 Dump Controller log

V2.7: Joystick Tuning

V2: Save into game folders

V2: Load from game folders

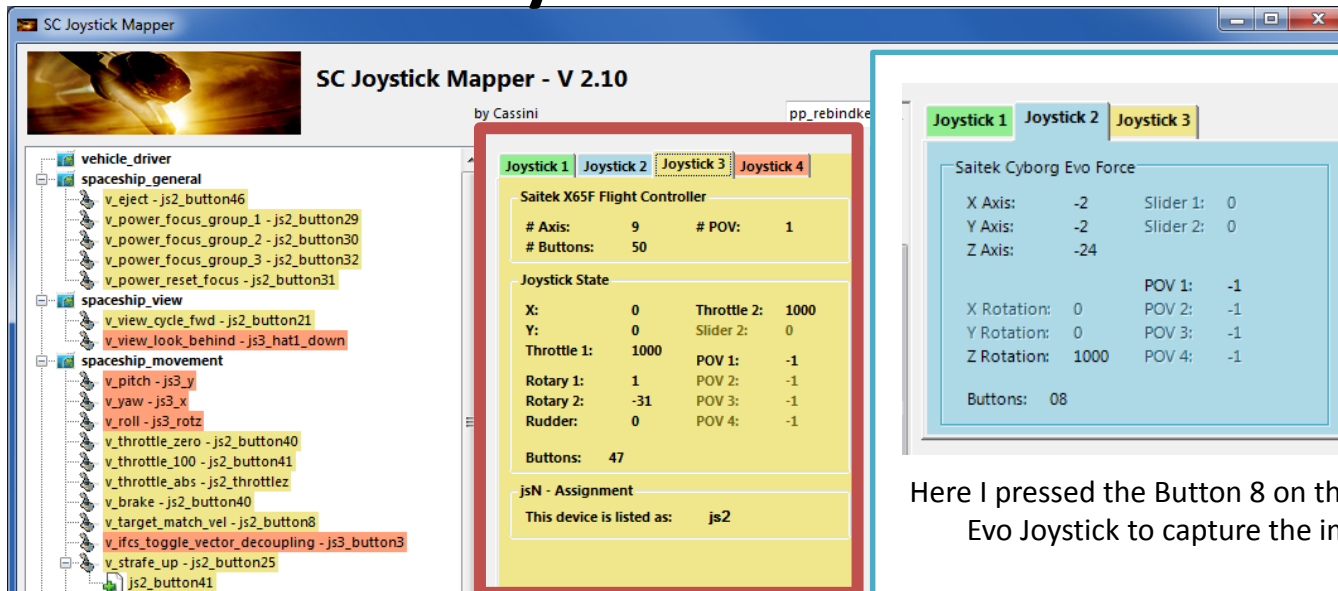
V2: Resize the window

V2.3, 2.4: Js Reassignment

V2: filter the action tree

V2: New Reset with options

The Joystick Area...



Here I pressed the Button 8 on the Cyborg Evo Joystick to capture the image

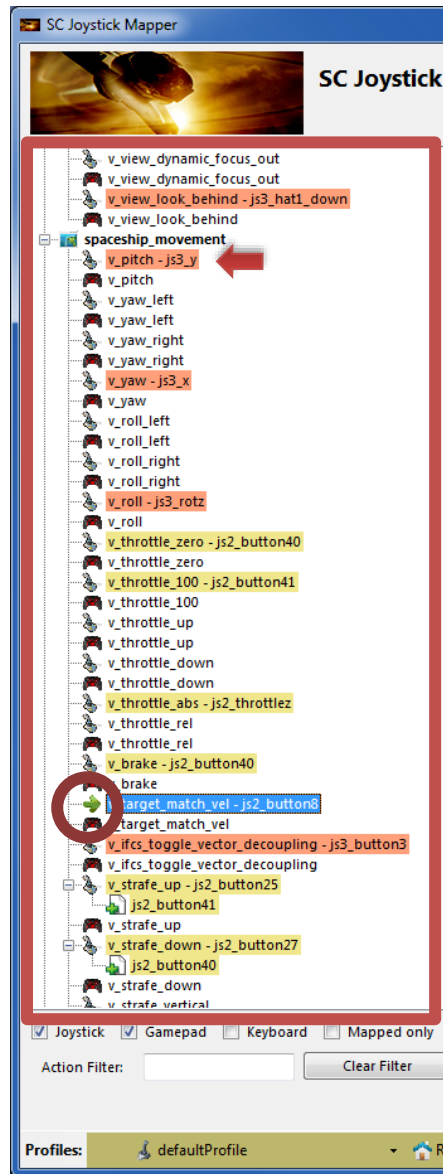
The tabs represent the game devices found connected to the PC also the number 1..8 shows the order the PC reports them which is crucial to the mapping as this will result in the default js_1, js_2 .. Names used to build the command name. The elements are the ones the joystick seems to support – greyed ones are not available for this device.

V 2.4: you will see the actual Js assignment - or 'not assigned' – see page 17

The SC-Device to Joystick Mapping is a separate window accessed by hitting the 'Js Reassign' button.

Just hit any button, Axis and see how things are changing.

The Action Tree ...



The tree is initially built from the known actions which are grouped along 'actionmaps' e.g. 'spaceship_movement'.

Each action is either a predefined joystick or keyboard action – this is given by the SC default profile.

By 'rebinding' or mapping and action with a different controls one does **replace** the default one i.e. **overwriting keyboard actions will result in not having them available on the keyboard once you load the map in the game!**

However no damage is done! This mapping is only valid until you exit the game or type `pp_rebindkeys` without a name

If actions are mapped (as shown) the color indicates to which joystick the mapping goes.

v_pitch – js3_y then means that the action v_pitch (joystick per default) is rebound to the joystick 3 (orange) and there the Y-axis control.

If the background is white - there is no current mapping given. Unmapped actions are ignored.

Click on any action to make it the used action in the mapping area. Once selected it is marked with the green arrow



The Mapping Area...

Whenever you click on an action in the Action Tree it is copied into Cmd. and can be mapped to a Control.

The Control (Ctrl.) is the last joystick item you activated on the currently shown joystick tab.

I.e. if you want to map it for a control on the second joystick you have to select the “Joystick 2” Tab first.

Once you have a mapping that should be used, hit the “Assign” button.

The new mapping will be shown in the Action Tree – where it gets the back color of the joystick it is assigned to.

V2: To make any axis a Throttle axis – check the ‘Throttle’ box ! It is often the Z-Axis but the Rhino has it e.g. on js2_y.
If you do so the control assigned in changed to a throttle control (here js2_throttlez)

To clear a mapping – select it in the ActionTree and Click “Clear” - it gets a neutral color and no control in the ActionTree – it is now unmapped.

You may use “Find 1st” to find the first action where the currently shown Ctrl. (js2_z or if checked as shown js2_throttlez) is mapped.

The screenshot displays the joystick mapping software interface. On the left, the Action Tree lists various actions, with 'v_throttle_abs - js2_throttlez' highlighted in yellow and a red arrow pointing to it. The central panel shows the mapping configuration for 'v_target_match_vel', with 'js2_z' selected as the control and the 'Throttle' checkbox checked. The right panel shows XML code and a list of device options, including 'Inv. Throttle' which is checked. The bottom of the interface shows the 'Profiles' and 'Mappings' sections.

The XML Area...

Mappings are sent to the game using XML formatted files.

The XML Area is where you may find the mapping after hitting the 'Dump' button.

Rightclick opens a menu where you may choose from:

Copy, Paste, PasteAll, Select All, Open..., Save As...

The usage is rather common here. Once you dumped the mapping you want to "Save" it as "filename.xml" somewhere.

To refine any mapping "Open" the file – the content is shown in the XML Area, then "Grab" it into the ActionTree.

Once the refinement is finished – again Save it to a file.

Load and Save much easier ... read V2 Feature pages

Note: only use properly formatted ActionMaps here. The program may just break if it encounters something unexpected!

The screenshot displays the SC Joystick Mapper interface. The top window, titled "SC Joystick Mapper", shows the XML Area with the following content:

```
For information and updates visit us @ Github ...
keys layout my x55 65test
<!-- 22.12.2014 17:59:09 - SC Joystick Mapping -->
<ActionMaps ignoreVersion="1"
js2="Saitek X65F Flight Controller" js2G="0sde131
js3="Saitek Pro Flight X-55 Rhino Stick" js3G="6
<CustomisationUIHeader device="joystick" label="M
<options type="joystick" instance="3">
<flight_move_pitch exponent="1.00" >
<nonlinearity_curve>
<point in="0.182" out="0.028"/>
<point in="0.629" out="0.235"/>
<point in="0.895" out="0.629"/>
</nonlinearity_curve>
</flight_move_pitch>
</options>
<options type="joystick" instance="3">
<flight_move_yaw exponent="1.00" >
<nonlinearity_curve>
<point in="0.182" out="0.028"/>
<point in="0.629" out="0.235"/>
<point in="0.895" out="0.629"/>
</nonlinearity_curve>
</flight_move_yaw>
</options>
<options type="joystick" instance="3">
<flight_move_roll exponent="1.00" >
<nonlinearity_curve>
<point in="0.182" out="0.028"/>
<point in="0.629" out="0.235"/>
<point in="0.895" out="0.629"/>
</nonlinearity_curve>
</flight_move_roll>
</options>
<options type="joystick" instance="2">
<flight_throttle invert="1" />
</options>
<deviceoptions name="Saitek Pro Flight X-55 Rhin
<option input="x" deadzone="0.025" />
</deviceoptions>
```

The bottom window shows the Action Tree with various joystick buttons mapped to actions like "v_decoupled_strafe_left", "v_decoupled_yaw", etc. The "Dump XML-->" button is highlighted in red. The "Grab XML" button is also highlighted in red. The "Dump and Save my Mapping" button is highlighted in red. The "Device Tuning" button is highlighted in red. The "Js Reassign..." button is highlighted in red. The "Settings..." button is highlighted in red. The "Exit" button is highlighted in red. The "Action Filter" is set to "Clear Filter". The "Profiles" dropdown is set to "defaultProfile". The "Mappings" dropdown is set to "layout_my_x55_65test".

The XML Area...

If you hit “Dump List” a formatted list of the mapped actions is written into the XML area.

You may use the “Save As..” menu to save it e.g. as TXT file.

The screenshot displays the SC Joystick Mapper interface. A file save dialog is open, showing the path 'Computer > 1_APPLIC (E:) > G > StarCitizen > My' and the filename 'T2Mapping.txt'. The dialog is highlighted with a red box. In the background, the software's XML area is visible, containing a list of mapped actions and their corresponding joystick buttons, also highlighted with a red box. The 'Dump List-->' button is highlighted with a red box. The interface includes various controls for joystick and gamepad mapping, such as 'Device Tuning', 'Js Reassign...', 'Settings...', and 'Exit' buttons. The 'Profiles' section shows 'defaultProfile' and the 'Mappings' section shows 'layout_my_x55_65test'.

```
-- 22.12.2014 23:49:58 - SC Joystick Mapping --  
** js2 = Saitek X55F Flight Controller  
** js3 = Saitek Pro Flight X-55 Rhino Stick  
  
*** vehicle_driver  
*** spaceship_general  
v_eject - js2_button4  
v_power_focus_group_1 - js2_button2  
v_power_focus_group_2 - js2_button3  
v_power_focus_group_3 - js2_button3  
v_power_reset_focus - js2_button3  
*** spaceship_view  
v_view_cycle_fwd - js2_button2  
v_view_look_behind - js3_hat1_do  
*** spaceship_movement  
v_pitch - js3_y  
v_yaw - js3_x  
v_roll - js3_rotz  
v_throttle_zero - js2_button4  
v_throttle_100 - js2_button4  
v_throttle_abs - js2_thrott1  
v_brake - js2_button4  
v_target_match_vel - js2_button8  
v_ifcs_toggle_vector_decoupling - js3_button3  
v_strafe_up - js2_button2  
v_strafe_down - js2_button4  
v_strafe_down - js2_button4  
v_strafe_left - js2_button2  
v_strafe_right - js2_button2  
v_strafe_lateral - js2_roty  
v_strafe_longitudinal - js2_rotx  
v_ifcs_toggle_safeties - js2_button2  
v_decoupled_strafe_up - js2_button2  
v_decoupled_strafe_up - js2_button4  
v_decoupled_strafe_down - js2_button2  
v_decoupled_strafe_down - js2_button4  
v_decoupled_strafe_left - js2_button2  
v_decoupled_strafe_right - js2_button2  
v_decoupled_yaw - js3_x  
v_decoupled_pitch - js3_y  
v_decoupled_roll - js3_rotz  
v_decoupled_brake - js2_button4
```

V2 – Features - 1

The screenshot shows the SC Joystick Mapper interface. On the left, a tree view of actions is displayed, filtered by the text 'thr'. The filtered items include: vehicle_driver, spaceship_general, spaceship_view, spaceship_movement (with sub-items v_throttle_zero - js2_button40, v_throttle_zero, v_throttle_100 - js2_button41, v_throttle_100, v_throttle_up, v_throttle_down, v_throttle_abs - js2_throttlez, v_throttle_rel), spaceship_targeting, spaceship_turret, spaceship_weapons, spaceship_missiles, spaceship_defensive, spaceship_auto_weapons, spaceship_radar, and spaceship_hud. Below the tree, there are checkboxes for Joystick, Gamepad, Keyboard, and Mapped only. An 'Action Filter' box contains the text 'thr' and a 'Clear Filter' button. At the bottom, there are buttons for 'Dump List-->', 'Dump Log-->', 'Device Tuning', 'Js Reassign...', 'Settings...', and 'Exit'. On the right side, there are several checkboxes for inversion settings, with 'Inv. Throttle' checked. A 'Mapping name' field contains 'layout_my_x55_65test' and a 'Dump and Save my Mapping' button. The bottom status bar shows 'Profiles: defaultProfile' and 'Mappings: layout_my_x55_65test'.

You may filter the action tree now

Start typing and the tree is reduced to the actions and controls that contain the characters typed

e.g. I typed 'thr' to see my throttles only

Try button and you get all your assigned buttons only etc.

Click 'Clear Filter' to get back to the complete list again.

Note: this will not change, remove or modify any of your mappings, it just reduces the tree to the ones you are interested in.

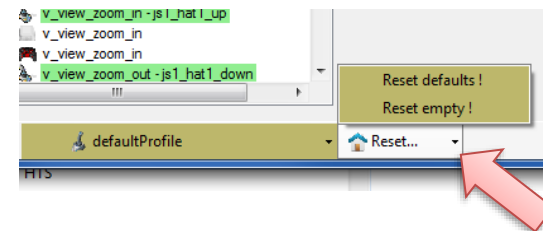
V2 – Features - 2

New working with profiles.

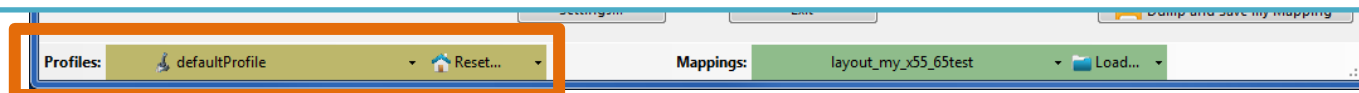
The program gets the actions from the real game asset – so you are always up to the actual values.

From here you may Reset the action list to the following

- RESET EMPTY reverts to just an action list without any mappings
- RESET DEFAULTS loads the Joystick actions mapped with what CIG is providing



Note: as CIG is providing a number of defaultProfiles you may chose one of those – however using the **defaultProfile** is usually the best option
(This may be work in progress by CIG...)



V2 – Features - 3

New working with actionmaps (Maps, Mapping etc..)

The program gets the actionsmaps from the real game asset – so you are always up to the actual values.

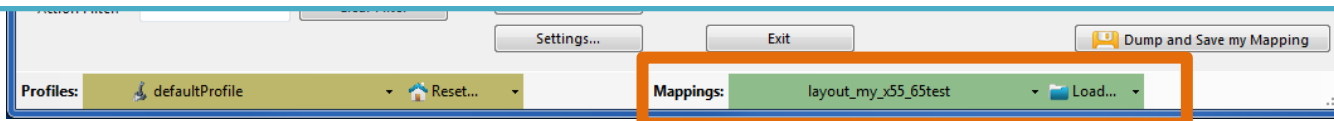
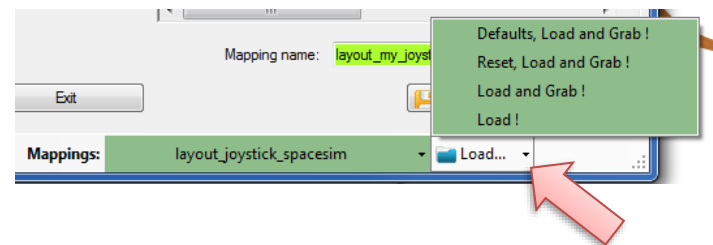
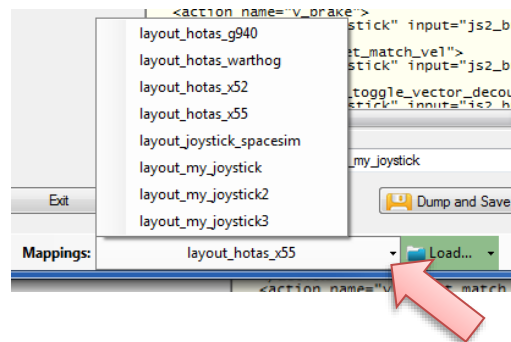
(...\StarCitizen\CitizenClient\Data\Controls\Mappings)

From here you may first chose a map, then 'Load' the actionmap – this will overwrite you XML window in any case

- LOAD loads the map into the XML window only
- LOAD and GRAB loads the map into the XML window and clicks Grab i.e. merges the existing mapping with the one loaded
- RESET, LOAD and GRAB first Reset (empty) the action list (all mappings cleared) then it loads and grabs the new map
- DEFAULT, LOAD and GRAB first Reset (defaults) the action list then it loads and grabs the new map and merges them with the defaults

See last page for some common workflows

And how to handle them easily



V2 – Features - 4

New working with your own actionmaps

The program not only gets the actionmaps from the real game asset – but also can save your maps there.

(...\StarCitizen\CitizenClient\Data\Controls\Mappings)

1. Type a name (limitations see note)
2. Hit the button – it will then Dump and Save your map into the game folder (well asking you to overwrite it if it exists)

NOTE: your map name has always to start with 'layout_my_' to prevent modifying CIGs own actionmaps

Lowercase only, no spaces, tabs allowed else you see the red flag ..

Mapping name: layout_any

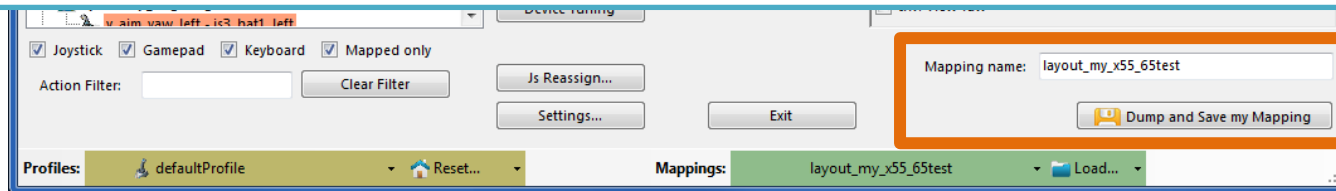
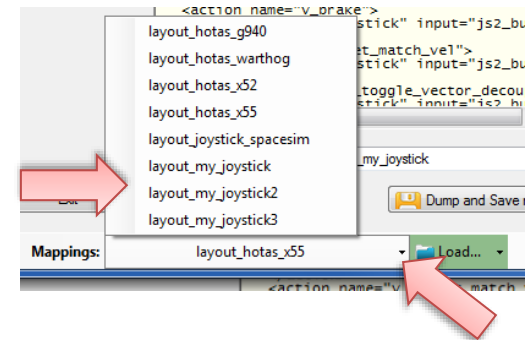
A successful Save will show the green flag

Mapping name: layout_my_joystick3
Dump and Save my Mapping

Your own maps will then show up like the game provided maps

pp_rebindkeys layout_my_joystick should load it into the game

Note: For your convenience each Save also makes a copy of into your personal "My Documents\SCJMapper" folder – no work is lost if there is an update that cleans the Mappings folder.



V2.1 – Features

New possibility to blend the unmapped joystick entries [V2.8 is now in Settings](#)

If you wish to hide all the joystick actions that you don't use – to make sure they are not active – check “Blend Joystick” and/or “Blend Gamepad”

The program will then map all unmapped actions with 'jsx_reserved' or 'xi_reserved' preventing any profile settings on the joystick. This is fully reversible – just uncheck the option and Dump the contents again.

[See also V2.8 new features on how to blend single items](#)

New Settings window

As many are concerned about steady ON buttons that might interfere with assigning the proper control to an action we included a setting to IGNORE specific buttons.

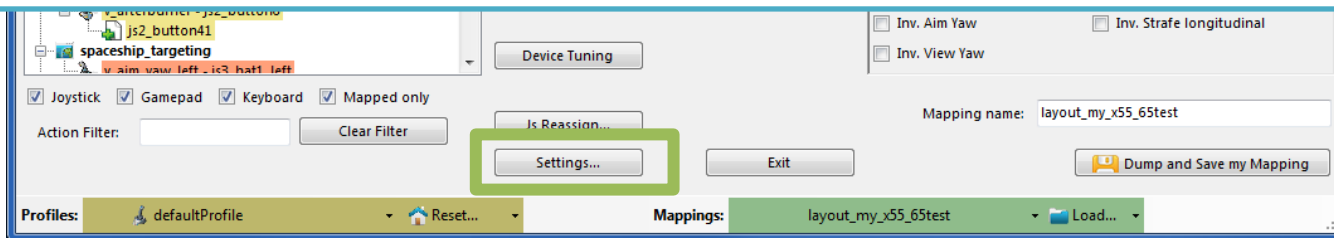
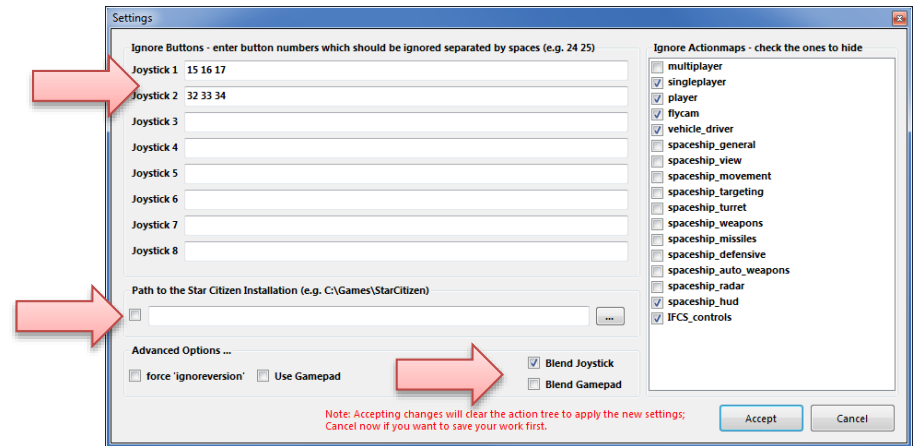
Just enter the button numbers to ignore separated by a Space.

Make sure you enter the numbers for the right Joystick.

Numbers are the same as in the main window.

There is also way to override the programs own detection of the Star Citizen install folder.

Make sure to use the Checkbox if you want to override!



V2.2, 2.5 – Features

New possibility to ignore unwanted actionmaps

If you wish to ignore some maps to unclutter the GUI

If you wish to use the default ignored new actionmaps *multiplayer, singleplayer, player*

The program will ignore all actionmaps that are **checked**

In the example *multiplayer, singleplayer, player* and *IFCS_controls* are completely ignored and will not show up.

Just uncheck any to use it again.

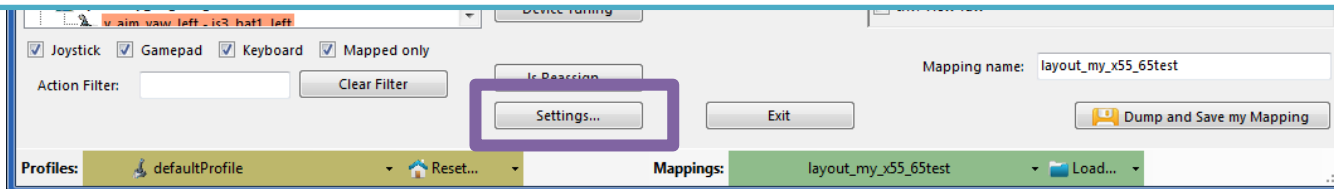
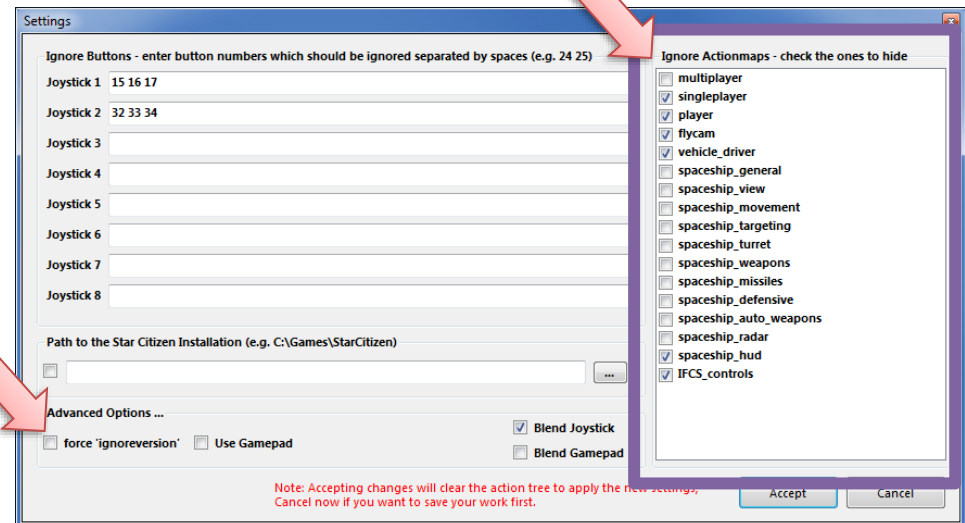
V2.5 New option to force 'ignoreversion="1"'

If you wish to use the ignoreversion attribute rather than any version="n" ..

The prog is able to handle it now. Either type e.g. 'version="0"' or 'ignoreversion="1"'

Into the ActionMaps Tag and the prog will maintain it as you typed it.

Or just force it to use 'ignoreversion="1"' by checking the box here



V2.3, 2.4 – Features

New possibility to (re) assign the joystick devices to the wanted js - number

Go here if you wish to assign a device to a particular js – number or to re-assign the devices to other numbers. Per default the devices found are assigned along the sequence 1..8 but SC may remap them so here is the place to fix this without having to go through all commands and reassign them.

Notes: The color of the assigned items will not change as it is still the same device but js1 will become js2 for example. You can leave this dialog with “Accept” only if each device is either assigned to a unique number or to n.a. (not assigned) otherwise an error pops to ask you to fix it or Cancel.

V2.4 allows to assign js1 .. Js8 now

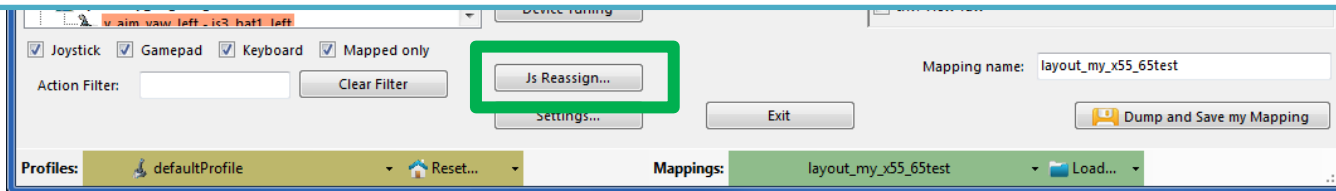
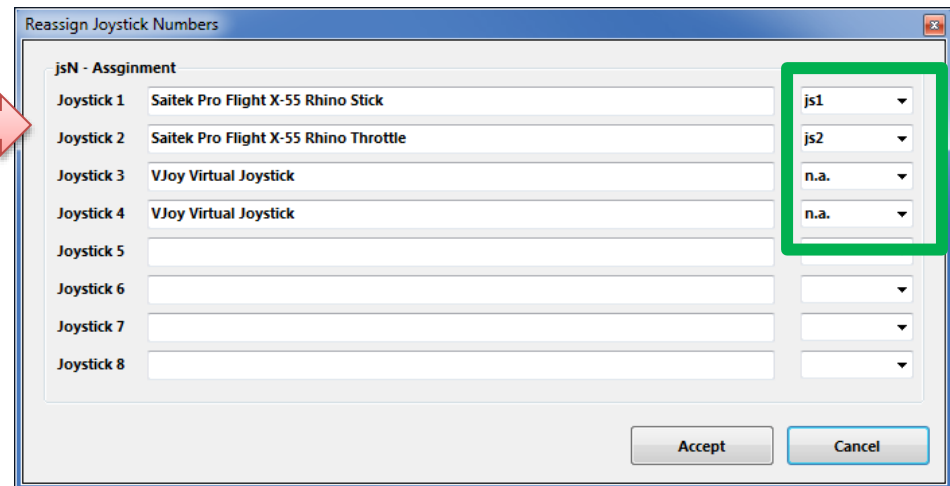
Related SC console commands are:

```
i_DumpDeviceInformation
```

```
pp_ResortDevices joystick 1 2
```

```
pp_rebindkeys export joystick
```

```
pp_rebindkeys export xboxpad
```



V2.5 – Features

New possibility – support for options

The prog will now maintain the following 3 XML tags

- <CustomisationUIHeader ...>
- <options ...>
- <deviceoptions ...>

See 2.7: for more new option handling

You may copy and paste or type whatever of those 3 tags you want to use – the program will maintain your typing and also read it from the mapping file when it is already there.

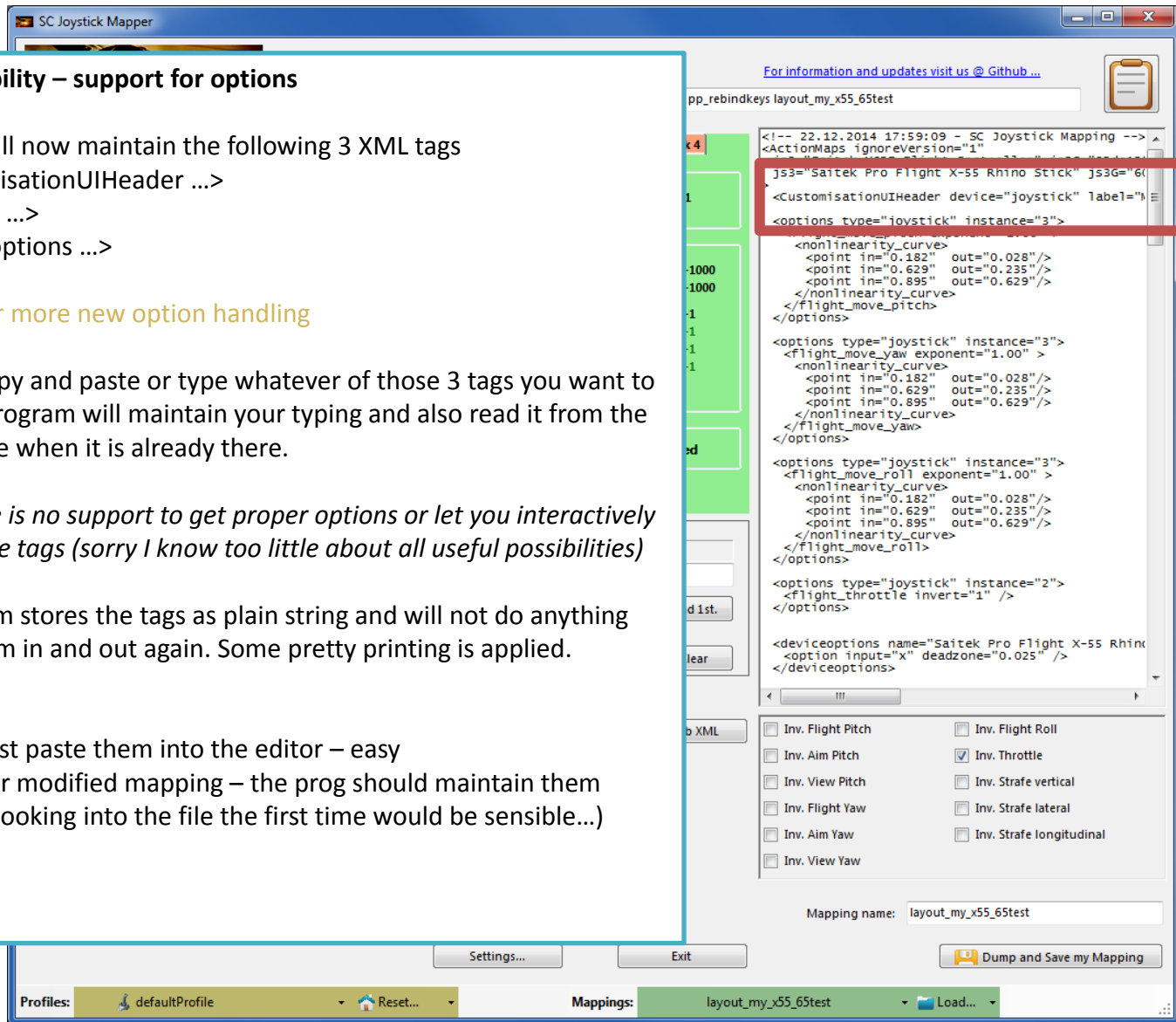
Note: There is no support to get proper options or let you interactively design those tags (sorry I know too little about all useful possibilities)

The program stores the tags as plain string and will not do anything but get them in and out again. Some pretty printing is applied.

Hint:

copy and just paste them into the editor – easy

Or load your modified mapping – the prog should maintain them (testing by looking into the file the first time would be sensible...)



V2.7 – Features - 1

New possibility – Device Tuning Window

The prog will now maintain the following 2 XML tags

- <options ...>
- <deviceoptions ...>

To get the Options done – click the “Joystick Tuning” button.
A Window opens – will be shown on the next page.

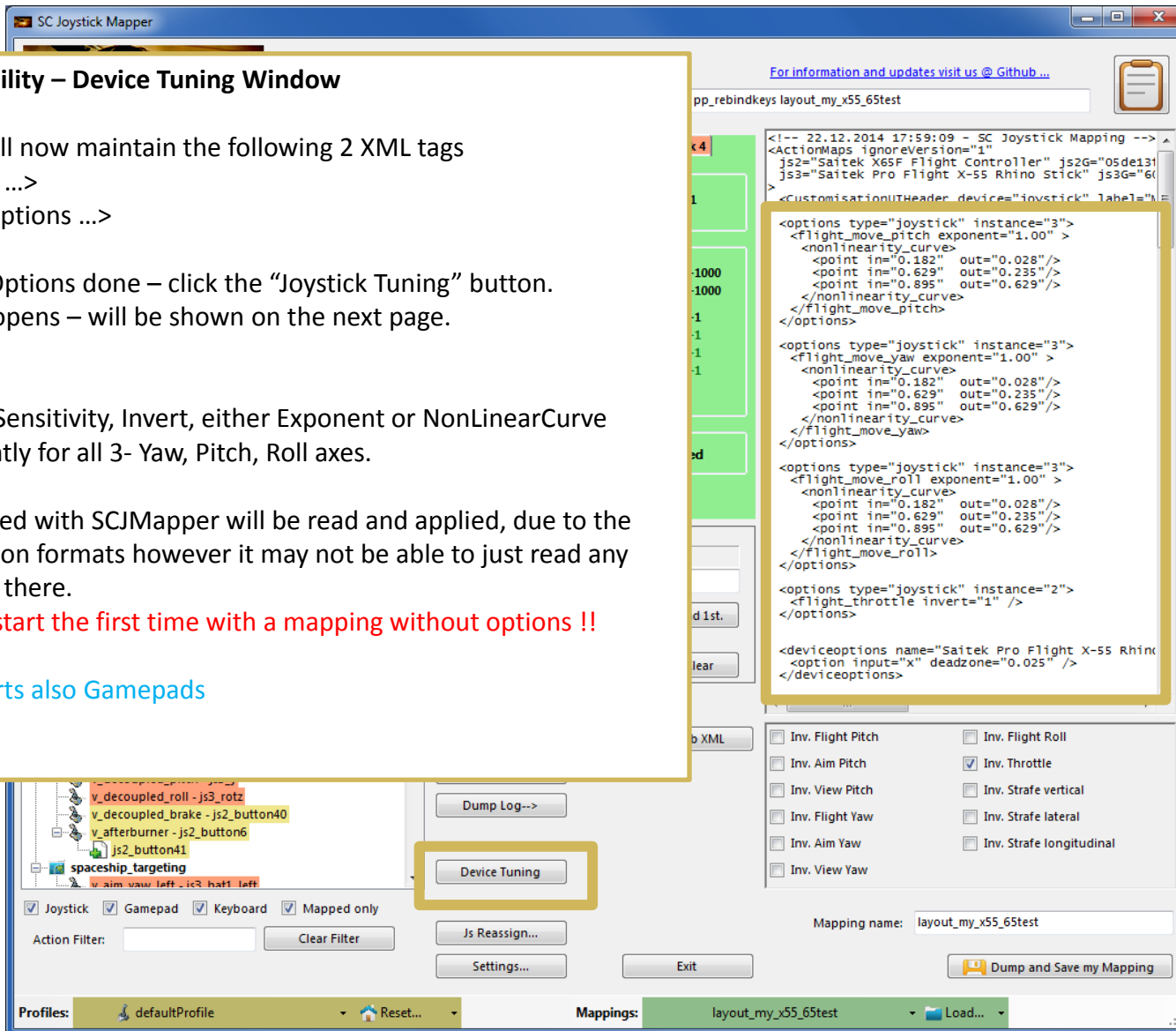
It supports:

Deadzone, Sensitivity, Invert, either Exponent or NonLinearCurve independently for all 3- Yaw, Pitch, Roll axes.

Options saved with SCJMapper will be read and applied, due to the various option formats however it may not be able to just read any options out there.

Note: Best start the first time with a mapping without options !!

V2.8 supports also Gamepads



V2.7 – Features - 2

Joystick Tuning

Actual mapping for the axis

Live View of the joystick movement

Tuning parameters of the axis

Tuning parameters of the active axis

Joystick IN-> OUT map

Turnspeed [seconds per full turn]

Damping - how fast will a movement stop (1=fast)

Speed/Damping Presets – Estimates, guesses...

Changing Skies

Activate an axis

Live IN – OUT values scaled 0..1

Finish

Y-axis

Pitch

Roll

Deadzone 0.025

Sensitivity 1.00

Exponent 1.00

Point 1: 0.336 0.043

Point 2: 0.651 0.236

Point 3: 0.880 0.703

IN(x) OUT(y)

Y-Axis: 0.00 0.00

P-Axis: 0.00 0.00

R-Axis: 0.00 0.00

sec per 360° turn 4

damping 6

Out there 1 **Canyon** **Highway**

Skybox.dds **Shiodome** **Big Sight**

Done

V2.7 – Features - 3

How to...

There is one active axis – the color frame of the chart indicates the active one (here blue = Yaw) ← 1

Parameters can be manipulated for the active axis only.

Switch the active one by clicking the Yaw, Pitch, Roll Option (bottom, left) ← 2

Activating a tuning parameter will activate too

Parameters must be 'checked' to be used ← 3

e.g. Deadzone and NonLinearCurve (Pt1..3) are checked for Yaw

Each axis has it's own set of parameters

Active and Checked (Enabled) parameters can be changed. ← 3

Deadzone is a simple slider from 0.0 to 0.15 (try it out in the live view)

All other parameters are handled by first choosing it (e.g. Point 1) ← 4

Changing the value by first left click and hold into the chart area, then moving the mouse up-down and left-right to adjust – then release the mouse button.

Point 1 is usually the leftmost orange marker ← 5

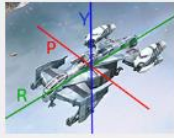
If you wish to copy the Curve Points to all other axis – click the Copy button ← 6

Sensitivity and Exponent will only go with up-down movement of the mouse

1

V2.7 – Features - 4

Joystick Tuning



Yaw v_yaw - js1_x

Invert

Deadzone 0.025

Sensitivity 1.00

Exponent 1.00

Pt1 0.336 0.043

Pt2 0.651 0.236

Pt3 0.880 0.703

Pitch v_pitch - js1_y

Invert

Deadzone 0.025

Sensitivity 1.00

Exponent 1.00

Pt1 0.336 0.043

Pt2 0.651 0.236

Pt3 0.880 0.703

Roll v_roll - js1_rotz

Invert

Deadzone 0.000

Sensitivity 1.00

Exponent 1.47

Pt1 0.250 0.250

Pt2 0.500 0.500

Pt3 0.750 0.750

... Here Roll (Green) is active and Exponent is chosen to be changed. ← 1

By click, hold and moving down – the exponent was changed from 1.47 to 2.83

The curve represents IN vs OUT of the joystick

Deadzone 0.000

Sensitivity: 1.00

Exponent: 2.83

	IN(x)	OUT(y)
<input type="radio"/> Point 1:	0.250	0.250
<input type="radio"/> Point 2:	0.500	0.500
<input type="radio"/> Point 3:	0.750	0.750

If you move the joystick the 'Live' fields will report what's going on:

Point 2: 0.500 0.500

Point 3: 0.750 0.750

L	Y-Axis:	0.00	0.00	<input type="checkbox"/>	O
i	P-Axis:	0.00	0.00	<input type="checkbox"/>	F
v	R-Axis:	0.00	0.00	<input type="checkbox"/>	F
e					

Sometimes it is helpful to just disable one direction of the movement ← 3

Check OFF for any axis (it just disables it for the Live View)

Yaw -->

Pitch -->

Roll -->

← 1

← 2

Deadzone 0.000

Sensitivity: 1.00

Exponent: 1.47 ← 1


	IN(x)	OUT(y)
<input type="radio"/> Point 1:	0.250	0.250
<input type="radio"/> Point 2:	0.500	0.500
<input type="radio"/> Point 3:	0.750	0.750

L	Y-Axis:	0.00	0.00	<input type="checkbox"/>	O
i	P-Axis:	0.00	0.00	<input type="checkbox"/>	F
v	R-Axis:	0.00	0.00	<input type="checkbox"/>	F
e					

← 3

sec per 360° turn
4

damping
6



Out there 1 Canyon Highway

Skybox.dds Shiodome Big Sight

22

V2.7 – Features - 5

Once back from Tuning...

With “Dump” or “Dump and Save” you will get the new Tuning values into the XML area – if you don’t want to apply the new settings, just hit “Grab” to restart with the settings from the XML area.

With “Dump” the prog will maintain the parameters using the following 2 XML tags

- <options ...>
- <deviceoptions ...> (Deadzone only)

One set for each axis

Note: the program will automatically apply Exponent=“1” if the Exponent is not used – if not set to 1 the game will use something like 2.3 and reshape any setting to an unexpected outcome...

If you have a 2 monitor setup – you may want to try to have the tuning window open while running AC – the joystick input is then applied to both applications – getting into the console will let you the mouse to interact with the tuning window, create a new tuned map and you may apply it immediately via console rebind to try it out (You may need a fast computer – but then AC needs this anyhow...)

The screenshot shows the SC Joystick Mapper interface. The main window displays XML configuration for a joystick. A yellow box highlights the XML code for three joystick instances (instances 1, 3, and 2). A red arrow points to the XML code for instance 3. The interface also shows a list of device options on the right, including 'Inv. Flight Pitch', 'Inv. Flight Roll', 'Inv. Aim Pitch', 'Inv. Throttle', 'Inv. View Pitch', 'Inv. Strafe vertical', 'Inv. Flight Yaw', 'Inv. Strafe lateral', 'Inv. Aim Yaw', 'Inv. Strafe longitudinal', and 'Inv. View Yaw'. The 'Mapping name' is 'layout_my_x55_65test'. At the bottom, there are buttons for 'Device Tuning', 'Js Reassign...', 'Settings...', 'Exit', and 'Dump and Save my Mapping'. The 'Profiles' section shows 'defaultProfile' and 'Mappings' shows 'layout_my_x55_65test'.

```
<!-- 22.12.2014 17:59:09 - SC Joystick Mapping -->
<ActionMaps ignoreVersion="1"
  <?xml version="1.0" encoding="UTF-8" ?>
  <js3="Saitek Pro Flight X-55 Rhino Stick" js3G="6"
  <CustomisationUIHeader device="joystick" label="M
  <options type="joystick" instance="1">
    <flight_move_pitch exponent="1.00">
      <nonlinearity_curve>
        <point in="0.182" out="0.028"/>
        <point in="0.629" out="0.235"/>
        <point in="0.895" out="0.629"/>
      </nonlinearity_curve>
    </flight_move_pitch>
  </options>
  <options type="joystick" instance="3">
    <flight_move_yaw exponent="1.00">
      <nonlinearity_curve>
        <point in="0.182" out="0.028"/>
        <point in="0.629" out="0.235"/>
        <point in="0.895" out="0.629"/>
      </nonlinearity_curve>
    </flight_move_yaw>
  </options>
  <options type="joystick" instance="3">
    <flight_move_roll exponent="1.00">
      <nonlinearity_curve>
        <point in="0.182" out="0.028"/>
        <point in="0.629" out="0.235"/>
        <point in="0.895" out="0.629"/>
      </nonlinearity_curve>
    </flight_move_roll>
  </options>
  <options type="joystick" instance="2">
    <flight_throttle invert="1" />
  </options>
  <deviceoptions name="Saitek Pro Flight X-55 Rhino
    <option input="x" deadzone="0.025" />
  </deviceoptions>
```

V2.8 – Features - 1

New possibility – Use Keyboard assignments

The prog will now recognize keyboard assignments.

Switch to Keyboard mode by pressing the JS/Kbd Button

-> the Icon changes to a Key and the Ctrl. Field gets lavender color.

Note: keyboard entries are accepted when the Ctrl. Field has the focus

Now you may press any key or key+modifier until it fits the need.

Then hit 'Assign' to map the command as usual.

To get back to Game Control input – hit the JS/Kbd button and the entry mode gets back.

The screenshot displays the SC Joystick Mapper application window. On the left, a tree view shows various joystick axes and buttons, with several items highlighted in yellow. The main area is divided into two configuration panels. The top panel is for 'v_target_match_vel', showing 'Ctrl.' set to 'lshift+ctrl+c'. The bottom panel is for 'v_shield_raise_level_forward', showing 'Ctrl.' set to 'jsx_slider2'. A blue box highlights the 'JS / Kbd' button in the bottom panel, which is currently selected with a key icon. The right side of the window shows an XML configuration file for the mapping, with various joystick options and device settings. At the bottom, there are checkboxes for 'Joystick', 'Gamepad', 'Keyboard', and 'Mapped only', all of which are checked. The 'Keyboard' checkbox is highlighted. The 'Action Filter' field is empty. The 'Mapping name' is 'layout_my_x55_65test'. The bottom status bar shows 'Profiles: defaultProfile' and 'Mappings: layout_my_x55_65test'.

V2.8 – Features - 2

The screenshot shows the SC Joystick Mapper application. On the left, a tree view lists various joystick actions under categories like 'vehicle_driver' and 'spaceship_general'. The 'v_eject - js2_button46' item is highlighted with a yellow background and a red arrow points to it. In the center, the 'Blend' button is highlighted with a blue box. On the right, the XML configuration for the selected item is shown, with a red arrow pointing to the '<rebind device="joystick" input="js2_button46"' line. Below the XML, there are checkboxes for various joystick settings, with 'Inv. Throttle' checked. At the bottom, the 'Profiles' and 'Mappings' sections are visible, showing 'defaultProfile' and 'layout_my_x55_65test' respectively.

New possibility – Blend single items

If you wish to blend a single item from the defaultProfile i.e. hide it from use select an item and then hit the 'Blend' button.
The items gets a dash but no command; "v_eject – " in the example.

Once you dump it will be mapped with a <Space>

To unblend – 'Clear' the item

To blend all joystick or gamepad commands go to Settings and check the corresponding checkbox – see also page 15

```
<actionmap name="spaceship_general1">
  <rebind device="joystick" input="js2_button46"
</action>
  <action name="v_eject">
    <rebind device="xboxpad" input=" " />
  </action>
  <action name="v_power_focus_group_1">
    <rebind device="joystick" input="js2_button29" />
  </action>
</actionmap>
```

V2.8 – Features - 3

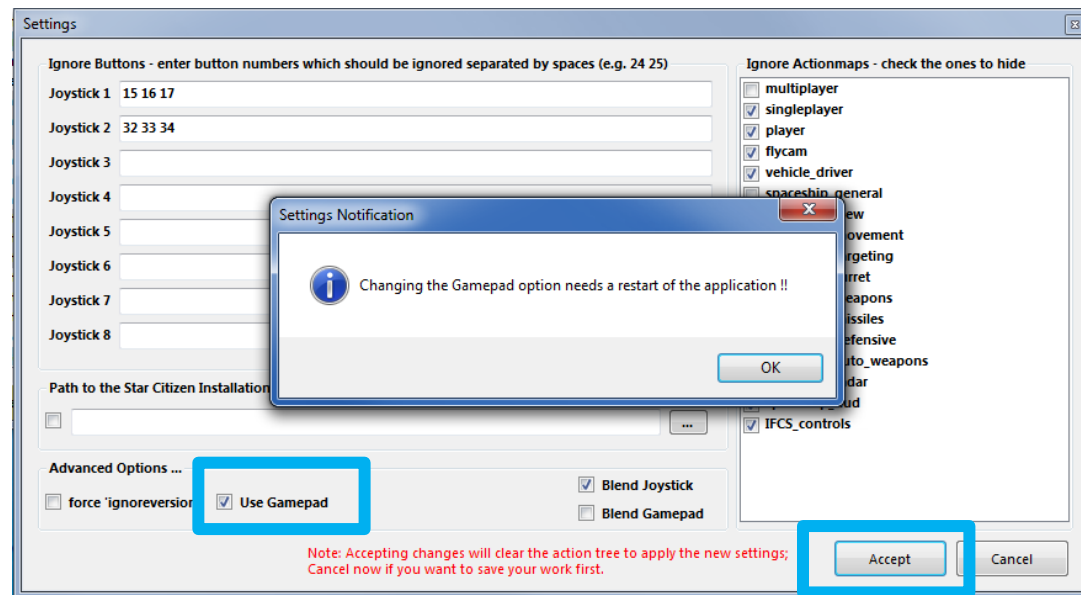
New feature – Use Gamepad assignments

The prog will now recognize gamepad assignments.

To enable the use of gamepads as “xboxpad” go to ‘Settings’ and check the ‘Use Gamepad’ checkbox. THIS IS DISABLED per default to maintain backwards compatibility.

Note: now you have to restart the program

See next page how this then looks like



V2.8 – Features - 4

SC Joystick Mapper - V 2.8
by Cassini

For information and updates visit us @ [Github...](#)

pp_rebindkeys layout_my_x55gpad

Joystick 5
Gamepad Joystick 2 Joystick 3 Joystick 4

JC-U3613M - Xinput Mode (Controller)

# DPad: 4	# TSticks: 2
# Buttons: 8	# Triggers: 2

GamePad State

DPad:		
TStick Left:	178	0
TStick Right:	0	0
Trigger L:	0	-
Trigger R:	0	-
Sh Left:	-	Start: -
Sh Right:	-	Back: -
Buttons:	----	

Cmd. ...
Ctrl. xi_dpad_left-xi_shoulderr

Assign Throttle Find 1st.

Cmd. ...
Ctrl. ...

Assign Throttle Find 1st.

Blend JS / Kbd Clear

Dump XML--> <-- Grab XML

Dump List-->

Clear Filter Device Tuning

Js Reassign... Exit

Profiles: defaultProfile Reset...

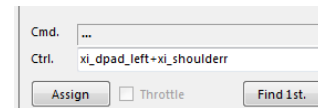
Mappings: layout_my_x55gpad Load...

New possibility – Use Gamepad assignments

You see the Tab has changed to 'Gamepad' and the standard properties of the "xboxpad" instead of generic ones are listed.

From here it is the same handling as with joysticks

You may also use combined commands here.



Note: sometimes your command is not recognized with the first try

-> Check the Ctrl field each time and if it does not yet capture what you want – try once more.

Also releasing the controls together helps to get successful Ctrl. Entries.

You may also go to Device Tuning and apply all mods that are available there

- Only Yaw and Pitch commands on the left or right X and Y thumbs are supported for tuning!!

V2.8 – Hints...

How to get a list of all commands ??

Load a map using Defaults – see mark above
Hit 'Dump List' – and Copy / Paste or Save As..

→ Gets you the complete list of commands in use if you load that map.

→ Clicking the Notepad icon top right copies the pp_rebindkeys command into the Clipboard – from there just Ctrl-V it into the AC console..

```
-- 22.12.2014 23:55:04 -- SC Joystick Mapping --  
** js2 = Saitek X55F Flight Controller  
** js3 = Saitek Pro Flight X-55 Rhino Stick  
  
*** vehicle_driver  
v_yaw_left - a - (keyboard)  
v_yaw_right - d - (keyboard)  
v_move_forward - w - (keyboard)  
v_move_backward - xi_triggerr_btn - (xboxpad)  
v_move_back - s - (keyboard)  
v_brake - xi_trigger1_btn - (xboxpad)  
v_brake - space - (xboxpad)  
v_roll_left - xi_a - (keyboard)  
v_roll_right - q - (keyboard)  
v_attack1 - t - (keyboard)  
v_attack1 - mouse1 - (keyboard)  
v_attack2 - xi_shoulder1 - (xboxpad)  
v_attack2 - mouse2 - (keyboard)  
v_yaw - xi_thumb1x - (xboxpad)  
  
*** spaceship_general  
v_exit - f - (keyboard)  
v_exit - xi_a - (xboxpad)  
v_eject - js2_button46 - (joystick)  
v_eject - ralt1 - (keyboard)  
v_eject - xi_trigger1_btn+xi_back - (xboxpad)  
v_self_destruct - ralt+backspace - (keyboard)  
v_toggle_cabin_lights - o - (keyboard)  
v_toggle_running_lights - 0 - (keyboard)  
v_power_focus_group_1 - js2_button29 - (joystick)  
v_power_focus_group_1 - 1 - (keyboard)  
v_power_focus_group_2 - js2_button30 - (joystick)  
v_power_focus_group_2 - 2 - (keyboard)  
v_power_focus_group_3 - js2_button32 - (joystick)  
v_power_focus_group_3 - 3 - (keyboard)  
v_power_reset_focus - js2_button31 - (joystick)  
v_power_reset_focus - 0 - (keyboard)  
v_toggle_landing_gear - end - (keyboard)  
  
*** spaceship_view  
v_view_yaw_left - js1_hat2_left - (joystick)  
v_view_yaw_left - (keyboard)  
v_view_yaw_right - js1_hat2_right - (joystick)  
v_view_yaw_right - (keyboard)  
v_view_yaw - xi_thumbx - (xboxpad)  
v_view_yaw_mouse - max15_x - (keyboard)  
v_view_yaw_absolute - hmd_yaw - (keyboard)
```

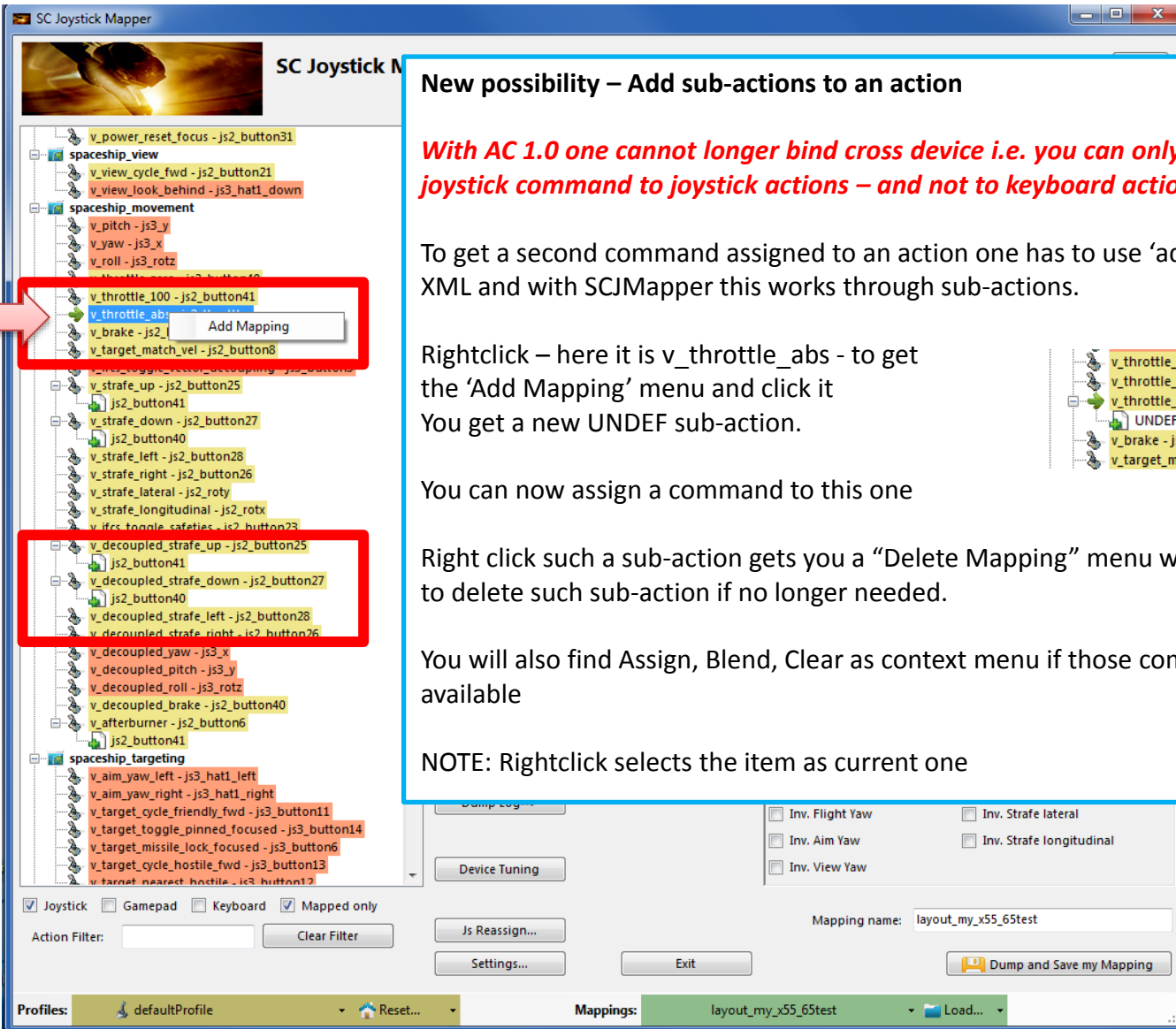
Inv. Flight Pitch Inv. Flight Roll
Inv. Aim Pitch Inv. Throttle
Inv. View Pitch Inv. Strafe vertical
Inv. Flight Yaw Inv. Strafe lateral
Inv. Aim Yaw Inv. Strafe longitudinal
Inv. View Yaw

Mapping name: layout_my_x55_65test

Dump and Save my Mapping

Profiles: defaultProfile Mappings: layout_my_x55_65test

V2.10 – Features - 1



New possibility – Add sub-actions to an action

With AC 1.0 one cannot longer bind cross device i.e. you can only assign joystick command to joystick actions – and not to keyboard actions etc.

To get a second command assigned to an action one has to use 'addbind' in XML and with SCJMapper this works through sub-actions.

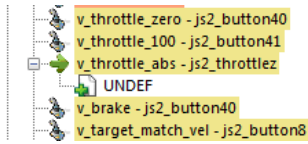
Rightclick – here it is v_throttle_abs - to get the 'Add Mapping' menu and click it
You get a new UNDEF sub-action.

You can now assign a command to this one

Right click such a sub-action gets you a "Delete Mapping" menu which allows to delete such sub-action if no longer needed.

You will also find Assign, Blend, Clear as context menu if those commands are available

NOTE: Rightclick selects the item as current one



V2.10 – Features - 2

The screenshot shows the SC Joystick Mapper V2.10 interface. A red box highlights a log window titled "SC Joystick AC Log Controller" containing the following text:

```
-- 22.12.2014 23:23:32 - SC Joystick AC Log Controller --  
<17:53:01> Log Started at 12/22/14 17:53:00  
<17:53:01> ProductVersion: 3.6.3.2654  
<17:53:01> Creating window called 'Star Citizen' (1  
<17:53:04> Creating joystick1, vJoy Device  
<17:53:04> Creating joystick2, Saitek X65F Flight C  
<17:53:04> Creating joystick3, Saitek Pro Flight X-
```

Another red box highlights the "Dump Log-->" button in the interface. A third red box highlights the "Dump XML-->" button. A pink arrow points to the "Profiles" dropdown menu at the bottom left, which is currently set to "defaultProfile".

New possibility – Get the most recent Controller Mapping

To get the most recent controller mapping used by AC – click “Dump Log”

It will read from the game log file and extract as shown to the right.

Here it means that the device

‘vJoy Device’ is joystick1 aka js1 - that is the green one above

‘Saitek X65F ...’ is joystick2 aka js2

‘Saitek Pro ...’ is joystick3 aka js3

Now use Js Reassign to
get them aligned with AC

```
-- 22.12.2014 23:23:32 - SC Joystick AC Log Controller Detection --  
<17:53:01> Log Started at 12/22/14 17:53:00  
<17:53:01> ProductVersion: 3.6.3.2654  
<17:53:01> Creating window called 'Star Citizen' (1592x1052)  
<17:53:04> Creating joystick1, vJoy Device  
<17:53:04> Creating joystick2, Saitek X65F Flight Controller  
<17:53:04> Creating joystick3, Saitek Pro Flight X-55 Rhino Stick
```

V2.10 – Features - 3

New possibility – Invert commands

With AC 1.0 one cannot longer Invert each command individually but one can only use the options XML for this purpose.

Just check the desired Inversion and then Dump XML

This will create an entry similar to the one below

```
</options>
<options type="joystick" instance="2">
  <flight_throttle invert="1" />
</options>
```

Note: When I tried – all worked but the throttle one did not ... (maybe an AC1.0 issue)

The screenshot shows the SC Joystick Mapper interface. The top window displays XML code for joystick mapping, including options for pitch, yaw, roll, and throttle. The bottom window shows a tree view of joystick axes and buttons, and a settings panel with checkboxes for inverting various commands. The 'Inv. Throttle' checkbox is checked, and the 'Dump XML' button is visible.

For information and updates visit us @ [Github](#)

rebindkeys layout_my_x55_65test

```
<!-- 22.12.2014 17:59:09 - SC Joystick Mapping -->
<ActionMaps ignoreVersion="1"
js2="Saitek X65F Flight Controller" js2G="0sde131
js3="Saitek Pro Flight X-55 Rhino Stick" js3G="6f
>
<CustomisationUIHeader device="joystick" label="M
>
<options type="joystick" instance="3">
  <flight_move_pitch exponent="1.00" >
    <nonlinearity_curve>
      <point in="0.182" out="0.028"/>
      <point in="0.629" out="0.235"/>
      <point in="0.895" out="0.629"/>
    </nonlinearity_curve>
  </flight_move_pitch>
</options>
<options type="joystick" instance="3">
  <flight_move_yaw exponent="1.00" >
    <nonlinearity_curve>
      <point in="0.182" out="0.028"/>
      <point in="0.629" out="0.235"/>
      <point in="0.895" out="0.629"/>
    </nonlinearity_curve>
  </flight_move_yaw>
</options>
<options type="joystick" instance="3">
  <flight_move_roll exponent="1.00" >
    <nonlinearity_curve>
      <point in="0.182" out="0.028"/>
      <point in="0.629" out="0.235"/>
      <point in="0.895" out="0.629"/>
    </nonlinearity_curve>
  </flight_move_roll>
</options>
<options type="joystick" instance="2">
  <flight_throttle invert="1" />
</options>
<deviceoptions name="Saitek Pro Flight X-55 Rhin
<option input="x" deadzone="0.025" />
</deviceoptions>
```

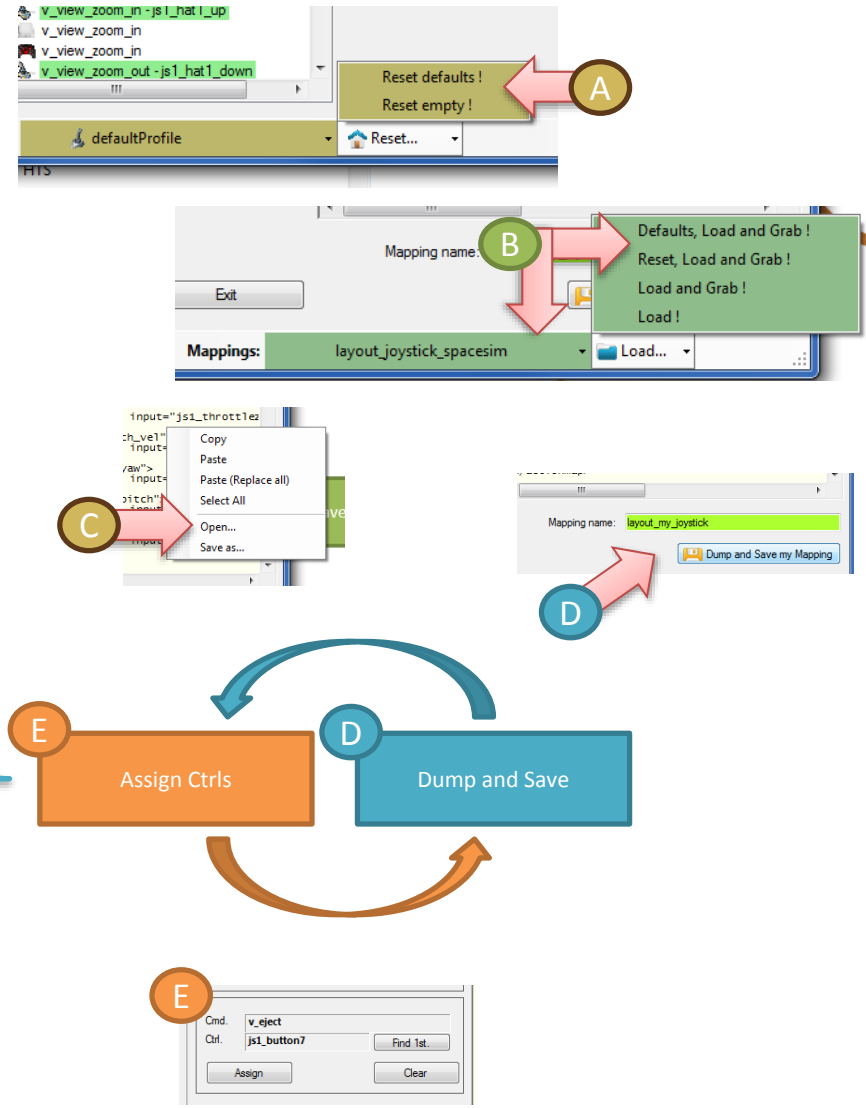
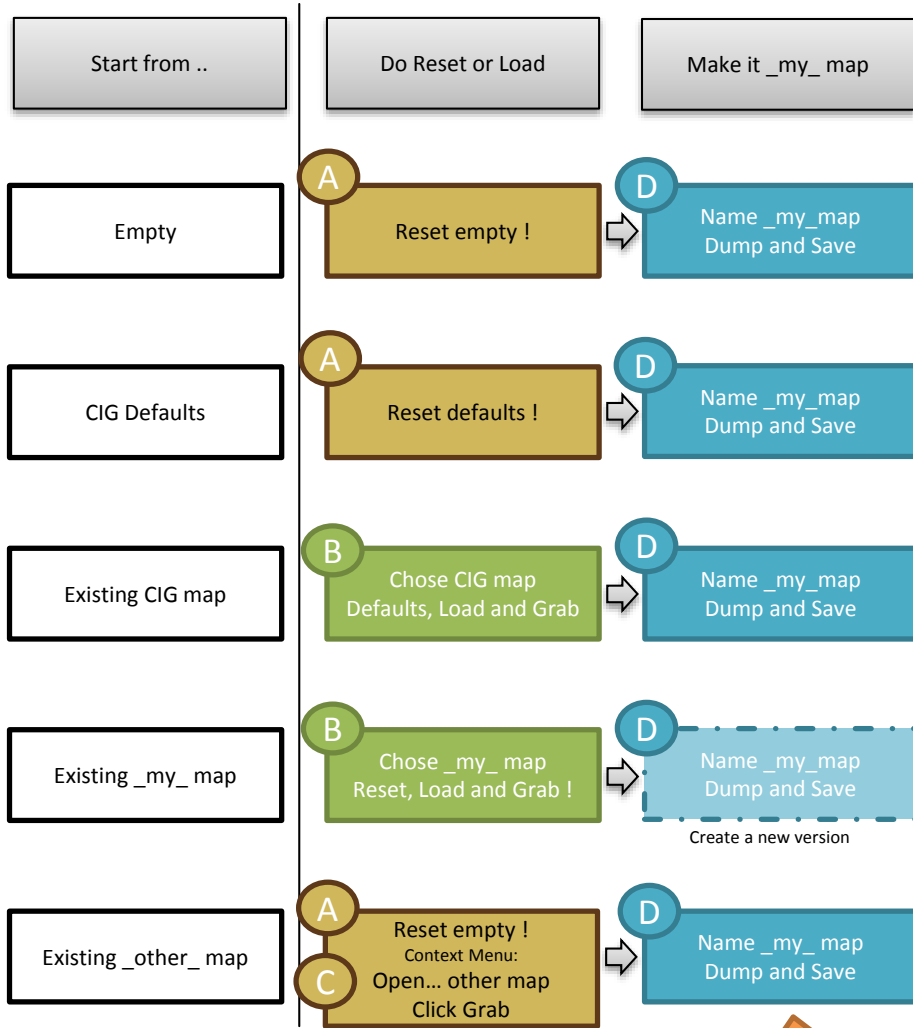
Inv. Flight Pitch Inv. Flight Roll
Inv. Aim Pitch Inv. Throttle
Inv. View Pitch Inv. Strafe vertical
Inv. Flight Yaw Inv. Strafe lateral
Inv. Aim Yaw Inv. Strafe longitudinal
Inv. View Yaw

Mapping name: layout_my_x55_65test

Dump and Save my Mapping

Profiles: defaultProfile Reset... Mappings: layout_my_x55_65test Load...

SCJMapper V 2 – Common Workflows



Create a new version